

**A compendium of
information for
managing and
monitoring wetlands
in tropical Australia**



**CM Finlayson
& AG Spiers eds**

*The included papers represent a large body of material that was contributed by many people from within and outside **eriss**. We appreciate this effort, especially as many contributors also have demanding employment and other responsibilities.*

*The impetus for this volume came from and was supported by a collaborative arrangement with the Centre for Tropical Wetland Management at the Northern Territory University to present a Masters level unit on the management of tropical wetlands. The course was presented in 1997, 1998 and 1999. Much of the work presented is based on current research and management projects being conducted by **eriss** and other organisations.*

We are grateful for the support of our partners at NTU and contributors for the cooperative manner in which the course was presented and the written papers prepared and edited.

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Foreword

In tropical Australia and throughout the world, wetlands support a diversity of life. They maintain biodiversity, provide food, clean water and other vital resources, and act as a buffer against flooding, storm surge and sea level rise. People must take care of wetlands and manage them wisely so these crucial wetland values and functions are preserved.

The key to wise use of wetlands is effective monitoring and management. To achieve this, managers need to know where the wetlands are, how wetlands work, what animals and plants depend on them, and how to use wetlands sustainably. Scientific research can provide land owners and managers with this information.

This compendium aims to provide wetland owners, managers and users with information to help them manage and monitor these important habitats. We believe this publication contains information relevant to everyone with an interest in tropical wetlands – and especially to those entrusted with the task of looking after these beautiful and valuable habitats for the future.

Max Finlayson & Abbie Spiers

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Contents

Foreword	iii
Preface	ix
1 An introduction to wetland management	1
Information needs for wetland management	3
CM Finlayson	
2 An introduction to wetlands	19
Wetland types and their distribution in northern Australia	21
CM Finlayson	
Some important ecological features of wetlands in the Wet-Dry tropics of northern Australia	40
RWJ Pidgeon & CL Humphrey	
Wetland classification and inventory in northern Australia	63
CM Finlayson	
The role of GIS and remote sensing technology	81
C Devonport & A Bull	
3 Ecological characterisation of wetlands	87
Ecological design and survey	89
R O'Connor & CL Humphrey	
Survey techniques for invertebrates	100
R O'Connor	
Survey techniques for fish	106
RWJ Pidgeon	
Vegetation survey methods	116
B Bayliss	
Survey techniques for hydrology, water quality and sediments	125
C leGras	
4 Wetland management issues	141
Management issues for northern Australian wetlands	143
CM Finlayson, MJ Storrs, R Hall & B Bayliss	
Mine water and waste management	168
C leGras	

Tourism and fishing in Kakadu National Park	178
G Miles	
Weed management on wetlands of Australia's Top End	184
MJ Storrs	
The management of <i>Salvinia molesta</i> in Kakadu National Park, Northern Territory, Australia	192
MJ Storrs	
Fire management and research in Kakadu	198
P Barrow	
Traditional Aboriginal use of fire in wetlands	207
V Cooper	
5 Wetland management	213
Implementing the Ramsar Convention in Australia	215
L Tucker	
Wetland management: Sectoral divides and underlying issues	227
CM Finlayson & MJ Storrs	
Ecological risk assessment and management	239
RA van Dam	
Community involvement in wetland management: Lower Mary River Landcare Group	257
C O'Brien	
Community involvement in the management of our waterways: NT Waterwatch	
S Rixon	
Community wetland management: The Northern Land Council's Top End Indigenous People's Wetlands Program	271
MJ Storrs	
Aboriginal management of wetlands and the Dead Sea Scrolls	279
A Spiers	
Coastal management in the Alligator Rivers region	287
CM Finlayson & I Eliot	
Major components of the coastal monitoring program in the Alligator Rivers Region	299
MJ Saynor, A Bull, R Hall, DJ Walden, I Eliot, AG Spiers & CM Finlayson	299

6 Monitoring change in ecological character	313
Framework for designing a monitoring program	315
CM Finlayson	
Biological monitoring	326
R O'Connor	
Ecotoxicology in the Wet-Dry tropics	333
C Camilleri	

Preface

The *eriss* Wetland Protection and Management research program was formed in 1994 following a restructuring of the Institute. One of our first tasks was to hold a workshop to collate information on wetlands and to identify major research questions. This was done in March 1995 and a proceedings published (Finlayson 1995). Material from this workshop was also incorporated into two major reviews of wetlands. The first was a review for the Land and Water Resource Research and Development Corporation (LWRRDC) of wetland R&D in the wet-dry tropics (Finlayson et al 1998). The second was a review of the conservation status of wetlands in the Northern Territory (Storrs & Finlayson 1997) for the Parks and Wildlife Commission of the Northern Territory (PWCNT). These reports, combined with a review of the wetland management issues for the Mary River, Northern Territory (Jonauskas 1996), provided a solid foundation for initiating a wetland research program.

Over the ensuing years we have accumulated more data and information on wetlands through specific projects and analyses, contributions to workshops and conferences, and direct involvement with wetland managers, locally and further afield. We have also disseminated our information through lectures and seminars, demonstrations and stalls at public events, formal and informal study tours and courses, and on-the-job training. These tasks have all been within our general goal of providing information, through research, for wetland management (Finlayson & Spiers 1998).

The importance of providing information for management purposes was illustrated in a major analysis we undertook to assess the vulnerability of the wetlands of the Alligator Rivers Region (encompassing Kakadu National Park) to climate change and sea level rise (Bayliss et al 1998). This analysis identified major difficulties in accessing information that had been collected and a general low level of awareness about the information and its usefulness (Eliot et al, in press). Further, these problems were not confined to this project alone (Finlayson 1997). We consider that effective dissemination of information is an integral part of our responsibilities as publicly funded researchers.

Based on this experience and the many advisory and training activities undertaken we have made it a priority to provide more information to wetland managers in a readily available format. A number of plain language articles have since been published and widely circulated (Alderson & Nadji 1997, Finlayson & Spiers 1998, Humphrey et al 1998, Thurtell 1998, Walden & Pidgeon 1998). We also decided to publish and disseminate some of the many papers given by our staff and collaborators over the years since the 1995 workshop. This volume represents the outcome of that decision. The information in the report is presented as a series of formal scientific papers along with transcripts of less formal presentations. The formal and informal presentations are interspersed within broad thematic headings.

In preparing this material we have asked our authors to draw upon their experiences and published materials to outline information needed for wetland management and monitoring. The emphasis is on the wetlands of the Australian wet-dry tropics, but given similarities with many other tropical regions we are confident that we have produced a volume of use to a much broader audience.

The production of this compendium marks the culmination of a great deal of work since 1994. This has involved many people and other agencies and organisations. We thank the authors and their many colleagues. We also warmly acknowledge the stimulus provided by the agencies and organisations that have contributed to the work that is presented in this volume. These include: Environment Australia, Department of Lands Planning and Environment, International Crane Foundation, Land and Water Resource Research and Development

Corporation, Mary River Landcare Group, Parks and Wildlife Commission of the Northern Territory, Northern Land Council, Northern Territory University, Parks Australia North, University of Western Australia, University of New South Wales, University of Stirling, University of Wollongong and Wetlands International.

We anticipate that this compendium will further alert wetland managers, owners and users to the need for and extent of high quality scientific information that is available through our combined efforts. In this respect we are pleased to release this material and receive feedback and assistance in our endeavors to both undertake research and communicate with our clients – the wetland owners, managers and users of our valued tropical wetlands.

Max Finlayson & Abbie Spiers

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