7. Northern Territory

Introduction

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(reprinted from the second edition)

Aside from the famous monolith in the deserts of Uluru, wetland scenes provide the best recognised images of the Northern Territory (NT) landscape. Yet this apparent familiarity is misleading. Our knowledge of the flora and fauna of these environments is patchy, and understanding of their ecological functioning often little better than rudimentary.

The constraints that this knowledge deficit places on the robust discrimination of the relative conservation significance of different sites was explicitly recognised in the first edition of this Directory. Rather than create a potentially misleading list of 'best' sites, a small number of wetlands, thought to represent a reasonable sample of the range of wetland environments existing in the NT, was identified and their better known characteristics summarised.

In that first edition, another critical point of interpretation was made, which bears repetition in the introduction to this slightly different list. In a landscape dominated by environments that are most often structurally intact, preoccupation with features of individual sites, as required by an attempt to list and rank, is a less than ideal way to analyse and present the conservation values of many wetland types. Under the influence of north Australia's erratic climate and harsh seasonal droughts, wetlands are better viewed as complexes, as functionally integrated systems made up of highly dynamic and resource-rich patches in a matrix of drier, often nutrient-poor lands.

In combination, as components of this complex mosaic, they reliably support an extraordinarily diverse and abundant flora and fauna, in a way that no individual site could duplicate. A quest to assign importance to the separate pieces of the jigsaw is quixotic, because we can ill afford to lose any of them. It is the integrity and linked ecological function of the whole that must be protected and maintained.

In the period between issue of the first edition and the preparation of this second statement, there have been some improvements in the knowledge base, particularly in regard to the coast, and the subhumid wetlands of the middle latitudes of the NT. In this edition, most revisions of prior listings derive from enhanced information on coastal sites, and the few additions are for new sites in the subhumid tropics, for which a useful knowledge base was provided by the extensive surveys of Jaensch (1994) and Jaensch and Bellchambers (1997).

Since the first edition of the Directory was produced, the Australian and New Zealand Environment and Conservation Council (ANZECC) has adopted the Interim Biogeographic Regionalisation of Australia (IBRA: Thackway and Cresswell 1995). Criteria for inclusion of sites in this Directory have accordingly been revised (Chapter 2) to include an objective to rank sites within bioregional boundaries (Criterion 1). Given the knowledge deficit already discussed, a requirement to discriminate at this finer level of resolution is an even less profitable exercise than at the Territory-wide level. Our response has been to review the criteria under which existing sites were listed rather than to attempt a detailed re-analysis from a biogeographic perspective. We conclude that retention of all of the sites listed in the first edition is justified on grounds other than biogeographic uniqueness or representativeness. Thus there have been no deletions of sites listed in the first edition, despite the obvious bias towards the wetlands of the Top End Coastal bioregion.

The NT regards this contribution to the Directory, and the resultant lists, as insignificant in themselves, but rather as small steps in a larger and much more important process. That is, to derive conservation strategies that embed the conservation of the region's extraordinary wetlands in sustainable management arrangements encompassing entire landscapes. To replace the spurious notion of relative importance, we look forward to recognition and further development of the Directory as a comprehensive inventory of all substantial wetlands. This will ultimately allow presentation to reflect functional wetland groupings, better indicate the role of wetland systems in the regional ecology, and the management actions needed to maintain that role.

Acknowledgments

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Summary analysis

The Directory describes 33 nationally important wetlands in the Northern Territory. The distribution of nationally important wetlands in the NT (including Ramsar wetlands) is shown in Figure 5. A list compiling data on bioregion, site area, wetland type and criteria for inclusion for each wetland is provided at the end of this chapter.

Twenty bioregions occur in the NT (refer to Table 7.1), with 12 of these shared with adjacent States. Eight of the bioregions contain no wetlands currently recognised as nationally important. The most nationally important wetlands are in the Top End Coastal bioregion (n=12). Mitchell Grass Downs (n=6) is the only other region to have more than three wetlands listed. Five bioregions have only one important wetland listed. An overview of the IBRA regionalisation and a map of IBRA regions is included in Appendix 2.

Table 7.1 Number and area of nationally important wetlands in the NT by IBRA region

IBRA Region	IBRA code	No. of Sites	Area (ha)
Burt Plain	BRT	0	0
Central Arnhem	CA	0	0
Central Ranges	CR	0	0
Channel Country	CHC	0	0
Daly Basin	DAB	1	1,650
Finke	FIN	1	30,000
Gulf Fall and Uplands	GFU	1	100
Great Sandy Desert	GSD	2	133,700
Gulf Coastal	GUC	3	303,890
Gulf Plains	GUP	0	0
MacDonnell Ranges	MAC	1	10
Mitchell Grass Downs	MGD	6	333,090
Ord-Victoria Plains	OVP	2	25,000
Pine-Creek Arnhem	PCA	2	1,376,090
Simpson-Strzelecki Dunefields	SSD	0	0
Stony Plains	STP	0	0
Sturt Plateau	STU	0	0
Tanami	TAN	1	800
Top End Coastal	TEC	12	978,900
Victoria Bonaparte	VB	2	880,000
Total	**20**	**33**	**4,033,230**

The 33 nationally important wetlands currently recognised in the NT exhibit 24 of the 40 wetland types (refer to Table 7.2). The most numerous type included is B14—Freshwater swamp forest (n=17), and the next most numerous B10—Seasonal/intermittent freshwater ponds and marshes (n=15). The most numerous Marine and Coastal Zone wetland type is A6—Estuarine waters (n=14). The Wetland classification system and Criteria for inclusion in the Directory are explained in Chapter 2.

Table 7.2 Number of NT sites in each Wetland type

A—Marine and Coastal Zone wetlands

	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
Total	3	4	1	0	1	14	13	11	13	1	1	0

B—Inland wetlands

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16	B17	B18	B19
Total	14	7	1	11	1	12	0	2	6	15	0	0	9	17	0	0	2	0	0

C—Human-made wetlands

	C1	C2	C3	C4	C5	C6	C7	C8	C9
Total	2	1	0	0	0	0	0	0	0

All Criteria for inclusion are well represented in the NT wetlands listed (refer to Table 7.3). Twenty-seven wetlands are included under each of Criteria 1,2 and 3. All wetlands except one, Lake Amadeus which is included only as representative of its wetland type within the bioregion (Criterion 1), meet multiple criteria for inclusion. Four sites have been included under all six criteria.

Table 7.3 Number of NT sites included under each Criterion

	1	2	3	4	5	6
Total	27	27	27	18	11	18

List of nationally important wetlands in the Northern Territory

Wetland name	Old Reference No.	New Reference No.	IBRA Region	Area (ha)	Wetland type(s)	Criteria for inclusion
Daly River Middle Reaches	DAB001NT	NT001	DAB	1650	B1, B6	1, 2, 3, 4
Finke River Headwater Gorges System	FIN001NT	NT002	MAC	10	B1	1, 2, 3, 5, 6
Mataranka Thermal Pools	GFU002NT	NT003	GFU	100	B17	1, 6
Karinga Creek Palaeodrainage System	GSD002NT	NT004	FIN	30000	B8	1, 4, 6
Lake Amadeus	GSD003NT	NT005	GSD	103700	B8	1
Borroloola Bluebush Swamps	GUC001NT	NT006	GUC	90	B13, B14	1, 3
Limmen Bight (Port Roper) Tidal Wetlands System	GUC002NT	NT007	GUC	184800	A2, A6, A7, A8, A9	1, 2, 3, 4, 5, 6
Port McArthur Tidal Wetlands System	GUC003NT	NT008	GUC	119000	A1, A2, A6, A7, A8, A9, B5	1, 2, 3, 4, 5
Corella Lake	MGD002NT	NT009	MGD	15000	B1, B6, B13, B14	1, 2, 3
Eva Downs Swamp	MGD004NT	NT010	MGD	17000	B6, B10, B13, B14	1, 2, 3
Lake de Burgh	MGD005NT	NT011	MGD	35000	B6, B13, B14	1, 2, 3, 4
Lake Sylvester	MGD006NT	NT012	MGD	41000	B1, B6, B10, B13, B14	1, 2, 3, 4, 6
Lake Woods	MGD007NT	NT013	MGD	5090	B1, B6, B10, B13, B14	1, 2, 3, 4
Tarrabool Lake	MGD008NT	NT014	MGD	220000	B6, B10, B13, B14	1, 2, 3
Birrindudu Waterhole and Floodplain	OVP001NT	NT015	OVP	19000	B4, B6, B10, B13, B14	1, 2, 3
Nongra Lake	OVP002NT	NT016	OVP	6000	B6, B14	1, 2, 3, 6
Kakadu National Park[C]	PCA001NT	NT017	PCA	1375940	A1, A2, A5, A6, A7, A8, A9, B1, B2, B3, B9, B10, B14, B17, C1	1, 3, 4, 5, 6
Katherine River Gorge	PCA002NT	NT018	PCA	150	B1	1, 2, 6
Lake Surprise (Yinapaka)	TAN002NT	NT019	TAN	800	B6	1, 2, 3
Adelaide River Floodplain System	TEC001NT	NT020	TEC	134800	A6, A7, A8, A9, B1, B4, B6, B9, B10, B14, C1	2, 3, 4, 5, 6
Arafura Swamp	TEC002NT	NT021	TEC	71400	B1, B2, B4, B9, B10, B14	2, 3, 4, 6
Blyth–Cadell Floodplain and Boucaut Bay System	TEC003NT	NT022	TEC	35500	A6, A7, A8, A9, B4, B10	1, 2, 3, 4, 5, 6
Cobourg Peninsula System	TEC004NT	NT023	TEC	84000	A6, A7, A8, A9, A10, B14	1, 2, 3, 4, 5, 6
Daly–Reynolds Floodplain–Estuary System	TEC005NT	NT024	TEC	159300	A6, A7, A8, A9, B1, B2, B4, B9, B10, B14	1, 2, 3, 4, 5

Wetland name	Old Reference No.	New Reference No.	IBRA Region	Area (ha)	Wetland type(s)	Criteria for inclusion
Finniss Floodplain and Fog Bay System	TEC006NT	NT025	TEC	81300	A6, A7, A8, A9, B2, B4, B9, B10, B14	1, 2, 3, 4, 6
Mary Floodplain System	TEC007NT	NT026	TEC	127600	A6, A7, A8, A9, B1, B4, B9, B10, B14	1, 2, 3, 4, 6
Moyle Floodplain and Hyland Bay System	TEC008NT	NT027	TEC	48100	A6, A7, A9, B1, B2, B4, B10, B14	1, 2, 3, 4, 6
Murgenella—Cooper Floodplain System	TEC009NT	NT028	TEC	81500	A6, A7, A8, A9, B1, B2, B4, B10	1, 2, 3, 4, 6
Port Darwin	TEC010NT	NT029	TEC	48800	A1, A2, A3, A6, A7, A9	1, 2, 3, 4, 5, 6
Legune Wetlands	VB003NT	NT030	VB	9000	B6, B10, B13, C2	1, 2, 3
Mount Bundey Training Area —Mary River Floodplain[C]		NT031	TEC	105000	B1, B2, B4	2, 5
Shoal Bay—Micket Creek[C]		NT032	TEC	1600	A6, A7, A8, A9, A11	3, 6
Bradshaw Field Training Area[C]		NT033	VB	871000	A6, B4	2, 5

C *wetlands occurring in part on land owned or managed by the Commonwealth (four sites).*

Note: *area figures for the above tables are approximate only.*