



Australian Government
Director of National Parks



Director of National Parks

Annual Report 2007-08

*Managing the Australian
Government's protected areas*

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Managing the Australian Government's protected areas

An organisational snapshot

The Director of National Parks is the statutory agency responsible for the Australian Government's protected area estate, both terrestrial and marine. The Director is assisted by Parks Australia, a division of the Australian Government Department of the Environment, Water, Heritage and the Arts, in carrying out the Director's responsibilities for management of terrestrial reserves. Management of marine reserves is undertaken by the Department's Marine Division and the Australian Antarctic Division.

In 2007–08, the Director of National Parks:

- managed seven terrestrial reserves comprising six national parks and the Australian National Botanic Gardens
- through the Marine Division and the Australian Antarctic Division of the Department, managed 26 marine reserves
- managed Calperum and Taylorville Stations via a contract with Austland Services Pty Ltd
- employed 274 full-time equivalent staff around Australia
- recorded a total price of outputs of \$62.046 million.

Highlights for 2007–08

- Rebranding of Kakadu National Park to emphasise its Aboriginal culture and experiences
- Declaration of 14 new marine protected areas bringing the Commonwealth marine reserve estate to nearly 50 million hectares
- Completion of the first stage of rehabilitating old uranium mining sites in the south of Kakadu, including Guratba (Coronation Hill)
- Launch of the National Landscapes partnership with Tourism Australia and this initiative's first eight candidate sites
- High standard of financial management and controls

Our mission

To assist the Minister and the Department of the Environment, Water, Heritage and the Arts in the conservation and appreciation of Australia's biological diversity and associated cultural heritage, through leadership and cooperation in the management of the Australian Government's protected areas.

Our values and approaches

As part of the Environment, Water, Heritage and the Arts portfolio, Parks Australia commits to professionalism as a major public service institution serving the Government and Minister in accordance with the values of the Australian Public Service and specific departmental values:

- caring for the environment
- respecting and responding to the values of Indigenous landowners and other partners
- engaging with and responding to stakeholders
- providing leadership and being active team contributors
- being personally committed to learning and development
- committing to excellence
- accepting responsibility and being accountable
- acting with integrity and achieving results.

Objectives are achieved by:

- basing work on the best available information
- working in partnerships to improve environmental, cultural and heritage outcomes
- communicating and influencing effectively
- valuing and investing in people to develop capabilities
- effectively managing risks
- developing high quality policies and programmes based on high quality analysis
- managing change in a strategic and flexible manner
- monitoring and managing performance to ensure cost-effective outcomes are delivered.



Figure 1: Locations of Commonwealth parks and reserves managed by the Director of National Parks in 2007–08

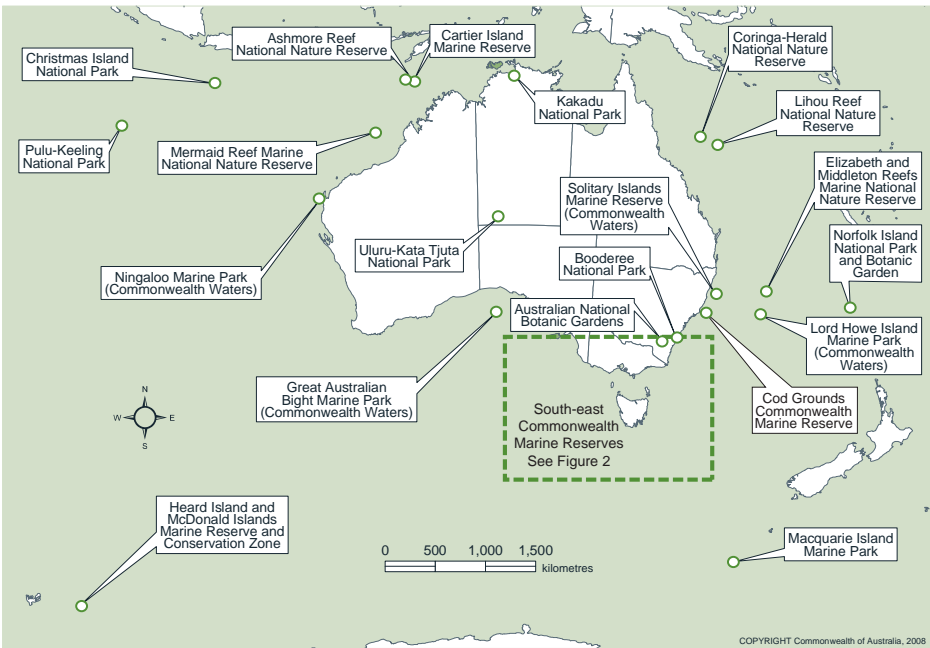
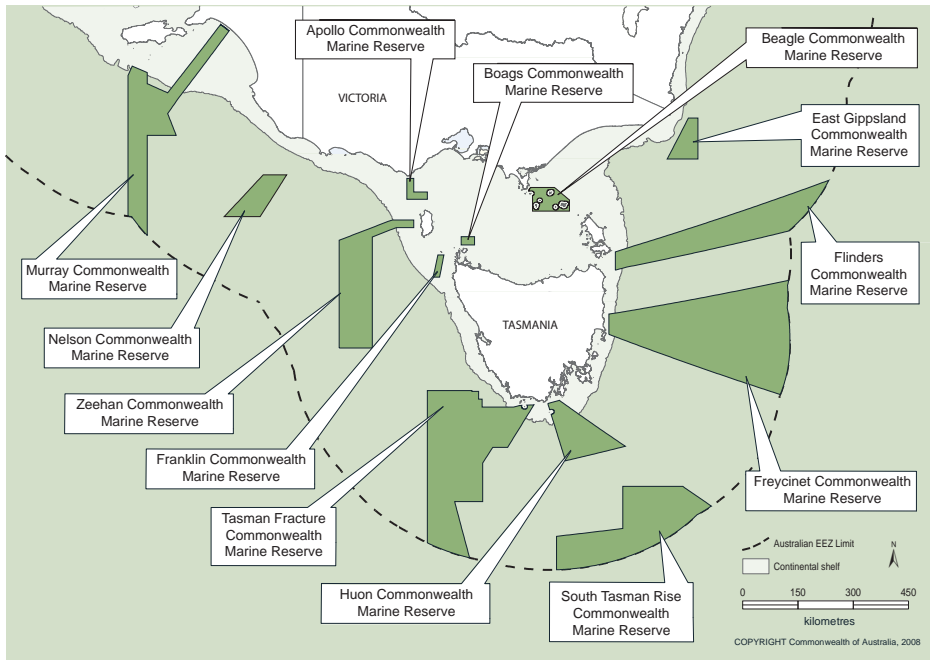


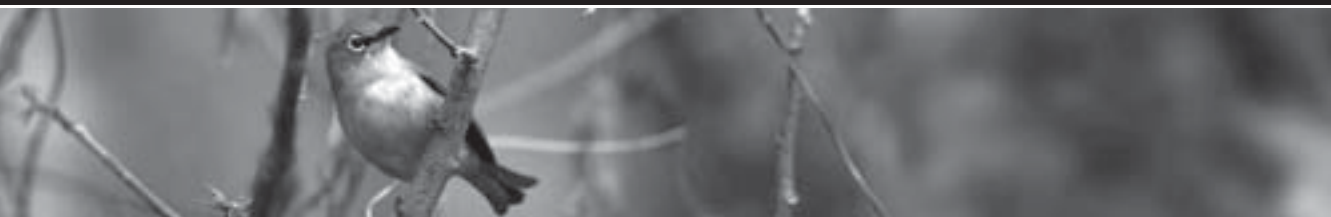
Figure 2: Recently established south-east Commonwealth marine reserves





When completed, the new Sunrise Viewing Area will provide spectacular views of Uluru and Kata Tjuta

1 Director's review



Director's report

The year in review

Managing the natural heritage of our reserves

Managing the cultural heritage of our reserves

Working with traditional owners

Welcoming our visitors

Working with partners and stakeholders

Managing our business and people

Looking ahead

Director's report



Peter Cochrane
Director of National Parks

We have achieved good progress in all of our major projects, against a background of increasing cost pressures that are demanding further efficiencies in staffing, structures and operations. Significant achievements in 2007-08 include: the rebranding of Kakadu National Park to emphasise its Aboriginal culture and experiences; the declaration of 14 new marine protected areas; the completion of the first stage of rehabilitating old uranium mining sites in the south of Kakadu, including Guratba (Coronation Hill); and the launch of the National Landscapes partnership with Tourism Australia and this initiative's first eight candidate sites.

Progress on feral animal and weed control across the park estate remains challenging. There has been continued success with control of mimosa and grassy weeds in Kakadu, foxes at Booderee, and progress with reducing buffel grass infestations at Uluru and bitou bush at Booderee. This contrasts with rising numbers of feral animals and an apparent collapse in small mammal populations in Kakadu, and on Christmas Island, the re-emergence of yellow crazy ant super colonies and declining mammal and reptile populations. A major research project to develop a biological control mechanism to reduce yellow crazy ant numbers is about to commence, in response to concerns about the cost and long-term effectiveness of our current focus on baiting.

The federal election in November 2007 saw a change in government, with the Hon Peter Garrett AM MP appointed as the Minister for the Environment, Heritage and the Arts. Minister Garrett launched the new Kakadu brand in the park in late July 2008 and released the park's first Tourism Master Plan for public comment. The launch of the Kakadu brand was the culmination of nearly three years work by the Board of Management, park staff and consultants. It repositions and rebrands the park to emphasise its Aboriginal ownership and culture. The new logo and colours flow through to uniforms and signage, visitor information and a new dedicated website for Kakadu, co-hosted with NT Tourism.

The potential impacts of climate change are a growing priority. We are working to reduce water use, our carbon footprint and to identify priority adaptation measures in our reserves. A recent review of operations in Booderee National Park identified specific actions to reduce energy use, water consumption and waste outputs within

the park. The Australian National Botanic Gardens continues to develop and implement water and energy saving measures to reduce operating costs and to ensure the future of the living collection.

Our major infrastructure projects have progressed well. Federal Member for Lingiari, the Hon Warren Snowdon MP, announced the completion of the first stage of the new \$15 million Uluru-Kata Tjuta viewing area in June 2008, with the opening of a new eight kilometre section of road to the South of Uluru. Stage 2 of the project, which includes new viewing platforms and visitor amenities, will be completed in the coming year.

A new creek crossing has been completed at Kakadu's Jim Jim Creek, providing safer and more reliable access to the Twin Falls area during the dry season. Major upgrades to road infrastructure and visitor facilities have also occurred on Norfolk Island and at Booderee National Park.

All mining leases in the south of Kakadu, including Guratba (Coronation Hill), have been incorporated into the park. Rehabilitation works are progressing on time and on budget. The removal of asbestos and derelict buildings from El Sherana Mining Camp in the south of Kakadu is complete. A small number of remaining structures are being conserved for their heritage value and will be restored to a safe and sound condition in the near future.

Monitoring of our natural heritage in our reserves is showing mixed results. The mala population reintroduced at Uluru-Kata Tjuta National Park is progressing well. Twenty-five new animals were tagged during the recent survey and a number of female mala were carrying young. The number of tjakura breeding burrows has decreased in the past year, which may be as a result of environmental conditions at the time of the survey. Preliminary results from regular fauna monitoring in Kakadu suggest a dramatic collapse in small mammal populations and species richness across the park. Further monitoring and associated research will be needed to confirm and understand these findings and to develop an appropriate management response.

The first phases of the Northern Territory Emergency Response were introduced in August 2007. They brought major changes to welfare provisions and Land Rights Act permits with significant new powers for the Minister for Families, Housing, Community Services and Indigenous Affairs (FaHCSIA) over Aboriginal land, membership of community councils, leasing of Aboriginal townships, community stores, use of computers and access to alcohol. Good working relations continued between Parks Australia, local Indigenous communities and FaHCSIA.

The Prime Minister's apology to the stolen generations on 13 February 2008 was a momentous day. Small celebrations involving local Indigenous communities were held at our jointly managed parks and a number of traditional owners from Booderee, Kakadu and Uluru were at Parliament House in Canberra for the main ceremony.

The South-east Commonwealth Marine Reserve Network came into effect on 3 September 2007, increasing the Commonwealth marine reserve estate to almost 50 million hectares. This reserve network is the first temperate, deep sea marine reserve



network in the world. It includes significant underwater features such as underwater canyons and seamounts with a diverse range of marine life. Some species occurring in these areas are new to science and found nowhere else in the world. A management plan for the reserve network, which will also cover the management of Macquarie Island Commonwealth Marine Reserve, is currently under development.

New Commonwealth marine reserve proposals will be identified through the Government's systematic assessment of each of Australia's marine bioregions in the south-west, north-west, north and east over the next three years. In the light of the outcomes from the south-east marine bioregional planning process, the forthcoming bioregional plans are expected to significantly add to the Commonwealth marine reserve estate.

Regional tourism, business and government interest in the National Landscapes concept continues to grow rapidly. Eight candidate areas were launched by the Minister for Tourism, the Hon Martin Ferguson AM MP, in July 2008. The eight National Landscapes are: the Australian Alps, Flinders Ranges, the 'Green Cauldron' on the north NSW-south Queensland coast, the Wilderness Coast spanning southern NSW and eastern Victoria, the Blue Mountains, the Great Ocean Road, the Red Centre, and the Kakadu region. A wide range of key regional stakeholders participated in highly successful planning workshops for these sites during the year. This project, a partnership with Tourism Australia, is identifying and reshaping the domestic and international presentation, planning and marketing of Australia's world class nature-based tourism experiences.

I record my deep appreciation for the continued support, energy, passion and ideas from my senior management team and Parks Australia staff members more generally. Individually and collectively you make the difference. It's a great team effort.

The coming year holds even more challenges. Foremost among these will be securing a more sustainable and adequate funding base to manage the Australian Government's protected area estate. Another challenge is that in many respects our business remains the same, year on year. We need to protect nationally and internationally significant natural and cultural values; provide for world-class visitor experiences that are rewarding and safe; improve opportunities for Indigenous owners, local enterprises, residents and others to participate in the regional economy, whether directly within the parks system or through associated activities. We need to continually reduce the threats and risks to the assets, people and values for which we are responsible. Despite this continuity of purpose, there are new issues that face us, such as adapting to climate change. We need to regularly refresh our approaches and priorities, to ensure that we remain relevant and tuned to the challenges ahead and to the changing needs and expectations of the broader Australian and international community.

This annual report was prepared in accordance with the *Commonwealth Authorities and Companies Act 1997*, Finance Minister's Orders under that Act and the *Environment Protection and Biodiversity Conservation Act 1999*.

The Director's review and the rest of this annual report, except the financial statements for the Australian National Parks Fund and the Auditor-General's report on those financial statements, constitutes the Director of National Parks' report of operations.

The holder of the office of the Director of National Parks is responsible under section 9 of the *Commonwealth Authorities and Companies Act 1997* for the preparation and content of the report of operations in accordance with Finance Minister's Orders.

A handwritten signature in black ink, reading 'Peter Cochrane'. The signature is fluid and cursive, with the first name 'Peter' and last name 'Cochrane' clearly distinguishable.

Peter Cochrane
Director of National Parks
26 September 2008

The year in review

Managing the natural heritage of our reserves

The natural heritage values of our terrestrial and marine reserves face increasing pressures and we regularly monitor and adjust our management actions to best meet these challenges.

- The South-east Commonwealth Marine Reserve Network (Reserve Network) came into effect on 3 September 2007. This large network covers 388,517 square kilometres and includes 14 reserves, which are representative examples of the diverse seafloor features and associated habitats found in the South-east Marine Region. The South-east Marine Region stretches from the far south coast of New South Wales, around Tasmania and Victoria and west to Kangaroo Island off South Australia, and includes the Macquarie Island EEZ. The former Tasmanian Seamounts Marine Reserve has been encompassed by, and incorporated into, the larger Franklin Commonwealth Marine Reserve
- A discussion paper: *The impacts and management implications of climate change for the Australian Government's Protected Areas* was released on 31 March 2008. The report was prepared by Hyder Consulting and provides insights into likely changes and impacts across the Commonwealth reserve estate from changes in climate, such as temperature, rainfall distribution and increased fire events—impacting on endemic and threatened species that have a limited distribution. These findings will provide valuable inputs as we develop new management plans for our reserves, and important baselines for future research
- The first four-year phase of our ten-year yellow crazy ant (*Anoplolepis gracilipes*) control strategy for Christmas Island is well underway. A major focus of the strategy is to develop a new ant-bait and to identify and introduce a bio-control measure for the exotic scale insects that are a major food source for the ants. Crazy ant infestation is accelerating, although it is nowhere near the levels recorded in 2001 before the major aerial baiting project was initiated. Our labour-intensive hand-baiting continues in the more accessible parts of the park. A Crazy Ant Scientific Advisory Committee has been appointed to provide high-level scientific guidance for this strategy and its implementation
- The decline in Christmas Island's population of pipistrelle bats (*Pipistrellus murrayi*) appears to be continuing, and the species has been listed as critically endangered. Our current management response includes placing and monitoring artificial roosting boxes in the park, an active research program to investigate potential causes of mortality, and exploring possibilities for a captive breeding program

- The implementation of the Christmas Island Mine-site to Forest Rehabilitation (CIMFR) program continues. The Memorandum of Understanding for the CIMFR with the Attorney-General's Department has been extended by a further three years to February 2010
- A major project to separate potable and non-potable water reticulation in the ANBG is well underway. Design work commenced for an alternative, non-potable water supply. The increasing cost and declining reliability of supply of water is challenging, and if not addressed adequately will inevitably result in a phased shut-down of horticultural activity. Water costs for irrigation of the ANBG have risen by over 200 per cent in three years
- The rehabilitation of the old legacy uranium mining sites in Kakadu is tracking well, with Guratba (Coronation Hill) and Sleisbeck rehabilitation and revegetation completed, old mine sites made safe, and the successful removal of asbestos and derelict buildings from El Sherana Mining Camp
- The latest count of Uluru's mala (rufous-hare wallaby, *Lagorchestes hirsutus*) is very encouraging—numbers have more than doubled since the first mala were introduced to our feral-proof enclosure almost three years ago. Staff and local *Anangu* captured 51 very healthy animals. Thirteen of the 22 females were carrying pouch young—and 25 of the animals caught and tagged were actually born in the park
- The eleventh annual tjakura (great desert skink, *Egernia kintorei*) survey took place in March 2008. While an increased number of burrows were counted this year, there was a marked decrease in breeding burrows; leading to concerns that predation rates are substantially affecting recruitment levels. No mulgara were trapped during the ninth annual murtja (mulgara, *Dasycercus cristicauda*) survey in November 2007. However, evidence of the presence of mulgara, including breeding burrows, was found to be widespread during the tjakura survey in March 2008, alleviating concerns about the status of the population



Recent surveys indicate that the mala population at Uluru is increasing steadily



- A collaborative project between Parks Australia and scientists from several research institutions began a relocation program for the Cocos Island buff-banded rail (*Gallirallus philippensis andrewsi*) to Direction Island in the Cocos group. This endangered bird is unique to the Cocos Islands. It now only occurs in the national park, with only around 700 birds left. Twenty adult birds were initially relocated to the island, with further relocations to occur if these flourish
- A major collaborative project with the Northern Territory Biodiversity Conservation Division commenced in 2008. This project involves targeted threatened species surveys in recognised biodiversity hotspots in Kakadu, largely in the Arnhem Land Plateau. The first survey in this three-year project was completed in May 2008 and involved Kakadu National Park and NT Government staff members, a neighbouring Indigenous ranger group and senior traditional owners from Arnhem Land. Results indicate continued decline in some mammal species, consistent with regional trends. The park continues to support research and monitoring to determine the cause of these declines
- Increasing cost pressures on Norfolk Island are reducing the scope of our efforts and will adversely impact on island biodiversity. Weeding projects are not keeping pace with incursions. Consideration is being given to reducing rehabilitation works on Phillip Island to concentrate resources on the main island
- Women from the Natural and Cultural Resources section of Uluru and Anangu women from Mutitjulu have controlled buffel grass (*Cenchrus ciliaris*) at *Pulari* after two years of considerable effort. *Pulari* is a women's sacred site at the base of Uluru, once choked with the invasive grass. The buffel grass was removed by hand, with assistance from teams led by Conservation Volunteers of Australia
- A major program to monitor broad-scale trends in Kakadu's fauna continued in 2007. Fauna surveys were undertaken at regular monitoring plots in the park that have historically been used to record vegetation changes in response to fire. These plots form part of a broader regional investigation of trends, and include Litchfield and Nitmiluk National Parks. Preliminary results from these surveys indicate a major decline in both the abundance of small mammals, and the number of species caught. These results mirror those being recorded elsewhere in the Top End, and are of great concern. Urgent action is being planned to address the most likely causes, which include further reducing fire frequency and intensity, reducing feral animal numbers and exploring the potential for building enclosures to exclude predators in key habitats
- A PhD research project was supported to examine critical relationships between magpie geese (*Anseranas semipalmata*) and wetland food plants, seasonal dispersal patterns of geese, the impact of disease on populations and the likely ramifications of sea level rise (through GIS-based models)
- A collaborative project with the NT Government continued, seeking to better understand the ecology and biology of two species of coastal dolphins, the Indo-Pacific humpback (*Sousa chinensis*) and Australian snubfin (*Orcaella heinsohni*)

- Booderee has commenced a program to reduce the park's carbon footprint. The park has already installed new energy efficient electric barbeques, shower touch pads, waterless urinals and timer lights in amenity blocks, and flow reducers on all outdoor taps. Visitors and campers have responded well to the changes
- Two marine surveys were completed at the Coringa-Herald National Nature Reserve in 2007. Results of the surveys were combined producing a comprehensive analysis of coral, macroinvertebrate and fish communities in the reserve. Ecological communities were found to be in a similar condition to those described in previous surveys, with very little recovery of hard coral cover
- Significant progress was made in the 3-dimensional underwater mapping of the Solitary Islands Marine Reserve and the Cod Grounds Commonwealth Marine Reserve which will aid in the protection of the critically endangered grey nurse shark

Managing the cultural heritage of our reserves

The cultural heritage values and landscapes that we protect include Indigenous living culture as well as sites of historic significance.

- Kakadu commenced a review of recorded cultural material, storage of cultural objects, and cultural heritage databases, in consultation with *Bininj/Mungguy*. The review will include development of protocols to ensure that these sensitive cultural resources can be accessed appropriately and in a user-friendly format. A partnership agreement between the National Archives of Australia and the Director is being negotiated for long-term storage and protection of irreplaceable audio and video materials



Rock art conservation and maintenance in our parks is undertaken with the assistance of traditional owners

- Kakadu established the *Gun-mayali* ('sharing of knowledge' in the Kunwingku language) Room at Kakadu Headquarters for use by *Bininj* to access cultural materials and records held by the park
- Kakadu held extensive consultations with staff and traditional owners in all districts about their preferred approach and priorities for cultural heritage under the 5th Kakadu Management Plan. Issues discussed included rock art maintenance, oral history collection and cultural activities that support the transfer of knowledge between generations and between traditional owners and staff
- A Scientific and Cultural Heritage Consultative Committee was established for Uluru-Kata Tjuta National Park. One of its first priorities was to define opportunities, practicalities and requirements for an archaeological survey and research program

- Staff worked with senior *Anangu* to maintain the *Ara Irititja* cultural heritage database at Uluru, entering information and stories on individual photographs and films into the database and adding scanned images of Uluru from the Mountford Collection

Working with traditional owners

Our close relationship with traditional owners in managing the three mainland national parks continues to be one of the most rewarding aspects of our work.

- We have entered into updated service level agreements with Booderee and Wreck Bay. They provide the community with a guaranteed level of maintenance work each year on a variety of park assets, including the park's roads, tracks and walking trails
- Following intensive consultation with traditional owners and the tourism industry, a new brand has been developed for promoting Kakadu. It includes a new logo for the park, a new uniform for staff members, and a new Visitor Guide. These were formally launched in the park in July 2008 by the Hon Peter Garrett AM MP at the invitation of the Board of Management



Hon Peter Garrett AM MP with Jacob Nayinggul and Peter Cochrane at the launch of the new Kakadu brand

- A draft tourism master plan for Kakadu was released for public comment. It seeks to address the park's target market and outlines opportunities for new and existing Indigenous enterprises
- The provisions of the *Northern Territory Emergency Response Act* commenced on 14 September 2007. An amendment Bill to restore the requirement for a permit to enter Aboriginal land was introduced into Parliament but was not passed before the election. The park's regulatory controls over film and photography continued to be applied, despite some uncertainty over their interaction with the new legislation. Amendments to the Act were re-introduced into Parliament in August 2008

- Constructive relationships were established and maintained between the Muṯitjulu community, parks staff, and FaHCSIA during the first phase of NT Emergency Response
- Mediation continued between the parties to the Native Title claim over Jabiru township and two adjoining areas of Kakadu
- Parks Australia sponsored the Muṯitjulu Council Chairman and an *Anangu* staff member to attend a two-day workshop on Indigenous Business Development in Darwin. Our aim is to support community members in accessing information and building skills, to assist economic development in the community and foster the establishment of *Anangu* businesses in the park
- Quarterly meetings of the Boards of Management of Kakadu and Uluru were held and also additional special meetings to discuss particular aspects of Management Plans and issues requiring traditional owner advice
- While relations between the Wreck Bay community and staff at Booderee are sound, the Board of Management was unable to meet during the year, due to community issues and a lengthy process of nominating and approving new board members

Welcoming our visitors

This year we saw the results of several long-planned projects to enhance visitors' experience.

- An estimated 1.47 million people visited Commonwealth reserves in 2007–08. There were increased numbers at Kakadu and Booderee, but an overall decline of 1.3 per cent, led by a significant decline of nearly 30,000 over the year at Uluru, with a resultant impact on park revenue
- Visitor surveys have been instituted for Kakadu, Uluru and Booderee
- The first stage of the new Uluru-Kata Tjuṯa viewing area was completed, with the opening of a new eight kilometre section of road to the south of Uluru on 16 June 2008. The new road modifies the loop around the rock and offers visitors vastly improved views of Uluru-Kata Tjuṯa National Park, taking them into areas of this majestic landscape that were previously inaccessible to the public. This stage of the project has come in on time and budget, thanks to excellent project management, particularly by Mike Johnson and Peter Cullen. The second stage of construction has commenced and will provide paths, elevated walkways and platforms



The Nourlangie rock art site at Kakadu is popular with visitors throughout the year, and the main gallery is wheelchair accessible

- The partnership between Tourism Australia and Parks Australia is now firmly established. The product of this partnership, the National Landscapes initiative, was launched at the Australian Tourism Exchange in Perth in June 2008 by the Tourism Australia Board Chair, Mr Rick Allert. This initiative aims to identify landscapes that offer world-class, uniquely Australian, nature-based experiences to Tourism Australia's target market. Eight candidate sites have been launched by the federal Tourism Minister, the Hon Martin Ferguson AM MP. This initiative has attracted enthusiastic support from the national tourism industry and a wide range of regional stakeholders in each candidate area
- Fires at Booderee during November 2007 destroyed visitor facilities at Cave Beach. The park was closed for a short period of time to ensure visitor safety and the majority of damaged infrastructure has been repaired or replaced
- The boat ramp at Murray's Beach in Booderee was upgraded during the winter of 2007. This is the primary boat launching ramp in the park and is used extensively during the summer months. Construction work was undertaken on schedule
- A new office was opened in the Cocos-Malay community on Home Island, to provide a base for community education programs and to raise awareness about Pulu-Keeling National Park and its values
- A major upgrade to the Jim Jim Creek crossing in Kakadu was completed successfully, enabling safer access to the Twin Falls area during the dry season
- New closure times were instituted for the Uluru climb to reduce the risks to visitor safety during the hottest months of the year (December-February). The closure of the climb after 8:30am each day was implemented following consultation with the tourism industry. It attracted no adverse comment from visitors or industry
- A new facility, the Botanical Resource Centre was established at the ANBG for the general public to identify plants with computer tools, microscopes and specimens. This was an initiative between the ANBG and the Friends of the ANBG and was opened by Her Excellency Mrs Marlena Jeffery on 15 May 2008
- The ANBG promoted the cultural values of Australian native plants with the exhibitions: 'Caring for Land', 'Friends School Photographic Exhibition', 'Local Colour', 'Botanical Art Group Exhibition', 'Growing Home, the Street Trees of Canberra', 'A Tree in the Palm of your Hand Bonsai Exhibition' and 'Snakes Alive!'
- Booderee National Park was awarded a Distinction in the Tourist and Caravan Park



Morgan Brown and Martin Fortescue from Booderee National Park, mopping up after the wildfire at Cave Beach in November 2007

(up to 4 Star) category at the South Coast tourism excellence awards. It was also a Finalist in the Adventure Tourism or Eco Tourism category. The park's iconic Murray's Beach was named the South Coast's most environmentally-protected beach in the Keep Australia Beautiful Clean Beach Awards

- The partnership between Parks Australia and Tourism NT was recognised by a 'highly commended' award from the Tourism and Transport Forum (TTF), the peak industry group for the Australian tourism, transport, aviation and investment sectors, at their Annual Awards night on 28 November 2007

Working with partners and stakeholders

We work closely with a wide range of tourism interests, scientific organisations and other government agencies. We are fortunate to benefit from the knowledge and energy of hundreds of volunteers from all walks of life who contribute significantly to our outcomes.

- A major new facility, the Australian Tropical Herbarium, was established in Cairns through a partnership between the Australian National Herbarium, the Queensland Herbarium and James Cook University. This new facility combines the existing herbaria in Atherton and Mareeba and will provide a strong focus for tropical plant taxonomy and systematics
- The Marine Division commenced development of education kits, consisting of a DVD, booklet and poster series. The intent of the kit is to provide the community with information on the values of marine protected areas, how they are managed and, importantly, influencing positive behaviour and attitudes toward marine conservation management
- Parks Australia participated actively in the international review of the IUCN protected area category guidelines, which are used in Australia and many other countries to structure management and reporting of protected areas
- The Director represented Australia at two international meetings, dealing with protected areas under the auspices of the Convention on Biological Diversity (CBD), held in Rome and Bonn in 2008
- Representatives from park agencies from the Northern Territory and Victoria, Parks Canada and the New Zealand Department of Conservation participated in the Parks Australia forum meeting held in Darwin in November 2007. The presentations and discussions were rated highly by all participants. These interactions enhanced our strong relationships with these agencies
- The Discovery Channel filmed a documentary in Kakadu for Animal Planet, as part of an eight-part series on climate change, to be aired internationally next year. The crew were particularly interested in the impact that salt-water intrusion might have on the Ramsar wetlands and on the magpie geese, which rely on a freshwater feed
- The Australian National Botanic Gardens hosted a workshop in Canberra to initiate

work on a national approach to climate change education. One key aim is to help Australia's largely urban populations connect with the natural world, learn about climate change, and what they can do to make the world more sustainable. Education staff members from botanic gardens around the country participated



Representatives from botanic gardens across the country attended a workshop at the ANBG to determine a draft national climate change adaptation strategy and action plan for botanic gardens

- Mick Jeffery from Christmas Island National Park attended the first International Pacific Invasive Ant Conference in Hawaii. The team on Christmas Island are pioneering crazy ant control. Mick was able to exchange advice and experience with other delegates and establish links with other experts in the field. The conference attracted over 150 ant specialists from across the Pacific
- The ANBG is contributing to a review of seed banking in Australia, in cooperation with State and Territory botanic gardens and the Kew Gardens *Millennium Seed Bank* project. The aim is to develop a long-term national germplasm strategy
- The ANBG maintained its strong ties with CSIRO Plant Industry in jointly managing the Centre for Plant Biodiversity Research and the Australian National Herbarium
- Kakadu hosted the Weed Management Workshop in November 2007 and a subsequent Fire Management Workshop in April 2008 bringing researchers, traditional owners and park staff together to discuss and debate current knowledge and emerging issues
- A whole of government partnership approach to managing marine reserves has ensured stronger engagement with the Australian Customs Service, other Australian Government agencies, and a range of state government agencies
- Business agreements were made with State Government agencies in Tasmania, South Australia and Victoria to provide for surveillance and compliance services within the South-east Commonwealth Marine Reserve Network
- The 35 metre Australian Customs Vessel, *Ashmore Guardian*, was successfully deployed to Ashmore Reef in April 2008. This vessel was specially modified for working at Ashmore. It accommodates up to 10 Customs officers and government officials, to provide a near permanent compliance and management presence at Ashmore Reef. Since beginning operations, Customs officers have distributed information to crew and passengers of 45 traditional Indonesian fishing vessels, 2 motorised Indonesian fishing vessels and 4 recreational sailing vessels. Warnings were also issued to a number of traditional vessels found in the closed area. During this period, the Department utilised the vessel to survey sea snake populations, known to be declining in the area, as well as continue environmental monitoring projects such as marine debris collections

- In May 2008, the Marine Division hosted a 2-day workshop in Brisbane on science for managing remote coral reef marine protected areas (MPAs). The main aims of the workshop were to discuss knowledge gaps relevant to adaptive management of remote coral reef MPAs and to improve the application of research findings into adaptive management of MPAs.

The workshop was attended by 34 participants, including reserve managers, scientists and representatives from the Coral Triangle Initiative. The main outcomes from the workshop included improved understanding of how science can support adaptive management of MPAs, identification of options for improving communications and partnerships among scientists and managers, and establishment of a functional network for ongoing discussions and support



A partnership with the Department of Primary Industries and Resources SA (PIRSA) provides sea patrols to monitor activities within the Great Australian Bight Marine Park (Commonwealth Waters)

- In January 2008 CSIRO scientists and their US colleagues conducted a voyage to the southern parts of the South-east Commonwealth Marine Reserve Network. The research undertook high resolution video surveys, as well as targeted benthic sampling, and went deeper than ever before in Australian waters. The results from this work will provide greater understanding of the values of the reserves and will inform the ongoing research plan for the network
- The Director of National Parks participated in a meeting of heads of park agencies from around the world in October 2007, held in Inverness, Scotland, to discuss global environmental challenges affecting protected areas. Issues discussed included the role of protected areas in sequestering carbon, adapting to climate change, social and economic values of protected areas, and measuring and reporting on management effectiveness
- Effective partnerships with research organisations continued, including the Australian National University (through an Australian Research Council linkage grant) on a major project on fire and biodiversity at Booderee, collaboration with scientists in the Northern Territory Parks and Wildlife Service monitoring the impacts of fire on vegetation and small mammals in Kakadu, CSIRO on marine biodiversity and bioregion characterisation, the Australian Institute of Marine Science, James Cook University, Charles Darwin University and the University of Queensland
- A wide range of volunteers continued to provide valuable support for reserve management, public education and scientific research, especially through the Friends of the Australian National Botanic Gardens and the Conservation Volunteers Australia teams on weed control at Uluru

Managing our business and people

We continued to progressively review and improve our business and people management practices and to aim for higher standards. Our staff continued to be our most significant and outstanding resource.

- Our safety record continues to improve, with a reduction in safety incidents
- The appointments at Kakadu, Uluru and Christmas Island of new park managers, Sarah Kerin, Lara Musgrave and Marjorie Gant saw women leading these three parks for the first time. Anne Duncan's appointment as Director of the ANBG further boosted the number of female executive level staff in Parks Australia
- A new Executive level position of Director, Tourism and National Landscapes, was created to support the escalating workload of the partnership with Tourism Australia. Hilary Schofield was appointed to this role
- Lyn Valentine joined the Darwin office to head the Parks Policy and Services Section
- Con Boekel retired from his position as Assistant Secretary of Parks Australia South after a long career in the APS. His long, diverse and valuable contributions to the Department were acknowledged by the Secretary. Of particular note was Con's passionate championing of the need for a long-term commitment to substantial investment in the development and employment of Indigenous staff and support for Indigenous enterprises. He saw these as a key to more effective biodiversity conservation and a means of improving Indigenous well-being. He contributed significantly to the initiation and design of the new Working on Country Program and additional support for Indigenous Rangers
- Many other staff members contributed above and beyond what could reasonably be expected, and moved on to other pastures. Steve Ewings played a valued role as acting Uluru Park Manager, following the resignation of Rowan Foley. John Henderson returned to Victoria after nearly ten years valued service at Norfolk and Uluru
- Graeme Beech took leave from his position at Booderee to help establish effective management arrangements for the Kokoda Track in PNG—an initiative of the Prime Minister
- Formal recognition of outstanding staff occurred through Australia Day Awards to Ismail Macrae (long-term contribution to conservation, through management of the natural and heritage values of the Cocos-Keeling Islands Territory, including Pulu Keeling National Park) and David Philips (outstanding contribution to the establishment and management of the Australian Government's parks and park policy development for more than 25 years). A Secretary's Award was presented to Mike Johnson for his valued practical and expert technical and engineering advice for field staff and managers, the preparation of innumerable tender and contract specifications, and the oversight of most major construction projects in Kakadu and Uluru over the last 15 years

- Over 120 staff members were trained during the year in Risk Management and Parksafe
- Several major insurance claims that addressed the damage caused at Kakadu by Cyclone Monica, and by a severe local storm at Mary River, were finalised
- The new Government committed \$1.5m towards addressing the water infrastructure needs of the ANBG. The first steps in securing and delivering an alternative water supply were initiated with design work to separate out the ANBG irrigation system from the potable water supply system. Tenders were called for the design and costing of infrastructure for the supply of water from Lake Burley Griffin
- A major investment in upgrading our approach to occupational health and safety resulted in the completion of over 70 Job Safety Assessments
- Five graduates from Booderee National Park and Wreck Bay gained their Certificate III in Tourism (Operations) from Illawarra TAFE
- Compulsory tour guide training for Kakadu is now in place in cooperation with Charles Darwin University. Training is available on-line
- Two of Uluru's *Anangu* trainee rangers, Wayne Curtis and Phillip Driffen, started their traineeships in October last year
- Marine Division staff completed a shipboard safety course to ensure they are adequately prepared to carry out patrols to Commonwealth marine reserves
- Active Junior Ranger programs continued in the three jointly managed parks, working closely with local schools
- The new Norfolk Island and Botanic Garden Plan of Management 2008-2018 was completed in February 2008
- Preparation of Management Plans commenced for:
 - Christmas Island National Park
 - Australian National Botanic Gardens
 - Booderee National Park
 - South-east Commonwealth Marine Reserve Network
- The Uluru-Kata Tjuta National Park Draft Management Plan is expected to be released for public comment in late 2008
- Our financial control framework is sound and well regarded by internal and external auditors. We recorded a small surplus, which is largely the result of lower depreciation arising from slight delays in several projects. Chief Executive Instructions have been reviewed and reissued. We continue to improve our financial management policies and procedures in the light of better practice guidance and standards

Looking ahead

Our funding pressures are intensifying. The one year extension, for 2008-09, of the supplementation received to compensate for the abolition of Kakadu park-use fees in 2004, has triggered urgent consideration of alternative income streams for the park for introduction in the following financial year.

Invasive weeds and introduced animals continue to pose major threats despite good progress on some fronts.

Further investment is essential to improve training and employment opportunities for traditional owners of our three large parks. Improving visitor facilities, refreshing the presentation and interpretation of our parks and enhancing partnerships with the tourism industry, remain high priorities.

We need to increase our efforts to address climate change through reducing our emissions and by adapting our management approaches in the light of the best available information on anticipated impacts. Securing an alternative water supply to maintain the living collection at the Australian National Botanic Gardens remains a pressing issue needing resolution.

Our revenue base needs to diversify and grow to help us meet these challenges.

While the purpose and nature of our work continues to retain and attract talented and committed staff, we need to continue to acknowledge and value their contributions and achievements and to invest in building skills and capabilities.

We also need to continue to regularly re-think how we work, to find further efficiencies across our business, and ensure we make the best use of our resources.

2 Financial and Commonwealth reserves system summary



Financial summary

Table 1: Analysis of variance against budget

Table 2: Overview of financial results

Figure 3: Income and expenditure 2007–08

Commonwealth reserves system summary

Table 3: Overview of individual reserves in 2007–08

Table 4: Five-year overview of terrestrial and marine Commonwealth reserves

Financial summary

A surplus result was achieved for 2007–08 due largely to lower than expected depreciation expenditure, caused by delays in some major capital works.

Overall, income for 2007–08 was up by seven per cent against budget and expenditure was up by six per cent against budget. An analysis of the variances is in Table 1.

Table 2 and Figure 3 summarise income and expenses information for the Director of National Parks. Audited financial statements are in Chapter 8 of this report.

Management of marine protected areas is undertaken by the Marine Division and the Australian Antarctic Division under delegation from the Director, is funded separately, and is excluded from this financial summary.

Table 1: Analysis of variance against budget

Business area	Income	Expenses
Jointly managed parks	Up \$1.1 million due to insurance recoveries relating to damage caused by Cyclone Monica and flooding in Kakadu; and a revised estimate of resources received free of charge from the Department	Up \$2.1 million due to additional expenditure on Kakadu mine site rehabilitation delayed from 2006–07 as a result of flooding in Kakadu; additional expenditure relating to damage caused by Cyclone Monica and flooding in Kakadu; increased operational costs particularly repairs and maintenance of assets; and an increased estimate of resources received free of charge from the Department offset by depreciation expenditure being less than expected due to delay in some major capital works
Other parks and reserves	Up \$1.8 million primarily due to additional project-related funding; insurance recoveries for property damage; some additional revenue from fees and charges; and a revised estimate of resources received free of charge from the Department	Up \$0.6 million due to expenditure related to extra project-related funding; increased water and electricity costs at the Australian National Botanical Gardens; and an increased estimate of resources received free of charge from the Department
Governance, corporate services and executive	Up \$1.4 million due to greater than expected interest revenue as a result of delayed operating expenditure and capital works; additional project-related funding; and a revised estimate of resources received free of charge from the Department	Up \$0.6 million due to expenditure related to extra project-related funding; and an increased estimate of resources received free of charge from the Department

Table 2: Overview of financial results

		2007 Actuals \$000s	2008 Actuals \$000s	2008 Budget \$000s	2008 Variance \$000s
Jointly managed parks ^(a)	Income	39,768	38,550	37,426	1,124
	Expenses	(37,647)	(39,497)	(37,426)	(2,071)
	Surplus/(Deficit)	2,121	(947)	0	(947)
Other terrestrial parks and reserves ^(b)	Income	15,092	16,381	14,596	1,785
	Expenses	(14,642)	(15,220)	(14,596)	(624)
	Surplus/(Deficit)	450	1,161	0	1,161
Total for terrestrial parks and reserves	Income	54,860	54,931	52,022	2,909
	Expenses	(52,289)	(54,717)	(52,022)	(2,695)
	Surplus/(Deficit)	2,571	214	0	214
Governance, corporate services and executive ^(c)	Income	8,133	8,097	6,726	1,371
	Expenses	(7,003)	(7,329)	(6,726)	(603)
	Surplus/(Deficit)	1,130	768	0	768
Total for Director of National Parks	Income	62,993	63,028	58,748	4,280
	Expenses	(59,292)	(62,046)	(58,748)	(3,298)
	Surplus/(Deficit)	3,701	982	0	982

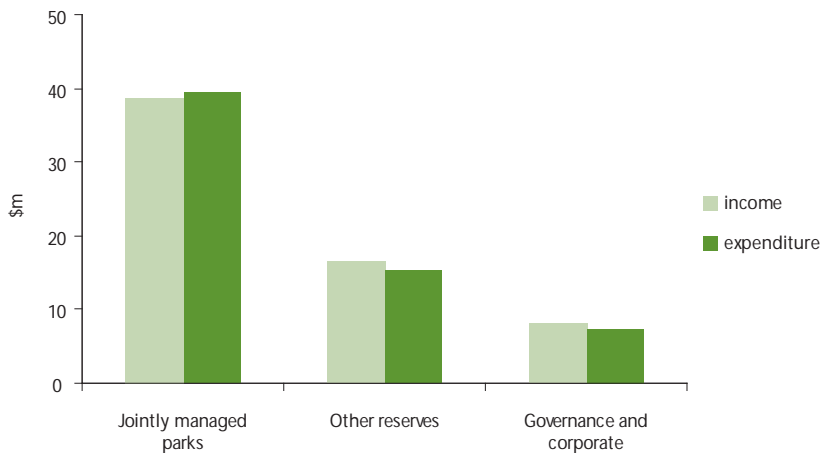
(a) Kakadu, Uluru-Kata Tjuta and Booderee National Parks

(b) Includes Calperum and Taylorville Stations which are not formal reserves

(c) Governance, corporate services and executive includes administration for Parks Australia North and Parks Australia South, finance, legal, insurance, planning, interest income and bank charges



Figure 3: Income and expenditure 2007–08



Commonwealth reserves system summary

The Commonwealth protected area estate as declared under the *Environment Protection and Biodiversity Conservation Act 1999* comprised, at 30 June 2008, seven Commonwealth terrestrial reserves (national parks, botanic gardens) and 26 Commonwealth marine reserves (marine parks, marine reserves, nature reserves).

The terrestrial reserves are managed by Parks Australia which assists the Director in carrying out the Director’s responsibilities. Of the 26 marine reserves, 25 are managed by the Marine Division of the Department under delegation from the Director while management of the Heard Island and McDonald Islands Marine Reserve is delegated to the Australian Antarctic Division.

Table 3 provides an overview of individual reserves for 2007–08 and Table 4 shows a five-year overview of financial, staffing and area information for Commonwealth terrestrial and marine reserves

Table 3: Overview of individual reserves in 2007–08

Reserve name	Area (hectares)	Year declared	IUCN Category (a)	Operating cost (\$000s)	Capital expenditure (\$000s)	External revenue (\$000s)	Payment to traditional owners (\$000s)
Jointly managed national parks							
Booderee National Park (p 62)	6,379	1992	II	6,909	814	1,231	493
Kakadu National Park (p 101)	1,979,767	1979	II	20,554	2,141	1,217	1,627
Uluru–Kata Tjuṯa National Park (p 139)	132,566	1977	II	12,034	11,207	7,414	1,951
Other Commonwealth terrestrial reserves							
Australian National Botanic Gardens (p 62)	85	1991	IV	9,422	473	670	
Christmas Island National Park (p 90)	8,719	1980	II	3,468	96	1,809	
Norfolk Island National Park and Botanic Garden (p 119)	656	1986	II	971	607	7	
Pulu Keeling National Park (p 129)	2,602	1995	II	673	46	17	
Commonwealth marine reserves (b)							
Ashmore Reef National Nature Reserve (p 164)	58,337	1983	Ia	50			
Cartier Island Marine Reserve (p 171)	17,238	2000	Ia	0			
Cod Grounds Commonwealth Marine Reserve (p 175)	314	2007	Ia	103			
Coringa–Herald National Nature Reserve (p 180)	885,249	1982	Ia	203			
Elizabeth and Middleton Reefs Marine National Nature Reserve (p 188)	187,726	1987	Ia	10			
Great Australian Bight Marine Park (Commonwealth Waters) (p 192)	1,937,162	1998	VI	173			
Heard Island and McDonald Islands Marine Reserve (p 197)	6,465,845	2002	Ia	63			
Lihou Reef National Nature Reserve (p 204)	843,670	1982	Ia	0			
Lord Howe Island Marine Park (Commonwealth Waters) (p 208)	300,287	2000	IV	52			
Macquarie Island Marine Park (p 239)	16,189,466	1999	IV	3			
Mermaid Reef Marine National Nature Reserve (p 212)	53,987	1991	Ia	132			
Ningaloo Marine Park (Commonwealth Waters) (p 216)	243,513	1987	II	170			
Solitary Islands Marine Reserve (Commonwealth Waters) (p 221)	15,233	1993	VI	93			
South-east Commonwealth Marine Reserve Network (p 225)	22,646,048	2007	VI	449			

(a) The IUCN Protected Area classification system comprises seven management categories, not all of which have been applied to reserves declared under the *Environment Protection and Biodiversity Conservation Act 1999*. Sections of some reserves are zoned a different IUCN category from the reserve as a whole, to reflect the management strategy for those sections

(b) In addition to the operating costs for each reserve, \$729,524 was spent across the 25 marine reserves managed by the Marine Division on professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities.



Table 4: Five-year overview of terrestrial and marine Commonwealth reserves

	2003–04	2004–05	2005–06	2006–07	2007–08
Staffing resources (Full-time equivalents)					
Management of terrestrial reserves	288.0	263.8	274.5	270.6	274.0
Management of marine reserves ^(a)	12.0	12.6	15.3	17.5	16.3
Area of Commonwealth reserves (hectares)					
Terrestrial reserves area	2,131,407	2,131,407	2,131,407	2,130,774 ^(b)	2,130,774
(number of reserves)	(7)	(7)	(7)	(7)	(7)
Marine reserves area	24,245,378	24,245,378	27,245,378	27,245,678	49,844,075
(number of reserves)	(13)	(13)	(13)	(14)	(26)
Visitors to Commonwealth terrestrial reserves					
Number of visitors	1,357,005	1,394,087	1,430,515	1,485,727	1,466,560
Safety incidents recorded (including staff and visitors etc. see page 253)					
Minor injury or near miss	139	163	156	157	141
Moderate injury	47	58	68	47	63
Major injury	23	16	12	3	6
Death	1	1	1	0	1
EPBC Act compliance and enforcement (see page 254)					
Incidents detected	155	371	243	372	197
Warnings and cautions issued	107	252	195	287	131
Infringement notices issued		4	9	38	59
Cases taken to court	3	13	7	17	3
Court convictions	3	3	5	13	3
Court cases pending at year end	4	10	2	4	2
Financial Summary – terrestrial reserves (\$ millions)					
Operations					
Total operating expenditure ^(c)	57.56	58.69	56.85	59.29	62.05
Total operating revenue ^(d)	53.02	58.53	59.02	62.99	63.03
Financial Position					
Current assets ^(e)	4.06	10.84	21.80	19.51	28.50
Non-current assets	106.31	137.20	138.90	139.11	149.33
Current liabilities	8.44	10.21	15.38	9.47	9.77
Non-current liabilities	3.03	1.19	0.45	0.58	0.64
Total Equity	98.91	136.63	144.87	148.57	167.42
Financial Summary – marine reserves (\$ millions)^(a)					
Operations					
Total operating expenditure	1.98	2.53	3.58	5.53	4.51
Total operating revenue ^(d)	1.98	2.53	3.58	5.53	4.51

- (a) Funding for management of Commonwealth marine reserves and associated staffing is provided by DEWHA and is not reflected in the financial statements for the Director of National Parks. Increases are associated with the establishment of 13 new reserves in the South-east Commonwealth Marine Reserve Network. See page 225
- (b) The area of Kakadu was adjusted in 2007, taking into account more accurate survey data provided by the Northern Territory Government. This figure includes a number of old mining leases in the south of Kakadu, incorporated into the park in May 2007
- (c) Also includes governance, corporate services, executive and the management contract for Calperum and Taylorville Stations which are not Commonwealth reserves
- (d) Includes revenue from all sources including appropriations and externally raised revenue
- (e) Current assets at the end of 2007-08 includes \$16 million committed to projects to be completed in 2008-09 and \$8 million for supplier and employee related liabilities





The crystal clear waters of Booderee National Park attract thousands of visitors each year

3 Organisational structure



Figure 4: Parks Australia organisation chart as at 30 June 2008

The executive team

Our staff

Table 5: Staffing profile for 2007–08

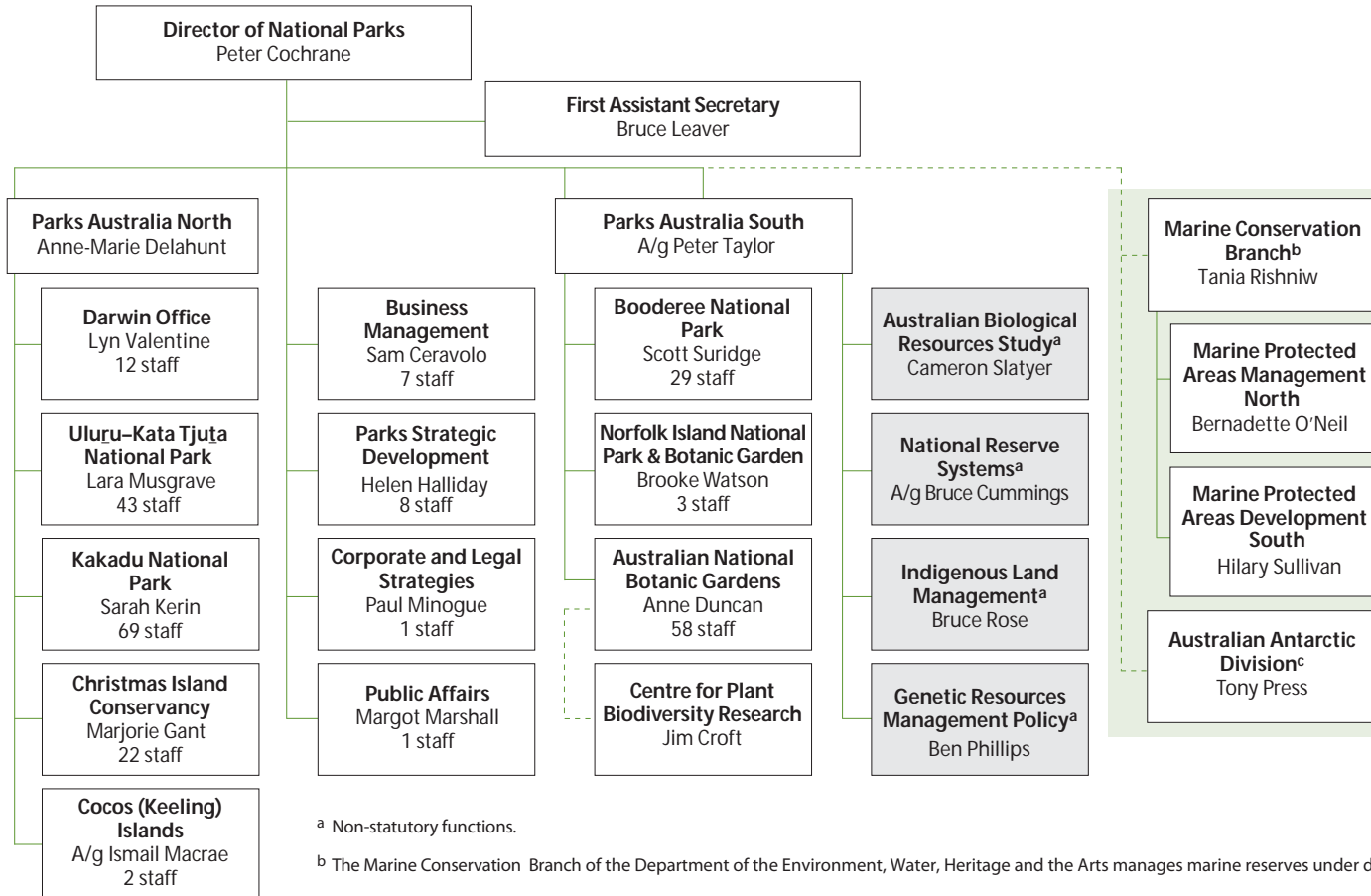
Boards of management membership

Table 6: Booderee National Park Board of Management

Table 7: Kakadu National Park Board of Management

Table 8: Uluru–Kata Tjuta National Park Board of Management

Figure 4: Parks Australia organisation chart as at 30 June 2008



The executive team



Peter Cochrane

Director of National Parks

Peter was appointed Director of National Parks in October 1999, reappointed in October 2002 and again in November 2005. Priorities continue to be: building relationships with traditional owners of jointly managed parks and other stakeholders, and improving agency performance, corporate governance, accountability, transparency and risk management.

Peter has worked for the oil and gas industry on national environment and competition policy issues and as an adviser to two federal Ministers on environment and natural resources issues.

Peter has a Masters degree in Public Policy and a Bachelor of Science degree. He has a background in field ecology and the eco-physiology of native plants.



Bruce Leaver

First Assistant Secretary

Bruce has worked in conservation management agencies in New South Wales, Tasmania and South Australia. He is a former Executive Director of the Australian Heritage Commission and has professional qualifications in forestry.

Bruce serves on the Conservation, Heritage and Indigenous Partnerships Reef Advisory Committee and the Tourism and Recreation Reef Advisory Committee for the Great Barrier Reef Marine Park Authority, and on the Australian Capital Territory Bushfire Council. He is the convener of the Australian Alps Liaison Committee which oversees the cooperative management program for alpine national parks in Victoria, New South Wales and the Australian Capital Territory.



Anne-Marie Delahunt

Assistant Secretary, Parks Australia North

Anne-Marie Delahunt has over 16 years experience in the Department of the Environment, Water, Heritage and the Arts, working primarily on forest conservation and wildlife issues. Anne-Marie previously worked for non-government organisations.

Over the past few years she has employed her communication and negotiating skills on a range of issues: working with Indigenous communities on the conservation of turtles and dugong, with non-government organisations and the research community on whale protection, and with the Threatened Species Scientific Committee.



Peter Taylor

Acting Assistant Secretary, Parks Australia South

Peter Taylor has over 25 years experience working with the Australian Government in the establishment and development of protected areas. He was instrumental in the development of national policy on the engagement of Indigenous communities in nature conservation activities. This resulted in the establishment of a 10 year program to incorporate Indigenous knowledge and expertise into the management of protected areas.

Peter enhanced the delivery of the National Reserve System program, which aims to establish a national representative system of terrestrial protected areas throughout Australia. Prior to this he was the Director of the Marine Protected Area Development Section, which made a significant contribution towards the expansion of the Commonwealth Marine Protected Areas estate to its current network of 26 reserves.

Peter has a Bachelor of Arts degree in Biology and a Graduate Diploma of Continuing Education.



Tania Rishniw

Assistant Secretary, Marine Conservation Branch

Tania joined the Department of the Environment, Water, Heritage and the Arts in January 2006 after four years as a Director in the Department of Finance and Administration. She has a strong background in policy and regulation and experience across a range of Australian Government agencies.

Before joining the Marine Conservation Branch Tania was responsible for the Environment Assessment Branch–EPBC Act approvals. She was involved in the reconstruction and development taskforce responding to the 2004 Tsunami and the development and implementation of the Australian Government's cost recovery policy.

Tania has a Bachelor of Law degree, with honours, and a Bachelor of Arts degree. She is currently completing a Master of Management degree.

Senior management team

Weekly meetings between the executive team and senior staff address strategic directions and current issues. The Assistant Secretary of Parks Australia North and her staff take part in the meetings via video link. Marine Conservation Branch staff members also participate in regular meetings, advising the Director on Commonwealth marine reserve issues.

Our Staff



Roger Hart from Booderee National Park provides guidance to a student from Jervis Bay School as part of the Junior Ranger Program

Human resources and related corporate services were provided to the Director through a purchaser-provider arrangement with the Department. Detailed information on the management of human resources, employment conditions and remuneration is contained in the Department's annual report for 2007–08.

The Director of National Parks employed an average of 274 staff during 2007–08.

The majority are located at Booderee, Kakadu and Uluru–Kata Tjuta National Parks and the ANBG. There are also small offices in remote locations including

Norfolk Island in the South Pacific Ocean and Christmas Island and the Cocos (Keeling) Islands in the Indian Ocean.

The central office of Parks Australia is located in Canberra City. It is co-located with the Marine Division, which has responsibility for the management of Commonwealth marine reserves, and the Heritage Division of the Department.

Fourteen graduate employees were engaged for three-month placements under the Department's graduate recruitment program.

Parks Australia is committed to providing staff with the necessary skills to effectively and safely undertake their duties, both in the field and in the office environment. Internal and external training is accessible on a broad range of subjects including: conservation and land management; horticulture; Indigenous skills and languages; rescue skills; safe use of chemicals; fire control and suppression; first aid; heavy vehicle and 4WD operation; record keeping and business systems. The Department offers assistance to staff in completing formal external training through the Study Support Scheme.

Staff members located on remote Island Territories are given opportunities to travel to the mainland to undertake training and development, and departmental staff visit these reserves to provide training on such issues as Occupational Health and Safety and GIS applications. The availability of on-line study programs through a number of educational institutions is making tertiary study more accessible for staff in remote areas.

In the jointly managed parks we work together with traditional owners, local Indigenous communities and schools to share knowledge. Traditional land

management skills and the application of Indigenous knowledge are fundamental cornerstones for the management of these parks. We encourage the interest of school children in park management and conservation through the Junior Ranger Program, where primary school students are introduced to various aspects of park management, including land management, plant and animal identification, and working safely.

Indigenous trainees and cadets are also employed across the three jointly managed parks. Trainee programs are designed to improve the skills of local people, particularly in conservation and land management. Trainees are required to complete nationally accredited certificates and are provided with on-the-job experience such as assisting with ranger duties and natural resource management.

Table 5: Staffing profile for 2007–08^(a)

		Executive	Park Managers/ Section heads	Operational, policy and planning management	Technical and other field staff	Rangers	Total
Parks South	Male	1	2	9	39	4	55
	Female	0	1	10	28	1	40
	Total	1	3	19	67	5	95
Parks North	Male	0	1	17	29	37	84
	Female	1	4	27	29	10	71
	Total	1	5	44	58	47	155
Head Office	Male	2	2	9	0	0	13
	Female	0	2	9	0	0	11
	Total	2	4	18	0	0	24
Totals	Male	3	5	35	68	41	152
	Female	1	7	46	57	11	122
	Total	4	12	81	125	52	274

(a) Staffing profile reflects employees responsible for the management of terrestrial reserves working for the Director, within the Parks Australia Division of DEWHA

Boards of management

Boards of management have been established under the *Environment Protection and Biodiversity Conservation Act 1999* for Uluru–Kata Tjuta, Kakadu and Booderee National Parks. Tables 6, 7 and 8 show members of each board for 2007–08.

In conjunction with the Director, each board prepares management plans for the reserve, makes decisions relating to the management of the reserve in accordance with the management plan, monitors management and advises the Minister on future development.

**Craig Ardler**

Chair, Booderee National Park Board of Management

(Term expired February 2008 for all board members)

Craig was raised in the Wreck Bay Aboriginal community where he has lived most of his life. Craig has been chair of the Booderee National Park Board of Management since 2005.

He previously occupied executive positions on the board of the Wreck Bay Aboriginal Community Council and the

Dharawal Aboriginal Corporation Community Association. He was also chief executive officer of the South Coast Medical Service Aboriginal Corporation.

During Craig's term as chair of the Booderee board, capital works to repair damage caused by the 2007 Caves Beach fire were completed, and a Junior Ranger program was implemented in local schools. Service agreements are in place with Wreck Bay Enterprises Ltd, the business arm of the Wreck Bay Aboriginal Community Council, for many park functions.

Table 6: Booderee National Park Board of Management

Craig Ardler (Chair)	Traditional owner nominee
Lorraine Ardler	Traditional owner nominee
Leon Brown	Traditional owner nominee
Ted Brown	Traditional owner nominee
Julie Freeman	Traditional owner nominee
Gavin McLeod	Traditional owner nominee
Phillip McLeod	Traditional owner nominee
Peter Cochrane	Director of National Parks
Assoc. Prof. Robyn Bushell	Tourism expertise
Prof. John Morrison	Science expertise
Capt. Mark Sander	Department of Defence
Wayne Jeffs	Department of Infrastructure, Transport, Regional Development and Local Government



Jacob Nayinggul
Chair, Kakadu National Park Board of Management

Jacob Nayinggul has been chair of the Kakadu National Park Board of Management since 2005. Jacob is a senior traditional owner of the Maniligarr clan, located in the north-east of Kakadu National Park. He has been on the board since its inception and is actively involved in the Gunbalanya community and the Jabiluka Aboriginal Association.

Jacob is highly respected and is especially well regarded throughout the region for his customary knowledge. He has a long history with both the establishment and management of Kakadu National Park.

Since his appointment as Chair, Jacob has provided leadership during development of the fifth management plan for Kakadu, advised on the development of Twin Falls, helped develop a shared vision for tourism and provided guidance to park management on natural and cultural matters. This past year has required extensive board involvement in the development of a new brand for Kakadu National Park.

Table 7: Kakadu National Park Board of Management

Jacob Nayinggul (Chair)	Traditional owner nominee
Jessie Alderson	Traditional owner nominee
Jane Christophersen	Traditional owner nominee
Victor Cooper	Traditional owner nominee
Michael Banggalang	Traditional owner nominee
Ryan Barrowei	Traditional owner nominee
Jeffrey Lee	Traditional owner nominee
Yvonne Margarula	Traditional owner nominee
Mick Markham	Traditional owner nominee
Denise Williams	Traditional owner nominee
Peter Cochrane	Director of National Parks
Anne-Marie Delahunt	Parks Australia
Rick Murray	Tourism industry expertise
Marilynne Paspaley	Northern Territory Government nominee
Vacant	Nature conservation expertise



Donald Fraser

Chair, Uluru-Kata Tjuta National Park Board of Management

Donald Fraser has been the Chair of the Uluru-Kata Tjuta National Park Board of Management since 2003. Donald is a senior Pitjantjatjara law man dedicated to maintaining and teaching *Tjukurpa* (traditional Aboriginal law in the western desert region), and supporting *Anangu* (western desert Aboriginal people) and the park in working together to keep *Tjukurpa* strong.

Since his appointment as Chair, Donald has focussed the board on major strategic issues. He has provided strong leadership in the development of the new management plan for the park and the implementation of joint management arrangements. Donald has placed a very high importance on training and employment for young *Anangu*. He is also championing the active engagement of senior men and women in looking after the park and its natural and cultural values.

Table 8: Uluru-Kata Tjuta National Park Board of Management

Donald Fraser (Chair)	Traditional owner nominee
Alison Carroll	Traditional owner nominee
Rene Kulitja	Traditional owner nominee
Margaret Smith	Traditional owner nominee
Barbara Tjikatu	Traditional owner nominee
Johnny Tjingo	Traditional owner nominee
Reggie Uluru	Traditional owner nominee (proxy)
Windlass	Traditional owner nominee
Peter Cochrane	Director of National Parks
Vicki Gillick	Northern Territory Government nominee
Robert Kennedy	Minister for Resources, Energy and Tourism nominee
Vacant	Minister for the Environment, Heritage and the Arts nominee



A brown booby takes refuge on the cliffs of Christmas Island National Park

4 Corporate overview



The Minister

The Director of National Parks

Functions

Other responsibilities

The Minister

Prior to the Australian Federal Election of 24 November 2007, the Hon Malcolm Turnbull MP was Minister for the Environment and Water Resources. Following the election, as a result of a change in government, the Hon Peter Garrett AM MP was appointed as Minister for the Environment, Heritage and the Arts on 3 December 2007.

Ministerial responsibilities in relation to the Director of National Parks include: the approval of proposals for establishment of Commonwealth reserves and conservation zones under the EPBC Act; approval of management plans for Commonwealth reserves; establishment and appointment of members of boards of management for Commonwealth reserves jointly managed with Aboriginal owners; resolution of disputes between the Director and boards of management, and approval of Commonwealth reserve use fees and other charges.



Hon Peter Garrett AM MP at Namadgi National Park (an ACT government reserve), where he announced a \$180 million investment to accelerate the extension of Australia's National Reserve System. Minister Garrett is pictured here with Ngambri-Ngunnawal elder Matilda House Williams, who offered a traditional Welcome to Country at the launch, DEWHA graduate employee Clive Freeman and Matilda's granddaughter Krystal House.

The Director of National Parks

The Director of National Parks is a corporation sole established under Division 5 of Part 19 of the EPBC Act, and a Commonwealth authority for the purposes of the *Commonwealth Authorities and Companies Act 1997* (CAC Act). The corporation has a single director—the person appointed to the office named the Director of National Parks. The current office holder is Peter Cochrane.

The EPBC Act requires the Director to perform functions and exercise powers in accordance with any directions given by the Minister, unless the Act provides otherwise. Up to 30 June 2008 the Minister could also notify the Director under the CAC Act of general Government policies that are to apply to the Director (from 1 July 2008 such a direction is given by a General Policy Order issued by the Minister responsible for the CAC Act).

The EPBC Act provides for the proclamation and management of Commonwealth reserves and conservation zones. The term ‘Commonwealth reserve’ includes all the areas proclaimed under the EPBC Act with names such as national parks, marine parks, national nature reserves, marine national nature reserves, marine reserves and botanic gardens. This report generally uses the term ‘reserves’ to encompass all parks and reserves under the EPBC Act.

The Director of National Parks is responsible under the EPBC Act for the administration, management and control of Commonwealth reserves and conservation zones. The locations of the Commonwealth reserves and conservation zones are shown at Figures 1 and 2.

The Director is assisted by staff members of Parks Australia, a division of the Department of the Environment, Water, Heritage and the Arts. In 2007–08, under delegation from the Director, staff of the Australian Antarctic Division of the Department managed the Heard Island and McDonald Islands Marine Reserve while staff of the Marine Division managed the remaining Commonwealth reserves established in Commonwealth marine areas.

In this report, reference to Parks Australia refers to the Director of National Parks and Parks Australia staff members.

Functions

The Director is responsible for the administration of Divisions 4 and 5 of Part 15 of the EPBC Act (Commonwealth reserves and conservation zones) and Regulations made for the purposes of those divisions. The functions of the Director as set out in subsection 514B(1) of the EPBC Act are:

- to administer, manage and control Commonwealth reserves and conservation zones
- to protect, conserve and manage biodiversity and heritage in Commonwealth reserves and conservation zones

- to contribute to the protection, conservation and management of biodiversity and heritage in areas outside Commonwealth reserves and conservation zones
- to cooperate with any country in matters relating to the establishment and management of national parks and nature reserves in that country
- to provide, and assist in the provision of, training in the knowledge and skills relevant to the establishment and management of national parks and nature reserves
- to carry out alone or in cooperation with other institutions and persons, and to arrange for any other institution or person to carry out, research and investigations relevant to the establishment and management of Commonwealth reserves
- to make recommendations to the Minister in relation to the establishment and management of Commonwealth reserves
- to administer the Australian National Parks Fund
- any other functions conferred on the Director under any other Act
- to do anything incidental or conducive to the performance of any of the functions mentioned above.

Other responsibilities

The current holder of the office of the Director of National Parks has been delegated functions and powers by the Minister for the Environment, Heritage and the Arts and the Secretary of the Department of the Environment, Water, Heritage and the Arts for programs that complement the Director's statutory functions. Parks Australia staff members administer these programs.

Under these delegations, the Director administered the National Reserve System Program and the Indigenous Protected Areas Program, both funded by the Natural Heritage Trust. These program outputs are reported in the annual reports of the Natural Heritage Trust and the Department of the Environment, Water, Heritage and the Arts. Under section 45 of the *Natural Heritage Trust of Australia Act 1997* the Director has been delegated the power to approve proposals to spend moneys within the meaning of the *Financial Management and Accountability Act 1997* in relation to the Natural Heritage Trust Reserve, to the limit of program funds approved by the Minister.

The Director also manages the Australian Biological Resources Study, and the development of Australian Government policy on management of Australia's genetic resources and the administration of Part 8A of the EPBC Regulations that regulates access to such resources in Commonwealth areas. Outputs of both programs are reported in the Department's annual report.

5 Planning, reporting and performance



Director of National Parks strategic planning and performance assessment framework

Portfolio Budget Statements

Department of the Environment, Water, Heritage and the Arts strategic plan
and corporate plan

Parks Australia Divisional Plan

Management plans

Management plan implementation

Management plan prescriptions not to be implemented

Performance indicators

Table 9: Portfolio Budget Statements sub-outcome: Conservation
and appreciation of Commonwealth reserves

Director of National Parks strategic planning and performance assessment framework

This annual report is one element in the strategic planning and performance assessment framework for the Director of National Parks. Other framework elements are described in this chapter.

Portfolio Budget Statements

These documents detail Budget initiatives and appropriations against specific outcomes and outputs. The annual report completes the budget cycle by reporting on achievements for those outcomes and outputs in the year under review. The Director of National Parks is included in the Portfolio Budget Statements for the Environment, Water, Heritage and the Arts portfolio and contributes to the achievement of Outcome 1 (Environment):

The environment, especially those aspects that are matters of national environmental significance, is protected and conserved

The Director contributes to meeting this outcome through the sub-outcome:

Conservation and appreciation of Commonwealth reserves

There is one output identified under the sub-outcome:

Output 1.1: Parks and reserves

Table 9 reports performance information for Output 1.1 as identified in the Portfolio Budget Statements.

Detailed performance information for individual Commonwealth reserves is included in the State of the Parks chapter of this report.

Department of the Environment, Water, Heritage and the Arts strategic plan and corporate plan

The annual strategic plan outlines the key strategic issues for the Department. It identifies agency priorities to achieve the objectives outlined in the Department's three-year corporate plan. Both plans provide the direction, context and purpose for the activities and programs supported by the Department.

Parks Australia Divisional Plan

This plan sets down the long-term outcomes and shorter-term outputs for the Director against seven key result areas (KRAs), as follows:

- KRA1: Natural Heritage Management
- KRA2: Cultural Heritage Management
- KRA3: Joint Management
- KRA4: Visitor Management and Park Use
- KRA5: Stakeholders and Partnerships
- KRA6: Business Management
- KRA7: Biodiversity and Knowledge Management

Not all key result areas are relevant to all reserves. For example, KRA3, joint management, applies only to the three jointly managed reserves: Uluru-Kata Tjuta, Kakadu and Booderee National Parks. The State of the Parks chapter of this report provides performance information only on the key result areas that apply to individual reserves.

Strategies to achieve the outcomes in the Department's strategic and corporate plans are detailed in Parks Australia branch, section, work team and individual work plans and in management plan implementation schedules.

Management plans

Section 366 of the EPBC Act requires the Director, or in the case of a jointly managed park, the Director and the relevant board of management, to prepare management plans for Commonwealth reserves.

Management plans provide for the protection and conservation of the reserve. They must state how the reserve is to be managed and how the features of the reserve are to be protected and conserved.

As at 30 June 2008, the Director was responsible for the management of 33 Commonwealth reserves, 15 of which had management plans in place. Fourteen of the marine reserves without a current management plan were declared in 2007. They have interim management arrangements in place until suitable plans are finalised in consultation with the public and stakeholders. A further 4 reserves are being managed in accordance with the intent of their previous management plans, or in a manner consistent with their IUCN category, until replacement plans are finalised. A single management plan is being proposed for the whole of the South-east Marine Planning Region, including Macquarie Island Commonwealth Marine Reserve (14 reserves in total). A draft management plan for Uluru-Kata Tjuta National Park is expected to be released for public comment in late 2008, following extensive consultation with traditional owners and a wide range of stakeholders.

Management plan implementation schedules

Implementation schedules are part of the planning and performance assessment framework for terrestrial reserves. The schedules contain all the prescriptions (policies and actions) identified in a management plan. Each action-based prescription can be broken down into projects and tasks and given a timeframe. These projects and tasks can be assigned to staff members and incorporated into individual performance agreements.

A database version of an implementation schedule is being used in Booderee and Kakadu National Parks and is being introduced in the Norfolk Island National Park and Botanic Garden following the commencement of a new management plan earlier this year.

Management plan prescriptions not to be implemented

During the life of a management plan some prescriptions may not be implemented because, for example, they have become redundant, impractical or there is a lack of resources.

The Solitary Islands Marine Reserve Management Plan 2001, which expired on 3 April 2008, stated that trawling and purse-seine fishing would be phased-out in the General Use Zone of the reserve during the life of the management plan. In that same period the Government committed to the development of Bioregional Marine Plans for Commonwealth waters. The bioregional plans aim to provide guidance on various statutory obligations under the EPBC Act, describe what conservation measures will be put in place, and identify potential new Commonwealth marine reserves. It is proposed to incorporate a number of existing Commonwealth marine reserves, such as the Solitary Islands Marine Reserve, into the Eastern Commonwealth Marine Reserve Network, which will be managed under the Eastern Bioregional Marine Plan.

The plan will consider the implications of activities and impacts across the whole region, including the existing reserves, and the proposed phase-out of trawling and purse seining from the Solitary Islands Marine Reserve. The NSW government is also reviewing zoning in the adjoining NSW Solitary Islands Marine Park (State waters), which may impact upon management prescriptions. It will be more effective and efficient to deal with any structural adjustment issues resulting from the establishment or rezoning of Commonwealth marine protected areas in the eastern bioregion in one process, taking into account the findings of the NSW review.

Performance indicators

Performance indicators have been used to provide more detailed performance reporting against identified outcomes (see Table 9). As in previous years, brief reports on performance against key result areas and outcomes listed in the Parks Australia Divisional Plan are shown in the State of the Parks section of this report. More detailed information on each reserve is available via the website: www.environment.gov.au.

Table 9: Portfolio Budget Statements sub-outcome: Conservation and appreciation of Commonwealth Reserves

KRA1: Natural Heritage Management
Outcomes
1.1 Natural values for which Commonwealth reserves were declared and/or recognised have been maintained
1.2 The impacts of threats to natural values have been minimised
Performance indicators
<ul style="list-style-type: none"> • Regular targeted monitoring of key values and threats undertaken • Number of taxa in cultivation in botanic gardens as proportion of total number of species in taxonomic; ecological and geographic; and horticultural themes in the collection policy
Results for 2007–08
<i>Reserve management</i>
<ul style="list-style-type: none"> • Management of all Commonwealth reserves was carried out in accordance with the requirements of the relevant Australian IUCN reserve management principles set out in the EPBC Regulations • Management plans for reserves continue to be developed and implemented in line with the EPBC Act requirements. The Norfolk Island National Park and Botanic Garden Management Plan was finalised. Work commenced on the preparation of a number of new plans for Commonwealth reserves • Preparation of regionally focused recovery plans for Norfolk Island National Park and Botanic Garden and Christmas Island National Park continued. Completion is expected in 2008–09 • The ANBG contributed to a review of seed banking in Australia, in cooperation with State and Territory botanic gardens and the Kew Gardens <i>Millennium Seed Bank</i> project. The aim is to develop a long term national germplasm strategy • The ANBG grows 6,339 taxa out of an estimated 20,000 Australian plants that comprise the potential taxonomic, ecological and horticultural themes of the collection. The number of taxa in the living collection has fallen by 5 per cent, as nursery activities were reduced during the year in response to the continuing regional drought, compliance with local water restrictions and the increasing cost of water resources
<i>Monitoring efforts</i>
<ul style="list-style-type: none"> • Biodiversity monitoring at Booderee had positive results, with indicator species stable or increasing. For the third year running, the threatened green and golden bell frog (<i>Litoria aurea</i>) was not recorded in the park. High numbers of key indicator species suggest that fox baiting is succeeding • Monitoring of the distribution of Pipistrelle bats (<i>Pipistrellus murrayi</i>) on Christmas Island has indicated an apparent decline in population numbers. Further monitoring will determine whether the unfavorable results may be due to the movement of bat communities to other foraging and roosting areas • Studies of estuarine crocodile (<i>Crocodylus porosus</i>) populations and nesting flatback turtles (<i>Natator depressus</i>) in coastal areas of Kakadu continued. A review of crocodile survey data gathered over 10 years has been finalised and the results will be available in 2008–09 • A collaborative project between Kakadu National Park and the NT Biodiversity Conservation Division commenced, involving targeted surveys of threatened species in recognised biodiversity hotspots in the park. Results indicate a significant ongoing decline in some mammal species across northern Australia, including within the park. Continuing research and monitoring efforts are being supported to determine the cause of these declines

KRA1: Natural Heritage Management

Results for 2007–08 – continued

- Monitoring and recording nest sites and chicks for the Norfolk Island green parrot (*Cyanoramphus novaeseelandiae cookii*) and morepork (boobook, *Ninox novaeseelandiae undulata*) owl include was undertaken at Norfolk Island National Park. Numbers of new birds are now increasing following a decline in breeding numbers over the past 5 years
- The annual survey of tjakura (great desert skink, *Egernia kintorei*) occurred in March 2008. An increased number of burrows were counted this year. However, there was a marked decrease in breeding burrows, leading to concerns that predation is affecting population growth rates
- In April 2008, the fourth survey of the captive breeding population of mala (rufous hare wallaby, *Lagorchestes hirsutus*) found 25 new individuals among the 52 animals captured
- Initial results from sea snake monitoring by Charles Darwin University indicate a decline in sea snake populations at Ashmore Reef. A follow-up survey in March 2007 (to take seasonal variation into account) confirmed this trend
- Significant progress was made in the 3 dimensional underwater mapping of the Solitary Islands Marine Reserve and the Cod Grounds Commonwealth Marine Reserve. Grey nurse shark (*Carcharias taurus*) numbers were monitored at the Cod Grounds as part of a broader study into the distribution and population of the species along the east coast of Australia. The Port Macquarie Underwater Research Group also undertook dives to monitor and photograph species at the Cod Grounds, with the aim of identifying major species occurring in the reserve
- Research programs are underway at Coringa-Herald National Nature Reserve to improve understanding of the *Pisonia* forest ecosystem, the terrestrial invertebrate fauna, sea turtle population dynamics and behaviour, and marine biodiversity. Departmental staff members and a consulting botanist/entomologist detected no measurable permanent deforestation of *Pisonia* by insect pests
- James Cook University and C&R Consulting undertook coral reef health assessments at Coringa. They reported a slow recovery and continued low percentage of live coral cover. This appears to be typical of oceanic reefs similar to those in the reserve
- Subsurface sea temperature loggers were installed and exchanged at Commonwealth marine reserves as part of a large ongoing temperature monitoring program. The project trialled the use of satellite imagery to map and classify habitats, produce and ground-truth bathymetric maps, and detect progressive changes in terrestrial and marine habitats
- In 2008 the condition of the reef systems at Elizabeth and Middleton Reefs was assessed. The reserve is considered to be in generally good health, with little bleaching, and very little evidence of crown-of-thorns starfish (*Acanthaster planci*) activity. The number of black cod (*Epinephelus daemeli*) appears to be stable and high numbers of Galapagos sharks (*Carcharhinus galapagensis*) were observed during recent surveys
- A survey in the Benthic Protection Zone of the Great Australian Bight Marine Reserve indicated that there are 240 species from eleven phyla present; less than half of which can be identified to species level. The data collected from this, and an earlier 2002 survey, will contribute to a 20-year performance assessment program for the zone
- Monitoring at Mermaid Reef has indicated that the major threats are from climatic disturbances, such as cyclones and coral bleaching, and human impacts, such as anchoring and pollution. Fishing has also been identified as a potential pressure on Mermaid Reef
- Two research projects were undertaken during the year to obtain baseline biological information for several of the reserves in the South-east Marine Reserve Network. These projects are continuing, with the results expected in late 2008

KRA1: Natural Heritage Management

Results for 2007–08 –continued

Management of invasive species

- 120 hectares of yellow crazy ant (*Anopolepis gracilipes*) super-colonies and 190 hectares of invasive woody weeds were treated on Christmas Island. In addition, 22,000 trees were planted as part of the rehabilitation of a former phosphate mining site
- In Kakadu, monitoring and control of introduced plants continued, including mimosa (*Mimosa pigra*), mission grass (*Pennisetum polystachion*), olive hymenachne (*Hymenachne amplexicaulis*), salvinia (*Salvinia molesta*) at Yellow Water and gamba grass (*Andropogon gayanus*). Of these, salvinia and mission grass continue to be major challenges for the park. Two relatively new weed species in the park were also targeted: snakeweed (*Stachytarphetta*) and knobweed (*Hyptis capitata*)
- Parks Australia supported an ongoing study of the impact of cane toads (*Bufo marinus*) on native frog populations in Northern Australia
- The Weed Control Strategy for the Preservation and Protection of the Endangered Plants of Norfolk Island was reviewed and monitored to ensure its effectiveness
- Approximately 20 hectares of buffel grass (*Cenchrus ciliaris*) was removed from Uluru with the assistance of traditional owners and Conservation Volunteers Australia

Species relocation

- Kakadu staff members supported a NT Government project to relocate golden bandicoots (*Isodon auratus*) from the Northern Territory to an offshore island
- The first stage of the Recovery Plan for the Cocos buff-banded rail (*Gallirallus philippensis andrewsi*) was carried out in March 2008. The goal is to establish a second viable population within the Cocos (Keeling) Islands group



KRA2: Cultural Heritage Management

Outcomes

- 2.1 Cultural heritage values, both Indigenous and non-Indigenous, for which parks were declared or are recognised have been protected and conserved
- 2.2 Living cultural traditions are being maintained
- 2.3 The impacts of threats to cultural values have been minimised
- 2.4 Wide awareness and appreciation that parks are managed and presented as living cultural landscapes and seascapes

Performance indicators

- Adequacy and currency of inventories of cultural sites
- Level and nature of support provided by park management to maintain and promote traditional cultural values
- Histories, prehistories and knowledge recorded (oral, written and pictorial) where culturally appropriate

Results for 2007–08

- Substantial work was undertaken on monitoring and managing cultural heritage sites throughout Kakadu and Uluru-Kata Tjuta National Parks. This included visits to remote sites by traditional owners and staff members
- At Kakadu, staff added to existing oral history recordings and continued the development of a cultural heritage sites register, with the support and involvement of traditional owners
- The *Ara Irititja* database was maintained and further updated at Uluru. *Anangu* regularly accessed this popular database throughout the year. Staff members worked with senior *Anangu* to enter information and stories in the database. Images of Uluru from the Mountford Collection were added to the Cultural Sites Management System and *Ara Irititja* database
- A partnership agreement was developed between the National Archives of Australia and the Director, for the long-term storage and protection of audio and video materials currently held at Kakadu
- Discussions were commenced with the Aboriginal Areas Protection Authority and Northern Land Council about a register of sites of significance in Kakadu, and protocols for access to them
- Cultural site management plans were produced at Uluru following conservation assessments of all public sites by a specialist conservator
- Workplans were developed at Kakadu for rock art monitoring and maintenance
- The *Gun-mayali* ('sharing of knowledge') Room was established at Kakadu headquarters, for use by *Bininj* when accessing cultural materials and records
- The Cultural Heritage GIS database for Booderee National Park was maintained and updated
- A draft cultural heritage strategy for Booderee was finalised
- Cultural interpretation sessions were conducted at Booderee as part of the program for spring, summer and autumn school holiday activities
- Support was provided to Indigenous communities for events celebrating Indigenous culture and community spirit

KRA3: Joint Management

Outcomes

3.1 Joint management has been practised through:

- implementation of lease provisions and prescriptions contained in management plans
- implementation of relevant decisions made by boards of management
- growing capacity and increasing participation of traditional owners in park management
- positive, harmonious relationships

Performance indicators

- Number of traditional owners and relevant Aboriginal people employed directly and indirectly
- Training provided for and undertaken by traditional owners and relevant Indigenous people (staff, contractors and community people)
- Contribution of Aboriginal enterprises operating in parks
- Proportion of board of management actions addressed within agreed timelines

Results for 2007–08

- The Director, boards of management and Parks Australia staff members continued to work closely with traditional owners and relevant land councils to increase traditional owner participation in the control and administration of jointly managed national parks
- Quarterly meetings of the boards of management for Kakadu and Uluru were held to discuss management of the parks. Special meetings were held to discuss the preparation and implementation of management plans and other issues
- The Booderee National Park Board of Management was unable to meet during the year, however consultation with key traditional owners on management issues continued. The board met in August 2008 following the appointment of new members
- Skill development and training for relevant Aboriginal staff continued via completion of a range of internal and external courses, including workplace English language and literacy training
- Programs to engage young Aboriginal people in educational activities and the Junior Ranger Program were continued in cooperation with local schools
- Community Development Employment Projects (CDEP) commenced at Booderee Botanic Gardens, involving youths from Wreck Bay. Vincentia High School's *Students At Risk* program was also supported through the provision of work experience at Booderee National Park
- Kakadu supported Aboriginal enterprise development and involvement in tourism ventures such as: Werenbun Tourist Information, Wurrng Cultural Walk, Guluymambi Boat Cruise, Kakadu Culture Camp, Gunlom Kiosk, Hawk Dreaming and Murdujul Art Centre
- The draft *Anangu* Intergenerational Employment Strategy for Uluru was prepared. The Strategy aims to provide support and opportunities for *Anangu* to engage in park activities and gain employment in park management
- Wreck Bay Enterprises Ltd contractors undertook \$512,000 of capital works in Booderee
- Across the three jointly managed parks 54 Indigenous staff were employed in ongoing and non-ongoing positions. In addition, the parks employed over 200 Indigenous people as casual staff and through contractors and Indigenous enterprises that provide services to the parks
- Seventeen Indigenous enterprises are now operating in the jointly managed parks

KRA4: Visitor Management and Park Use

Outcomes

- 4.1 Visitors to Commonwealth reserves enjoy inspirational, satisfying and safe experiences
- 4.2 Visitor impacts (on reserve management, values, the environment and other visitors) are within acceptable levels
- 4.3 Public awareness and appreciation of the values of Commonwealth reserves have been enhanced
- 4.4 Commercial operators provide a high quality service to park visitors

Performance indicators

- Annual numbers, types and demographics of park visitors
- Annual numbers and demographics of people participating in educational, interpretive and other programs
- Levels of satisfaction of park users

Results for 2007–08

- An estimated 1.47 million people visited Commonwealth reserves. Kakadu had an 8.7 per cent increase in visitation. However, visitor numbers at both Uluru and the ANBG fell by around 1.5 per cent
- Booderee staff delivered 122 school holiday interpretation sessions, focussing on Aboriginal cultural values and conservation themes, with 3,401 attendees. A further 50 interpretation sessions were delivered to primary schools, high schools and special interest groups, with 1,289 attendees in total
- Staff and traditional owners at Uluru delivered 150 presentations to visitors at the park Cultural Centre
- Kakadu continued to deliver well-regarded seasonal interpretive ranger programs during the dry season, incorporating natural and cultural content
- Visitor surveys were conducted at Booderee, Kakadu and Uluru-Kata Tjuta National Parks. Results indicated that over 91 per cent of visitors were 'satisfied or very satisfied'. Over 39 per cent of visitors were 'very satisfied' with their experience
- A new brand was developed for Kakadu, following intensive consultation with traditional owners and the tourism industry. It includes a new logo for the park, new uniforms for park staff members, a new Visitor Guide and a dedicated web site (www.kakadu.com.au)
- A draft tourism master plan for Kakadu was prepared during the year and has been released for public comment. The plan seeks to address the park's target market and also scopes opportunities for an increased contribution by indigenous businesses
- Considerable investment was made in the upgrade of visitor infrastructure and facilities throughout the terrestrial reserves. Examples include: completion of stage one of a \$15 million viewing and day-use area at Uluru; extensive road construction, repair and resurfacing; replacement of infrastructure at Booderee, following fire damage at Cave Beach; creation of a new creek crossing at Jim Jim Creek; new signage and interpretive displays; and upgrades and repairs to walking tracks
- A new Parks Australia office was established on Home Island in the Cocos Islands, to provide greater access for the majority of the local population and visitors, to maximise opportunities to provide community education, and to encourage responsible use of Pulu Keeling National Park
- Booderee National Park was awarded a Distinction in the Tourist and Caravan Park (up to four-star) category at the South Coast tourism excellence awards. The park's iconic Murray's Beach was named the South Coast's most environmentally-protected beach in the Keep Australia Beautiful–Clean Beach Awards

KRA5: Stakeholders and Partnerships

Outcomes

- 5.1 Volunteers contribute to area management based on clearly defined roles
- 5.2 Stakeholders, e.g. neighbours, state agencies and park user groups, are involved in and contribute effectively to park management activities
- 5.3 Commercial partnership opportunities are encouraged and evaluated

Performance indicators

- Annual contribution to active partnership effort
- Consultation with stakeholders and partners
- Level of satisfaction of the Minister

Results for 2007–08

- Effective engagement and consultation with stakeholders, volunteers and communities continued. This included national and regional tourism organisations, industry groups, universities, non-government organisations and community groups
- Partnerships with research organisations continued, including scientists in the Northern Territory Parks and Wildlife Service, CSIRO, the Australian Institute of Marine Science, James Cook University, the Australian National University, Charles Darwin University and the University of Queensland
- Constructive partnerships in managing Commonwealth reserves continued with: relevant state government agencies, the Department of Defence, the Department of Agriculture, Fisheries and Forestry and the Australian Customs Service
- Meetings were held with a broad range of stakeholders to discuss the preparation of new and outstanding management plans for Commonwealth reserves, seeking their views and suggestions
- Highlights for the year included:
 - further progress in the National Landscapes partnership with Tourism Australia, including the launch of the first eight candidate areas, following a series of highly successful workshops with regional stakeholders
 - continuation of the close collaboration between the ANBG seedstore and Greening Australia, including joint field collecting, seed storage and management. The ANBG also provides Greening Australia with ground space and irrigation for seedling production
 - an ongoing constructive high-level relationship between the Australian and NT governments continued, with joint funding and planning to promote tourism in our northern reserves, and a partnership in employment and training
 - a contract with WWF Australia was entered into, for the delivery of the agreed 2008–09 operational plan for the tri-national wetlands agreement between Indonesia, Papua New Guinea and Australia
 - the ANBG took a leadership role within the Council of Heads of Australian Botanic Gardens by coordinating a climate change workshop, resulting in a draft national climate change adaptation strategy and action plan for botanic gardens
 - the Marine Division hosted a two-day workshop in May 2008, on science for managing remote coral reef marine protected areas. The workshop was attended by reserve managers, scientists and representatives from the Coral Triangle Initiative

KRA6: Business Management

Outcomes

- 6.1 Planning and decision-making is based on best available information; legislative obligations and Government and DNP policies
- 6.2 Financial and business management is based on better practice and Government requirements
- 6.3 High levels of staff expertise and performance is recognised and valued
- 6.4 Obligations under the EPBC Act and Regulations relating to management of Commonwealth reserves are complied with

Performance indicators

- Extent to which management plans are implemented
- No 'A' or 'B' findings from the annual ANAO audit of Director of National Parks financial statements
- Successful operation of business continuity plan
- Annual number of reportable incidents involving staff and park users
- Expenditure does not exceed budget

Results for 2007–08

- Management plans for reserves continue to be developed and implemented in line with EPBC Act requirements
- There were no 'A' or 'B' findings from the ANAO audit of the financial statements
- The business continuity plan was not called upon during the year
- Total recorded staff member and visitor incidents were comparable with 2006–07
- Risk watch lists for each park or business unit were regularly reviewed in accordance with the Director's Risk Management Policy
- The Auditor-General issued an unqualified audit report for the 2007–08 financial statements of the Director of National Parks
- Expenditure did not exceed income
- The Director and Parks Australia continued to strive to meet best practice standards in the management of Commonwealth reserves
- Kakadu and Uluru implemented outcomes of an independent organisational review. The review was aimed at allocating and prioritising resources to meet the aims of the park lease agreement and management plans
- Terrestrial reserves implemented energy and water conservation measures, towards reducing greenhouse gas emissions and overall expenditure

KRA7: Biodiversity Knowledge Management**Outcomes**

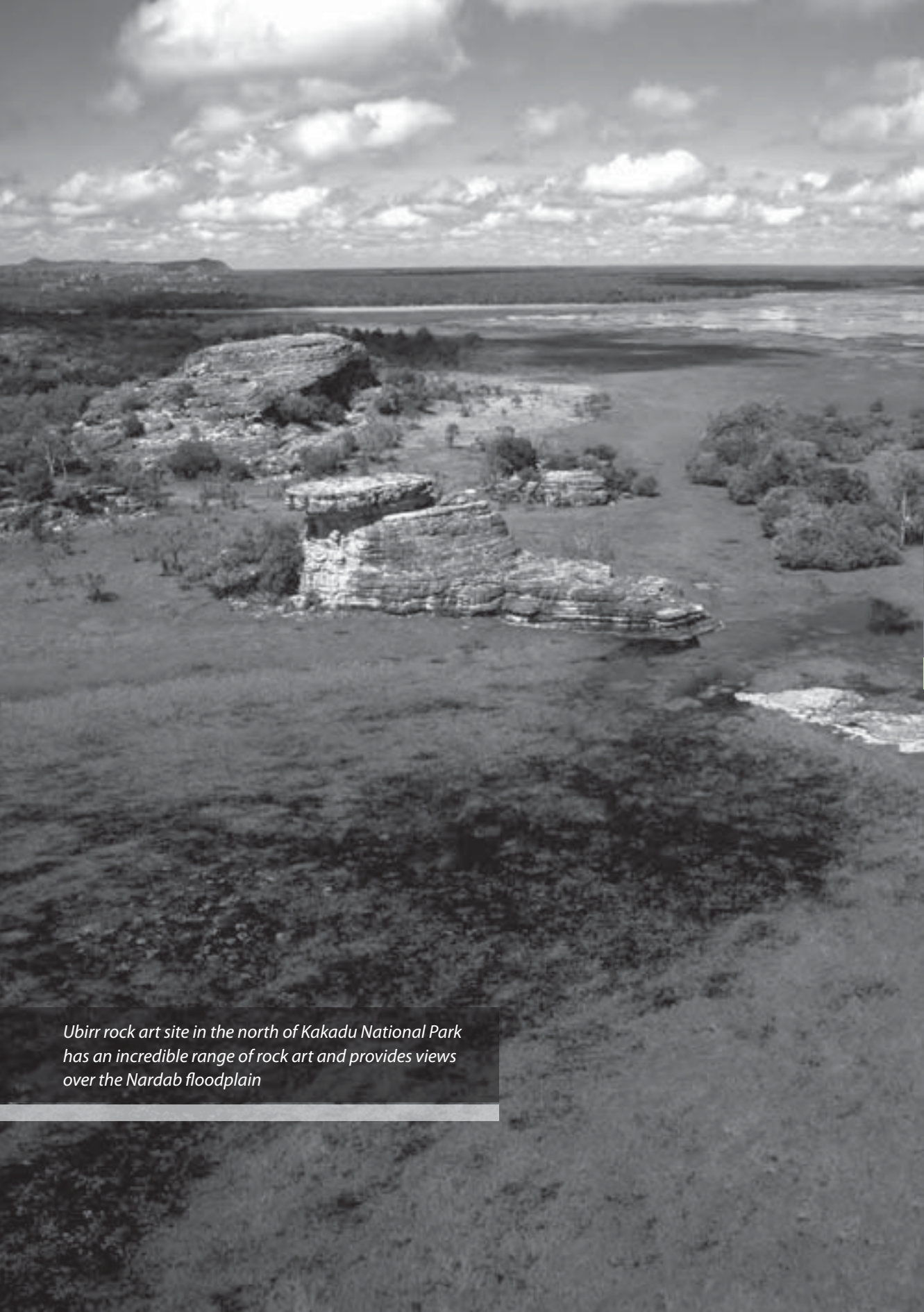
High quality, comprehensive and current information is available to park visitors and managers to facilitate and foster understanding, appreciation, sound conservation and appropriate use of Australian biodiversity

Performance indicators

The number of biodiversity information publications and resources provided

Results for 2007–08

- Information about each Commonwealth reserve is available in hardcopy and electronically
- On average, the Parks Australia web site (www.environment.gov.au/parks) was accessed 1,940 times each day, a 21 per cent increase over 2005–06. The web site was overhauled during the year, to provide interactive and updated content
- The ANBG web site (www.anbg.gov.au) received a daily average of 41,000 hits per day
- A new visitor guide and web site for Kakadu (www.kakadu.com.au) were developed as part of the recent branding exercise
- The ANBG added 38,518 herbarium specimens to the database and curated approximately 6,000 herbarium specimens, for accession to the *Australia's Virtual Herbarium* project
- An agreed list of scientific names for Australia's flowering plants was produced and maintained through management of the *Australian Plant Name Index* and the national collaborative *Australian Plant Census* project. The project was partially funded through the Natural Heritage Trust and endorsed by Australian Government, State and Territory herbaria. 'Born-digital' images now contribute significantly to the *Australian Plant Image Index*, which is available to the public via the web
- Researchers completed scientific papers or publications resulting from research undertaken at the Australian National Herbarium. Areas of study included Australian Orchidaceae, Rutaceae, Myrtaceae, Malvaceae, Santalaceae and the bryophytes
- A Botanical Resource Centre was established at the ANBG, enabling the public to identify flora through the use of electronic media, microscopes and specimens
- The Marine Division is developing education kits consisting of a DVD, booklet and poster series. These kits introduce the community to the benefits of marine conservation and the role of MPAs. The intent of the kit is to provide the community with information on the values of the reserves, how they are managed and importantly, influencing positive behaviour and attitudes toward marine conservation management.
- Information brochures on Commonwealth marine reserves were distributed to key stakeholders, including researchers and commercial tour operators, which included details of effective quarantine measures to be undertaken by visitors and the importance of observing them



Ubirr rock art site in the north of Kakadu National Park has an incredible range of rock art and provides views over the Nardab floodplain

6 State of the Parks report



Guide to the State of the Parks report

Chapter index

Individual reports for Commonwealth reserves

Guide to the State of the Parks report

The State of the Parks report presents systematic and consistent background information on each Commonwealth reserve proclaimed under the EPBC Act and for Calperum and Taylorville Stations.

The following information is common to the reports on each place:

- **Area and locational information** is derived from the Collaborative Australian Protected Areas Database and from a departmental Marine Protected Areas dataset—which includes data sourced from Geoscience Australia
- The World Conservation Union (**IUCN**) **protected area management category** is identified for each reserve, and where some of the reserve are assigned to different categories this is indicated. The IUCN categories are formally assigned under the EPBC Act, and schedule 8 of the EPBC Regulations defines the Australian IUCN reserve management principles applying to each category.
- Where possible, each reserve's **biogeographic context** is described by reference to the national biogeographic regionalisations: terrestrial (Interim Biogeographic Regionalisation for Australia) or marine (Interim Marine and Coastal Regionalisation for Australia).
- The report summarises the relevance of **international agreements** to each reserve, recognising both the international significance of the reserves and the Director's legal responsibility to take account of Australia's obligations under each agreement.
- The report summarises the occurrence in each reserve of **species listed under the EPBC Act** as threatened, migratory or marine, and the status of relevant recovery plans.
- Information on the **total number of different types of plant and animal species recorded** for each place is included, to the extent of available knowledge. The species information for the six terrestrial national parks includes the numbers of species which are a priority for management (defined as being all threatened species plus non-threatened species for which the park contains more than 1 per cent of its population). Species numbers for marine reserves have been taken from a recently developed species inventory based on documented sightings in the reserves and adjacent areas. The marine inventory is relatively new and is being updated and refined. Species numbers for marine reserves are likely to be underestimated.
- Monitoring is a key aspect of successful park management, and **major monitoring efforts** for the year are reported.
- Future planning is ongoing, and **future challenges** are reported for each area.
- **Management arrangements** (such as boards of management, committees, and management agreements with state agencies) are described.
- The report provides information by **key result area** on major issues, actions and performance results for 2007–08.

Also included in this section are **case studies** that provide more detailed reporting on management of specific issues.

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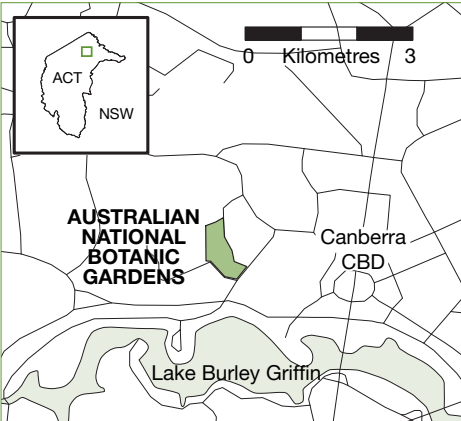
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Australian National Botanic Gardens

www.anbg.gov.au



Special features

The Australian National Botanic Gardens (ANBG) is a major scientific, educational and recreational resource. It was one of the first botanic gardens in the world to adopt the study and display of a nation’s native species as a principal goal. Approximately one-third of the known flowering plant species that occur in Australia and about half the known eucalypt species are represented in its living collection. The ANBG is a national showcase for the horticultural use of Australia’s native plants.

The ANBG contributes to meeting Australia’s obligations under international environment conventions to which Australia is a signatory. In particular, the *Convention on Biological Diversity* recognises the importance of botanic gardens in *ex situ* and *in situ* conservation, research, training, plant identification and monitoring, raising public awareness, providing access to genetic resources, and global cooperation in the sustainable use of plant biodiversity.

Location	Latitude 35°16’ South, Longitude 149°06’ East
Area	85 hectares
Proclamation date	17 September 1991
IUCN category	Category IV
Biogeographic context	Displays plants from a diverse range of climatic and biogeographic regions—alpine to tropical, coastal to central desert
Management plan	Second plan of management expires 9 January 2009
Other significant management documents	Management Plan Implementation Schedule; Risk Assessment and Management Schedule; ANBG Masterplan (National Capital Authority); Emergency Response Procedures Manual June 2005; ANBG Fire Procedures 2006; kangaroo and wallaby management plans; ANBG Education Service Policy; ANBG Photograph Collection Policy; Agreement for the Establishment and Operation of the Centre for Plant Biodiversity Research (CPBR) between the Director of National Parks and the CSIRO; CPBR Strategic Plan

Financial	Operating	\$9.422 million
	Capital	\$0.473 million
	Revenue	\$0.670 million
Visitors	501,400 to site 96,000 to visitor centre	
Living plants	Planted in 2007–08: 4,535 Total number of taxa in the living collection: 6,339 Total number of registered plants in the living collection: 78,146	
Herbarium specimens	Specimens added to database in 2007–08: 38,518 Total number of specimens in collection: approximately 1.2 million	
Australian Plant Image Index	Added in 2007–08: 4,027 Total number of photographs in collection: 40,000	
Permits	4 commercial activity permits; 45 wedding or wedding photography licences; 100 licences to publish 509 photographs from the collection.	

International conventions and agreements

World Heritage Convention	Supports Australia's World Heritage sites through botanical research, scientific plant collections, plant identification, botanical information management, and horticultural and educational programs
Wetlands (Ramsar) Convention	Supports Australia's obligations under the Ramsar Convention through access to plant identification services and data on aquatic plants in the Australian National Herbarium, and by delivering information on Australia's aquatic plants through its website
Other agreements	Collaborates with international organisations including: <ul style="list-style-type: none"> • International Association of Botanic Gardens • International Association of Plant Taxonomists • International Plant Propagators Society • International Union of Biological Sciences Taxonomic Databases Working Group • International Plant Name Index (Royal Botanic Gardens, Kew, and Harvard University) • Global Biodiversity Information Facility • International Organisation for Plant Information World Vascular Plant Checklist Project • Species 2000

Environment Protection and Biodiversity Conservation Act 1999

Heritage	On Commonwealth Heritage List
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Centre for Plant Biodiversity Research

The Centre for Plant Biodiversity Research is a joint venture between the ANBG and CSIRO Plant Industry. It was formed in 1993 and cooperative arrangements were renewed for a further 10 years in 2000.

The Australian National Herbarium is the core of this facility, housing voucher specimens for research, environmental studies and for the ANBG living collection. Databases support the living, herbarium, and photograph collections. The herbarium is a major contributor to the network of Australasian herbaria, to *Australia's Virtual Herbarium*—a national project involving all states and territories—and to the *Australian Plant Census* project that is developing a national endorsed list of scientific names for Australian plants. It is a key contributor to the *Taxonomy Research and Information Network* and the *Atlas of Living Australia*.

Monitoring

The ANBG's horticultural planting is scientifically documented through voucher specimens in the Australian National Herbarium. A team of botanists, including national and international collaborators, ensure that the correct botanical names are always applied to the living specimens and used in public interpretation. New collection accessions help document the occurrence and distribution of plants in Australia.

A specialised database system (the *Integrated Botanical Information System*) helps to maintain essential links between specimens in the herbarium, contemporary scientific literature, the living plants in the gardens and the photographs in *Australian Plant Image Index*.

A team of ANBG staff regularly stocktake its living plant specimens, recording plantings, locations and deaths, plus the overall health of the collection.

Future challenges

Major challenges are:

- ANBG sustainability—defining the operational and business model that will secure sufficient resources to achieve government and national priorities
- developing a new strategic plan for the ANBG, with a long term (50 year) vision, and completing a new management plan in accordance with the EPBC Act
- water management because of the continuing drought and sharp increases in unit water costs in Canberra. Funding of \$1.5 million has been allocated to upgrade water infrastructure. Access to a sustainable supply of non-potable water is fundamental to this upgrade

- integrating climate change considerations into ANBG operational management. This includes the management of water, horticultural practices, Australian plant climate change impacts and adaptation, the education role and the scope of the living collections held in Canberra
- calculating a financial, social and environmental value for the living, herbarium and photograph collections. Valuation will help to ensure the collections are adequately resourced
- maintaining the ANBG's role as a tourist attraction in the face of water restrictions. Lawn-dependent visitor attractions, such as the Friends of the ANBG's summer concerts, will require careful management
- the Centre for Plant Biodiversity Research, which will conclude its current operational and funding agreement on 31 December 2009. The role and effectiveness of the Centre will be reviewed before a new agreement is negotiated between the Director of National Parks and CSIRO
- accommodation space for the collections of the Australian National Herbarium has become critical. The current arrangements with their lack of workable space are becoming dysfunctional. A major capital funding proposal for building extension must be negotiated with both CSIRO and the Department of the Environment, Water, Heritage and the Arts (DEWHA)
- completion of the *Australian Plant Census* project to produce a list of flowering plant names for the whole of Australia that is endorsed by the Australian Government and the state and territory herbaria. The project coordinator is located at the Australian National Herbarium. Although the project will be ongoing, the first phase is due for completion in 2010, when all families will have been reviewed. So far 244 families representing about 58 per cent of the flowering plants have been treated
- implementing the next phase of *Australia's Virtual Herbarium*. Funding for the first phase has ended and the ANBG is working with state and territory herbaria and museums to build on the project through new national infrastructure proposals
- biodiversity information management as part of the *Atlas of Living Australia* and the *Taxonomic Research and Information Network*. Modern information technology is being engaged to improve the efficiency and productivity of taxonomy and systematics research on the Australian flora.



Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Water management and associated infrastructure
- *Ex situ* conservation
- Plant records and census of living plant collection
- Introduction of GIS to living collection management

Actions

- Increase water use efficiency
- Commence review of the scope and operations of the living collections
- Position the ANBG as a leader in *ex situ* conservation including seed banking
- Accelerate census of the living collection
- Use GIS to accurately map the living collection

Performance results 2007–08

- The ANBG put considerable effort into securing a more sustainable water supply. The Government has committed \$1.5 million to address the ANBG's water infrastructure needs as part of the National Water Security for Towns and Cities program
- Project planning and tender processes for major water infrastructure improvements have been completed and will be implemented next year
- The efficient application of water to garden beds was refined. This included the use of ornamental pools as reservoirs for recycling run-off water from the site, increased use of water-sensors to determine and refine watering regimes and increased use of mulch to reduce evaporation
- An external consultant was engaged to develop a draft framework for a comprehensive review of the ANBG living collection and its interaction with other associated ANBG collections
- Initiated a program for *ex situ* conservation of alpine plants with an emphasis on germplasm storage under controlled and cryogenic conditions. During the year 10 field trips to the Kosciuszko area were undertaken, resulting in 287 seed samples being stored
- The ANBG contributed to a review of seed banking in Australia in cooperation with State and Territory botanic gardens and the Kew Gardens *Millennium Seed Bank* project, with the aim of developing a long term national germplasm strategy

- An accelerated stocktake was undertaken to complete a living plant census within the year as input to a comprehensive collection review. Staffing constraints have extended the likely completion date to October 2008
- The intended first phase of the ANBG's GIS implementation has been placed on hold due to funding constraints

KRA2: Cultural heritage management

Major issues

- Displaying the flora of Australia
- Education related to the flora of Australia

Actions

- Display the flora of Australia in a horticultural setting
- Provide cultural interpretation and education programs about the Australian flora

Performance results 2007–08

- The ANBG displays about one-third of the plant species occurring naturally in Australia in a managed horticultural setting. Water restrictions imposed during the recent drought placed much of the collection under stress and, coupled with staff losses, resulted in some loss of plant specimens, contraction of planted areas and decline in some horticultural displays
- A project was initiated to develop and document techniques to grow attractive native annuals and Sturt's desert pea (*Clianthus formosus*) as high-impact display plants. The public will be able to view them in spring and summer. Interpretation and horticultural extension will be a major part of this project
- The cultural values of Australian native plants were promoted with exhibitions in the visitor centre and elsewhere in the ANBG: 'Caring for Land', 'Friends School Photographic Exhibition', 'Local Colour', 'Botanical Art Group Exhibition', 'Growing Home, the Street Trees of Canberra', 'A Tree in the Palm of your Hand Bonsai Exhibition' and 'Snakes Alive!'
- 13,208 students attended the ANBG Education Programs, 4,074 families and individuals attended the Snakes Alive Exhibition, totalling 17,282 participants
- Commenced development of an Australian bush food plants trail and redevelopment of the Aboriginal Plant Use Walk
- Distributed approximately 300 copies of the education unit's poster on the floral emblems of Australia to schools and educators on demand

KRA4: Visitor management and reserve use

Major issues

- Visitor management
- Visitor safety

Actions

- Conduct visitor surveys
- Initiate a marketing plan
- Conduct an eastern brown snake survey

Performance results 2007–08

- Results from two major visitor surveys, conducted in conjunction with the Botanic Gardens of Australia and New Zealand and the National Capital Attractions Association, are being analysed for incorporation into the ANBG strategic planning process
- Implementation of a marketing strategy developed last year has been constrained by available resources
- Development commenced of a new policy on snake management within the public areas of the ANBG in response to the eastern brown snake survey

KRA5: Stakeholders and partnerships

Major issues

- Ongoing support for the Centre for Plant Biodiversity Research (CPBR)
- Servicing DEWHA's need for technical advice on native plants
- Supporting and participating in botanical forums: the Council of Heads of Australasian Herbaria, Council of Heads of Australian Botanic Gardens, Global Biodiversity Information Facility, Taxonomy Research and Information Network, Atlas of Living Australia and Taxonomic Databases Working Group
- The need to develop memoranda of understanding with non-government organisations associated with the ANBG
- Working with, and supporting, the Friends of the ANBG
- Supporting the Australian Cultivar Registration Authority (ACRA), the Australian Network for Plant Conservation (ANPC) and Greening Australia

Actions

- Continue to participate in the joint ANBG–CSIRO Centre for Plant Biodiversity Research
- Undertake and promote services that ANBG and CPBR can provide to DEWHA in the form of technical and expert advice

- Continue the Australian National Herbarium's leadership role in the Council of Heads of Australasian Herbaria
- Continue the ANBG's participation and strategic leadership in the Council of Heads of Australian Botanic Gardens
- Continue strategic partnerships and cooperative data management with the Taxonomic Databases Working Group and the managers of the *Global Biodiversity Information Facility*, *Taxonomy Research and Information Network*, and *Atlas of Living Australia*
- Formalise the strong relationship with non-government organisations located on site via memoranda of understandings
- Continue the partnership between the ANBG and the Friends of the ANBG
- Continue hosting on the ANBG website the Greening Australia Community Seedbank, the Australian Cultivar Registration Authority and the Australian Network for Plant Conservation

Performance results 2007–08

- The ANBG maintained its strong ties with CSIRO Plant Industry in jointly managing the Centre for Plant Biodiversity Research and the Australian National Herbarium
- The incorporation of the Atherton Annexe of the Australian National Herbarium into the new Australian Tropical Herbarium in Cairns resulted in new partnerships in its joint management with James Cook University and the Queensland Government Environmental Protection Agency. The Herbarium was opened on 4 March 2008
- The Australian National Herbarium continued to play a coordinating role on behalf of DEWHA for projects undertaken by the Council of Heads of Australasian Herbaria. These included developing weed profiles, endangered species profiles and the Australian Plant Census. The staff also updated profiles for threatened vegetation systems
- Took a leadership role within the Council of Heads of Australian Botanic Gardens by coordinating a climate change workshop. This resulted in a draft national climate change adaptation strategy and action plan for botanic gardens
- Ran a workshop on the role of botanic gardens in climate change education
- Continued membership of technical working groups under the Global Biodiversity Information Facility and Taxonomic Databases Working Group
- The CPBR continued its close association with the new *Taxonomy Research and Information Network*, housing its core staff and also participating in projects such as systematic and diversity studies of the weed Lantana and biodiversity information management

- The CPBR and *National Plant Image Index* assisted the new *Atlas of Living Australia* project through providing information technology advice, harvesting data, contributing images and initiating a demonstration on-line species information project featuring mangrove communities
- The ANBG participated in a national workshop on information standards for species profiles for on-line floras, faunas and species fact sheets. This will allow integration and sharing of information across institutions and collaboration in projects such as the *Atlas of Living Australia*
- At year's end, of the four non-government organisations on site only Greening Australia had a formal memorandum of understanding with ANBG
- The Friends of the ANBG ran the annual students' photographic competition and the autumn and spring plant sales; published quarterly newsletters; provided volunteer guided walks each day; and supported the ANBG's annual summer concerts in January 2008
- A new initiative between the Friends and the ANBG saw the establishment of the Botanical Resource Centre, a facility for the general public to identify plants using computer tools, microscopes and specimens. The Centre was opened by Her Excellency Mrs Marlena Jeffery on 15 May 2008
- The Australian Cultivar Registration Authority (ACRA), based at the ANBG, documents the nomenclature of cultivated plants. In October 2007, the International Society for Horticultural Science Commission approved the reappointment of ACRA as the official International Registration Authority for Australian plant genera for a further four years. ANBG initiated a strategic planning workshop for ACRA
- The Australian Network for Plant Conservation, based at the ANBG, continued to serve its network of members and provide workshops in plant conservation techniques throughout the country. During the year it produced four editions of its newsletter and ran three workshops
- Continued the close collaboration between the ANBG seedstore and Greening Australia, including joint field collecting, seed storage and management. The ANBG also provides Greening Australia with ground space and irrigation for seedling production

KRA6: Business management

Major issues

- Long term sustainability for the operation of the ANBG
- Budget management
- Staff management
- Risk management

Actions

- Major review of the functions and priorities
- Ensure business continuity and service delivery
- Manage staff resources efficiently
- Continue ongoing risk assessment

Performance results 2007–08

- An internal review commenced early in the year was discontinued. There was a need for a more comprehensive strategic analysis of the ANBG's role and directions in changing circumstances
- Increases in the costs of water, electricity and maintenance placed considerable strain on the ANBG as savings in other areas are required to cover basic maintenance and running costs
- Increasing costs are affecting the standard of delivery of existing services and the ability to ensure business continuity
- Maintained and improved staff consultation, involvement and capacity building formally (through training, the occupational health and safety committee, staff planning days) and informally (through opportunities for higher duties, informal consultation)
- Damage to buildings and nursery polyhouses from the February 2007 hail-storm continued to affect the Gardens—as insurance claims were not settled within the current year.

KRA7: Biodiversity knowledge management*Major issues*

- Curation of the Australian National Herbarium
- Nationally consistent Australian plant names
- Taxonomic botanical research
- Improving access to botanical databases and information management
- Improving access to plant photographs and other images
- Dissemination of botanical information via the web
- Development of species profiles
- Responding to Climate change
- Developing national collaborative projects

Actions

- Maintain and curate the Australian National Herbarium collections. Make botanical data, information and expertise available to the national and international botanical communities
- Develop and maintain the *Australian Plant Name Index* and the *Australian Plant Census* to define and list all the flowering plants in Australia
- Integrate departmental plant and animal name databases to allow a more consistent management and delivery of biological data
- Undertake taxonomic and systematic research, and publish and disseminate research findings
- Develop and maintain scientific databases of Australian plant information
- Enhance the extensive collection of photos and illustrations of plants and further develop access to the collection using innovative technology
- Promote and provide information about Australian native plants via the internet
- Develop innovative ways to collate data from a range of sources to be presented as 'species profiles'
- Position the ANBG as a leader in the dissemination of information on climate change issues in botanic gardens
- Drive national collaborative biodiversity information management projects

Performance results 2007–08

- Databased 38,518 herbarium specimens and curated approximately 6,000 herbarium specimens, for accession to the *Australia's Virtual Herbarium* project
- Produced and maintained an agreed list of scientific names for Australia's flowering plants through management of the *Australian Plant Name Index* and the national collaborative *Australian Plant Census* project. The project was partially funded through the Natural Heritage Trust and endorsed by Australian Government, State and Territory herbaria
- Consultants and contractors were engaged to redevelop the *Australian Faunal Directory*—managed by the Australian Biological Resources Study for compatibility with the *Australian Plant Name Index*
- Researchers completed scientific papers or publications resulting from research undertaken at the Australian National Herbarium. Areas of study include Australian Orchidaceae, Rutaceae, Myrtaceae, Malvaceae, Santalaceae and the bryophytes
- Research was undertaken to understand ecological function, structure and the small-scale dynamics of grassland communities in south-eastern Australia, using grasslands in the West Wyalong district as model systems. The research particularly focused on understanding the importance of plant community diversity in reducing vulnerability to invasive plant species

- After an extended vacancy, the appointment of a senior systematist to lead the Systematics and Evolution program of the CPBR has injected new vigour into the systematics and taxonomy research programs
- 'Born-digital' images now contribute significantly to the *Australian Plant Image Index* which was previously based on 35 millimetre slides; 4,615 additional images were made available via the web
- Continued to develop the ANBG/CPBR website as the premier online resource for information about Australian plants. The website of about 43,000 pages, provides access to extensive botanical databases. It recorded an average of 41,000 hits each day
- A new configuration of the photographic data allows web search engines to directly deliver images from the database. As a result, about 5,300 named plant photos are accessed each day
- The ANBG and CPBR were involved with developing species profiles for both weeds and threatened species to be delivered via the web. A further initiative to collate such profiles by harvesting a range of data sources is being developed through involvement with the *Atlas of Living Australia* and the *Taxonomy Research and Information Network*
- The ANBG coordinated a national education forum on climate change for botanic gardens throughout the country
- The ANBG and CPBR participated in national and international biodiversity information management and technical infrastructure projects including the *Atlas of Living Australia*, the *Taxonomy Research and Information Network*, the *Australian Plant Census*, the *Australia's Virtual Herbarium* and the *Global Biodiversity Information Facility*

Pacific Highway Bulahdelah Bypass orchid recovery project



Corybas dowlingii, one of the three orchids that are the subject of the Bulahdelah Orchid Recovery Project

In partnership with the NSW Roads and Traffic Authority, the Centre for Plant Biodiversity Research is investigating the biology of three threatened species of orchid, which are affected by the proposed Pacific Highway Upgrade at Bulahdelah in NSW.

Two of the species, *Cryptostylis hunteriana* (leafless tongue orchid) and *Rhizanthella slateri* (eastern Australian underground orchid), are listed under the Commonwealth

Environment Protection and Biodiversity Conservation Act 1999 and *Corybas dowlingii* (red lanterns) is listed under the *NSW Threatened Species Conservation Act 1995*. All occur within, and adjacent to, the proposed highway upgrade site on the lower slopes of Alum Mountain.

The project involves both field and laboratory research on the species to:

- improve our understanding of the requirements for the long-term survival and population sustainability of each species
- provide a basis for and recommendations on the translocation of each species in compliance with the EPBC Act
- support future scientific research on the conservation of these and related species.

All orchids depend on mycorrhizal (symbiotic root-dwelling) fungi for seed germination and maintenance of plants in the wild. The two nationally threatened species being investigated also rely on a range of host plants for their survival. Such complex relationships mean the project is focusing on more than just the orchids themselves.

The field research component of the project involves the location, hand pollination and collection of seeds of the three threatened orchid species at the Bulahdelah site; the isolation, identification and establishment of the nature of the mycorrhizal fungal relationships with each orchid species, and the identity of potential higher plant host species. This information will help identify possible alternative sites on Alum Mountain suitable for translocation of those plants directly affected by the road construction.



Rhizanthella slateri – eastern Australian underground orchid

Already 15 visits have been made to the site to gather data on the life cycle and ecology of each species and to collect samples for research. Further fieldwork will involve translocating some individuals identified within the road footprint, and the identification and assessment of other sites suitable for translocation or re-introduction of laboratory propagated orchids.

Research in the laboratory will involve the isolation, culture and identification

(through DNA sequencing and analysis) of the mycorrhizal fungi associated with the orchids; artificial propagation of the orchids from seed in association with the appropriate mycorrhizal fungus; and, where appropriate, propagation of seedlings of potential host tree and shrub species. As they develop, orchid seedlings will be matched with their associated mycorrhizal fungus and host plant species as units, for re-introduction into appropriate off-road sites at Bulahdelah. Translocated and re-introduced orchids will be monitored by our partners for a period of ten years to assess the results.

The nature of the species and the time constraints involved make this a challenging and ground-breaking project. Its results will be highly significant in understanding the interactions and complexities of these and similar species and in providing answers to crucial questions to support future conservation management.



Taking a lead in responding to climate change



Soil sensors have been installed at the Australian National Botanic Gardens to accurately determine the water needs of the living collection

The Australian National Botanic Gardens (ANBG) is taking action nationally, regionally and locally in response to the challenges of climate change. This includes:

- leading national coordination of education and of *ex situ* plant conservation to support conservation in the wild
- developing an alpine seed collection and research program
- redesigning on-site water management to reduce consumption.

As climate change places greater pressures on the natural ranges and survival of wild populations of plants, Australia's botanic gardens are among the first in the world to take a national approach to supporting plant conservation. The ANBG has facilitated the development of a national climate change adaptation strategy that capitalises on three key strengths of botanic gardens.

The first of these is education. Receiving about 13 million visitors annually, Australia's botanic gardens are places where people, plants and biodiversity come together. As a first step to putting together a national approach to raising community awareness, the ANBG facilitated development of shared key messages around climate change and biodiversity, to be delivered in botanic gardens across the country.

Second, botanic gardens provide a safety net for plant conservation. Seed banks and other living collections offer a living store of genetic diversity. These collections are valuable to a range of taxonomic, species and ecological research and as an insurance policy supporting plant conservation in reserves.

Third, botanic gardens are places of immense knowledge about how to grow and propagate plants. This knowledge underpins efforts to reintroduce species and restore ecosystems. It supports climate change research and provides botanic information towards the management of our reserves.

One of the areas where the ANBG is applying its expertise is in research and conservation of alpine plants. Recognised as one of the 11 Australian centres of plant diversity, the alpine region has been identified among the most vulnerable to climate change. The ANBG has completed its third year of seed collection from critically vulnerable alpine areas, and is laying the groundwork for a collecting and germination research program.

The work will support broader alpine vegetation research, conservation of alpine species and species recovery, where little is currently known. Understanding the effects of a changing climate through germination studies will help develop management strategies to ensure survival and adaptation in the wild.

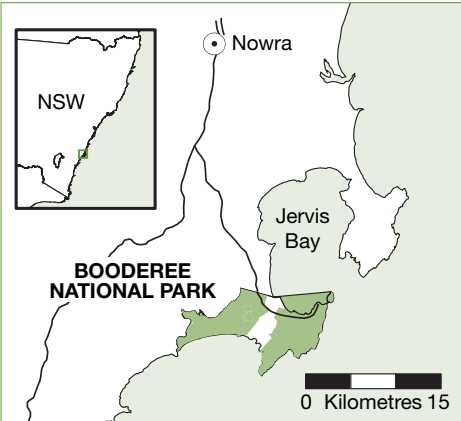
A changing local climate is also inspiring best-practice water management strategies in the ANBG. To make the most of every drop, the ANBG introduced new soil moisture sensors to be used in conjunction with the computer controlled irrigation system that was commissioned in 2006. The sensors help staff understand how quickly the soil is getting wet and how deep the water goes. Staff members are monitoring water use more effectively and ensuring each area is watered at just the right level and the right time to meet plant needs.

Other water-saving initiatives already in place in the gardens include recycling water in the pond systems and nursery, minimising watering on lawns, and collecting water from buildings for the Growing Friends nursery.

The ANBG's achievements this year form a strong foundation for future work that will make a difference in response to climate change.

Booderee National Park

<http://www.environment.gov.au/parks/booderee>



Special features

Booderee National Park protects most of the southern peninsula of Jervis Bay, the Bherwerre Peninsula, Bowen Island, and the waters and seabed in the southern part of the bay. The park includes the Booderee Botanic Gardens, formerly an annex of the ANBG. Staff work cooperatively with the adjoining NSW Jervis Bay National Park to protect much of the biodiversity of the Jervis Bay region.

Booderee National Park is of great significance to its traditional owners, the Wreck Bay Aboriginal community, who are increasingly involved through a unique and evolving joint management model in running and servicing the park. More than 100 prehistoric Aboriginal sites have been recorded on the Bherwerre Peninsula.

Jervis Bay is one of the major biogeographic nodes in Australia and contains a variety of relatively undisturbed marine and terrestrial habitats. The marine environment is one of the most diverse recorded in temperate Australia, with tropical and temperate species represented. The park is renowned for its exceptional water clarity, due to small intact catchments, and exceptionally white sands. The park has one of the largest seagrass meadows on the NSW coast. Vegetation communities include relic rainforest, littoral rainforest, forest, woodland, wet and dry heath, salt marsh and coastal wetlands, and coastal scrub and grassland communities. The park is rich in flora and fauna.

Location	Latitude 35° 09' South, Longitude 150°39' East
Area	6,379 hectares (including a marine area of 875 hectares)
Proclamation date	4 March 1992
IUCN category	Category II overall (botanic gardens Category IV)
Biogeographic context	Interim Biogeographic Regionalisation for Australia region: Sydney Basin
Management plan	First plan expires 3 April 2009

Other significant management documents	Management Plan Implementation Schedule; Risk Assessment And Management Schedule; fire and pest management strategies; Memorandum of Understanding with NSW Rural Fire Service; draft Memorandum of Understanding with the Department of Defence; Botanic Gardens' Collections Policy; Joint Training Strategy with the Wreck Bay Aboriginal Community Council and Wreck Bay Enterprises Ltd; Cultural Heritage Strategy in preparation	
Financial	Operating	\$6.909 million
	Capital	\$0.814 million
	Revenue	\$1.231 million
	Paid to traditional owners	\$0.493 million
Visitors	400,000 (estimated)	
Permits	21 commercial tour operators, 9 research, 3 wedding celebrants	

International conventions and agreements

Wetlands (Ramsar) Convention	Nomination in preparation
Migratory Species (Bonn) Convention	27 of 105 listed Australian species
China–Australia Migratory Birds Agreement	20 of 81 listed species
Japan–Australia Migratory Birds Agreement	23 of 77 listed species
Korea–Australia Migratory Birds Agreement	15 of 59 listed species

Environment Protection and Biodiversity Conservation Act 1999

Listed fauna	Species	1 critically endangered 4 endangered 11 vulnerable 36 migratory 72 marine East coast whale migration refuge area
	Recovery plans	5 implemented: humpback whale (<i>Megaptera novaeangliae</i>); southern right whale (<i>Eubalaena australis</i>); albatross (<i>Diomedea</i> spp. and <i>Thalassarche</i> spp.) and giant petrels (<i>Macronectes</i> spp.); marine turtles; grey nurse shark (<i>Carcharias taurus</i>) 5 in preparation: grey-headed flying-fox (<i>Pteropus poliocephalus</i>); Gould's petrel (<i>Pterodroma leucoptera</i>); eastern bristlebird (<i>Dasyornis brachypterus</i>); green and golden bell frog (<i>Litoria aurea</i>); giant burrowing frog (<i>Heleioporus australiacus</i>)

Listed flora	Species	1 vulnerable: magenta lilly-pilly (<i>Syzygium paniculatum</i>)
	Recovery plans	1 in preparation: magenta lilly-pilly (<i>Syzygium paniculatum</i>) ^(a)
Heritage	On Commonwealth Heritage List (part of several listings)	

(a) Recovery plan currently being drafted following collation of distribution data

Numbers of native species recorded					
Mammals	Birds	Reptiles	Amphibians	Fish	Plants
26 (4)	200 (9)	17 (3)	14 (2)	308 (1)	625 (1)

Figures in brackets are the numbers of species that are a management priority

Board of management

The Booderee National Park Board of Management has 12 members, including seven representatives nominated by the Wreck Bay Aboriginal Community Council. The board oversees preparation and implementation of the park's management plan. The current plan expires in 2009 and the board will commence preparation of a draft management plan in early 2008–09.

Monitoring

Species are being systematically monitored in collaboration with the Australian National University Centre for Resource and Environmental Science. This five-year study seeks to document the role of fire in determining species distribution and abundance. The results are expected to be published over the next two to three years.

Threatened and listed species monitoring continued with a focus on birds including the eastern bristlebird (*Dasyornis brachypterus*), sooty oystercatcher (*Haematopus fuliginosus*) and little penguin (*Eudyptula minor*). A number of research projects commenced through the partnership between the Australian National University and the park funded by an ARC Linkage Grant, including two full time PhD students. The first study commenced in March 2007 on amphibians in the park and the data will provide a valuable baseline for examining possible climate change impacts. Another commenced in 2008 examining aspects of the ecology of the eastern chestnut mouse (*Pseudomys gracilicaudatus*), a rare species recently discovered in the Park, its habitat requirements and its relationship to fire and other mammal species.

Wildlife monitoring also continued to focus on the effectiveness of regular fox baiting and long-term impacts of the 2003 Windermere and 2007 Cave Beach fires, particularly on long-nosed bandicoots (*Perameles nasuta*) and eastern bristlebirds.

In November 2007 a study commenced to examine the combined effects of fire, bitou bush, and wallaby grazing on native plant regeneration. This study compares the response of native vegetation in plots that have been fenced-off from wallabies, with unfenced plots in a bitou infested area that has been treated with herbicide and subsequently burnt. Early results suggest that wallabies have a major suppressive effect on the number of plant species and the abundance of individual plant species.

Effort was increased to monitor compliance with the park's marine zoning scheme and catch limits, and the effectiveness of brochures and face-to-face education.

Future challenges

Major challenges are:

- continuing to improve control measures for key threats on Bowen Island, and for bitou bush and foxes throughout the park
- addressing the park's isolation from adjacent natural areas due to development pressures in the region
- progressing the cultural centre
- identifying ways of replacing critical ageing assets (notably the visitor information centre)
- implementing the cultural heritage strategy's recommendations
- implementing the training strategy
- progressing service level agreements and contracting opportunities with the community to an agreed timetable
- identifying impacts and possible actions to address climate change.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- There are 13 known introduced terrestrial pest species in the park, of which foxes are the greatest threat
- Bitou bush is the most significant weed in Booderee
- Protection of seabird nesting habitat (little penguin, three species of shearwater, sooty oystercatcher) from kikuyu grass and other weeds
- Fire-prone vegetation communities require active management in an increasingly risky climate
- The role of climate change and its impacts on the park
- Rapid residential development in surrounding areas that is isolating the park from adjacent natural areas, possibly threatening a range of species

Actions

- Manage the feral animal control program with emphasis on regional fox control, control of bait-shy individual foxes, and introduction of alternative fox control methods
- Coordinate a meeting for Jervis Bay Region landholders to discuss fox control
- Develop safer integrated management techniques (aerial spraying and fire) for bitou control. Refine integrated control measures (fire, spraying, rehabilitation) and monitor ecological impacts of these control measures
- Control the spread of kikuyu grass (*Pennisetum clandestinum*) on Bowen Island, and increase community involvement
- Continue to implement an ecologically appropriate and safe fire management program and upgrade training and monitoring to cope with larger, more intense fires
- Continue to consult with agencies on the regional value of the park, the importance of maintaining habitat corridors and links with other natural areas, and possible impacts of development
- Work with researchers to better understand potential impacts of climate change on the park

Performance results 2007–08

- The exceptional natural recovery after the intense wildfires of 2003–04 continued. Biodiversity monitoring continues to indicate a healthy environment with indicator species stable or increasing. However, for the third year running, the threatened green and golden bell frog was not recorded in the park
- Coordinated a fox control meeting for Jervis Bay Region stakeholders on 6 February 2008
- High numbers of key indicator species (long-nosed bandicoot and eastern bristlebird) suggest that fox baiting is succeeding. Initial research suggests that optimum recovery of indicator species may be achieved if fox control is carried out soon after a wildfire
- Maintained native plantings and re-established penguin nesting habitat on Bowen Island
- Trained five new crew leaders and updated fire training standards with a new fire officer

KRA2: Cultural heritage management

Major issues

- Maintaining the cultural values of the park
- Addressing aspects of cultural heritage management through a cultural heritage strategy
- Developing and delivering a well-accepted cultural heritage education program in partnership with the Wreck Bay Aboriginal Community Council

Actions

- Maintain the register of cultural sites on the park GIS database, determine protection measures, and examine the merits of a more sophisticated approach
- Offer school holiday summer, spring and autumn interpretation programs with an increased focus on cultural interpretation
- Develop *Koori* cultural themes to promote understanding of Aboriginal plant use
- Continue planning for a staged approach to a new visitor/cultural centre by progressing concept design and business case development
- Develop a cultural heritage strategy for the park
- Continue the Junior Ranger program with an integrated approach to education about natural and cultural park values

Performance results 2007–08

- Conducted cultural interpretation sessions as part of the spring, summer and autumn school holiday activities programs
- Maintained the cultural heritage GIS held by the Wreck Bay Aboriginal community
- Began construction of new signage, and walking trails at Booderee Botanic Gardens
- Finalised a draft cultural heritage strategy
- Continued the Junior Ranger program at Jervis Bay School
- Developed a Memorandum of Understanding (MoU) with the Jervis Bay School to formalise the Junior Ranger Program

KRA3: Joint management

Major issues

- Meeting the obligations of the lease agreement
- Progressing contracting arrangements between the park and Wreck Bay Aboriginal community to an agreed timetable
- Implementing the management plan



Actions

- Continue to negotiate service level agreements for provision of agreed park services under the terms of the services contract between the Wreck Bay Aboriginal community and the Director
- Implement an integrated training strategy agreed by the Wreck Bay Aboriginal community, the park and Wreck Bay Enterprises Ltd
- Prepare an annual management plan implementation schedule and report progress to the board of management
- Commence new management plan process

Performance results 2007–08

- Reviewed ongoing service level agreements for road and fire trail maintenance and entry station services
- Reviewed the service level agreement for cleaning park and staff facilities
- Wreck Bay Enterprises Ltd contractors undertook \$512,000 of capital works in the park, including road and walking track upgrades, construction of shelters, and a major upgrade of Murray's Boat Ramp and parking facilities
- Upgraded and refined the management plan implementation database
- Three *Koori* staff have been acting in management/supervisory positions
- A community member won a placement in the Canberra office's Indigenous Policy and Coordination Section for 6 months as part of the Indigenous Secondment Program
- Annual management plan implementation schedule was not reported to the Board of Management as it has not met this year
- Preliminary work commenced on the new management plan process

KRA4: Visitor management and reserve use

Major issues

- Increasing visitors' awareness of the park's natural and cultural values
- Providing infrastructure to facilitate appropriate and safe use of the park, while protecting conservation values
- Deteriorating condition of the visitor centre
- Maintaining visitor numbers and revenue base in an increasingly competitive domestic tourism market

Actions

- Include conservation and cultural themes in interpretation programs
- Maintain campgrounds and public facilities and infrastructure to a high standard
- Monitor visitor numbers and experiences

- Continue to educate visitors about recreational fishing catch limits and marine zone restrictions and to enforce legislation where appropriate
- Renovate the visitor centre and plan for its replacement
- Manage risk through the park risk watch list and ParkSafe

Performance results 2007–08

- Delivered 122 school holiday interpretation sessions, focussing on Aboriginal cultural values and conservation themes, with 3,401 attendees. A further 50 interpretation sessions were delivered to primary schools, high schools and special interest groups, with 1,289 attendees in total
- The Park won a Keep Australia Beautiful, Environmental Protection Award for Murray's Beach
- A series of short trip and day trip itineraries were produced for the park and posted on its website to assist visitors plan trips in advance
- Jervis Bay Territory declared plastic bag free, with the support of all governmental agencies and local shop owners/managers. Booderee National Park organised and supplied the alternative shopping bags
- Booderee National Park website upgraded and re-launched in June 2008
- Completed repairs to visitor infrastructure damaged by the Cave Beach fire of October 2007 and the storm in June 2007
- Upgraded visitor facilities including the Green Patch and Bristol Point amenities blocks and Bristol Point water mains; Booderee Botanic Gardens walking trails and bridges, visitor information signs, and roads and management trails. Installed water and electricity saving devices in all public amenities. Completed work on two new public shelters
- Recorded generally high levels of compliance with marine zoning scheme and catch limits but there continues to be a problem with a small number of fishers taking commercial quantities of squid. Successful prosecution actions were completed for detected and repeated breaches of recreational fishing bag limits
- Continued to monitor visitor numbers and purchased enhanced visitor data analysis software and hardware to improve understanding of visitor trends and issues
- Completed some minor refurbishment of the visitor centre. Concept design and business case development are under way for eventual replacement or major refurbishment, with capacity to include a cultural centre
- Completed job safety analysis on a range of higher risk functions



KRA5: Stakeholders and partnerships

Major issues

- Continuing the cooperative arrangements between the park, the NSW National Parks and Wildlife Service, the Jervis Bay Marine Park and the Department of Defence
- Building strong cooperative arrangements with universities
- Monitoring of recovery of biodiversity after fire

Actions

- Continue integrated management programs in key areas
- Support research in conservation areas identified in the park management plan
- Support cooperative undergraduate and postgraduate programs
- Refocus monitoring programs to deal with wildfire and its impacts
- Support community involvement in park management (through Parkcare, Conservation Volunteers Australia, and Community Development Employment Projects)

Performance results 2007–08

- Continued cooperative arrangements with adjacent agencies, including NSW National Parks and Wildlife Service, Jervis Bay Marine Park, NSW Fisheries and Department of Defence. Booderee continued to lead regional fox management
- Issued 17 research permits in postgraduate conservation fields in accordance with the management plan. Cooperative undergraduate and postgraduate programs operated with the University of Wollongong, the University of Canberra and the Australian National University
- Completed negotiations between the park and the Department of Defence on a Memorandum of Understanding covering day-to-day operations and relationships between the parties, for consideration by the Board of Management
- Commenced Community Development Employment Projects at Booderee Botanic Gardens, involving Wreck Bay youth, and supported Vincentia High School's students at risk program through work experience
- Supported youth at risk programs with the NSW Police Force
- Conducted 21 Parkcare activities, including post-fire rehabilitation, weed removal, marine surveys and rehabilitating little penguin nesting habitat
- Continued membership of, and involvement with, regional tourism organisations
- Participated in an accreditation process through the Caravan and Camping Industry Association NSW Gumnut Awards for commitment to environmental sustainability and socially responsible management. The park received a bronze award in 2007–08, and is working towards gold

KRA6: Business management

Major issues

- Ensuring that, in accordance with Investors in People policy, staff have all the necessary skills to do their jobs
- Trends in revenue
- Implementing the management plan
- Managing the budget to accommodate increased salary and contracting costs

Actions

- Increased emphasis on training identified in personal development plans
- Work to the annual implementation plan and report the results
- Continue to monitor the park's revenue trend
- Identify budget savings and efficiencies wherever possible

Performance results 2007–08

- Offered training in line with personal development plans, with emphasis on contract and project management, fire preparedness/fighting and supervisory and management skills
- Revenue figures maintained in excess of \$1 million
- Continued vigilance in the collection of entry and camping fees, with particular emphasis on increased compliance at the entry station
- Reviewed and updated the annual implementation plan as necessary
- Reviewed the performance framework and measures. The park is taking part in a trial of best practice performance management systems with the University of Queensland
- Formed a Carbon Footprint working group, implemented power and water conservation measures and engaged a consultant to undertake the park's first Carbon Emissions Audit (see case study on page 88)

Reducing our carbon footprint at Booderee National Park



Solar panels have been installed in the park for electricity generation

In 2007 a group of motivated and ecologically committed Booderee staff banded together in an attempt to *Think Globally but Act Locally*.

The stated objective was to take action to minimise the carbon footprint of both Booderee National Park and the Jervis Bay Territory by identifying and adopting a range of power and water conservation measures and developing ecologically sustainable waste reduction practices.

A Carbon Footprint Working Group was formed to workshop ideas, undertake research and identify some achievable and measurable short and long-term actions. A communications strategy was also formulated to publicise these initiatives to other staff, and to the public through the website and on information boards around the park.

Some initial and immediate short-term actions were rolled out including:

- a changeover to high efficiency electric barbeques in visitor areas
- trialling of waterless urinals in visitor amenities and staff offices
- installation of water flow restrictors on all public outdoor taps
- installation of flow restricted taps inside public amenities
- reduction in lighting at campground amenities
- installation of hot water touchpads in campground showers to reduce water and power consumption
- closure of under-utilised amenities in the non-peak season to save power, water and cleaning costs
- installation of timed motion-sensor lighting in key areas
- improved plumbing response times for water system leakages
- upgraded irrigation system in the Booderee Botanic Garden
- a dedicated 'switch off' program in all staff offices.

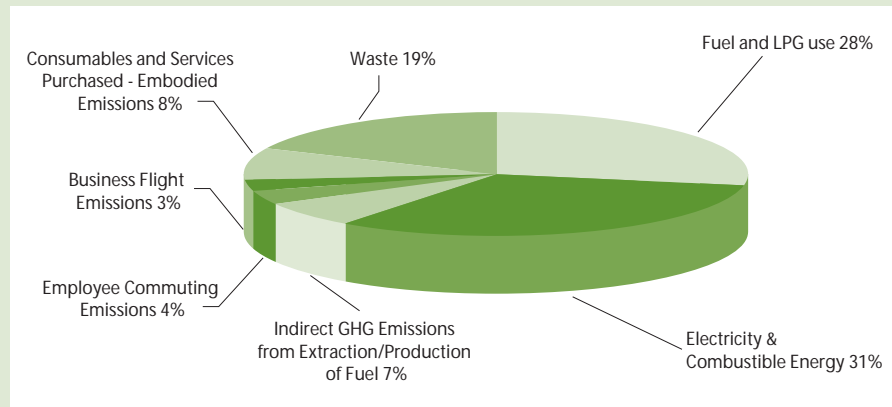
These initiatives had an immediate and dramatic impact with a 50 per cent reduction in water use and a 40 per cent reduction in electricity used within the park.

The working group then sought and gained management support to engage a consulting firm to undertake Booderee's first formal Carbon Emissions Audit.

The Audit was conducted in May 2008, calculating the volume of Carbon Dioxide Equivalent emissions throughout a defined area of activities, following the reporting scopes of the Greenhouse Gas protocols and ISO standard 14064-1.

Booderee National Park was identified as contributing 731.4 tonnes of carbon emissions for the audited period. Of this total 28 per cent was Scope 1 – Direct energy use (including use of all park vehicles), 32 per cent was scope 2 (indirect emissions from purchased electricity) and approx. 40 per cent was scope 3 (indirect emissions) mainly generated through waste collections throughout the park.

Figure 5 – Identified sources of carbon emissions during audit



Some priority areas have now been identified to further reduce carbon outputs including:

- possible reduction of the park vehicle fleet
- more intensive turn-off campaign for lights, unnecessary hot water heaters, computers, monitors and other electrical equipment
- possible transfer of all of Jervis Bay Territory to 100 per cent Green Power
- staged rollout of sensor lighting and voltage control equipment
- intensive waste management and reduction program
- development of strategies to reduce consumables (printed paper products).

It was estimated that the cost of Carbon Offsets for Booderee National Park over the previous 12 months for all Scope 1, 2 and 3 emissions would be approximately \$15,000. This was based on an indicative cost of \$20 per tonne.

Booderee's Carbon Footprint Working Group will spend the next financial year implementing as many of these recommendations as possible, including the ongoing investigations of ways to assist visitors to the park to offset their carbon emissions during their visit to Booderee.

Christmas Island National Park

www.environment.gov.au/parks/christmas



Special features

Christmas Island is home to a unique rainforest ecosystem that supports very high biodiversity, with at least 225 species of endemic animals and 25 species of endemic plants. The Island includes the last remaining nesting habitat of the endangered Abbott’s booby (*Papasula abbotti*), and an extraordinary diversity and abundance of land crabs. The island is renowned for its annual crab migration, when up to 50 million red crabs (*Gecarcoidea natalis*) march to the sea to spawn.

The marine environment of Christmas Island includes coral reef systems and provides habitat for an estimated 607 fish species, including whale sharks (*Rhincodon typus*) which are found in waters around Christmas Island around November to May each year.

Location	Latitude 10°29' South, Longitude 105°38' East	
Area	8,719 hectares	
Proclamation dates	21 February 1980, 31 January 1986 and 20 December 1989	
IUCN category	Category II	
Biogeographic context	Christmas Island is the coral-encrusted, emergent summit of a basaltic, submarine mountain in the Indian Ocean. Its plants and animals are most closely linked with those of South-East Asia	
Management plan	Third plan expires 13 March 2009	
Other significant management documents	The Christmas Island Mine-site to Forest Rehabilitation (CIMFR); Invasive Ants on Christmas Island Action Plan; Management Plan Technical Audit and Risk Watch Assessment List. Weed Management Strategy 2005–2009	
Financial	Operating	\$3.468 million
	Capital	\$0.096 million
	Revenue	\$1.809 million
Visitors	600 (estimated)	
Permits	6 photography, 7 research; 2 others (e.g. camping, works)	

International conventions and agreements	
Wetlands (Ramsar) Convention	The Dales and a small landlocked mangrove forest at Hosnies Spring are listed under the convention
Migratory Species (Bonn) Convention	31 of 105 listed species
China–Australia Migratory Birds Agreement	48 of 81 listed species
Japan–Australia Migratory Birds Agreement	45 of 77 listed species
Korea–Australia Migratory Birds Agreement	40 of 59 listed species

Environment Protection and Biodiversity Conservation Act 1999		
Listed fauna	Species	2 extinct 1 critically endangered 4 endangered 7 vulnerable 63 migratory 92 marine
	Recovery plans	10 plans being implemented: Christmas Island shrew (<i>Crocidura attenuata trichura</i>); Christmas Island pipistrelle (<i>Pipistrellus murrayi</i>); Abbott's booby (<i>Papasula abbotti</i>); Christmas Island goshawk (<i>Accipiter fasciatus natalis</i>); Christmas Island frigatebird (<i>Fregata andrewsi</i>); Christmas Island hawk-owl (<i>Ninox natalis</i>); marine turtles; whale shark (<i>Rhincodon typus</i>); Christmas Island gecko (<i>Lepidodactylus listeri</i>); pink blind snake (<i>Ramphotyphlops exocoeti</i>) 2 awaiting preparation: emerald dove (<i>Chalcophaps indica natalis</i>) and Christmas Island thrush (<i>Turdus poliocephalus erythroleurus</i>)
Listed flora	Species	2 critically endangered 1 endangered
	Recovery plans	2 being partially implemented: <i>Asplenium listeri</i> ; <i>Tectaria devexa</i> var. <i>minor</i> 1 awaiting preparation: <i>Pneumatopteris truncata</i> 4 species being assessed for nomination: <i>Asystasia alba</i> , <i>Amaracarpus pubescens</i> , <i>Cycas rumphii</i> , <i>Pteropus natalis</i> These species will be included in a regional recovery plan for the island
Heritage	On Commonwealth Heritage List (as part of a wider listing of the island's natural areas)	

Numbers of native species recorded					
Mammals	Birds	Reptiles	Fish	Invertebrates	Plants
3 (3)	95 (16)	9 (9)	607 (35) marine, 3 freshwater	over 2,000 (198)	213 (91)

Figures in brackets are the numbers of species that are a management priority

Advisory and consultative groups

The Christmas Island Crazy Ant Scientific Advisory Panel (CASAP) reformed in 2008. The purpose of the CASAP is to provide scientific and technical advice to Parks Australia to inform the Crazy Ant Management Strategy.

Parks Australia is a member of the Christmas Island Tourism Association (CITA) Executive, Destination: Christmas Island Steering Committee, Christmas Island Central Roads Authority and Christmas Island Emergency Management Committee.

Monitoring

The bi-annual Island Wide Survey aims to determine effectiveness of the crazy ant control program, determine areas for future control, and assess red crab numbers. The survey also provides an opportunity for collecting distribution information for other native and invasive species.

The distribution of Pipistrelle bats (*Pipistrellus murrayi*) is monitored as part of the recovery plan for this critically endangered species. This program is under review to determine if the apparent decline in population numbers is due to a decreased population or population movement to other foraging and roosting areas.

Other programs include monitoring the success of the forest rehabilitation program, a reptile distribution and abundance survey (conducted by park staff and researchers) and a fish fauna survey (conducted by researchers from James Cook University).

Future challenges

Major challenges are:

- reducing the impacts that yellow crazy ants (*Anoplolepis gracilipes*) have on biodiversity through integrated control strategies, while reducing impacts of control programs on non-target species. Funding of approximately \$4 million was provided in the May 2007 budget, for financial years 2007–2008 to 2010–11, to be used for investigation and/or development of alternative baits, implement aerial and ground baiting and conduct research into bio-control options
- determining the reasons for the decline in terrestrial biodiversity, particularly for reptiles and the pipistrelle bat. Implementing appropriate and feasible threat mitigation programs to reduce this decline

- continuing the implementation of the Christmas Island Mine-site to Forest Rehabilitation (CIMFR) program. The Memorandum of Understanding for the CIMFR with the Attorney-General's Department was extended to February 2010
- controlling woody weeds. Although the control effort for woody weeds has increased substantially, further resources will be necessary to bring major weed species under long-term control
- contributing to an economically and environmentally sustainable future for Christmas Island by supporting the development of appropriate tourism opportunities and infrastructure.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Developing effective integrated strategies for yellow crazy ant management
- Continuing management of high priority weed species
- Reducing impacts on threatened species and biodiversity decline by implementing recovery and threat mitigation actions
- Reducing crab mortality from traffic
- Developing management strategies for the marine areas of the park, in collaboration with State management agencies

Actions

- Yellow crazy ants:
 - Island Wide Survey completed in 2007
 - reestablish the Crazy Ant Scientific Advisory Panel (CASAP)
 - finalise research proposal for bio-control of scale insects
- Undertake rehabilitation works of former minesite areas
- Control invasive weed species
- Implement actions from recovery plans, including for the pipistrelle bat
- Prepare a Christmas Island regional recovery plan issues paper for terrestrial biodiversity
- Implement road management strategies (underpasses and bridges) for the management of red crabs during migration time
- Conduct reptile survey
- Support the Inaugural Indian Ocean Seabird Conference
- Facilitate and support research projects, including seabird research, and a fish species marine survey



Performance results 2007-08

- Treated 120 hectares of yellow crazy ant super-colonies
- Crazy ant bio-control research proposal finalised and contractor selected
- Completed earthworks and planted 22,000 trees on 25 hectares of former phosphate mine located in the park
- Treated 190 hectares of invasive woody weed species
- Implemented actions from existing recovery plans
- The distribution and abundance of some reptile species declined
- The status of the Pipistrelle bat remains critically endangered

KRA4: Visitor management and reserve use

Major issues

- Developing island-wide approaches to the development of tourism consistent with the protection of the park values, while providing visitors with opportunities for safe and high quality nature-based experiences
- Maintaining existing visitor infrastructure

Actions

- Continue participation on the CITA Executive
- Participate in the Christmas Island Tourism Destination Development forum
- Maintain, and where possible improve, roads, trails, viewpoints and interpretive material, including production of new interpretative materials
- Support film crews and journalists working in the park

Performance results 2007-08

- Attended CITA meetings
- Membership on the Destination: Christmas Island Steering Committee to oversee the implementation of the Tourism Destinations Development Report
- Kept clear approximately 60 kilometres of unsurfaced roads and tracks
- Produced interpretive brochures on Christmas Island species, including a new brochure on reptiles
- Assisted six film crews (Australian and international) and journalists publicising the island's biodiversity and conservation values

KRA5: Stakeholders and partnerships

Major issues

- Progressing feral cat management with stakeholders
- Effectively engaging and collaborating with stakeholders in aspects of the management of the park

Actions

- Provide in-kind and field support for visiting scientists
- Undertake consultation and planning sessions with stakeholders and technical experts for the preparation of the Fourth Management Plan
- Deliver educational sessions for students from the Christmas Island District High School (CIDHS)
- Continue co-operative arrangements with the Shire of Christmas Island and Christmas Island Phosphates Pty Ltd for cat control, and investigate options and potential for a feral cat control program

Performance results 2007-08

- Supported visiting scientists and state government officers undertaking research projects into seabirds, crabs, and marine surveys
- Park and conservation management focused educational sessions held with students from the CIDHS
- Held meetings with stakeholders to prepare the Fourth Management Plan including the Christmas Island Tourism Association, the Shire of Christmas Island, Christmas Island Phosphates and WA Government agencies and researchers, including the Indian Ocean Seabird Conference participants
- Continued co-operative approach for cat control with the Shire of Christmas Island and Christmas Island Phosphates. Negotiations in support of a feral cat control baiting trial proposed by DEWHA (Invasive Species Unit) have made progress

KRA6: Business management*Major issues*

- Delivering quality management services within a limited budget
- Insufficient funding to meet all actions set out in the Third Management Plan
- Ensuring up-to-date governance and management strategies are in place

Actions

- Maintain park management services within budget
- Begin preparation of the Fourth Management Plan
- Undertake organisational review to optimise staff structures, operations and resource allocation

Performance results 2007-08

- Managed operational and capital budgets within approved parameters
- Organisational review undertaken and finalised, changing staff structure, functions and levels
- Preparation of the management plan continued with stakeholder consultation and preliminary drafting



Invasive weed management program on Christmas Island



Park staff removing weed - *Delonix regia*
(poinciana or flame tree)

The *Weed Management Strategy for Christmas Island 2004–2009* lists 31 species as being priority weeds for control, as they threaten the Island's native plant and animal biodiversity, including endemic species. Approximately 46 per cent of the exotic species found on Christmas Island have been listed by various agencies as environmental, noxious, threatening, or invasive weeds.

To help address this issue, Natural Heritage Trust funding was obtained from the Australian Government in 2005–07 to assist in controlling priority weeds. This year the Christmas Island National Park weed control program targeted 18 high priority weed species, including candlenut (*Aleurites moluccana*) and false curry tree (*Clausena excavata*).

The program required a combination of control methods, including hand pulling, foliar spraying, and cut and swab techniques. This intensive work is aimed at controlling areas previously treated for weeds, and the first-time suppression of new infestations. Revisiting areas treated in the previous year enables staff to detect and control adult and fruiting trees that were missed in 2005–07, and treat any seedlings that have since germinated. Follow-up visits have also extended into surrounding areas to detect and control new satellite weed infestations, if any exist.

A small number of new weed infestations were detected during the 2007 Island Wide Survey, which is primarily used as a means of monitoring the distribution and impacts of yellow crazy ant (*Anoplolepis gracilipes*). Areas identified during the 2007 survey as requiring intervention were treated during the 2007–08 weed control program.

190 hectares of weeds were successfully treated in 2007–08, in areas of intact rainforest and older rainforest rehabilitation fields. The plateau rainforest is the prime habitat for nesting Abbott's boobies (*Papasula abbotti*), which are listed as Endangered under the EPBC Act. Major weed infestations still exist elsewhere on the island, and the size and location of some of these infestations will make

them difficult to access, treat and control. The current weed control program aims to protect areas of high conservation value, maximising the effectiveness of current resources, while monitoring the location and spread of potential future weed threats.

The Weed Management Strategy will be reviewed in 2008–09, and will continue to focus on an island-wide approach. This allows the park to identify and control weed infestations of greatest risk to the environmental values of the island, and to determine the extent of resources necessary to effectively manage invasive plant species.



Tourism—the park’s role in future economic development of Christmas Island



Whale sharks are known to frequently inhabit the waters of Christmas Island during their migration

With phosphate mining operations expected to cease by 2019 at the end of the current mine lease, development of alternate economic activities are essential for Christmas Island’s future. With its unique set of environmental values, nature-based tourism is an obvious focus. Christmas Island National Park occupies 63 per cent of the island’s land area, and much of the fringing coral reef surrounding the island. The park is

therefore ideally placed to play a key role in tourism development.

Parks Australia participated in the Christmas Island Destination Development Workshop in December 2007, where representatives from business, community organisations, government and individuals discussed the vision for future Christmas Island tourism. An outcome of the workshop was a draft plan, focussed on attracting low volume, high yield tourism as a basis for enhancing the industry’s ongoing contribution to the Island’s economy, and ensuring that the products and experiences on offer align with the brand.

The Christmas Island Tourism Association, tour operators and bird experts have developed successful tourism ventures around the Island’s iconic bird life. For example, Bird Week is held during September each year and the inaugural Indian Ocean Seabird Conference was held in April this year.

The annual red crab migration attracts tourists, journalists and filmmakers from around the world to experience this unique natural phenomenon. Divers regularly visit the Island to experience the diversity of marine life in the surrounding waters, including the annual appearance of migrating whale sharks, and the island’s spectacular drop-offs and clear waters.

The range of endemic flora and fauna, set in Christmas Island’s unique limestone terraces and rainforest, provides the opportunity for iconic wildlife experiences.

Parks Australia’s role in the conservation of the natural values of Christmas Island is critical to the development of opportunities suited to nature-loving experience seekers, the Island’s target market. As well as managing the island’s natural values, management of visitor infrastructure and walking trails, support for tour guide training, development of interpretation and education initiatives, and management of permit compliance activities are also important for the future of tourism on Christmas Island.

Christmas Island Mine-site to Forest Rehabilitation (CIMFR)



Field Supervisor Steve Mackell undertaking CIMFR monitoring activities.

Phosphate mining has occurred on Christmas Island since 1899, but it was not until the 1970's that the British Phosphate Commission commenced trial plantings of native and exotic species to rehabilitate abandoned mined out areas.

In 1991, the Australian National Parks and Wildlife Service (ANPWS), now Parks Australia, took on the task of mine-site rehabilitation on Christmas Island. Of particular concern to ANPWS

were the results of the Abbott's Booby Monitoring Program, undertaken from 1983 to 1989. These surveys indicated that the nesting success of this endangered bird was affected by increased wind turbulence resulting from the deforestation of adjacent mine sites. Replanting of these areas was recommended to restore native vegetation towards reducing wind turbulence around nearby nesting sites.

The Christmas Island Mine-site to Forest Rehabilitation (CIMFR) program is based on enhancing and creating habitat for the Abbott's booby and other native, threatened, and endemic species. The strategy and methodology is underpinned by reviews of rehabilitation techniques in 2000 and 2005 and a Memorandum of Understanding (MoU) between the Australian Government Attorney General's Department (AGD) and the Director of National Parks. The MoU provides for the rehabilitation of former abandoned mine-sites in Christmas Island National Park using funds from the Attorney General's Department based on the conservation levy paid each quarter by the local mining company—Christmas Island Phosphates Pty Ltd—for conservation and rehabilitation activities.

The program uses best practice rehabilitation techniques created by one of the world's leading mine-site rehabilitation bodies, the Centre for Mined Land Rehabilitation. The method involves the propagation, and sequential planting of a wide range of native rainforest seedlings into abandoned mined-out areas, after earthworks to add soil from unwanted stockpiles. Rehabilitated sites then undergo a period of maintenance (application of fertiliser and weed suppression) and monitoring of vegetation, fauna and soils. It takes approximately seven years from collecting the first seed to releasing a rehabilitated site from active maintenance. The CIMFR program has to be confident that the site is robust enough to withstand future weed invasions,

the natural nutrient cycle is well established, and the vegetation community is on a successional path to becoming a well developed tropical rainforest, in both structure and floristics.

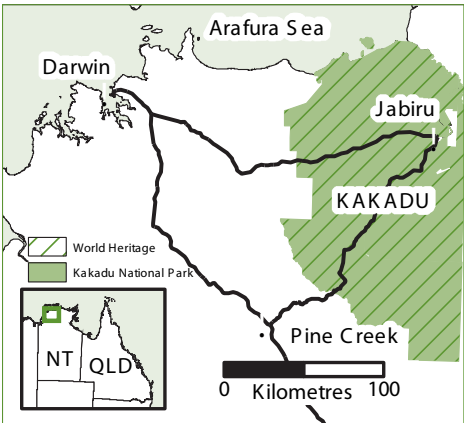


Park rehabilitation crew planting at the forest edge.

Since 1998, approximately 144 hectares have been planted by Parks Australia, with 13 hectares of new primary planting and 13 hectares of secondary plantings in 2007–08. There are currently over 100 hectares under active maintenance by the rehabilitation program. Christmas Island Mine-site to Forest Rehabilitation funding for 2007–08 was \$1.18 million, and proposed future funding for the program is \$2.05 million over the next year and a half (the current MoU ends in February 2010).

Kakadu National Park

www.environment.gov.au/parks/kakadu



Special features

Kakadu National Park is inscribed on the World Heritage List for both its natural and cultural values. It is one of the most ecologically and biologically diverse places in Australia.

Kakadu's traditional owners maintain strong links to their country, links that are demonstrated through their cultural practices, spiritual beliefs and traditional management and use of their country. An estimated 15,000 rock art sites and innumerable artefacts and sites of

cultural, archaeological and historic significance in the Kakadu region contribute to archaeological evidence indicating that people have lived continuously in the Kakadu region for at least 50,000 years.

The park contains almost an entire major tropical river catchment (the South Alligator River catchment) and large representative examples of the wet-dry tropical ecosystems of northern Australia. Major landforms in the park include the sandstone plateau and escarpment, extensive areas of savanna woodlands, monsoon forest, riverine and riparian environments, billabongs, floodplains, mangroves and mudflats.

Location	Latitude 13°29' South, Longitude 132°26' East
Area	1,979,767 hectares ^(a)
Proclamation dates	5 April 1979, 28 February 1984, 12 June 1987, 22 November 1989, 24 June 1991 and 26 May 2007.
IUCN category	Category II
Biogeographic context	Located in the wet-dry tropics Interim Biogeographic Regionalisation for Australia regions: Darwin Coastal; Arnhem Plateau; Pine Creek
Management plan	Fifth plan expires 1 January 2014
Other significant management documents	Shared Vision for Tourism; district fire management plans; Crocodile Management Strategy, feral species management plans; Gunlom Mine Sites Rehabilitation Strategy

Financial	Operating	\$20.554 million
	Capital	\$2.141 million
	Revenue	\$1.217 million
	Paid to traditional owners	\$1.627 million
Visitors	227,262 visitors (May 2007–April 2008)	
Permits	104 Film and photography (July 2007–June 2008) 108 Commercial tour operator permits issued (April 2007–March 2008) 31 Research; 662 Bushwalking (July 2007–June 2008)	

(a) The area of Kakadu was adjusted in 2007, taking into account more accurate survey data provided by the NT Government. This figure includes a number of old mining leases in the south of Kakadu, incorporated into the park in May 2007.

International conventions and agreements	
World Heritage Convention	Listed under cultural criteria (i) and (vi) and natural criteria (ii), (iii) and (iv), recognising the park's outstanding natural and cultural values
Wetlands (Ramsar) Convention	1,375,940 hectares of wetlands are listed (683,000 hectares in stage 1 and components of stage 3 plus 692,940 hectares in stage 2)
Migratory Species (Bonn) Convention	39 of 105 listed Australian species
China–Australia Migratory Birds Agreement	51 of 81 listed species
Japan–Australia Migratory Birds Agreement	49 of 77 listed species
Korea–Australia Migratory Birds Agreement	41 of 59 listed species
Other agreements	Tri-National Wetlands Memorandum of Understanding (links Kakadu, Wasur National Park in Indonesia and Tonda Wildlife Management Area in Papua New Guinea)

Environment Protection and Biodiversity Conservation Act 1999		
Listed fauna	Species	2 critically endangered 8 endangered 11 vulnerable 108 migratory 114 marine
	Recovery plans	3 being implemented: golden bandicoot (<i>Isodon auratus</i>) and golden-backed tree rat (<i>Mesembriomys macrurus</i>); eastern partridge pigeon (<i>Geophaps smithii smithii</i>), crested shrike tit (<i>Falcunculus frontatus whitei</i>) and northern masked owl (<i>Tyto novaehollandiae kimberli</i>); marine turtles 8 in preparation: bare-rumped sheath-tail bat (<i>Saccolaimus saccolaimus nudiclunatus</i>); red goshawk (<i>Erythrotriorchis radiatus</i>); yellow chat (<i>Epthianura crocea macgregori</i>); Gouldian finch (<i>Erythrura gouldiae</i>); freshwater sawfish (<i>Pristis microdon</i>); speartooth shark (<i>Glyphis sp.A</i>); northern rivers shark (<i>Glyphis sp.C</i>); water mouse (<i>Xeromys myoides</i>)
Listed flora	Species	1 critically endangered 2 vulnerable
	Recovery plans	1 in preparation: multi-species boronia
Heritage	On National Heritage List	

Numbers of native species recorded					
Mammals	Birds	Reptiles	Amphibians	Fish	Plants
68 (19)	292 (35)	134 (32)	26 (2)	320 276 marine and estuarine, 44 freshwater (60)	2,022 (14)

Figures in brackets are the numbers of species that are a management priority

Board of management

The Minister for the Environment, Heritage and the Arts appoints members to the Kakadu National Park Board of Management. The board has 15 members, ten of whom are appointed as representatives of the park's traditional owners, representing the geographic spread of Aboriginal people in the region and the major language groupings. The remaining members are the Director of National Parks, the Assistant Secretary Parks Australia North, nominees with environmental and tourism expertise, and a nominee of the NT Government. Following the resignation of a nominee with environmental expertise last year, a process was commenced to engage a replacement. The current board has served three years of its five-year term.

Monitoring

Monitoring and control continued for introduced plants including *Mimosa pigra*, mission grass (*Pennisetum polystachion*), olive hymenachne (*Hymenachne amplexicaulis*), salvinia (*Salvinia molesta*) at Yellow Water and gamba grass (*Andropogon gayanus*). Of these, salvinia and mission grass continue to be major challenges for the park. In previous years, weevils have proved effective in controlling salvinia but in the last 12 months, insufficient numbers of weevils were available for collection. Two relatively new weed species were also targeted in the park: snakeweed (*Stachytarphetta*) and knobweed (*Hyptis capitata*). In Jabiru township, park staff collaborated with the Jabiru Town Development Authority and Energy Resources Australia in the Weedy Time Bomb Project, which addressed prominent weed species introduced into domestic gardens.

The main feral pest activity concerned ground level shooting of pigs and buffaloes. There were no instances of introduced invasive ants, such as big-headed ants (*Pheidole megacephala*) or ginger ants (*Solenopsis geminata*).

Studies of estuarine crocodile (*Crocodylus porosus*) populations and nesting flatback turtles (*Natator depressus*) in coastal areas of the park continued. A review of crocodile survey data gathered over 10 years has been finalised.

The second phase of the major program for monitoring broad-scale trends in Kakadu's fauna commenced in 2007. This program involves undertaking fauna surveys at 134 fireplots in the park, which were initially set up to monitor the impacts of fire on different vegetation types. This program links fauna monitoring with monitoring of fire and vegetation, and allows investigation of trends in a regional context, as comparable monitoring also takes place at Litchfield and Nitmiluk National Parks.

A major collaborative project with the Northern Territory Biodiversity Conservation Division commenced in 2008. This project involves undertaking targeted surveys of threatened species in recognised biodiversity hotspots in the park, largely in the Arnhem Land Plateau. The first survey in this 3 year project was completed in May 2008 and involved Kakadu National Park staff, NT Government staff, a neighbouring indigenous ranger group and senior traditional owners from Arnhem Land.

These programs indicate there is a significant ongoing decline in some mammal species across northern Australia, including within the park. The park is continuing to support research and monitoring to try and determine the cause(s) of these declines.

Fire management and monitoring was undertaken throughout the park, based on a strategic framework of regular data collection and inter-district meetings. The Stone Country Burning Program was again implemented, following the positive results last year in prevention of late dry season intense fires and involvement by Bininj in bushwalking/burning activities. The intention of the program is to establish an appropriate fire regime to protect sensitive biodiversity values and facilitate cultural activities on country.

Substantial work was undertaken for monitoring and managing cultural heritage sites throughout the park, including visits to remote areas by traditional owners and district staff. Park staff also added to existing oral history recordings and development of a cultural heritage sites register, with the support and involvement of traditional owners.

Future challenges

Major challenges are:

- implementing the Fifth Management Plan that came into effect last year, especially those actions that support Indigenous business ventures and employment including capacity building, address caring for country challenges, support Kakadu's living cultural values and support its World Heritage values
- understanding the impacts of fire, ferals and climate change, coordinating research in these areas and adapting management accordingly
- identifying the cause of small mammal decline and taking appropriate action
- controlling the spread of weeds and the impact of introduced animals
- rehabilitating old uranium mine sites in the southern Gunlom area (a major project over three years). Rehabilitation works include removing buildings that once supported mining activities and appropriate containment of mine tailings
- developing systems and partnerships to make the best use of resources
- developing staff through formal and informal training programs
- ensuring visitor and staff safety.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Fire management, particularly in sandstone country
- Managing weeds and feral animals
- Ranger mine site rehabilitation
- Monitoring and protection of threatened species
- Decline of small-mammal populations in the park
- Enhancing the recording, storage and display of species data
- Improving understanding and protection of the marine environments of the Kakadu coast
- The future impact of climate change on Kakadu, particularly on freshwater wetlands

- The spread of introduced pasture grasses and subsequent increase in fire intensity
- Introduced pest species and their impacts

Actions

- Review and implement appropriate fire regimes for the variety of habitats within the park, particularly an escarpment fire plan
- Finalise the feral animal strategy and have it peer reviewed
- Monitor threatened species in biodiversity hot spots
- Detect and treat invasive ant infestations
- Continue to control serious pest plant species, focusing on weeds of national significance including mimosa, salvinia and olive hymenachne, as well as mission grass, gamba grass and other introduced pasture grasses
- Improve knowledge of landscape change processes
- Identify gaps in knowledge about potential climate change impacts
- Continue monitoring native animals affected by cane toads
- Develop programs to monitor the impact of visitor use on Kakadu's natural values
- Improve the use of GIS technology in recording weed locations and weed data
- Commission and support research that will improve management of the park's natural and cultural values

Performance results 2007-08

- Finalised the proceedings from the Landscape Change Symposium held in 2007
- Hosted the Weed Management Workshop in November 2007 and Fire Management Workshop in April 2008
- Undertook the first survey as part of a three-year contract with the NT Government to undertake collaborative threatened species monitoring in biodiversity hotspots
- Continued resampling of fauna at Kakadu fire plots
- Commenced a collaborative study examining the incidence of disease in small mammal populations
- Continued bushwalking burning program in the Arnhem Land Plateau—outcomes valued by traditional owners and scientists
- Supported ongoing study on the impact of cane toads on native frog populations
- Supported PhD research on the magpie goose (*Anseranas semipalmata*) that examines critical relationships between geese and wetland food plants, seasonal dispersal patterns of geese, the impact of disease on populations and the likely ramifications of sea level rise (through GIS-based models). Discussion of these issues will have relevance to the long term conservation of magpie geese, as well as for traditional harvest

- Continued collaborative project with NT Government on two species of coastal dolphins, the Indo-Pacific humpback (*Sousa chinensis*) and Australian snubfin (*Orcaella heinsohni*)
- Supported a NT Government project to relocate golden bandicoots (*Isoodon auratus*) onto an offshore island

KRA2: Cultural heritage management

Major issues

- Protection and appropriate presentation of World Heritage cultural heritage values
- Managing the park as part of a living culture for *Bininj*
- Supporting traditional owner participation in cultural activities and traditional practices
- Balancing the need to protect rock art and other significant Aboriginal heritage with facilitating their appreciation by visitors

Actions

- Develop strategic programs for the conservation and monitoring of Kakadu's unique cultural value in consultation with *Bininj*
- Continue rock art protection and maintenance work
- Continue cataloguing and preserving cultural heritage materials
- Continue to collect oral histories and ensure these are properly protected and archived
- Support traditional owner leadership in natural and cultural resource management activities
- Establish two-way learning strategies and programs
- Facilitate visits on country for *Bininj*, particularly in remote locations as a tool for re-establishing cultural links to country
- Seek opportunities to transfer knowledge between generations
- Ensure that Kakadu's living cultural status is recognised in tourism strategy development and decision-making
- Review the approach to protection and interpretation of historic heritage in the park

Performance results 2007–08

- Commenced review of recorded cultural material, storage of cultural objects, and cultural heritage databases in consultation with *Bininj/Mungguy*. The review will include development of protocols to ensure that these sensitive cultural resources can be accessed appropriately and in a user-friendly format



- Established the Gun-mayali ('sharing of knowledge', Kunwingku language) Room at Headquarters for use by *Bininj* in accessing cultural materials and records
- Continued to develop a register of oral history audio and video material and action an ongoing plan to record history from identified key informants, in particular key traditional owners
- Developed a partnership agreement between the National Archives of Australia and the Director for long-term storage and protection of audio and video materials currently held in the park
- Stone materials collected from Leichardt Billabong 14 years ago were returned
- Conducted extensive consultations with staff and traditional owners in all districts about the preferred approach and priorities for cultural heritage under the Fifth Management Plan, including rock art maintenance, oral history collection and cultural activities that support the transfer of knowledge between generations and between traditional owners and staff
- Developed workplans with districts for rock art monitoring and maintenance
- Continued rock art maintenance at public visitation sites with the involvement of relevant Aboriginal people
- Completed four visits to rock art and other culturally significant sites in remote locations with traditional owners
- Commenced discussions with the Aboriginal Areas Protection Authority and Northern Land Council about a register of sites of significance and access protocols
- Commenced a review of historic (non-Aboriginal) cultural heritage sites in the park
- Assessed the heritage significance of Mudginberri Abattoir Complex and Anlarrh

KRA3: Joint management

Major issues

- Meeting the commitments outlined in the lease and the Fifth Management Plan
- Ensuring shared decision-making occurs at all levels within the park
- Monitoring and reporting on implementation of the Fifth Management Plan

Actions

- Ensure decision-making is consistent with the consultation guidelines
- Encourage increased Aboriginal engagement in work plans through recruitment and skills development programs
- Support traditional land management projects
- Support the Board of Management
- Continue day-to-day consultations with traditional owners

Performance results 2007–08

- The board developed priorities and approved the implementation schedule for the Fifth Management Plan in January 2008
- Relevant Aboriginal staff continued certificate level studies, numeracy and literacy training. *Bininj* staff continued with workplace English language and literacy training
- Continued programs to re-engage young Aboriginal people in education and continued Junior Ranger program with Jabiru Area School
- Continued skill development and training for relevant Aboriginal staff via completion of a range of internal and external courses
- Consulted on wide-ranging park management issues with traditional owners and other relevant Aboriginal people through the Northern Land Council
- Continued day-to-day joint decision-making by relevant Aboriginal people and park staff
- Continued supporting a Northern Land Council Kakadu Officer position under the Memorandum of Understanding with the Northern Land Council
- Held quarterly meetings of the Kakadu National Park Board of Management and special meetings to discuss commercial harvesting under the management plan and new branding of the park

KRA4: Visitor management and reserve use*Major issues*

- Developing a new brand for Kakadu, which better positions the park as a major tourist destination in the Top End, nationally and internationally
- Improving the quality and range of visitors' experiences
- Improving visitor safety
- Communicating with the tourism industry
- Implementing the Shared Vision for Tourism and strategic direction for increasing value from tourism

Actions

- Develop a brand strategy focusing on experiencing Kakadu's World Heritage values and develop a tourism masterplan
- Monitor the permitting system for tour operations and accreditation of tour guides
- Increase knowledge of visitation patterns and experiences
- Regularly review safety of visitor areas
- Regularly inspect and maintain visitor facilities

Performance results 2007–08

- Developed a new brand for promoting Kakadu, following intensive consultation with traditional owners and the tourism industry. It includes a new logo for the park, new uniforms for park staff, and a new Visitor Guide. These elements were formally launched at a special event in July 2008. Other aspects, such as a review of signage to be consistent with the new brand, and reviewing new concepts for the park's northern entrance, will continue over the next twelve months
- Finalised a draft tourism master plan, which seeks to address the park's target market and also scopes opportunities for an increased contribution by Indigenous businesses, for release for public comment
- Made substantial progress on a new user-friendly Kakadu website for visitors which will assist in matching visitor expectations to experiences in the park as well as conveying essential information for travellers
- Continued reviews of tour operator permit conditions and monitored the implementation of the park's tour guide accreditation program that was utilised last year
- Continued to deliver well-regarded seasonal interpretive ranger programs incorporating natural and cultural content
- Continued to provide detailed visitor information for use in tourism planning and resource allocation including improved monitoring methods and associated survey data
- Supported Aboriginal enterprise development and involvement in tourism ventures such as: the Werenbun Tourist Information, Wurrng Cultural Walk, Guluyambi Boat Cruise, Kakadu Culture Camp, Gunlom Kiosk, Hawk Dreaming and Murdujul Art Centre. This was achieved through the Kakadu Indigenous Tourism Development Fund plus financial support for relevant Aboriginal people to attend tourism industry events and in-kind assistance to produce collective promotional material
- Continued to upgrade visitor infrastructure throughout the park, including the replacement of the Jim Jim Creek crossing and commencement of work on the South Alligator bore for an improved water supply. The park's Incident Response Plan was also extensively reviewed.

KRA5: Stakeholders and partnerships

Major issues

- Continuing effective relationships with the tourism industry, Northern Territory (NT) Government and neighbours
- Continuing to participate in local, regional, national and international initiatives associated with Kakadu's World Heritage values
- Building relationships with educational institutions to develop 'education to work' pathways for relevant Aboriginal people

Actions

- Build a cooperative relationship with tourism stakeholders such as Tourism Top End and the NT Government
- Develop an operational relationship with park neighbours
- Take an active role in community programs
- Establish and support links with managers of other World Heritage areas
- Implement work programs under the Tri-national Wetlands Agreement between Indonesia, Papua New Guinea and Australia
- Build a strategic alliance with the Jabiru Area School and Charles Darwin University to progress education to work programs

Performance results 2007–08

- Continued an ongoing constructive high-level relationship between the Australian and NT governments, with joint funding and planning to advance tourism in the park and a partnership in employment and education focusing on youth training
- Continued liaison with the NT Bushfires Council and other NT Government agencies, Jabiru Town Council and the Northern Land Council
- Contract signed with WWF Australia for the delivery of the agreed 2008–09 operational plan for the tri-national wetlands agreement between Indonesia, Papua New Guinea and Australia
- Continued the school based Junior Ranger program as part of the Year 6 curriculum at Jabiru Area School
- Supported community events celebrating Indigenous culture and community spirit
- Hosted participants in the UNESCO masters program in World Heritage management

KRA6: Business management

Major issues

- Recognising high levels of staff expertise and performance
- Securing resources to achieve the visions and aims of the Fifth Management Plan and park lease obligations
- Complying with obligations under the *Environment Protection and Biodiversity Conservation Act 1999* and Regulations for the management of Commonwealth reserves
- Maintaining and upgrading infrastructure

Actions

- Implement outcomes from the organisational review of park operations
- Implement the Department's performance development scheme
- Fulfil the Department's financial management and reporting obligations
- Manage park assets and developments to relevant Australian Standards

Performance results 2007–08

- Continued ParkSafe, occupational health and safety training and incident reporting and assessment
- Implemented outcomes of the independent organisational review aimed at allocating and prioritising resources to meet the aims of the park lease and Fifth Management Plan
- Implemented the performance development scheme for all staff focusing on key result areas and staff development
- Prioritised asset management and the work program against risk considerations and maintenance schedules

A living cultural landscape—the Kakadu brand



Kakadu staff Andrew Davies and Hank Schinkel wearing new uniforms developed as part of the Kakadu brand exercise

In 2005 the Kakadu National Park Board of Management released *A Shared Vision for Tourism in Kakadu National Park*. One of the priorities of the vision was to reposition Kakadu as an international tourism destination by developing a new brand that better reflected park values.

The traditional owners of Kakadu have maintained a continuity of culture and connection to the land. This living cultural landscape offers visitors the

opportunity to experience and connect with Aboriginal culture. These elements form the essence of the new brand.

Kakadu has traditionally been promoted to visitors primarily as a nature based tourism destination. Kakadu is one of only a few places in the world that has World Heritage status for both natural and cultural values. The new brand aims to promote Kakadu as an iconic destination with unique indigenous values and experiences.

One of the creative expressions of the brand is the Kakadu identity, a traditional image used to depict the Rainbow Serpent. The Rainbow Serpent is a powerful ancestor and played an important role in the conception of *Bininj/Mungguy* Aboriginal traditional owners. She is also part of the life cycle of plants and animals and the seasonal changes. This cultural design was chosen to represent the *Bininj/Mungguy* and the broader Aboriginal community and is a reminder to *Bininj/Mungguy* custodians about their obligations to care for country.

The new identity has been incorporated in the new Kakadu National Park logo. Other creative expressions of the brand will be seen through a new visitor website, park uniforms, visitor guides and applications to park interpretive material, including park notes and signage.

One of the important elements of managing a national park is ensuring that tourism is encouraged in a sustainable way that promotes the involvement of the traditional owners. The *Bininj/Mungguy* traditional owners have said that tourism should not be the 'boss of country'. They want visitors who respect their culture and country, stay in the park longer and take time to learn the right stories.

The new Kakadu brand aims to attract visitors who want personal experiences and engagement with the local Aboriginal people. Consultation and collaboration with Tourism Australia identified that the primary target markets for Kakadu are the domestic and international 'experience seekers'. These visitors will stay in the park longer, giving them an opportunity to appreciate *Bininj* traditional culture.

By focusing on this target market the new brand will attract people who want to experience Indigenous tourism, which will help create more *Bininj* jobs and strengthen regional tourism. These visitors will emotionally connect to Kakadu and leave the park knowing they have had an experience of a lifetime, having been enriched by a contemporary and traditional Aboriginal culture and gained an appreciation and respect for country.

As part of the brand strategy, Kakadu will continue to develop culturally appropriate and environmentally sustainable experiences that provide insights into contemporary and traditional Aboriginal culture, and the World Heritage values of Kakadu's cultural and natural heritage.

Monitoring fire regimes in Kakadu National Park



*Recording and checking cypress pine.
Late season wildfires have killed many
of these fire-sensitive trees*

Since its inception as a national park in 1979, a number of major fire research and monitoring programs have been undertaken in Kakadu. These long-running programs have provided important ecological insights concerning the responses of eucalypt-dominated savanna systems to imposed fire regimes. Early practices did not always meet the information requirements of conservation managers. In particular, they comprised a relatively narrow set of parameters (e.g. annual early, annual late season fires) applied to a small set of eucalypt-dominated vegetation types.

In 1994 conservation managers from Kakadu, Litchfield and Nitmiluk National Parks established a long-term

applied fire research and monitoring program, designed specifically to meet their conservation requirements. The program has a number of elements:

- maintaining annual fire history mapping of the parks
- monitoring of permanent plots in order to assess changes in status and condition of habitats and particular plants and animals
- providing park managers with measures to quantify success in meeting conservation objectives.

Monitoring program

The three parks fire monitoring program comprises two complementary components: satellite-based mapping of fire events and on-ground assessment of change in biota at a large series of permanent plots. Fire mapping is undertaken at least three times each year to monitor the progression of the fire management program.

220 permanent monitoring plots have been established across the three parks to monitor biotic change. Plots were selected to span the full range of flammable vegetation types, management zones and ambient fire regimes. Many plots were positioned deliberately at sites likely to most efficiently reveal environmental dynamics such as in patches of fire-sensitive vegetation like sandstone heaths.

Detailed floristic and vegetation structural data were collected at the start of the program, and subsequently every five years. Plots are visited at least once annually to record fire incidence and severity. Monitoring of fauna is also undertaken but less intensively due to its greater complexity. Data for the three parks is accessible on a common database.

Major results

Now in its fifteenth year, the program is providing invaluable information. Perhaps most importantly for practical purposes, this research and monitoring supports and informs fire management programs in each park. Knowing where fires are on a daily basis across the three parks clearly has major advantages. Training of staff in the application of fire management information products and tools, and knowing that these are of an international 'best practice' standard, is clearly also beneficial. There is robust evidence that significant challenges remain in delivering ecologically sustainable fire management on all three parks.

In relation to Kakadu, the three parks monitoring program has provided the following major observations:

- *decreasing fire extent*—between 1995 and 2004, an average of 41.7 per cent of Kakadu was burnt annually, down 4.1 per cent from the figure for the period 1980 to 1994
- *increasing fire heterogeneity*—a recent study of fire-induced heterogeneity (a measure of fire patchiness) found that Kakadu's fire management program has progressively improved heterogeneity in each successive five-year period
- *assessing fire severity*—based on 719 fires recorded from 178 monitoring plots in Kakadu and Nitmiluk over the period 1995–2004, 80 per cent of early dry season fires were found to have very low severity whereas 70 per cent of fires later in the dry season were typically much more severe
- *savanna vegetation response to fire*—recent analyses indicate that fire frequency is significantly correlated with declines of small tree stems, tall shrubs and tree species richness. More severe fires are associated with declines of large tree stems, tree and groundcover species richness and population structures of individual plant species
- *fire-sensitive communities and species*—severe fires have impacted significantly on populations of cypress pine (*Callitris intratropica*) and the exposed margins of sandstone rainforests
- *fire frequency and fauna*—recent analysis indicates that high fire frequency observed at many plots is associated with significantly reduced numbers of small native mammal species

- *detecting population change*—analysis of plot data indicates that the program provides a statistically robust means for monitoring common savanna plant populations but not for populations of rare plants or of mobile fauna. Instead, targeted monitoring programs are required for these species.

In summary, while major progress has been made in managing fire in Kakadu since its inception as a national park, fire frequencies need to be further reduced, particularly severe ones.

Challenges

Maintaining the impetus for improved fire management is no easy task. Fire-sensitive plant communities are increasingly at risk, such as the sandstone heaths of the Arnhem Plateau, which have recently been nominated as an Endangered Community under the EPBC Act. Indications show that populations of small native mammals and other relatively sedentary fauna are also highly vulnerable to contemporary fire regimes.

The Kakadu region is recognised internationally as a biodiversity hotspot and sustainable fire management is critical. Monitoring is a key component of any adaptive management program and results demonstrate the utility of a well-designed, robust system. The three parks monitoring program has been formally accepted as one of a small number of nationally significant long-term ecological monitoring 'sites'. The data collected by the three parks program and the insights it has derived are internationally significant, as shown by the publication of results in international scientific literature.

Australia has yet to establish a nationally funded, strategic long-term ecologically-focused monitoring system. The challenge is to improve and sufficiently resource Australia's monitoring programs to meet our national and international ecological monitoring responsibilities.



Fire and carbon in the northern savanna



By implementing strategic prescribed burning programs early in the dry season, the extent of greenhouse gas emissions can be reduced

One of the benefits of the on-going fire research and monitoring program at Kakadu and neighbouring Litchfield and Nitmiluk National Parks has been an assessment of the greenhouse impact of the extensive fires that occur during each dry season in the Top End.

Currently, these fires make a significant contribution to Australia's national greenhouse gas emissions inventory (between 2–3 per cent annually, depending on the severity of the northern fire season). Research

undertaken in western Arnhem Land over the past ten years, complemented by data from the three parks monitoring program (see page 115), demonstrates that greenhouse gas emissions from savanna burning can be substantially reduced with better fire management.

By implementing strategic prescribed burning programs early in the dry season the extent of late dry season wildfires is reduced and with it, greenhouse gas emissions. In fact, emissions from typically less severe early dry season fires are approximately half those from later in the year. Importantly, the use of early dry season burning is totally compatible with both traditional Indigenous fire management, as practised in western Arnhem Land, and biodiversity conservation requirements.

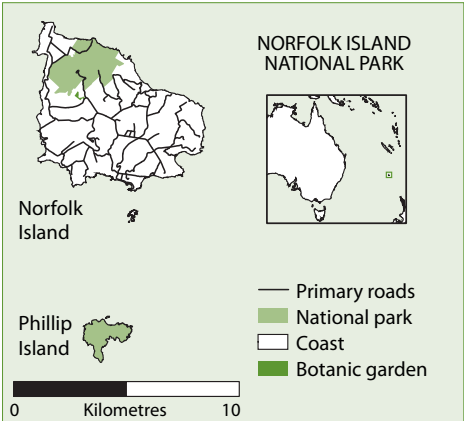
Over the first ten years of the three parks monitoring program, there has been no net change in carbon stocks contained in above and below-ground living tree and shrub biomass (25.7 tons of carbon per hectare) in these eucalypt-dominated woodlands and open-forest savannas. This period has coincided with the wettest, hence most favourable period for growth, on record.

However, closer analysis of the effects of fire regime indicates that fires, especially severe fires, have a small but significant effect on growth increment. A comparison was undertaken of the fire regime of Kakadu, of the first ten years after declaration (when relatively severe late dry season fires were more prevalent) with the current regime (now mostly early dry season fires). Results suggest that, if the current regime is maintained over the next five decades, then Kakadu's savannas will sequester (i.e. function as a carbon sink) an additional 2.5 tons of carbon per hectare. With 1.5 million hectares of this vegetation type, this would equate to about 280,000 tonnes of CO₂ per year.

Should fire frequency be reduced even further in line with biodiversity conservation requirements, then the carbon sequestration capacity of living vegetation in Kakadu's savannas could be even greater.

Norfolk Island National Park and Botanic Garden

www.environment.gov.au/parks/norfolk



Special features

Norfolk Island National Park protects most of the remaining natural vegetation of the island. The park and botanic garden are a refuge for some 40 species found only on the island, including the entire populations of 13 of the island's 15 critically endangered flora species.

Of the 15 species and subspecies of birds once found only on Norfolk Island, seven are known to remain and an additional two species have not been sighted for some time and may be extinct. The park

provides important habitat for native bird fauna and assisted wild breeding programs are in place for two species, the green parrot (*Cyanoramphus novaezelandiae cookii*) and the morepork or boobook owl (*Ninox novaeseelandiae undulata*).

Phillip Island, which is free of human-introduced predators, is an important seabird breeding area. The only terrestrial reptile species found in the Norfolk group—*Christinus guentheri* and *Pseudemoia lichenigera*—are considered extinct on Norfolk Island but still occur on Phillip Island.

Location	Latitude 29°01' South, Longitude 167°56' East
Area	656 hectares (includes Mount Pitt section 460 hectares; Phillip Island 190 hectares; and Norfolk Island Botanic Garden 5.5 hectares)
Proclamation dates	National park 31 January 1986 (Mount Pitt section); 24 January 1996 (Phillip Island) Botanic garden 31 January 1986
IUCN category	National park Category II overall (Phillip Island Category IV) Botanic garden Category IV
Biogeographic context	Isolated small islands of volcanic origin (2 to 3 million years old) in the South Pacific Ocean. Prior to European settlement, Norfolk Island was almost entirely covered by sub-tropical rainforest
Management plan	Current plan expires on 12 February 2018
Other significant management documents	<i>Norfolk Island Public Reserves Act 1997</i> (NI); Norfolk Island Plan; Phillip Island Rehabilitation Strategy; Native Forest Rehabilitation Strategy; Weed Control Strategy for the Preservation and Protection of the Endangered Plants of Norfolk Island; Management Plan Implementation Schedule; Risk Assessment and Management Schedule



Financial	Operating	\$0.971 million
	Capital	\$0.607 million
	Revenue	\$0.007 million
Visitors	25,000 (estimated)	
Permits	11 commercial tour operators (10 for Mount Pitt, 1 for Phillip Island)	

International conventions and agreements

Migratory Species (Bonn) Convention	17 of 105 listed Australian species
China–Australia Migratory Birds Agreement	24 of 81 listed species
Japan–Australia Migratory Birds Agreement	29 of 76 listed species
Korea–Australia Migratory Birds Agreement	22 of 59 listed species

Environment Protection and Biodiversity Conservation Act 1999

Listed fauna	Species	5 extinct 2 endangered 6 vulnerable 37 migratory 57 marine
	Recovery plans	1 being implemented: green parrot (<i>Cyanoramphus novaezelandiae cookii</i>) 2 awaiting preparation: golden whistler (<i>Pachycephala pectoralis xanthoprocta</i>); scarlet robin (<i>Petroica multicolor multicolor</i>). These species will be included in a multi-species recovery plan for the island expected to be completed in 2008–09 1 exempted: Norfolk Island boobook owl (<i>Ninox novaeseelandiae undulata</i>)
Listed flora	Species in listing process	15 critically endangered 16 endangered 15 vulnerable
	Recovery plans	These species will be included in a multi-species recovery plan for the island expected to be finalised in 2008–09
Heritage	Phillip Island is on the Commonwealth Heritage List	

Numbers of native species recorded			
Mammals	Birds	Reptiles	Plants
0	47 (26)	2 (2)	92 (74)

Figures in brackets are the numbers of species that are a management priority

Advisory committee

The Norfolk Island community provides guidance to the Director on national park and botanic garden management through the Norfolk Island National Park Advisory Committee, which meets formally twice a year and informally each month.

Monitoring

Monitoring of Norfolk and Phillip Islands for invasive fauna continues. Recent self introduced and human-introduced species with potential to impact on listed species include: the Asian house gecko (*Hemidactylus frenatus*), Asian paper wasp (*Polistes chinensis*), Argentine ant (*Linepithema humile*), purple swamphen (*Porphyrio porphyrio*) and feral fowl (*Gallus gallus*).

Recovery programs for the Norfolk Island green parrot and morepork (boobook) owl include monitoring and recording nest sites and chicks. Identification bands on individual birds help researchers develop an historical database.

The Weed Control Strategy for the Preservation and Protection of the Endangered Plants of Norfolk Island is regularly reviewed and monitored to ensure its effectiveness.

Rat populations are being monitored as part of a trial of alternative control methods. The monitoring program compares traditional control (poison baits) with an alternative method (spring traps) and an untreated control area.

Park staff assist in a volunteer seabird monitoring and banding program, mostly on Phillip Island.

A park bird monitoring program is scheduled for introduction by the end of 2008.

Future challenges

Major challenges are:

- raising community awareness of invasive species' potential impacts, including those of rats, cats and feral fowl
- finding more efficient and practical ways to meet the requirements of endangered species programs including through the multi-species recovery plan
- achieving a sustainable balance between conserving threatened species and supporting tourism in the park, through enhanced visitor infrastructure
- managing remnant endemic and important native species in the park's forestry zone.



Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Managing fauna and flora pest species
- Managing endangered species
- Building an adequate knowledge base upon which to base management decisions

Actions

- Implement strategic weed control
- Implement identified recovery actions for endangered species
- Continue vertebrate pest species programs
- Document existing knowledge and build the park's knowledge base

Performance results 2007–08

- Completed weed control and replanting in 8 of the 19 coups identified in the rehabilitation strategy for the park's forestry zone. Under the 10-year strategy coups are treated on a two-yearly cycle, focusing on priority weed control to increase habitat opportunities for native species
- Banded 13 green parrot chicks and two owl chicks fledged in the wild breeding program
- Initiated rehabilitation of 23 weed-infested hectares through weed removal and replanting with native species
- Trapped 19 wild cats under the feral cat control program and desexed 64 cats in desexing clinics
- Continued the trial of an alternative rat control methodology and commenced upgrade of rat stations to modern bait/trap boxes
- Expanded the spatial information system's capacity and upgraded staff skills to enable more accurate and effective data recording
- Continued preparation of the multi-species recovery plan, expected to be completed in 2008–09
- Continued to review and update databases and knowledge bases for the herbarium, moss collection, butterfly collection, slide collection and historic photography collection
- Reviewed the Phillip Island rehabilitation strategy

KRA4: Visitor management and reserve use*Major issues*

- Closure of Duncombe Bay Road to the Captain Cook Monument after heavy rain
- Growing visitor expectations on tourism infrastructure
- Some access tracks pose safety issues and are unsuitable for disabled visitors
- Providing high quality interpretive signs and pamphlets

Actions

- Seal surface of Duncombe Bay Road to all weather seal
- Review current access tracks, focus on maintaining high visitation areas
- Investigate safety risks, and take appropriate action

Performance results 2007–08

- Duncombe Bay Road was substantially upgraded and sealed in partnership with the Norfolk Island Government
- Completed stage 7 of the botanic garden boardwalk upgrade
- Constructed amenities block at Palm Glen
- Replaced park entrance signs
- Resurfaced sections of upper Palm Glen Track
- Continued trialling a range of surfaces to improve walking conditions on steep tracks
- Completed a safety survey of all visitor infrastructure and addressed urgent items

KRA5: Stakeholders and partnerships*Major issues*

- Working effectively with the Norfolk Island Government and Administration, local tourism operators, environmentalists, concerned citizens and professional and amateur researchers

Actions

- Meet regularly with tourism industry representatives
- Create avenues for information sharing and access to resources for citizens, stakeholders, and government and non-government organisations
- Educate the community and stakeholders on the role of the Norfolk Island National Park Advisory Committee
- Provide educational opportunities to tourism partners

Performance results 2007–08

- Through networking and regular contact, maintained professional and cordial relationships with the following stakeholders and partners: other Departmental staff; other Australian Government Departments on Norfolk Island; Norfolk Island Government and administration; Norfolk Island tourism operators and industry groups; and environment and conservation groups
- Successfully managed a permit system for the public, stakeholders, and formal and informal partners
- Provided an informative weekly newspaper article covering topical issues with an environmental focus
- Continued to promote use of information sources, such as the website and the section 266A register established under the *Environment Protection and Biodiversity Conservation Act 1999*, for persons who wish to be consulted about permit applications
- Provided an on-island departmental presence primarily as a referral point for wider environmental and heritage issues
- Undertook major infrastructure refurbishment in partnership with Norfolk Island Government

KRA6: Business management

Major issues

- Delivering quality management services within a limited budget

Actions

- Maintain park management services within budget
- Develop staff capacity to deliver financial services

Performance results 2007–08

- Managed operational and capital budgets within allowed parameters

Green parrot recovery on Norfolk Island



Juvenile green parrots in one of the nesting sites at Norfolk Island National Park

The Norfolk Island green parrot, *Cyanoramphus novaezelandiae cookii*, is one of the rarest and most endangered bird species in Australia. It is only found on Norfolk Island where it is largely restricted to forest habitat, most of which is found within Norfolk Island National Park.

Studies conducted in the 1980's revealed that there were less than 30 green parrots remaining on Norfolk Island and urgent action was required to save the species from extinction.

A captive breeding aviary was established in the Park in 1983. Advice was sought from specialists at Taronga Park Zoo and from breeders of a rare and related species in New Zealand, to guide the management of the aviaries. The captive breeding program conducted over 20 years was relatively unsuccessful, with only a few young parrots being released into the wild during the program.

Conservation efforts were also directed to an assisted wild breeding program. Wild nest sites were constructed within the park, ensuring that they were made waterproof and resistant to rat and cat invasion. This has greatly assisted the breeding numbers and resulted in a marked increase in the green parrot population.

Total population size is primarily limited by the availability of predator-free breeding habitat and nesting sites and, ultimately, by habitat loss and the small area of remaining suitable habitat. Predator control programs are continuously operated throughout the park for the control of rats and feral cats, including rat baiting, traps and a community cat desexing program. Additionally, native trees are being planted throughout the National Park to ultimately increase the area of suitable green parrot habitat.

The numbers of green parrots continue to expand in direct relation to the control of invasive species. Visitors to the Island now report sightings of wild green parrots on a regular basis. Further expansion of green parrot numbers may be possible as additional protected nesting sites are established.

Phillip Island, located six kilometres to the south of Norfolk Island, is free of cats and rats and is viewed as possible area in which a new colony of green parrots could be established in the future.

An extended period of dry weather on Norfolk Island over the past decade saw a general downward trend in green parrot chick numbers. However, the recent rains have seen the numbers begin to expand again and we are optimistic for the future of this magnificent bird.

Current wild population is estimated to be 200 individuals including 14–20 active breeding pairs.

Figure 6: Annual numbers of green parrots banded since 1985

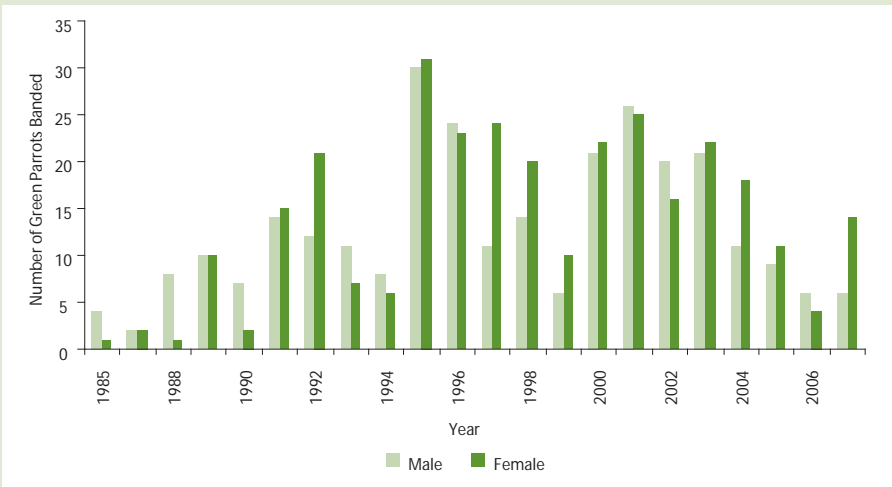
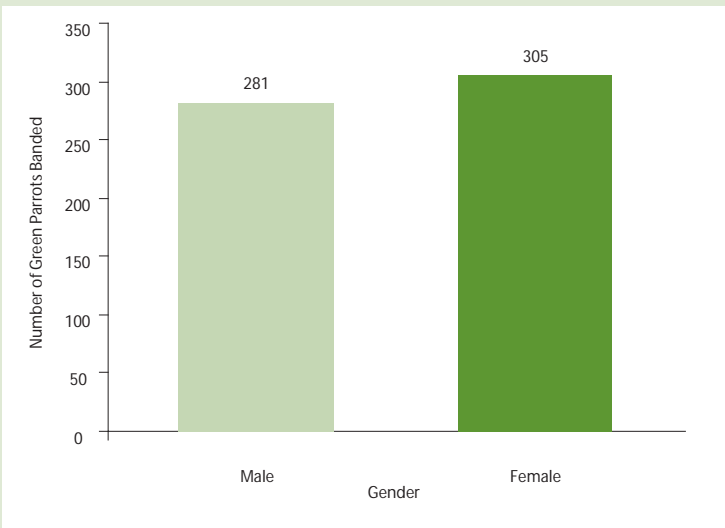


Figure 7: Total number of green parrots banded during the breeding programs



Norfolk Island National Park infrastructure projects



One of the kerbs installed on Duncombe Bay Road during the upgrade of this popular access route.

Two significant capital works projects were undertaken during the year at Norfolk Island National Park—an upgrade to Duncombe Bay Road and the installation of visitor amenities at Palm Glen.

Duncombe Bay Road provides access to the north of the park, leading to the popular Captain Cook Monument, and a lookout providing unobstructed views of the Island's northern shores.

The park has been actively maintaining and upgrading Duncombe Bay Road since the Park was first declared in 1986. The road was initially a narrow unstable track with loose stones and areas of soft clay, making it impassable during rain. It was subsequently widened and graded to be more accessible to visitors. However, as the road lies across the fall of a catchment area, much of the water runoff during rain events was naturally directed onto the road surface. This made it difficult to maintain and continued to cause some road closures.

Stage one of the current upgrade commenced in 2006–7, involving an upgrade of drainage and bank stabilisation for the area. The road was also realigned to improve access. October 2007 saw the commencement of stage two, with kerbing, profiling and sealing of the road surface undertaken. These works were part funded by the Norfolk Island government.

These works were originally due for completion in late November 2007, but after 8–10 years of drought on Norfolk Island, the work has been subject to unscheduled delays as a result of intense rainfall events. The road has been constructed to a high standard, providing significant improvements to the quality of access to this area. The upgrade of Duncombe Bay Road is due to be completed in August 2008.

Palm Glen is also a popular access point into the Park, consisting of a prime lookout area, a track designed for the ambulant disabled, and a forest loop walk that appeals to many of the elderly visitors to the Park. In response to information provided in local visitor surveys, and by tour operators, toilet facilities were constructed this year to improve the area's amenity.



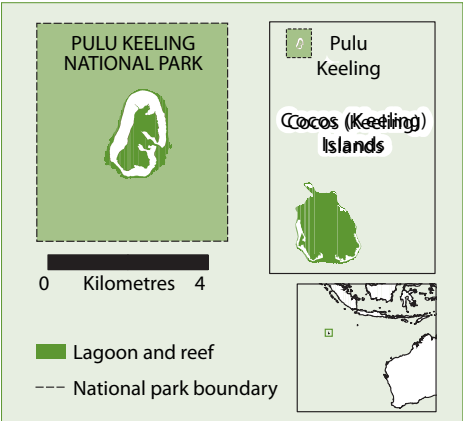
The new amenities are constructed to match the traditional Norfolk Island building style, using locally sourced Norfolk Island pine

The building was designed to fit with local traditional building styles. Most of the structure and exterior cladding is made of timber, milled from Norfolk Island pines that died from drought stress on the Island. The amenities are located a few metres from the car park and are designed to comfortably facilitate wheelchair access. The surrounding site has been sensitively landscaped and planted with native species.

The area is serviced by a gravelled road and is located approximately 2 kilometres from the nearest mains electricity. To reduce our carbon footprint, the facility has been designed to utilise solar panels for lighting and power for pumping water from the rainwater tank. These works complete the current suite of tourism infrastructure upgrades planned for the park and significantly improve the experience of visitors to Norfolk Island.

Pulu Keeling National Park

www.environment.gov.au/parks/cocos



Special features

Pulu Keeling National Park’s most outstanding feature is its intact coral atoll ecosystem. With the widespread global decline of similar coral island habitats and their reefs due to human interactions, the conservation and protection of the park and its wildlife is of international importance.

The park, which makes up the whole of North Keeling Island, is an internationally significant seabird rookery. The breeding colony of the dominant bird species—

the red-footed booby (*Sula sula*)—is one of the largest in the world. The island is also the main habitat of the endangered Cocos buff-banded rail (*Gallirallus philippensis andrewsi*), found only on the Cocos (Keeling) Islands.

The critically endangered Round Island petrel (*Pterodroma arminjoniana*) has been recorded on the island but has not been sighted in recent years, despite intensive searching. Green turtles (*Chelonia mydas*) nest on the island and hawksbill turtles (*Eretmochelys imbricata*) inhabit the waters of the park; both species are listed as vulnerable.

Location	Latitude 11°50’ South, Longitude 96°49’ East	
Area	2,602 hectares (including marine area extending 1.5 kilometres around North Keeling Island)	
Proclamation date	12 December 1995	
IUCN category	Category II overall comprising: Terrestrial Zone Category Ia (122 hectares) Marine Zone Category II (2,480 hectares)	
Biogeographic context	Isolated atoll in the Indian Ocean formed atop an old volcanic seamount	
Management plan	Second plan expires 27 April 2011	
Other significant management documents	Visitor access, boating, diving and fishing strategies; Management Plan Implementation Schedule; Risk Assessment and Management Schedule	
Financial	Operating	\$0.673 million
	Capital	\$0.046 million
	Revenue	\$0.017 million

Visitors	102 visitors signed in at the Home Island Office 52 visitors to Pulu Keeling National Park
Permits	3 commercial tour operators (1 each for diving, surfing and terrestrial tours); 46 marine access entry permits

International conventions and agreements

Wetlands (Ramsar) Convention	Entire park listed
Migratory Species (Bonn) Convention	10 of 105 listed Australian species
China–Australia Migratory Birds Agreement	15 of 81 listed species
Japan–Australia Migratory Birds Agreement	15 of 77 listed species
Korea–Australia Migratory Birds Agreement	8 of 59 listed species

Environment Protection and Biodiversity Conservation Act 1999

Listed fauna	Species	1 critically endangered 4 endangered 5 vulnerable 24 migratory 36 marine
	Recovery plans	4 being implemented: blue whale (<i>Balaenoptera musculus</i>); sei whale (<i>Balaenoptera borealis</i>); Round Island petrel (<i>Pterodroma arminjoniana</i>); marine turtles
Listed flora	Species	None
Heritage	North Keeling Island on Commonwealth Heritage List	

Numbers of native species recorded

Mammals	Birds	Reptiles	Plants
5 (2)	24 (8)	6 (5)	31

Figures in brackets are the numbers of species that are a management priority

Management arrangements/Management committee

The Pulu Keeling National Park Community Management Committee comprises the Director of National Parks (or his nominee), three others nominated by the Director and six community representatives nominated by the Cocos (Keeling) Islands Shire Council.

Monitoring

The red-footed booby population on North Keeling Island has been monitored since 1985. Analysis of the data in 2005 again put the number at around 30,000 breeding pairs.

With a current estimate of 1,000 individuals, the buff-banded rail population remains stable in the park and staff members continue to monitor the population.

A consultant team funded under the Envirofund program continued work with the local community on a proposal for restoration of habitat for the buff-banded rail. The proposal includes establishing a second viable population within the Cocos (Keeling) Islands group.

The first stage of the Recovery Plan was carried out in March 2008. The primary tasks were to trial capture methods for birds (for relocation to islands on the southern atoll) and to conduct preliminary radio tracking of individual birds to gain data on their movements and home range (see case study on page 137).

Systematic monitoring of marine turtles is maintained at the park. Breeding activities are documented when staff members undertake regular overnight trips. This monitoring program has been performed over the last eight years.

A systematic monitoring program for introduced yellow crazy ants (*Anoplolepis gracilipes*) has been initiated. The program follows the methodology employed at Christmas Island National Park.

Future challenges

Major challenges are:

- preventing the introduction of pests and diseases to the park
- containing the impact of exotic species. Island fauna is especially vulnerable to the introduction of exotic species; outbreaks of scale insects and weeds (especially Siam weed *Chromolaena odorata*); and die-back (*Phytophthora* spp.) on nearby Christmas Island and in Western Australia may pose a threat to the park
- managing for global warming, which poses a particular challenge to the future management of low-lying atolls such as North Keeling.



Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Regular access to the park to perform routine tasks
- Managing visitor entry to the park
- Preventing illegal wildlife harvesting
- Monitoring red-footed boobies, coral reef health and exotic species

Actions

- Maintain a workable arrangement with the service provider of the vessel for access to the park
- Continue the ongoing community education and relations, and interpretation program
- Maintain surveillance, boat patrols and education
- Assist the community to prepare an application for a legal harvest of red-footed boobies
- Regularly survey bird numbers

Performance results 2007-08

- Established an office on Home Island to focus on community educational activities
- Gained sufficient access to the park to undertake seabird monitoring and routine duties, due to the availability of vessels as needed
- Installed remote surveillance equipment and technology to provide more effective detection of illegal park entry and poaching
- Carried out educational activities with the local school and the general community to encourage environmentally responsible behaviour and to develop greater appreciation of the Park's biodiversity values
- Continued working with the larger community and other law enforcement agencies to detect incidents involving protected species

KRA2: Cultural heritage management

Major issues

- Managing visitor access to the SMS *Emden* shipwreck as it is becoming a popular diving site
- Managing visitors to Malay gravesites

Actions

- Ensure access to sites is managed appropriately

Performance results 2007-08

- Effectively managed cultural heritage sites
- Conducted guided tours of the grave sites and the *Emden* memorial site on the beach
- Cleaned grave sites
- Information on culturally significant sites was provided to the communities through the educational activities

KRA4: Visitor management and reserve use

Major issues

- Managing the risks of introduction of exotic species by park visitors

Actions

- Implement quarantine procedures
- Prevent introduction of exotic species

Performance results 2007-08

- Inspected visitors' equipment and clothing and scrubbed footwear prior to visitors swimming ashore. No evidence was found that new species had been introduced



KRA5: Stakeholders and partnerships

Major issues

- Dissatisfaction with park management due to a perceived lack of obvious benefits to the community

Actions

- Promote the benefits of the park (including employment, tourism and local expenditure)

Performance results 2007-08

- To raise Parks Australia's profile, a Home Island office was established and staffed two days a week—this is in addition to the existing office on West Island
- Maintained regular meetings and communication with stakeholders

KRA6: Business management

Major issues

- Isolation restricts training opportunities

Actions

- Train staff more effectively
- Make the best use of staff visits to the park within budget constraints

Performance results 2007-08

- Managed operational and capital budgets within approved parameters
- Provided staff with local training in law-enforcement and compliance management and Geographic Information System (GIS) application
- A ranger continued a lands, parks and wildlife correspondence course

Second Parks Office for Cocos Islands: reaching out further



Ismail MacRae (Acting Manager) and Haji Wahin Bynie OAM (Senior member of the Muslim Community at Home Island) at the official opening of the Home Island Office

If greater positive returns are received through exposing financial investments to a bigger market, the establishment of a second office at Home Island should yield similar outcomes in the long term—by providing community education, encouraging responsible use of the Park and greater appreciation of the Park's values.

Of the two inhabited islands within the Cocos (Keeling) Islands group, Home Island supports 80 per cent of

the permanent residents, with the remainder residing on West Island. As many transient workers and tourists frequently travel to Home Island, the new park office is exposed to the largest possible share of the population.

Community education and fostering community relations have been integral parts of Parks Australia's core business. The new Home Island office is equipped to support these ongoing and evolving efforts. Various activities targeting audiences from differing age groups, cultural and language backgrounds and literacy levels, have been performed since Parks Australia became established on the island some 20 years ago.

Having an office on Home Island presents more opportunities for Parks Australia staff to expand and build on the current community education efforts. An opportunity to develop the second office was realised when the new Community Resource Centre was completed on Home Island in 2007. After relevant approvals were obtained, the office was formally opened in September 2007. Centrally located with neighbouring organisations providing essential services, the centre attracts considerable interest from visitors and local residents.

Almost a year since its opening, the office is now staffed 2 days a week.

The key achievements of the Home Island office are:

- over 100 people have visited the office
- more than 200 native plant seedlings provided to community groups and the Shire
- staff established a collection of native plant species and trees at the Centre's garden
- four educational slideshows presented to the community
- regularly changing wildlife information and multi-media displays are presented
- displays of cultural and natural history photos and information
- a central meeting place for relevant groups, such as the Pulu Keeling National Park Consultative Management Committee
- a central place for community members to obtain permits for Park access and to talk to Parks staff members about issues facing the National Park.

The next challenge for Parks Australia Staff is to develop and deliver further information, presentations, and activities to capture local interest and to assist in educating the community of the outstanding biodiversity values of the Park.

Relocation program for the Cocos Island buff-banded rail



A Cocos Island buff-banded rail adult with leg band

Parks Australia staff at the Cocos (Keeling) Islands have taken the first steps towards the recovery of the endemic Cocos buff-banded rail, *Gallirallus philippensis andrewsi*. This semi-flightless bird was formerly distributed across the entire Cocos (Keeling) Islands group. However, buff-banded rails became extinct from the southern atoll as recently as the 1980s or 1990s, probably as a result of habitat destruction and degradation, predation by introduced rats and cats, competition with feral chickens and human hunting pressure.

The sub-species is now restricted to Pulu Keeling National Park. The

population appears to be relatively stable, with survey estimates suggesting around 750-1100 birds living on the island. The isolated nature of this single population over such a small area leaves the species vulnerable to random genetic and demographic factors (such as inbreeding and genetic drift) and catastrophic events (predator introduction, tropical cyclones and tsunamis). Consequently, the Cocos buff-banded rail is classified as Endangered under the *Environment Protection and Biodiversity Conservation Act, 1999*.

The only option to decrease the risk of extinction of the Cocos buff-banded rail is to establish a second population on the southern atoll of the island group. This is the primary objective of the *National Recovery Plan for the Buff-banded Rail (Cocos (Keeling) Islands) Gallirallus philippensis andrewsi*, which was adopted by the Australian Government in 2006.

In March 2008, a team of seven scientists from Canberra and Darwin, and three Parks Australia staff, captured 29 adult rails and two nestlings. Radio transmitters were attached to ten of the adults. This information was used to determine preliminary estimates of the home range of buff-banded rails. A month after fitting the radio transmitters, staff returned to Pulu Keeling and found that the tiny devices were still working successfully.

Blood samples were taken from each captured bird, and DNA samples have been successfully extracted. These samples are currently being analysed by geneticists at the Australian National University in Canberra. The results from

this analysis will be used to determine how individuals from various parts of the Pulu Keeling are related. Ideally, the birds to be translocated will represent an optimal level of genetic variability to reduce risk of genetic deficiencies in the relocated population, such as inbreeding.



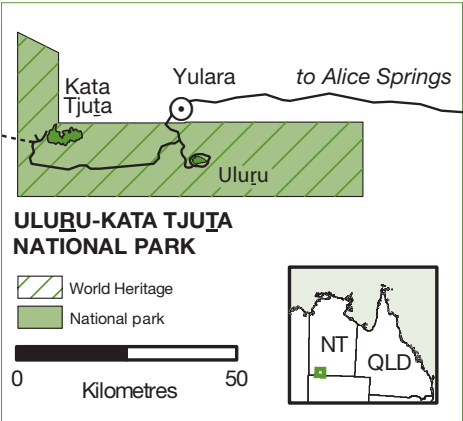
Dr Chris Boland (Ranger) radio tracking buff-banded rails at Pulu Keeling National Park

Direction Island on the south atoll is considered to be the best candidate for the relocation program. As it is uninhabited, but easily accessed, Parks Australia staff will be able to easily monitor the condition of the relocated population. The island will first need to be cleared of feral jungle fowl and rats. Native trees also need to be planted on the island to ensure the rails have every chance of surviving. Restoration of native vegetation on sections of the island is in progress.

The proposal involves translocation in two stages, with 20 birds being moved to Direction Island initially. If that translocation attempt is successful, an additional 20 birds will be relocated to the island after a further two to three weeks. The proposed monitoring program for the rails will comprehensively assess the success of the translocation in the immediate, mid and long term future.

Uluru–Kata Tjuta National Park

www.environment.gov.au/parks/uluru



Special features

Uluru–Kata Tjuta National Park is inscribed on the World Heritage List for both the cultural and natural values of its landscape. The park supports Traditional Owners to maintain their living culture and contains landscapes of exceptional scenic beauty. It also protects the iconic rock outcrops of Uluru and Kata Tjuta and outstanding examples of arid zone flora and fauna.

Uluru–Kata Tjuta National Park is a place of great spiritual and cultural importance to *Anangu* (western desert Aboriginal) men and women. For countless generations this ancient landscape has been influenced by the activities of *Anangu* and their ancestors. The land management techniques that are a feature of these activities are an intrinsic part of *Tjukurpa* (traditional law and culture) and a feature of the joint management of the park by *Anangu* and Parks Australia.

Location	Latitude 25°15' South, Longitude 130°43' East	
Area	132,566 hectares	
Proclamation dates	24 May 1977, 28 October 1985	
IUCN category	Category II	
Biogeographic context	Interim Biogeographic Regionalisation for Australia region: Great Sandy Desert	
Management plan	Fourth plan officially expired 28 June 2007. In March 2007 the Board of Management requested the Director continue to manage the park in accordance with the Fourth Management Plan until the fifth plan is finalised and approved.	
Other significant management documents	Lease between the Uluru–Kata Tjuta Aboriginal Land Trust and the Director of National Parks; Visitor Infrastructure Master Plan; Uluru Climb Health and Safety Report; Cultural Heritage Action Plan; Women's Cultural Heritage Plan.	
Financial	Operating	\$12.034 million
	Capital	\$11.207 million
	Revenue	\$7.414 million
	Paid to traditional owners	\$1.951 million

	An estimated 312,246 paying visitors (16 years and above) based on park tickets sold
	207 film/photography; 99 tour operators; 4 research
	Visitor survey conducted in June 2008. Results from survey to be available in 2008-09.

	Listed under cultural criteria (v) and (vi) and natural criteria (ii) and (iii), recognising the park's outstanding natural and cultural values and its significance as a cultural landscape
	11 of 105 listed Australian species
	13 of 81 listed species
	13 of 77 listed species
	12 of 59 listed species
	Convention on Biological Diversity; Listed as a biosphere reserve under the UNESCO Man and the Biosphere Program

Environment Protection and Biodiversity Conservation Act 1999

Listed fauna	Species	6 extinct 5 endangered 9 vulnerable 17 migratory 36 marine (birds)
	Recovery plans ^(a)	3 being implemented: mala or rufous hare wallaby (<i>Lagorchestes hirsutus</i>); tjakura or great desert skink (<i>Egernia kintorei</i>); itjariitjari or southern marsupial mole (<i>Notorcytes typhlops</i>) 2 in preparation: murjta or mulgara (<i>Dasycercus cristicauda</i>); waru or black-flanked rock-wallaby (<i>Petrogale lateralis</i>)
Listed flora	None	
Heritage	On National Heritage List and Commonwealth Heritage List	

(a) Less than last year as the golden bandicoot (*Isodon auratus*) and Alice Springs mouse (*Pseudomys fieldi*) have only been recorded from bones found in owl pellets in the early 1980's. These species now have very restricted ranges and do not occur in the vicinity of Uluru.

Numbers of native species recorded

Mammals	Birds	Reptiles	Fish	Amphibians	Plants
21 (14)	170 (2)	73 (3)	None	4 (1)	over 400

Figures in brackets are the numbers of species that are a management priority

Board of Management

The current board was appointed by the then Minister for the Environment and Heritage in October 2003 for a period of five years. The structure of the Uluru–Kata Tjuta Board of Management ensures an *Anangu* majority of 8:4. A new board is to be appointed by October 2008. The board oversees management of the park and preparation of the Management Plan. Through joint management of the park, *Anangu* and *Pirrapa* (non-Aboriginal people) work together to manage the park's cultural and natural heritage.

Monitoring

The eleventh annual survey of the tjakara or great desert skink (*Egernia kintorei*) took place in March 2008. Although an increased number of burrows were counted this year, there was a marked decrease in breeding burrows, leading to concerns that predation is substantially affecting population growth rates.

No mulgara (*Dasyercus cristicauda*) were detected during the ninth annual murtja or mulgara survey in November 2007. However, during the great desert skink survey of March 2008, evidence of mulgara including breeding burrows was widespread, alleviating concerns about the status of the population.

The fourth survey of the captive breeding population of mala or rufous hare wallaby (*Lagorchestes hirsutus*) took place in April 2008. During the survey 25 new animals were tagged from a total of 52 animals captured. This is probably due to the introduction of pre-feeding in the survey methodology.

Activity surveys for introduced predators have begun in the park, in conjunction with a fox-specific baiting trial. *Anangu* tracking skills are used during this survey which is used to produce an index of predator abundance and activity levels.

Future challenges

Major challenges are:

- monitoring and controlling vertebrate pests in the park including camels, foxes and cats. The impact of feral animals on native fauna species is widespread and the impact of camels on waterholes and native flora is increasing. Feral animal control methods are being used in the park and on a broader regional level
- managing the impact of visitors on cultural sites around Uluru. In addition to maintenance, improvements will be undertaken on the existing Uluru base walk, including new site viewing platforms. The changes will reduce erosion and increase visitor appreciation and satisfaction with public cultural sites
- completing the second stage of the new visitor viewing facility which will provide visitors with an experience of Uluru's living cultural landscape, Aboriginal run activities and new walking tracks. (See case study on page 150.)



- managing visitor safety in the harsh environment, and in particular, those who choose to climb Uluru
- working with the NT Government on finding alternative arrangements for the delivery of essential services (power and water) to the community and the possible role of the new Shire government
- retaining and developing staff in a remote area, and increasing *Anangu* engagement in park management. The park is committed to providing employment opportunities and support to *Anangu* interested in working for the park.

Report on performance by key result areas

Major issues

- Controlling the spread of introduced buffel grass (*Cenchrus ciliaris*)
- Monitoring the potential impacts of sleeper weeds and new invasive species
- Reducing the impacts of vertebrate (fox, cat, camel, rabbit, feral dogs) and invertebrate pests
- Minimising the damage caused by camels, particularly to waterholes
- Understanding and managing the impacts of fire
- Monitoring the status of threatened species and managing threatening processes
- Reintroducing locally extinct species
- Controlling erosion and repairing existing damage

Actions

- Continue the buffel grass control program
- Introduce a fox baiting program in threatened species habitat, develop a camel management program, maintain the rabbit control program and undertake targeted cat control
- Continue to conduct fire planning workshops involving all stakeholders and to develop and implement annual burn plans
- Develop the Fire and Vegetation Management Strategy, fire operations manual and monitoring manual
- Monitor threatened and other significant species, and participate in research to improve understanding of these species' requirements
- Maintain the pest-free enclosure
- Continue to develop a species reintroduction program
- Provide native plants for amenity planting from the park's nursery
- Continue the erosion control program
- Improve data and GIS management

Performance results 2007–08

- Three Cultural Heritage and Scientific Consultative Committee meetings held to provide advice on natural and cultural heritage issues
- Cleared approximately 20 hectares of buffel grass
- Mapped and assessed 21 quandong (*Santalum acuminatum*) trees growing in the park (a significant traditional bush food)
- Conducted monthly vertebrate pest monitoring for cats, foxes, dogs and camels in the borefields area of the park. Pest numbers are low due to the low average annual rainfall this year
- Continued the rabbit monitoring and fumigation program, which indicated that numbers have decreased
- Commenced the fox baiting trial using fox-specific delivery stations
- Responded to one wildfire caused by lightning strike
- Draft Fire and Vegetation Management Strategy completed
- Conducted mulgara, great desert skink and mala surveys (See case study on page 152)
- Assessed the condition of waterholes in the park and surrounding areas in partnership with the Central Land Council, Parks and Wildlife Service NT and Greening Australia
- Conducted sampling for invertebrates and water quality testing at Uluru waterholes
- Completed five environmental impact assessments
- Completed the building of the park nursery and propagated key flora species for revegetation plantings of old walking tracks

KRA2: Cultural heritage management*Major issues*

- Supporting the continuation of *Anangu* living culture and knowledge
- Protecting historic and *Anangu* cultural information, sites and objects

Actions

- Continue to implement the Cultural Heritage Action Plan (2002) and Women's Cultural Heritage Plan (2005)
- Continue the rock art conservation, oral history and repatriation programs
- Identify, catalogue and conserve cultural, historical and archaeological sites and objects
- Maintain the Cultural Sites Management System database as an information repository, planning and reporting tool

- Maintain the *Ara Irititja* (Stories from the Past) database, promote community access, and continue data entry. *Ara Irititja* is a multimedia database and associated project that enables *Anangu* to access archival material (film, photographs, sound recordings, documents, artefacts)
- Support staff and *Anangu* participation in the annual women's law and culture meeting
- Support and promote the use of traditional knowledge and skills in all areas of park management and especially in fire management

Performance results 2007-08

- Completed oral history recordings with a senior traditional owner, and commenced further recordings of significant elders' stories
- Conducted rock art inspections throughout the year
- A specialist conservator made conservation assessments of all public sites and produced site management plans
- Consulted with traditional owners on designing and building a new viewing platform and walking path for the Wave Cave, to prevent visitor impact on the site
- Added scanned images of Uluru from the Mountford Collection to the Cultural Sites Management System and *Ara Irititja* databases, classified into public, restricted men's and restricted women's material
- Scientific and Cultural Heritage Consultative Committee discussed opportunities, practicalities and requirements of an archaeological survey and research program for the park
- Maintained the Cultural Site Management System database
- Maintained the *Ara Irititja* database. *Anangu* regularly accessed this popular database throughout the year. Staff worked with senior *Anangu* to enter information and stories about individual photographs and films in the database
- Trained *Anangu* and other staff on *Ara Irititja* database, and upgraded the database's functionality
- Provided logistical support for *Anangu* attending women's law and culture meetings
- Made 11 trips to adjacent Aboriginal lands for natural and cultural resource management and cross-cultural activities
- Removed graffiti from three public rock art sites
- Realigned the North East walking track at the base of Uluru to protect cultural sites

Major issues

- Managing the park in accordance with the lease obligations and joint management principles
- Providing opportunities for Indigenous economic development in the park
- Maintaining relationships and partnerships with relevant *Anangu* organisations
- Ensuring traditional owners are appropriately consulted in park projects and park management activities
- Supporting *Anangu* employment, education and training
- Supporting ongoing transfer of traditional knowledge between generations of *Anangu*

Actions

- Maintain productive working relationships with joint management partners
- Work with the Central Land Council to ensure effective traditional owner consultation in the development of the fifth management plan and other significant park projects
- Support *Anangu* enterprise development at the new visitor facility
- Develop an *Anangu* Employment, Education and Training Strategy and continue to provide opportunities for *Anangu* to develop park management skills and experience
- Continue to improve and develop the Junior Ranger Program

Performance results 2007-08

- Held four regular and one special meeting of the Board of Management, and 11 Board Consultative Committee meetings
- Joint Management Partnership Team—the Central Land Council Joint Management Officer, the Mutitjulu Community Liaison, the Board of Management Secretary and the Park Manager—met regularly to support the joint management of the park
- Continued to support the employment of the Community Liaison Officer and the Central Land Council Joint Management Officer
- The park and the Central Land Council consulted traditional owners on development of the fifth management plan and other significant projects
- Continued to support the agreement between the Mutitjulu Community and the park in employing *Anangu* in the park
- Drafted the *Anangu* Intergenerational Employment Strategy. This Strategy aims to provide support and opportunities for *Anangu* to engage in park activities and gain employment in park management

- Sponsored the Muṯitjulu Council Chair and an *Anangu* staff member to attend a two day workshop in Darwin on Indigenous Business Development. It is hoped that helping community members to access information and support will provide the community with economic development ideas which could include more *Anangu* business in the park
- Provided opportunities for workplace orientation and experience to Nyangatjatjara College students
- Undertook 21 Junior Ranger activities with Muṯitjulu and Yulara primary schools

Major issues

- Contracting for construction of the new visitor facility
- Reviewing the park ticket system
- Managing the demands of international and Australian film crews and professional photographers
- Improving interpretation and visitor information
- Managing ageing infrastructure
- Maintaining a high level of visitor safety in the park
- Managing the Uluru climb to reduce the risks to the health and safety of visitors, and to respect cultural traditions

Actions

- Continue media briefings (using the DVD media package and electronic communications)
- Implement as appropriate the recommendations of the ticketing system review
- Implement as appropriate the health and safety recommendations from the Uluru climb review
- Develop new interpretive signs around Uluru and the Cultural Centre
- Continue work on realigning the Uluru north-eastern base walking track and upgrading the Valley of the Winds walking track
- Maintain visitor infrastructure
- Plan and manage new developments
- Continue tour operator workshops and orientation programs
- Progress the proposed online tour guide training program

Performance results 2007-08

- Undertook 6 rescues of visitors from Uluru and responded to a total of 39 emergency situations occurring in the park
- Held seven media briefings and assessed 242 media applications for filming or photography in the park
- Initiated the implementation of recommendations made in the ticket review
- Commenced planning and design of the interpretive panels at the culture centre
- Implemented key recommendations of the Uluru climb health and safety review
- Maintained the park's rock rescue, emergency response, first aid and fire suppression capabilities
- Completed four kilometres of new walking track on north east side of Uluru to improve visitor safety and satisfaction
- Completed stage one of the new visitor facility. Stage two is to be commenced in June 2008
- Installed new interpretive signs and track markers at the Uluru base walk, the cultural centre and Liru walk
- Delivered 150 presentations to visitors at the Cultural Centre
- Conducted four VIP visits including visits from The Nature Conservancy, NT Tourism Advisory Board, Chair of the Parks Australia Audit Committee, and Japanese Government Officials
- Installed a weather station near the base of the Uluru climb to obtain more accurate weather information
- Conducted two tour operator workshops
- Commenced consultations with traditional owners on the content for the Online Tour Guide training course
- Prepared tender documentation for the construction of new toilets for the Valley of the Winds and the new visitor facility
- Worked with our regional partners on the Red Centre National Landscape and Red Centre Way
- Held regular park orientation sessions for Ayers Rock Resort staff

KRA5: Stakeholders and partnerships*Major issues*

- Providing opportunities for new Indigenous business enterprises
- Maintaining an effective working relationship with the Mutitjulu community
- Maintain ongoing partnership with the tourism industry
- Maintaining good relationships with other key stakeholders

Actions

- Hold meetings of the Board Consultative Committees
- Participate in the Yulara Advisory Committee
- Communicate clearly with all parties about park developments
- Meet regularly with the Muṯitjulu community and Ayers Rock Resort representatives
- Continue supporting volunteer and community groups in protecting park values

Performance results 2007–08

- Park Manager attended regular meetings of the Yulara Advisory Committee
- Held quarterly meetings of the Tourism Consultative Committee, the Film and Photography Consultative Committee and the Cultural Heritage and Scientific Consultative Committee
- Continued ongoing contact between park management, the Joint Management Partnership Team, traditional owners and relevant stakeholders during design and implementation of core programs such as fire and pest management
- Attended Muṯitjulu community council meetings
- Engaged 93 *Anangu* through the two Memoranda of Understanding on day labour programs with the Muṯitjulu community
- Supported teams from Conservation Volunteers Australia working in the park

KRA6: Business management

Major issues

- Completing and implementing the organisational review to ensure the most effective and efficient staffing structure
- Preparing the new management plan
- Providing suitable housing for park staff
- Rising fuel prices for diesel power generation and vehicle fleet
- Maintaining park infrastructure and road networks
- Providing essential services to the Muṯitjulu community
- Developing lease agreements for business enterprises at the Cultural Centre
- Improving corporate governance procedures
- Reduced revenue due to a shortfall in expected visitor numbers
- Staff training and development
- Maintaining staff health and safety at work

Actions

- Implement the organisational review
- Ensure that the park Housing, Training and Occupational Health and Safety (OHS) committees are functional and meet regularly
- Prepare papers on key issues and draft the new management plan
- Continue to implement the staff training plan and update the training calendar
- Develop new Deeds of Standing Offer
- Undertake an energy audit of park housing and implement energy efficiencies
- Continue to implement safe working procedures, including job safety analyses and standard operating procedures

Performance results 2007–08

- Continued developing the new management plan with the Board of Management
- Implemented the organisational review recommendations
- Implemented a new staff orientation package
- Supported 60 training events, ranging from informal information sessions to accredited training for park staff, *Anangu* and Mutitjulu community
- One *Anangu* trainee completed Certificate II in Conservation and Land Management
- Six staff members received assistance under the Department's Study Support Scheme
- The OHS Committee held three meetings and the Training Committee met twice
- The Housing Committee held regular meetings as required
- All staff completed the Department's online OHS Safetrac training course
- Maintained the ranger register to fast track recruitment actions
- Planned a solar power augmentation project for Park Headquarters and the Cultural Centre to reduce fuel costs and greenhouse gas emissions
- Initiated discussions with the Ayers Rock Resort on park housing requirements

A new sunrise viewing facility for Uluru



Peter Cullen, Assistant Manager-Operations, updates stakeholders on the progress of the project, and explains the future development of viewing platforms and facilities for the site

Finding the best vantage point for viewing Uluru is one of the most popular activities undertaken by visitors to Uluru-Kata Tjuta National Park. Many visitors flock to the park's viewing areas to experience a sunrise or sunset over Uluru and capture the World Heritage listed landscape of the park.

As visitor numbers have increased over time, the impact on the park's viewing areas has also increased.

This has been particularly highlighted

at the existing Sunrise Viewing Areas, where each morning there can be up to 1200 visitors, with approximately 110 cars, 30 buses and several motorcycles gathered. This area was not originally designed to cater for such numbers. As demand for the sunrise viewing area increased, there has been a proportional reduction in the overall safety and satisfaction of visitors.

The park's Fourth Management Plan and a recent traffic and parking study recognised the shortcomings of the existing Sunrise Viewing Area and highlighting the need for a new viewing facility.

The key concerns identified with the existing Sunrise Viewing Area include:

- inappropriate presentation of the living cultural landscape of the park, as taking photographs of some of the northern features of Uluru is not permitted
- increased visitor numbers causing uncomfortable crowding and detracting from the peaceful experience expected by visitors
- a risk to visitor safety, as visitors tend to be preoccupied with the dawn experience and do not observe the vehicles moving around them
- regrowth of vegetation impedes visitors' views
- the areas are too close to Uluru to take in the whole of the monolith
- the areas are considered to be single use and not multifunctional.

These issues created the impetus for the development of the new viewing facility. The consultation process for the development began in 2006, with traditional owners and the tourism industry meeting to identify and discuss an appropriate location.

The construction of the new road, parking area and other associated works, commenced in November 2007, with the first stage of the development being opened in June 2008.

During the initial construction phase, eleven kilometres of new bitumen roads were built, and 250,000 square metres of concrete paving have been laid to create coach and car parking areas. Existing roads have been realigned, and six kilometres of waterline have been incorporated into the road construction—enabling the delivery of water to the site.

The next stage of the development involves the construction of the walking tracks, elevated viewing platforms and other visitor infrastructure, including toilet facilities.

Once completed, Uluru-Kata Tjuta National Park will have a world class visitor facility providing visitors with a safe and uninterrupted view and a memorable experience of Uluru and the living cultural landscape. The facility has been designed to provide opportunities for local Indigenous businesses to develop.

Species trends at Uluru-Kata Tjuta National Park

Discoveries from 23 years of fauna surveys



A sand-plain gecko (*Diplodactylus stenodactylus*). One of the common reptiles recorded during the Uluru-Kata Tjuta fauna surveys.

Fifteen fauna surveys have been undertaken at Uluru-Kata Tjuta National Park since joint management began in 1985. They are conducted by rangers and consultants under the guidance of the park's Traditional Owners. Surveys occur at eight permanent sites representative of the broad range of the park's vegetation habitats. While few new residents have been added to the park's species lists since the early fauna surveys, subsequent surveys have enabled the

monitoring of the abundance and distribution of fauna in the park over time. Regular surveys also demonstrate how environmental factors such as fire and rainfall impact upon populations and help to evaluate the effectiveness of land management programs.

Bird diversity depends upon rainfall

Birds in the park can be broadly categorised into three groups—sedentary species including crested bellbirds (*Oreoica gutturalis*), black-faced woodswallows (*Artamus cinereus*) and spiny-cheeked honeyeaters (*Acanthagenys rufogularis*); nomadic species including budgerigars (*Melopsittacus undulatus*) and zebra finches (*Taeniopygia guttata*); and migratory and waterbird species such as cormorants (*Phalacrocorax* spp.) and herons. The abundance and diversity of each of these groups varies according to environmental conditions.

The overall diversity and abundance of birds in the park is highly dependent upon rainfall. In wet years, the number of species recorded increases from approximately 65 to over 80. This is driven both by the abundance of resources and the appearance in the park of migratory and waterbirds, taking advantage of the exceptional conditions.

Woodlands, dominated by mulga (*Acacia aneura*), blue mallee (*Eucalyptus oxymitra*) and sandhill wattle (*Acacia ammobia*), are extremely important for the suite of sedentary birds whose distribution and abundance is dependent on the health of those woodland habitats. Accordingly, bird populations found in these woodlands are heavily affected by fire, extremely dry conditions and the presence of high densities of predators, particularly foxes and feral cats.

Nomadic species are the most variable group in terms of distribution and abundance. These birds favour open environments, especially those undergoing successional stages driven by recent fire or rain events. They depend on a mosaic of these conditions within the park. The park’s approach to fire planning has a strong focus on creating a patchwork of areas with differing vegetation maturity, establishing a range of successional vegetation classes for nomadic species to utilise.

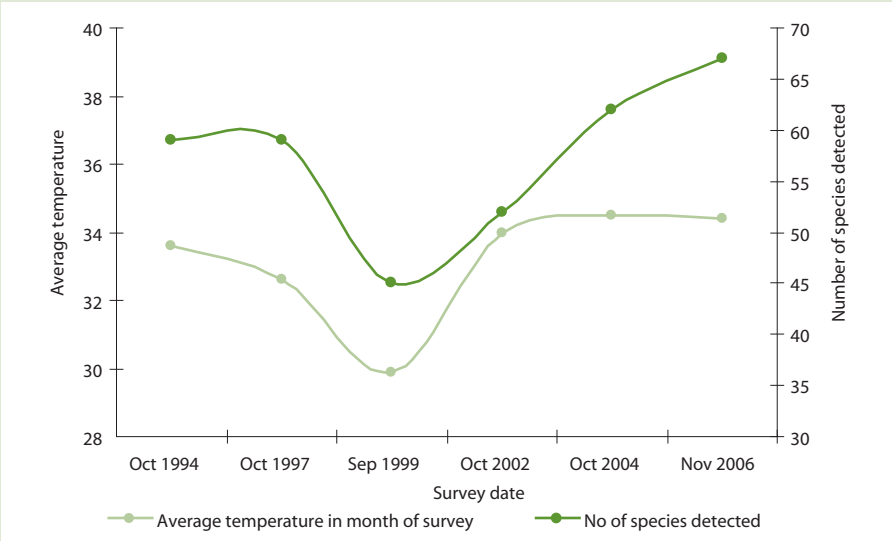
Reptiles rule the desert

Uluru-Kata Tjuṯa National Park has a much celebrated abundance and diversity of reptile species. The reptile assemblages of the park’s sand dune systems are amongst the richest in the world. This suite of predominantly spinifex-dwelling species appears to remain relatively stable in the face of a highly dynamic arid environment with few trends in abundance or distribution obvious from survey results.

For example, there is no clear impact of fire on the park’s reptile fauna. The earliest fauna surveys (1985–1990) suggested that the majority of reptile species avoided burnt and early successional stage spinifex habitats. However, later surveys found that reptiles utilised ecotones, burnt areas and mature spinifex habitats equally.

Survey results also suggest that reptile diversity within the park is largely unrelated to rainfall. When comparing the number of reptile species detected in the park in successive fauna surveys, with the rainfall recorded in the six

Figure 8: Relationship between ambient temperature and reptile species diversity recorded at Uluru-Kata Tjuṯa National Park.



months preceding each survey, there is no clear positive relationship between the two variables.

Most likely, the abundance and distribution of the park's reptile communities is determined by the relative availability of termite prey in the sand dune systems. The suite of reptiles detected during each fauna survey is also related to ambient temperature, as more species are detected in surveys during warmer weather.

Small mammals at home in the spinifex



A hairy-footed dunnart (*Sminthopsis hirtipes*) is tagged with a felt-tipped pen before being released to avoid duplication during the survey.

The park's small-mammal fauna is largely associated with spinifex-dominated habitats or refugial habitats at the monoliths of Uluru and Kata Tjuta. It comprises a range of rodents, macropods and dasyurids (carnivorous marsupials).

Rainfall is a reliable determinant of rodent distribution and abundance across the park, with all species showing population increases and expansion following high rainfall years, particularly the sandy inland mouse (*Pseudomys hermannsburgensis*).

While this situation is somewhat mimicked by the dasyurids such as the desert dunnart (*Sminthopsis youngsonii*), the relationship between

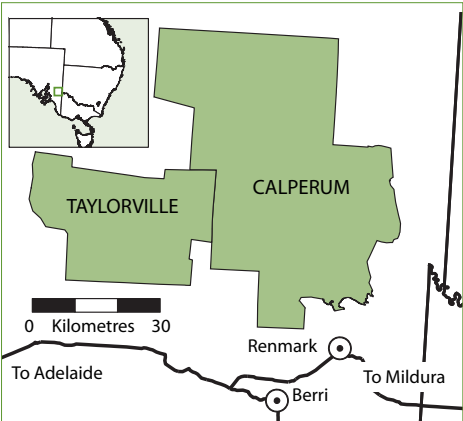
high rainfall and population numbers is not as reliable or pronounced and they appear to remain at more stable levels.

The surveys also demonstrate that fire strongly influences the distribution of small-mammal communities across the park, with several species showing consistent and distinct habitat preferences. For example, the wongai ningau (*Ningau ridei*) and the desert mouse (*Pseudomys desertor*) prefer mature spinifex, while the hairy-footed dunnart (*Sminthopsis hirtipes*) and the spinifex hopping-mouse (*Notomys alexis*) prefer spinifex that is in the early-mid successional stages. The relative abundance and distribution of these species across the park varies in accordance with the amount of preferred habitat available.

Of the larger mammals, the euro (*Macropus robustus*) population at Uluru has been gradually decreasing throughout the span of the survey program. Potential threats to euro numbers in the survey area include increased human visitation, associated with a growing tourism industry, and the impact of introduced predators, particularly foxes and wild dogs. Further work is needed to confirm the reasons behind the decline.

Calperum and Taylorville Stations

www.environment.gov.au/parks/biosphere/riverland



Special features

Calperum and Taylorville Stations are adjoining pastoral leases in the Riverland area of South Australia, approximately 250km east of Adelaide, near the Victorian border.

Calperum and Taylorville are important locally, nationally and internationally because of their intact mallee vegetation, the presence of several threatened bird species, and their wetlands and related species. The properties form critical habitat for the endangered black-eared

miner (*Manorina melanotis*). They are also important for the conservation of the nationally vulnerable malleefowl (*Leipoa ocellata*) and the regionally vulnerable bush stone-curlew (*Burhinus grallarius*).

The properties are key components of the Riverland (formerly Bookmark) Biosphere Reserve. While biodiversity conservation guides the management of both properties and both actively rely on community participation in management activities, there are differences in the management objectives of the two properties. Taylorville is managed as an IUCN Category IV reserve, for habitat and species conservation. Calperum is managed for a broader, additional set of objectives, including environmentally sustainable development such as tourism.

Location	Latitude 33°49' South, Longitude 140°34' East (Calperum) Latitude 33°56' South, Longitude 140°11' East (Taylorville)
Area	331,238 hectares combined area: Calperum 238,638 hectares; Taylorville 92,600 hectares
Status	Pastoral leases in South Australia, held by the Australian Government through the Director of National Parks (Calperum acquired in 1993, Taylorville acquired in 2000)
IUCN category	Calperum: not assigned Taylorville: Category IV
Biogeographic context	Interim Biogeographic Regionalisation for Australia region: Murray–Darling Depression
Management plan	Non-statutory management plan covering both properties finalised in February 2005 (expires with current management contract in 2008)



Other significant management documents	Management contract with Austland Services Pty Ltd; Biosphere Reserves Seville Strategy and statutory framework	
Financial	Operating *	\$0.685 million
	Capital	\$0.088 million
	Revenue	\$0.562 million
Visitors	2060 bed-nights in camping grounds, dormitories and other accommodation	

* This funding is provided by the Director of National Parks. Austland Services provides at least matching resources

International conventions and agreements

Wetlands (Ramsar) Convention	Part of Calperum included in Riverland Ramsar site	
Migratory Species (Bonn) Convention	8 of 105 listed Australian species	
China–Australia Migratory Birds Agreement	10 of 81 listed species	
Japan–Australia Migratory Birds Agreement	13 of 77 listed species	
Korea–Australia Migratory Birds Agreement	7 of 59 listed species	
Other international agreements	Major component of the Riverland Biosphere Reserve under the UNESCO Man and the Biosphere Program	

Environment Protection and Biodiversity Conservation Act 1999

Listed fauna	Species	1 endangered 6 vulnerable 12 migratory 45 marine (birds)
	Recovery plans	2 being implemented: malleefowl (<i>Leipoa ocellata</i>); black-eared miner (<i>Manorina melanotis</i>)
Listed flora	Species	None
Heritage	On Commonwealth Heritage List	
Other	Taylorville and most of Calperum listed as critical habitat for black-eared miner	

Numbers of native species recorded

Mammals	Birds	Reptiles	Amphibians	Fish	Plants
25	188	68	10	12	over 300

Management arrangements

Calperum and Taylorville Stations are managed by Austland Services Pty Ltd (a company established by the Australian Landscape Trust) under contract to the Director of National Parks. The current management contract runs from 1 May 2003 to 30 June 2008. The contract was funded through the Natural Heritage Trust. Austland Services provides additional support for management activities and community-based programs. During the year a review was conducted of management delivered under the contract and a tender process was completed to select a manager for the properties from 1 July 2008. Austland services was the successful tenderer.

Monitoring

Significant monitoring programs track the physical and biological attributes of both properties. Annual biological surveys in 2007–08 included pitfall trapping of small vertebrates, vegetation photopoints, monitoring malleefowl mound activity, black-eared miners, stone-curlews, waterbirds, fish, possums, frogs, nestboxes and aquatic vegetation assessments. New collaborative studies were initiated to assess and track the impacts of the 2006 Bookmark Bushfires. Feral animal monitoring focused on foxes, goats, pigs and rabbits.

Monthly rainfall data are collected from 25 rain gauges across the two stations. A network of groundwater test wells has been developed to monitor groundwater hydrology and water salinity beneath the floodplain and wetlands of Calperum Station. Water quality in creeks and wetlands is also monitored.

Future challenges

Major challenges are:

- supporting and promoting the development of sustainable economic activities based on the natural resources of the region, particularly eco-tourism
- developing an appropriate management regime for Calperum Station's wetlands that can respond to changing conditions
- protecting the critical threatened species habitat provided by mature mallee on Taylorville and Calperum from fire and other potential threats
- developing cross-tenure approaches to managing the broader landscape for shared goals.

KRA1: Natural heritage management

Major issues

- Rehabilitating and conserving native vegetation and endemic fauna
- Controlling feral animals and weeds
- Conserving fauna
- Managing the floodplain
- Managing fire

Actions

- Rationalise watering points
- Maintain captive colonies of the Murray River snail (*Notopala sublineata hanleyi*)
- Investigate and monitor saline groundwater
- Review fire management strategies and infrastructure, respond to fires, hazard reduction burning
- Restore and revegetate wetlands
- Implement feral animal control programs
- Monitor native animal populations
- Contribute to recovery programs for threatened birds

Performance results 2007-08

- Waterpoints identified as non-essential during the regional fire planning process were decommissioned, while essential storages were monitored and maintained or upgraded to prevent water loss
- Captive Murray River snail populations were maintained. A study was initiated to test the ability of populations of the Murray River snail to survive, reproduce and disperse in the wild, when given varying levels of protection from factors such as predation
- The network of floodplain test-wells established under the GridWell project was expanded. Regular monitoring of all wells was continued
- A Bureau of Rural Sciences project to map groundwater salinity in the Calperum floodplain using airborne electromagnetic survey techniques was begun
- Input was submitted to the South Australian Country Fire Service who completed and released for public comment the Bookmark Mallee Draft Fire Plan (the Fire Plan takes a cross-tenure approach to fire management in the region)
- Implementation of several key actions described in the Bookmark Mallee Draft Fire Plan continued during its preparation. These included the installation of dedicated fire-fighting water storage on Taylorville Station, fuel reduction burning on Calperum Station, fire-track/fire-break maintenance and upgrading and planning for the installation of enhanced signage in Mallee areas

- Calperum's 4WD fire-fighting vehicle was upgraded
- Existing revegetation projects, including the Revegetation Gardens research project, were continued. Rationalisation and revegetation of floodplain camping areas continued. A new pilot project was initiated to revegetate a dune crest joining mallee woodland and floodplain ecosystems. Re-establishment of such connections is especially important for the regent parrot (listed as Vulnerable under South Australian legislation)
- A detailed review of vegetation condition and weed status across the properties was commenced, using skilled volunteer labour. Studies of three areas of Calperum with contrasting natural vegetation and management histories were completed
- Regular feral animal control programs continued. Over 3,000 fox baits were laid and monitored, 25 km of rabbit control trail established, and a cull of feral goats was organised in collaboration with neighbouring Gluepot Reserve
- A comprehensive biological monitoring program was maintained and enhanced by the addition of new photopoints and small-vertebrate monitoring sites. The program covered 183 separate sites, and was supplemented by monitoring of rainfall, groundwater and surface water at a further 77 sites
- In addition to ongoing participation in established recovery plans for threatened birds, such as the black-eared miner and malleefowl, Calperum/Taylorville took part in a research program to develop and apply enhanced bird monitoring procedures. This was led by the SA government's regional Threatened Species Ecologist for Mallee Birds. A separate SA government research program into the distribution of the bush stone-curlew, which is listed as rare under South Australian legislation, was also supported

KRA2: Cultural heritage management

Major issues

- Protecting and conserving Indigenous and non-Indigenous heritage

Actions

- Protect, conserve and encourage awareness and recognition of heritage

Performance results 2007–08

- Continued to monitor, protect and revegetate identified Indigenous heritage sites
- Wide community consultation was undertaken to develop a proposal for a training program for Indigenous youth, using *caring for country and re-connecting with cultural heritage* as a central theme of project activities. Significant resourcing for the project has been secured, with its launch planned for 2008–09
- Continued to protect and maintain iconic structures that recall the early pastoral industry, including the Yubalia outstation ruins, the Cooper's Camp fisherman's hut and various items of pastoral-era infrastructure

KRA4: Visitor management and reserve use

Major issues

- Providing quality visitor services that are compatible with conservation objectives, visitor safety and management requirements
- Communicating the values of Calperum and Taylorville
- Conducting relevant research to support management objectives
- Conducting commercial activities that achieve ecologically sustainable use of natural resources and provide financial benefits that support the protection and/or rehabilitation of natural and cultural assets, and as models for the region

Actions

- Manage, provide information for, monitor and review day-to-day recreational use
- Develop, maintain and promote education programs for a range of audiences, using the resources at Calperum and Taylorville and the McCormick Centre for the Environment in Renmark (the construction of which was partly funded through the Natural Heritage Trust)
- Continue current research programs, develop further research programs as needed and manage research data
- Pursue the assessment and development of suitable ecologically sustainable activities
- Review how efficiently available water resources are used

Performance results 2007–08

- Continued redevelopment and enhancement of floodplain camping areas and the development of a Mallee interpretive garden
- Developed new and additional signage incorporating interpretive materials
- Established a program of occasional 'tag-along' tours to provide the general public with safe access through the remote Mallee woodland areas of Calperum Station
- Continued to support the development of sustainable ecotourism in the region through engagement with Riverland Ecotourism Association, the Riverland Tourism Association and the Riverland Biosphere. A key activity was supporting and encouraging the development of the broader region as a destination under the National Landscapes program
- A total of 2060 bed-nights of accommodation was provided to volunteers, students and visitors to Calperum Station
- Conducted educational programs for pre-primary, primary, secondary and tertiary students, using Calperum Station and the McCormick Centre as key activity sites

- In close collaboration with Renmark High School, developed curriculum materials to allow field trips to Calperum Station and the McCormick Centre to be included in teaching of Year 8 and 9 Science and Society and Environment courses. Teacher professional development days were also staged to support these activities
- Established a Vocation Education and Training (VET) program for senior secondary students, with four students studying for Certificate 1 and 2 units in Conservation and Land Management under the guidance of Calperum Station staff
- Two fulltime trainees completed Certificate 2 courses in Conservation and Land Management, and a further two trainees were recruited
- Hosted an undergraduate Wildlife Conservation student from the University of Hertfordshire (UK) for a one year study/work experience placement
- Hosted three groups of North American tertiary students under the International Student Volunteer program
- Hosted numerous field trips and camps for TAFE SA (Technical and Further Education), university and non-government study tour groups, studying biology, ecology and environmental management. Sessions were held on floodplain management; communities' capacity to understand and respond to environmental issues involving the river; conduct of biological surveys; collecting and classifying native plants; and the aims and methods of community-based management of Calperum and Taylorville Stations
- Hosted and/or supported activities for compatible programs run by other organisations, including CSIRO's 'Lab on Legs' and Double Helix Science Club, Waterwatch, Community Stream Sampling, Oz Green's My RiveR Murray project and the GrowSmart Careers in Science
- In conjunction with TAFE SA, ran numerous accredited training courses for volunteers and the community on natural resource management, including plant and animal identification, biological survey techniques, native seed collection and plant propagation
- Calperum Station and the McCormick Centre were involved in education and training events that catered for over 1,800 participants in total. They involved approximately 2,100 person-days of capacity-building activity
- Updated software and hardware components of the properties' Geographic Information System (GIS)
- Two PhD students continued research programs on Calperum Station
- None of Calperum Station's allocation of irrigation water was used during the year

KRA5: Stakeholders and partnerships

Major issues

- Promoting the UNESCO Man and the Biosphere Program
- Involving the community in land management
- Supporting and recognising volunteers
- Fostering long-term capacity for sustainable development in the community

Actions

- Promote and disseminate information that assists in achieving the goals of the Man and the Biosphere Program
- Promote, support and oversee extensive volunteer involvement
- Develop a system for consistently recording volunteer hours
- Participate in the Riverland Biosphere Community Committee

Performance results 2007–08

- Continued to promote Calperum and the McCormick Centre as places available for research and monitoring, education, skill-sharing and public recreation. Encouraged volunteers to recognise these objectives at all suitable opportunities
- Continued providing various forms of support and encouragement to existing and potential volunteers. Maintained appropriate insurance for volunteers. Made sure that they were aware of, and observed, occupational health and safety procedures
- The McCormick Centre developed as a focal point for meetings and the dissemination of information on issues relevant to the Man and the Biosphere Program. This included dissemination of material produced by SA government agencies and the Murray Darling Basin Commission
- Continued regular participation in management of the Riverland Biosphere through its Community Committee. Following the 2007 Annual General Meeting, one staff member was elected as Committee Chair, and a Calperum volunteer was elected Secretary
- Maintained a database to record and analyse volunteer contributions to management of the properties
- Continued to develop the Paddock Adoption Scheme under which community members take direct responsibility for the day-to-day management of parts of the Stations
- Initiated collaborations with metropolitan Adelaide Rotary clubs to promote Calperum and Taylorville as a major focus for activity under Rotary's 'Preserve Planet Earth' program. An early result of this collaboration was the establishment of a partnership with Rotary and LeFevre High School to involve disengaged students in the program

KRA6: Business management

Major issues

- Property maintenance
- Business management
- Environmentally sustainable management

Actions

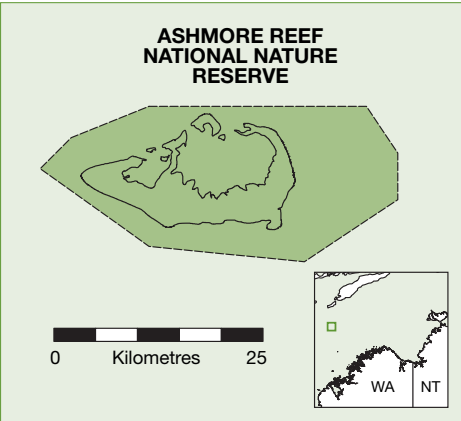
- Maintain infrastructure
- Manage professionally and accountably

Performance results 2007-08

- Continued producing quantities of seed for revegetation and occasional commercial sale
- Maintained existing buildings, fencing, tracks and other infrastructure. A significant fence repair program was undertaken on Taylorville Station in the aftermath of the Bookmark Bushfires
- Developed an outstation on Taylorville Station to support enhanced field work and to act as a forward fire-fighting facility
- Renovated woolshed annex to provide additional secure equipment storage capacity
- Completed partial renovation of Calperum Station's plant nursery
- Undertook regular infrastructure and equipment maintenance and enhancement programs, including improvements to visitor infrastructure
- Upgraded computing and communications infrastructure
- Complied with applicable legislation
- Maintained a recycling program

Ashmore Reef National Nature Reserve

www.environment.gov.au/coasts/mpa/ashmore



Special features

Ashmore Reef National Nature Reserve, located approximately 830 kilometres north-west of Darwin, is renowned for its high biological diversity and unique marine ecosystems. The reserve contains a variety of marine habitats, including a coral reef system, lagoons, abundant seagrass beds and extensive tidal sand flats, as well as vegetated sand islands.

Ashmore Reef is home to a variety of fish, coral, mollusc and other invertebrate species. Seventeen species of sea snakes have been recorded at Ashmore Reef, which is the highest known diversity and density of sea snakes in the world. The reserve is also an important breeding and feeding habitat for a number of threatened species, including dugong (*Dugong dugon*), green turtles (*Chelonia mydas*), loggerhead turtles (*Caretta caretta*) and hawksbill turtles (*Eretmochelys imbricata*).

The reserve's three sand islands have a combined area of 112 hectares and support some of the most important seabird rookeries on the Northwest Shelf. The reserve is an important staging point for migratory wetland birds, especially waders. More than 93 species of seabirds have been recorded at Ashmore Reef, of which 45 are listed in international agreements for the conservation of birds and their habitats.

Location	Latitude 12°15' South, Longitude 123°05' East
Area	58,337 hectares
Proclamation date	28 July 1983
IUCN category	Category Ia: 54,991 hectares Category II: 3,346 hectares
Biogeographic context	IMCRA 4.0 provincial bioregion: Timor Province
Management plan	Second plan expires 25 June 2009
Other significant management documents	Australian Government Memorandum of Understanding with Indonesia; Standard Operating Procedures (included in an operations manual) for Australian Customs Service officers operating at the Reserve.

Financial	Operating	\$49,730*
	Capital	Not applicable
	Revenue	Not applicable
Visitors/Users	124 Indonesian vessels, 16 recreational vessels (yachts, catamarans) ^(a)	
Permits/Approvals	3 commercial tour permits (bird watching); 1 scientific permit (bird)	

* In addition, \$729,524 was spent across the 25 marine reserves managed by the Marine Division of the Department on behalf of the Director of National Parks. The expenditure covered professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities.

(a) Figures are taken from the records of vessels boarded at Ashmore, as at 8 May 2008. These records continue to be updated and reflect only vessels observed and identified by Customs officers while present in the Reserve.

International conventions and agreements	
Wetlands (Ramsar) Convention	The entire reserve is listed
Migratory Species (Bonn) Convention	28 of 105 Australian listed species
China–Australia Migratory Birds Agreement	44 of 81 listed species
Japan–Australia Migratory Birds Agreement	45 of 77 listed species
Korea–Australia Migratory Birds Agreement	35 of 59 listed species
Other agreements	Under a Memorandum of Understanding with Indonesia, traditional Indonesian fishers are allowed access to an area that includes the reserve

Environment Protection and Biodiversity Conservation Act 1999		
Listed fauna	Species	2 vulnerable 51 migratory 104 marine
	Recovery plans	1 being implemented: marine turtles
Listed flora	None	
Heritage	On Commonwealth Heritage List	

Numbers of native species recorded ^(a)					
Mammals	Birds	Reptiles	Fish	Invertebrates	Plants
1	93	19	810	1,371	44

(a) Species numbers have been taken from a recently developed species inventory based on documented sightings in the reserve and adjacent areas. The inventory is still new and is continuing to be updated and refined. It is likely to currently underestimate species numbers.

Management arrangements

The reserve is managed by the Marine Division of the Department of the Environment, Water, Heritage and the Arts, under delegation from the Director of National Parks. On-site management and surveillance is provided through formal arrangements with a number of other government agencies.

The Australian Customs Service (Customs) carried out on-site management of the reserve and has maintained a permanent enforcement presence since April 2008. Coastwatch provided regular surveillance flights over Ashmore and Departmental staff visited the reserve in December 2007 and May 2008 to implement and assess reserve management activities.

Monitoring

Sea snake monitoring by Charles Darwin University indicates a decline in sea snake populations at Ashmore Reef. A three-part research program to investigate this more closely began with a survey in November 2005. The survey found very low numbers of sea snake species, including by comparison with other nearby reefs (Cartier and Hibernia). A follow-up survey in March 2007 (to take seasonal variation into account) confirmed this trend. The final survey of the research program was conducted in May 2008—the results are expected in 2008-09.

A rat identification program was established in June 2008 following a possible rat sighting on West Island in April 2008. Records of rats on West Island date back to 1949. Following an intensive eradication program during the 1980's, the island was thought to be free of rats in 1990. Results of the rat identification program are expected in July 2008. An eradication program will be developed and implemented in 2008-09 if results indicate that rats have returned to the island.

6

Future challenges

Major challenges are:

- managing potential introduced species
- continuing to support and enhance the compliance and enforcement capacity
- managing for the potential impact of climate change, including coral bleaching events and loss of niche habitats and associated species. Coral health and species abundance will continue to be monitored at Ashmore, with the aims of better understanding the impacts of climate change and developing appropriate management responses.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Illegal fishing
- Coral bleaching and species loss
- Introduction of pest species

Actions

- Enforce access and fishing restrictions
- Cooperate with other Australian Government agencies to improve management of the MoU Box fishery with Indonesia
- Encourage and facilitate reef research and monitoring
- Manage threats identified in the Marine and Terrestrial Introduced Species Prevention and Management Strategy (2004)
- Monitor and remove weeds and marine debris from the reserve
- Implement quarantine, bilge and ballast water protocols

Performance results 2007–08

- The 35 metre Australian Customs Vessel, *Ashmore Guardian*, was successfully deployed to Ashmore Reef in April 2008. This specially modified vessel accommodates up to 10 Customs and other government officers. It provides a near permanent compliance and management presence at Ashmore Reef (see case study on page 169)
- Customs officers enforced access and fishing restrictions. Officers boarded 124 fishing vessels in the area and advised crews of restrictions. Suspected illegal activities were investigated and warnings issued
- Sea snake research was conducted which indicated lower numbers compared to earlier surveys
- Collection and analysis of marine debris continued



KRA4: Visitor management and park use

Major issues

- Damage to the reef from anchoring vessels

Actions

- Maintain moorings
- Monitor visitation

Performance results 2007–08

- Three new moorings for Customs use were installed at Ashmore Reef
- Customs officers monitored visitors' use of moorings
- Information about appropriate moorings use was distributed via a brochure and published on the web site

KRA5: Stakeholders and partnerships

Major issues

- Illegal foreign fishing
- Effective working and liaison arrangements with the management service provider—Customs

Actions

- Collaborate with Australian Government agencies involved in revising and implementing an integrated management approach for Indonesian fishing in the MoU Box
- Manage the relationship with Customs

Performance results 2007–08

- Consulted with the Department of Agriculture, Fisheries and Forestry to address overfishing issues in the MoU Box on a regional and cooperative basis
- Held regular meetings and consultations with Customs
- Provided warden training for Customs officers
- The Australian Government established a permanent Customs enforcement vessel
- Organised and participated in a workshop to improve adaptive management for coral reef reserves. The workshop included remote coral reef marine reserve managers, key researchers and monitoring providers. Linkages between research and monitoring of remote coral reefs natural heritage were identified. Relationships between participants were improved and participants' understanding of adaptive management processes and challenges was enhanced

Dedicated vessel now watches over Ashmore



Indonesian fishers moored at Ashmore Reef

Ashmore Reef is a jewel in the north-west of Australia's marine waters. The area was declared as the Ashmore Reef National Nature Reserve in 1983 to protect its outstanding and representative marine ecosystem. Ashmore provides homes for many types of sea snakes, sea birds, dugongs, turtles, coral, fish, sea stars, sea urchins and sea cucumbers.

Ashmore lies within a broader area known as the MoU Box which is

managed under an agreement with Indonesia, and allows traditional Indonesian fishermen to fish for some species in areas outside the reserve. Many Indonesian fishers stop at Ashmore for shelter, to get water from the well on West Island, or visit the grave sites of Indonesian fishers buried on West Island.

Indonesian Fishermen are allowed to use moorings in West Island Lagoon at Ashmore. These fishermen may catch finfish for immediate consumption only in the open area of the lagoon. However, it is known that illegal fishing for turtle, shark fin, sea cucumber (otherwise known as trepang), trochus and giant clam shells has occurred in the area. The Australian Government has recognised that the absence of a compliance presence in the Reserve, even for a short time, can result in a significant decline in target species populations, particularly trochus and trepang.

The Australian Customs Service (Customs) has provided a compliance and enforcement presence at Ashmore Reef for many years, using its Bay Class patrol vessels. In recent years, these vessels have been in high demand, responding to incidents across Australia's entire exclusive economic zone (EEZ). As a result it was clear to the Australian Government that a dedicated vessel was required to protect the unique environment at Ashmore Reef.



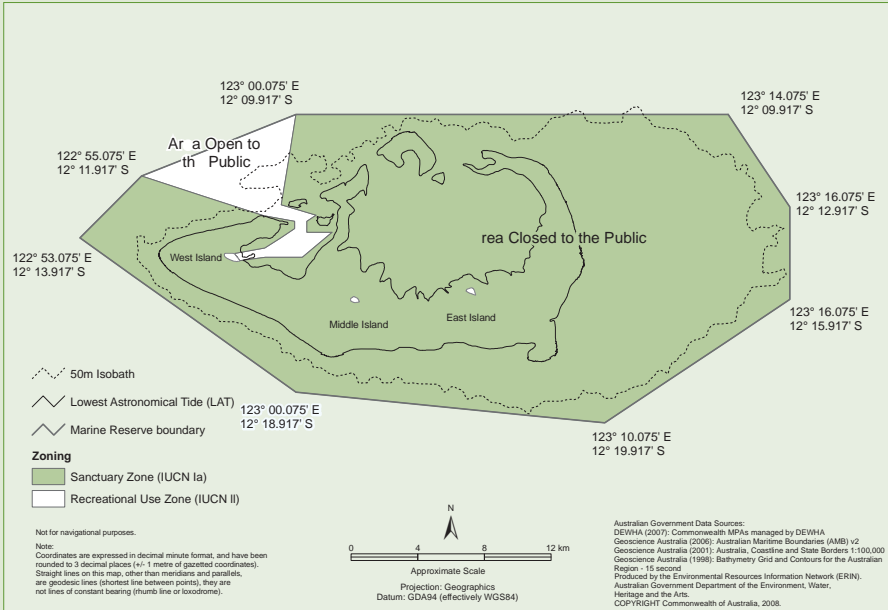
Australian Customs Vessel Ashmore Guardian

In April 2008 the *Ashmore Guardian*, a 35m long specially modified commercial fleet support ship, was accepted into service by Customs. The Guardian is capable of carrying up to ten Customs and other government officers, and enables Customs to conduct operations on a near-continuous basis at the Ashmore Reef National Nature Reserve.

Customs officers aboard the *Ashmore Guardian* undertake day to day compliance and enforcement activities in the Reserve, as well as reserve management tasks on behalf of the Department of the Environment, Water, Heritage and the Arts (DEWHA). This includes visiting all vessels that arrive at Ashmore. Visitors receive information about the values and rules of the Reserve and provide valuable data on their catch, home port and destination.

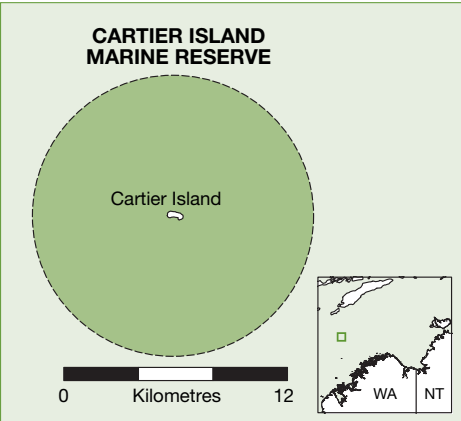
Customs officers also assist with surveys of the seabirds and their chicks on the islands, and collecting marine debris. More targeted activities such as weed eradication, marine science surveys and bird surveys are supported by departmental reserve managers and scientists, as well as Customs officers.

Figure 9: Ashmore Reef National Nature Reserve



Cartier Island Marine Reserve

www.environment.gov.au/coasts/mpa/cartier



Special features

Cartier Island Marine Reserve is located in the Indian Ocean, approximately 790 kilometres north-west of Darwin and approximately 45 kilometres south-east from Ashmore Reef. The reserve contains a variety of marine habitats including a coral reef system, a sand island and extensive tidal sand flats.

Cartier Island Marine Reserve is home to a variety of fish, coral, sponge, echinoderm, mollusc and other invertebrate species. Its varied habitats

provide for an unusually high diversity and density of sea snakes, some of which are endemic to the region. The reserve supports populations of feeding, breeding and nesting sea turtles and may also support dugongs (*Dugong dugon*).

Location	Latitude 12°32' South, Longitude 123°33' East	
Area	17,238 hectares	
Proclamation date	7 June 2000	
IUCN category	Category Ia	
Biogeographic context	IMCRA 4.0 provincial bioregion: Timor Province	
Management plan	Current plan expires 25 June 2009	
Other significant management documents	Australian Government Memorandum of Understanding with Indonesia; Standard Operating Procedures (included in an operations manual) for Customs officers operating at the Reserve.	
Financial	Operating	Nil*
	Capital	Not applicable
	Revenue	Not applicable
Visitors/Users	1 Indonesian vessel boarded	
Permits/Approvals	None	

* In addition, \$729,524 was spent across the 25 marine reserves managed by the Marine Division of the Department on behalf of the Director of National Parks. The expenditure covered professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities.

International conventions and agreements

Migratory Species (Bonn) Convention	1 of 105 listed Australian species
Other international agreements	Under a Memorandum of Understanding with Indonesia, traditional Indonesian fishers are allowed access to an area that includes the reserve

Environment Protection and Biodiversity Conservation Act 1999

Listed fauna	Species	8 marine
	Recovery plans	1 implemented: marine turtles
Listed flora	None	

Numbers of native species recorded^(a)

Mammals	Birds	Reptiles	Fish	Invertebrates	Plants
1	Unknown	17	810	1371	0

(a) Species numbers have been taken from a recently developed species inventory based on documented sightings in the reserve and adjacent areas. The inventory is still new and is continuing to be updated and refined. It is likely to currently underestimate species numbers.

Management arrangements

The reserve is managed by the Marine Division of the Department of the Environment, Water, Heritage and the Arts, under delegation from the Director of National Parks. On-site management and surveillance is provided through formal arrangements with a number of other government agencies.

Cartier Island and Ashmore Reef are managed together being approximately 45 kilometres apart. The Australian Customs Service (Customs) has a permanently stationed enforcement vessel at Ashmore Reef that assisted with on-site management activities. Compliance and enforcement activities were also supported by Coastwatch, which provided regular surveillance flights over the Cartier Island Marine Reserve.

Monitoring

Monitoring to date has shown that the major threats to the reserve are from illegal foreign fishing and climatic disturbances such as cyclones and coral bleaching.

The last major marine survey was carried out in September 2005. The survey found that species targeted by Indonesian fishers, including trepang and trochus shell, were still in recovery from previous exploitation. The next survey is scheduled in 2008.

Future challenges

Major challenges are:

- continuing to support and enhance compliance and enforcement activity
- managing for the potential impacts of climate change.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Illegal access
- Overfishing

Actions

- Enforce access and fishing restrictions
- Liaise with the Department of Agriculture, Fisheries and Forestry and Indonesian officials to improve management of the MoU Box fishery
- Encourage and facilitate reef research and monitoring

Performance results 2007–08

- The 35 metre Australian Customs Vessel, *Ashmore Guardian*, was successfully deployed to Ashmore Reef in April 2008. This specially modified vessel strengthened the protection of Cartier reserve by assisting with compliance and enforcement measures and on-site management
- Customs officers enforced access and fishing restrictions. Officers boarded fishing vessels in the area and advised crews of restrictions. Suspected illegal activities were investigated and warnings issued
- Continued to collect and analyse marine debris

KRA5: Stakeholders and partnerships

Major issues

- Illegal foreign fishing
- Effective working and liaison arrangements with the management service provider—Customs

Actions

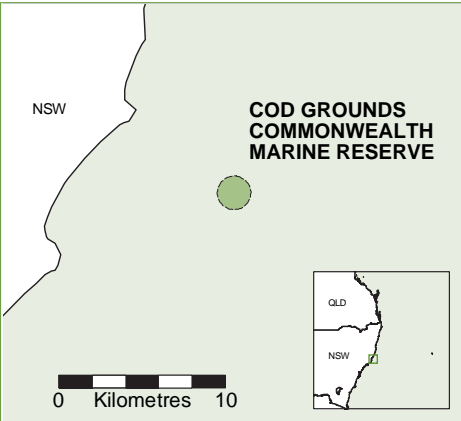
- Collaborate with Australian Government agencies involved in revising and implementing an integrated management approach for Indonesian fishing in the MoU Box
- Manage the relationship with Customs

Performance results 2007–08

- Consulted with the Department of Agriculture, Fisheries and Forestry to address overfishing issues in the MoU Box on a regional and cooperative basis
- Organised and participated in a workshop to improve adaptive management for coral reef reserves. The workshop included remote coral reef marine reserve managers, key researchers and monitoring providers. Linkages between research and monitoring of remote coral reefs natural heritage were identified. Relationships between participants were improved and participants' understanding of adaptive management processes and challenges was enhanced
- Held regular meetings and consultation with Customs
- Provided warden training for Customs officers
- Worked closely with Customs to acquire and establish a permanent enforcement vessel at Ashmore Reef, which also provides enforcement coverage for Cartier reserve

Cod Grounds Commonwealth Marine Reserve

www.environment.gov.au/coasts/mpa/cod-grounds



Special features

The Cod Grounds Commonwealth Marine Reserve was declared on 10 May 2007 to protect important habitat of the critically endangered grey nurse shark (*Carcharias taurus*). Formal management arrangements applied in the reserve from 28 May 2007.

The east coast population of the grey nurse shark is listed as critically endangered under the *Environment Protection and Biodiversity Act 1999* and is at high risk of extinction due to its low

reproduction rate and fishing-related mortality. The area known as the Cod Grounds is a series of underwater pinnacles and is a significant aggregation site for grey nurse sharks, which are often observed in unusually large numbers in or near deep sandy-bottomed gutters between the pinnacles. The Cod Grounds support a large proportion of females compared to other aggregation sites surveyed off the New South Wales coast. It is also habitat for preferred prey species for grey nurse sharks.

The *Recovery Plan for the Grey Nurse Shark* recommends that the Cod Grounds be declared a Sanctuary Zone as it provides critical feeding and reproduction habitat for grey nurse sharks. Under the reserve management arrangements all fishing is prohibited in the reserve.

Declaration of the reserve followed two periods of public consultation and commitment to a structural adjustment process for commercial fishing businesses under the Australian Government's *Australian Policy on Marine Protected Areas and Displaced Fishing*.

Location	Latitude 31°40'52" South, Longitude 152°54'37" East. The reserve comprises a 1,000 metre radius from this point
Area	314 hectares
Proclamation date	10 May 2007
IUCN category	Category Ia
Biogeographic context	IMCRA 4.0 provincial bioregion: Central Eastern Shelf Transition
Management plan	Interim management arrangements are in place until a Cod Grounds Management Plan is developed



Other significant management documents	Annual Business Agreement between the Australian and New South Wales Governments (NSW Department of Primary Industries)	
Financial	Operating	\$103,233**
	Capital	Not applicable
	Revenue	Not applicable
Visitors	241	
Permits	1 commercial dive operator, 2 research	

* In addition, \$729,524 was spent across the 25 marine reserves managed by the Marine Division of the Department on behalf of the Director of National Parks. The expenditure covered professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities.

A further \$564,368 was spent in 2007-08 on a structural adjustment process for affected commercial fishing businesses under the *Australian Policy on Marine Protected Areas and Displaced Fishing*.

Environment Protection and Biodiversity Conservation Act 1999		
Listed fauna	Species	A full species list has not yet been compiled for the Cod Grounds although the critically endangered grey nurse shark (<i>Carcharias taurus</i>) and vulnerable white shark (<i>Carcharodon carcharias</i>) are known to occur. The vulnerable humpback whale (<i>Megaptera novaeangliae</i>) is likely to pass through the reserve on its annual migration
	Recovery plans	Three being implemented: grey nurse shark (<i>Carcharias taurus</i>); white shark (<i>Carcharodon carcharias</i>); humpback whale (<i>Megaptera novaeangliae</i>)
Listed flora	None	

Management arrangements

The Cod Grounds Commonwealth Marine Reserve has been assigned to IUCN Category Ia, 'strict nature reserve', which means that the reserve will be managed primarily for scientific research and environmental monitoring.

The reserve is managed by the Marine Division of the Department of the Environment, Water, Heritage and the Arts, under delegation from the Director of National Parks. The New South Wales Department of Primary Industries (NSW DPI) undertook compliance and enforcement activities in the reserve under an Annual Business Agreement between the Australian and New South Wales governments.

Interim management arrangements will remain in force until the management plan for the reserve is approved. Development of the plan includes two periods of public consultation to enable stakeholders to have the opportunity to comment on the plan. The first period of public consultation was completed in late 2007.

Monitoring

Grey nurse shark numbers are being monitored at the Cod Grounds as part of a broader study into the distribution and population of the species along the east coast of Australia. The commercial dive operator submits reports for each dive undertaken in the reserve with a tally of grey nurse sharks sighted on each dive. Numbers vary from zero to over 80 sharks sighted on any one dive.

Swath mapping and habitat classification of the reserve was undertaken by the NSW Department of Environment and Climate Change. Preliminary results show that the Cod Grounds reef is part of a series of reefs extending from the south, with the Cod Grounds having the shallowest reef with steeper slopes. Four distinct substrate types were identified: sand, unconsolidated sand and cobble, unconsolidated sand and boulder, and rocky reef.

The Port Macquarie Underwater Research Group undertook dives to monitor and photograph species at the Cod Grounds, with the aim of identifying the major species occurring in the reserve.

Future challenges

Major challenges are:

- managing public access to the reserve
- educating the public on the values of the reserve and why these management arrangements have been implemented
- developing and implementing an effective compliance and enforcement strategy
- developing the Cod Grounds Commonwealth Marine Reserve Management Plan.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Monitoring habitats and populations of the grey nurse shark
- Obtaining baseline information on the habitats of the reserve

Actions

- Implement interim management arrangements
- Undertake habitat mapping and classification
- Retrieve and replace data loggers

Performance results 2007–08

- Swath mapping and habitat classification project completed
- Replaced grey nurse shark listening station and temperature data loggers
- Regular grey nurse shark counts undertaken

KRA4: Visitor management and reserve use

Major issues

- Managing visitor access and activities
- Keeping visitors informed of management arrangements
- Possible illegal fishing by visitors
- Pollution and marine debris

Actions

- Enforce fishing prohibition
- Issue approvals for user access and research
- Implement interim management arrangements
- Undertake regular compliance and monitoring patrols
- Distribute brochures and information on the reserve

Performance results 2007–08

- NSW Department of Primary Industries conducted 36 surface patrols
- Information and advice given to fishers operating close to and within the reserve
- Warnings issued to nine fishers found in breach of management arrangements
- Signs installed at local boat ramps informing users of management arrangements
- Reports received from approved commercial dive tour operator on activities undertaken

KRA5: Stakeholders and partnerships

Major issues

- Ensuring ongoing engagement with the community, key groups and government agencies
- Establishing complementary management arrangements with NSW State Government and Australian Government agencies
- Developing the Cod Grounds Commonwealth Marine Reserve Management Plan
- Informing the community about Interim Management Arrangements, e.g. total fishing ban

Actions

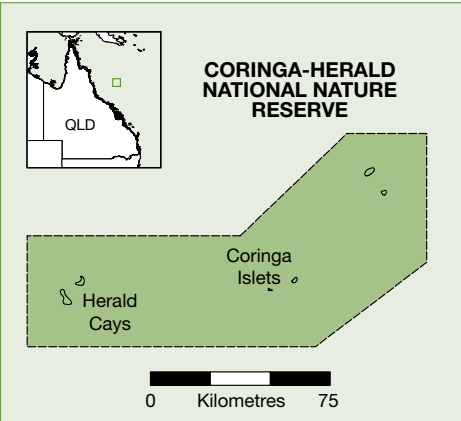
- Development of Annual Business Agreement with the NSW State government to undertake compliance activities within the reserve
- Consult with key stakeholders and industry bodies
- Initiate development of management plan
- Provide community information on Interim Management Arrangements

Performance results 2007–08

- Annual Business Agreement entered into with NSW Department of Primary Industries to undertake vessel patrols within the reserve
- Consulted with stakeholders and general community about the development of the management plan for the reserve
- Liaised with local dive operator, researchers and NSW State agencies on the status of reserve values

Coringa–Herald National Nature Reserve

www.environment.gov.au/coasts/mpa/coringa



Special features

Coringa–Herald National Nature Reserve has six islets and cays of which all are vegetated except one. The vegetation is mainly tropical shoreline plants of the Indo-Pacific region. However the reserve also includes the only forested cays in the Coral Sea Islands Territory. The *Pisonia grandis* forest ecosystem, which occurs on two islets in the reserve, has significant conservation value. The forested islets are important habitat for species of resident birds and also migratory seabirds that gather there from an extensive oceanic area to breed.

The terrestrial beach habitat throughout the reserve is important breeding habitat for the green turtle (*Chelonia mydas*). The reef habitats support benthic (bottom-dwelling) flora and fauna that are distinct from those of the Great Barrier Reef. Dolphins and whales occur in the area.

The Coringa Islets were named after the *Coringa Packet*, a sailing ship wrecked off Chilcott Islet in 1945. The remains of the *Coringa Packet* have been declared an historic shipwreck.

Location	Latitude 16°59' South, Longitude 149°45' East	
Area	885,249 hectares	
Proclamation date	16 August 1982	
IUCN category	Category Ia	
Biogeographic context	IMCRA 4.0 provincial bioregion: Northeast Province	
Management plan	Second plan expires 4 September 2008	
Financial	Operating	\$202,756*
	Capital	Not applicable
	Revenue	Not applicable
Visitors/Users	There were three research and monitoring trips to the Reserve	
Permits/Approvals	Permits: 1 commercial tour, 1 research	

* In addition, \$729,524 was spent across the 25 marine reserves managed by the Marine Division of the Department on behalf of the Director of National Parks. The expenditure covered professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities.

	Entire reserve is listed
	8 of 105 listed Australian species
	14 of 81 listed species
	15 of 77 listed species
	8 of 59 listed species

Environment Protection and Biodiversity Conservation Act 1999

Listed fauna	Species	2 endangered 8 vulnerable 16 migratory 51 marine
	Recovery plans	2 being implemented: marine turtles; great white shark (<i>Carcharodon carcharias</i>)
Listed flora	None	

Numbers of native species recorded^(a)

Mammals	Birds	Reptiles	Fish	Invertebrates	Plants
30	27	5	over 342	over 1,000	16

(a) Species numbers have been taken from a recently developed species inventory based on documented sightings in the reserve and adjacent areas. The inventory is still new and is continuing to be updated and refined. It is likely to currently underestimate species numbers.

Management arrangements

The reserve is managed by the Marine Division of the Department of the Environment, Water, Heritage and the Arts, under delegation from the Director of National Parks. On-site management and surveillance is provided through formal arrangements with a number of other government agencies.

The Bureau of Meteorology provides weather forecasting services and storage facilities for an emergency helicopter fuel cache to cover possible emergency evacuation from the reserve. Coastwatch provide aerial surveillance of the reserve. Customs provided compliance and enforcement, and vessel support, for research and monitoring activities in the reserve.

Monitoring

Seabird monitoring continued with the assistance of a volunteer program that has run continuously since 1991. The long-term and now regionally significant dataset provides valuable information about these species.

A biological control program was postponed during the year to allow monitoring of vegetation, invertebrates and insect pests, such as scale insects and hawkmoth. Monitoring evidence indicates that the introduced control species have become established and further release is therefore not necessary. To date biological control programs have proved successful in minimising damage to the *Pisonia* forest from insect defoliation.

Research programs are underway to improve understanding of the *Pisonia* forest ecosystem, the terrestrial invertebrate fauna, sea turtle population dynamics and behaviour, and marine biodiversity.

Subsurface sea temperature loggers were installed and exchanged as part of a large ongoing temperature monitoring program. The remote sensing pilot project was successful and is planned to continue. The project trialled the use of satellite imagery to map and classify habitats, produce and ground-truth bathymetric maps, and detect changes in terrestrial and marine habitats over time. Satellite images have been acquired and processed for Northeast Herald Cay.

Future challenges

Major challenges are:

- maintaining the health of the *Pisonia* forest ecosystem including controlling pest insects
- understanding and managing the impacts of climate change, including coral bleaching events and loss of niche habitats and associated species
- ensuring the health and safety of personnel. This continues to be effectively addressed by doing a rigorous safety analysis before each trip, including comprehensive contingency and communication plans and risk control measures.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Possible illegal fishing
- Measuring reef health—includes coral bleaching
- Impacts of pest insects and climate change on the *Pisonia* forest ecosystem

Actions

- Enforce fishing restrictions
- Continue the strategic reef monitoring program
- Implement an insect pest monitoring and management program
- Acquire satellite images to use for long-term remote monitoring

Performance results 2007–08

- Detected no measurable permanent deforestation of *Pisonia* by insect pests. Departmental staff and a consulting botanist and entomologist visited the reserve to monitor defoliation and forest health. Insects beneficial to the control of scale insects and hawkmoth were released
- James Cook University and C&R Consulting undertook coral reef health assessments, reporting a slow recovery and continued low percentage of live coral cover. However, this appears to be typical of oceanic reefs similar to those in the reserve
- The Australian Institute of Marine Science installed and exchanged data loggers, which record sea temperatures
- Erected new signs and collected and removed marine debris
- Using satellite imagery CSIRO Land and Water produced vastly improved bathymetric maps, and terrestrial and marine ecosystem maps, which enhance capacity to detect and track ecosystem changes, and improve efficiency of field surveys



KRA4: Visitor management and park use

Major issues

- Introduction of pest species by visitors to the reserve

Actions

- Distribute the information brochure
- Maintain website
- Erect information signs on the cays and islets in the reserve

Performance results 2007–08

- Distributed reserve information brochure to key stakeholders including researchers and commercial tour operators. The brochure details effective quarantine measures to be undertaken by visitors to the reserve and why these practices are so important
- Signs with information on the reserve have been erected on all cays and islets within the reserve

KRA5: Stakeholders and partnerships

Major issues

- Lack of awareness among stakeholders of reserve management prescriptions
- Ensuring relationships with key partners remain on an effective operational basis

Actions

- Consult key stakeholders and partners and provide regular information on important issues
- Distribute the reserve information brochure

Performance results 2007–08

- Liaised with Coastwatch, the Bureau of Meteorology, Department of Defence, Department of Transport and Regional Services, relevant researchers and tour operators
- Met with partners to discuss key issues and conducted presentations on marine protected area operations and management prescriptions
- Distributed the reserve information brochure to key stakeholders. The brochure is also available on the Department's website
- Organised and participated in a workshop to improve adaptive management for coral reef reserves. The workshop included remote coral reef marine reserve managers, key researchers and monitoring providers. Linkages between research and monitoring of remote coral reefs natural heritage were identified. Relationships between participants were improved and participants' understanding of adaptive management processes and challenges was enhanced

KRA6: Business management

Major issues

- Occupational health and safety risk to personnel associated with working in an isolated reserve

Actions

- Continue to refine and implement activity control measures as identified through the activity safety analysis

Performance results 2007–08

- Conducted a detailed activity safety analysis before each trip to the reserve. Successfully implemented risk control measures and contingency and communication plans developed during this process

Science for adaptive ecosystem-based management in tropical marine reserves



Pisonia heavily defoliated by hawkmoths

Tropical marine reserves are among the longest standing reserves in the Commonwealth marine reserves estate. These reserves boast high biological diversity, important feeding and nesting habitats for birds and sea turtles, and cultural heritage sites. Potentially significant threats to the natural and cultural values of the reserves include direct impacts from recreational activities and indirect impacts from climate change. Included

in these threats are coral bleaching from heat stress and persistence of introduced species in terrestrial forests. Understanding and improving the resilience of natural systems to cope with these stresses are the key benefits of research and monitoring efforts in the Commonwealth marine reserves.

In May 2008, a workshop on 'Science for adaptive management of remote coral reef marine reserves' was held in Brisbane, attended by over 30 scientists and reserve managers. The workshop addressed key management issues, scientific knowledge and methodologies for improving the application of scientific information in adaptive management of remote coral reef reserves. Key outcomes from the workshop included identification of information gaps and inter-linkages among research fields; recommendations for improving monitoring programs to support adaptive management; and a better understanding of the relationships between science and management.

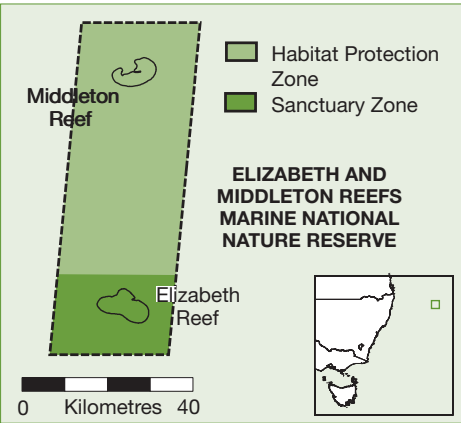
Some recommendations from the workshop will be implemented immediately. For example, field surveys will, where possible, be more thoroughly geo-referenced to improve accuracy of habitat maps and monitoring based on satellite imagery. Remote sensing technologies are now being used as high resolution, broad-scale and cost-effective alternatives to traditional monitoring methods. Innovative and cost-effective monitoring strategies, like using satellite imagery, will become even more important in the future for understanding and managing habitats for resilience to the impacts of climate change in highly vulnerable areas.

Another set of recommendations from the workshop focused on effective monitoring and response to pest incursions. A pest insect control program has been in place at North East Herald Cay in the Coral Sea since 2001. The release of predatory beetles to reduce outbreaks of a scale insect has been initially successful in reducing scale-related damage to important and vulnerable forest habitat. There are, however, other pests that defoliate forest trees and the effect of the beetle on native species is unknown. Ongoing research is needed to understand the cause of insect outbreaks that damage important nesting seabird habitat and to effectively mitigate the effects of these pest species.



Elizabeth and Middleton Reefs Marine National Nature Reserve

www.environment.gov.au/coasts/mpa/elizabeth



Special features

Elizabeth and Middleton Reefs Marine National Nature Reserve is located some 160 kilometres north of Lord Howe Island, in a transition area between tropical and temperate climates. Both reefs rise independently from deep oceanic water and are the southern-most open-ocean platform reefs in the world.

Isolation and exposure to convergent tropical and temperate ocean currents and climates has given the reefs a distinct and diverse assemblage of marine

species including a number of endemic species. Many species are near the northern or southern limit of their distribution.

The reserve supports two of the few known populations of the black cod (*Epinephelus daemeli*), which was once common along the New South Wales coast but is now considered rare. The reserve also has high numbers of Galapagos reef sharks (*Carcharhinus galapagensis*), which suggests the reefs are an important nursery area for this species. Apart from Lord Howe Island, the shark has not been recorded in any other Australian reef system.

The reserve is a feeding ground for green turtles (*Chelonia mydas*) and marine mammals such as bottlenose dolphins (*Tursiops truncatus*) and short-finned pilot whales (*Globicephala macrochynchus*).

The reserve has a rich maritime history with over thirty vessels being wrecked on the reefs over the past 200 years. The most prominent of these is the *Runic*, a 13,500 tonne meat freighter that ran aground on Middleton Reef in 1961. Although it is rapidly breaking up, the wreck remains visible for several miles.

Location	Latitude 29°42' South, Longitude 159°05' East
Area	187,726 hectares
Proclamation date	23 December 1987
IUCN category	Category Ia overall comprising: Sanctuary Zone - Category Ia (143,146 hectares) Habitat Protection Zone - Category II (44,580 hectares)

Biogeographic context	IMCRA 4.0 provincial bioregion: Lord Howe Province	
Management plan	Second plan expires 22 March 2013	
Financial	Operating	\$9,703*
	Capital	Not applicable
	Revenue	Not applicable
Visitors	Not recorded, numbers low	
Permits	12 recreational, 1 commercial tour	

* In addition, \$729,524 was spent across the 25 marine reserves managed by the Marine Division of the Department on behalf of the Director of National Parks. The expenditure covered professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities

International conventions and agreements

Wetlands (Ramsar) Convention	Entire reserve is listed
Migratory Species (Bonn) Convention	2 of 105 listed Australian species
China–Australia Migratory Birds Agreement	3 of 81 listed species
Japan–Australia Migratory Birds Agreement	6 of 77 listed species
Korea–Australia Migratory Birds Agreement	3 of 59 species

Environment Protection and Biodiversity Conservation Act 1999

Listed fauna	Species	1 vulnerable 8 migratory 13 marine
	Recovery plans	1 being implemented: marine turtles
Listed flora	None	

Numbers of native species recorded^(a)

Mammals	Birds	Reptiles	Fish	Invertebrates	Flora
2	10	2	407	586	19

(a) Species numbers have been taken from a recently developed species inventory based on documented sightings in the reserve and adjacent areas. The inventory is still new and is continuing to be updated and refined. It is likely to currently underestimate species numbers.

Management arrangements

The reserve is managed by the Marine Division of the Department of the Environment, Water, Heritage and the Arts, under delegation from the Director of National Parks. On-site management and surveillance is provided through formal arrangements with a number of other government agencies.

Coastwatch made regular surveillance flights and a departmental officer accompanied a Customs compliance patrol to the reefs in November 2007.

Monitoring

The reef systems at Elizabeth and Middleton Reefs have been surveyed regularly since 1987, with the last comprehensive survey in 2006 and a rapid survey in February 2007. In 2008 the data loggers installed in 2006 were replaced and the condition of the reefs was assessed visually. The data loggers record water temperature to help assess the effects of temperature on the reefs.

The reserve is generally in good health with little bleaching and very little evidence of crown-of-thorns starfish (*Acanthaster planci*) activity. The number of black cod appears to be stable and high numbers of Galapagos sharks (*Carcharhinus galapagensis*) were observed during recent surveys.

A yacht ran aground on Elizabeth Reef in August 2007 and, due to the inaccessible location, could not be salvaged. The lone occupant was rescued by the navy. Although the yacht has not caused significant damage to the reef system, monitoring of the wreck will continue.

Future challenges

Major challenges are:

- implementing a regular biological monitoring protocol
- monitoring for possible illegal activities in the area.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Monitoring reef health and populations of large vertebrates (black cod, Galapagos shark)

Actions

- Enforce fishing restrictions
- Implement management plan prescriptions
- Undertake a reef biological monitoring program

Performance results 2007–08

- Research projects on black cod and Galapagos shark genetics were completed
- Replaced temperature data loggers installed in 2006

KRA2: Cultural heritage management

Major issues

- Possible interference with shipwrecks

Actions

- Enforce protection of shipwrecks
- Implement management plan prescriptions
- Inspect condition of shipwrecks

Performance results 2007–08

- Coastwatch flights and the November 2007 patrol detected no interference with shipwrecks

KRA4: Visitor management and reserve use*Major issues*

- Managing visitor access and activities
- Keeping visitors informed of management arrangements
- Possible illegal fishing by visitors
- Pollution and marine debris

Actions

- Enforce fishing restrictions
- Issue permits for visitor access and recreational fishing
- Implement management plan prescriptions
- Undertake regular compliance and monitoring patrols
- Distribute brochures and information on the reserve

Performance results 2007–08

- Coastwatch flights detected no illegal fishing
- The November 2007 patrol detected no illegal activity and no pollution
- Responded to the grounding of a yacht on Elizabeth Reef
- Issued permits for visitor access and recreational fishing

KRA5: Stakeholders and partnerships*Major issues*

- Maintaining good relationships with Coastwatch, researchers and the Lord Howe Island community

Actions

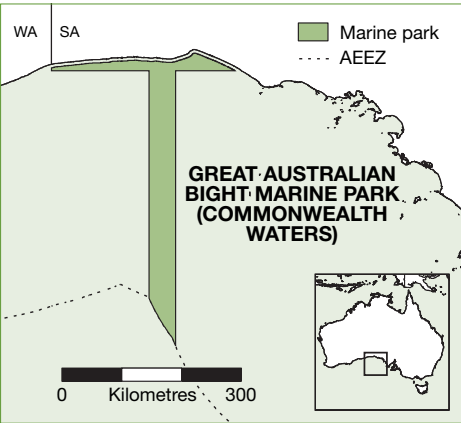
- Ensure relationships with partners are productive

Performance results 2007–08

- Liaised with Coastwatch, scientists, tour operators and the Lord Howe Island community
- *Science for Managing Remote Coral Reef Marine Protected Areas Workshop* successfully held in May 2008

Great Australian Bight Marine Park (Commonwealth Waters)

www.environment.gov.au/coasts/mpa/gab



Special features

The Great Australian Bight (GAB) Marine Park (Commonwealth Waters) protects marine mammal habitat and the ecological communities and sediments of the seabed in Commonwealth waters adjacent to the South Australian GAB Marine Park (State Waters). Notable species protected under the *Environment Protection and Biodiversity Conservation Act 1999* are the southern right whale (*Eubalaena australis*), listed as endangered, and the Australian sea-lion (*Neophoca cinerea*), listed as vulnerable.

The park is adjacent to Head of Bight, the most important breeding place for southern right whales in Australia and one of the most important, discrete breeding locations for the species in the world. The area also offers a unique opportunity to observe the species in a pristine environment.

The park protects a transect of the wide continental shelf of the Great Australian Bight, which is remarkable for its high levels of invertebrate endemism and diversity. The park is also the largest representative sample of the southern continental margin of Australia in a reserve.

The park provides for the sustainable use of its natural resources, including commercial fishing and mineral exploration, while ensuring these activities do not impact on the park's values.

Location	Latitude 31°43' South, Longitude 130°23' East
Area	1,937,162 hectares
Proclamation date	22 April 1998
IUCN category	Category VI overall comprising: Marine Mammal Protection Zone Category VI (385,380 hectares) Benthic Protection Zone Category VI (1,608,463 hectares) (Overlap of these two zones = 56,681 hectares)
Biogeographic context	IMCRA 4.0 provincial bioregions: Great Australian Bight Shelf and Southern Province

Management plan	Second plan expires 16 May 2012	
Other significant management documents	Service level agreement and subsidiary annual business agreements between the Australian and South Australian governments	
Financial	Operating	\$172,500*
	Capital	Not applicable
	Revenue	Not applicable
Visitors	None recorded	
Permits	30 commercial fishing, 1 research	

* In addition, \$729,524 was spent across the 25 marine reserves managed by the Marine Division of the Department on behalf of the Director of National Parks. The expenditure covered professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities.

International conventions and agreements	
Migratory Species (Bonn) Convention	28 of 105 listed species
China–Australia Migratory Birds Agreement	2 of 81 species
Japan–Australia Migratory Birds Agreement	3 of 77 species
Korea–Australia Migratory Birds Agreement	2 of 59 species
Agreement on the Conservation of Albatrosses and Petrels	15 of 26 species

Environment Protection and Biodiversity Conservation Act 1999		
Listed fauna	Species	6 endangered 17 vulnerable 31 migratory 57 marine
	Recovery plans	4 implemented: southern right whale (<i>Eubalaena australis</i>); great white shark (<i>Carcharodon carcharias</i>); marine turtles; albatross (<i>Diomedea</i> spp. and <i>Thalassarche</i> spp.) and giant petrels (<i>Macronectes</i> spp.) 1 in preparation: Australian sea-lion (<i>Neophoca cinerea</i>)
Listed flora	None	

Numbers of native species recorded ^(a)				
Mammals	Birds	Reptiles	Fish	Invertebrates
38	29	1	185	over 800 ^(b)

(a) Species numbers have been taken from a recently developed species inventory based on documented sightings in the reserve and adjacent areas. The inventory is still new and is continuing to be updated and refined. It is likely to currently underestimate species numbers.

(b) Ward, T.M., Sorokin, S.J., Rogers, P.J., McLeay, L.J. and Turner, D.J. (December 2003). *Benthic Protection Zone of the Great Australian Bight Marine Park: 3. Pilot Study for Performance Assessment (Volume 1)*, South Australian Research and Development Institute (Aquatic Sciences), Final Report to National Parks and Wildlife South Australia and the Commonwealth Department for Environment and Heritage.

Management arrangements

The Australian Government and the South Australian Government manage the Great Australian Bight Marine Park through a joint GAB Marine Park Steering Committee. The GAB Consultative Committee, with community representatives, advises the Steering Committee on management issues.

A Park Manager is employed by the South Australian Department for Environment and Heritage and the Commonwealth Department of the Environment, Water, Heritage and the Arts under joint management arrangements with South Australia.

Monitoring

A study of the seabed communities of the Benthic Protection Zone conducted in October 2006 looked for species that inhabit the seabed and those that live below the surface. The available results from the below-surface survey indicate there are 240 species from eleven phyla present; less than half of which can be identified to species level. The data collected from this, and an earlier 2002 survey, will contribute to a 20-year performance assessment program for the Zone.

Southern right whale numbers have been monitored in the Great Australian Bight annually since 1991. This year the Australian Government contributed to the development of a whale data base that will be used to assist ongoing research by making identification of individual whales more efficient.

Ongoing studies are being conducted into the foraging range and behaviour of the Australian sea-lion, its interactions with commercial fishing vessels, and how the risks of injury resulting from those interactions can be minimised.

Future challenges

Major challenges are:

- consolidating past and ongoing research into a program to assess the marine park's performance
- increasing the effectiveness of compliance strategies, including improving the fishing industry's compliance reporting
- producing a Benthic Protection Zone brochure, using 2002 and 2006 studies of benthos (seabed communities)
- implementing the GAB Marine Park (Commonwealth Waters) Management Plan.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Lack of baseline information on seabed surface and below seabed surface species and their biology
- Lack of information on the distribution and abundance of Australian sea-lions and the effects of human interactions with Australian sea-lion populations

Actions

- Continue to establish initial baseline data

Performance results 2007-08 (in cooperation with the South Australian Government)

- A partial report has been completed on the second round of ongoing baseline studies of sea bed communities
- Developed a data base to assist in the continued population studies on regional southern right whales
- Continued research into Australian sea-lion foraging behaviour and interactions with fishing vessels

KRA4: Visitor management and park use

Major issues

- Establishing effective deterrents to control illegal fishing
- Encouraging community participation in GAB Marine Park management activities

Actions

- Review surveillance plans
- Continue aerial surveillance by Coastwatch, on-ground surveillance by Yalata Land Management, and sea patrols by the Department of Primary Industries and Resources, South Australia
- Investigate suspected illegal activity
- Continue to support the Yalata Community's participation in GAB Marine Park management activities

Performance results 2007-08 (in cooperation with the South Australian Government)

- Advertised annual closures
- Agencies undertook land, sea and aerial surveillance and operational patrols. No illegal activity was recorded
- Monitored permits for commercial fishers
- The Yalata community provided surveillance and beach clean-ups

KRA5: Stakeholders and partnerships

Major issues

- Maintain productive relationships with partners

Actions

- Negotiate and implement the Annual Business Agreement with South Australia
- Develop compliance monitoring arrangements with the Australian Fisheries Management Authority
- Keep stakeholders informed of, and involved in, management activities

Performance results 2007-08 (in cooperation with the South Australian Government)

- Renewed the Annual Business Agreement covering research, operations, visitor management, education, and compliance and enforcement
- Continued to raise compliance issues with the Australian Fisheries Management Authority and industry sectors
- Liaised with stakeholders from all sectors through the GAB Marine Park Steering and Consultative committees

KRA6: Business management

Major issues

- Community understanding and appreciation of the park's values

Actions

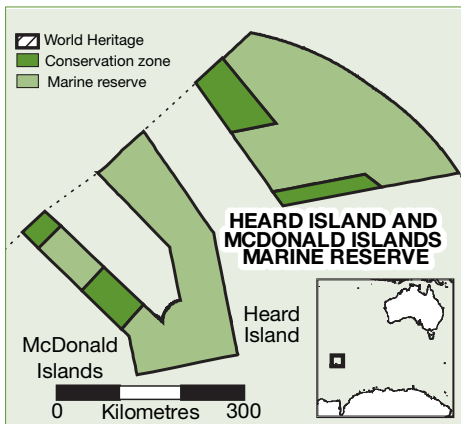
- Write and implement a Communications Plan
- Disseminate the GAB Marine Park (Commonwealth Waters) Management Plan and interpretive material

Performance results 2007-08 (in cooperation with South Australian Government)

- Communications Plan developed and commenced implementation
- Informed the media about park activities
- Progressed a Benthic Protection Zone brochure
- Made the GAB Marine Park Management Plan and information on park values and uses available to the public, including via the websites of both Departments

Heard Island and McDonald Islands Marine Reserve

www.heardisland.aq



Special features

The Heard Island and McDonald Islands Marine Reserve includes the World Heritage listed islands and 12 nautical mile territorial sea, plus an additional marine area which extends in parts to the 200 nautical mile Exclusive Economic Zone boundary.

Heard Island and McDonald Islands is the only major subantarctic island group believed to contain no species directly introduced by humans. Its terrestrial and marine ecology and

oceanographic conditions are quite distinct from other Southern Ocean islands, including Australia's Macquarie Island.

The islands and surrounding waters provide crucial breeding habitat for a range of birds and marine mammals. Several species are listed as threatened and/or migratory under international conservation agreements and the *Environment Protection and Biodiversity Conservation Act 1999*. Two bird species, the Heard Island sheathbill (*Chionis minor nasicornis*) and the Heard Island cormorant (*Phalacrocorax atriceps*), are endemic to the reserve.

The terrestrial environment contains permanent glaciers, Australia's only active volcanoes, and Australia's highest mountain (Mawson Peak 2,750 metres) outside the Australian Antarctic Territory. Heard Island contains significant cultural relics and heritage sites from 19th and early 20th century sealing activities and from the first Australian Antarctic research expeditions.

The marine environment surrounding the islands features diverse and distinctive benthic habitats that support a range of slow growing and vulnerable species including corals, sponges, barnacles and echinoderms. The waters of the reserve also include prime foraging areas for a number of land-based marine predators, and provide nursery areas for fish, including commercially harvested species. Areas of highly productive nutrient-rich waters in the reserve, created by the confluence of key oceanographic fronts such as the Antarctic Polar Front, are believed to provide feeding grounds for a range of cetaceans.

A conservation zone declared in October 2002 is being assessed for possible inclusion in the reserve. The assessment is considering the conservation values of the areas in question, as well as the fisheries potential of those areas and the threats to conservation values associated with fishing activities.

Location	Latitude 53°05' South, Longitude 73°30' East	
Area	6,465,845 hectares	
Proclamation date	16 October 2002	
IUCN category	Category Ia	
Biogeographic context	Subantarctic area IMCRA 4.0 provincial bioregion: Kerguelen Province	
Management plan	First plan expires 10 August 2012	
Other significant management documents	Australia's Antarctic Science Programme: Science Strategy 2004–05 to 2008–09	
Financial	Operating	\$63,000 ^(a)
	Capital	Not applicable
	Revenue	Not applicable
Visitors	1 ^(b)	
Permits	2 ^(c)	

(a) No science or management expedition was conducted in 2007–08. This figure does not include costs associated with analysis of data collected during the 2003–04 expedition, much of which is expected to contribute directly or indirectly to the future management of the reserve and region. Assessment of benthic samples from the HIMI conservation zone was undertaken as part of a broader Fisheries Research and Development Corporation grant, involving two full-time Australian Antarctic Division staff members. Those costs are not reported here.

(b) No government research or tourist expeditions visited Heard Island during 2007–08. One Australian Antarctic Division officer visited Heard Island briefly. Details of the voyage are classified.

(c) Details of surveillance voyages in the HIMI region are classified and, while reported in permit numbers, are not included in reported visitor numbers. Fishing vessels may have passed through the marine areas of the reserve and are not required to hold a permit to do so.

International conventions and agreements	
World Heritage Convention	Listed under natural criteria (i) and (ii), recognising its outstanding natural values
Wetlands (Ramsar) Convention	The entire Heard Island and McDonald Islands Territory is to be nominated for Ramsar listing
Migratory Species (Bonn) Convention	12 of 105 listed Australian species
China–Australia Migratory Birds Agreement	1 of 81 listed species
Japan–Australia Migratory Birds Agreement	4 of 76 listed species
Korea–Australia Migratory Birds Agreement	1 of 59 listed species

Other agreements	Convention on the Conservation of Antarctic Marine Living Resources; Agreement on the Conservation of Albatrosses and Petrels; Treaty between the Government of Australia and the Government of the French Republic on Cooperation in the Maritime Areas Adjacent to the French Southern and Antarctic Territories, Heard Island and the McDonald Islands
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Listed fauna	Species ^(a)	1 endangered 10 vulnerable 14 migratory 51 marine
	Recovery plans	1 being implemented: albatross (<i>Diomedea</i> spp. and <i>Thalassarche</i> spp.) and giant petrels (<i>Macronectes</i> spp.)
Listed flora	None	
Heritage	On National Heritage List	

(a) Figures include both breeding and non-breeding species, but do not include cetaceans. Only sparse records of cetaceans are currently available for the Heard Island and McDonald Islands region

Numbers of native species recorded					
Mammals	Birds	Reptiles	Fish	Invertebrates	Plants
7 ^(a)	47 ^(b)	0	34 ^(c)	169 ^(d)	262 ^(e)

(a) 3 breeding, 4 non-breeding seals

(b) 19 breeding, 28 non-breeding birds

(c) Refers to fish recorded from nearshore waters (<12 nautical miles)

(d) Refers only to terrestrial and freshwater invertebrates

(e) 12 vascular plants, 62 bryophytes, 71 lichens, 100 terrestrial algae, 17 marine macro-algae

Management arrangements

The reserve is managed by the Australian Antarctic Division of the Department of the Environment, Water, Heritage and the Arts, under delegation from the Director of National Parks.

Monitoring

The Australian Antarctic Division only mounts expeditions to the region every few years, due to the significant costs involved and also the time required for research results to be analysed and considered in planning for subsequent visits. One Australian Antarctic Division officer visited the island briefly in early 2008 and, although there was insufficient time to undertake detailed monitoring, several useful tasks were achieved. These included:

- a small-scale survey for new or introduced plant species

- photo-documentation of the Atlas Cove Australian National Antarctic Research Expeditions (ANARE) station heritage site
- consideration of potential sites for automatic camera equipment
- collection of up-to-date images for use in presenting the values of the reserve.

During 2007–08 there was no research expedition to Heard Island or McDonald Islands. Acknowledging the practical and financial difficulties associated with visiting the reserve to conduct on-site monitoring, the Australian Antarctic Division has developed a project to investigate the use of geographic information system (GIS) techniques to evaluate environmental change from remotely-sensed data, such as satellite imagery. The project will run during 2008–09.

The Division continued to analyse benthic samples and fishing data collected from areas within the Heard Island and McDonald Islands conservation zone. This will help further define the biodiversity and natural values of these areas and their significance to the overall Heard Island and McDonald Islands ecosystem, as required to finalise the conservation zone assessment.

Future challenges

The management situation for the reserve has not varied substantially since 2006–07. Major challenges are:

- maintaining thorough quarantine processes for all visits
- capitalising on Australian Antarctic program visits and partnerships with other operators in the region to undertake management actions and conduct research and monitoring
- sustaining the funding required to complete the Heard Island and McDonald Islands conservation zone assessment
- revising the Territory's Environment Protection and Management Ordinance.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Preventing human introduction of alien species
- Performance assessment and reporting

Actions

- Evaluate possible alien species
- Perform quarantine risk assessment and inspection of vessels, as appropriate
- Undertake research and monitoring that facilitate performance assessment and reporting

Performance results 2007–08

- There were no research or commercial visits to the Heard Island and McDonald Islands Territory during 2007–08
- Consistent with the commitment in the management plan to develop further environmental indicators, automatically updated details of average monthly temperature and pressure were made available via the Heard Island website
- An Australian Antarctic Division officer participated in a surveillance voyage to the Heard Island region and observed a high level of compliance with the requirements of the management plan. A small-scale survey for new or introduced plant species was undertaken, together with photo-documentation of the Atlas Cove ANARE station heritage site and a survey of potential sites for automatic camera equipment
- Developed a project that will take place in 2008–09, to investigate the use of geographic information system (GIS) techniques to evaluate environmental change from remotely-sensed data, such as satellite imagery
- Commenced a report on the status of one alien vascular plant species *Poa annua* and one new vascular plant species *Leptinella plumosa*, to inform future decisions about the need and options for management action to control these species. The report is expected to be finalised in 2008–09
- Obtained satellite images of portions of Heard Island. This extends a record of information that will help to detect environmental change as techniques to analyse such remotely sensed data are developed

KRA2: Cultural heritage management*Major issues*

- Loss/degradation of cultural heritage on Heard Island
- Recording and monitoring condition of heritage sites and items at the sites

Actions

- Manage decay of heritage sites and items located there

Performance results 2007–08

- There were no research, commercial, or private visits to the Heard Island and McDonald Islands Territory during 2007–08
- Further registration of Heard Island artefacts in the Antarctic artefacts catalogue



KRA4: Visitor management and reserve use

Major issues

- Safe and environmentally appropriate visitor access
- Off-site presentation of information on the remote and isolated reserve

Actions

- Provide briefings and relevant materials to all visit organisers and visitors
- Issue permits that include conditions for appropriate access and use
- Develop off-site measures for communicating the values of the reserve

Performance results 2007–08

- There were no research, commercial or private visits during 2007–08
- Maintained and updated the website, which was well used with more than 150,000 visits
- Collected a range of up-to-date images in the vicinity of Atlas Cove for use in presenting the values of the reserve
- Contributed information about values and visitor requirements for the new version of the “Southern Ocean Cruising Handbook”, widely used for Southern Ocean yachting

KRA5: Stakeholders and partnerships

Major issues

- Effective management of the isolated and infrequently visited reserve requires excellent working relationships with other operators in the region
- Transparency of reserve management

Actions

- Establish and maintain effective partnerships with relevant government agencies and other operators
- Inform the public of reserve management activities

Performance results 2007–08

- Continued Australian Antarctic Division involvement in government initiatives to address illegal, unreported and unregulated fishing
- Consulted with relevant government agencies and the fishing industry as a routine part of the Australian Antarctic Division’s role in management of the Heard Island and McDonald Islands fishery
- Consulted with Antarctic and sub-Antarctic commercial tour operators. There are two expressions of interest in visiting Heard Island and McDonald Islands in 2010
- Signed a Memorandum of Understanding with the Australian Maritime Safety Authority covering Search and Rescue (SAR) arrangements for the Heard Island and McDonald Islands region

KRA6: Business management

Major issues

- Ensuring compliance with and enforcement of reserve management requirements

Actions

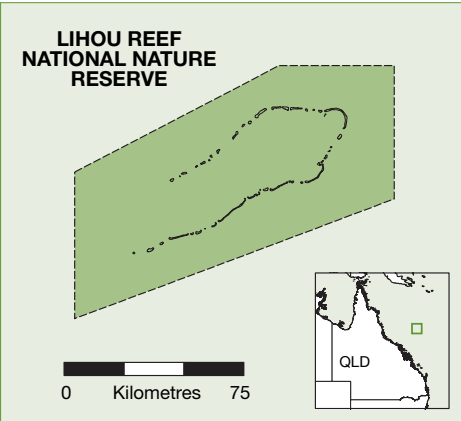
- Educate all visitors about reserve management requirements
- Implement the management plan

Performance results 2007–08

- Maintained relationships with regional fisheries surveillance agencies, including providing training and information to fisheries surveillance personnel on reserve management requirements
- Consulted with relevant government agencies and the fishing industry as a routine part of the Australian Antarctic Division's role in management of the Heard Island and McDonald Islands fishery
- One unauthorised foreign yacht visit was identified, and follow-up actions are in progress
- An Australian Antarctic Division officer participated in a surveillance voyage to the Heard Island and McDonald Islands region and observed a very high level of compliance with quarantine and other requirements
- Prepared drafting instructions for the amendment of the Territory's Environment Protection and Management Ordinance 1987 to repeal provisions made redundant by Commonwealth reserve provisions of the *Environment Protection and Biodiversity Conservation Act 1999*

Lihou Reef National Nature Reserve

www.environment.gov.au/coasts/mpa/lihou



Special features

Lihou Reef National Nature Reserve and its associated sandy coral cays and islets comprise the largest reef structure in the Coral Sea. The reef habitats support benthic (bottom-dwelling) flora and fauna that are distinct from those of the Great Barrier Reef. A diverse range of marine organisms has been recorded in the reserve. The green turtle (*Chelonia mydas*) breeds in the reserve and a number of cetacean species (whales and dolphins) use the area.

Five islets in the reserve are vegetated, mainly by widespread tropical shoreline plants of the Indo-Pacific region. The reserve also contains extensive and regionally significant seabird colonies. The buff-banded rail (*Gallirallus philippensis*) is the only landbird species that breeds in the reserve.

Several well-documented shipwrecks, and a number of wrecks whose origins are not yet known, are located on Lihou Reef.

Location	Latitude 17°21' South, Longitude 151°44' East	
Area	843,670 hectares	
Proclamation date	16 August 1982	
IUCN category	Category Ia	
Biogeographic context	IMCRA 4.0 provincial bioregion: Northeast Province	
Management plan	Second plan expires 4 September 2008	
Financial	Operating	Nil*
	Capital	Not applicable
	Revenue	Not applicable
Visitors/Users	The Reserve was visited by the Bureau of Meteorology and recreational yachts during the 2007–08 period	
Permits/Approvals	Permits: 1 commercial tour, 1 research	

* In addition, \$729,524 was spent across the 25 marine reserves managed by the Marine Division of the Department on behalf of the Director of National Parks. The expenditure covered professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities.

International conventions and agreements	
Wetlands (Ramsar) Convention	Entire reserve is listed
Migratory Species (Bonn) Convention	6 of 105 Australian listed species
China–Australia Migratory Birds Agreement	13 of 81 listed species
Japan–Australia Migratory Birds Agreement	15 of 77 listed species
Korea–Australia Migratory Birds Agreement	9 of 59 species

Environment Protection and Biodiversity Conservation Act 1999		
Listed fauna	Species	2 endangered
		8 vulnerable
		17 migratory
		51 marine
	Recovery plans	2 being implemented: marine turtles; great white shark (<i>Carcharodon carcharias</i>)
Listed flora	None	

Mammals	Birds	Reptiles	Fish	Invertebrates	Plants
30	24	5	over 342	over 1,000	7

(a) Species numbers have been taken from a recently developed species inventory based on documented sightings in the reserve and adjacent areas. The inventory is still new and is continuing to be updated and refined. It is likely to currently underestimate species numbers.

Management arrangements

The reserve is managed by the Marine Division of the Department of the Environment, Water, Heritage and the Arts, under delegation from the Director of National Parks. On-site management and surveillance is provided through formal arrangements with a number of other government agencies.

Coastwatch provides regular aerial surveillance of the reserve. The Bureau of Meteorology collects and replaces temperature data loggers during their annual visits. The bureau also provides storage for an emergency helicopter fuel cache to cover emergency evacuation from the reserve.

Monitoring

The most recent marine survey was undertaken in October 2004 by the Australian Institute of Marine Science.

The Australian Institute of Marine Science has installed data loggers to monitor seawater temperature for the Department. Data loggers are replaced around every two years by the Bureau of Meteorology, with the next exchange due in July 2008.

CSIRO Land and Water has facilitated an order of satellite images to provide updated habitat and bathymetric maps for further validation during the next field survey.

Future challenges

Major challenges are:

- logistics, costs and occupational health and safety issues associated with managing such an isolated reserve
- monitoring the impact of and recovery from coral bleaching
- increased potential for illegal activities with the increase in human usage of the Coral Sea.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Possible illegal fishing
- Measuring reef health—includes coral bleaching
- The reserve's isolation means ongoing, on-ground, monitoring remains logistically difficult

Actions

- Enforce fishing restrictions
- Continue the strategic reef monitoring program
- Continue to promote and maintain partnerships with other agencies to assist with monitoring

Performance results 2007–08

- Coastwatch surveillance flights detected no illegal fishing
- The Bureau of Meteorology and the Australian Institute of Marine Science facilitated the exchange of sea temperature data loggers to determine trends in temperature over time
- Satellite images have been ordered to support upcoming field surveys, to establish accurate habitat maps for tracking change over time, and to update bathymetric maps

KRA4: Visitor management and park use

Major issues

- Introduction of pest species by visitors to the reserve

Actions

- Distribute the information brochure
- Maintain website information

Performance results 2007–08

- Distributed reserve information brochure to key stakeholders including researchers and tour operators. The brochure details effective quarantine measures to be undertaken by visitors to the reserve and the importance of these practices

KRA5: Stakeholders and partnerships*Major issues*

- Lack of awareness among stakeholders of reserve management prescriptions
- Ensuring relationships with key partners remain on an effective operational basis

Actions

- Consult key stakeholders and partners and provide regular information on important issues
- Distribute the reserve information brochure

Performance results 2007–08

- Liaised with Coastwatch, the Bureau of Meteorology and the Department of Transport and Regional Services
- Met with partners to discuss issues and gave presentations on marine protected area operations and management prescriptions
- Distributed the reserve information brochure to stakeholders
- Organised and participated in a workshop to improve adaptive management for coral reef reserves. The workshop included remote coral reef marine reserve managers, key researchers and monitoring providers. Linkages between research and monitoring of remote coral reefs natural heritage were identified, relationships between participants were improved and participants' understanding of adaptive management processes and challenges was enhanced

KRA6: Business management*Major issues*

- Occupational health and safety risk to personnel from working in an isolated reserve

Actions

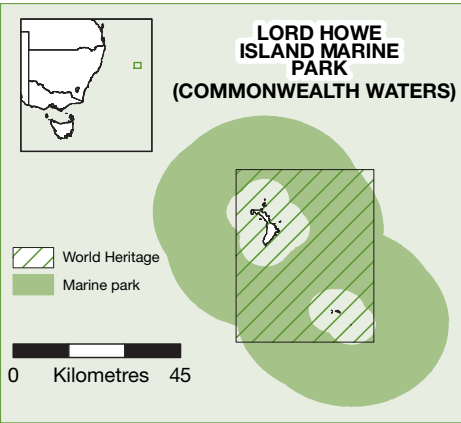
- Continue to refine and implement activity control measures identified through the activity safety analysis process

Performance results 2007–08

- Implemented all activity control measures identified through the activity safety analysis process for future activities within the reserve

Lord Howe Island Marine Park (Commonwealth Waters)

www.environment.gov.au/coasts/mpa/lordhowe



Special features

Lord Howe Island Marine Park (Commonwealth Waters) protects and conserves the complex, vulnerable and regionally unique set of deep-sea structures, benthic habitats and flora and fauna associated with the Lord Howe Island seamount system.

The marine park also ensures that the natural resources important for food, income and recreation for the Lord Howe Island community are protected and used in an ecologically sustainable manner.

Location	Latitude 31°47' South, Longitude 159°09' East	
Area	300,287 hectares	
Proclamation date	21 June 2000	
IUCN category	Category IV overall comprising: Category Ia: 96,166 hectares Category IV: 204,121 hectares	
Biogeographic context	IMCRA 4.0 provincial bioregion: Lord Howe Province	
Management plan	Current plan expires 24 September 2009	
Other significant management documents	Service Level Agreement and subsidiary Annual Business Agreement between Australian and New South Wales Governments	
Financial	Operating	\$52,233*
	Capital	Not applicable
	Revenue	Not applicable
Visitors/Users	Not known	
Permits/Approvals	9 commercial permits	

* In addition, \$729,524 was spent across the 25 marine Reserves managed by the Marine Division of the Department on behalf of the Director of National Parks. The expenditure covered professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities

International conventions and agreements	
China–Australia Migratory Birds Agreement	1 of 81 listed species
Japan–Australia Migratory Birds Agreement	4 of 77 species
Korea–Australia Migratory Birds Agreement	4 of 59 species

Environment Protection and Biodiversity Conservation Act 1999		
Listed fauna	Species	3 endangered 10 vulnerable 15 migratory 20 marine
	Recovery plans	2 implemented: albatross (<i>Diomedea</i> spp. and <i>Thalassarche</i> spp.) and giant petrels (<i>Macronectes</i> spp.); marine turtles
Listed flora	None	
Heritage	On National Heritage List	

Numbers of species recorded ^(a)				
Mammals	Birds	Reptiles	Fish	Plants
unknown	11	unknown	42	unknown

(a) Species numbers have been taken from a recently developed species inventory based on documented sightings in the reserve and adjacent areas. The inventory is still new and is continuing to be updated and refined.

Management arrangements

The New South Wales Marine Parks Authority manages the Commonwealth marine park on behalf of the Department under a service level agreement.

The Lord Howe Island Steering Committee provides a forum for cooperative planning and management of the adjacent state and Commonwealth parks. The Lord Howe Island Marine Park Advisory Committee enables stakeholder groups to provide advice on the management of both parks.

The Australian Customs Service periodically conducts Coastwatch flights over the Lord Howe Island area to report on vessel activity. Surface surveillance is undertaken by the New South Wales Marine Park Authority.

Monitoring

Data on the fish catch taken by charter fishing vessels operating under permit in the Lord Howe Island Commonwealth Marine Protected Areas continue to be logged and collated. With the commissioning of the new patrol boat *Tursiops* in early 2008, it is anticipated that there will be an increased compliance effort.

Future challenges

Major challenges are:

- minimising the negative impacts of climate change
- implementing a strategic monitoring program, following baseline and fish catch data collection
- monitoring the area for possible illegal activities
- undertaking a study of the kingfish population in the Lord Howe Island marine protected areas to assess the sustainability of fishing allowed under permit.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Ensure compliance with the management plan

Actions

- Enforce fishing restrictions
- Train and authorise enforcement staff

Performance results 2007–08

- Shore-based and vessel-based surveillance and observations from the public revealed no illegal fishing activity
- The Lord Howe Island Marine Park (New South Wales) manager functioned as a warden under the *Environment Protection and Biodiversity Conservation Act 1999*

KRA5: Stakeholders and partnerships

Major issues

- Maintain cooperation with the community and New South Wales Marine Parks Authority
- Community support for the management plan

Actions

- Take an active role on the advisory and steering committees

Performance results 2007–08

- Held meetings of Lord Howe Island Advisory Committee and consulted with Lord Howe Island Steering Committee

KRA6: Business management

Major issues

- Maintain assistance from the New South Wales Marine Parks Authority

Actions

- Negotiate and implement the annual business agreement with the New South Wales Marine Parks Authority

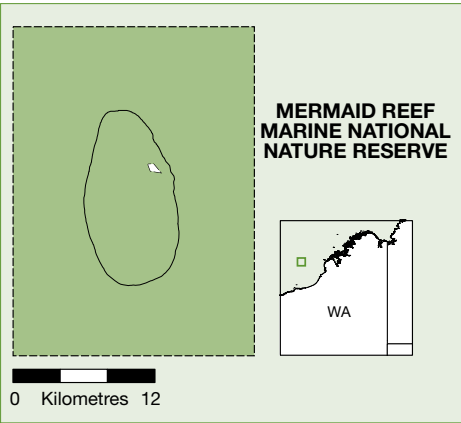
Performance results 2007–08

- Successfully negotiated and implemented the annual business agreement for 2007–08

Mermaid Reef Marine National Nature Reserve

www.environment.gov.au/coasts/mpa/mermaid

Special features



Mermaid Reef is the most north-easterly of three shelf-edge reefs in the Rowley Shoals, located approximately 300 kilometres north-west of Broome, Western Australia. No land is exposed above the high water mark at Mermaid Reef, which places it under Australian Government jurisdiction.

Clerke Reef and Imperieuse Reef, the two southerly reefs of the Rowley Shoals, have permanent land above the high water mark. Together these two reefs were incorporated into the Rowley Shoals Marine Park, declared under Western

Australian legislation on 25 May 1990.

The three reefs of the Rowley Shoals are the most perfect geological examples of shelf-edge reefs in Australian waters. Each reef includes spectacular and unusual underwater topography and life forms that have attracted divers from around the world.

Many coral and fish species that inhabit the shoals are at the limit of their distribution. The coral and fish communities of the Rowley Shoals are unique in their relative abundance of species.

Location	Latitude 17°06' South, Longitude 119°38' East	
Area	53,987 hectares	
Proclamation date	21 March 1991	
IUCN category	Category Ia	
Biogeographic context	IMCRA 4.0 provincial bioregion: Northwest Transition	
Management plan	First plan expired 16 May 2007, new plan under development	
Other significant management documents	Service level agreements and Memorandum of Understanding with Western Australian Department of Fisheries and Western Australian Department of Conservation and Land Management (now Department of Environment and Conservation); Commercial Tour Operators Manual	
Financial	Operating	\$132,200*
	Capital	Not applicable
	Revenue	Not applicable

Visitors/Users	300–400
Permits/Approvals	6 commercial tour operators, 3 scientific research

* In addition, \$729,524 was spent across the 25 marine reserves managed by the Marine Division of the Department on behalf of the Director of National Parks. The expenditure covered professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities

International conventions and agreements	
Migratory Species (Bonn) Convention	17 of 105 Australian listed species
China–Australia Migratory Birds Agreement	13 of 81 listed species
Japan–Australia Migratory Birds Agreement	11 of 77 listed species
Korea–Australia Migratory Birds Agreement	11 of 59 listed species

Environment Protection and Biodiversity Conservation Act 1999		
Listed fauna	Species	2 endangered 7 vulnerable 13 migratory 48 marine
	Recovery plans	3 being implemented: great white shark (<i>Carcharodon carcharias</i>); marine turtles; humpback whale (<i>Megaptera novaeangliae</i>)
Listed flora	None	
Heritage	On Commonwealth Heritage List (part of reserve only)	

Numbers of native species recorded ^(a)					
Mammals	Birds	Reptiles	Fish	Invertebrates	Plants
13	19	18	over 390	over 633	No land plants

(a) Species numbers have been taken from a recently developed species inventory based on documented sightings in the reserve and adjacent areas. The inventory is still new and is continuing to be updated and refined. It is likely to currently underestimate species numbers.

Management arrangements

The Mermaid Reef Marine National Nature Reserve is managed under service level agreements between the Director of National Parks, the Western Australian Department of Environment and Conservation and the Western Australian Department of Fisheries. These agencies implement management actions on behalf of the Director of National Parks. Coastwatch provides regular aerial surveillance of the reserve. Departmental staff visited the reserve in November 2007 to implement and assess reserve management activities.

The first management plan expired on 16 May 2007. A new draft plan is expected to be released for public comment in 2008. Until the new plan takes effect, the reserve is being managed in a manner consistent with its IUCN Category Ia, Strict Nature Reserve, classification.

Monitoring

Monitoring to date has shown that the major threats to Mermaid Reef are from climatic disturbances, such as cyclones and coral bleaching, and human impacts, such as anchoring and pollution. Fishing has also been identified as a potential pressure on Mermaid Reef. Regular aerial surveillance is conducted to monitor for such activities.

The Western Australian Department of Environment and Conservation conducted a marine biodiversity survey in December 2007, examining the benthic assemblages, including hard and soft corals, algae species, and commercially important species such as holothurians, *Trochus* and giant clams. The survey also gathered baseline biological information on reef shark habitat use and migration. When finalised, the results from the survey will be used to directly inform Mermaid Reef management.

Future challenges

Major challenges are:

- reviewing the need for isolated danger markers in the entrance to the Mermaid Reef lagoon
- improving visitors understanding of the reserve's conservation values and management requirements
- managing for the potential impacts of climate change.

Report on performance by key result areas

KRA 1: Natural heritage management

Major issues

- Preventing anchor damage
- Monitoring reserve health
- Monitoring and compliance issues related to illegal fishing

Actions

- Maintain moorings
- Maintain surveillance
- Encourage and facilitate reef research and monitoring
- Assess the need for specific moorings for dive sites

Performance results 2007–08

- Installed four moorings in the Mermaid Reef lagoon
- Reduced the size of the anchorage area
- Coastwatch reported no illegal fishing incursions

KRA4: Visitor management and park use*Major issues*

- Need for visitors to understand and comply with reserve values and uses
- Need for improved reporting by commercial users

Actions

- Progress work related to visitor access to the reserve
- Finalise tour operators' manual and reporting forms
- Progress the development of a new management plan

Performance results 2007–08

- Undertook a review of passenger number limitations
- Released a tour operators' manual and new reporting forms for comment by Mermaid Reef commercial tour operators

KRA5: Stakeholders and partnerships*Major issues*

- New management plan to take effect in 2008–09
- Effective management of the reserve by the management service providers (Western Australian Department of Environment and Conservation and Western Australian Department of Fisheries)
- Industry stewardship of the reserve to support management

Actions

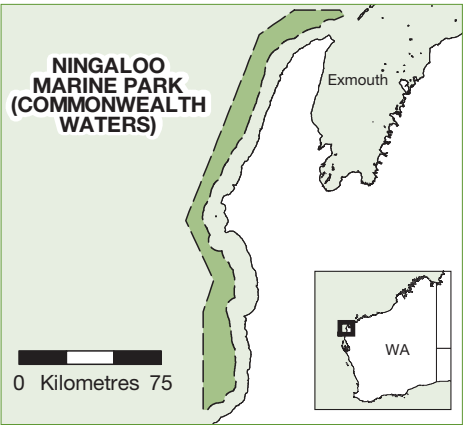
- Hold Rowley Shoals Steering Committee meeting
- Progress the development of a new management plan

Performance results 2007–08

- Implemented annual business agreements with Western Australian partner agencies
- Participated in a workshop that included Rowley Shoals commercial tourism approval holders and the Rowley Shoals Marine Park managers. Released the Commercial Tour Operators Manual for Mermaid Reserve
- Progressed draft management plan (to be released for public comment in 2008–09)
- Organised and participated in a workshop to improve adaptive management for coral reef reserves. The workshop included remote coral reef marine reserve managers, key researchers and monitoring providers. Linkages between research and monitoring of remote coral reefs natural heritage were identified, relationships between participants were improved and participants' understanding of adaptive management processes and challenges was enhanced

Ningaloo Marine Park (Commonwealth Waters)

www.environment.gov.au/coasts/mpa/ningaloo



Special features

The Ningaloo Reef is a tropical reef system projecting out from an arid part of the continental land mass of Western Australia. In places it is as close as 20 metres from the coastline. These characteristics make Ningaloo unique among the tropical reefs off the northern coast of Australia.

Ningaloo Marine Park (Commonwealth Waters) protects the whole of the deep-water environment fringing the reef, including the open waters and the

seabeds of the continental slope and shelf. The reef is extremely variable, with the range of coral cover and species changing within short distances.

Ningaloo Marine Park is made up of state waters, extending from the Western Australian coastline out to three nautical miles, and Commonwealth waters from the limit of the state jurisdiction out to the seaward boundary of Ningaloo Marine Park.

The reef is an important area for marine mammals, particularly whales. Green turtles (*Chelonia mydas*) are very common all along the coast, with several breeding rookeries. Of particular interest is the presence of the whale shark (*Rhincodon typus*), the world's biggest fish species. Ningaloo Marine Park is one of the few places around the world where whale sharks regularly occur. They aggregate in the park around March/April each year and feed on plankton, small fish or squid until June/July.

Location	Latitude 21°51' South, Longitude 113°52' East
Area	243,513 hectares
Proclamation dates	7 May 1987, 21 July 1992, 14 August 2003
IUCN category	Category II
Biogeographic context	IMCRA 4.0 provincial bioregions: Northwest Province, Central Western Transition, Central Western Shelf and Northwest Shelf Province
Management plan	Second plan expires 2 July 2009
Other significant management documents	Service level agreement and Memorandum of Understanding with the Western Australian Department of Fisheries and Western Australian Department of Conservation and Land Management (now Department of Environment and Conservation); annual business agreements for management plan implementation

Financial	Operating	\$169,750*
	Capital	Not applicable
	Revenue	Not applicable
Visitors/Users	Not available	
Permits/Approvals	13 commercial tour , 2 scientific research	

* In addition, \$729,524 was spent across the 25 marine reserves managed by the Marine Division of the Department on behalf of the Director of National Parks. The expenditure covered professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities

International conventions and agreements

Migratory Species (Bonn) Convention	3 of 105 listed Australian species
China–Australia Migratory Birds Agreement	4 of 81 listed species
Japan–Australia Migratory Birds Agreement	4 of 77 listed species
Korea–Australia Migratory Birds Agreement	1 of 59 listed species

Environment Protection and Biodiversity Conservation Act 1999

Listed fauna	Species	1 endangered 9 migratory 19 marine
	Recovery plans	Great white shark (<i>Carcharodon carcharias</i>) Recovery Plan for Marine Turtles in Australia Whale Shark (<i>Rhincodon typus</i>) Recovery Plan (2005-2010)
Listed flora	None	
Heritage	On Commonwealth Heritage List	

Numbers of native species recorded(a)

Mammals	Birds	Reptiles	Fish	Plants
unknown	22	unknown	54	0

(a) Species numbers have been taken from a recently developed species inventory based on documented sightings in the reserve and adjacent areas. The inventory is still new and is continuing to be updated and refined. It is likely to currently underestimate species numbers.

Management arrangements

The Western Australian Department of Environment and Conservation and Western Australian Department of Fisheries conduct on-site management of the Marine Park under service level agreements between the Western Australian agencies and the Director of National Parks.

Monitoring

The Australian Institute of Marine Science, in a consortium with Australian and United States research organisations, extended a project begun in 2004–05. It uses satellite tracking tags to collate data on the range and behaviour of whale shark individuals from the Commonwealth and state waters of Ningaloo Marine Park.

Future challenges

Major challenges are:

- ensuring compliance with park management prescriptions
- mapping habitats adequately
- maintaining consistency between the Australian and state government planning processes
- managing for the potential impacts of climate change.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Limited information about the Commonwealth waters of the park
- Lack of information on the distribution, migration, behaviour and abundance of key species including whale sharks
- Lack of information on the effects of human and commercial interactions on the park's key attributes
- Potential listing of Ningaloo Marine Park on the National Heritage and World Heritage lists

Actions

- Continue whale shark monitoring in both Commonwealth and state waters
- Engage in the National Heritage and World Heritage listing processes

Performance results 2007–08

- Prepared biodiversity benthic survey report summarising work that was undertaken in the Ningaloo Marine Park as part of a broader CSIRO project
- Continued a study of the behaviour and migration habits of whale sharks travelling to Ningaloo Marine Park

KRA4: Visitor management and park use*Major issues*

- Reports of commercial fishers entering Commonwealth waters and fishing illegally
- Effective management of commercial tours
- Communication and enforcement of the Regulations under the EPBC Act

Actions

- Monitor illegal entry to Commonwealth waters via Coastwatch surveillance
- Ensure commercial tour operators comply with permits and conditions
- Undertake compliance operations to ensure adherence with the Regulations under the EPBC Act, and to increase awareness of those Regulations

Performance results 2007–08

- Continued engagement with State partners (WA Department of Environment and Conservation and WA Department of Fisheries) with regard to roles and cooperative arrangements for compliance and enforcement activities
- Issued permits for commercial tour operators
- Western Australian partner agencies patrolled the reserve regularly as part of their standard surveillance operations
- Coastwatch conducted aerial surveillance
- Targeted compliance operation conducted 16-20 March 2008, 18 vessels were approached. All were informed of the Regulations under the EPBC Act

KRA5: Stakeholders and partnerships*Major issues*

- Maintaining productive relationships with partners
- Negotiating complementary management regimes with partner agencies to best manage the adjoining Commonwealth and state reserves

Actions

- Develop and implement a work plan under the annual business agreement to manage the Ningaloo Marine Park
- Keep stakeholders informed of and involved in management activities
- Develop and distribute an information flyer to inform recreational fishers of the Regulations under the EPBC Act
- Provided fisheries staff with warden training for compliance purposes (in accordance with the EPBC Act)

Performance results 2007–08

- Workplans were negotiated and implemented under service level agreements
- Productive working arrangements maintained with state agencies

KRA6: Business management

Major issues

- Need to effectively manage contracts with service providers

Actions

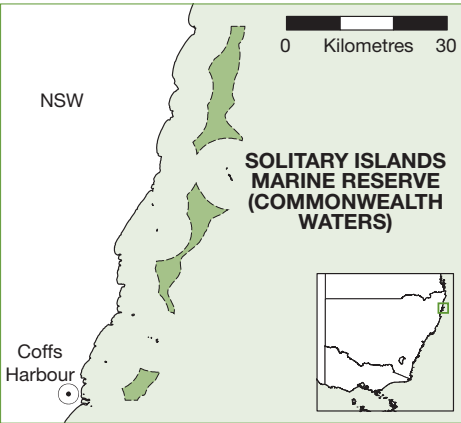
- Negotiate and implement annual business agreements
- Manage contracts with service providers

Performance results 2007–08

- Annual business agreement negotiated and implemented with WA Department of Environment and Conservation covering compliance and enforcement, management intervention and visitor infrastructure, research and monitoring, public participation, and education
- Annual business agreement negotiated and implemented with WA Department of Fisheries covering education, compliance and enforcement, visitor management, and training

Solitary Islands Marine Reserve (Commonwealth Waters)

www.environment.gov.au/coasts/mpa/solitary



Special features

The Solitary Islands Marine Reserve (Commonwealth Waters) (SIMR) and the adjacent Solitary Islands Marine Park (State Waters) are located in a mixing zone between tropical and temperate environments. Many species in the reserve are at, or close to, the northern or southern extent of their geographic range.

The reserve is home to a number of species that are listed as endangered or vulnerable under State or Commonwealth legislation,

or international agreements. These include several dolphin species, humpback whales (*Megaptera novaengliae*), grey nurse sharks (*Carcharias taurus*), black cod (*Epinephelus daemeli*), Bleekers devil fish (*Paraplesiops bleekeri*), and numerous seabird species. An area known as Pimpnel Rock forms part of the critical habitat for the grey nurse shark which aggregates there.

Location	Latitude 29°48' South, Longitude 153°22' East	
Area	15,233 hectares	
Proclamation date	3 March 1993	
IUCN category	Category VI overall comprising: Category Ia 79 hectares Category IV 3,746 hectares Category VI 11,408 hectares	
Biogeographic context	IMCRA 4.0 provincial bioregion: Central Eastern Shelf Transition	
Management plan	The SIMR Management Plan 2001 expired 3 April 2008. Interim management arrangements currently in place.	
Other significant management documents	Service Level Agreement and subsidiary Annual Business Agreement between Australian and New South Wales Governments	
Financial	Operating	\$93,300*
	Capital	Not applicable
	Revenue	Not applicable
Visitors	Not known	



Permits (issued under Management Plan)	6 commercial fishing, 6 commercial tour operator, 2 recreational diving
Approvals (issued under Interim Management Arrangements)	64 commercial fishing, 6 commercial tour operator

* In addition, \$729,524 was spent across the 25 marine reserves managed by the Marine Division of the Department on behalf of the Director of National Parks. The expenditure covered professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities.

International conventions and agreements	
Migratory Species (Bonn) Convention	12 of 105 listed species
China–Australia Migratory Birds Agreement	9 of 81 listed species
Japan–Australia Migratory Birds Agreement	12 of 77 listed species
Korea– Australia Migratory Birds Agreement	5 of 59 listed species

Environment Protection and Biodiversity Conservation Act 1999		
Listed fauna	Species	4 endangered 7 vulnerable 24 migratory 38 marine
	Recovery plans	2 being implemented: marine turtles; grey nurse shark (<i>Carcharias taurus</i>)
Listed flora	None	

Numbers of native species recorded ^(a)				
Mammals	Birds	Reptiles	Fish	Invertebrates
25	37	6	Unknown	90

(a) Species numbers have been taken from a recently developed species inventory based on documented sightings in the reserve and adjacent areas. The inventory is still new and is continuing to be updated and refined. It is likely to currently underestimate species numbers.

Management arrangements

The New South Wales Marine Parks Authority conducts on-site day-to-day management of the reserve for the Commonwealth under an Annual Business Agreement (ABA).

The Solitary Islands Marine Park Steering Committee comprises agency representatives of State and Commonwealth governments. It oversees management and planning arrangements. The Solitary Islands Marine Park Advisory Committee enables stakeholders to contribute to planning for both the adjacent State Park and the Commonwealth reserve. The Department of the Environment, Heritage, Water and the Arts is represented on both Committees.

The SIMR Management Plan 2001 expired on 3 April 2008 and is currently being

reviewed. Interim management arrangements, to allow activities permitted under the expired SIMR Management Plan 2001 to continue, are now in force.

Monitoring

The New South Wales Marine Parks Authority and CSIRO continued to monitor grey nurse shark movements between aggregation sites, including Pimpernel Rock in the reserve.

Baited underwater video research was conducted to identify fish biodiversity patterns in deep reef habitats and to explore the representation of fish assemblages.

An assessment of benthic (seabed) assemblages is being conducted.

The New South Wales Marine Parks Authority continued to remove and monitor debris at Pimpernel Rock.

Future challenges

Major challenges are:

- reviewing the SIMR Management Plan 2001, including zoning
- consulting with stakeholders and the New South Wales Marine Parks Authority on future management arrangements.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Potential illegal activities threatening conservation values

Actions

- Enforce fishing restrictions
- Monitor anchor sites at Pimpernel Rock

Performance results 2007–08 (in cooperation with New South Wales Government)

- New South Wales Marine Parks Authority provided surface support to Coastwatch surveillance and conducted surface patrols as required
- Targeted operations were conducted in response to intelligence received—particularly for the Pimpernel Rock Sanctuary Zone

KRA4: Visitor management and park use

Major issues

- Managing impacts from visitor activities in the Sanctuary Zone



- Managing impacts from commercial fishing under permit in the Habitat Protection Zone
- Implementing an Approvals regime in response to the expiry of the SIMR Management Plan 2001 and communicating new requirements to reserve users

Actions

- Conduct surface patrols and manage commercial fishing permits
- Communicate marine protected areas values and provide information to users
- Communicate with user groups to discuss the expiry of the Management Plan and implementation of the Approvals regime

Performance results 2007–08 (in cooperation with New South Wales Government)

- New South Wales Marine Parks Authority provided surveillance support through regular surface patrols
- 64 commercial fishing approvals and 6 commercial tourism approvals issued—indicating a high response rate from users
- Updated and reprinted a joint Zoning Summary and User Guide for State and Commonwealth Waters
- Installed interpretive signs and advisory material

KRA5: Stakeholders and partnerships

Major issues

- Ongoing engagement with community and Government representatives

Actions

- Develop an Annual Business Agreement with the NSW Marine Parks Authority to provide management, communication, compliance and research services in the reserve
- Participate in Solitary Islands Marine Park Advisory Committee and Solitary Islands Marine Park Steering Committee meetings
- Conduct community consultation and stakeholder meetings as part of the SIMR Management Plan 2001 Review

Performance results 2007–08 (in cooperation with New South Wales Government)

- Annual Business Agreement signed
- Management, communication, compliance and research activities conducted
- Participated in Advisory and Steering Committee meetings
- Gave presentations and met with all identified stakeholder groups at various locations and times

South-east Commonwealth Marine Reserve Network

www.environment.gov.au/coasts/mpa/southeast

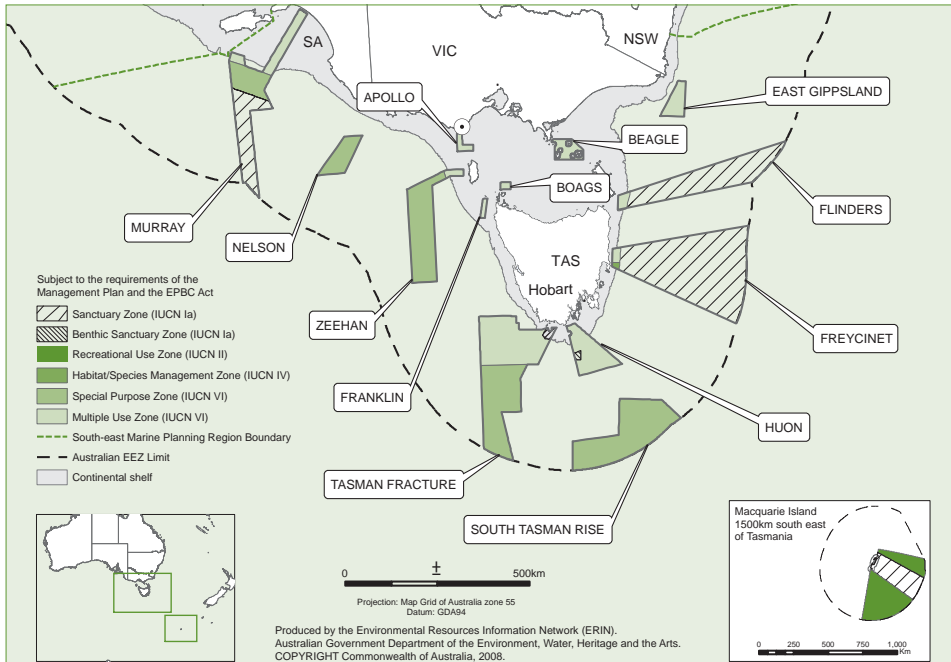
Special features

On 28 June 2007 the South-east Commonwealth Marine Reserve Network (Reserve Network) was declared under the *Environment Protection and Biodiversity Conservation Act 1999*. The reserves came into effect on 3 September 2007.

The Reserve Network is the first temperate, deep sea marine reserve network in the world. This large network, covering 388,517 square kilometers, includes 14 reserves that are representative examples of the diverse seafloor features and associated habitats found in the South-east Marine Region. The South-east Marine Region stretches from the far south coast of New South Wales, around Tasmania and Victoria and west to Kangaroo Island off South Australia, and includes Macquarie Island.

The Reserve Network includes significant underwater features such as underwater canyons, seamounts, and diverse marine life associated with them, some of which are new to science and found nowhere else in the world. It provides habitat and feeding grounds for a variety of birds and sea life including large iconic species such as great white sharks, southern bluefin tuna and migrating whales. The deeper parts of the Reserve Network are home to a diverse range of fish and other creatures such as crabs, coral, sea urchins and sponges.

Figure 10: South-east Commonwealth Marine Reserve Network including Macquarie Island



Management plan	The current Macquarie Island management plan expires 25 September 2008. Macquarie Island Commonwealth Marine Reserve will be incorporated into the South-east Commonwealth Marine Reserve Network. The South-east Commonwealth Marine Reserve Network management plan is currently being developed.	
Other significant management documents	<p>Annual business agreements between Australian and Victorian governments.</p> <p>Annual business agreements between Australian and South Australian governments.</p> <p>Annual business agreements between Australian government and Tasmania Police.</p> <p>Memorandum of Understanding between Department of the Environment, Water, Heritage and the Arts and Australian Fisheries Management Authority.</p> <p>Service level agreement and subsidiary annual business agreements between the Australian and Tasmanian governments</p>	
Financial	Operating	\$449,344*
	Capital	Not applicable
	Revenue	Not applicable
Approvals	361 Commercial Fishing and Tourism	
Permits	1 Scientific	

* In addition, \$729,524 was spent across the 25 marine reserves managed by the Marine Division of the Department on behalf of the Director of National Parks. The expenditure covered professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities.

International conventions and agreements	
World Heritage Convention	Macquarie Island and waters within a 12 nautical mile radius were listed as a World Heritage Area in 1997
Migratory Species (Bonn) Convention	25 of 105 listed species
China–Australia Migratory Birds Agreement	4 of 81 listed species
Japan–Australia Migratory Birds Agreement	5 of 77 listed species
Korea–Australia Migratory Birds Agreement	3 of 59 listed species
Other agreements	Agreement on the Conservation of Albatrosses and Petrels; International Convention for the Regulation of Whaling; International Convention on the Conservation of Antarctic Marine Living Resources

Environment Protection and Biodiversity Conservation Act 1999		
Listed fauna	Species	21 endangered 44 vulnerable 30 migratory 72 marine
	Recovery plans	11 being implemented: albatross (<i>Diomedea</i> spp. and <i>Thalassarche</i> spp.) and giant petrels (<i>Macronectes</i> spp.); marine turtles; 10 seabird species; southern right whale (<i>Eubalaena australis</i>); blue whale, (<i>Balaenoptera musculus</i>) fin whale (<i>Balaenoptera physalus</i>) and sei whale (<i>Balaenoptera borealis</i>); white shark (<i>Carcharodon carcharias</i>); grey nurse shark (<i>Carcharias taurus</i>); humpback whale (<i>Megaptera novaengliae</i>); orange-bellied parrot (<i>Neophema chrysogaster</i>); 4 handfish species; and sub-Antarctic fur seal (<i>Arctocephalus tropicalis</i>) and southern fur seal (<i>Mirounga leonine</i>)
Listed flora	None	
Heritage	Macquarie Island Commonwealth Marine Reserve on National Heritage List	

Numbers of species recorded^(a)

Mammals	Birds	Reptiles	Fish	Plants
At least 44	At least 61	At least 4	At least 158	Not known

(a) Species numbers have been taken from a recently developed species inventory based on documented sightings in the reserve and adjacent areas. The inventory is still new and is continuing to be updated and refined. It is likely to currently underestimate species numbers.

Management arrangements

Annual business agreements and memorandums of understanding have been developed between Victorian, Tasmanian and South Australian government agencies and the Australian Government to actively promote and monitor compliance with the rules of the Reserve Network and to enforce the rules when breaches are detected. Information sharing arrangements have been established with the Australian Fisheries Management Authority to also aid in compliance and enforcement.

Interim management arrangements have been implemented, to manage the Reserve Network until a management plan is in operation.

A management plan for the Reserve Network, which will also cover the management of Macquarie Island Commonwealth Marine Reserve, is currently being developed. The draft management plan is expected to be released for public consultation in late 2008 or early 2009.

A first round of public consultation on the proposal to develop a management plan for the Reserve Network was held between 19 January and 28 February 2008. A range of submissions were received from individuals, businesses, conservation organisations, recreational associations, industry groups and government agencies.

Monitoring

Relatively little is known about the plants and animals of the deepwater habitats of the South-east Region. The Department is developing a research and monitoring strategy to identify the main knowledge gaps for the South-east Region and address them as efficiently as possible.

In the meantime, the Director of National Parks will continue to undertake and approve research projects where the aims of those projects clearly address management needs for the Reserve Network. To this end, two major projects were initiated during 2007-2008 to research aspects of the South-east Region's ecology.

Future challenges

Major challenges are:

- finalising the South-east Commonwealth Marine Reserve Network management plan
- understanding the full extent of the social, economic and environmental values associated with the Reserve Network
- ongoing liaison with key stakeholders and other community interest groups in relation to reserve and network management
- maintenance of constructive partnership arrangements with relevant state and Australian Government agencies
- development and implementation of a reserve/network awareness program for key stakeholder groups and the community generally
- encouraging compliant use of the Reserve Network and active involvement in day to day management across all sectors
- establishing a research and monitoring program for each reserve.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Limited information on the ecological communities and processes within the Reserve Network
- Degradation of island feeding and breeding areas within state jurisdiction (Macquarie Island)

Actions

- Fund research and monitoring projects across the South-east Commonwealth Marine Reserve Network to assist in informing management

- Develop an integrated research and monitoring strategy for the Reserve Network
- Work with the Tasmanian government on protection and further understanding of species, habitats and marine systems

Performance results 2007–08

- Two research projects were undertaken with an emphasis on obtaining baseline biological information for several of the reserves. These projects are ongoing with the results expected late in 2008:
 - Biological baseline survey in South-east Marine Protected Areas—Tasmanian Aquaculture and Fisheries Institute (TAFI)
 - Deep sea biological survey in the South-east Commonwealth Marine Reserve Network—CSIRO
- An inventory of scientific literature relevant to the South-east Network was completed
- Work commenced on developing a research and monitoring strategy for the Reserve Network
- No surveillance was conducted at Macquarie Island Commonwealth Marine Reserve due to a reliance on informal service provision arrangements and higher Coastwatch priorities elsewhere
- Continued working with the Tasmanian Department of Tourism, Parks, Heritage and the Arts under a service level agreement covering the management of the Macquarie Island Commonwealth Marine Reserve. It includes marine debris survey and collection, determining the foraging patterns of southern and northern giant petrels and their ecological interactions with fisheries, and monitoring and collecting seabird population baseline data

KRA4: Visitor management and park use

Major issues

- Implementation of the Reserve Network interim management arrangements for ongoing reserve use
- Lack of existing Australian Government compliance and enforcement capacity for the South-east Region
- Monitoring and detection of illegal activities
- Lack of knowledge of Reserve Network management arrangements within industry and the community
- Potential non-compliance with Reserve Network management arrangements by some recreational and commercial fishing operators

Actions

- Develop strategies to assist in monitoring and detecting illegal activities including entering into information sharing arrangements with relevant parties

- Develop educational material, including posters, brochures and DVDs, to raise community awareness and understanding of the Reserve Network values and the applicable management arrangements

Performance results 2007–08

- Implemented interim management arrangements to make provision for ongoing use of the Reserve Network consistent with the zoning of the individual reserves, pending the development of the Reserve Network management plan
- Arrangements entered into with relevant state government agencies and Commonwealth agencies to establish a compliance and enforcement capacity in the South-east Region
- Information sharing arrangements in place with Australian Fisheries Management Authority for the provision of compliance and monitoring data
- Educational products (including bulletins, Reserve Network User Guides, posters, brochures and a DVD) developed and distributed to stakeholders and throughout the community

KRA5: Stakeholders and partnerships

Major issues

- Ensuring ongoing and constructive engagement with the community, key interest groups and government agencies
- Establishing complementary management arrangements with state government agencies and Australian Government agencies, where required

Actions

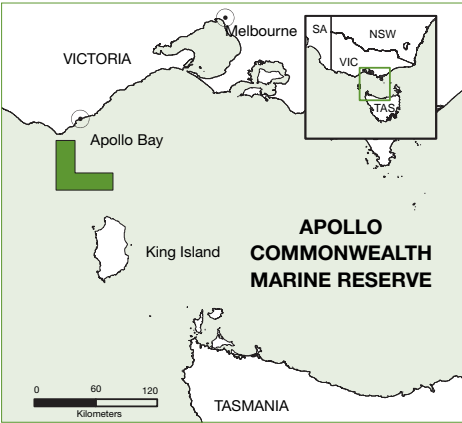
- Develop formal partnerships with state and Australian Government agencies to establish an active compliance and enforcement capacity for the South-east Region
- Consult with key stakeholders and industry bodies on management arrangements and planning

Performance results 2007–08

- Annual business agreements entered into with Victorian, Tasmanian and South Australian government departments to undertake vessel patrols and air surveillance activities within the reserves
- Continued consultation with the South East Region Fishing Industry Working Group—particularly funding a liaison officer and consultation with relevant South-east fishing industry sector representatives
- Consulted with stakeholders and general community on development of the Reserve Network management plan
- Continued the service level agreement with the Tasmanian government on the cooperative management of marine protected areas, including Macquarie Island Commonwealth Marine Reserve

Apollo Commonwealth Marine Reserve

www.environment.gov.au/coasts/mpa/southeast/apollo



Special features

Apollo Reserve is located off Apollo Bay on Victoria’s west coast. It lies in the shallow waters of the continental shelf at depths of 80 to 120 metres. Apollo Reserve includes 1,184 square kilometres of Commonwealth ocean territory. It complements the Victorian State Government Marine Protected Area network.

Apollo Reserve contains representative samples of the Bass Strait Province Bioregions that extend from South

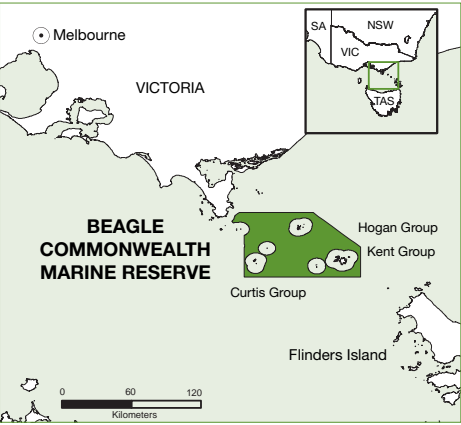
Australia to the west of Tasmania. The area includes the Otway Depression, an undersea valley that joins the Bass Basin to the open ocean. This valley was an outlet channel from the old Bass Lake and mainland river systems during the last ice age. The shelf is a high-energy environment, exposed to large swell waves propagating from the south-west and strong tidal flows. These rough seas are home to such species as fur seals and school sharks.

Location	Latitude 39°16’ South, Longitude 143°35’ East
Area	1 18,360 hectares
Proclamation date	28 June 2007 (effective 3 September 2007)
IUCN category	Category VI
Biogeographic context	IMCRA 4.0 provincial bioregion: Bass Strait Province



Beagle Commonwealth Marine Reserve

www.environment.gov.au/coasts/mpa/southeast/beagle



Special features

Covering 2,928 square kilometres of ocean, Beagle Reserve is situated entirely within the shallow Bass Strait. It lies mostly between depths of 50 to 70 metres with its north-western edge abutting Victorian waters to the south east of Wilson’s Promontory.

Beagle Reserve is representative of an area of shallow continental shelf ecosystems that extends around south eastern Australia to the east of Tasmania. It covers an area of the sea

floor that is thought to have formed a land bridge with Tasmania as recently as 10,000 years ago during the last Ice Age.

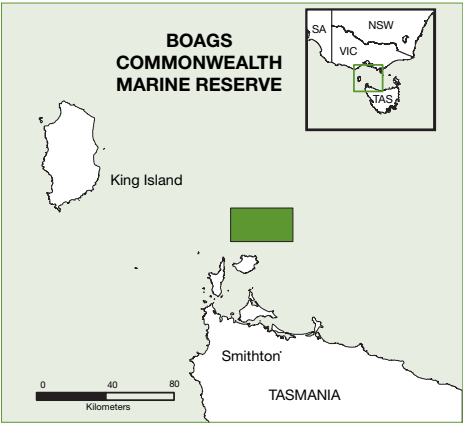
Beagle Reserve encompasses the fauna of central Bass Strait which is expected to be especially rich based on studies of several sea floor dwelling animal groups. Its boundary encloses the Tasmanian Kent Group Marine Reserve and the Hogan and Curtis Island groups. Its ecosystems are similar to those documented for the deeper sections of the Kent Group Marine Reserve, especially those based around habitats of rocky reefs. They support beds of encrusting, erect and branching sponges, and sediment composed of shell grit with patches of variously large sponges and sparse sponge-habitats.

The deep rocky reefs of Beagle Reserve support a rich array of life, and the area provides homes and feeding grounds for seabirds, little penguins and Australian fur seals. The reserve is located near the Hunter group of islands, which is an important breeding area for the fairy prion, shy albatross, silver gull, short tailed shearwater, black faced cormorant, Australian gannet, common diving petrel and little penguins.

Location	Latitude 39°21’ South, Longitude 146°58’ East
Area	292,758 hectares
Proclamation date	28 June 2007 (effective 3 September 2007)
IUCN category	Category VI
Biogeographic context	IMCRA 4.0 provincial bioregion: South-east transition

Boags Commonwealth Marine Reserve

www.environment.gov.au/coasts/mpa/southeast/boags



Special features

Boags Reserve covers 537 square kilometres of ocean and is situated off the north western tip of Tasmania, north of Three Hummock Island. The reserve is wholly contained within western Bass Strait with a depth range mostly between 50-80 metres.

Boags Reserve represents an area of shallow continental shelf ecosystems that extends through central Bass Strait. It encompasses the fauna of central Bass Strait, which is expected to be especially

rich based on studies of several sea floor dwelling animal groups.

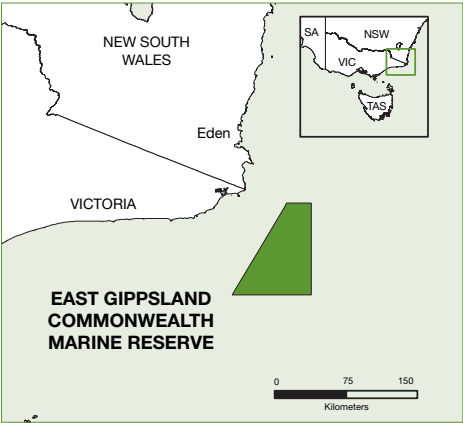
Boags Reserve contains a rich array of life, particularly bottom dwelling animals, as is common for the central Bass Strait area. It is also a foraging area for a variety of seabirds, including the fairy prion, shy albatross, silver gull, short tailed shearwater, black faced cormorant, Australian gannet, common diving petrel and little penguins. It lies adjacent to an important breeding area in Tasmania’s north-west, particularly the Hunter group of islands.

Location	Latitude 40°14' South, Longitude 144°59' East
Area	53,748 hectares
Proclamation date	28 June 2007 (effective 3 September 2007)
IUCN category	Category VI
Biogeographic context	IMCRA 4.0 provincial bioregion: Bass Strait Province



East Gippsland Commonwealth Marine Reserve

www.environment.gov.au/coasts/mpa/southeast/east-gippsland



Special features

East Gippsland Reserve is located in Commonwealth waters off Mallacoota near the NSW/Victoria border. The reserve covers 4,137 square kilometres of Commonwealth waters. It contains representative samples of an extensive network of canyons, continental slope and escarpment in depths from 600 metres to deeper than 4,000 metres.

East Gippsland Reserve has impressive geomorphic features such as rocky-substrate habitat, submarine

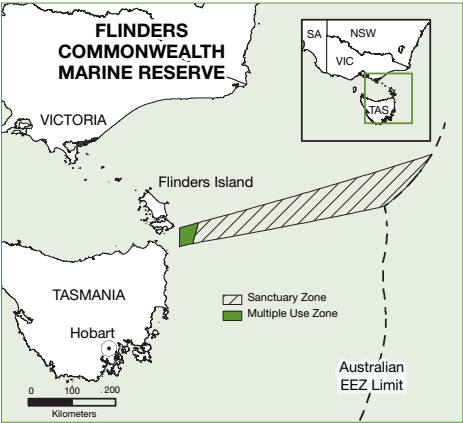
canyons, escarpments and a knoll which juts out from the base of the continental slope.

The reserve includes both warm and temperate waters and supports free-floating aquatic plants or microscopic plant (i.e. phytoplankton) communities. Complex seasonality in oceanographic patterns influences biodiversity and local productivity. There are summertime incursions of the warm East Australian Current and a wintertime cascade of cold water from Bass Strait that sinks along the upper slope and forms a temperature front. This cold front helps nutrients come to the surface and in turn this supports a diverse phytoplankton community and other sea life. The area may also support foraging activities for wandering albatross.

Location	Latitude 38°04' South, Longitude 150°20' East
Area	413,664 hectares
Proclamation date	28 June 2007 (effective 3 September 2007)
IUCN category	Category VI
Biogeographic context	IMCRA 4.0 provincial bioregion: Southeast Transition

Flinders Commonwealth Marine Reserve

www.environment.gov.au/coasts/mpa/southeast/flinders



Special features

Flinders Reserve comprises an area of 27,043 square kilometres. It is named after the adjacent Flinders Island in the Furneaux group of islands to the north-east of Tasmania. The reserve covers a depth range from about 40 metres on the shallow continental shelf to abyssal depths of approximately 3,000 metres at the edge of the Exclusive Economic Zone.

Flinders Reserve spans continental shelf, slope and deeper water ecosystems of the major biological zone that extends

around south-eastern Australia to the east of Tasmania. Key features of this area are the continental shelf, and a long portion of steep continental slope escarpment incised by a series of submarine canyons. Sea bottom dwelling habitats include sheer rocky walls and large rocky outcrops that support a rich diversity of small seabed animals, such as lace corals and sponges. These and the large expanses of sandy and muddy sediments are habitats for a wide variety of fishes and invertebrates.

Biodiversity is influenced by summertime incursions of the warm East Australian Current and associated large scale, anti-clockwise, small whirlpools. Another prominent feature is a large off-shore seamount believed to be too deep to have been fished. Seamounts are generally considered to be important centres of deep ocean biodiversity.

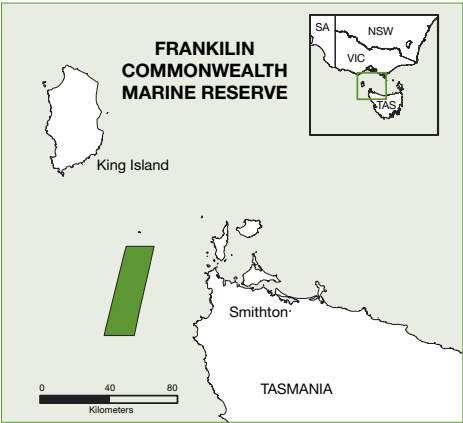
The shallower part of Flinders Reserve includes habitat important to the white fronted tern, Australian gannet, black faced cormorant, common diving petrel, fairy prion, little penguin, shy albatross, silver gull, crested tern, short tailed shearwater and white faced storm petrel. Importantly, it includes the habitat of a suite of continental shelf and slope shark species, including school shark and—between 400 and 600 metre depths—gulper sharks (Harrison's dogfish and southern dogfish). Among the range of fishes, sponges and deep water corals of this reserve can also be found the giant crab, weighing up to 15 kilograms and one of the largest crabs in the world.

Location	Latitude 40°00' South, Longitude 151°17' East
Area	2,704,306 hectares
Proclamation date	28 June 2007 (effective 3 September 2007)
IUCN category	Category Ia overall comprising: Sanctuary Zone Category Ia (2,581,195 hectares) Multiple use zone Category VI (123,111 hectares)
Biogeographic context	IMCRA 4.0 provincial bioregion: Tasmanian Province, Southeast Transition



Franklin Commonwealth Marine Reserve

www.environment.gov.au/coasts/mpa/southeast/franklin



Special features

Covering 671 square kilometres of ocean, Franklin Reserve is situated off the north western tip of Tasmania, south of King Island. The reserve covers an area of continental shelf waters in a depth range of 50–150 metres.

Franklin Reserve represents an area of shallow continental shelf ecosystems. It incorporates two major biological zones: the Franklin Zone, which runs down the west coast of Tasmania (from which the reserve takes its name) and

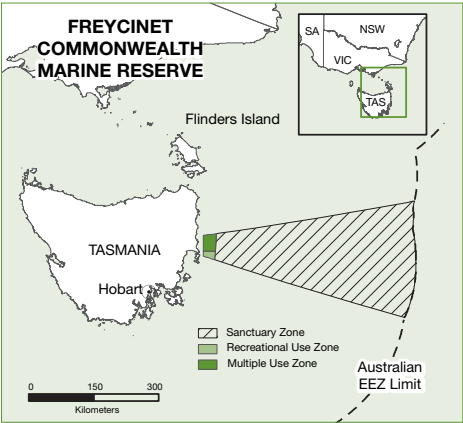
the biological zone that extends from South Australia and Western Victoria.

This reserve provides a feeding ground for a variety of seabirds, including the fairy prion, shy albatross, silver gull, short tailed shearwater, black faced cormorant, common diving petrel and, in particular, the Australian gannet that breeds at the nearby Black Pyramid Rock—one of only eight breeding sites in Australia.

Location	Latitude 40°46' South, Longitude 144°16' East
Area	67,077 hectares
Proclamation date	28 June 2007 (effective 3 September 2007)
IUCN category	Category VI
Biogeographic context	IMCRA 4.0 provincial bioregion: Western Bass Strait Transition and Tasmanian Transition

Freycinet Commonwealth Marine Reserve

www.environment.gov.au/coasts/mpa/southeast/freycinet



Special features

Freycinet Reserve comprises a total area of 57,942 square kilometres. This reserve is named after the adjacent Freycinet National Park on the east coast of Tasmania. It covers a depth range from about 40 metres on the continental shelf to abyssal depths of approximately 3,000 metres at the edge of the Exclusive Economic Zone.

Freycinet Reserve spans the continental shelf, slope and deeper water ecosystems of the major biological zone that extends

around south-eastern Australia to the east of Tasmania. Key features of this area are the continental shelf and a long portion of steep continental slope escarpment that joins to a large off-shore saddle.

Other prominent features include large off-shore seamounts, which are believed to be too deep to have been fished. Seamounts are generally considered to be important centres of deep ocean biodiversity. They host a wide range of habitats at different depths and orientations to currents. The large seamounts to the east of Tasmania are believed to be individually important, providing habitat to species that may be unique to each seamount and to a range of more widely occurring species.

The shallower part of the Freycinet Reserve includes habitat important to the white fronted tern, Australian gannet, black faced cormorant, common diving petrel, fairy prion, little penguin, shy albatross, silver gull, crested tern, short tailed shearwater, and white faced storm petrel.

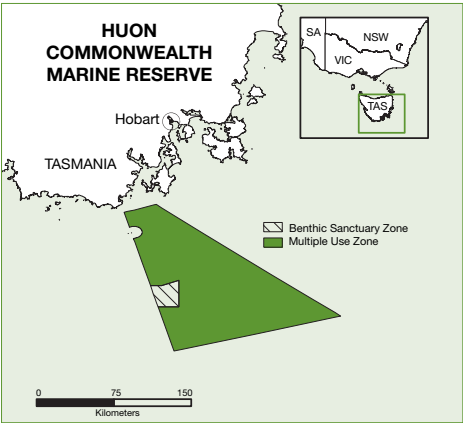
Additionally, the reserve includes the habitat of a group of continental shelf and slope shark species, including school shark and, between 400 and 600 metres, gulper sharks (including Harrison’s dogfish and southern dogfish).

Location	Latitude 42°12’ South, Longitude 151°07’ East
Area	5,794,248 hectares
Proclamation date	28 June 2007 (effective 3 September 2007)
IUCN category	Category Ia overall comprising: Sanctuary Zone Category Ia (5,679,269 hectares) Recreational Use Zone Category II (32,330 hectares) Multiple Use Zone Category VI (82,649 hectares)
Biogeographic context	IMCRA 4.0 provincial bioregion: Tasmania Province, Southeast Transition, Tasmanian IMCRA Province



Huon Commonwealth Marine Reserve

www.environment.gov.au/coasts/mpa/southeast/huon



Special features

Huon Reserve covers about 9,991 square kilometres of ocean to the south of Tasmania. It covers a broad depth range from the inner continental shelf at about 70 metres, to the abyss at over 3,000 metres. The majority of the reserve’s area is in deep water.

The Tasman Seamounts Marine Reserve, that was proclaimed in 1999 and covers a small part of this area, has been revoked and wholly incorporated into the Huon Reserve.

Huon Reserve spans the continental shelf, continental slope and deeper water ecosystems of a primary biological zone to the south of Tasmania. Close to the shore seabirds and school sharks can be found, while further into the open ocean the seabed is made up of deep plains, which are broken up by submerged mountains. A diverse range of fish, coral, squid, crabs and other animals make these seamounts their home.

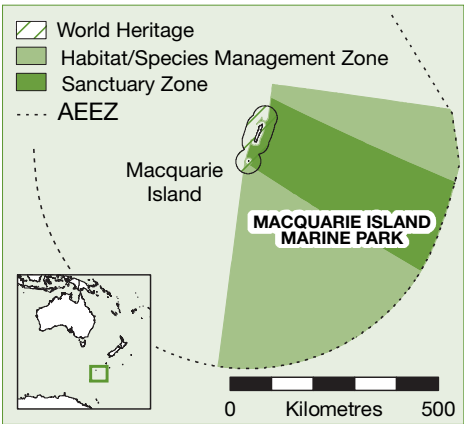
The reserve’s most remarkable feature is a cluster of cone-shaped submerged seamounts. The natural values of these seamounts include a rich seabed fauna characterised by high numbers of endemic species and the presence of large, erect seabed animals, including habitat-forming corals and sponges. Some of these are extremely long-lived – hundreds and possibly thousands of years old—making them some of the longest-lived animals on earth. The seamounts of Huon Reserve provide an important connection between seamounts of the Indian Ocean and the Tasman Sea.

Huon Reserve includes an area of continental shelf and slope known to be important foraging habitat for the Australian gannet, shy albatross and silver gull from adjacent nesting areas. Based on the distribution of larvae, this area is also known to provide spawning or nursery areas for important commercial fishes including the ocean perch and blue warehou. Other offshore geological features include terraces, rotated continental blocks, saddles, pinnacles and canyons, which are believed to provide habitat for unique fauna.

Location	Latitude 44°19' South, Longitude 147°40' East
Area	999,074 hectares
Proclamation date	28 June 2007 (effective 3 September 2007)
IUCN category	Category VI overall comprising: Benthic Sanctuary Category Ia (38,897 hectares) Multiple Use Zone Category VI (960,177 hectares)
Biogeographic context	IMCRA 4.0 provincial bioregion: Tasmanian IMCRA Province, Tasmania Province

Macquarie Island Commonwealth Marine Reserve

www.environment.gov.au/coasts/mpa/macquarie



Special features

Macquarie Island Commonwealth Marine Reserve protects the unique and vulnerable marine ecosystems of the south-eastern portion of Commonwealth waters around Macquarie Island. The marine reserve includes significant feeding and migratory areas for a number of threatened marine mammals and seabirds. It contains a variety of large-scale benthic (seabed) habitats, each exposed to different depths, currents, nutrient levels, wave activity and temperatures.

The Macquarie Island region has unique geological characteristics. It is the only known location where oceanic crust from a normal mid-ocean ridge has been lifted above sea level in a major oceanic basin.

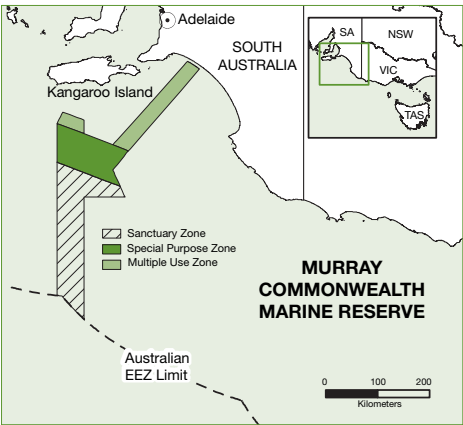
In 1997, Macquarie Island and waters within a 12 nautical mile radius were inscribed on the World Heritage List.

Several species found in the region are under threat, including albatross, penguin and seal species. Macquarie Island is also listed as a critical habitat under the *Environment Protection and Biodiversity Conservation Act 1999* for the grey headed albatross (*Diomedea chrysostoma*) and wandering albatross (*Diomedea exulans*).

Location	Latitude 55°54' South, Longitude 161°38' East
Area	16,189,466 hectares
Proclamation date	27 October 1999
IUCN category	Category IV overall comprising: Highly Protected Zone Category Ia (5,713,710 hectares) Habitat Species Zone Category IV (10,475,756 hectares)
Biogeographic context	IMCRA 4.0 provincial bioregion: Macquarie Island Province

Murray Commonwealth Marine Reserve

www.environment.gov.au/coasts/mpa/southeast/murray



Special features

Murray Reserve stretches south of the River Murray mouth off the South Australian coast, for a distance of more than 400 kilometres. It runs from the inshore State waters to the edge of Australia’s Exclusive Economic Zone. Murray Reserve includes an extensive system of canyons. It covers a total area of 25,803 square kilometres.

The reserve protects samples of the key features of the region, including

continental shelf and slope, abyssal plain and canyons. It includes areas of Australian sea lion and New Zealand fur seal habitat, a residence area for school shark and, at depths of 400 to 600 metres, habitat for the gulper shark (southern dogfish).

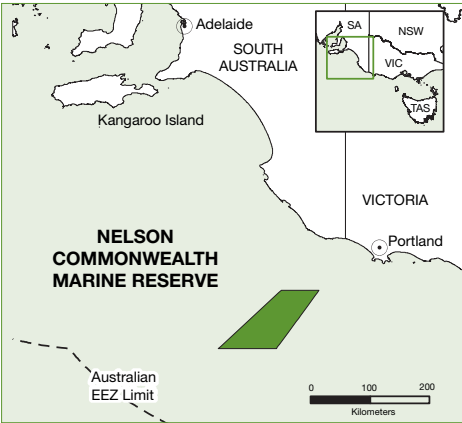
The reserve spans an extensive area across the Lacapède shelf, continental slope and deeper water ecosystems, that extends from South Australia to the west of Tasmania. It contains one of the most spectacular geological formations on the Australian continental block, the Murray Canyons. The canyons are situated south of Kangaroo Island, off the South Australian coast. They stretch for more than 150 kilometres. Deeper than America’s Grand Canyon and more than twice the height of Mt Kosciuszko, the Murray Canyons descend to 4600 metres below sea level.

The marine life that inhabits the Murray Canyons is supported by nutrient-rich sediments that have been deposited over thousands of years by the Murray River. Occasional seasonal upwelling occurs in this area, where nutrient rich deeper waters are brought to the surface. This upwelling stimulates the food chain by encouraging the growth of phytoplankton, which in turn become food for larger predators, resulting in a profusion of life in these areas.

Location	Latitude 37°26’ South, Longitude 137°12’ East
Area	2,580,312 hectares
Proclamation date	28 June 2007 (effective 3 September 2007)
IUCN category	Category Ia overall comprising: Multiple Use Zone Category VI (590,687 hectares) Special Purpose Zone Category VI (714,709 hectares) Sanctuary Zone Category Ia (1,274,916 hectares)
Biogeographic context	IMCRA 4.0 provincial bioregion: Spencer Gulf IMCRA Province, Southern Province, West Tasmania Transition

Nelson Commonwealth Marine Reserve

www.environment.gov.au/coasts/mpa/southeast/nelson



Special features

Nelson Reserve takes in 6,123 square kilometres of ocean in deep water (below 3,000 metres depth) off the far south-east corner of South Australia.

Nelson Reserve spans the deep water ecosystems extending from South Australia to the west of Tasmania. It encloses geological features including plateaus, knolls, canyons and the abyssal plain (a large area of extremely flat or gently sloping ocean floor just offshore from a continent). The knoll features a rocky substrate above the abyssal plain.

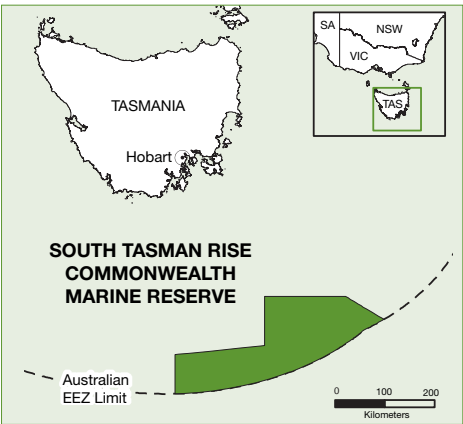
Scientists believe these areas are home to unique fauna, but little is known about what lives on the seabed of this reserve. The reserve is known to be an important area for a number of whale species including the southern right, sperm, minke, killer, pilot and blue.

Location	Latitude 39°18' South, Longitude 139°52' East
Area	612,311 hectares
Proclamation date	28 June 2007 (effective 3 September 2007)
IUCN category	Category VI
Biogeographic context	IMCRA 4.0 provincial bioregion: West Tasmania Transition



South Tasman Rise Commonwealth Marine Reserve

www.environment.gov.au/coasts/mpa/southeast/south-tasman-rise



Special features

The South Tasman Rise Reserve covers 27,704 square kilometres of deep ocean to the south-east of Tasmania. It includes a section of the mid-continental slope of the South Tasman Rise, at depths of 1,200 to 3,000 metres. Its southern edge follows the boundary of the Australian Exclusive Economic Zone, 200 nautical miles from land.

The South Tasman Rise Reserve spans the mid-continental slope and deeper water ecosystems to the south of

Tasmania. It encloses a submerged ridge of continental rock that stands as the last remnant of the link between Australia and Antarctica.

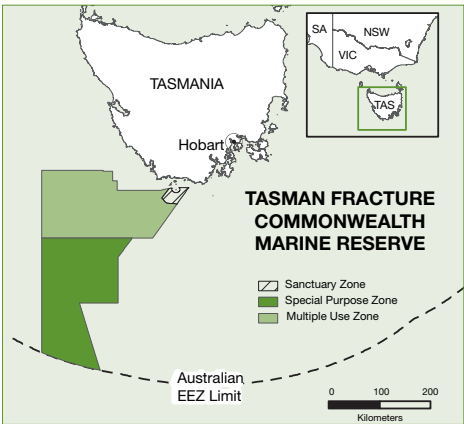
Deformed by the massive rifting process when the Australian continental block moved north, the south Tasman rise supports unique environments for marine life and is an area of significant scientific interest.

The reserve contains several seamounts, some of which have flat summits, which indicates a period of exposure above the surface at some time.

Location	Latitude 46°17' South, Longitude 149°04' East
Area	2,770,437 hectares
Proclamation date	28 June 2007 (effective 3 September 2007)
IUCN category	Category VI
Biogeographic context	IMCRA 4.0 provincial bioregion: Tasmania Transition

Tasman Fracture Commonwealth Marine Reserve

www.environment.gov.au/coasts/mpa/southeast/tasman-fracture



Special features

At over 42,500 square kilometres, the Tasman Fracture Reserve extends south west of Tasmania from the continental shelf to the Exclusive Economic Zone boundary, 200 nautical miles from land. The Tasman Fracture Reserve complements the Port Davey/ Bathurst Harbour Marine Protected Area, which was recently declared by the Tasmanian Government.

The Tasman Fracture Reserve spans the continental shelf, continental slope and deeper water ecosystems to the south

of Tasmania. It is scored by steep canyons and encloses other geological features, which are believed to be characterised by unique fauna. These features include steep escarpments and troughs, saddles, canyons, basins and part of a plateau that is over 400 kilometres long and rises up to three kilometres above the seafloor.

The northern most section of the reserve includes a drowned river valley. The natural values of this reserve include important habitat for the fairy prion, little penguin, common diving petrel, short-tailed shearwater, silver gull, school shark and blue warehou.

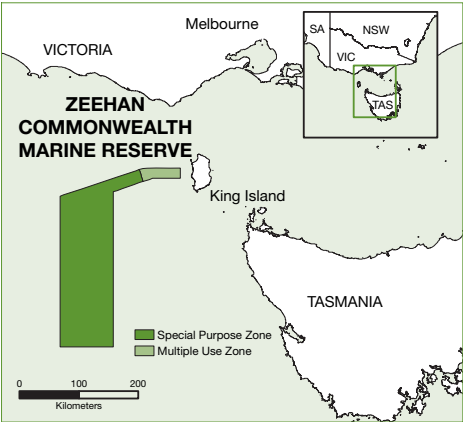
Due to its location, extending south of the sub-tropical convergence zone and into the sub-Antarctic front, the fauna of this reserve includes sub-Antarctic fishes and seabed invertebrates in at least the continental shelf and continental slope areas. Biodiversity in this Commonwealth Marine Reserve is also influenced by the Zeehan Current, which is the most easterly extent of flow from the Indian Ocean around southern Australia.

Location	Latitude 44°49' South, Longitude 144°49' East
Area	4,250,056 hectares
Proclamation date	28 June 2007 (effective 3 September 2007)
IUCN category	Category VI overall comprising: Sanctuary Zone Category 1a (69,212 hectares) Multiple Use Zone Category VI (2,049,572 hectares) Special Purpose Zone Category VI (2,131,272 hectares)
Biogeographic context	IMCRA 4.0 provincial bioregion: Tasmania Province, West Tasmania Province, Tasmanian IMCRA Province



Zeehan Commonwealth Marine Reserve

www.environment.gov.au/coasts/mpa/southeast/zeehan



Special features

Zeehan Reserve covers an area of 19,897 square kilometres to the west and south west of King Island in the Commonwealth waters around north west Tasmania. It covers a broad depth range from the shallow continental shelf of approximately 50 metres to the abyssal plain that is over 3,000 metres deep.

Zeehan Reserve spans the continental shelf, continental slope and deeper water ecosystems of the major biological zone

that extends from South Australia to the west of Tasmania. A significant feature of the reserve is a series of four submarine canyons that incise the continental slope, extending from the shelf edge to the abyssal plains. Biodiversity and productivity on the outer shelf and upper slope in this reserve are influenced by the Zeehan Current and its interactions with the canyons.

Zeehan Reserve includes a variety of seabed habitats including rocky limestone banks. These support rich animal communities, made up of large sponges and other permanently attached or fixed invertebrates on the continental shelf. There are also extensive 'thickets' of low invertebrate animals—mostly lace corals and sponges—on the continental slope. These communities are exceptionally diverse and include species new to science. The rocky limestone banks provide important seabed habitats for a variety of commercial fish species, including Australia's giant crab. Concentrations of larval blue warehou and ocean perch indicate the role of the area as a nursery ground.

Zeehan Reserve is also a foraging area for a variety of seabirds, including the fairy prion, shy albatross, silver gull and short-tail shearwater.

Location	Latitude 41°10' South, Longitude 142°18' East
Area	1,989,697 hectares
Proclamation date	28 June 2007 (effective 3 September 2007)
IUCN category	Category VI overall comprising: Multiple Use Zone Category VI (93,298 hectares) Special Purpose Zone Category VI (1,896,399 hectares)
Biogeographic context	IMCRA 4.0 provincial bioregion: West Tasmania Transition, Western Bass Strait IMCRA Transition, Tasmania Transition

Building Partnerships to effectively manage the South-east Commonwealth Marine Reserve Network



DEWHA and partner agencies at the compliance workshop, April 2008

Australia's South-east Commonwealth Marine Reserve Network (the Reserve Network) is the first temperate, deep-sea network of marine reserves in the world. When proclaimed in 2007, the Reserve Network nearly doubled the number of Commonwealth Marine Protected Areas (MPA's) and added over 226,000 square kilometres to the Commonwealth MPA estate.

The sheer size and scale of the diverse values of the Reserve Network introduced an array of new challenges to the MPA management team, particularly how to achieve compliance with the rules of the Reserve Network.

To meet these challenges the Department of the Environment, Water, Heritage and the Arts (DEWHA) has developed partnerships with key stakeholders within the region to undertake a program of vessel patrols and surveillance flights, share compliance data and intelligence and respond to any incidents within the reserves.

Active partnerships have now been formalised with: the South Australian Department of Primary Industries and Resources (PIRSA), the Victorian Department of Primary Industries, Tasmania Police, the Australian Customs Service, the Australian Fisheries Management Authority and the South East Region Fishing Industry Working Group.

These partnerships will also assist the effective management of the Reserve Network by reducing the duplication of functions between agencies, ensuring the effective use of public resources, minimising the regulatory impacts of reserve management on the fishing industry where possible and improving cross-jurisdictional cooperation.

An additional and critical element of these arrangements is to build operational capacity across agencies through the delivery of training, the purchase and upgrade of equipment and the effective sharing of experience and information.

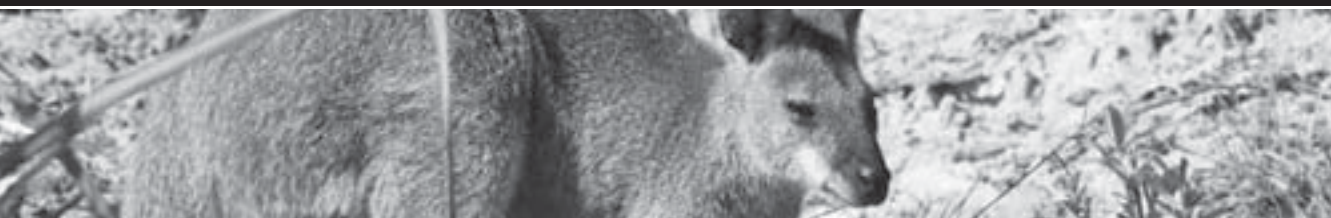
In order to consolidate the compliance arrangements for the Reserve Network representatives from DEWHA and all partner agencies came together in Canberra in April 2008 to discuss compliance and enforcement issues. This valuable exchange of information will ensure that the Australian Government's compliance program in the Reserve Network is delivered in the most efficient and effective way possible.

By successfully building and utilising these partnerships the Australian Government is demonstrating its commitment to protecting the Reserve Network through actively promoting compliance with its rules and enforcing those rules where breaches occur.



PIRSA Fisheries patrol vessel – the Southern Ranger

7 Management and accountability



Corporate governance

Ministerial directions

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Executive management

Boards of management
and advisory committees

Other consultative mechanisms

Control arrangements

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Ecologically sustainable development and environmental performance

Commonwealth Disability Strategy

Freedom of information

Corporate governance

The Director of National Parks is responsible, under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), for the management of Commonwealth reserves established over Commonwealth-owned land, Commonwealth marine areas and certain areas of Aboriginal land leased to the Director. The Director of National Parks corporation is a Commonwealth authority and is subject to the *Commonwealth Authorities and Companies Act 1997* (CAC Act). The Director is a corporation sole constituted by the person who holds the office that is also named the Director of National Parks.

The Director is responsible to the Minister for the Environment, Heritage and the Arts, the Hon Peter Garrett AM MP.

Ministerial directions

The EPBC Act requires the Director to perform functions and exercise powers in accordance with any directions given by the Minister, unless the EPBC Act provides otherwise.

Up to 30 June 2008 the Minister could also notify the Director under the CAC Act of general policies of the Government that are to apply to the Director. From 1 July 2008 such a direction is given by a General Policy Order issued by the Minister responsible for the CAC Act.

During 2007–08 no Ministerial directions were issued and there were no directions continuing from previous years.

The Director is subject to directions given by the Minister for Finance and Administration in December 2004 under section 47A of the CAC Act in relation to the application of the Commonwealth Procurement Guidelines.

Funding

The EPBC Act makes provision for funding the Director of National Parks. The Department of the Environment, Water, Heritage and the Arts receives the appropriation for the Director of National Parks. In effect, the Department purchases park management services from the Director to contribute to the Department's Outcome 1. The Director is the sole provider of statutory functions and powers for establishing and managing Commonwealth reserves.

The Department also has an arrangement to provide corporate services to the Director. The Department's Parks Australia Division supports the Director's work.

During 2007–08 the Department provided \$44.1 million to the Director of National Parks under the purchaser-provider arrangement (see the audited financial statements at Chapter 8 of this annual report). This arrangement was effective,

providing the resources that enabled the Director to meet the targets set in the Portfolio Budget Statements 2007–08 Environment and Water Resources Portfolio.

Planning documents

For information about the strategic planning and performance assessment framework, see Chapter 5 of this report.

Executive management

The holder of the office of Director of National Parks and three senior executives provide leadership in Parks Australia (see Chapter 3 of this report). Weekly meetings of the executive team provide the primary management forum for developing and reviewing park policy and strategic and corporate goals.

In addition to the Parks Australia executive team, one senior executive in the Department's Marine Division is responsible, under delegation from the Director of National Parks, for management of 25 Commonwealth marine reserves and the Director of the Australian Antarctic Division is responsible for management of one marine reserve.

Parks administration faces a number of specific challenges including widely distributed workplaces in remote areas, many in a cross-cultural environment. Coordination between area managers, Canberra-based managers and the executive team is vital. Key communication activities include regular phone link-ups and the regular Parks Australia Forum involving all senior managers.

Staff participation through consultative committees, both regional and Canberra based, supports the internal management of Parks Australia.

Boards of management and advisory committees

Kakadu, Uluru–Kata Tjuta and Booderee National Parks are managed jointly by the Director and the traditional Aboriginal owners, in accordance with the EPBC Act. Each park has a board of management established under the Act, with a majority of members being Indigenous people nominated by the traditional owners of land in the park. Membership of the boards also includes the Director, nominees of the Northern Territory government (for Kakadu and Uluru–Kata Tjuta National Parks) and members representing special interest groups or with particular skills relevant to managing the park (see Chapter 3 of this report for board members).

The function of a Commonwealth reserve board of management is to make decisions relating to the management of the reserve, that are consistent with its management plan. A board, in conjunction with the Director, is also responsible for preparing management plans, monitoring management of the reserve and advising the Minister on its future development.



Norfolk Island, Christmas Island and Pulu Keeling National Parks have non-statutory advisory or consultative bodies which include community representatives and representatives of the Director.

Other consultative mechanisms

The EPBC Act requires public consultation prior to the declaration of a Commonwealth reserve and in the preparation of management plans for reserves that have been established under the Act.

For Commonwealth reserves that include Aboriginal-owned land the EPBC Act provides for both consultation with, and involvement of, representatives of the Aboriginal landowners about the management of the reserve. The Director must consult with, and have regard to, the views of the chair of the relevant land council in relation to the performance of the Director's functions and the exercise of the Director's powers in relation to the reserve. The land council chair must be specifically invited to comment on the preparation of management plans.

Additional consultation with traditional Aboriginal owners of Kakadu, Uluru–Kata Tjuta and Booderee National Parks takes place through cultural advisers, Aboriginal staff, community liaison officers, Aboriginal organisations, and special consultative committees.

The EPBC Act also requires the Northern Territory Government to be consulted in relation to the performance of the Director's functions and the exercise of the Director's powers in relation to Kakadu and Uluru–Kata Tjuta National Parks, and to be invited to comment on the preparation of management plans for those parks.

Tourism industry interests are consulted through the tourism consultative committees of the Kakadu and Uluru–Kata Tjuta Boards of Management and other ad hoc working groups.

Control arrangements

Director of National Parks Chief Executive Instructions

The Chief Executive Instructions guide Parks Australia staff in assisting the Director to carry out the Director's functions and to meet the Director's statutory obligations. Policies and procedures sit under the Chief Executive Instructions and are subject to regular review.

Audit

An Audit Committee is established for the Director of National Parks in accordance with the CAC Act. During the year the Audit Committee met four times and addressed corporate governance issues including risk management and financial management.

During 2007–08 internal audits were undertaken of: Compliance with the CAC Act; the Fraud Control Plan; Asset Management; Review of IT Governance; Review of Environmental Reporting, and Review of Management Compliance with the EPBC Act.

The committee endorsed the process for preparation of the 2007–08 financial statements and the audit plan for 2008–09.

Members of the committee during 2007–08 were:

- Mr Gary Potts, independent member and Chair (until December 2007)
- Mr Brian Gilligan, independent member
- Mr Peter Hoefer, independent member
- Mr Paul Hickey, independent member and Chair (from December 2007)
- Mr Con Boekel, Assistant Secretary, Parks Australia South (until March 2008)
- Ms Anne-Marie Delahunt, Assistant Secretary, Parks Australia North
- Mr Peter Taylor, A/g Assistant Secretary, Parks Australia South (from June 2008)

The Director of National Parks and the Director of the Business Management Section were also invited to attend committee meetings. Staff from the Australian National Audit Office, the Department's Finance Branch and the internal audit service provider also attended meetings as observers.

Risk management

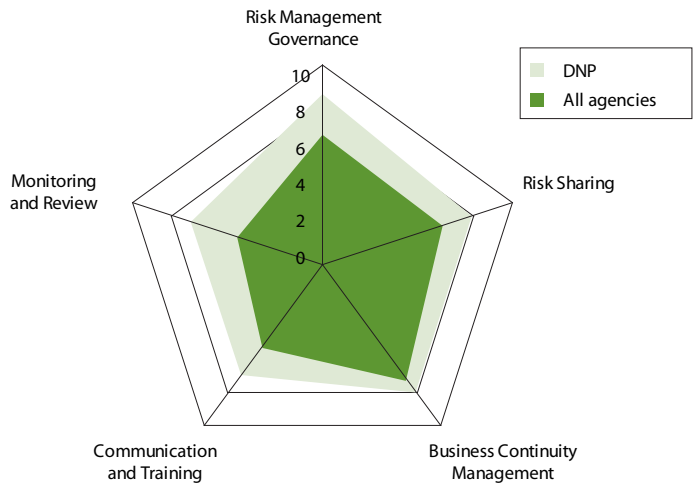
Risk watch lists for each park or business unit are regularly reviewed in accordance with the Director's Risk Management Policy. Incidents in all workplaces, categorised under the key result areas, are reported monthly to the executive team.

The Director has participated in the Comcover Risk Management Benchmarking scheme since 2003. The Director's risk management system was rated average in 2003 and has risen consistently since then. In 2008 the Director scored 7.8 out of a possible 10, and for the last three years the Director has consistently scored 2.0 or more above the average for all Australian Government agencies.

One element of risk management is a business continuity plan covering all Parks Australia sites. The plan was not called upon during the year.



Figure 11: Risk management benchmarking scores for the Director of National Parks in 2007–08 compared to the average for 131 Australian Government agencies (Source: Comcover 2008)



Source: Comcover 2008

Indemnities and insurance

In 2007–08 the Director maintained comprehensive insurance cover through Comcover, the Australian Government’s general insurance fund, for its business operations, including general liability and professional indemnity, and directors and officers’ liability. Major insurance claims during the previous two years have been settled.

The Director also manages risk by requiring all commercial operators, contractors, and scientific researchers in Commonwealth reserves to indemnify the Director and the Commonwealth and maintain appropriate levels of insurance for their activities.

External review

Judicial decisions and decisions of administrative tribunals

There were no judicial decisions or decisions of administrative tribunals during the year that had, or may have, a significant impact on the operations of the Director

Commonwealth Ombudsman

There were no formal reports from the Commonwealth Ombudsman during the year.

Reports by the Auditor-General

The Auditor-General issued an unqualified audit report for the 2007–08 financial statements of the Director of National Parks.

Occupational health and safety

This section is presented in accordance with the requirements of section 74 of the *Occupational Health and Safety Act 1991*.

The Director of National Parks continued to maintain a strong commitment to the health, safety and welfare of Parks Australia staff. Parks Australia was an active participant on the Department's Occupational Health and Safety Committee. Occupational health and safety committees in the three mainland national parks and at the ANBG considered and addressed local issues. The Department's annual report contains detailed occupational health and safety information.

Parks Australia, by the nature of its work, faces a more diverse range of hazards than most other divisions of the Department. The main hazards include fieldwork in remote and arduous locations, plant and machinery, chemicals and hazardous substances, handling unpredictable wildlife, manual handling, driving vehicles and static posture injuries from using desktop equipment.

ParkSafe, Parks Australia's integrated occupational health and safety management system, is designed to provide a safe and healthy workplace for all employees and contractors working for Parks Australia. All relevant policy and procedural information is available electronically. ParkSafe has been in place since 2004, and this year a major revision of the system continued, including a review of hazards faced by field staff and an upgrade of all job safety analyses. ParkSafe is also used for field operations by other divisions of the Department.

This year ParkSafe training was presented at Kakadu National Park, Booderee National Park and the Australian National Botanic Gardens. In addition to ParkSafe training, the majority of staff members are expected to maintain a score of 80 per cent on the online "SafeTrac" occupational health and safety course.

During 2007–08 Parks Australia recorded 211 occupational health and safety accidents or incidents (see table 10). This was comparable to the total number last year (207) with a reduction in the number of staff incidents (89 to 78) and an increase in the number of visitor incidents (118 to 133). The staff incidents included five "near misses" that had potentially serious consequences. The visitor incidents involved three dangerous occurrences from the threat of crocodile attack and a vehicle roll-over.

Comcare issued a prohibition notice under section 46 of the OH&S Act in May 2008 (relating to roadworks in Uluru–Kata Tjuta National Park) and investigated this incident. There were no matters to report under sections 45 or 47 of the Act.



Table 10: Safety incident records for terrestrial reserves

	2003–04	2004–05	2005–06	2006–07	2007–08
Staff, volunteers and contractors					
Minor injury or near miss ^(a)	60	76	68	77	57
Moderate injury ^(b)	15	18	22	12	21
Major injury ^(c)	6	2	2	0	0
Total	81	96	92	89	78
Visitors, permit holders and residents					
Minor injury or near miss ^(a)	79	87	88	80	84
Moderate injury ^(b)	32	40	46	35	42
Major injury ^(c)	17	14	10	3	6
Death	1	1	1	0	1
Total	129	142	145	118	133

(a) Minor injury includes near miss, no injury or first aid treatment only

(b) Moderate injury includes treatment by paramedics or at a medical centre/hospital

(c) Major injury includes significant hospitalisation (more than 2 days)

Compliance and enforcement under the EPBC Act

Wardens and rangers are appointed under the EPBC Act to exercise enforcement powers under the Act and its Regulations for Commonwealth reserves (members of the Australian Federal Police and officers of the Australian Customs Service are ex-officio wardens by force of the Act). All law enforcement officers are required by the Commonwealth Fraud Control Guidelines to hold statements of attainment in relevant modules of the Diploma in Government (Fraud Control-Investigations).

A whole of government approach is taken to compliance and enforcement in Commonwealth marine reserves. In addition to the role of Australian Federal Police and Customs officers, officers from other agencies, including the Australian Fisheries Management Authority, state and territory police, and fisheries and conservation agencies, can be appointed wardens under the EPBC Act after the required training. These arrangements greatly improve the Director's ability to enforce the EPBC Act in remote and infrequently visited Commonwealth reserves.

The following enforcement matters were determined by courts during 2007–08:

- On 11 October 2007 two persons were convicted of taking squid in excess of the daily recreational limit in Booderee National Park on 1 December 2006. One person was fined \$350 plus court costs, while the second, who had prior convictions, was fined \$500 plus court costs.

- On 11 October 2007 one person was convicted of taking squid in excess of the daily recreational limit in Booderee National Park on 31 January 2007 and was fined \$400 plus court costs.
- On 14 February 2008 one person was convicted of taking squid in excess of the daily recreational limit in Booderee National Park on 31 January 2007 and was fined \$400 plus court costs.
- On 22 January 2008 three persons were convicted of contravening the EPBC Regulations in December 2006, by installing a mooring at Pimpernel Rock within the Sanctuary Zone of Solitary Island Marine Reserve. Each defendant was fined \$400 plus court costs.

Table 11: Compliance and enforcement in terrestrial reserves during 2007–08

	Members of the public	Tourism operators	Other commercial operators
EPBC Act incidents detected	182	9	6
Offenders unknown	11	0	0
Verbal cautions issued	109	4	0
Warning letters issued	17	1	0
Infringement notices issued	57	2	0
Continuing investigations	1	0	0
Permit suspensions	0	0	0
Court cases pending	2	0	0
Cases taken to court	3	0	0
Convictions	3	0	0

Ecologically sustainable development and environmental performance

All of the Director's activities have an impact on ecologically sustainable development. Commonwealth reserves are managed to conserve and enhance their natural and cultural values for current and future generations. Only development activities that are consistent with the primary management objectives may be permitted.

The provisions of the EPBC Act ensure that management plans for Commonwealth reserves properly integrate environmental, economic and social considerations, and that appropriate environmental monitoring and reporting regimes are in place.

Parks Australia is committed to reducing the carbon footprint for its activities, and will develop climate change strategies for Commonwealth terrestrial reserves in the coming year. Contributing to this, the ANBG has facilitated the development of a national climate change adaptation strategy for Australian botanic gardens,



Kakadu is hosting a series of Research Symposiums, and staff members are actively participating in various national and international fora to discuss climate change adaptation and mitigation. Where possible, the design and construction of new infrastructure includes: the use of alternative energy; rainwater capture and storage; minimisation of waste, and reduction of environmental impacts (see case studies pages 76, 88 and 127).

The effects of park management activities on the environment are discussed throughout the report, in particular in Chapters 5 and 6 and in the Department's Sustainability Report for 2007–08.

Commonwealth Disability Strategy

The Commonwealth Disability Strategy is a framework for Australian Government departments to help them improve access for people with disabilities to government programs, services and facilities. The strategy includes a performance reporting framework built around the five key roles of government: policy adviser, regulator, purchaser, provider and employer.

The Department has developed a Disability Action Plan 2008–2010 to meet the needs of people with disabilities in accordance with the roles identified by the Commonwealth Disability Strategy. Information on the strategy is contained in the Department's annual report for 2007–08.

Provision of access to Commonwealth reserves for tourism and recreation is a significant part of the Director's responsibilities. As reserve managers, Parks Australia, the Marine Division and the Australian Antarctic Division come under the 'provider' role of the Strategy.

Given the locations and nature of the terrain, access for people with a disability to the reserves varies. Some marine reserves are very remote and without facilities, whereas a number of the major tourist destinations in the three mainland national parks—Kakadu, Uluru–Kata Tjuta and Booderee—and the ANBG, are accessible by wheelchair. Management plans developed through a consultative process address current and proposed levels of accessibility.

Freedom of information

No applications were received relating to the Director's statutory functions under the *Freedom of Information Act 1982*. The Director's statement under section 8 of the Act is at Appendix A.

8 Financial Statements



Director of National Parks financial statements and audit report for the year
ended 30 June 2008

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INDEPENDENT AUDITOR'S REPORT

To the Minister for the Environment, Heritage and the Arts

Scope

I have audited the accompanying financial statements of the Director of National Parks for the year ended 30 June 2008, which comprise: a statement by the Director and Chief Financial Officer; Income Statement; Balance Sheet; Statement of Changes in Equity; Cash Flow Statement; Schedules of Commitments; Schedules of Contingencies; and Notes to the Financial Statements, including a Summary of Significant Accounting Policies.

The Responsibility of the Chief Executive Officer for the Financial Statements

The Chief Executive Officer is responsible for the preparation and fair presentation of the financial statements in accordance with the Finance Minister's Orders made under the *Commonwealth Authorities and Companies Act 1997* and the Australian Accounting Standards (including the Australian Accounting Interpretations). This responsibility includes establishing and maintaining internal controls relevant to the preparation and fair presentation of the financial statements that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

Auditor's Responsibility

My responsibility is to express an opinion on the financial statements based on my audit. My audit has been conducted in accordance with the Australian National Audit Office Auditing Standards, which incorporate the Australian Auditing Standards. These Auditing Standards require that I comply with relevant ethical requirements relating to audit engagements and plan and perform the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Director of National Parks' preparation and fair presentation of the financial statements in order to design audit procedures that are

appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Director of National Parks' internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the Chief Executive Officer, as well as evaluating the overall presentation of the financial statements.

I believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for my audit opinion.

Independence

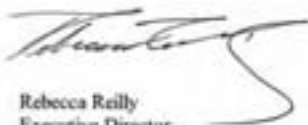
In conducting the audit, I have followed the independence requirements of the Australian National Audit Office, which incorporate the requirements of the Australian accounting profession.

Auditor's Opinion

In my opinion, the financial statements of the Director of National Parks:

- (a) have been prepared in accordance with the Finance Minister's Orders made under the *Commonwealth Authorities and Companies Act 1997*, and the Australian Accounting Standards (including the Australian Accounting Interpretations); and
- (b) give a true and fair view of the matters required by the Finance Minister's Orders including the Director of National Parks' financial position as at 30 June 2008 and of its financial performance and its cash flows for the year then ended.

Australian National Audit Office



Rebecca Reilly
Executive Director

Delegate of the Auditor-General

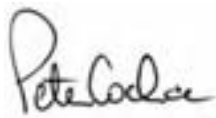
Canberra
17 September 2008

Director of National Parks Statement by the Director and Chief Financial Officer

In our opinion, the attached financial statements for the year ended 30 June 2008 are based on properly maintained financial records and give a true and fair view of the matters required by the Finance Minister's Orders made under the *Commonwealth Authorities and Companies Act 1997*.

In our opinion, at the date of this statement, there are reasonable grounds to believe that the Director of National Parks will be able to pay its debts as and when they become due and payable.

Signed



Peter Cochrane
Director

17 September 2008

Signed



Sam Ceravolo
Chief Financial Officer

17 September 2008



Director of National Parks

Income statement

for the year ended 30 June 2008

		2008	2007
	Notes	\$'000	\$'000
INCOME			
Revenue			
Revenue from Government	3A	44,051	42,966
Sale of goods and rendering of services	3B	12,479	12,991
Interest		1,303	910
Other revenue		1,323	2,089
Total revenue		59,156	58,956
Gains			
Sale of assets	3C	(28)	137
Other gains	3D	3,900	3,900
Total gains		3,872	4,037
Total Income		63,028	62,993
EXPENSES			
Employee benefits	4A	23,919	23,010
Suppliers	4B	29,963	28,867
Depreciation and amortisation	4C	7,899	7,174
Write-down and impairment of assets	4D	120	93
Other expenses		145	148
Total Expenses		62,046	59,292
Surplus		982	3,701

The above statement should be read in conjunction with the accompanying notes.

Director of National Parks
Balance sheet
as at 30 June 2008

	Notes	2008 \$'000	2007 \$'000
ASSETS			
Financial Assets			
Cash and cash equivalents	5A	26,497	17,818
Trade and other receivables	5B	1,512	1,214
Other	5C	114	84
Total financial assets		28,123	19,116
Non-Financial Assets			
Land and buildings	6A,C	66,144	65,281
Infrastructure, plant and equipment	6B,C	83,182	73,830
Intangibles	6D,E	–	2
Other non-financial assets	6F	381	390
Total non-financial assets		149,707	139,503
Total Assets		177,830	158,619
LIABILITIES			
Payables			
Suppliers	7A	2,340	2,375
Other payables	7B	2,429	2,024
Total payables		4,769	4,399
Provisions			
Employee provisions	8	5,555	5,590
Other provisions		88	61
Total provisions		5,643	5,651
Total Liabilities		10,412	10,050
Net Assets		167,418	148,569
EQUITY			
Contributed equity		30,821	15,821
Reserves		67,473	64,585
Retained surplus		69,124	68,163
Total Equity		167,418	148,569
Current assets		28,504	19,506
Non-current assets		149,326	139,113
Current liabilities		9,768	9,473
Non-current liabilities		644	577

The above statement should be read in conjunction with the accompanying notes.

Director of National Parks
Statement of changes in equity
as at 30 June 2008

	Retained Earnings		Asset Revaluation Reserves		Contributed Equity		Total Equity	
	2008	2007	2008	2007	2008	2007	2008	2007
	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000
Opening balance								
Balance carried forward from previous period	68,163	64,462	64,585	64,585	15,821	15,821	148,569	144,868
Adjusted opening balance	68,163	64,462	64,585	64,585	15,821	15,821	148,569	144,868
Income and expense								
Income and expenses recognised directly in Equity	–	–	21	–	–	–	21	–
Revaluation adjustment	(21)	–	2,867	–	–	–	2,846	–
Sub-total income and expenses recognised directly in Equity	(21)	–	2,888	–	–	–	2,867	–
Surplus for the period	982	3,701	–	–	–	–	982	3,701
Total income and expenses	961	3,701	2,888	–	–	–	3,849	3,701
Transactions with Owners								
Contributions by Owners								
Appropriation (equity injection) (refer Note 16)	–	–	–	–	15,000	–	15,000	–
Sub-total transactions with owners	–	–	–	–	15,000	–	15,000	–
Closing balance at 30 June	69,124	68,163	67,473	64,585	30,821	15,821	167,418	148,569

The above statement should be read in conjunction with the accompanying notes.

Director of National Parks
Cash flow statement
for the year ended 30 June 2008

	Notes	2008 \$'000	2007 \$'000
OPERATING ACTIVITIES			
Cash received			
Goods and services		13,725	12,054
Appropriations		44,051	42,966
Interest		1,273	889
Net GST received		2,548	1,961
Other		1,323	2,105
Total cash received		62,920	59,975
Cash used			
Employees		23,910	22,515
Suppliers		29,775	31,863
Other		117	157
Total cash used		53,802	54,535
Net Cash from operating activities	9	9,118	5,440
INVESTING ACTIVITIES			
Cash received			
Proceeds from sales of property, plant and equipment		95	500
Total cash received		95	500
Cash used			
Purchase of property, plant and equipment		15,534	7,881
Total cash used		15,534	7,881
Net Cash used by investing activities		(15,439)	(7,381)
FINANCING ACTIVITIES			
Cash received			
Appropriations – contributed equity		15,000	–
Total cash received		15,000	–
Net Cash from financing activities		15,000	–
Net increase / (decrease) in cash held		8,679	(1,941)
Cash and cash equivalents at beginning of the reporting period		17,818	19,759
Cash and cash equivalents at the end of the reporting period	5A	26,497	17,818

The above statement should be read in conjunction with the accompanying notes.

Director of National Parks Schedule of commitments as at 30 June 2008

	2008 \$'000	2007 \$'000
BY TYPE		
Commitments Receivable		
GST recoverable on commitments	(7,001)	(6,179)
Total Commitments Receivable	<u>(7,001)</u>	<u>(6,179)</u>
Capital Commitments		
Buildings; Infrastructure, plant and equipment ¹	6,806	1,902
Total Capital Commitments	<u>6,806</u>	<u>1,902</u>
Other Commitments		
Operating leases ²	67,704	64,860
Other commitments ³	2,968	1,455
Total Other Commitments	<u>70,672</u>	<u>66,315</u>
Net Commitments by Type	<u><u>70,477</u></u>	<u><u>62,038</u></u>
BY MATURITY		
Commitments Receivable		
Other Commitments Receivable		
One year or less	(849)	(321)
From one to five years	(398)	(362)
Over five years	(5,754)	(5,496)
Total Other Commitments Receivable	<u>(7,001)</u>	<u>(6,179)</u>
Commitments Payable		
Capital Commitments		
One year or less	6,806	1,902
Total Capital Commitments	<u>6,806</u>	<u>1,902</u>
Operating Lease Commitments		
One year or less	882	969
From one to five years	3,529	3,436
Over five years	63,293	60,455
Total Operating Lease Commitments	<u><u>67,704</u></u>	<u><u>64,860</u></u>

Director of National Parks
Schedule of commitments
as at 30 June 2008

	2008	2007
	\$'000	\$'000
Other Commitments		
One year or less	2,113	886
From one to five years	855	569
Over five years	–	–
Total Other Commitments	2,968	1,455
Net Commitments by Maturity	70,477	62,038

NB: Commitments are GST inclusive where relevant

¹ Outstanding contractual payments for buildings and infrastructure under construction

² Operating leases included are effectively non-cancellable

³ Other commitments comprise general consultancy services and utilities

Nature of Lease / General Description

Leases for office accommodation – Lease payments are subject to annual increase in accordance with upwards movements in the Consumer Price Index. The initial periods of office accommodation leases are still current with no option to renew.

Agreements for the provision of motor vehicles to senior executive officers – No contingent rentals exist. There are no renewal or purchase options available.

Leases for office equipment – No contingent rentals exist. There is an option to renew for 90 days.

Leases for rent of National Parks from Traditional Owners – The Director of National Parks leases Kakadu National Park, Uluru-Kata Tjuta National Park and Booderee National Park from the parks' Traditional Owners. Annual rent is payable in advance. Terms of leases vary up to a maximum of 99 years.

The above schedule should be read in conjunction with the accompanying notes.

Director of National Parks Schedule of contingencies *as at 30 June 2008*

	Guarantees		Claims for damages or costs		TOTAL	
	2008	2007	2008	2007	2008	2007
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Contingent Liabilities						
Balance from previous period	–	–	–	33	–	33
New	–	–	–	–	–	–
Re-measurement	–	–	–	–	–	–
Liabilities crystallised	–	–	–	(33)	–	(33)
Obligations expired	–	–	–	–	–	–
Total Contingent Liabilities	–	–	–	–	–	–

No contingent assets exist for the Director of National Parks for the current or previous financial years.

Details of each class of contingent liabilities and contingent assets, including those not included above because they cannot be quantified, or are considered remote, are disclosed in Note 10: Contingent Liabilities and Contingent Assets.

The above schedule should be read in conjunction with the accompanying notes.

Director of National Parks

Notes to and forming part of the financial statements

Note 1: Summary of significant accounting policies

1.1 Basis of Accounting

The Financial Statements and notes are required by clause 1(b) of Schedule 1 to the *Commonwealth Authorities and Companies Act 1997* and are a General Purpose Financial Report.

The continued existence of the Director of National Parks in its present form and with its present programs is dependent on Government policy and on continuing appropriations by Parliament for the Director of National Parks' administration and programs.

The Financial Statements have been prepared in accordance with:

- Finance Minister's Orders (or FMOs) for reporting periods ending on or after 1 July 2007; and
- Australian Accounting Standards and Interpretations issued by the Australian Accounting Standards Board (AASB) that apply for the reporting period.

The Financial Report has been prepared on an accrual basis and is in accordance with historical cost convention, except for certain assets at fair value. Except where stated, no allowance is made for the effect of changing prices on the results or the financial position.

The Financial Report is presented in Australian dollars and values are rounded to the nearest thousand dollars unless otherwise specified.

Unless an alternative treatment is specifically required by an Accounting Standard or the FMOs, assets and liabilities are recognised in the Balance Sheet when and only when it is probable that future economic benefits will flow to the Director of National Parks and the amounts of the assets or liabilities can be reliably measured. However, assets and liabilities arising under agreements equally proportionately unperformed are not recognised unless required by an Accounting Standard.

Unless alternative treatment is specifically required by an accounting standard, revenues and expenses are recognised in the Income Statement when and only when the flow, consumption or loss of economic benefits has occurred and can be reliably measured.

1.2 Significant Accounting Judgements and Estimates

In the process of applying the accounting policies listed in this note, the Director of National Parks has not made any judgements that have a significant impact on the amounts recorded in the financial statements.

No accounting assumptions or estimates have been identified that have a significant risk of causing a material adjustment to carrying amounts of assets and liabilities within the next accounting period.

1.3 Statement of Compliance

Australian Accounting Standards require a statement of compliance with International Financial Reporting Standards (IFRSs) to be made where the financial report complies with these standards. Some Australian equivalents to IFRSs and other Australian Accounting Standards contain requirements specific to not-for-profit entities that are inconsistent with IFRS requirements, so while this financial report complies with Australian Accounting Standards including Australian Equivalents to International Financial Reporting Standards (AEIFRSs) it cannot make this statement.

Adoption of New Australian Accounting Standard Requirements

No accounting standard has been adopted earlier than the effective date in the current period. The following new standard is applicable to the current reporting period:

Director of National Parks

Notes to and forming part of the financial statements

Financial Instrument Disclosure

AASB 7 *Financial Instruments: Disclosures* is effective for reporting periods beginning on or after 1 January 2007 (the 2007–08 financial year) and amends the disclosure requirements for financial instruments. In general AASB 7 requires greater disclosure than that previously required. Associated with the introduction of AASB 7 a number of accounting standards were amended to reference the new standard or remove the present disclosure requirements through 2005-10 Amendments to Australian Accounting Standards [AASB 132, AASB 101, AASB 114, AASB 117, AASB 133, AASB 139, AASB 1, AASB 4, AASB 1023 & AASB 1038]. These changes have no financial impact but will effect the disclosure presented in future financial reports.

The following new standards, amendments to standards or interpretations for the current financial year have no material financial impact on the Director of National Parks:

- AASB 7 *Financial Instruments: Disclosures*
- AASB 101 *Presentation of Financial Statements* (issued October 2006)
- AASB 1048 *Interpretation and Application of Standards* (reissued September 2007)
- AASB 2005-10 *Amendments to Australian Accounting Standards* [AASB 1, 4, 101, 114, 117, 132, 133, 139, 1023, 1038]
- AASB 2007-1 *Amendments to Australian Accounting Standards arising from AASB interpretation 11* [AASB 2]
- AASB 2007-4 *Amendments to Australian Accounting Standards arising from ED 151 and Other Amendments*
- AASB 2007-5 *Amendments to Australian Accounting Standard – Inventories Held for Distribution by Not-for-Profit Entities* [AASB 102]
- AASB 2007-7 *Amendments to Australian Accounting Standards* [AASB 1, 2, 4, 5, 107, 128]
- AASB 2008-4 *Amendments to Australian Accounting Standard – Key Management Personnel Disclosures by Disclosing Entities* [AASB 124]
- ERR Erratum *Proportionate Consolidation* [AASB 101, AASB 107, AASB 121, AASB 127, Interpretation 113]
- Interpretation 10 *Interim Financial Reporting and Impairment*
- Interpretation 11 *AASB2 Group and Treasury Share Transactions*
- Interpretation 1003 *Australian Petroleum Resource Rent Tax*

Future Australian Accounting Standard Requirements

The following new standards, amendments to standards or interpretations have been issued by the AASB but are effective for future reporting periods. It is estimated that the impact of adopting these pronouncements when effective will have no material financial impact on future reporting periods.

- AASB 3 *Business Combinations*
- AASB 8 *Operating Segments* and 2007-3 *Amendments to Australian Accounting Standards arising from AASB 8*
- AASB 101 *Presentation of Financial Statements* (issued September 2007)
- AASB 123 *Borrowing Costs*
- AASB 127 *Consolidated and Separate Financial Statements*
- AASB 1004 *Contributions*
- AASB 1049 *Whole of Government and General Government Sector Financial Reporting*
- AASB 1050 *Administered Items*
- AASB 1051 *Land Under Roads*
- AASB 1052 *Disaggregated Disclosures*
- AASB 2007-2 *Amendments to Australian Accounting Standards arising from AASB Interpretation 12* [AASB 1, AASB 117, AASB 118, AASB 120, AASB 121, AASB 127, AASB 131 & AASB 139]
- AASB 2007-3 *Amendments to Australian Accounting Standards arising from AASB 8*
- AASB 2007-6 *Amendments to Australian Accounting Standards arising from AASB 123*
- AASB 2007-8 *Amendments to Australian Accounting Standards arising from AASB 101*

Director of National Parks

Notes to and forming part of the financial statements

- AASB 2007-9 *Amendments to Australian Accounting Standards arising from the Review of AASs 27,29 and 31* [AASB 3, AASB 5, AASB 8, AASB 101, AASB 114, AASB 116, AASB 127 & AASB 137]
- AASB 2008-1 *Amendments to Australian Accounting Standard – Share-based Payments: Vesting Conditions and Cancellations* [AASB 2]
- AASB 2008-2 *Amendments to Australian Accounting Standards – Puttable Financial Instruments and Obligations arising on Liquidation* [AASB 7, AASB 101, AASB 132, AASB 139 & Interpretation 2]
- AASB 2008-3 *Amendments to Australian Accounting Standards arising from AASB 3 and AASB 127* [AASBs 1,2,4,5,7, 101,107,112,114, 116,121,128,131, 132, 133, 134, 136, 137, 138 & 139 and Interpretations 9 & 107]
- Interpretation 1 *Changes in Existing Decommissioning, Restoration and Similar Liabilities*
- Interpretation 4 *Determining Whether an Arrangement Contains a Lease*
- Interpretation 12 *Service Concession Arrangements*
- Interpretation 13 *Customer Loyalty Programmes*
- Interpretation 14 *AASB 119 – The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction*
- Interpretation 129 *Service Concession Arrangements Disclosures*
- Interpretation 1038 *Contributions by Owners Made To Wholly-Owned Public Sector Entities*

Other

The following standards and interpretations have been issued but are not applicable to the operations of the Director of National Parks.

AASB 1049 *Whole of Government and General Government Sectors Financial Reporting*

AASB 1049 specifies the reporting requirements for the General Government Sector. The FMOs do not apply to this reporting or the consolidated financial statements of the Australian Government.



Director of National Parks

Notes to and forming part of the financial statements

1.4 Revenue

Revenue from the sale of goods is recognised when:

- The risks and rewards of ownership have been transferred to the buyer;
- The seller retains no managerial involvement nor effective control over the goods;
- The revenue and transaction costs incurred can be reliably measured; and
- It is probable that the economic benefits associated with the transaction will flow to the Director of National Parks.

Revenue from rendering of services is recognised by reference to the stage of completion of contracts at the reporting date. The revenue is recognised when:

- the amount of revenue, stage of completion and transaction costs incurred can be reliably measured; and
- the probable economic benefits with the transaction will flow to the Director of National Parks.

The stage of completion of contracts at the reporting date is determined by reference to the proportion that costs incurred to date bear to the estimated total costs of the transaction.

Receivables for goods and services, which have 30 day terms, are recognised at the nominal amounts due less any provision for bad and doubtful debts. Collectability of debts is reviewed at balance date. Provisions are made when collectability of the debt is no longer probable.

The revenues described in this Note are revenues relating to the core operating activities of the Director of National Parks.

Revenue from the sale of tickets, permits and goods are recognised at the time tickets/permits are issued or goods are delivered to customers. Refunds for ticket sales are accounted for when they occur. An estimate for these refunds is not provided for.

Interest revenue is recognised using the effective interest method as set out in AASB 139 *Financial Instruments: Recognition and Measurement*.

Revenues from Government

Amounts appropriated for Departmental outputs appropriations for the year (adjusted for any formal additions and reductions) are recognised as revenue, except for certain amounts that relate to activities that are reciprocal in nature, in which case revenue is recognised only when it has been earned.

Appropriations receivable are recognised at their nominal amounts.

The Director of National Parks received no direct appropriation from the Government for Departmental outputs. Funds are appropriated directly to the Department of the Environment, Water, Heritage and the Arts and transferred to the Director of National Parks. The Director of National Parks was however appropriated an equity injection of \$15million (Appropriation Act No.2 2007-08) for tourism infrastructure at Uluru-Kata Tjuta National Park.

Director of National Parks

Notes to and forming part of the financial statements

1.5 Gains

Sale of Assets

Gains from disposal of non-current assets is recognised when control of the asset has passed to the buyer.

Resources Received Free of Charge

Resources received free of charge are recognised as revenue when and only when a fair value can be reliably determined and the services would have been purchased if they had not been donated. Use of those resources is recognised as an expense.

The Department of the Environment, Water, Heritage and the Arts provides corporate services under a Service Delivery Agreement to the Director of National Parks.

1.6 Transactions with the Government as Owner

Equity Injections

Amounts appropriated which are designated as 'equity injections' for a year (less any formal reductions) are recognised directly in Contributed Equity in that year.

1.7 Employee Benefits

The legal entity of the Director of National Parks has only one employee, being the Director himself. However, under an arrangement with the Department of the Environment, Water, Heritage and the Arts, the Director of National Parks has a number of employees of the Department of the Environment, Water, Heritage and the Arts that are assigned to assist the Director. For the purpose of these financial statements, such employees are treated as employees of the Director of National Parks.

Liabilities for services rendered by employees are recognised at the reporting date to the extent that they have not been settled. Liabilities for 'short-term employee benefits' (as defined in AASB 119) and termination benefits due within twelve months are measured at their nominal amounts. The nominal amount is calculated with regard to the rates expected to be paid on settlement of the liability.

All other employee benefit liabilities are measured as the present value of the estimated future cash outflows to be made in respect of services provided by employees up to the reporting date.

Leave

The liability for employee benefits includes provision for annual leave and long service leave. No provision has been made for sick leave as all sick leave is non-vesting and the average sick leave taken in future years by employees of the Director of National Parks is estimated to be less than the annual entitlement for sick leave.

The leave liabilities are calculated on the basis of employees' remuneration, including the Director of National Park's employer superannuation contribution rates to the extent that the leave is likely to be taken during service rather than paid out on termination.

The liability for long service leave has been determined using the short-hand method in accordance with the Finance Minister's Orders 2007–08.

Separation and Redundancy

Provision is made for separation and redundancy benefit payments. The Director of National Parks recognises a provision for termination when it has developed a detailed formal plan for the terminations and has informed those employees affected that it will carry out the terminations.

Director of National Parks

Notes to and forming part of the financial statements

Superannuation

Employees of the Director of National Parks are members of the Commonwealth Superannuation Scheme (CSS), the Public Sector Superannuation Scheme (PSS) or the PSS accumulation plan (PSSap).

The CSS and PSS are defined benefits schemes for the Commonwealth. The PSSap is a defined contribution scheme.

The liability for defined benefits is recognised in the financial statements of the Australian Government and is settled by the Australian Government in due course. This liability is reported by the Department of Finance and Deregulation as an administered item.

The Director of National Parks makes employer contributions to the Australian Government at rates determined by an actuary to be sufficient to meet the cost to the Government of the superannuation entitlements of the Director of National Parks' employees.

The liability for superannuation recognised as at 30 June represents outstanding contributions for the final fortnight of the year.

1.8 Leases

A distinction is made between finance leases and operating leases. Finance leases effectively transfer from the lessor to the lessee substantially all the risks and rewards incidental to ownership of leased non-current assets. An operating lease is a lease that is not a finance lease. In operating leases, the lessor effectively retains substantially all such risks and benefits.

The discount rate used is the interest rate implicit in the lease. Leased assets are amortised over the period of the lease. Lease payments are allocated between the principal component and the interest expense.

Operating lease payments are expensed on a straight line basis which is representative of the pattern of benefits derived from the leased assets.

The majority of operating lease payments relate to arrangements with traditional owners over Kakadu, Uluru-Kata Tjuta and Booderee National Parks.

1.9 Cash

Cash and cash equivalents includes notes and coins held and any deposits in bank accounts with an original maturity of three months or less that are readily convertible to known amounts of cash and subject to insignificant risk of changes in value. Cash is recognised at its nominal amount.

1.10 Financial Assets

The Director of National Parks classified its financial assets as 'loans and receivables'.

The classification depends on the nature and purpose of the financial assets and is determined at the time of initial recognition. Financial assets are recognised and derecognised upon 'trade date'.

Effective Interest Method

The effective interest method is a method of calculating the amortised cost of a financial asset and of allocating interest income over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset, or, where appropriate, a shorter period.

Income is recognised on an effective interest rate basis except for financial assets 'at fair value through profit or loss'.

Director of National Parks

Notes to and forming part of the financial statements

Financial Assets at Fair Value through Profit or Loss

Financial assets are classified as financial assets at fair value through profit or loss where the financial assets:

- has been acquired principally for the purpose of selling in the near future;
- are a part of an identified portfolio of financial instruments that the Director of National Parks manages together and has a recent actual pattern of short-term profit-taking; or
- are derivatives that are not designated and effective as a hedging instrument.

Financial assets at fair value through profit or loss are stated at fair value, with any resultant gain or loss recognised in profit or loss. The net gain or loss recognised in profit or loss incorporates any interest earned on the financial asset.

Receivables

Trade and other receivables that have fixed or determinable payments that are not quoted in an active market are classified as 'receivables'. They are included in current assets, except for maturities greater than 12 months after the balance sheet date. These are classified as non current assets. Receivables are measured at amortised cost using the effective interest method less impairment. Interest is recognised by applying the effective interest rate.

Impairment of Financial Assets

Financial assets are assessed for impairment at each balance date.

Financial assets held at amortised cost – If there is objective evidence that an impairment loss has been incurred for loans and receivables or held to maturity investments held at amortised cost, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the asset's original effective interest rate. The carrying amount is reduced by way of an allowance account. The loss is recognised in the Income Statement.



Director of National Parks

Notes to and forming part of the financial statements.

1.11 Financial Liabilities

Financial liabilities are classified as either financial liabilities 'at fair value through profit or loss' or other financial liabilities.

Financial liabilities are recognised and derecognised upon 'trade date'.

Financial Liabilities at Fair Value through Profit or Loss

Financial liabilities at fair value through profit or loss are initially measured at fair value. Subsequent fair value adjustments are recognised in profit or loss. The net gain or loss recognised in profit or loss incorporates any interest paid on the financial liability.

Other Financial Liabilities

Other financial liabilities are initially measured at fair value net of transaction costs. Other financial liabilities are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis.

The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period.

Supplier and Other Payables

Supplier and other payables are recognised at amortised cost. Liabilities are recognised to the extent that the goods or services have been received (and irrespective of having been invoiced).

1.12 Contingent Liabilities and Contingent Assets

Contingent Liabilities and Contingent Assets are not recognised in the Balance Sheet but are reported in the relevant schedules and notes. They may arise from uncertainty as to the existence of a liability or asset, or represent an existing liability or asset in respect of which settlement is not probable or the amount cannot be reliably measured. Remote contingencies are part of this disclosure. Contingent assets are reported when settlement is probable but not virtually certain and contingent liabilities are recognised when settlement is greater than remote.

1.13 Acquisition of Assets

Assets are recorded at cost on acquisition except as stated below. The cost of acquisition includes the fair value of assets transferred in exchange and liabilities undertaken. Financial assets are initially measured at their fair value plus transaction costs where appropriate.

Assets acquired at no cost, or for nominal consideration, are initially recognised as assets and revenues at their fair value at the date of acquisition, unless acquired as a consequence of restructuring of administrative arrangements. In the latter case, assets are initially recognised as contributions by owners at the amounts at which they were recognised in the transferor entity's accounts immediately prior to the restructuring.

Director of National Parks

Notes to and forming part of the financial statements

1.14 Property, Plant and Equipment (PP&E)

Asset Recognition Threshold

Purchases of property, plant and equipment are recognised initially at cost in the Balance Sheet, except for purchases costing less than \$5,000, which are expensed in the year of acquisition (other than where they form part of a group of similar items which are significant in total).

The initial cost of an asset includes an estimate of the cost of dismantling and removing the item and restoring the site on which it is located.

Revaluations

Fair values for each class of asset are determined as shown below:

Asset class	Fair value measured at:
Land	Market selling price
Buildings	Market selling price
Leasehold improvements	Depreciated replacement cost
Infrastructure, plant & equipment	Market selling price

Following initial recognition at cost, property, plant and equipment are carried at fair value less accumulated depreciation and accumulated impairment losses. Valuations are conducted with sufficient frequency to ensure that the carrying amounts of assets do not materially differ with the assets' fair values as at the reporting date. The regularity of independent valuations depends upon the volatility of movements in market values for the relevant assets. The last revaluation was conducted in 2008.

Revaluation adjustments are made on a class basis. Any revaluation increment is credited to equity under the heading of asset revaluation reserve except to the extent that it reverses a previous revaluation decrement of the same asset class that was previously recognised through operating result. Revaluation decrements for a class of assets are recognised directly through operating result except to the extent that they reverse a previous revaluation increment for that class.

Any accumulated depreciation as at the revaluation date is eliminated against the gross carrying amount of the asset and the asset restated to the revalued amount.

Depreciation

Depreciable property, plant and equipment assets are written-off to their estimated residual values over their estimated useful lives to the Director of National Parks using, in all cases, the straight-line method of depreciation. Leasehold improvements are depreciated on a straight-line basis over the lesser of the estimated useful life of the improvements or the unexpired period of the lease.

Depreciation rates (useful lives), residual values and methods are reviewed at each reporting date and necessary adjustments are recognised in the current, or current and future reporting periods, as appropriate.

Director of National Parks

Notes to and forming part of the financial statements

Depreciation rates applying to each class of depreciable asset are based on the following useful lives:

	2008	2007
Buildings	5 to 85 years	5 to 85 years
Infrastructure	7 to 73 years	7 to 73 years
Plant and equipment	2 to 50 years	2 to 50 years
Computer software	4 to 5 years	4 to 5 years

Impairment

All assets were assessed for impairment at 30 June 2008. Where indications of impairment exist, the asset's recoverable amount is estimated and an impairment adjustment made if the asset's recoverable amount is less than its carrying amount.

The recoverable amount of an asset is the higher of its fair value less costs to sell and its value in use. Value in use is the present value of the future cash flows expected to be derived from the asset. Where the future economic benefit of an asset is not primarily dependent on the asset's ability to generate future cash flows, and the asset would be replaced if the Director of National Parks were deprived of the asset, its value in use is taken to be its depreciated replacement cost.

No indicators of impairment were found for assets at fair value.

1.15 Intangibles

The Director of National Parks' intangibles comprise internally developed software for internal use. These assets are carried at cost less accumulated amortisation and accumulated impairment losses.

Software is amortised on a straight-line basis over its anticipated useful life. The useful lives of the Director of National Parks' software are 4 to 5 years (2006–07: 4–5 years).

All software assets were assessed for indications of impairment as at 30 June 2008.

1.16 Taxation

The Director of National Parks is exempt from all forms of taxation except fringe benefits tax and the goods and services tax (GST).

Revenues, expenses, assets and liabilities are recognised net of GST:

- except where the amount of GST incurred is not recoverable from the Australian Taxation Office; and
- except for receivables and payables.

Note 2: Events after the Balance Sheet Date

There were no material events that occurred after the balance sheet date that could impact the financial statements.

Director of National Parks

Notes to and forming part of the financial statements

2008	2007
\$'000	\$'000

Note 3: Income

Revenue

Note 3A: Revenue from Government

Appropriation for outputs*	44,051	42,966
Total revenue from Government	44,051	42,966

* The Director of National Parks received no direct appropriation from the Government. Funds are appropriated directly to the Department of the Environment, Heritage, Water and the Arts and transferred to the Director of National Parks.

Note 3B: Sale of Goods and Rendering of Services

Provision of goods – external entities	65	47
Rendering of services – related entities	3,247	3,176
Rendering of services – external entities	9,167	9,768
Total sale of goods and rendering of services	12,479	12,991

Gains

Note 3C – Sale of Assets

Land and Buildings		
Proceeds from sale	–	–
Carrying value of assets sold	–	(3)
Infrastructure, plant & equipment		
Proceeds from sale	95	500
Carrying value of assets sold	(123)	(360)
Net gain / (loss) from sale of assets	(28)	137

Note 3D – Other Gains

Resources received free of charge	3,900	3,900
Total other gains	3,900	3,900

Director of National Parks

Notes to and forming part of the financial statements

	2008	2007
	\$'000	\$'000
Note 4: Expenses		
Note 4A – Employee Benefits		
Wages and salaries	15,197	14,527
Superannuation		
Defined contribution plans	855	698
Defined benefit plans	2,137	2,233
Leave and other entitlements	2,059	2,126
Separation and redundancies	305	6
Employee allowances	3,050	3,164
Other employee expenses	316	256
Total employee benefits	23,919	23,010

Note 4B – Suppliers

Provision of goods – related entities	24	2
Provision of goods – external entities	3,134	3,305
Rendering of services – related entities*	11,425	11,996
Rendering of services – external entities*	11,049	9,243
Operating lease rentals	4,331	4,321
Total supplier expenses	29,963	28,867

* Comparative information for Rendering of services – related entities (2006/07: \$6,940) and Rendering of services – external entities (2006/07: \$14,299) has been amended to reflect correct identification of related and external entity suppliers consistent with 2007/08.

Note 4C – Depreciation and Amortisation

Depreciation:		
Buildings	2,658	2,592
Infrastructure, plant and equipment	5,239	4,581
Total depreciation	7,897	7,173
Amortisation:		
Intangibles – Computer Software	2	1
Total amortisation	2	1
Total depreciation and amortisation	7,899	7,174

Note 4D – Write-down and Impairment of Assets

Financial assets		
Bad and doubtful debts expense	(46)	(49)
Non-financial assets		
Buildings	3	61
Infrastructure, plant & equipment	163	81
Total write-down and impairment of assets	120	93

Director of National Parks

Notes to and forming part of the financial statements

	2008	2007
	\$'000	\$'000
Note 5: Financial assets		
Note 5A – Cash and Cash Equivalents		
Cash on deposit	26,428	17,745
Cash on hand	69	73
Total cash and cash equivalents	26,497	17,818
Note 5B – Trade and Other Receivables		
Goods and services	269	384
Less: Allowance for doubtful debts	(12)	(60)
	257	324
Net GST receivable from ATO	514	319
Other receivables	741	571
Total trade and other receivables (net)	1,512	1,214
All receivables are current assets.		
Receivables (gross) are aged as follows:		
Not overdue	1,346	1,153
Overdue by:		
Less than 30 days	45	5
31 to 60 days	10	6
61 to 90 days	4	3
More than 90 days	119	107
	178	121
Total receivables (gross)	1,524	1,274
The allowance for doubtful debts is aged as follows:		
Not overdue	–	–
Overdue by:		
More than 90 days	(12)	(60)
Total allowance for doubtful debts	(12)	(60)



Director of National Parks

Notes to and forming part of the financial statements

Reconciliation of the allowance for doubtful debts:

Movements in relation to 2008

	Goods and services 2008 \$'000	Other receivables 2008 \$'000	Total 2008 \$'000
Opening balance	(47)	(13)	(60)
Amounts written off	2	–	2
Amounts recovered and reversed	20	1	21
Increase/decrease recognised in net surplus	25	–	25
Closing balance	–	(12)	(12)

Movements in relation to 2007

	Goods and services 2007 \$'000	Other receivables 2007 \$'000	Total 2007 \$'000
Opening balance	(95)	(16)	(111)
Amounts written off	–	–	–
Amounts recovered and reversed	50	3	53
Increase/decrease recognised in net surplus	(2)	–	(2)
Closing balance	(47)	(13)	(60)

2008 2007
\$'000 \$'000

Note 5C – Other Financial Assets

Accrued Revenue	114	84
Total other financial assets	114	84

All other financial assets are current assets. No indicators of impairment were found for other financial assets.

Director of National Parks

Notes to and forming part of the financial statements

	2008	2007
	\$'000	\$'000
Note 6: Non-Financial Assets		
Note 6A: Land and Buildings		
Land at fair value	6,581	6,581
Buildings on land		
work in progress	603	584
fair value	59,471	62,974
accumulated depreciation	(515)	(4,938)
Total buildings on land	59,559	58,620
Leasehold Improvements		
work in progress	4	80
Total leasehold improvements	4	80
Total land and buildings (non-current)	66,144	65,281

No indicators of impairment were found for land, buildings and leasehold improvements.

Note 6B: Infrastructure, Plant & Equipment

Infrastructure, Plant and Equipment		
work in progress	16,853	7,011
fair value	67,654	75,843
accumulated depreciation	(1,325)	(9,024)
Total infrastructure, plant and equipment	83,182	73,830

Revaluations were conducted in accordance with the policy stated at Note 1. In 2007–08 revaluations were conducted by independent valuer Herron Todd White and valued as at 30 June 2008.

Revaluation of \$Nil for land (2005: decrement of \$437,500) and increments of \$2,719,258 for buildings on freehold land (2005: increment of \$11,368,143), and increments of \$147,663 for infrastructure, plant and equipment (2005: increment of \$26,956,170) were credited to the asset revaluation reserve by asset class and included in the equity section of the balance sheet; no increments/decrements were expensed (2005: \$1,177,500 expensed).

No indicators of impairment were found for infrastructure, plant and equipment.

The Director of National Parks has various Heritage and Cultural Items which have not been recorded as assets in the financial statements, due to the difficulties associated with the reliable measurement of these items. These items include gardens, historic buildings, ruins and cultural artworks. There was no significant acquisition or disposal activity in relation to these items in the reporting period.

Director of National Parks

Notes to and forming part of the financial statements

Note 6C – Analysis of Property, Plant and Equipment

Table A – Reconciliation of the opening and closing balances of property, plant and equipment (2007–08)

	Land \$'000	Buildings \$'000	Total Land & Buildings \$'000	IP&E \$'000	Total \$'000
As at 1 July 2007					
Gross book value	6,581	63,638	70,219	82,854	153,073
Accumulated depreciation and impairment	–	(4,938)	(4,938)	(9,024)	(13,962)
Net book value 1 July 2007	6,581	58,700	65,281	73,830	139,111
Additions					
by purchase	–	620	620	14,914	15,534
by recognition	–	–	–	–	–
Revaluations and Impairment through equity	–	2,719	2,719	148	2,867
Depreciation expense	–	(2,658)	(2,658)	(5,239)	(7,897)
Disposals – by sale	–	–	–	(123)	(123)
Write Offs	–	(3)	(3)	(163)	(166)
Transfers	–	185	185	(185)	–
Net book value 30 June 2008	6,581	59,563	66,144	83,182	149,326
Net book value as of 30 June 2008 represented by:					
Gross book value	6,581	60,078	66,659	84,507	151,166
Accumulated depreciation and impairment	–	(515)	(515)	(1,325)	(1,840)
	6,581	59,563	66,144	83,182	149,326

Director of National Parks

Notes to and forming part of the financial statements

Table A – Reconciliation of the opening and closing balances of property, plant and equipment (2006–07)

	Land \$'000	Buildings \$'000	Total Land & Buildings \$'000	IP&E \$'000	Total \$'000
As at 1 July 2006					
Gross book value	6,581	62,717	69,298	76,903	146,201
Accumulated depreciation and impairment	–	(2,495)	(2,495)	(4,805)	(7,300)
Net book value 1 July 2006	6,581	60,222	66,803	72,098	138,901
Additions					
by purchase	–	809	809	7,072	7,881
by recognition	–	–	–	7	7
Depreciation expense	–	(2,592)	(2,592)	(4,581)	(7,173)
Disposals – by sale	–	(3)	(3)	(360)	(363)
Write Offs	–	(61)	(61)	(81)	(142)
Transfers	–	325	325	(325)	–
Net book value 30 June 2007	6,581	58,700	65,281	73,830	139,111
Net book value as of 30 June 2007 represented by:					
Gross book value	6,581	63,638	70,219	82,854	153,073
Accumulated depreciation and impairment	–	(4,938)	(4,938)	(9,024)	(13,962)
	6,581	58,700	65,281	73,830	139,111

2008 2007
\$'000 \$'000

Note 6D: Intangibles

Computer software

Internally developed – in use

Accumulated amortisation

Total intangibles (non-current)

No indicators of impairment were found for intangible assets.

8	8
(8)	(6)
–	2

Director of National Parks

Notes to and forming part of the financial statements

Note 6E – Analysis of Intangibles

Table A – Reconciliation of the opening and closing balances of intangibles (2007–08)

	Computer Software Purchased \$'000
As at 1 July 2007	
Gross book value	8
Accumulated amortisation	(6)
Net book value 1 July 2007	2
Additions	
by purchase	–
by recognition	–
Amortisation expense	(2)
Disposals – by sale	–
Write Offs	–
Transfers	–
Net book value 30 June 2008	–
Net book value as of 30 June 2008 represented by:	
Gross book value	8
Accumulated amortisation	(8)
	–

Table A – Reconciliation of the opening and closing balances of intangibles (2006–07)

	Computer Software Purchased \$'000
As at 1 July 2006	
Gross book value	8
Accumulated amortisation	(5)
Net book value 1 July 2006	3
Additions	
by purchase	–
by recognition	–
Amortisation expense	(1)
Disposals – by sale	–
Write Offs	–
Transfers	–
Net book value 30 June 2007	2
Net book value as of 30 June 2007 represented by:	
Gross book value	8
Accumulated amortisation	(6)
	2

Director of National Parks

Notes to and forming part of the financial statements

2008	2007
\$'000	\$'000

Note 6F: Other Non-Financial Assets

Prepayments	381	390
Total other non-financial assets	381	390

All other non-financial assets are current assets. No indicators of impairment were found for other non-financial assets.

Note 7: Payables

Note 7A – Suppliers

Trade creditors	1,493	1,526
Operating lease payments	847	849
Total supplier payables	2,340	2,375

Trade creditors

Settlement is usually made net 30 days.

All supplier payables are current

Note 7B – Other Payables

Unearned revenue	2,429	2,024
Total other payables	2,429	2,024

All other payables are current

Note 8: Employee Provisions

Salaries and wages	195	121
Leave	5,304	5,431
Superannuation	34	21
Other	22	17
Total employee provisions	5,555	5,590

Employee provisions are categorised as follows:

Current	4,911	5,013
Non-current	644	577
Total employee provisions	5,555	5,590

The classification of current includes amounts for which there is not an unconditional right to defer settlement by one year, hence in the case of employee provisions the above classification does not represent the amount expected to be settled within one year of reporting date. Employee provisions expected to be settled in one year from the reporting date are \$2,277,000 (2007: \$1,841,000), and in excess of one year \$3,278,000 (2007: \$3,749,000).

Director of National Parks

Notes to and forming part of the financial statements

	2008	2007
	\$'000	\$'000
Note 9: Cash Flow Reconciliation		
Reconciliation of cash and cash equivalents per Balance Sheet to Cash Flow Statement		
Cash at year end per Cash Flow Statement	26,497	17,818
Balance Sheet items comprising above cash:		
‘Financial assets – Cash and Cash Equivalents’	26,497	17,818
Reconciliation of operating result to net cash from operating activities:		
Operating result	982	3,701
Non-cash items		
Depreciation/amortisation	7,899	7,174
Take up of Assets for first time	–	(7)
Write down of non-financial assets	166	142
(Gain) / Loss on disposal of non-current assets	28	(137)
Changes in Assets and Liabilities		
(Increase)/decrease in receivables	(103)	(150)
(Increase)/decrease in GST receivables	(195)	520
(Increase)/decrease in prepayments	9	(21)
(Increase)/decrease in accrued revenue	(31)	7
Increase/(decrease) in unearned revenue	405	(2,091)
Increase/(decrease) in employee provisions	(35)	460
Increase/(decrease) in supplier liabilities	(35)	(4,149)
Increase/(decrease) in other provisions	28	(9)
Net cash from operating activities	9,118	5,440

Director of National Parks

Notes to and forming part of the financial statements

Note 10: Contingent Liabilities and Contingent Assets

Quantifiable Contingencies

The Schedule of Contingencies in the financial statements reported a contingent liability as at 30 June 2006 in respect of claims for back-payment of overtime to staff whilst on Restriction Allowances. Early in the 2006/07 financial year the Department of the Environment, Water, Heritage and the Arts verified these claims and made payments during August 2006.

Unquantifiable Contingencies

At 30 June 2008, the Director of National Parks had a number of outstanding legal claims for which it has denied liability and is defending the claims. It is not possible to estimate the amounts of any eventual payments which may be required in relation to these claims, however these claims are being managed under the Director of National Parks' insurance policy.

Note 11: Director's Remuneration

The number of directors of the Director of National Parks included in these figures are shown below in the relevant remuneration bands:

	2008	2007
\$265,000 to \$279,999	–	1
\$280,000 to \$294,999	1	–
Total number of directors of Director of National Parks	<u>1</u>	<u>1</u>
Total remuneration received or due and receivable by the Director of National Parks:	\$294,525	\$266,671

Director of National Parks

Notes to and forming part of the financial statements

Note 12: Related Party Disclosures

Director of National Parks

The Director of National Parks during the year was Mr Peter Cochrane. The aggregate remuneration of the Director is disclosed in Note 11.

Loans to Director and Director related entities

There were no loans made to either the Director or entities related to the Director during 2007–08 (2006–07: Nil).

Other Transactions with Director or Director related entities

There were no other transactions with either the Director or entities related to the Director during 2007–08 (2006–07: Nil).

Note 13: Executive Remuneration

The number of senior executives who received or were due to receive total remuneration of \$130,000 or more:

	2008	2007
\$175,000 – \$189,999	1	–
\$190,000 – \$204,999	–	1
\$220,000 – \$234,999	1	2
\$235,000 – \$249,999	1	–
	<u>3</u>	<u>3</u>

The aggregate amount of total remuneration of senior executives shown above **\$640,102** \$646,475

The aggregate amount of separation and redundancy / termination benefit payments during the year to executives shown above.

– –

The senior executive remuneration includes all senior executives concerned with or taking part in the management of the Director of National Parks during 2007–08 except the Director of National Parks. Details in relation to the Director of National Parks have been incorporated into Note 11: Directors Remuneration.

Note 14: Remuneration of Auditors

	2008	2007
	\$'000	\$'000
Financial Statement audit services are provided to Director of National Parks by the Auditor-General.		
The fair value of the services provided was:	<u>76,000</u>	<u>68,000</u>

No other services were provided by the Auditor-General.

Director of National Parks

Notes to and forming part of the financial statements

		2008	2007
	Notes	\$'000	\$'000
Note 15: Financial Instruments			
Note 15A – Categories of Financial Instruments			
Financial Assets			
Cash equivalents and other receivables			
Cash	5A	26,497	17,818
Goods and services	5B	269	384
Carrying amount of financial instrument assets		26,766	18,202
Financial Liabilities			
At amortised cost			
Trade creditors	7A	1,493	1,526
Carrying amount of financial liabilities		1,493	1,526
Note 15B – Net Income and Expense from Financial Assets			
Cash equivalents and other receivables			
Interest revenue		1,303	910
Net gain/(loss) loans and receivables		1,303	910
Net gain/(loss) from financial assets		1,303	910

There was no net income/expense from financial liabilities not at fair value from profit and loss (2007: \$Nil).

Note 15C – Fair Value of Financial Instruments

The carrying value of the Director of National Parks' financial instruments are a reasonable approximation of fair value.

Note 15D – Credit Risk

The Director of National Parks is exposed to minimal credit risk as the majority of cash equivalents and other receivables are cash, trade receivables or amounts owed by the Australian Tax Office in the form of a Goods and Services Tax refund. The maximum exposure to credit risk is the risk that arises from potential default of a debtor. This amount is equal to the total amount of trade receivables (2008: \$269,231 and 2007: \$384,265). The Director of National Parks has assessed the risk of the default on payment and has allocated \$12,192 in 2008 (2007: \$59,896) to an allowance for doubtful debts account.

The Director of National Parks holds no collateral to mitigate against credit risk.

Director of National Parks

Notes to and forming part of the financial statements

Credit risk of financial instruments not past due or individually determined as impaired

	Not Past Due Nor Impaired 2008 \$'000	Not Past Due Nor Impaired 2007 \$'000	Past due or impaired 2008 \$'000	Past due or impaired 2007 \$'000
Goods and services	91	263	178	121
Total	91	263	178	121

Ageing of financial assets that are past due but not impaired for 2008

	0 to 30 days \$'000	31 to 60 days \$'000	61 to 90 days \$'000	90+ days \$'000	Total \$'000
Goods and services	45	10	4	119	178
Total	45	10	4	119	178

Ageing of financial assets that are past due but not impaired for 2007

	0 to 30 days \$'000	31 to 60 days \$'000	61 to 90 days \$'000	90+ days \$'000	Total \$'000
Goods and services	5	6	3	107	121
Total	5	6	3	107	121

Note 15E – Liquidity risk

The Director of National Park's financial liabilities are payables and operating leases (due and payable). The exposure to liquidity risk is based on the notion that the Director of National Parks will encounter difficulty in meeting its obligations associated with financial liabilities. This is highly unlikely due to appropriation funding and mechanisms available to the Director of National Parks and internal policies and procedures put in place to ensure there are appropriate resources to meet its financial obligations. The following tables illustrate the maturities for financial liabilities.

	On demand 2008 \$'000	within 1 year 2008 \$'000	1 to 5 years 2008 \$'000	> 5 years 2008 \$'000	Total 2008 \$'000
Trade creditors	–	1,493	–	–	1,493
Total	–	1,493	–	–	1,493

	On demand 2007 \$'000	within 1 year 2007 \$'000	1 to 5 years 2007 \$'000	> 5 years 2007 \$'000	Total 2007 \$'000
Trade creditors	–	1,526	–	–	1,526
Total	–	1,526	–	–	1,526

Director of National Parks

Notes to and forming part of the financial statements

Note 15F – Market Risk

The Director of National Parks holds basic financial instruments that do not expose it to market risks. The Director of National Parks is not exposed to 'currency risk' or 'other price risk'.

Interest Rate Risk

The only interest-bearing items on the balance sheet is 'Cash on deposit' which bears interest at a fixed tiered interest rate.

Note 16: Appropriations

The Director of National Parks received no direct appropriation from the Government for Departmental outputs. Funds are appropriated directly to the Department of the Environment, Water, Heritage and the Arts and transferred to the Director of National Parks. The Director of National Parks was however appropriated an equity injection of \$15million (Appropriation Act No.2 2007–08) for tourism infrastructure at Uluru-Kata Tjuta National Park.

When received by the Director of National Parks, the payments made are legally the money of the Director of National Parks and do not represent any balance remaining in the Consolidated Revenue Fund.

Note 17: Compensation and Debt Relief

No payments of the following kind were made by the Director of National Parks during 2007–08 (2006–07: Nil): (1) waivers of amounts owing to the Australian Government; (2) compensation for detriment caused by defective administration; or (3) special circumstances payments relating to APS employment.

Note 18: Reporting of Outcomes

Note 18A – Outcomes of the Director of National Parks

The Director of National Parks is structured to contribute to the following outcome and output:

Outcome 1

The Director of National Parks has only one outcome – *The environment, especially those aspects that are matters of national environmental significance, is protected and conserved.*

Output 1

The Director of National Parks has only one output – *Conservation and appreciation of Commonwealth reserves.*



Director of National Parks

Notes to and forming part of the financial statements

Note 18B – Net Cost of Outcome Delivery

	Outcome 1		Total	
	2008	2007	2008	2007
	\$'000	\$'000	\$'000	\$'000
Expenses				
Departmental	62,046	59,292	62,046	59,292
Total expenses	62,046	59,292	62,046	59,292
Costs recovered from provision of goods and services to the non-government sector				
Departmental	9,232	9,815	9,232	9,815
Total costs recovered	9,232	9,815	9,232	9,815
Other external revenues				
Departmental				
Sales of goods and services – to related entities	3,247	3,176	3,247	3,176
Interest	1,303	910	1,303	910
Net gains from disposal of assets	(28)	137	(28)	137
Other gains	3,900	3,900	3,900	3,900
Other revenue	1,323	2,089	1,323	2,089
Total Departmental	9,745	10,212	9,745	10,212
Total other external revenues	9,745	10,212	9,745	10,212
Net cost of outcome	43,069	39,265	43,069	39,265

The net costs shown include intra-government costs that would be eliminated in calculating the actual Budget outcome.

Director of National Parks

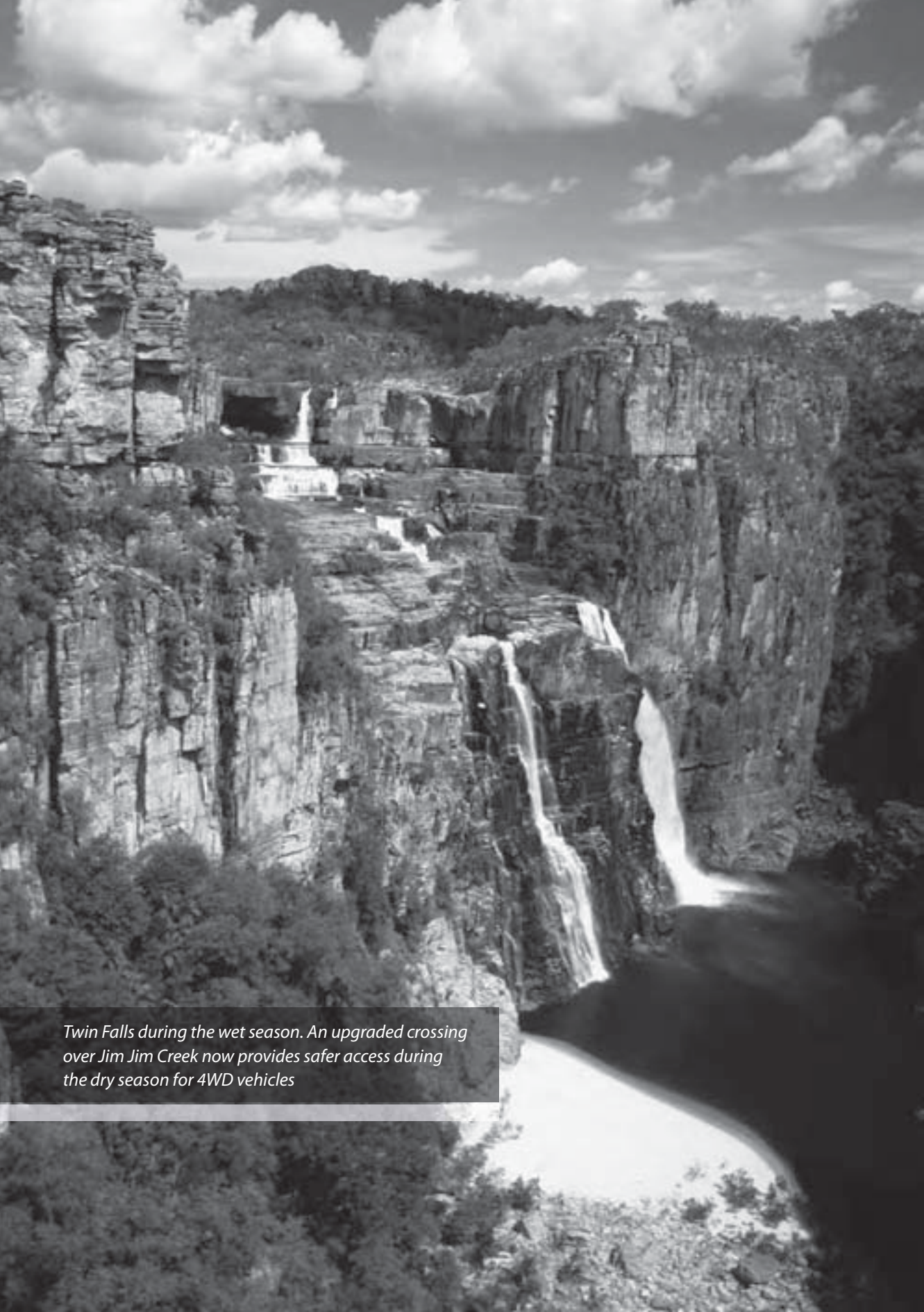
Notes to and forming part of the financial statements

Note 18C – Departmental Revenue and Expenses by Output Groups and Outputs

	Outcome 1		Total	
	2008	2007	2008	2007
	\$'000	\$'000	\$'000	\$'000
Departmental expenses				
Employees	23,919	23,010	23,919	23,010
Suppliers	29,963	28,867	29,963	28,867
Depreciation and amortisation	7,899	7,174	7,899	7,174
Write-down of assets	120	93	120	93
Other Expenses	145	148	145	148
Total departmental expenses	62,046	59,292	62,046	59,292
Funded by:				
Revenues from Government agencies	44,051	42,966	44,051	42,966
Sale of goods and services	12,479	12,991	12,479	12,991
Interest	1,303	910	1,303	910
Net gain from disposal of asset	(28)	137	(28)	137
Other non-taxation revenues	1,323	2,089	1,323	2,089
Other gains	3,900	3,900	3,900	3,900
Total departmental revenues	63,028	62,993	63,028	62,993

The Director of National Parks' outcome and output are described at Note 18A.

The net costs shown include intra-government costs that would be eliminated in calculating the actual Budget outcome.



Twin Falls during the wet season. An upgraded crossing over Jim Jim Creek now provides safer access during the dry season for 4WD vehicles

9 Appendices



Appendix A: Freedom of information statement

Appendix B: Acronyms and shortened forms

Appendix C: Glossary

Appendix D: Compliance index

Appendix A: Freedom of information statement

The Director of National Parks received no applications pursuant to the *Freedom of Information Act 1982* (FOI Act). No applications were made to the Administrative Appeals Tribunal.

The FOI Act extends to the Australian community the right to obtain access to information in the possession of the Australian Government. Access is limited only by exemptions necessary for the protection of essential public interests and the private and business affairs of persons in respect of whom information is collected and held by departments and statutory authorities.

Section 8 of the FOI Act requires departments and statutory authorities to make available information about their functions, organisations and operations. This information is included in other parts of this annual report.

Details of the categories of documents each agency maintains, and the facilities for public access, are also required under section 8 of the FOI Act.

For information about the Director of National Parks' functions and the organisation structure, see Figure 4 and Chapter 4 of this report.

Arrangements for outside participation in decisions, policy and administration

Public participation in the management of Commonwealth reserves under the EPBC Act is facilitated through a number of consultative mechanisms, including making declaration proposals and management plans available for public comment.

For Commonwealth reserves on Aboriginal-owned land (Kakadu, Uluru–Kata Tjuta and Booderee National Parks), the EPBC Act provides for both consultation with, and involvement of, representatives of the Aboriginal landowners in relation to management of the reserve. The consultative processes are outlined in Chapter 7 of this report.

Categories of documents

Categories of documents held by the DNP include:

- files relating to all aspects of the activities and functions of the Director;
- studies, reports and surveys;
- agenda papers and minutes of meetings; and
- procedures manuals.

Lists of available publications may be obtained by contacting the Department of the Environment, Water, Heritage and the Arts Community Information Unit on 1800 803 772, or visiting the website at www.environment.gov.au/parks/publications.

Facilities for access

“Access points” are locations at which members of the public may make enquiries on freedom of information, request freedom of information forms, submit formal freedom of information requests, or inspect documents to which access has been granted. The access points are open during business hours and staff members are available to assist with enquiries and inspection of documents. Areas are set aside to enable members of the public to inspect documents.

Information about facilities for access by people with disabilities can be obtained from the Freedom of Information Coordinator.

Freedom of information procedures and initial contact points

Formal freedom of information requests should be addressed to:

Freedom of Information Coordinator

Legal Section

Department of the Environment, Water, Heritage and the Arts

GPO Box 787

Canberra ACT 2601

Phone: (02) 6275 9504

Fax: (02) 6274 1587

Email: FOI_Contact_Officer@environment.gov.au

Special arrangements can be made in other states, with regional offices of the National Archives of Australia established in Sydney, Melbourne, Brisbane, Townsville, Perth, Adelaide and Hobart.

If difficulty arises in identifying the document or in providing access in the manner requested, an officer will contact the applicant with a view to resolving the difficulty. In consultation with applicants, documents will be made available by mail to the address specified by the applicant, at the official access point or at the information access office located within the regional office of the National Archives of Australia nearest to the applicant's normal place of residence.

The authorised decision-maker under the FOI Act, who may refuse, defer or grant access, is the relevant Assistant Secretary.

Appendix B: Acronyms and shortened forms

ACTEW	Australian Capital Territory Energy and Water Corporation
EEZ	Australia's Exclusive Economic Zone
ANAO	Australian National Audit Office
ANBG	Australian National Botanic Gardens
Migratory Species (Bonn) Convention	Convention on the Conservation of Migratory Species of Wild Animals (Bonn, 1979)
CAC Act	<i>Commonwealth Authorities and Companies Act 1997</i>
China–Australia Migratory Birds Agreement (CAMBA)	Agreement between the Government of Australia and the Government of the People's Republic of China for the Protection of Migratory Birds and their Environment
CPBR	Centre for Plant Biodiversity Research
CSIRO	Commonwealth Scientific and Industrial Research Organisation
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
FOI Act	<i>Freedom of Information Act 1982</i>
GIS	Geographic information system
GPS	Global positioning system
IBRA	Interim Biogeographic Regionalisation for Australia
IMCRA	Interim Marine and Coastal Regionalisation for Australia
IUCN	World Conservation Union
Japan–Australia Migratory Birds Agreement (JAMBA)	Agreement between the Government of Australia and the Government of Japan for the Protection of Migratory Birds in Danger of Extinction and their Environment
Korea–Australia Migratory Birds Agreement (ROKAMBA)	Agreement between the Government of Australia and the Government of the Republic of Korea for the Protection of Migratory Birds and their Environment
KRA	Key result area
UNESCO	United Nations Educational, Scientific and Cultural Organization
Wetlands (Ramsar) Convention	Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar, 1971)
World Heritage Convention	Convention Concerning the Protection of the World Cultural and Natural Heritage (Paris, 1972)

Appendix C: Glossary

Anangu	Western Desert Aboriginal person or people (generally those Aboriginal people with traditional affiliations to the Uluru–Kata Tjuta National Park)
Benthic	Marine organisms that live on, in or near the ocean floor
Bininj	Traditional owners of Aboriginal land and traditional owners of other land in Kakadu National Park, and other Aboriginals entitled to enter upon or use or occupy the Park in accordance with Aboriginal tradition governing the rights of that Aboriginal or group of Aboriginals with respect to the Park
Cetaceans	Whales, porpoises and dolphins
Demersal	Species or activities that are closely associated with the ocean floor
Endemic	(Of a taxonomic group) confined to a given region
MoU Box area	An area within Australian waters covered by a Memorandum of Understanding with Indonesia that includes Ashmore Reef and Cartier Island and is open to traditional Indonesian fishers
Pelagic	Species or activities that normally live or occur near the ocean surface or the water column
Riparian	Of, on, or relating to the banks of a natural course of water
Riverine	Relating to a river
Seamounts	Large cone-shaped remnants of extinct volcanoes rising from the ocean floor
Terrestrial	Relating to the land or land-dwelling

Appendix D: Compliance index

This annual report has been prepared in accordance with the *Commonwealth Authorities and Companies (Report of Operations) Orders 2005*.

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