



Northern
Territory
Government

DEPARTMENT OF
NATURAL RESOURCES, ENVIRONMENT AND THE ARTS



MacDonnell Ranges Bioregion

Collation of Biological Information

of Regional, Northern Territory,
National and International Significance

H. M. Neave
October 2007

© Northern Territory of Australia, 2007
ISBN 1 920772 626

Significant Fauna of the MacDonnell Ranges Bioregion

■ = Birds; ■ = Mammals; ■ = Reptiles; ■ = Amphibians; ■ = Fish; ■ = Invertebrates

Scientific Name	Common Name	NT Status	AUS Status	Endemic (MAC / NT)	Significance / Notes
Extant NT and/or Nationally threatened fauna which occur in the MAC Bioregion					
<i>Ardeotis australis</i>	Australian Bustard	VU	-	-	Listed as Near Threatened in <i>The Action Plan for Australian Birds 2000</i> (Garnett and Crowley, 2000); Highly mobile.
<i>Dromaius novaehollandiae</i>	Emu	VU	-	-	Highly mobile.
<i>Erythrotriorchis radiatus</i>	Red Goshawk	VU	VU	-	In the Northern Territory, the majority of records south of the Top End occur in the MAC Bioregion, west of Alice Springs.
<i>Polytelis alexandrae</i>	Princess Parrot	VU	VU	-	Nomadic; Most records from the MacDonnell Ranges are during dry times and are from the west of Alice Springs.
<i>Rostratula benghalensis australis</i>	Painted Snipe	VU	VU*	-	<i>The Action Plan for Australian Birds</i> lists the Painted Snipe as Vulnerable (Garnett and Crowley, 2000); * Likely to be listed as Vulnerable under EPBC Act; Nomadic; CAMBA and Ramsar listed species; Records from Ilparpa Sewage ponds – species may be threatened by the draining of Ilparpa Swamp.
<i>Dasyercus cristicauda</i>	Mulgara	VU	VU	-	In the Northern Territory, strongholds appear to be in the TAN and GSD Bioregions; Only known reserved population is in Uluru-Kata Tjuta National Park.
<i>Notoryctes typhlops</i>	Southern Marsupial Mole	VU	EN	-	Post-1970 records from both Watarrka and Uluru-Kata Tjuta National Parks.
<i>Petrogale lateralis</i> (MacDonnell Ranges race)	Black-footed Rock Wallaby	LR-nt	VU	-	Distribution is centred on the ranges of the MAC Bioregion.
<i>Sminthopsis longicaudata</i>	Long-tailed Dunnart	VU	-	-	Rediscovered in the Northern Territory within the West MacDonnell Ranges National Park; 6 sites between Serpentine Gorge and Mt Sonder.
<i>Trichosurus vulpecula vulpecula</i> (central Australian subspecies)	Common Brushtail Possum	EN	-	-	West MacDonnell Ranges National Park and possibly the East MacDonnell Ranges are now the strong hold for the species in the arid / semi-arid Northern Territory. Possum sites in the East MacDonnell Ranges (1980s records/captures) have not been resurveyed in recent years. However, there has been a recent report of possum tracks in the East MacDonnells from a TO (M. Barritt PWSNT, pers. comm. 2006).
<i>Zyomys pedunculatus</i>	Central Rock-rat	EN	EN	-	Rediscovered in 1996; Now known from only 16 sites in the West MacDonnell Ranges within a distribution area of approximately 1000 km ² (although not all this area is suitable habitat (G. Edwards Bio. Con. PWSNT, pers. comm. 2006).
<i>Egernia slateri slateri</i>	Slater's Skink	EN	EN	NT	Recent records from Finke Gorge National Park; New location on Owen Springs.
<i>Chalmydogobius japalpa</i>	Finke Goby	VU	-	NT	Endemic to the Finke River system (Duguid, 2005; Duguid <i>et al.</i> , 2005); Normally limited distribution in the Finke River system from Ormiston Gorge in the West MacDonnell Ranges National Park to Finke Gorge National Park; Recent records from small pool on Pioneer Creek in the West MacDonnell Ranges National Park (23° 40' 56" S, 132° 43' 22" E); Has also been found in 2001 in Finke River on Horseshoe Bend and Idracowra Stations (Duguid, 2005). <i>The Australian Society for Fish Biology</i> list <i>Chalmydogobius japalpa</i> as 'restricted' with an IUCN category of 'Vulnerable' in their ' <i>Australian Threatened Fishes 1999 Supplement</i> ' (Duguid <i>et al.</i> , 2005).
<i>Basedowena squamulosa</i>	Camaenidae Land Snail	VU	-	MAC / NT	Restricted to Krichauff and James Ranges west of Alice Springs between Palm Valley and Areyonga (Solem, 1993; Morton <i>et al.</i> , 1995).
<i>Bothriembryon spenceri</i>	Bulimulidae Land Snail	VU	-	MAC / NT	Restricted to Krichauff and Chewing Ranges west of Alice Springs. Genus <i>Bothriembryon</i> mentioned in Keast (1959) in his discussion on relictual species of the MacDonnell Ranges.

<i>Croitana aestiva</i>	Desert Sand Skipper	EN	EN	MAC / NT	Only known from three locations in the West MacDonnell Ranges (collected in 1966 & 1972) (Yen, 1996; Braby, 2000). As a result of the Australian Government-Northern Territory Government Species Information Partnership, this species has been listed as Endangered on the EPBC Act. Note: Recorded in 2007 at Standley Chasm by Chris Palmer, Bio. Con. PWSNT.
<i>Dirutrachia sublevata</i>	Camaenidae Land Snail	VU	-	MAC / NT	Highly restricted; Only found in the basins of Maud and Florence Creeks on the south side of Harts Range (its range extends <5 km along the range) (Solem, 1993; Morton <i>et al.</i> , 1995).
<i>Divellomelon hillieri</i>	Camaenidae Land Snail	VU	-	MAC / NT	Highly restricted; Only found along a few hundred metres of cliff face in Palm Valley in the Krichauff Ranges (Solem, 1993; Morton <i>et al.</i> , 1995).
<i>Granulomelon arcigerens</i>	Camaenidae Land Snail	VU	-	MAC / NT	Highly restricted; Single site in the Finke River gorge, 4 – 5 km south of Glen Helen tourist camp (Solem, 1993; Morton <i>et al.</i> , 1995).
<i>Granulomelon gilleni</i>	Camaenidae Land Snail	VU	-	MAC / NT	Collected along a tributary of Gillen Creek, Strangways Ranges, which flows north-east to eventually join the Sandover River (Solem, 1993; Morton <i>et al.</i> , 1995). Note: conservation status in the NT of VU (2006 review).
<i>Granulomelon grandituberculatum</i>	Camaenidae Land Snail	VU	-	MAC / NT	Highly restricted; Only found in the basins of Maud and Florence Creeks on the south side of Harts Range (found in deep crevices in talus) (Solem, 1993; Morton <i>et al.</i> , 1995).
<i>Pillomena aemula</i>	Charopidae Land Snail	VU	-	MAC / NT	Highly restricted; Total range is <1 km ² around Penny Springs in the George Gill Ranges south-west of Alice Springs (found in leaf litter under Fig trees, Cycads and scrub) (Solem, 1993).
<i>Semotrachia caupona</i>	Camaenidae Land Snail	VU	-	MAC / NT	Highly restricted; Only known from a large patch of Fig trees at the south-west corner of Temple Bar, formerly known as Honeymoon Gap (Solem, 1993; Morton <i>et al.</i> , 1995).
<i>Semotrachia elleryi</i>	Camaenidae Land Snail	VU	-	MAC / NT	Highly restricted; Only been collected from 3 sites in the Ellery Creek basin (Serpentine Gorge, Ellery Creek Big Hole and Heavitree Range), and further south where Ellery Creek enters the Krichauff Ranges to join the Finke River (Solem, 1993; Morton <i>et al.</i> , 1995).
<i>Semotrachia emilia</i>	Camaenidae Land Snail	VU	-	MAC / NT	Highly restricted; Only been found under a small group of Fig trees in Emily Gap in the East MacDonnell Ranges (Solem, 1993; Morton <i>et al.</i> , 1995).
<i>Semotrachia esau</i>	Camaenidae Land Snail	VU	-	MAC / NT	Highly restricted; Known from a small area along the Finke River and Palm Creek in the Krichauff Ranges, and a single isolated colony in the Palmer River drainage 78 km to the south-east (Solem, 1993; Morton <i>et al.</i> , 1995).
<i>Semotrachia euzyga</i>	Camaenidae Land Snail	EN	EN	MAC / NT	Highly restricted to about 1 km ² along the Todd River in Alice Springs, near the southern boundary of the Alice Springs Telegraph Station Reserve and on nearby Choritza Hill (Solem, 1993; Morton <i>et al.</i> , 1995). Note: conservation status has changed in the NT from CR to EN (2006 review). As a result of the Australian Government-Northern Territory Government Species Information Partnership, this species has been listed as Endangered on the EPBC Act.
<i>Semotrachia filixiana</i>	Camaenidae Land Snail	VU	-	MAC / NT	Highly restricted; Occurs only at Fenn Gap West in the MacDonnell Ranges west of Alice Springs (Solem, 1993; Morton <i>et al.</i> , 1995).
<i>Semotrachia illarana</i>	Camaenidae Land Snail	VU	-	MAC / NT	Highly restricted; Only occurs at Illara Waterhole south of the James Ranges on a tributary of the Palmer River south-west of Alice Springs (Solem, 1993; Morton <i>et al.</i> , 1995).
<i>Semotrachia jessieana</i>	Camaenidae Land Snail	VU	-	MAC / NT	Highly restricted; Only been found under a single group of Fig trees in Jessie Gap in the East MacDonnell Ranges (Solem, 1993; Morton <i>et al.</i> , 1995).
<i>Semotrachia rossana</i>	Camaenidae Land Snail	VU	-	MAC / NT	Highly restricted; Only been collected from 2 sites along the Ross River downstream from the Ross River Resort and above N'Dahla Gorge, east of Alice Springs (Solem, 1993; Morton <i>et al.</i> , 1995).
<i>Semotrachia runutjirbana</i>	Camaenidae Land Snail	VU	-	MAC / NT	Highly restricted; Occurs at Simpsons Gap in the Runutjirba Range (Solem, 1993; Morton <i>et al.</i> , 1995).
<i>Semotrachia winneckiana</i>	Camaenidae Land Snail	VU	-	MAC / NT	Highly restricted; Known from only 2 isolated sites: one in Spencer Gorge (Chewings Range) in the upper Hugh River catchment, and the other at Ellery Creek Big Hole (Heavitree Range) in the Finke River catchment (Solem, 1993; Morton <i>et al.</i> , 1995).
<i>Sinumelon bednalli</i>	Camaenidae Land Snail	CR	EN	MAC / NT	Only found at two separate sites in the MacDonnell Ranges: in the vicinity of the Alice Springs Telegraph Station Reserve and at Iwupataka (Jay Creek) settlement, 41 km away (Solem, 1993; Morton <i>et al.</i> , 1995). As a result of the Australian Government-Northern Territory Government Species Information Partnership, this species has been listed as Endangered on the EPBC Act.

<i>Vidumelon watti</i>	Camaenidae Land Snail	VU	-	MAC / NT	Highly restricted; Only found in the basins of Maud and Florence Creeks on the south side of Harts Range (unlike most of the restricted snail species which have teeth adapted to scraping algae off rocks, this species has generalist teeth, feeding on dead plant matter) (Solem, 1993; Morton <i>et al.</i> , 1995).
Near threatened, data deficient, non-threatened or non-evaluated fauna endemic to the MAC Bioregion or southern NT, and/or are considered relicts					
<i>Morelia bredli</i>	Centralian Carpet Python	LR-lc	-	NT	Endemic to the southern NT; Majority of records are from the MAC Bioregion. Note: conservation status has changed in the NT from LR-nt to LR-lc (2006 review).
<i>Ramphotyphlops centralis</i>	Centralian Blind Snake	DD	-	NT	Endemic to the southern NT.
<i>Litoria gilleni</i>	Centralian Tree Frog	LR-lc	-	NT	Endemic to the southern NT; Majority of records are from the MAC Bioregion; The Tree Frog is mentioned in Keast (1959) in his discussion on relictual species of the MacDonnell Ranges.
<i>Craterocephalus centralis</i>	Finke River Hardyhead	LR-nt	-	NT	Endemic to the Finke River system (Davis, 1996; Duguid, 2005; Duguid <i>et al.</i> , 2005). Permanent waterholes of the gorges are probably the major source from which repopulation downstream occurs after dry periods (Morton <i>et al.</i> , 1995). <i>The Action Plan for Australian Freshwater Fishes</i> (Wager and Jackson, 1993) list <i>Craterocephalus centralis</i> as 'Rare', while the <i>Australian Society for Fish Biology</i> list <i>C. centralis</i> as 'restricted' with an IUCN category of 'Lower Risk – near threatened' in their ' <i>Australian Threatened Fishes 1999 Supplement</i> ' (Duguid <i>et al.</i> , 2005).
<i>Mogurnda larapintae</i>	Finke Mogurnda or Desert Gudgeon	LR-nt	-	NT	Endemic to the Finke River system (Duguid, 2005; Duguid <i>et al.</i> , 2005). The <i>Australian Society for Fish Biology</i> list <i>Mogurnda larapintae</i> as 'restricted' (Duguid <i>et al.</i> , 2005).
<i>Diplostrema eremia</i>	Earthworm (Class Oligochaeta)	NE	-	MAC / NT	Earthworms are very rare in arid Australia (Yen and Butcher, 1997); <i>Diplostrema eremia</i> (formerly <i>Acanthodrilus eremius</i>) described over 100 years ago (1894) from 3 localities – side of a waterhole in the James Range at Illamurta, George Gill Range and MacDonnell Ranges on the Finke River (Spencer, 1896), but not seen since; Probably relictual (Spencer 1896; Keast 1959; Morton <i>et al.</i> , 1995; Yen, 1996; Yen and Butcher, 1997).
<i>Granulomelon acerbum</i>	Camaenidae Land Snail	NE	-	MAC / NT	East MacDonnell Ranges (Morton <i>et al.</i> , 1995); Mount Benstead-Ross River-Goat Camp Creek system, tributaries of the Todd River (Solem, 1993).
<i>Hemicordulia flava</i>	Hemicorduliidae Dragonfly	NE	-	MAC / NT	Relictual and endemic to the MAC Bioregion (Watson <i>et al.</i> , 1991; Morton <i>et al.</i> , 1995); Inhabits still pools; Holotype from Reedy Creek in the George Gill Range; Also known from other waterholes in the George Gill Range, John Hayes Rockhole, MacDonnell Ranges and East Alice Springs (Watson <i>et al.</i> , 1991).
<i>Pleuroxia adcockiana</i>	Camaenidae Land Snail	NE	-	MAC / NT	Known from the MacDonnell Ranges south to the Krichauff and James Ranges (Solem, 1993; Morton <i>et al.</i> , 1995).
<i>Prosopogmus insperatus</i>	Carabidae Beetle	NE	-	MAC / NT	Known only from the type locality at Palm Creek (Sloane, 1896; Yen, 1996).
<i>Pupilla ficulnea</i>	Pupillidae Land Snail	DD	-	MAC / NT	The only live specimens were collected in the 1890s in the West MacDonnell and Krichauff Ranges west of Alice Springs (Solem, 1993). The snail probably still survives in the wild but its current distribution is unknown.
<i>Sclerocyphon fuscus</i>	Water Penny (aquatic larvae of a terrestrial beetle)	NE	-	-	Aquatic larvae of a terrestrial beetle that requires fresh water; Believed to be relict of moister climate; In central Australia, only known from a few locations in the West MacDonnell Ranges (7 sites), and the Watarrka-Kings Canyon area in the George Gill Range (2 sites) (Duguid, 2005 – Davis, 1995; Morton <i>et al.</i> , 1995). These sites are described by Davis (1995) as relict stream sites based on the presence of <i>S. fuscus</i> (Giles Yard Spring, Giles Spring, Upper Serpentine Gorge, Bowmans Gap, Upper Hugh Gorge, Talipata Springs, Talipata Gorge, Stokes Creek, Penny Springs). The Water Penny has also been found at Fenceline Spring and a small spring in Fish Hole in the Chewings Range (Upper Ellery Creek) (M. Barritt PWSNT, pers. comm. 2006).
<i>Semotrachia bagoti</i>	Camaenidae Land Snail	NE	-	MAC / NT	Collected along the southern face of the George Gill Range, between Penny Springs and Bagot Spring, a distance of 26 km (Solem, 1993; Morton <i>et al.</i> , 1995).
<i>Semotrachia bensteadana</i>	Camaenidae Land Snail	NE	-	MAC / NT	Found in the East MacDonnell Ranges from the banks of Mount Benstead Creek to near Undoolya Gap, a distance of about 28 km (Solem, 1993; Morton <i>et al.</i> , 1995).

<i>Semotrachia hortulana</i>	Camaenidae Land Snail	NE	-	MAC / NT	Collected in the south-central portion of the Hale River basin, from Ambalindum Homestead to just west of Mount Bartlett near 9 Mile Yard, north of the MacDonnell Ranges; Known range of 43 km (Solem, 1993; Morton <i>et al.</i> , 1995).
<i>Semotrachia hughana</i>	Camaenidae Land Snail	DD	-	MAC / NT	Known from only 2 sites along the Hugh River south of the James Range; Range may be larger (Solem, 1993; Morton <i>et al.</i> , 1995).
<i>Semotrachia setigera</i>	Camaenidae Land Snail	NE	-	MAC / NT	Disjunct distribution in the MacDonnell Ranges; East of Alice Springs from the valley of Goat Camp Creek, just north of the Fergusson Range and west of Giles Creek, to near Undoolya Gap; West of Alice Springs from Standley Chasm west-north-west to at least as far as Stokes Well (Solem, 1993; Morton <i>et al.</i> , 1995).
<i>Semotrachia strangwayana</i>	Camaenidae Land Snail	NE	-	MAC / NT	Collected from near Southern Cross Bore at the east end of the Strangways Range to a little south of Mount Riddock Homestead, Harts Range (Solem, 1993; Morton <i>et al.</i> , 1995).
<i>Sinumelon expositum</i>	Camaenidae Land Snail	NE	-	NT	Inhabits most of the Finke River basin, from Mount Sonder and the vicinity of the Finke River Gorge through the MacDonnell Ranges past Gosse Bluff, through the Krichauff and James Ranges as far south as Illara Waterhole and Illamurta Springs, and at least as far west as Areyonga, and extending east to the type locality at Charlotte Waters (Solem, 1993; Morton <i>et al.</i> , 1995).
<i>Sinumelon gillensis</i>	Camaenidae Land Snail	NE	-	MAC / NT	Restricted to the George Gill Range where it occurs in the wetter areas (Solem, 1993; Morton <i>et al.</i> , 1995).
Other near threatened or data deficient fauna which occur in the MAC Bioregion					
<i>Acrocephalus australis</i>	Clamorous Reed-Warbler	LR-nt	-	-	EPBCA listed migratory species.
<i>Amytornis striatus striatus</i>	Striated Grasswren	LR-nt	-	-	
<i>Burhinus grallarius</i>	Bush Stone-curlew	LR-nt	-	-	
<i>Calidris melanotos</i>	Pectoral Sandpiper	DD	-	-	Bonn and JAMBA listed species; EPBCA listed migratory species.
<i>Calyptorhynchus banksii samueli</i> (central Australian subspecies)	Red-tailed Black-cockatoo	LR-nt	-	-	
<i>Cinclosoma castanotus clarum</i>	Chestnut Quail-thrush	LR-nt	-	-	There are post-1970 records for the MAC Bioregion, but none in more recent times.
<i>Conopophila whitei</i>	Grey Honeyeater	DD	-	-	
<i>Falco hypoleucos</i>	Grey Falcon	LR-nt	-	-	
<i>Gallinago hardwickii</i>	Latham's Snipe	DD	-	-	Bonn, CAMBA and JAMBA listed species; EPBCA listed migratory species.
<i>Gallinago megala</i>	Swinhoe's Snipe	DD	-	-	Bonn, CAMBA and JAMBA listed species; EPBCA listed migratory species.
<i>Lophoictinia isura</i>	Square-tailed Kite	LR-nt	-	-	
<i>Neophema splendida</i>	Scarlet-chested Parrot	LR-nt	-	-	
<i>Phaps histrionica</i>	Flock Bronzewing	LR-nt	-	-	
<i>Porzana fluminea</i>	Australian Spotted Crake	DD	-	-	
<i>Porzana pusilla</i>	Baillon's Crake	DD	-	-	
<i>Porzana tabuensis</i>	Spotless Crake	DD	-	-	
<i>Pyrrholaemus brunneus</i>	Redthroat	LR-nt	-	-	
<i>Stictonetta naevosa</i>	Freckled Duck	LR-nt	-	-	Regular occurrence at the Alice Springs sewage ponds.
<i>Antechinomys laniger</i>	Kultar	LR-nt	-	-	
<i>Pseudomys johnsoni</i> ?	Central Pebble-mound Mouse	LR-nt	-	-	? Although there are no records from the MAC Bioregion, it is possible that this species occurs there.
<i>Rattus villosissimus</i>	Long-haired Rat	LR-nt	-	-	
<i>Aspidites ramsayi</i>	Woma Python	LR-nt	-	-	
<i>Limnodynastes ornatus</i>	Ornate Burrowing Frog	DD	-	-	Only 7 records from the southern region of the Northern Territory, one of which is from the MAC Bioregion west of Alice Springs; More commonly found in the northern region of the Northern Territory; Listed as data deficient in response to the arrival of the Cane Toad <i>Bufo marinus</i> in the Northern Territory. Note: not in fauna atlas for MAC Bioregion.

Extant NT / Nationally threatened, near threatened or data deficient fauna which no longer occur in the MAC Bioregion					
<i>Amytornis textilis modestus</i>	Thick-billed Grasswren	EN	VU	-	The only known population in the Northern Territory occurs just south of Charlotte Waters.
<i>Cinclosoma castaneothorax marginatum</i>	Chestnut-breasted Quail-thrush	LR-nt	-	-	One pre-1970 record only from the MAC Bioregion which is right on the southern boundary with the Finke Bioregion; Unlikely to occur in the MAC Bioregion.
<i>Leipoa ocellata</i>	Malleefowl	CR	VU	-	May be extinct in the Northern Territory, although the bioregions most likely to support Malleefowl have not been adequately surveyed (i.e. CR and GSD bioregions).
<i>Pezoporus occidentalis</i>	Night Parrot	CR	EN	-	May be extinct in the Northern Territory.
<i>Dasyercus hillieri</i>	Ampurta	VU	EN	-	Only 1 pre-1970 record from Love's Creek; Species is extant in the SSD Bioregion. Note: not in Fauna Atlas for MAC Bioregion.
<i>Isoodon auratus auratus</i>	Golden Bandicoot	EN	VU	-	Formerly occurred across most of northern, central and western Australia; In the Northern Territory, it occurs on Marchinbar Island north-east Arnhem Land.
<i>Lagorchestes conspicillatus leichardti</i> (mainland)	Spectacled Hare-wallaby	LR-nt	-	-	
<i>Macroderma gigas</i>	Ghost Bat	LR-nt	-	-	Listed as data deficient in response to the arrival of the Cane Toad <i>Bufo marinus</i> in the Northern Territory; Considered regionally extinct in the southern NT. Note: conservation status has changed in the NT from DD to LR-nt (2006 review).
<i>Macrotis lagotis</i>	Greater Bilby	VU	VU	-	In the Northern Territory, species extant in the central and western parts of the TAN Bioregion, southern STU Bioregion, and the northern GSD Bioregion.
<i>Rattus tunneyi</i>	Pale Field-rat	LR-nt	-	-	Sub-fossil material only; Considered regionally extinct in the southern NT.
<i>Egernia kintorei</i>	Great Desert Skink	VU	VU	-	Most post-1980 records come from Uluru-Kata Tjuta National Park and north to Rabbit Flat in the Tanami; Historic records from the West MacDonnell Ranges represent the eastern range limit of the species.
Nationally extinct, extinct in the NT, or extinct in the wild fauna which once occurred in the MAC Bioregion (cultural significance)					
<i>Bettongia lesueur graii</i> (inland)	Burrowing Bettong	EX	EX	-	Time of extinction in the Northern Territory: 1950s.
<i>Bettongia penicillata</i> ?	Brush-tailed Bettong	EX	-	-	Time of extinction in the Northern Territory: 1950s. Note: not in Fauna Atlas for MAC Bioregion.
<i>Chaeropus ecaudatus</i>	Pig-footed Bandicoot	EX	EX	-	Time of extinction in the Northern Territory: 1950s.
<i>Dasyurus geoffroi geoffroi</i>	Western Quoll	EX	VU	-	Time of extinction in the Northern Territory: 1960s.
<i>Lagorchestes asomatus</i> ?	Central Hare-wallaby	EX	EX	-	Time of extinction in the Northern Territory: 1950s. Note: not in Fauna Atlas for MAC Bioregion.
<i>Lagorchestes hirsutus</i> (central mainland form)	Rufous Hare-wallaby or Mala	EW	EN	-	Time of extinction in the wild in the Northern Territory: 1992; Exists in captivity in purpose built enclosures at Watarrka National Park and Uluru Kata-Tjuta National Park; A colony has also been established on Trimouille Island, Western Australia.
<i>Leporillus apicalis</i>	Lesser Stick-nest Rat	EX	EX	-	Time of extinction in the Northern Territory: 1930s.
<i>Macrotis leucura</i> ?	Lesser Bilby	EX	EX	-	Time of extinction in the Northern Territory: 1960s. Note: not in Fauna Atlas for MAC Bioregion.
<i>Myrmecobius fasciatus</i> ?	Numbat	EX	VU	-	Time of extinction in the Northern Territory: 1950s. Note: not in Fauna Atlas for MAC Bioregion.
<i>Notomys amplus</i>	Short-tailed Hopping-mouse	EX	EX	-	Time of extinction in the Northern Territory: early 20 th century.
<i>Notomys longicaudatus</i>	Long-tailed Hopping-mouse	EX	EX	-	Time of extinction in the Northern Territory: early 20 th century.
<i>Onychogalea lunata</i>	Crescent Nailtail Wallaby	EX	EX	-	Time of extinction in the Northern Territory: 1960s.
<i>Parameles eremiana</i>	Desert Bandicoot	EX	EX	-	Time of extinction in the Northern Territory: 1960s.
<i>Phascogale calura</i>	Red-tailed Phascogale	EX	EN	-	Time of extinction in the Northern Territory: 1950s.
<i>Pseudomys fieldi</i>	Alice Springs Mouse	EX	VU	-	Time of extinction in the Northern Territory: early 20 th century.

? next to the scientific name means that this species may occur, or have occurred, in the MacDonnell Ranges Bioregion but is not listed in the Northern Territory Fauna Atlas for the bioregion

Bird species recorded from the MacDonnell Ranges Bioregion protected under bilateral conservation treaties

Scientific Name	Common Name	NT Status	Treaty / Migratory Species Lists	Notes
<i>Acrocephalus australis</i>	Clamorous Reed-Warbler	LR-nt	EPBCA	
<i>Actitis hypoleucos</i>	Common Sandpiper	LR-lc	Bonn, CAMBA, JAMBA, EPBCA	
<i>Apus pacificus</i>	Fork-tailed Swift	LR-lc	CAMBA, JAMBA, EPBCA	
<i>Ardea alba</i>	Great Egret	LR-lc	CAMBA, JAMBA, EPBCA	
<i>Ardea ibis</i>	Cattle Egret	LR-lc	CAMBA, JAMBA, EPBCA	
<i>Arenaria interpres</i>	Ruddy Turnstone	LR-lc	Bonn, CAMBA, JAMBA, EPBCA	
<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	LR-lc	Bonn, CAMBA, JAMBA, EPBCA	
<i>Calidris canutus</i>	Red Knot	LR-lc	Bonn, CAMBA, JAMBA, EPBCA	
<i>Calidris ferruginea</i>	Curlew Sandpiper	LR-lc	Bonn, CAMBA, JAMBA, EPBCA	
<i>Calidris melanotos</i>	Pectoral Sandpiper	DD	Bonn, JAMBA, EPBCA	
<i>Calidris ruficollis</i>	Red-necked Stint	LR-lc	Bonn, CAMBA, JAMBA, EPBCA	
<i>Calidris subminuta</i>	Long-toed Stint	NE	Bonn, CAMBA, JAMBA, EPBCA	Vagrant or uncommon visitor to the Northern Territory.
<i>Calidris tenuirostris</i>	Great Knot	LR-lc	Bonn, CAMBA, JAMBA, EPBCA	
<i>Charadrius leschenaultii</i>	Greater Sand Plover	LR-lc	Bonn, CAMBA, JAMBA, EPBCA	
<i>Charadrius mongolus</i>	Lesser Sand Plover	LR-lc	Bonn, CAMBA, JAMBA, EPBCA	
<i>Charadrius veredus</i>	Oriental Plover	LR-lc	Bonn, JAMBA, EPBCA	
<i>Chlidonias leucopterus</i>	White-winged Black Tern	LR-lc	CAMBA, JAMBA, EPBCA	
<i>Gallinago hardwickii</i>	Latham's Snipe	DD	Bonn, CAMBA, JAMBA, EPBCA	
<i>Gallinago megala</i>	Swinhoe's Snipe	DD	Bonn, CAMBA, JAMBA, EPBCA	
<i>Glareola maldivarum</i>	Oriental Pratincole	LR-lc	CAMBA, JAMBA, EPBCA	
<i>Heteroscelus brevipes</i>	Grey-tailed Tattler	LR-lc	Bonn, CAMBA, JAMBA, EPBCA	
<i>Hirundapus caudacutus</i>	White-throated Needletail	NE	CAMBA, JAMBA, EPBCA	Vagrant or uncommon visitor to the Northern Territory.
<i>Limicola falcinellus</i>	Broad-billed Sandpiper	NE	Bonn, CAMBA, JAMBA, EPBCA	Vagrant or uncommon visitor to the Northern Territory.
<i>Limosa lapponica</i>	Bar-tailed Godwit	LR-lc	Bonn, CAMBA, JAMBA, EPBCA	
<i>Limosa limosa</i>	Black-tailed Godwit	LR-lc	Bonn, CAMBA, JAMBA, EPBCA	
<i>Merops ornatus</i>	Rainbow Bee-eater	LR-lc	EPBCA	
<i>Numenius minutus</i>	Little Curlew	LR-lc	Bonn, CAMBA, JAMBA, EPBCA	
<i>Numenius phaeopus</i>	Whimbrel	LR-lc	Bonn, CAMBA, JAMBA, EPBCA	
<i>Pandion haliaetus</i>	Osprey	LR-lc	EPBCA	
<i>Phalaropus lobatus</i>	Red-necked Phalarope	NE	Bonn, CAMBA, JAMBA, EPBCA	Vagrant or uncommon visitor to the Northern Territory.
<i>Philomachus pugnax</i>	Ruff	NE	CAMBA, JAMBA, EPBCA	Vagrant or uncommon visitor to the Northern Territory.
<i>Plegadis falcinellus</i>	Glossy Ibis	LR-lc	CAMBA, EPBCA	
<i>Pluvialis fulva</i>	Pacific Golden Plover	LR-lc	Bonn, CAMBA, JAMBA, EPBCA	
<i>Pluvialis squatarola</i>	Grey Plover	LR-lc	Bonn, CAMBA, JAMBA, EPBCA	
<i>Rostratula benghalensis australis</i>	Painted Snipe	VU	CAMBA, Ramsar, EPBCA	Likely to be listed as Vulnerable under EPBC Act; Records from Ilparpa Sewage ponds – species may be threatened by the draining of Ilparpa Swamp.
<i>Sterna caspia</i>	Caspian Tern	LR-lc	CAMBA, JAMBA, EPBCA	
<i>Tringa glareola</i>	Wood Sandpiper	NE	Bonn, CAMBA, JAMBA, EPBCA	Vagrant or uncommon visitor to the Northern Territory.
<i>Tringa nebularia</i>	Common Greenshank	LR-lc	Bonn, CAMBA, JAMBA, EPBCA	
<i>Tringa stagnatilis</i>	Marsh Sandpiper	LR-lc	Bonn, CAMBA, JAMBA, EPBCA	

Fauna

Status under the *Territory Parks and Wildlife Conservation Act 2000* and/or schedules of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)

EX	Regionally Extinct	EN	Endangered	LR-lc	Lower Risk-least concern
EW	Extinct in the Wild	VU	Vulnerable	DD	Data Deficient
CR	Critically Endangered	LR-nt	Lower Risk-near threatened	NE	Not Evaluated

International Treaties

Bonn	Convention on the Conservation of Migratory Species of Wild Animals
CAMBA	China-Australia Migratory Bird Agreement
JAMBA	Japan-Australia Migratory Bird Agreement
Ramsar	Convention on Wetlands of International Importance (Ramsar Convention)
EPBCA	<i>Environment Protection and Biodiversity Act</i> Listed Migratory Species

Acronyms

Bio. Con.	Biodiversity Conservation
PWSNT	Parks and Wildlife Service of the Northern Territory

References used to collate table on ‘Significant Fauna of the MacDonnell Ranges Bioregion’

- Braby, M.F. (2000). *The Butterflies of Australia: Their Identification, Biology and Distribution*. CSIRO Publishing, Melbourne, p. 180.
- Davis, J.A. (1995). *The Aquatic Ecosystems of the West MacDonnell Ranges, Northern Territory with Particular Reference to the Aquatic Invertebrate Fauna*. Unpublished report to the Parks and Wildlife Commission of the Northern Territory, Alice Springs.
- Davis, J.A. (1996). Aquatic ecosystems in central Australia: comparison of recent records of fishes and invertebrates with those of the Horn Expedition. In: S.R. Morton and D.J. Malvaney (Eds) *Exploring Central Australia: Society, the Environment and the 1894 Horn Expedition*. Surrey Beatty & Sons, Chipping Norton, pp. 282–286.
- Duguid, A. (2005). *Wetlands in the Arid Northern Territory. Volume 2: Information Collated for Individual Wetlands*. A report to the Australian Government Department of the Environment and Heritage on the inventory and significance of wetlands in the arid NT. Northern Territory Government Department of Natural Resources, Environment and the Arts, Alice Springs.
- Duguid, A., Barnetson, J., Clifford, B., Pavey, C., Albrecht, D., Risler, J. and McNellie, M. (2005). *Wetlands in the Arid Northern Territory*. A report to the Australian Government Department of the Environment and Heritage on the inventory and significance of wetlands in the arid NT. Northern Territory Government Department of Natural Resources, Environment and the Arts, Alice Springs.
- Garnett, S.T. and Crowley, G.M. (2000). *The Action Plan for Australian Birds*. Environment Australia and Birds Australia.
- Keast, A. (1959). Relict animals and plants of the MacDonnell Ranges. *The Australian Museum Magazine*, **8(3)**: 81–86.
- Morton, S.R., Short, J. and Baker, R.D. (1995). Refugia for Biological Diversity in Arid and Semi-arid Australia. *Biodiversity Series, Paper No. 4*, Biodiversity Unit. Department of Environment, Sport and Territories and CSIRO, Canberra, Australian Capital Territory.
- Parks and Wildlife Service (Various dates & compilers). Threatened Species Information Sheets. Parks and Wildlife Service, Northern Territory Government Department of Natural Resources, Environment and the Arts (www.nt.gov.au/nreta/wildlife/threatened/index.html).
- Sloane, T.G. (1896). *Prosopogmus insperatus*, n. sp. In: B. Spencer (Ed) *Report on the Work of the Horn Scientific Expedition to Central Australia*. Part II. – Zoology. Melville, Mullen and Slade, Melbourne, pp.381–382.
- Solem, A. (1993). Camaenid Land Snails from Western and Central Australia (Mollusca: Pulmonata: Camaenidae). VI. Taxa from the Red Centre. *Records of the Western Australian Museum, Supplement 43*: 983–1459.
- Spencer, B. (1896). *Acanthodrilus eremius*, a new species of earthworm. In: B. Spencer (Ed) *Report on the Work of the Horn Scientific Expedition to Central Australia*. Part II. – Zoology. Melville, Mullen and Slade, Melbourne, pp.416–421.

- Wager, R. and Jackson, P. (1993). *The Action Plan for Australian Freshwater Fishes*. Australian Nature Conservation Agency, Canberra.
- Watson, J.A.L., Theischinger, G. and Abbey, H.M. (1991). *The Australian Dragonflies*. CSIRO, Melbourne, pp. 44–46.
- Yen, A.L. (1996). The contribution of the Horn Expedition to our knowledge of terrestrial invertebrates in central Australia. In: S.R. Morton and D.J. Malvaney (Eds) *Exploring Central Australia: Society, the Environment and the 1894 Horn Expedition*. Surrey Beatty & Sons, Chipping Norton, pp. 230–244.
- Yen, A. and Butcher, R. (1997). *An Overview of the Conservation of Non-marine Invertebrates in Australia*. Environment Australia, Canberra, p. 53.

Significant Flora of the MacDonnell Ranges Bioregion

■ = Endemic to the MAC Bioregion; ■ = Endemic to the southern NT; ■ = Relictual or possibly relictual (wetland taxa occurring away from the ranges not included)

Scientific Name	Common Name	NT Status	AUS Status	Endemic (MAC / NT)	Disjunct Code (White <i>et al.</i> , 2000) Relict (Keast, 1959; Chippendale, 1963; Maconochie, 1981; Latz, 1996)	Area in MAC (E; W (WMNP); SW; FG; W/GG)	Significance (National, NT, Southern NT and Bioregional levels - White <i>et al.</i> , 2000) Notes and further references
NT / Nationally listed threatened plant taxa occurring in the MAC Bioregion							
<i>Acacia undoolyana</i>	Sickle-leaf Wattle; Undoolya Wattle	VU	VU	MAC / NT		E	{2VCi} ; Endemic to the East MacDonnell Ranges, MAC Bioregion; Extent of confirmed occurrence is 195 km ² and estimated area of occupancy is 16 km ² (White <i>et al.</i> , 2000).
<i>Actinotus schwarzii</i>	Flannel Flower	VU	VU	MAC / NT	Keast, 1959 Chippendale, 1963 Maconochie, 1981	W (WMNP)	{3VCa} ; Regarded as endemic to the Chewings and Heavitree Ranges, MAC Bioregion; Only known from 6 locations, each restricted in size; Lat./Long. range based on current records is 19 km and 90 km respectively; Purported to occur in the Petermann Ranges, CR Bioregion (White <i>et al.</i> , 2000). Regarded as a relict at the species level.
<i>Adiantum capillus-veneris</i>	Venus-hair Fern	VU	-	-	D:o Latz, 1996 (Group 3)	W (WMNP)	{3vCi} ; Disjunct distribution, occurring at Jasper Gorge in or near Gregory National Park and 1 location in the Chewings Range; Unclear if taxon is relict or more recent arrival (White <i>et al.</i>, 2000).
<i>Baumea arthropylla</i>		EN	-	-	D:o Latz, 1996 (Group 3)	W/GG	{3vC-} ; Exceptionally rare in the Northern Territory; Only known from a single population (only a few individuals) in Watarrka National Park; Unclear if taxon is relict or more recent arrival (White <i>et al.</i>, 2000).
<i>Bolboschoenus caldwellii</i>		EN	-	-	D:o Latz, 1996 (Group 3)	W; FG	{3vC-} ; Very rare in the Northern Territory; Only known from Palm Valley (population now presumed extinct), a bore overflow on Jervois Station, and a sewage outflow at Ilparpa Swamp near Alice Springs; Can disperse across vast distances (White <i>et al.</i>, 2000).
<i>Eleocharis papillosa</i>	Dwarf Desert Spike-rush	VU	VU	NT		W	{3R} ; Endemic to the southern NT; Known from 8 locations; Known from Ilparpa Swamp near Alice Springs in the MAC Bioregion; Lat./Long. range based on current records is 600 km and 560 km respectively (White <i>et al.</i> , 2000); Unreserved. As a result of the Australian Government-Northern Territory Government Species Information Partnership, this species has been listed as Vulnerable on the EPBC Act.
<i>Eremophila prostrata</i>	Rainbow Valley Fuchsia Bush	VU	VU	NT		SW	{2VCi} ; Endemic to the southern NT; Known from 7 populations; Known from Rainbow Valley in the MAC Bioregion; Lat./Long. range based on current records is 25 km and 61 km respectively (White <i>et al.</i> , 2000). Note: previously <i>Eremophila sp. Rainbow Valley</i> (T.S. Henshall 1181) (D. Albrecht Herbarium PWSNT, pers. comm. 2007).
<i>Livistonia mariae</i> subsp. <i>mariae</i>	Palm Valley Palm; Red Cabbage Palm; Central Australian Cabbage Palm	VU	VU	MAC / NT	Keast, 1959 Chippendale, 1963 Maconochie, 1981 Latz, 1996 (Group 2)	SW; FG	{2VCa} ; Endemic to the MAC Bioregion, being restricted to a small portion of the Finke River and its tributaries – most found in Finke Gorge National Park, with outlying population at Running Waters; Relict palm At the species level) of great biogeographic significance (White <i>et al.</i>, 2000).

<i>Macrozamia macdonnellii</i>	MacDonnell Ranges Cycad	LR-nt	VU	NT	Keast, 1959 Chippendale, 1963 Maconochie, 1981 Latz, 1996 (Group 2)	E; W (WMNP); FG; W/GG	{3VCa} ; Endemic to the southern NT; Majority of populations occur in the MAC Bioregion; Lat./Long. range based on current records is 140 km and 370 km respectively (White <i>et al.</i> , 2000). Listed as a 'true relic' by several authors (relict at the species level). Note : conservation status has changed in the NT from VU to LR-nt (2006 review).
<i>Minuria tridens</i>		VU	VU	-		E; W (WMNP); SW; FG	{3VCi} ; Apart from a record from WA, restricted to the arid Northern Territory where it is known from about 9 locations (16 collections) (White <i>et al.</i> , 2000).
<i>Olearia macdonnellensis</i>		VU	VU	MAC / NT		E; W (WMNP)	{3VCi} ; Endemic to the MAC Bioregion; Known from 6 locations in the West MacDonnell Ranges and 1 disjunct population in the central East MacDonnell Ranges (White <i>et al.</i> , 2000).
<i>Ricinocarpos gloria-medii</i>	Glory-of-the-Centre	VU	VU	MAC / NT	Maconochie, 1981	E; W (WMNP)	{2VCa} ; Endemic to the MAC Bioregion; Known from 5 locations predominantly in the East MacDonnell Ranges; 1 population in the West MacDonnell Ranges in the Simpson Gap area; Lat./Long. range based on current records is 20 km and 81 km respectively (White <i>et al.</i> , 2000).
<i>Santalum acuminatum</i>	Quandong	VU	-	-		W; SW; W/GG	{3vC-} ; Note : conservation status has changed in the NT from LR-lc to VU (2006 review).
<i>Thryptomene hexandra</i>	Palm Valley Myrtle	VU	VU	-	Maconochie, 1981	FG	{3VC-} ; Very restricted range in the Northern Territory where it only occurs in several narrow, steeply dissected valleys in Finke Gorge National Park; Also occurs in QLD (White <i>et al.</i> , 2000).
<i>Wrixonia schultzei</i>		VU	VU	MAC / NT	Maconochie, 1981	W (WMNP)	{3VC-} ; Endemic to the MAC Bioregion; Restricted to the tops of the quartzite ranges in the West MacDonnell Ranges (Chewings Range, Mount Sonder), and an outlying population at Mount Edward; Lat./Long. range based on current records is 34 km and 107 km respectively (White <i>et al.</i> , 2000).
Rare flora occurring in the MAC Bioregion							
<i>Abutilon lepidum</i>		LR-nt	-	-		W; SW; W/GG	{3r} ; Eastern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000). Note : has also been recorded in Watarrka National Park by Chris Brock, Bio. Con. PWSNT.
<i>Acacia dolichophylla</i>	Chewings Range Wattle	LR-nt	-	MAC / NT		W (WMNP)	{2RC-} ; Endemic to the MAC Bioregion; Occurs in isolated gullies and gorges in the Chewings Range and Serpentine Gorge in the Heavitree Range; Lat./Long. range based on current records is 15 km and 34 km respectively (White <i>et al.</i> , 2000).
<i>Acacia grasbyi</i>	Red Witchetty	LR-nt	-	-		W/GG	{3rC-}
<i>Amperea spicata</i>	George Gill Range Cliff-bush	LR-nt	-	MAC / NT		W/GG	{2RCa} ; Endemic to the MAC Bioregion; Known from 2 gorges in Watarrka National Park; Lat./Long. range based on current records is 15 km and 19 km respectively (White <i>et al.</i> , 2000).
<i>Arthropodium strictum</i>	Chocolate Lily	LR-nt	-	-	D:o	W (WMNP)	{3rC-} ; Main occurrence in the southern NT is in undulating granite country to the north of Ormiston Gorge; Northern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000). May be a relict; there is a possibility that it is an undescribed species in which case it would be a relict at the species level (D. Albrecht Herbarium PWSNT, pers. comm. 2006).
<i>Atriplex lobativalvis</i>		LR-nt	-	-		W (WMNP)	{3r} ; In the MAC Bioregion, occurs near Alice Springs which is an interesting disjunction (White <i>et al.</i> , 2000).
<i>Atriplex sturtii</i>		LR-nt	-	-		SW	{3rC-} ; In the MAC Bioregion, known from the Rainbow Valley area (White <i>et al.</i> , 2000).

<i>Atriplex velutinella</i>	Sandhill Saltbush	LR-lc	-	-		W; SW; FG	{GSD (western range limit), MAC (apparently rare) }
<i>Austrostipa aquarii</i>		LR-nt	-	MAC / NT		E; W (WMNP); SW; W/GG	{3RC-} ; Endemic to the MAC Bioregion; Lat./Long. range based on current records is 80 km and 325 km respectively (White <i>et al.</i> , 2000).
<i>Austrostipa centralis</i>		LR-nt	-	MAC / NT		E; W (WMNP); W/GG	{3RC-} ; Most records are from the MAC Bioregion; Regarded as endemic to the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Austrostipa feresetacea</i>		LR-nt	-	MAC / NT		E; W (WMNP)	{3RC-} ; Most records are from the MAC Bioregion; Regarded as endemic to the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Austrostipa trichophylla</i>		DD	-	-		SW	{3rC-} ; In the MAC Bioregion, occurs south-east of Watarrka near the bioregion boundary (White <i>et al.</i> , 2000).
<i>Babingtonia behrii</i>	Broom Baeckea	LR-nt	-	-		W (WMNP)	{3r} ; In the Northern Territory, confined to Mount Zeil (White <i>et al.</i> , 2000).
<i>Brachyachne prostrata</i>		LR-nt	-	-		W	{3r} ; Unreserved.
<i>Bulbostylis pyriformis</i>		LR-nt	-	-	D:o Latz, 1996 (Group 4)	E; W (WMNP); W/GG	{3rC-} ; Central Australian populations represent a significant disjunction from those in NSW and QLD (White <i>et al.</i> , 2000).
<i>Caesia</i> sp. Mt Zeil (G. Griffin 05/Oct/91)		LR-nt	-	-		W (WMNP)	{3r} ; Distribution outside the Northern Territory is unresolved; The taxonomy of this genus is poor and it is difficult to be certain whether this is an undescribed taxon or a highly disjunct population of an interstate taxon (White <i>et al.</i> , 2000; D. Albrecht Herbarium PWSNT, pers. comm. 2006); Unreserved.
<i>Calandrinia pleiopetala</i>		LR-nt	-	-		W/GG	{3rC-} ; Restricted to the arid zone (White <i>et al.</i> , 2000).
<i>Calotis squamigera</i>		LR-nt	-	-		E	{3r} ; Western limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000); Unreserved.
<i>Carex fascicularis</i>	Tassel Sedge	DD	-	-	D:o Latz, 1996 (Group 3)	W (WMNP)	{3rC-} ; Taxon is naturally rare in the arid zone because of its fidelity to a rare habitat (i.e. permanent spring-fed pools) (White <i>et al.</i> , 2000).
<i>Cassinia laevis</i>		LR-nt	-	-	D:a/o	W (WMNP)	{3r} ; Highly disjunct population known from Mount Zeil in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Chthonocephalus pseudevax</i>	Ground-heads	LR-nt	-	-	Latz, 1996 (Group 1)	SW; W/GG	{3r} ; Northern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Clematis decipiens</i>	Small-leaved Clematis	LR-nt	-	-	D:o Latz, 1996 (Group 3)	W (WMNP)	{3rC-} ; In the Northern Territory, only known from 3 locations in the West MacDonnell Ranges; Central Australian populations are remote from a predominantly sub-coastal distribution (White <i>et al.</i> , 2000). Note: previously <i>Clematis</i> sp. <i>West MacDonnells</i> (B.G. Thomson 3568) (D. Albrecht Herbarium PWSNT, pers. comm. 2007).
<i>Commicarpus australis</i>		LR-nt	-	-		W	{3r} ; In the MAC Bioregion, occurs on sandplains and dunefields fringing the bioregion in the far west (White <i>et al.</i> , 2000); Unreserved.
<i>Corynotheca licrota</i>	Club-fruit Lily	LR-nt	-	-	D:a/o Latz, 1996 (Group 4)	SW; FG	{3rC-} ; Northern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Cratystylis centralis</i>	Bluebush Daisy	LR-nt	-	NT	Latz, 1996 (Group 2)	W (WMNP); SW	{3RC-} ; Endemic to the southern NT; Lat./Long. range based on current records is 200 km and 315 km respectively; Western limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Cuphonotus andraeanus</i>	Downy Mother-of-Misery	LR-nt	-	-		SW; W/GG	{3r} ; Arid zone endemic.

<i>Dodonaea microzyga</i> var. <i>microzyga</i>	Brilliant Hopbush	LR-nt	-	-		SW; W/GG	{3r} ; Often associated with other rare and uncommon taxa, and is an important structural component of a highly restricted and possibly threatened plant community; In the MAC Bioregion, occurs north and south-east of Watarrka (White <i>et al.</i> , 2000). Note : has also been recorded in Watarrka National Park by Chris Brock, Bio. Con. PWSNT.
<i>Doodia caudata</i> var. <i>caudata</i>	Small Rasp Fern	LR-nt	-	-	D:o Maconochie, 1981 Latz, 1996 (Group 3)	W (WMNP); W/GG	{3rC-} ; Relictual mesic fern (Duguid, 2005). Predominantly temperate to sub-tropical distribution world-wide; Restricted to 4 known populations in the MacDonnell Ranges and George Gill Range; Due to its likely ability to disperse over large distances, it is uncertain whether these populations are relicts or a more recent arrival (White et al., 2000).
<i>Dysphania sphaerosperma</i>		LR-nt	-	-		W (WMNP)	{3r} ; In the MAC Bioregion, occurs near Alice Springs (White <i>et al.</i> , 2000).
<i>Einadia nutans</i> subsp. <i>nutans</i>		LR-nt	-	-	D:o/a Latz, 1996 (Group 4)	W (WMNP); SW	{3rC-} ; all records from the arid zone are disjunct from an extensive, predominantly south-eastern Australian distribution (White <i>et al.</i> , 2000). Note disjunct code changed from D:o to D:o/a (D. Albrecht Herbarium PWSNT, pers. comm. 2006).
<i>Elacholoma hornii</i>	Elacholoma	LR-lc	-	-		W; FG; W/GG	{3rC-}
<i>Eleocharis pusilla</i>	Small Spike-rush	LR-nt	-	-	D:o Latz, 1996 (Group 3)	W/GG	{3rC-} ; Only known in central Australia from the George Gill Range (Duguid, 2005). Primarily confined to coastal and sub-coastal, sub-tropical and temperate regions of Australia (White <i>et al.</i> , 2000).
<i>Eucalyptus lucens</i>	Shiny-leaved Mallee	LR-nt	-	MAC / NT	Maconochie, 1981	W (WMNP); SW; FG	{3rC-} ; Endemic to the MAC Bioregion; Confined to the western side of the MAC Bioregion where its distribution is occasional and patchy; Lat./Long. range based on current records is 82 km and 137 km respectively (White <i>et al.</i> , 2000).
<i>Eucalyptus thozetiana</i>	Thozets Box	LR-nt	-	-	D:a/o Latz, 1996 (Group 3)	E	{3rC-} ; Known extent in the Northern Territory is about 80 km east to west and 40 km north to south; In central Australia, often grows in association with other rare or restricted plant taxa; Western limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Glinus orygioides</i>		LR-nt	-	-		W	{3r} ; In the MAC Bioregion, occurs near Alice Springs (White <i>et al.</i> , 2000); Unreserved.
<i>Glischrocaryon aureum</i> var. <i>angustifolium</i>	Yellow Popflower	LR-nt	-	-	D:o/a	W; SW; W/GG	{3rC-} ; Northern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000). Note : disjunct code changed from D:o to D:o/a (D. Albrecht Herbarium PWSNT, pers. comm. 2006).
<i>Glycine</i> sp. <i>Talipata</i> (B.G. Thomson 699)		LR-nt	-	-		W	{3rC-} Note : disjunct code of D:o deleted (D. Albrecht Herbarium PWSNT, pers. comm. 2006).
<i>Goodenia angustifolia</i>		LR-nt	-	-		W (WMNP)	{3r} ; Western limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000)
<i>Goodenia faucium</i>	Mt Liebig Goodenia	LR-nt	-	MAC / NT	Maconochie, 1981	W	{2R} ; Endemic to the MAC Bioregion; Highly restricted range; Confined to 2 steep mountainous massifs in the Mount Liebig area in the far west of the bioregion; Lat./Long. range based on current records is 17 km and 27 km respectively (White <i>et al.</i> , 2000); Unreserved.
<i>Goodenia glandulosa</i>		LR-nt	-	-		W/GG	{3rC-}
<i>Goodenia havilandii</i>		LR-nt	-	-		SW; W/GG	{3rC-}
<i>Goodenia occidentalis</i>		LR-nt	-	-		SW	{3rC-} ; In the MAC Bioregion, occurs south-east of Watarrka near the bioregion boundary (White <i>et al.</i> , 2000).

<i>Gossypium nelsonii</i>		LR-nt	-	-		E; W (WMNP)	{3RC-} ; Discontinuous distribution is of biogeographic interest; Southern and western limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Grevillea pterosperma</i>	Desert Grevillea	LR-nt	-	-		W/GG	{3r}
<i>Gymnanthera cunninghamii</i>		LR-nt	-	-		W	{3r} ; In the MAC Bioregion, occurs in the far west of the bioregion; Southern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000); Unreserved.
<i>Hakea grammatophylla</i>		LR-nt	-	NT	Maconochie, 1981	E; W (WMNP); SW; W/GG	{3RC-} ; Majority of records are from the MAC Bioregion where it is locally abundant in the Chewings Range; Also known from Whites Range, Amarata Range, Krichauff Ranges and George Gill Range; 2 disjunction populations in the BRT Bioregion; Lat./Long. range based on current records is 270 km and 360 km respectively; Eastern, western and southern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Hakea standleyensis</i>	Mountain Hakea	LR-nt	-	MAC / NT	Maconochie, 1981	W (WMNP)	{3RC-} ; Endemic to the MAC Bioregion; Confined to the Chewings and Heavitree Ranges; Lat./Long. range based on current records is 15 km and 92 km respectively (White <i>et al.</i> , 2000).
<i>Haloragis odontocarpa f. octoforma</i>	Mulga Nettle	LR-lc	-	-		SW	{MAC (apparently rare)} ; In the NT, occurs just north of Watarrka in the MAC Bioregion (White <i>et al.</i> , 2000); Unreserved.
<i>Harmsiodoxa puberula</i>	Scented Cress	LR-lc	-	-		W (WMNP); W/GG	{3rC-} ; Western limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Harnieria kempeana subsp. kempeana</i>		LR-lc	-	NT		E; W (WMNP); SW; FG	{3RC-} ; Endemic to the southern NT (White <i>et al.</i> , 2000). Note: recently collected in the West MacDonnell Ranges National Park by Chris Brock, Bio. Con. PWSNT; may represent a new record for the West MacDonnell Ranges National Park.
<i>Hibbertia glaberrima</i>	Guinea Flower	LR-lc	-	-		W (WMNP); SW; FG; W/GG	{3rCa} ; Endemic to the rocky ranges of central Australia; Can be locally abundant (White <i>et al.</i> , 2000). Mentioned in Chippendale (1963) – no evidence to suggest this is a relic taxon.
<i>Hibbertia sp. Chewings Range</i> (P.K. Latz 10660)		LR-nt	-	MAC / NT	Maconochie, 1981	W (WMNP); SW	{3RC-} ; Endemic to the MAC Bioregion; Known from the Krichauff and Chewings Ranges; Lat./Long. range based on current records is 57 km and 96 km respectively (White <i>et al.</i> , 2000).
<i>Hibiscus sturtii var. sturtii</i>	Sturts Hibiscus	LR-nt	-	-	D:o Latz, 1996 (Group 1)	E	{3rC-} ; Occurrence in the MacDonnell Ranges is a significant outlying population (White <i>et al.</i> , 2000).
<i>Histiopteris incisa</i>	Bats Wing Fern; Oak Fern	LR-nt	-	-	D:o Keast, 1959 Chippendale, 1963 Maconochie, 1981 Latz, 1996 (Group 3)	W (WMNP); W/GG	{3rC-} ; Relictual mesic fern (Duguid, 2005) . Predominantly near-coastal distribution in Australia; Considered rare in central Australia; 7 known populations, all occurring in deep gullies and gorges in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Hydrocotyle sp. Harts Range</i> (A.C. Beauglehole 44720)	Harts Range Pennywort	DD	-	MAC / NT	Maconochie, 1981	E	{2R} ; Endemic to the MAC Bioregion; Only 2 collections in the Harts and Strangway Ranges respectively which are 80 km apart (White <i>et al.</i> , 2000); Unreserved.
<i>Hydrocotyle sp. Watarrka</i> (A.C. Beauglehole 20471)	Watarrka Pennywort	LR-nt	-	MAC / NT		W/GG	{2RC-} ; Endemic to the springs and rockholes of the George Gill Range, MAC Bioregion (Duguid, 2005); Lat./Long. range based on current records is 13 km and 19 km respectively (White <i>et al.</i> , 2000).
<i>Isotropis centralis</i>		LR-lc	-	-		W (WMNP); W/GG	{3rC-} ; Northern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000).

<i>Juncus continuus</i>		LR-nt	-	-	D:o Latz, 1996 (Group 3)	W (WMNP); W/GG	{3rC-} ; Rare in the Northern Territory / central Australia (Duguid, 2005). All populations in the southern NT are biogeographically interesting disjunctions from the taxon's eastern Australian coastal distribution (White <i>et al.</i> , 2000).
<i>Juncus kraussii subsp. australiensis</i>	Sea Rush	LR-nt	-	-	D:o Latz, 1996 (Group 3)	W (WMNP); FG; W/GG	{3rC-} ; Rare in Northern Territory / central Australia (Duguid, 2005). Mainly coastal distribution with scattered occurrences in the arid zone (White <i>et al.</i> , 2000).
<i>Lachnagrostis filiformis</i>	Blowngrass	LR-nt	-	-	D:o Latz, 1996 (Group 3)	W (WMNP); SW; W/GG	{3rC-} ; Taxon has a predominantly temperate distribution; Locations in the MacDonnell Ranges are disjunct and biogeographically significant (White <i>et al.</i> , 2000). Note ; previously <i>Agrostis avenacea</i> (D. Albrecht Herbarium PWSNT, pers. comm. 2007).
<i>Lawrencia squamata</i>		LR-nt	-	-		W (WMNP)	{3r} – new code (was {3k}).
<i>Leucopogon sonderensis</i>	Mt Sonder Beard-heath	LR-nt	-	NT	D:a Maconochie, 1981 Latz, 1996 (Group 2)	W (WMNP)	{3RC-} ; Endemic to the southern NT; Lat./Long. range based on current records is 146 km and 404 km respectively; Only representative of the heath (Epacridaceae) family in central Australia; Relict of wetter, more temperate climates in the past (White <i>et al.</i> , 2000) (relict at the species level).
<i>Lindsaea ensifolia subsp. ensifolia</i>	Freshwater Fern; Common Wedge Fern	LR-ic	-	-	D:o Keast, 1959 Chippendale, 1963 Latz, 1996 (Group 3)	W (WMNP); W/GG	{sthNT (rare)} ; Relictual mesic fern (Duguid, 2005; Latz <i>et al.</i> , 1981); George Gill Range (Latz <i>et al.</i> , 1981; Morton <i>et al.</i> , 1995). A predominantly tropical fern (White <i>et al.</i> , 2000).
<i>Lomandra patens</i>	Irongrass	LR-nt	-	-	D:o Chippendale, 1963 Latz, 1996 (Group 3)	W (WMNP); SW; FG	{3RCa} ; In the southern NT, confined to sheltered environments in the Chewings, James and Waterhouse Ranges and environs (White <i>et al.</i> , 2000).
<i>Lythrum wilsonii</i>		LR-nt	-	-		W	{3r} ; In the MAC Bioregion, occurs near Alice Springs; Western limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000); Unreserved.
<i>Maireana brevifolia</i>	Small-leaf Bluebush	LR-nt	-	-	D:o/a Latz, 1996 (Group 1)	W (WMNP); SW	{3rC-} Note ; disjunct code changed from D:o to D:o/a (D. Albrecht Herbarium PWSNT, pers. comm. 2006).
<i>Maireana carnosa</i>	Cottony Bluebush	LR-nt	-	-		E; W (WMNP); SW	{3rC-} ; Known from seven separate populations, most of which are disjunct outliers of the main range of the species (White <i>et al.</i> , 2000).
<i>Maireana sedifolia</i>	Pearl Saltbush	DD	-	-	D:a Latz, 1996 (Group 1)	W/GG	{3rC-} ; A significant and possibly relictual population of this taxon occurs in the Watarrka area; Northern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Melaleuca faucicola</i>	Desert Bottlebrush	LR-nt	-	NT	Maconochie, 1981	E; W (WMNP); SW; W/GG	{3RC-} ; Endemic to the southern NT; Confined to discrete areas of suitable habitat in the West and East MacDonnell Ranges, Harts Range and Petermann Ranges; Lat./Long. range based on current records is 180 km and 520 km respectively; Eastern and northern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000). Note ; previously <i>Callistemon pauciflorus</i> (D. Albrecht Herbarium PWSNT, pers. comm. 2007).
<i>Menkea sphaerocarpa</i>		LR-nt	-	-		W/GG	{3rC-} ; Fragmented distribution in the arid zone (White <i>et al.</i> , 2000).

<i>Mirbelia ramulosa</i>		LR-nt	-	-	D:o/a Latz, 1996 (Group 1)	W/GG	{3rC-} ; Listed as a relict of the George Gill Range by Latz <i>et al.</i> (1981) & Morton <i>et al.</i> (1995). In the Northern Territory, confined to a small highly localised population in the George Gill Range; Eastern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000). Note disjunct code changed from D:a/o to D:o/a (D. Albrecht Herbarium PWSNT, pers. comm. 2006).
<i>Monotaxis luteiflora</i>		LR-nt	-	-		W; SW	{3r} ; Fragmented continental distribution (White <i>et al.</i> , 2000); Unreserved.
<i>Mukia</i> sp. Glen Helen Station (P.K. Latz 6587)	Kangaroo Balls	LR-lc	-	NT		W	{MAC (apparently rare), TAN} (northern, eastern and western range limit), GSD (southern range limit)); Endemic to the southern NT; Lat./Long. range based on current records is 560 km and 650 km respectively (White <i>et al.</i> , 2000); Unreserved.
<i>Murchisonia volubilis</i>		DD	-	-		SW	{3r} ; Arid zone endemic (White <i>et al.</i> , 2000); 100% of NT records occur in the MAC Bioregion; Unreserved.
<i>Najas marina</i>	Prickly Waternymph	LR-nt	-	-	D:o Latz, 1996 (Group 3)	SW; FG	{3rC-} ; Confined to permanent freshwater or brackish wetlands; Widely distributed nationally; Arid zone records are highly disjunct (White <i>et al.</i> , 2000). Could be a recent introduction (D. Albrecht Herbarium PWSNT, pers. comm. 2006).
<i>Neurachne tenuifolia</i>	Mountain Mulga Grass	LR-nt	-	MAC / NT		W (WMNP); SW	{3RCa} ; Endemic to the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Olearia xerophila</i>		DD	-	-	D:o/a Latz, 1996 (Group 4)	SW	{3r} ; Possibly a biogeographically important relictual taxon in central Australia; Very rare in the southern NT where it is known from only 2 disjunct locations – Mission Gap and Waterhouse Range (White <i>et al.</i> , 2000); Unreserved. Note disjunct code changed from D:a to D:o/a (D. Albrecht Herbarium PWSNT, pers. comm. 2006).
<i>Ophioglossum lusitanicum</i>	Austral Adders Tongue	LR-nt	-	-	D:o/a Latz, 1996 (Group 1)	W (WMNP); SW; W/GG	{3rC-} ; Widely distributed in the southern NT but uncommonly encountered (White <i>et al.</i> , 2000).
<i>Ophioglossum polyphyllum</i>		LR-lc	-	-		E; W (WMNP)	{3rC-} ; Cryptic species which is relatively widely distributed but infrequently encountered (White <i>et al.</i> , 2000).
<i>Osteocarpum salsuginosum</i>	Bonefruit	LR-nt	-	-		W	{3r} ; Rarely seen or collected taxon; In the MAC Bioregion, occurs near Alice Springs (White <i>et al.</i> , 2000); Unreserved.
<i>Parietaria cardiostegia</i>		LR-nt	-	-		W (WMNP); SW	{3r} ; On the basis of herbarium records, this species is extremely rare; Northern limit of this species' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000); Unreserved?
<i>Persicaria decipiens</i>	Slender Knotweed	LR-nt	-	-	D:o Latz, 1996 (Group 3)	W/GG	{3rC-} ; Rare in the Northern Territory where it is only known from a single permanent waterhole in the George Gill Range (White <i>et al.</i> , 2000; Duguid, 2005). Widely distributed in mesic areas of Australia; Unclear if taxon is relict or more recent arrival (White <i>et al.</i> , 2000).
<i>Pimelea interioris</i>		LR-nt	-	MAC / NT		SW; FG	{2RC-} ; Endemic to the MAC Bioregion; Lat./Long. range based on current records is 22 km and 44 km respectively (White <i>et al.</i> , 2000).
<i>Pimelea microcephala</i> subsp. <i>microcephala</i>	Shrubby Riceflower	LR-nt	-	-		E; W (WMNP); SW	{3r} Note : recently collected 500 metres from the boundary of the West MacDonnell Ranges National Park on Owen Springs by Chris Brock, Bio. Con. PWSNT; it is likely that it does occur on the park.
<i>Poranthera leioperma</i>	Small Poranthera	LR-nt	-	-	D:a/o Latz, 1996 (Group 3)	SW; W/GG	{3rC-} ; Widely distributed and common in forests and woodlands of coastal areas of Australia; Rare and disjunct in the arid zone; In the MAC Bioregion, known from the George Gill Range and Tempe Downs (White <i>et al.</i> , 2000). Note : disjunct code changed from D:o to D:a/o (D. Albrecht Herbarium PWSNT, pers. comm. 2006).

<i>Poranthera triandra</i>	Tree-petal Poranthera	LR-nt	-	-	D:o Latz, 1996 (Group 3)	W/GG	{3rC-} ; In the MAC Bioregion, known from the George Gill Range (White <i>et al.</i> , 2000).
<i>Portulaca intraterranea</i>	Buttercup Pigweed	LR-lc	-	-		E	{BRT (apparently rare), MAC (apparently rare) , FIN (apparently rare)}; Unreserved.
<i>Potamogeton crispus</i>	Curly Pondweed	LR-nt	-	-	D:o	W; FG	{3rC-} ; Aquatic taxon; In the southern NT, naturally occurring populations are known from the Frew River and Boggy Hole; Also occurs in artificial waters (White <i>et al.</i> , 2000)..
<i>Psilotum nudum</i>	Skeleton Fork Fern	LR-lc	-	-	D:o Chippendale, 1963 Maconochie, 1981 Latz, 1996 (Group 3)	W (WMNP); W/GG	{sthNT (rare)} ; Relictual mesic fern (Duguid, 2005; Latz <i>et al.</i> , 1981); George Gill Range (Latz <i>et al.</i> , 1981; Morton <i>et al.</i> , 1995). Most records for this taxon in Australia are from coastal or near coastal areas; Central Australian populations are significant range disjunctions; In the MAC Bioregion, known from Watarrka and the West MacDonnell Ranges (White <i>et al.</i> , 2000).
<i>Pteris tremula</i>	Tender Brake	LR-lc	-	-	D:o Chippendale, 1963 Latz, 1996 (Group 3)	W (WMNP); W/GG	{MAC (rare)} ; Relictual mesic fern (Duguid, 2005). Generally occurs in wet forests in tropical and temperate regions of eastern Australia with minor disjunctions into arid and semi-arid areas; Apart from 1 population in Watarrka, all Northern Territory populations occur in the Chewings and Heavitree Ranges (White <i>et al.</i> , 2000).
<i>Rhodanthe laevis</i>	Smooth Sunray	LR-nt	-	-	D:o/a Latz, 1996 (Group 1)	SW	{3r} ; In the MAC Bioregion, occurs south-east of Watarrka near the bioregion boundary (White <i>et al.</i> , 2000); Unreserved.
<i>Sauropus rigens</i>		LR-nt	-	-		SW; FG	{3rC-} ; Scattered distribution in ranges and hills in arid regions of eastern Australia (White <i>et al.</i> , 2000).
<i>Scaevola sp. Mt Liebig</i> (P.K. Latz 2277)		DD	-	MAC / NT		W	{3R} ; Endemic to the MAC Bioregion; Restricted to the Mount Liebig area in the far west of the bioregion; Unreserved. Note previously <i>Scaevola graminea</i> (D. Albrecht Herbarium PWSNT, pers. comm. 2007).
<i>Sclerolaena longicuspis</i>	Long-spined Poverty Bush	LR-nt	-	-		W (WMNP)	{3r} Note : recently collected in the West MacDonnell Ranges National Park by Chris Brock, Bio. Con. PWSNT; represents a new record for both the West MacDonnell Ranges National Park and the MAC Bioregion.
<i>Sclerolaena parallelicuspis</i>	Western Copper Burr	LR-nt	-	-		W/GG	{3rC-} ; Northern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Sclerolaena parviflora</i>	Mallee Copper Burr	LR-lc	-	-		W (WMNP); SW; W/GG	{3r} ; Widely distributed across temperate arid and semi-arid areas of Australia (White <i>et al.</i> , 2000).
<i>Sedopsis filsonii</i>	Pink Rock-wort	LR-nt	-	NT	Maconochie, 1981	E; W (WMNP); W/GG	{3RC-} ; Endemic to the southern NT; Restricted to limited areas of suitable habitat principally in the greater MacDonnell Ranges; Lat./Long. range based on current records is 465 km and 346 km respectively; Eastern, western and southern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Senecio lanibracteus</i>	Bushy Groundsel	LR-lc	-	-		E; W (WMNP); W/GG	{3r} ; Confined to drier inland areas of Australia; Outlying populations occur in the MAC and BRT Bioregions (White <i>et al.</i> , 2000). Note : previously <i>Senecio cunninghamii</i> var. <i>serratus</i> (D. Albrecht Herbarium PWSNT, pers. comm. 2007).
<i>Sida everistiana</i>		LR-nt	-	-		W (WMNP)	{3r} ; Rare in the Northern Territory where it is known from a few small, widely separated populations (White <i>et al.</i> , 2000).
<i>Sida goniocarpa</i>		LR-lc	-	-		W	{3r} ; In the MAC Bioregion, occurs near Alice Springs (White <i>et al.</i> , 2000); Unreserved.

<i>Spartothamnella puberula</i>	Red-berried Stick-plant	LR-nt	-	-	D:o/a Latz, 1996 (Group 4)	E; W (WMNP); SW	{3rC-} ; Central Australian populations are disjunct from the species' main range in semi-arid regions of eastern Australia (White <i>et al.</i> , 2000).
<i>Spergularia brevifolia</i>	Desert Sand-spurrey	LR-nt	-	-		FG	{3r} ; The record near Finke Gorge National Park is considered a dubious location for this species; Unreserved? Note: previously <i>Spergularia sp. Andado</i> (A.S. Mitchell 146) (D. Albrecht Herbarium PWSNT, pers. comm. 2007).
<i>Stackhousia sp. Mt Liebig</i> (D.E. Albrecht 5837)		LR-lc	-	-		W	{TAN (eastern range limit), BRT (apparently rare), DAV (apparently rare), MAC (apparently rare) }; In the MAC Bioregion, occurs near Mount Liebig in the far west of the bioregion (White <i>et al.</i> , 2000); Unreserved.
<i>Stenanthemum centrale</i>		LR-nt	-	MAC / NT		SW; FG	{3RC-} ; Endemic to the MAC Bioregion; Lat./Long. range based on current records is 24 km and 135 km respectively (White <i>et al.</i> , 2000). Note: previously <i>Stenanthemum sp. Palm Valley</i> (P.K. Latz 10086) (D. Albrecht Herbarium PWSNT, pers. comm. 2007).
<i>Stylidium inaequipetalum</i>	Uluru Trigger Plant	LR-lc	-	-		W (WMNP); W/GG	{3RCa} ; Arid zone endemic (White <i>et al.</i> , 2000).
<i>Swainsona colutooides</i>	Bladder Swainsona	LR-nt	-	-	D:a Latz, 1996 (Group 1)	FG; W/GG	{3rC-} ; In the Northern Territory, only known from the George Gill and James Ranges; Northern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Tecticornia disarticulata</i>		LR-nt	-	-		W (WMNP)	{3rC-} ; Northern limit of this taxons' known range occurs in the MAC Bioregion near Glen Helen Gorge (White <i>et al.</i> , 2000). Note: previously <i>Sclerostegia disarticulata</i> (D. Albrecht Herbarium PWSNT, pers. comm. 2007).
<i>Tricoryne elatior</i> s.lat.	Yellow Rush Lily	LR-nt	-	-	D:o Latz, 1996 (Group 3)	W (WMNP)	{3rC-} ; Very rare in the southern NT; Central Australian populations are highly disjunct (White <i>et al.</i> , 2000).
<i>Triumfetta micracantha</i>		LR-lc	-	-		E; W	{sthNT (apparently rare)} ; In the MAC Bioregion, occurs near Mount Liebig in the far west of the bioregion; Southern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000). Note: recently recorded at Ruby Gorge by Chris Brock, Bio. Con. PWSNT.
<i>Xanthorrhoea thomtonii</i>	Desert Grass Tree; Yacka	LR-nt	-	-		SW; W/GG	{3rCa} ; Species reaches the eastern and northern limits of its known range in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Zygophyllum crassissimum</i>		LR-nt	-	-		W (WMNP)	{3RC-} – new code (was {3KC-}); Northern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000).
Flora reaching range limits in the MAC Bioregion (see also taxa under disjunct flora)							
<i>Acacia abrupta</i>		LR-lc	-	-		SW; W/GG	{MAC (eastern range limit)}
<i>Acacia basedowii</i>	Basedows Wattle	LR-lc	-	-		E; W (WMNP); SW	{MAC (northern and eastern range limit)}
<i>Aristida arida</i>		LR-lc	-	-		E; W (WMNP); SW; FG; W/GG	{BRT (northern range limit), MAC (western range limit)}
<i>Aristida biglandulosa</i>	Cane Grass Three-awn	LR-lc	-	-		E; W (WMNP); SW	{MAC (western range limit)}
<i>Aristida latzii</i>	Rock Three-awn	LR-lc	-	MAC / NT		E; W (WMNP); FG	{MAC (eastern, western, northern and southern range limits)} ; Endemic to the MAC Bioregion; Common endemic taxon (White <i>et al.</i> , 2000).

<i>Atriplex humifusa</i>	Spreading Saltbush	LR-lc	-	-		W (WMNP); SW	{ MAC (western range limit) } Note: recently collected in the West MacDonnell Ranges National Park by Chris Brock, Bio. Con. PWSNT; represents a new record for the West MacDonnell Ranges National Park.
<i>Atriplex nummularia</i> subsp. <i>nummularia</i>	Old Man Saltbush	LR-lc	-	-		E; W (WMNP); SW	{ MAC (northern range limit) }
<i>Atriplex stipitata</i>	Mallee Saltbush	LR-lc	-	-		E; W (WMNP); W/GG	{ MAC (northern range limit) }
<i>Baeckea polystemonea</i>	Desert Rock-myrtle	LR-lc	-	-	Chippendale, 1963	E; W (WMNP); SW; FG; W/GG	{CR (disjunct), MAC (northern and eastern range limit) }; Widely distributed and locally common in the greater MacDonnell Ranges; Eastern and northern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Centrolepis banksii</i>		LR-lc	-	-		W (WMNP)	{ MAC (southern range limit) }; Unreserved?
<i>Corymbia eremaea</i> subsp. <i>eremaea</i>	Mallee Bloodwood	LR-lc	-	-		W (WMNP); W/GG	{ MAC (northern range limit) }
<i>Corymbia eremaea</i> subsp. <i>oligocarpa</i>	Mallee Bloodwood	LR-lc	-	NT		E; W (WMNP)	{ MAC (western range limit) , BRT (northern range limit), FIN (southern range limit), SSD (eastern range limit)}; Endemic to the southern NT; Lat./Long. range based on current records is 200 km and 330 km respectively; Western limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Crassula colorata</i> var. <i>acuminata</i>	Dense Stonecrop	LR-lc	-	-		W (WMNP); SW; FG; W/GG	{ MAC (northern range limit) }
<i>Crassula tetramera</i>	Australian Stonecrop	LR-lc	-	-		E; W (WMNP); SW; FG; W/GG	{ MAC (northern range limit) }. Note: previously <i>Crassula sieberiana</i> subsp. <i>tetramera</i> (D. Albrecht Herbarium PWSNT, pers. comm. 2007).
<i>Cremnothammus thomsonii</i>	Cliffside Daisy	LR-lc	-	NT		E; W (WMNP); SW; FG; W/GG	{BRT (western and eastern range limit), GSD (northern range limit), MAC (southern range limit) }; Endemic to the southern NT; Common endemic taxon, largely found in the MacDonnell Ranges and outlying hills (White <i>et al.</i> , 2000).
<i>Crotalaria smithiana</i>	Yellow Rattlepod	LR-lc	-	-		E; W (WMNP); SW; W/GG	{ MAC (western range limit) }
<i>Enneapogon eremophilus</i>		LR-lc	-	-		E; W (WMNP); SW; FG	{ MAC (southern range limit) , BRT (western range limit)}
<i>Eremophea spinosa</i>		LR-lc	-	-		E; W (WMNP); SW; FG; W/GG	{TAN (northern range limit), MAC (eastern range limit) }
<i>Eremophila christophori</i>	Dolomite Fuchsia-bush	LR-lc	-	NT		E; W (WMNP); SW; FG	{CHC (northern and eastern range limit), MAC (western range limit) , SSD (southern range limit)}; Currently regarded as a Northern Territory endemic but occurs close to the QLD border; Lat./Long. range based on current records is 250 km and 590 km respectively (White <i>et al.</i> , 2000).
<i>Eucalyptus mannensis</i>	Mann Range Mallee	LR-lc	-	-		W; SW	{FIN (eastern range limit), MAC (possible northern range limit) }

<i>Eucalyptus oxymitra</i>	Sharp-capped Mallee	LR-Ic	-	-		W; SW; W/GG	{FIN (eastern range limit), MAC (northern range limit) }
<i>Gastrolobium brevipes</i>	Hill Wallflower Poison	LR-Ic	-	-		W (WMNP); SW; W/GG	{MAC (eastern range limit)}
<i>Goodenia larapinta</i>	Stick Hand-flower	LR-Ic	-	NT		W (WMNP); FG; W/GG	{TAN (northern range limit), GSD (western range limit), DAV (eastern range limit), MAC (southern range limit) }; Endemic to the southern NT; Lat./Long. range based on current records is 600 km and 460 km respectively (White <i>et al.</i> , 2000).
<i>Grevillea albiflora</i>	White Spider-flower	LR-Ic	-	-	D:a/o Latz, 1996 (Group 4)	SW	{GSD (apparently rare and western range limit), MAC (northern range limit) }; Occurs in the south-west and south-east of the MAC Bioregion including Rainbow Valley (White <i>et al.</i> , 2000).
<i>Juncus sp. MacDonnell Ranges</i> (B.G. Thomson 3412)		LR-Ic	-	NT?		E; W (WMNP); SW; FG; W/GG	{MAC (eastern, western, northern and southern range limit)} ; ? Possibly occurs in the Flinders Ranges in SA (D. Albrecht Herbarium PWSNT, pers. comm. 2006).
<i>Maireana spongiocarpa</i>		LR-Ic	-	-		E; W (WMNP); SW	{BRT (northern range limit), MAC (western range limit) }
<i>Nicotiana excelsior</i>	Pituri; Wild Tobacco	LR-Ic	-	-		W (WMNP)	{GSD (apparently rare), MAC (northern range limit) }
<i>Nicotiana megalosiphon subsp. sessilifolia</i>	Long-flowered Tobacco	LR-Ic	-	-		E; W (WMNP); FG	{MAC (western range limit)}
<i>Pleurosorus subglandulosus</i>	Clubbed Blanket Fern	LR-Ic	-	-	D:o/a Latz, 1996 (Group 3)	E; W (WMNP)	{MAC (northern range limit)} ; Relictual mesic fern (Duguid, 2005). Mostly occurs in inland areas of western VIC, NSW, south-eastern SA and south-west WA, with disjunct populations in central Australia, the majority of which occur in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Prostanthera sericea</i>	Silver-leaf Mint-bush	LR-Ic	-	-		W (WMNP); SW; FG	{MAC (northern range limit)}
<i>Psydrax suaveolens</i>	Mulga Native Currant	LR-Ic	-	-		E; W (WMNP); SW; W/GG	{TAN (northern range limit), MAC (eastern range limit) }. Note: previously <i>Canthium lineare</i> (D. Albrecht Herbarium PWSNT, pers. comm. 2007).
<i>Rulingia magniflora</i>	Pink Fire-bush	LR-Ic	-	-		E; W (WMNP); SW; FG; W/GG	{MAC (northern range limit)} ; Mentioned in Chippendale (1963) and Maconochie (1981) – no evidence to suggest this is a relic taxon.
<i>Scaevola ovalifolia</i>	Bushy Fan-flower	LR-Ic	-	-		W (WMNP); FG	{MAC (western range limit)}
<i>Scaevola parvibarbata</i>		LR-Ic	-	-		E; SW	{MAC (western range limit) , CHC (northern range limit)}; Unreserved.
<i>Solanum eardleyae</i>		LR-Ic	-	-		E; W (WMNP); W/GG	{MAC (northern range limit)}
<i>Swainsona canescens</i>	Grey Swainsona	LR-Ic	-	-		E; W (WMNP); SW	{MAC (eastern range limit) , BRT (northern range limit)}
<i>Tecticornia verrucosa</i>	Mungilpa	LR-Ic	-	-		SW	{MAC (eastern range limit)} ; In the MAC Bioregion, occurs in the Rainbow Valley area (White <i>et al.</i> , 2000).

<i>Tephrosia lasiochlaena</i>	Paratephrosia	LR-Ic	-	-		W	{ MAC (southern range limit) }; In the MAC Bioregion, occurs in the vicinity of Mount Liebig in the far west of the bioregion; Southern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000). Note : previously <i>Paratephrosia lanata</i> (D. Albrecht Herbarium PWSNT, pers. comm. 2007).
<i>Thyridolepis multiculmis</i>		LR-Ic	-	-		W/GG	{ MAC (northern range limit) }
<i>Tribulus hirsutus</i>		LR-Ic	-	-		W (WMNP)	{ MAC (eastern range limit) }
<i>Triodia triaristata</i>		LR-Ic	-	-		E	{ MAC (western range limit) , BRT (northern range limit), SSD (southern range limit)}
<i>Vittadinia virgata</i>		LR-Ic	-	-		W	{ MAC (southern range limit) }; In the MAC Bioregion, occurs in the far west of the bioregion (White <i>et al.</i> , 2000).
Disjunct flora occurring in the MAC Bioregion							
<i>Acacia minutifolia</i>	Small-leaved Flying-saucer Bush	LR-Ic	-	-		W; SW	{ MAC (disjunct and eastern range limit) , TAN (northern range limit)}; The 2 isolated populations in the MAC Bioregion are of biogeographic and ecological interest (White <i>et al.</i> , 2000); Unreserved.
<i>Adiantum hispidulum</i> var. <i>hispidulum</i>	Rough Maidenhair	LR-Ic	-	-	D:o Keast, 1959 Chippendale, 1963 Maconochie, 1981 Latz, 1996 (Group 3)	W (WMNP); SW; W/GG	{ sthNT (disjunct) }; Relictual mesic fern (Duguid, 2005). Known from mesic environments world-wide; Naturally rare in the southern NT where 6 out of 7 populations occur in the MAC Bioregion; Unclear if taxon is relict or more recent arrival (White <i>et al.</i> , 2000).
<i>Alectryon oleifolius</i> subsp. <i>elongatus</i>	Bullockbush	LR-Ic	-	-	D:o/a Latz, 1996 (Group 1)	W (WMNP); SW; FG; W/GG	{ MAC (disjunct and western range limit) , FIN (disjunct and apparently rare)}
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Rough Speargrass	LR-Ic	-	-		E; W (WMNP)	{ MAC (disjunct) , SSD (disjunct)}
<i>Bothriochloa bladhii</i> subsp. <i>bladhii</i>	Forest Bluegrass	LR-Ic	-	-	D:o Latz, 1996 (Group 1)	W (WMNP); SW	{ sthNT (disjunct) }; Populations in the southern NT are highly disjunct from the main range of this taxon (White <i>et al.</i> , 2000).
<i>Cheilanthes brownii</i>	Northern Rock-fern	LR-Ic	-	-		SW; W/GG	{ MAC (disjunct) }
<i>Convolvulus remotus</i>		LR-Ic	-	-	D:o/a Latz, 1996 (Group 1)	E; W (WMNP); FG	{ MAC (disjunct) , SSD (disjunct)}
<i>Cyanthillium cinereum</i> s.lat.	Vernonia	LR-Ic	-	-		E; W (WMNP)	{ MAC (disjunct) , BRT (disjunct), DAV (disjunct), TAN (disjunct)}
<i>Cyclosorus interruptus</i>	Creeping Swamp Fern	LR-Ic	-	-	D:o Latz, 1996 (Group 3)	W (WMNP); W/GG	{ sthNT (disjunct) }; Relictual mesic fern (Duguid, 2005; Latz <i>et al.</i> , 1981); George Gill Range (Latz <i>et al.</i> , 1981; Morton <i>et al.</i> , 1995). Widely distributed and common fern in mesic tropical and sub-tropical environments; In the Northern Territory, known from 2 highly disjunct localised populations at Watarrka (White <i>et al.</i> , 2000), and more recently from the Chewings Range in the West MacDonnell Ranges National Park. Note : collected in 2006 from a spring in the Chewings Range by Chris Brock, Bio. Con. PWSNT; represents a new record for the West MacDonnell Ranges National Park.
<i>Cymbopogon refratus</i>	Barbed-wire Grass	LR-Ic	-	-	D:o Latz, 1996 (Group 3)	W (WMNP)	{ sthNT (disjunct and apparently rare) }; Widespread in the eastern half of Australia; In the Northern Territory, known only from a highly disjunct and biogeographically significant population in the Mount Giles area (White <i>et al.</i> , 2000).

<i>Cyperus bifax</i>	Downs Nutgrass	LR-lc	-	-		E; W; FG	{MAC (disjunct)}
<i>Cyperus castaneus</i>		LR-lc	-	-		W/GG	{sthNT (disjunct)} Note disjunct code of D:o deleted (D. Albrecht Herbarium PWSNT, pers. comm. 2006).
<i>Cyperus exaltatus</i>	Giant Sedge	LR-lc	-	-	D:o/a Latz, 1996 (Group 1)	W (WMNP); FG	{MAC (disjunct)}
<i>Cyperus nervulosus</i>		LR-lc	-	-		W	{SSD (disjunct), MAC (disjunct) }; In the MAC Bioregion, occurs near Alice Springs (White <i>et al.</i> , 2000); Unreserved. Note : disjunct code of D:o deleted (D. Albrecht Herbarium PWSNT, pers. comm. 2006).
<i>Cyperus polystachyos</i>	Bunchy Sedge	LR-lc	-	-	D:o Latz, 1996 (Group 3)	W (WMNP)	{BRT (rare and disjunct), MAC (disjunct) }; Disjunct in the southern NT and largely confined to rocky waterholes in the West MacDonnell Ranges (White <i>et al.</i> , 2000).
<i>Desmodium campylocaulon</i>	Creeping Tick-trefoil	LR-lc	-	-		W	{BRT (disjunct), MAC (disjunct) }; In the MAC Bioregion. occurs on the northern side of the MacDonnell Ranges (White <i>et al.</i> , 2000).
<i>Dysphania platycarpa</i>		LR-lc	-	-		W	{BRT (disjunct and northern range limit), GSD (disjunct and northern range limit), MAC (disjunct) }; In the MAC Bioregion, occurs near Alice Springs (White <i>et al.</i> , 2000).
<i>Eriochloa procera</i>	Spring Grass	LR-lc	-	-	D:o	W (WMNP)	{sthNT (disjunct and apparently rare)} ; Widely distributed tropical grass; Known from 1 small, discrete population in the West MacDonnell Ranges (White <i>et al.</i> , 2000).
<i>Eucalyptus minniritchi</i>	Round-leaved Mallee	LR-lc	-	-	D:a Latz, 1996 (Group 4)	W (WMNP); SW	{MAC (disjunct)} ; Northern and eastern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000). Note : previously <i>Eucalyptus orbifolia</i> subsp. <i>orbifolia</i> (D. Albrecht Herbarium PWSNT, pers. comm. 2007).
<i>Fimbristylis nuda</i>		LR-lc	-	-		W	{sthNT (disjunct and apparently rare)} ; In the MAC Bioregion, occurs in the far west of the bioregion (White <i>et al.</i> , 2000); Unreserved.
<i>Fimbristylis sieberana</i>	Spring Fringe-rush	LR-lc	-	-	D:o Latz, 1996 (Group 3)	W (WMNP); FG; W/GG	{sthNT (disjunct)} ; Rare in the southern NT where it occurs in sheltered areas near water; In the MAC Bioregion, known from Watarrka, Finke Gorge and Glen Helen (White <i>et al.</i> , 2000).
<i>Glycine falcata</i>		LR-lc	-	-		W (WMNP)	{BRT (disjunct), MAC (disjunct) }
<i>Gompholobium polyzygum</i>		LR-lc	-	-		W	{DAV (northern and eastern range limit), BRT (disjunct), GSD (disjunct), MAC (disjunct) }; In the MAC Bioregion, occurs in the far west of the bioregion (White <i>et al.</i> , 2000).
<i>Gomphrena cunninghamii</i>		LR-lc	-	-		W (WMNP); FG	{MAC (disjunct), DAV (disjunct), CHC (disjunct)}
<i>Heliotropium conocarpum</i>	White Heliotrope	LR-lc	-	-		E	{MAC (disjunct and southern range limit), BRT (disjunct)} Note : disjunct code of D:o deleted (D. Albrecht Herbarium PWSNT, pers. comm. 2006).
<i>Imperata cylindrica</i>	Blady Grass	LR-lc	-	-	D:o Latz, 1996 (Group 3)	W (WMNP); FG; W/GG	{sthNT (disjunct and apparently rare)} ; Common in higher rainfall areas of Australia; In the MAC Bioregion, known from the West MacDonnell Ranges, Palm Valley and Watarrka (White <i>et al.</i> , 2000).
<i>Iseilema macrantherum</i>	Bull Flinders Grass	LR-lc	-	-		E	{BRT (disjunct and apparently rare), MAC (disjunct and apparently rare)} ; Unreserved.
<i>Josephinia eugeniae</i> s.lat.	Josephinia Burr	LR-lc	-	-		W; SW; FG	{FIN (disjunct), MAC (disjunct) , MGD (apparently rare), SSD (disjunct)}

<i>Kennedia prorepens</i>	Purple-flowered Pea Vine	LR-lc	-	-		W (WMNP)	{ MAC (disjunct and apparently rare) , BRT (disjunct and apparently rare)}
<i>Lomandra leucocephala</i> <i>subsp. robusta</i>	Woolly Matrush; Snowball Grass	LR-lc	-	-		W; SW	{TAN (disjunct and northern range limit), MAC (disjunct) , GSD (disjunct)}
<i>Melaleuca trichostachya</i>	Narrow-leaved Paperbark	LR-lc	-	-		W (WMNP); FG	{ MAC (disjunct and western range limit) , FIN (apparently rare)}
<i>Neptunia monosperma</i>	Sensitive Plant	LR-lc	-	-		W	{BRT (disjunct but possibly introduced), MAC (disjunct but possibly introduced) } In the MAC Bioregion, occurs near Alice Springs (White <i>et al.</i> , 2000).
<i>Ottelia ovalifolia</i>	Swamp Lily	LR-lc	-	-	D:o Latz, 1996 (Group 3)	FG; W/GG	{ sthNT (disjunct) }; True aquatic taxon – only known in central Australia from the George Gill Range and Palm Valley area (Duguid, 2005; Latz <i>et al.</i> , 1981; Morton <i>et al.</i> , 1995). Unknown if this taxon is a relict or a more recent colonist (White <i>et al.</i>, 2000).
<i>Persicaria lapathifolia</i>	Pale Knotweed	LR-lc	-	-	D:o/a Latz, 1996 (Group 3)	W (WMNP); FG	{ MAC (disjunct) }; Wide but fragmented distribution in Australia; Populations in the MAC Bioregion are highly disjunct (White <i>et al.</i> , 2000). Note disjunct code changed from D:o to D:o/a (D. Albrecht Herbarium PWSNT, pers. comm. 2006).
<i>Phragmites australis</i>	Common Reed	LR-lc	-	-		W (WMNP); SW; FG; W/GG	{ sthNT (disjunct and apparently rare) }; True aquatic taxon – only known in central Australia from the George Gill Range, the upper Finke River system, and northern SA mound springs (Duguid, 2005).
<i>Plumbago zeylanica</i>	Plumbago	LR-lc	-	-	D:o Chippendale, 1963 Latz, 1996 (Group 4)	W (WMNP)	{ sthNT (disjunct) }; Widely distributed in mesic tropics and sub-tropics; Very rare disjunct relict taxon in the southern NT ; In the MAC Bioregion, occurs in granite hills north of Alice Springs (White <i>et al.</i> , 2000).
<i>Polycarpaea involuocrata</i>		LR-lc	-	-		SW; FG; W/GG	{ MAC (disjunct and southern range limit) , DAV (disjunct), GSD (disjunct)}
<i>Polymeria ambigua</i>	Creeping Polymeria	LR-lc	-	-		W (WMNP)	{ MAC (disjunct and southern range limit) , BRT (disjunct)} Note disjunct code of D:o deleted (D. Albrecht Herbarium PWSNT, pers. comm. 2006).
<i>Radyera farragei</i>	Bush Hibiscus	LR-lc	-	-	D:a/o Latz, 1996 (Group 1)	E; W (WMNP); SW	{FIN (disjunct), MAC (disjunct) , SSD (disjunct)}
<i>Rotala occultiflora</i>		LR-lc	-	-		E; W	{BRT (disjunct), GSD (disjunct), MAC (disjunct) , TAN (disjunct)}; Unreserved? Note disjunct code of D:o deleted (D. Albrecht Herbarium PWSNT, pers. comm. 2006).
<i>Schoenus falcatus</i>		LR-lc	-	-	D:o Latz, 1996 (Group 3)	W/GG	{ sthNT (disjunct and apparently rare) }; Rare sedge in southern NT / central Australia (Duguid 2005); Listed as a relict of the Gorge Gill Range by Latz <i>et al.</i> (1981) & Morton <i>et al.</i> (1995). Mainly found in the wet-dry tropics; Southern NT records are significant disjunctions; Only 1 population in the MAC Bioregion from Watarrka (White <i>et al.</i> , 2000).
<i>Sclerolaena calcarata</i>	Red Copper Burr	LR-lc	-	-		W (WMNP)	{BRT (disjunct), MAC (disjunct) } Note recently collected east of the Hugh River (clay sites) in the West MacDonnell Ranges National Park by Chris Brock, Bio. Con. PWSNT; represents a new record for the West MacDonnell Ranges National Park.
<i>Sporobolus virginicus</i>	Salt Couch; Sand Couch	LR-lc	-	-		W (WMNP)	{ sthNT (disjunct) }
<i>Swainsona oligophylla</i>		LR-lc	-	-		W/GG	{CHC (disjunct), MAC (disjunct) , TAN (disjunct)}

<i>Trema tomentosa</i> var. <i>aspera</i>	Peach-leaved Poison Bush	LR-lc	-	-	D:o Chippendale, 1963 Latz, 1996 (Group 3)	E; W (WMNP); SW	{TAN (apparently rare), GSD (disjunct), MAC (disjunct) , BRT (disjunct)}; Predominantly coastal and sub-coastal distribution; In the southern NT, locally common but restricted to uncommon habitats such as sheltered rock-faces and gorges (White <i>et al.</i> , 2000). Note: previously <i>Trema tomentosa</i> var. <i>viridis</i> (D. Albrecht Herbarium PWSNT, pers. comm. 2007).
<i>Triglochin hexagonum</i>	Six-point Arrowgrass	LR-lc	-	-	D:a/o Latz, 1996 (Group 4)	SW; FG	{FIN (apparently rare and disjunct), MAC (disjunct) , BRT (disjunct), TAN (disjunct)}
<i>Vallisneria annua</i>		LR-lc	-	-	D:o/a	W/GG	{sthNT (disjunct)} ; True aquatic taxon – the George Gill Range is the only recorded location in the MAC Bioregion (Duguid, 2005). <i>Vallisneria spiralis</i> listed as a relict by Latz <i>et al.</i> (1981) is no longer recognised in the Northern Territory – records assigned to <i>V. spiralis</i> are now either <i>V. annua</i> or <i>V. nana</i> (White <i>et al.</i> , 2000).
<i>Vittadinia sulcata</i>		LR-lc	-	-		E; W (WMNP); SW	{MAC (disjunct) , BRT (disjunct), SSD (disjunct)}
<i>Zornia muriculata</i> subsp. <i>angustata</i>		LR-lc	-	-	Latz, 1996 (Group 3)	W (WMNP)	{sthNT (disjunct)} ; Occurs predominantly in northern Australia; In the MAC Bioregion, known from the West MacDonnell Ranges (White <i>et al.</i> , 2000); Possibly a biogeographically significant occurrence in central Australia. Note: disjunct code of D:o deleted (D. Albrecht Herbarium PWSNT, pers. comm. 2006).

Flora threatened in the southern NT that occur in the MAC Bioregion

<i>Christella dentata</i>	Binung	LR-lc	-	-	D:o Latz, 1996 (Group 3)	W (WMNP)	{sthNT (threatened)} ; Widely distributed in mesic environments; In the Northern Territory, known only from a single location in the Chewings Range; Unclear if taxon is a relict or more recent immigrant (White <i>et al.</i> , 2000).
<i>Dicranopteris linearis</i> var. <i>linearis</i>	Hay Rake Fern	LR-lc	-	-	D:o Maconochie, 1981 Latz, 1996 (Group 3)	W (WMNP)	{sthNT (threatened)} ; Pan-tropical distribution; In the Northern Territory, confined to 3 highly localised populations in the Mount Giles area; Possibly relictual in central Australia (White <i>et al.</i> , 2000).
<i>Eleocharis geniculata</i>		LR-lc	-	-	D:o Latz, 1996 (Group 3)	FG	{sthNT (threatened)} ; Very rare taxon in the arid zone; Known from 2 locations in the Palm Valley area adjacent to spring-fed permanent or near-permanent water (White <i>et al.</i> , 2000).

Poorly known flora occurring in the MAC Bioregion

<i>Acacia helmsiana</i>		DD	-	-		SW	{3k} ; In the MAC Bioregion, occurs just west of Watarrka (White <i>et al.</i> , 2000); Unreserved.
<i>Acacia</i> sp. <i>Krichauff Range</i> (A. Soos 241)	Krichauff Range Wattle	DD	-	MAC / NT		SW	{2K} ; Endemic to the Krichauff Ranges in the MAC Bioregion; Lat./Long. range based on current records is 2 km and 5 km respectively (White <i>et al.</i> , 2000); Unreserved.
<i>Amyema miraculosa</i> subsp. <i>boormanii</i>	Fleshy Mistletoe	DD	-	-		W (WMNP); SW	{3k} ; In the MAC Bioregion, known from Rainbow Valley (White <i>et al.</i> , 2000). Note: recently recorded in the West MacDonnell Ranges National Park by Chris Brock, Bio. Con. PWSNT; represents a new record for the West MacDonnell Ranges National Park.
<i>Arabidella trisecta</i>	Shrubby Cress	DD	-	-		E; W (WMNP); SW	{3kC-} Note: recently collected in the West MacDonnell Ranges National Park by Chris Brock, Bio. Con. PWSNT; represents a new record for the West MacDonnell Ranges National Park.
<i>Astrebla lappacea</i>	Curly Mitchell Grass	DD	-	-		E	{3k} ; Unreserved.
<i>Atriplex crassipes</i> var. <i>crassipes</i>		DD	-	-		E	{3k}

<i>Bulbine alata</i>	Native Leek	LR-lc	-	-		SW; W/GG	{3k} ; In the MAC Bioregion, occurs south-east of Watarrka near the bioregion boundary (White <i>et al.</i> , 2000). Note has also been collected in Watarrka National Park by Chris Brock, Bio. Con. PWSNT.
<i>Calandrinia disperma</i>		DD	-	-		SW	{3k} ; In the MAC Bioregion, occurs south-east of Watarrka near the bioregion boundary (White <i>et al.</i> , 2000); Unreserved.
<i>Calandrinia polyandra</i>	Parakeelya	DD	-	-		W (WMNP)	{3kC-} ; MAC Bioregion record may be a misidentification (White <i>et al.</i> , 2000).
<i>Calotis cymbacantha</i>	Showy Burr-daisy	LR-lc	-	-		SW; FG; W/GG	{3kC-}
<i>Calotis kempei</i>		LR-lc	-	-		E; SW	{3k}
<i>Centipeda crateriformis</i>		LR-lc	-	-		W; W/GG	{3k}
<i>Centipeda pleiocephala</i>		LR-lc	-	-		W; FG; W/GG	{3kC-}
<i>Chloris pumilio</i>		DD	-	-	D:o/a	W	{3kC-} Note disjunct code changed from D:o to D:o/a (D. Albrecht Herbarium PWSNT, pers. comm. 2006).
<i>Comesperma viscidulum</i>		DD	-	-	Chippendale, 1963	W (WMNP); SW; W/GG	{3kC-} ; Poorly known and rarely seen taxon mainly occurring on dunes and sandplains; Encroaches into the southern and western parts of the MacDonnell Ranges; Eastern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Corchorus pumilio</i>		LR-lc	-	-	D:o	W (WMNP)	{3kC-} ; In the MAC Bioregion, occurs at Simpson's Gap and Heavitree Range (White <i>et al.</i> , 2000).
<i>Corchorus walcottii</i>	Woolly Corchorus	LR-lc	-	-		W (WMNP)	{3k} ; Eastern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Crotalaria dissitiflora</i> var. <i>dissitiflora</i>	Grey Rattlepod	DD	-	-	D:o/a	E; W (WMNP)	{3k} ; Western limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000). Note disjunct code changed from D:o to D:o/a (D. Albrecht Herbarium PWSNT, pers. comm. 2006). Note recently collected in the West MacDonnell Ranges National Park by Chris Brock, Bio. Con. PWSNT; may represent a new record for the West MacDonnell Ranges National Park.
<i>Cymbopogon dependens</i>	Cliff Lemon-scented Grass	DD	-	-		E; W (WMNP)	{3kC-}
<i>Daucus glochidiatus</i> var. <i>Alluvium</i> (D.E. Albrecht 8771)	Australian Carrot	LR-lc	-	-		W	{3k}
<i>Daucus glochidiatus</i> var. <i>Clay edge</i> (P.K. Latz 16656)	Australian Carrot	LR-lc	-	-		W (WMNP)	{3k} Note recently collected east of the Hugh River (clay sites) in the West MacDonnell Ranges National Park by Chris Brock, Bio. Con. PWSNT; represents a new record for both the West MacDonnell Ranges National Park and the MAC Bioregion.
<i>Daucus glochidiatus</i> var. <i>Hill frontage</i> (D.E. Albrecht 5489)	Australian Carrot	LR-lc	-	-		W	{3k}
<i>Daucus glochidiatus</i> var. <i>Mulga hills</i> (D.E. Albrecht 11618)	Australian Carrot	DD	-	-		W	{3k} ; May be endemic to the MacDonnell Ranges Bioregion but it is too premature to say with confidence (D. Albrecht Herbarium PWSNT, pers. comm. 2006).
<i>Daviesia arthropoda</i>		LR-lc	-	-	Chippendale, 1963	SW; W/GG	{3kCa} ; Widely distributed but populations highly localised; Now known from nearly 20 locations in the Northern Territory (White <i>et al.</i> , 2000).
<i>Enneapogon intermedius</i>		DD	-	-		E; W (WMNP)	{3k}
<i>Eremophila alternifolia</i>	Narrow-leaf Fuchsia Bush	LR-nt	-	-		SW	{3k} ; Unreserved.

<i>Eremophila elderi</i>	Sticky Fuchsia-bush	LR-lc	-	-		E; W (WMNP)	{3k}
<i>Eremophila ovata</i>	Krichauff Range Fuchsia	LR-lc	-	NT	Maconochie, 1981	W; SW; W/GG	{3k}; Endemic to the southern NT; Occurs in open shrublands of the greater West MacDonnell Ranges; Lat./Long. range based on current records is 85 km and 80 km respectively (White <i>et al.</i> , 2000).
<i>Eriachne benthamii</i>	Swamp Wanderrie	LR-lc	-	-		W (WMNP)	{3kC-} Note: recently collected east of the Hugh River (clay sites) in the West MacDonnell Ranges National Park by Chris Brock, Bio. Con. PWSNT; represents a new record for both the West MacDonnell Ranges National Park and the MAC Bioregion.
<i>Erodium angustilobum</i>		DD	-	-		W (WMNP)	{3kC-} Note: recently collected in the West MacDonnell Ranges National Park by Chris Brock, Bio. Con. PWSNT; represents a new record for both the West MacDonnell Ranges National Park and the MAC Bioregion.
<i>Euphorbia sarcostemmoides</i>	False Caustic Bush	LR-nt	-	-	Maconochie, 1981	W (WMNP); SW; FG; W/GG	{3KCa}; In the Northern Territory, restricted to the MacDonnell Ranges Bioregion (White <i>et al.</i> , 2000).
<i>Gilesia biniflora</i>	Gilesia	LR-nt	-	-		W (WMNP)	{3k} Note: recently collected east of the Hugh River (clay sites) in the West MacDonnell Ranges National Park by Chris Brock, Bio. Con. PWSNT; represents a new record for both the West MacDonnell Ranges National Park and the MAC Bioregion.
<i>Goodenia anfracta</i>	Zig-zag Hand-flower	DD	-	-		W (WMNP)	{3KC-}; In the MAC Bioregion, main occurrence is in the vicinity of the mound springs near Glen Helen (White <i>et al.</i> , 2000).
<i>Heliotropium inexplicitum</i>		DD	-	-		W/GG	{3k}
<i>Indigofera sp. Areyonga</i> (D.J. Parsons 30)		DD	-	MAC / NT		SW	{2K}; Endemic to the MAC Bioregion; Only known from 4 small populations in the upper catchment of Palm Creek in the Krichauff Ranges (White <i>et al.</i> , 2000); Unreserved.
<i>Isolepis australiensis</i>		DD	-	-		W; SW; W/GG	{3kC- (cryptic)}; Populations at Ilparpa Swamp may be threatened by off-road vehicle activity (White <i>et al.</i> , 2000).
<i>Ixiochlamys integerrima</i>		LR-nt	-	-		E; W (WMNP)	{3K} Note: recently collected east of the Hugh River (clay sites) in the West MacDonnell Ranges National Park by Chris Brock, Bio. Con. PWSNT; represents a new record for the West MacDonnell Ranges National Park.
<i>Ixiochlamys nana</i>	Small Fuzzweed	DD	-	-		W (WMNP)	{3kC-}
<i>Kohautia australiensis</i>		LR-lc	-	-		W (WMNP)	{3KC-}; Very rarely encountered taxon (White <i>et al.</i> , 2000).
<i>Leiocarpa tomentosa</i>	Woolly Ixiolaena	DD	-	-	D:o/a	W (WMNP); SW; FG; W/GG	{3kC-}; Northern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Logania centralis</i>		DD	-	-		SW; W/GG	{3KC-}
<i>Lythrum paradoxum</i>		DD	-	-	D:o	E; W (WMNP)	{3k}
<i>Maireana lobiflora</i>	Lobed Bluebush	DD	-	-		W (WMNP)	{3k}
<i>Maireana schistocarpa</i>		LR-lc	-	-		E; W (WMNP)	{3k}; Western limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000).

<i>Nephrolepis arida</i>	Desert Fishbone-fern	DD	-	-	D:o Maconochie, 1981 Latz, 1996 (Group 3)	W	{3KC-} ; Sparsely distributed fern of considerable biogeographic interest; In the Northern Territory, known from a relatively small area in the far west MacDonnell Ranges in the Mount Palmer area (White <i>et al.</i> , 2000); Unreserved.
<i>Newcastelia bracteosa</i>		LR-lc	-	-		SW	{3k} ; In the MAC Bioregion, occurs south-east of Watarrka (White <i>et al.</i> , 2000); Unreserved.
<i>Oxalis radicata</i>		DD	-	-	D:o Latz, 1996 (Group 3)	W (WMNP); W/GG	{3KC-} ; In the Northern Territory, only occurs in the MAC Bioregion; Records are scattered and represent significant disjunctions from sub-coastal predominantly temperate populations (White <i>et al.</i> , 2000).
<i>Paractaenum novae-hollandiae</i> subsp. <i>reversum</i>	Reverse Grass; Reflexed Panic	DD	-	-		SW; FG	{3kC-}
<i>Phyllanthus erwinii</i>		LR-lc	-	-		W (WMNP); W/GG	{3k}
<i>Phyllanthus oblanceolatus</i>		LR-lc	-	-		E; W (WMNP); SW	{3KC-} ; Northern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Pityrodia loricata</i>		DD	-	-	D:a Latz, 1996 (Group 1)	W	{3K} ; In the Northern Territory, only known from Missionary Plains west of the MacDonnell Ranges; Eastern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000); Unreserved.
<i>Plantago cunninghamii</i>	Sago Weed	DD	-	-		W (WMNP)	{3k} Note: recently collected east of the Hugh River (clay sites) in the West MacDonnell Ranges National Park by Chris Brock, Bio. Con. PWSNT; represents a new record for the West MacDonnell Ranges National Park.
<i>Plantago multiscapa</i>		DD	-	-		E	{3k} ; In the MAC Bioregion, occurs on the plains north of Mount Pfitzner; Northern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000); Unreserved.
<i>Pluchea</i> sp. <i>Ormiston</i> (H.D.V. Prendegast 66)		DD	-	MAC / NT		W (WMNP)	{3K} ; Presently regarded as endemic to the MAC Bioregion; Lat./Long. range based on current records is 37 km and 265 km respectively (White <i>et al.</i> , 2000).
<i>Polystichum proliferum</i>	Mother Shield Fern	NE	-	-	*	W/GG	{3k} ; * Listed as a relict in Latz <i>et al.</i> (1981) & Morton <i>et al.</i> (1995). However, known only from a single record from the George Gill Range in 1962 – has not been rediscovered despite searches and the record is considered dubious (White <i>et al.</i> , 2000). If it is at Watarrka then it is a relict (D. Albrecht Herbarium PWSNT, pers. comm. 2006).
<i>Ptilotus aevoides</i>		LR-nt	-	-		W	{3k} ; Unreserved.
<i>Samolus ermaeus</i>	Water Pimpernel	LR-lc	-	-	Maconochie, 1981	E; W (WMNP); SW; FG	{3KC-} ; Almost exclusively an arid zone endemic with the majority of known populations occurring in the arid Northern Territory; In the Northern Territory, confined to the ranges of the MAC Bioregion and the Dulcie Ranges (White <i>et al.</i> , 2000).
<i>Sauropus ramosissimus</i>		LR-lc	-	-		W (WMNP); SW; W/GG	{3KC-} ; West MacDonnell Ranges is probably the stronghold of this taxon in Australia (White <i>et al.</i> , 2000).
<i>Scaevola humilis</i>		DD	-	-		W	{3k} ; Sole Northern Territory record occurs in the far west of the MAC Bioregion; Northern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000); Unreserved.
<i>Schoenus centralis</i>		DD	-	-	D:o	W	{3K} ; Nationally rare sedge (Duguid, 2005); In the MAC Bioregion, occurs at Talipata in the far west of the bioregion; Unreserved.

<i>Sclerolaena birchii</i>	Galvinised Burr	LR-nt	-	-		W; SW	{3k}; Unreserved.
<i>Sclerolaena limbata</i>	Pearl Copper Burr	DD	-	-		W	{3k}; In the Northern Territory, known from a single record in the MAC Bioregion near Heavitree Gap in Alice Springs (White <i>et al.</i> , 2000); Unreserved.
<i>Senna phyllodinea</i>	Silver Cassia	LR-nt	-	-		SW	{3k}; In the MAC Bioregion, occurs on the footslopes of the James Range (White <i>et al.</i> , 2000); Unreserved.
<i>Sida laevis</i>		LR-lc	-	-		W	{3kC-}; In the MAC Bioregion, occurs near Alice Springs (White <i>et al.</i> , 2000).
<i>Sida sp. Bond Springs</i> (D.J. Nelson 2538)		LR-lc	-	-		E	{3kC-}
<i>Sida sp. Golden Calyces</i> (G.L. Leach 1966)		LR-lc	-	-		W/GG	{3kC-}
<i>Sida sp. Hale River</i> (P.K. Latz 12036)		DD	-	NT		E	{3K}; Currently regarded as endemic to the southern NT (may exist in QLD); Lat./Long. range based on current records is 89 km and 304 km respectively; Southern and western limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Sida sp. Huckitta</i> (P.K. Latz 12592)		LR-lc	-	-		W (WMNP)	{3k} Note ; recently collected in the West MacDonnell Ranges National Park by Chris Brock, Bio. Con. PWSNT; represents a new record for both the West MacDonnell Ranges National Park and the MAC Bioregion.
<i>Sida sp. Watarrka</i> (D.E. Albrecht 8672)		DD	-	NT?		W/GG	{3k}; Distribution outside arid Northern Territory is unknown (White <i>et al.</i> , 2000). It occurs close to the WA border but no records for WA as yet (at least under the name the NT uses) (D. Albrecht Herbarium PWSNT, pers. comm. 2006).
<i>Swainsona acuticarinata</i>		DD	-	-		FG	{3kC-}; Northern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Swainsona disjuncta</i>		DD	-	-	D:a Latz, 1996 (Group 4)	W	{3k}; In the MAC Bioregion, occurs in the vicinity of Mount Liebzig in the far west of the bioregion; Northern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000); Unreserved.
<i>Swainsona purpurea</i>		DD	-	-		W/GG	{3k}
<i>Teucrium grandiusculum</i> <i>subsp. grandiusculum</i>		LR-nt	-	-		W; SW; FG	{3KC-}; Northern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Threlkeldia inchoata</i>	Tall Bonefruit	DD	-	-		W	{3k}; In the MAC Bioregion, occurs in the Alice Springs area (population at Coolabah Swamp has not been relocated); Northern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000); Unreserved.
<i>Triumfetta centralis</i>		LR-lc	-	-		W (WMNP)	{3k}; In the MAC Bioregion, occurs near Alice Springs (White <i>et al.</i> , 2000).
<i>Triumfetta johnstonii</i>		LR-lc	-	-		W	{3k}; In the MAC Bioregion, occurs in the vicinity of Mount Liebzig in the far west of the bioregion; Southern limit of this taxons' known range occurs in the MAC Bioregion (White <i>et al.</i> , 2000).
<i>Triumfetta maconochieana</i>		LR-lc	-	-		W	{3k}; In the MAC Bioregion, occurs in the vicinity of Mount Liebzig in the far west of the bioregion (White <i>et al.</i> , 2000); Unreserved.
<i>Verbena macrostachya</i>	Beach Vitex	DD	-	-		W (WMNP); SW; FG	{3k}
<i>Vittadinia pustulata</i>		LR-lc	-	-	D:o/a	W (WMNP); SW	{3kC-} Note ; disjunct code changed from D:o to D:o/a (D. Albrecht Herbarium PWSNT, pers. comm. 2006).

<i>Zygophyllum rowelliae</i>		DD	-	-		W	{3k}; In the MAC Bioregion, occurs near Alice Springs (White <i>et al.</i> , 2000); Unreserved.
Other endemic flora – not significant							
<i>Amyema subcapitata</i>		NE	-	MAC / NT		E	{-} not significant ; Endemic to the MAC Bioregion; Known only from the type locality on the road to Trepina Gorge; Presumed to be a chance hybrid between <i>Amyema preissii</i> and <i>A. hilliana</i> which has since died out (White <i>et al.</i> , 2000).
Other recent new records for the MacDonnell Ranges Bioregion and the West MacDonnell Ranges National Park (collected by Chris Brock Bio. Con. PWSNT, in 2005)							
<i>Acacia oswaldii</i>	Umbrella Wattle	DD	-	-		(WMNP)	
<i>Sida argillacea</i>		LR-lc	-	-		(WMNP)	Collected east of the Hugh River (clay sites).
Other recent new records for the West MacDonnell Ranges National Park – taxa are not significant for the MAC Bioregion (collected by Chris Brock Bio. Con. PWSNT, in 2005)							
<i>Abutilon malvaefolium</i>	Gilgai Lantern-bush	LR-lc	-	-		(WMNP)	Collected east of the Hugh River (clay sites).
<i>Acacia hilliana</i>	Flying-saucer Bush	LR-lc	-	-		(WMNP)	
<i>Actinobole uliginosum</i>	Flannel Cudweed	LR-lc	-	-		(WMNP)	
<i>Aristida strigosa</i>	Rough Three-awn	DD	-	-		(WMNP)	
<i>Atriplex holocarpa</i>	Pop Saltbush	LR-lc	-	-		(WMNP)	
<i>Atriplex vesicaria</i>	Bladder Saltbush	LR-lc	-	-		(WMNP)	
<i>Blennodia canescens</i>	Wild Stock	LR-lc	-	-		(WMNP)	
<i>Boerhavia schomburgkiana</i>	Yipa	LR-lc	-	-		(WMNP)	Collected east of the Hugh River (clay sites).
<i>Calandrinia pumila</i>	Tiny Parakeelya	LR-lc	-	-		(WMNP)	Collected east of the Hugh River (clay sites).
<i>Centipeda thespidioides</i>	Desert Sneezeweed	LR-lc	-	-		(WMNP)	Collected east of the Hugh River (clay sites).
<i>Chenopodium auricomum</i>	Northern Bluebush	LR-lc	-	-		(WMNP)	Collected east of the Hugh River (clay sites).
<i>Chloris pectinata</i>	Comb Chloris	LR-lc	-	-		(WMNP)	Collected east of the Hugh River (clay sites).
<i>Cullen cinereum</i>	Annual Verbine	LR-lc	-	-		(WMNP)	Collected east of the Hugh River (clay sites).
<i>Cullen patens</i>	Spreading Verbine	LR-lc	-	-		(WMNP)	Collected east of the Hugh River (clay sites).
<i>Dichromochlamys dentatifolia</i>		LR-lc	-	-		(WMNP)	
<i>Eleocharis pallens</i>	Pale Spike-rush	LR-lc	-	-		(WMNP)	Collected east of the Hugh River (clay sites).
<i>Eragrostis laniflora</i>	Hairy-flowered Woollbutt	LR-lc	-	-		(WMNP)	
<i>Eragrostis olida</i>		LR-lc	-	-		(WMNP)	
<i>Eragrostis setifolia</i>	Neverfail	LR-lc	-	-		(WMNP)	Collected east of the Hugh River (clay sites).
<i>Erodium cygnorum</i>	Storkbill	LR-lc	-	-		(WMNP)	
<i>Euphorbia parvicaruncula</i>	Rough-seeded Caustic Bush	LR-lc	-	-		(WMNP)	Collected east of the Hugh River (clay sites).
<i>Goodenia berardiana</i>		LR-lc	-	-		(WMNP)	
<i>Iseilema membranaceum</i>	Small Flinders Grass	LR-lc	-	-		(WMNP)	Collected east of the Hugh River (clay sites).
<i>Leiocarpa leptolepis</i>		LR-lc	-	-		(WMNP)	Collected east of the Hugh River (clay sites).
<i>Minuria integerrima</i>	Smooth Minuria	LR-lc	-	-		(WMNP)	Collected east of the Hugh River (clay sites).
<i>Muehlenbeckia florulenta</i>	Lignum	LR-lc	-	-		(WMNP)	Collected east of the Hugh River (clay sites).
<i>Panicum laevinode</i>	Pepper Grass	LR-lc	-	-		(WMNP)	Collected east of the Hugh River (clay sites).
<i>Phyllanthus maderaspatensis</i>		LR-lc	-	-		(WMNP)	Collected east of the Hugh River (clay sites).

<i>Sida sp. Ambalindum</i> (C.R. Dunlop 2080)		LR-lc	-	-	(WMNP)	Collected east of the Hugh River (clay sites).
<i>Stenopetalum anfractum</i>	Zig-zag Plant	LR-lc	-	-	(WMNP)	
<i>Stenopetalum lineare</i>	Narrow Thread-petal	LR-lc	-	-	(WMNP)	Collected east of the Hugh River (clay sites).
<i>Streptoglossa adscendens</i>		LR-lc	-	-	(WMNP)	Collected east of the Hugh River (clay sites).
<i>Swainsona microphylla</i>	Small-leaf Swainsona	LR-lc	-	-	(WMNP)	
<i>Teucrium racemosum</i>	Grey Germander	LR-lc	-	-	(WMNP)	Collected east of the Hugh River (clay sites).
<i>Vittadinia dissecta var. hirta</i>		LR-lc	-	-	(WMNP)	
<i>Vittadinia eremaea</i>	Plains Fuzzweed	LR-lc	-	-	(WMNP)	Collected east of the Hugh River (clay sites).

Flora

Status under the *Territory Parks and Wildlife Conservation Act 2000* (TPWC Act) and/or schedules of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)

EN Endangered **LR-nt** Lower Risk-near threatened **DD** Data Deficient

VU Vulnerable **LR-lc** Lower Risk-least concern **NE** Not Evaluated

Bioregions

BRT Burt Plain Bioregion

MAC MacDonnell Ranges Bioregion

CR Central Ranges Bioregion

MGD Mitchell Grass Downs Bioregion

FIN Finke Bioregion

SSD Simpson-Strzelecki Dunefields Bioregion

GSD Great Sandy Desert Bioregion

TAN Tanami Bioregion

'Area in **MAC**' refers to the general areas in the MacDonnell Ranges Bioregion from which the taxon has been recorded:

E East of Alice Springs (ranges include East MacDonnell Ranges, Harts Range, Strangways Range, Fergusson Range).

W West of Alice Springs (ranges include West MacDonnell Ranges, Chewings Range, Heavitree Range).

(WMNP) Recorded within the West MacDonnell Ranges National Park or within 1.85 km of the park boundary.

SW South-west of Alice Springs (ranges include Krichauff Range, James Range, Waterhouse Range, Rainbow Valley)

FG Finke Gorge

W/GG Watarrka / George Gill Range

Flora Codes as in White *et al.* (2000)

Distribution Categories

1 Taxa that are known only from the type collection.

2 Taxa with a maximum geographic range within Australia of less than 100 kilometres.

3 Taxa with a geographic range within Australia exceeding 100 kilometres.

Conservation Status

X or x Presumed Extinct. These taxa have either not been found in recent years despite thorough searching, or have not been found for at least 50 years and were known only from now intensively settled areas.

V Nationally Vulnerable. These taxa are not presently endangered but are at risk of disappearing from the wild over a longer period through continued depletion or changes in ecological processes and land uses.

v Vulnerable in the Northern Territory. These taxa are not presently endangered but are at risk of disappearing from the wild over a longer period through continued depletion or changes in ecological processes and land uses.

- R** Nationally Rare. These taxa are rare but not currently considered to be threatened and may be represented by a relatively large population in a very restricted area or by smaller populations spread over a wide range.
- r** Rare in the Northern Territory. These taxa are rare but not currently considered to be threatened and may be represented by a relatively large population in a very restricted area or by smaller populations spread over a wide range.
- K** Nationally Poorly Known. These taxa may potentially belong to any threatened category but there is presently insufficient information to confidently assign codes.
- k** Poorly Known in the Northern Territory. These taxa may potentially belong to any threatened category but there is presently insufficient information to confidently assign codes.

Reservation Codes

- C** Conserved within a conservation reserve anywhere nationally.

Adequacy of Reservation Codes

- a** Considered to be adequately reserved, with a total population of 1000 plants or more known to occur within conservation reserves.
- i** Considered to be inadequately reserved, with a total population of less than 1000 plants known to occur within conservation reserves.
- Taxon has been recorded from a conservation reserve but the population size within the reserve is unknown.

Continental Disjunction Codes

- a** [Arid]. Type 'a' taxa are confined to the arid zone with one or more disjunct populations in the southern NT.
- o** [Mesic]. Type 'o' taxa have distributions that are almost exclusively outside the arid zone with one or more isolated populations in the southern NT.
This group includes taxa that are commonly known as relicts.
- a/o** [Predominantly arid]. Type 'a/o' taxa have distributions that are predominantly in the arid zone with one or more disjunct populations in the southern NT. They also have limited occurrence outside the arid zone.
- o/a** [Predominantly non-arid]. Type 'o/a' taxa have distributions that are predominantly outside the arid zone, with a proportionally small part of their range extending into the arid zone and with disjunct populations in the southern NT.

Relictual Plant Groups in Latz (1996)

- Group 1** Taxa with disjunct distributions probably resulting from recent and relatively minor climatic changes.
- Group 2** Taxa isolated for a considerable period of time, long enough to allow speciation to occur.
- Group 3** Mostly ferns, sedges and water plants occupying the most mesic areas. Most of these plants, especially the water plants, may not be true relicts, but could have dispersed into the area.
- Group 4** Taxa not restricted to sheltered areas in central Australia, and have disjunct populations of an equivalent size elsewhere in Australia.

Acronyms

- Bio. Con.** Biodiversity Conservation
- PWSNT** Parks and Wildlife Service of the Northern Territory

References used to collate table on 'Significant Flora of the MacDonnell Ranges Bioregion'

- Albrecht, D.E, Duguid, A.W. and Coulson, H. (1999). *Vascular Plant Checklist for The Southern Bioregions of the Northern Territory: Update Bulletin No. 1*. Parks and Wildlife Commission of the Northern Territory, Alice Springs.
- Chippendale, G.M. (1963). The relic nature of some central Australian plants. *Transactions of the Royal Society of South Australia*, **86**: 31–34.
- Duguid, A. (2005). *Wetlands in the Arid Northern Territory. Volume 2: Information Collated for Individual Wetlands*. A report to the Australian Government Department of the Environment and Heritage on the inventory and significance of wetlands in the arid NT. Northern Territory Government Department of Natural Resources, Environment and the Arts, Alice Springs.
- Keast, A. (1959). Relict animals and plants of the MacDonnell Ranges. *The Australian Museum Magazine*, **8(3)**: 81–86.

- Latz, P.K., Johnson, K.A. and Gillam, M.W. (1981). *A Biological Survey of the Kings Canyon Area of the George Gill Range*. Unpublished report, Conservation Commission of the Northern Territory, Alice Springs.
- Latz, P.K. (1996). Knowledge of relict plants in central Australia: a measure of botanical research during the last 100 years. In: S.R. Morton and D.J. Malvaney (Eds) *Exploring Central Australia: Society, the Environment and the 1894 Horn Expedition*. Surrey Beatty & Sons, Chipping Norton, pp. 225–229.
- Maconochie, J.R. (1981). General plant ecology and biology of the Australian arid zone. *Northern Territory Botanical Bulletin*, **4**: 1–19.
- Morton, S.R., Short, J. and Baker, R.D. (1995). Refugia for Biological Diversity in Arid and Semi-arid Australia. *Biodiversity Series, Paper No. 4*, Biodiversity Unit. Department of Environment, Sport and Territories and CSIRO, Canberra.
- Parks and Wildlife Service (Various dates & compilers). Threatened Species Information Sheets. Parks and Wildlife Service, Northern Territory Government Department of Natural Resources, Environment and the Arts (www.nt.gov.au/nreta/wildlife/threatened/index.html).
- White, M., Albrecht, D., Duguid, A., Latz, P. and Hamilton, M. (2000). *Plant Species and Sites of Botanical Significance in the Southern Bioregions of the Northern Territory; Volume 1: Significant Vascular Plants*. A report to the Australian Heritage Commission from the Arid Lands Environment Centre, Alice Springs, Northern Territory of Australia.

Significant Wetlands of the MacDonnell Ranges Bioregion

Potential wetlands for inclusion in the *Directory of Important Wetlands in Australia* (DIWA – Environment Australia, 2001) (see Duguid *et al.*, 2005).

■ = Endemic to the MAC Bioregion; ■ = Endemic to the southern NT; ■ = Relictual or possibly relictual

Wetland	Aggregation	DIWA Criteria	Ramsar Criteria	Description / Notes
National / International Significance				
Alice Springs Sewage Ponds	No	3	not assessed	Significant for regional biodiversity based on sewage pond bird records (Duguid <i>et al.</i> , 2005). Fauna: Painted Snipe <i>Rostratula benghalensis australis</i> (VU) – protected under the Ramsar Convention on Wetlands of International Importance; Freckled Duck <i>Stictonetta naevosa</i> (LR-nt).
Chewings Range Permanent Springs *	Yes	1,3	1,3	* One of two proposed sites to supersede the existing DIWA listed site 'Finke River Headwater Gorges System' (Duguid <i>et al.</i> , 2005). A number of permanent flowing springs emanating from a high quartzite range and supporting a distinctive flora and fauna and relictual fern populations in particular (Duguid <i>et al.</i> , 2005). Flora: <i>Acacia dolichophylla</i> (LR-nt); <i>Adiantum capillus-veneris</i> (VU); <i>Carex fascicularis</i> (DD); <i>Cyperus polystachyos</i> ; <i>Dicranopteris linearis</i> var. <i>linearis</i> ; <i>Doodia caudata</i> var. <i>caudata</i> (LR-nt); <i>Histiopteris incisa</i> (LR-nt); <i>Juncus continuus</i> (LR-nt); <i>Melaleuca faucicola</i> (LR-nt); <i>Psilotum nudum</i> ; <i>Pteris tremula</i> (Duguid, 2005). Fauna: Water Penny <i>Sclerocyphon fuscus</i> (Duguid, 2005).
George Gill Range Springs and Rockholes	Yes	1,3	1,3	A series of gullies draining the southern side of the George Gill Range contain permanent seepage springs and long-term rockholes that support a distinctive suite of relictual flora and fauna (Duguid <i>et al.</i> , 2005). Flora: <i>Adiantum capillus-veneris</i> (VU); <i>Baumea arthropphylla</i> (EN); <i>Cyclosorus interruptus</i> ; <i>Doodia caudata</i> var. <i>caudata</i> (LR-nt); <i>Elatine gratioloides</i> ; <i>Eleocharis pusilla</i> (LR-nt); <i>Histiopteris incisa</i> (LR-nt); <i>Hydrocotyle</i> sp. <i>Watarrka</i> (A.C. Beauglehole 20471) (LR-nt); <i>Imperata cylindrica</i> ; <i>Isolepis australiensis</i> (DD); <i>Juncus continuus</i> (LR-nt); <i>Juncus kraussii</i> subsp. <i>australiensis</i> (LR-nt); <i>Lindsaea ensifolia</i> subsp. <i>ensifolia</i> ; <i>Melaleuca faucicola</i> (LR-nt); <i>Ottelia ovalifolia</i> ; <i>Persicaria decipiens</i> (LR-nt); <i>Phragmites australis</i> ; <i>Potamogeton tricarinatus</i> ; <i>Psilotum nudum</i> ; <i>Pteris tremula</i> ; <i>Schoenus falcatus</i> ; <i>Stylidium inaequipetalum</i> ; <i>Vallisneria annua</i> (Duguid, 2005). Fauna: Water Penny <i>Sclerocyphon fuscus</i> . The assemblage of aquatic fauna is distinct from that of the nearest analogous collection of semi-permanent to permanent waters in the West MacDonnell Ranges (Davis, 1997; Duguid, 2005).
Palm Valley Area Springs, Rockholes and Palm Groves	Yes	1,3,4,5	1,2,3,4?	Long-term and possibly permanent springs, shallow rockpools and groves of Palm Valley Palm <i>Livistonia mariae</i> subsp. <i>mariae</i> in tributaries of the Finke River (principally Palm Creek and Little Palm Creek catchments) (Duguid <i>et al.</i> , 2005). <i>Livistonia mariae</i> subsp. <i>mariae</i> is VU under the TPWC Act & EPBC Act, and is relictual at the species level. Flora: <i>Eleocharis geniculata</i> ; <i>Fimbristylis sieberana</i> ; <i>Imperata cylindrica</i> ; <i>Livistonia mariae</i> subsp. <i>mariae</i> (VU); <i>Ottelia ovalifolia</i> ; <i>Phragmites australis</i> ; <i>Typha domingensis</i> (Duguid, 2005). Fauna: Glassfish (central Australia) <i>Ambassis</i> sp.; Banded Grunter <i>Amniataba percoides</i> ; Finke Goby <i>Chlamydogobius japalpa</i> (VU); Finke Hardyhead <i>Craterocephalus centralis</i> ; Spangled Perch or Grunter <i>Leiopotherapon unicolor</i> ; Desert Rainbowfish <i>Melanotaenia splendida</i> subsp. <i>tatei</i> ; Desert Gudgeon or Finke Mogurnda <i>Mogurnda larapintae</i> (LR-nt); Bony Bream <i>Nematalosa erebi</i> ; Hytri's Tandan or Catfish <i>Neosilurus hyrtlilii</i> (Duguid, 2005).

Permanent and Long-term Waterholes of the Finke River System *	Yes	1,2,3,4,5	1,2,3,4,7	<p>* One of two proposed sites to supersede the existing DIWA listed site 'Finke River Headwater Gorges System' (Duguid <i>et al.</i>, 2005).</p> <p>Eight large waterholes in the Finke River System considered to be permanent, along with various smaller permanent waterholes and non-permanent but long-term waterholes, which provide a drought refuge for 9 species of native fish, 3 of which are endemic to the Finke River System (Duguid <i>et al.</i>, 2005).</p> <p>Flora: <i>Carex fascicularis</i> (DD); <i>Fimbristylis sieberana</i>; <i>Ottelia ovalifolia</i>; <i>Phragmites australis</i>; <i>Potamogeton crispus</i> (LR-nt); <i>Potamogeton tricarinatus</i> (Duguid, 2005).</p> <p>Fauna: Glassfish (central Australia) <i>Ambassis sp.</i>; Banded Grunter <i>Amniataba percoides</i>; Finke Goby <i>Chlamydogobius japalpa</i> (VU); Finke Hardyhead <i>Craterocephalus centralis</i>; Spangled Perch or Grunter <i>Leiopotherapon unicolor</i>; Desert Rainbowfish <i>Melanotaenia splendida subsp. tatei</i>; Desert Gudgeon or Finke Mogurnda <i>Mogurnda larapintae</i> (LR-nt); Bony Bream <i>Nematalosa erebi</i>; Hytrl's Tandan or Catfish <i>Neosilurus hyrtlilii</i> (Duguid, 2005).</p>
Talipata Spring	No	1,3	3	<p>A permanent flowing freshwater spring with associated short running stream, where 3 species of relictual fern and a relictual invertebrate occur (Duguid <i>et al.</i>, 2005).</p> <p>Flora: <i>Adiantum hispidulum var. hispidulum</i>; <i>Lindsaea ensifolia subsp. ensifolia</i>; <i>Nephrolepis arida</i> (DD); <i>Schoenus centralis</i> (DD) (Duguid, 2005).</p> <p>Fauna: Water Penny <i>Sclerocyphon fuscus</i> (Duguid, 2005).</p>
National / Regional Significance				
Ilparpa Valley Wetlands	Yes	1,3,4,5	not assessed	<p>An aggregation of various wetland types: sewage ponds, Typha swamp, claypans, Wooded swamp, and long-lasting riverine waterholes. Significant for regional biodiversity based on sewage pond bird records and Dwarf Desert Spike-rush <i>Eleocharis papillosa</i> (Duguid <i>et al.</i>, 2005).</p> <p>Flora: <i>Eleocharis papillosa</i> (VU under the TPWC Act & EPBC Act) (Duguid, 2005).</p> <p>Fauna: a major centre of wetland birds and a drought refuge (Duguid, 2005).</p>
Regional Significance				
Ormiston – Glen Helen Mound Springs	Yes	1	not assessed	<p>Semi-saline springs with varying degrees of mound formation (Duguid <i>et al.</i>, 2005). A very rare wetland type and landform in the Northern Territory, which have a distinctive floral assemblage but are small and not of great importance for individual species (Duguid, 2005).</p> <p>Glen Helen Mound Springs – <i>Juncus kraussii subsp. australiensis</i> (LR-nt); <i>Sporobolus virginicus</i> (Duguid, 2005).</p> <p>Pioneer Creek Saline Mound Springs – Finke Goby <i>Chlamydogobius japalpa</i> (VU) in creek pool adjacent to the spring (Duguid, 2005).</p> <p>Ormiston Pound Seepage – <i>Arthropodium strictum</i> (LR-nt) (Duguid, 2005).</p>
Rainbow Valley Claypans	Yes	1	not assessed	<p>Two large flat claypans supporting an isolated population of <i>Tecticornia verrucosa</i> (Duguid, 2005; Duguid <i>et al.</i>, 2005).</p>
Ringwood Bluebush Swamp	No	1	not assessed	<p>A large swamp with Northern Bluebush <i>Chenopodium auricomum</i> and Lignum <i>Muehlenbeckia florulenta</i> (Duguid <i>et al.</i>, 2005).</p>

DIWA Criteria

1. It is a good example of a wetland type occurring within a biogeographic region in Australia.
2. It is a wetland which plays an important ecological or hydrological role in the natural functioning of a major wetland system/complex.
3. It is a wetland which is important as the habitat for animal taxa at a vulnerable stage in their life cycle, or provides a refuge when adverse conditions such as drought prevail.
4. The wetland supports 1% or more of the national populations of any native plant or animal taxa.
5. The wetland supports native plant or animal taxa or communities which are considered endangered or vulnerable at the national level.

Ramsar Criteria

1. A wetland should be considered internationally important if it contains a representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region
2. A wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities.
3. A wetland should be considered internationally important if it supports populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic region.
4. A wetland should be considered internationally important if it supports plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions.
7. A wetland should be considered internationally important if it supports a significant proportion of indigenous fish subspecies, species or families, life-history stages, species interactions and/or populations that are representative of wetland benefits and/or values and thereby contributes to global biological diversity.

Conservation Status

Status under the *Territory Parks and Wildlife Conservation Act 2000* (TPWC Act) and/or schedules of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)

VU Vulnerable

DD Data Deficient

LR-nt Lower Risk-near threatened

References used to collate table on 'Significant Wetlands of the MacDonnell Ranges Bioregion'

Davis, J. (1997). Conservation of aquatic invertebrate communities in central Australia. *Memoirs of the Museum of Victoria*, **56(2)**: 491–503.

Duguid, A. (2005). *Wetlands in the Arid Northern Territory. Volume 2: Information Collated for Individual Wetlands*. A report to the Australian Government Department of the Environment and Heritage on the inventory and significance of wetlands in the arid NT. Northern Territory Government Department of Natural Resources, Environment and the Arts, Alice Springs.

Duguid, A., Barnetson, J., Clifford, B., Pavey, C., Albrecht, D., Risler, J. and McNellie, M. (2005). *Wetlands in the Arid Northern Territory*. A report to the Australian Government Department of the Environment and Heritage on the inventory and significance of wetlands in the arid NT. Northern Territory Government Department of Natural Resources, Environment and the Arts, Alice Springs.

Environment Australia (2001). *A Directory of Important Wetlands in Australia*. Third Edition, Environment Australia, Canberra, Australian Capital Territory.

The Australian Society for Fish Biology Internet site (www.asfb.org.au).

Ramsar Convention Internet site (www.ramsar.org).

Sites of Botanical Significance - MacDonnell Ranges Bioregion

Overview of the MacDonnell Ranges Bioregion

Updated from White, M., Albrecht, D., Duguid, A., Latz, P. and Hamilton, M. (2000). *Plant Species and Sites of Botanical Significance in the Southern Bioregions of the Northern Territory; Volume 2: Significant Sites*. A report to the Australian Heritage Commission from the Arid Lands Environment Centre, Alice Springs, Northern Territory of Australia.

The MacDonnell Ranges Bioregion comprises an area of 38,600 square kilometres, all of which is located in the Northern Territory. It is predominantly a large geologically diverse upland comprising thick bands of east west oriented ranges. These ranges include the Heavitree, Chewings, Waterhouse, MacDonnell, Ooraminna, James, George Gill, Fergusson, Harts and Gardiner Ranges and associated outliers. Two large geological units are incorporated within the bioregion, the sedimentary rocks of the Amadeus Basin and the largely crystalline metamorphic rocks which characterise the Arunta Block. The ranges enclose several broad plains such as Missionary Plain in the western half of the bioregion and Paddys and Todd Plains in the east. Soils in areas of low relief range from earthy sands to deep loamy alluvium. Numerous spectacular gorges and valleys have been formed by faulting and denudation. The bioregion has a rich flora and supports a range of vegetation types, the most common being hummock grasslands (dominated by *Triodia* spp) and Acacia shrublands/woodlands (dominated principally by *Acacia aneura* and/or *A. kempeana*).

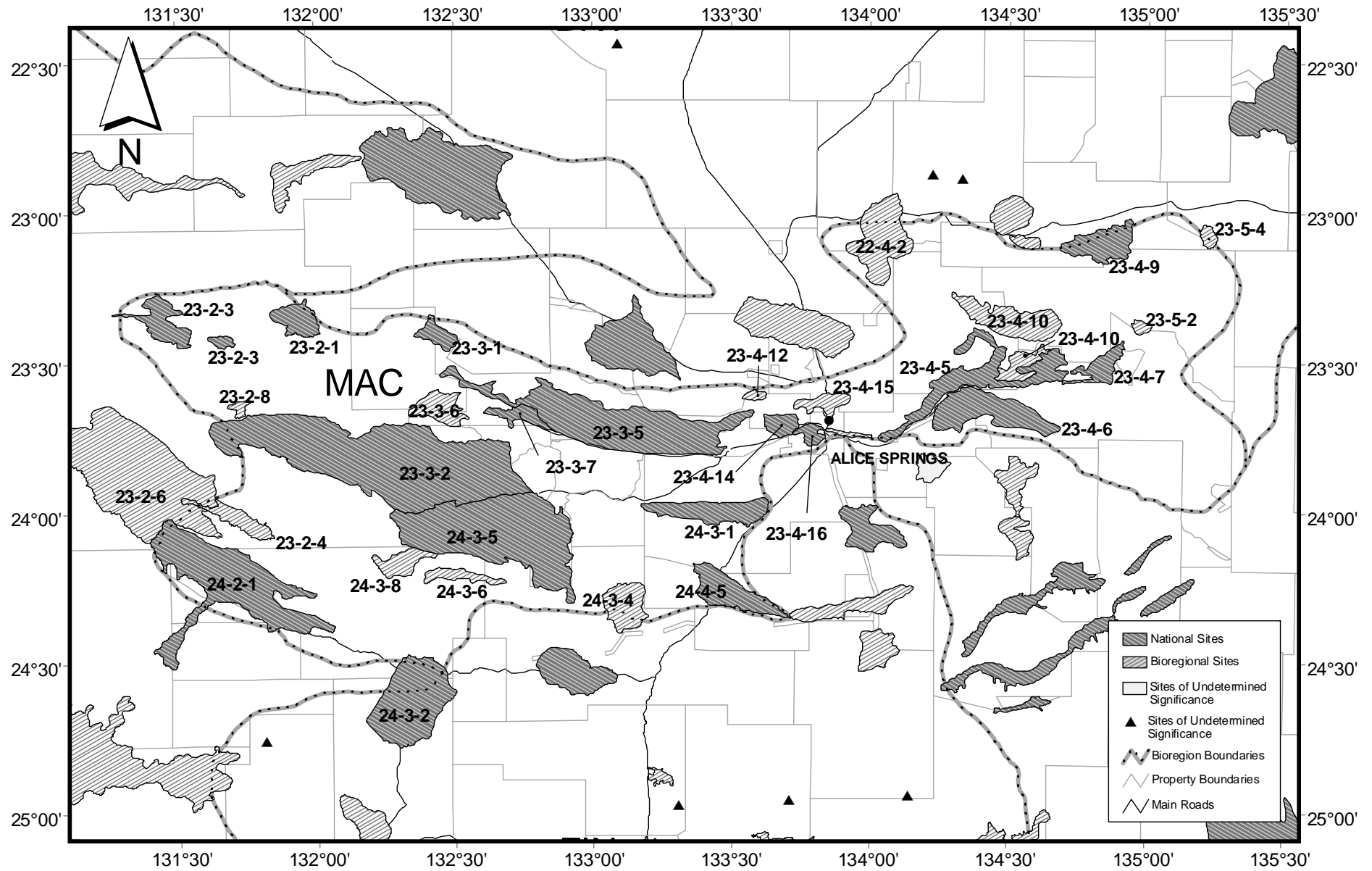
The climate of the MacDonnell Ranges Bioregion can be characterised as arid sub-tropical. However the presence of the ranges has an ameliorative effect especially in areas of low relief where run-off is concentrated and/or where the topography confers shelter from wind and sun. Frosts are common in winter at lower elevations.

The botanical values of this bioregion are relatively well known and comparatively well documented. However, much of this work has focussed on conservation reserves and adjoining areas. Many areas have had little attention, of particular note are the western James Ranges and Missionary Plain.

A total of 300 indigenous vascular plant taxa are currently considered to be of conservation significance in the MacDonnell Ranges Bioregion, including six taxa (*Sclerolaena longicuspis* {3r}, *Daucus glochidiatus* var. *Clay edge* (P.K. Latz 16656) {3k}, *Eriachne benthamii* {3kC-}, *Erodium angustilobium* {3kC-}, *Gilesia biniflora* {3k} and *Sida* sp. *Huckitta* (P.K. Latz 12592) {3k}) recently collected in 2006 from the West MacDonnell Ranges National Park by Chris Brock (Biodiversity Conservation, PWSNT). These represent new records for both the MacDonnell Ranges National Park and the MacDonnell Ranges Bioregion (see 'Significant Flora of the MacDonnell Ranges Bioregion' table).

Index to Sites in and adjacent to the MacDonnell Ranges Bioregion

Site No.	Site Name	Significance	Principal Bioregion
22-4-2	Mueller Creek Catchment	bioregional	MacDonnell Ranges
23-2-1	Mount Edward	national	MacDonnell Ranges
23-2-3	Talipata / Mount Liebig	national	MacDonnell Ranges
23-2-4	Mereenie	bioregional	MacDonnell Ranges
23-2-6	Lay Cock's Sandplain	bioregional	Great Sandy Desert
23-2-8	Idirriki	bioregional	MacDonnell Ranges
23-3-1	Mount Zeil	national	MacDonnell Ranges
23-3-2	Missionary Plain	national	MacDonnell Ranges
23-3-5	Chewings Range	national	MacDonnell Ranges
23-3-6	Goyder Pass	bioregional	MacDonnell Ranges
23-3-7	Glen Helen	national	MacDonnell Ranges
23-4-10	Hale and Paddys Plains	bioregional	MacDonnell Ranges
23-4-11	Mount Riddock	bioregional	MacDonnell Ranges
23-4-12	New Well	bioregional	MacDonnell Ranges
23-4-13	Emily Gap	bioregional	MacDonnell Ranges
23-4-14	Simpsons Gap	national	MacDonnell Ranges
23-4-15	Charles and Todd Rivers	bioregional	MacDonnell Ranges
23-4-16	Ilparpa	national	MacDonnell Ranges
23-4-5	Trephina	national	MacDonnell Ranges
23-4-6	N'Dhala	national	MacDonnell Ranges
23-4-7	Amarata Range	national	MacDonnell Ranges
23-4-9	Harts Range	national	MacDonnell Ranges
23-5-2	Mount Ruby	bioregional	MacDonnell Ranges
23-5-4	Mount Long / Mount Mary	bioregional	MacDonnell Ranges
24-2-1	Watarrka	national	MacDonnell Ranges
24-3-1	Waterhouse Range	national	MacDonnell Ranges
24-3-2	Wolluga Dunefields	national	Finke
24-3-4	Illawilla	bioregional	MacDonnell Ranges
24-3-5	Palm Valley	national	MacDonnell Ranges
24-3-6	Wild Eagle Plains	bioregional	MacDonnell Ranges
24-3-8	Bowson	bioregional	MacDonnell Ranges
24-4-5	Rainbow Valley	national	MacDonnell Ranges



Projected in Lambert Conformal Conic

SITES OF NATIONAL SIGNIFICANCE IN THE MACDONNELL RANGES BIOREGION

Site: 23-2-1 Mount Edward

Level of significance: national

Location: 23° 20' S 131° 52' E; Between Papunya and Haast Bluff

Area: 171 km² **Map sheet:** Mount Liebig SF 52-16

Bioregions: MacDonnell Ranges (MAC 92.6%) & Burt Plain (BRT 7.4%)

Tenure: Freehold - Haasts Bluff Aboriginal Land Trust (100% of site)

Description: This site includes Mount Edward, a steep quartzite mountain, and associated colluvial slopes. The site also includes the catchment of Beantree creek on the north side of Mt. Edward.

Notes: This site supports populations of a number of rare and threatened plants. This site has only been visited a few times by botanists and further survey is required to detail the values of this site. The site includes the type location of *Gymnanthera cunninghamii*.

Criteria satisfied: B1 b1 i)

Taxa of Australian significance: *Macrozamia macdonnellii* {3VCa}, *Melaleuca faucicola* {3RC- [N]}, *Olearia macdonnellensis* {3VCi [NW]}, *Samolus eremaeus* {3KC-}, *Wrixonia schultzei* {3VC- [NW]}

Taxa of NT significance: *Brachyachne prostrata* {3r only known in MAC from this site}, *Gymnanthera cunninghamii* {3r only known in MAC from this site}, *Hibbertia glaberrima* {3rCa}, *Isotropis centralis* {3rC-}, *Sida sp. Rainbow Valley* (D.E. Albrecht 6601) {3kC-}

Taxa of Southern NT (study area) significance: none

Taxa of bioregional significance: *Baeckea polystemonea* {MAC (northern and eastern range limits) [N]}, *Prostanthera sericea* {MAC (northern range limit) [N]}

Other taxa only known in MAC Bioregion from this site: *Acacia adoxa* var. *adoxo*

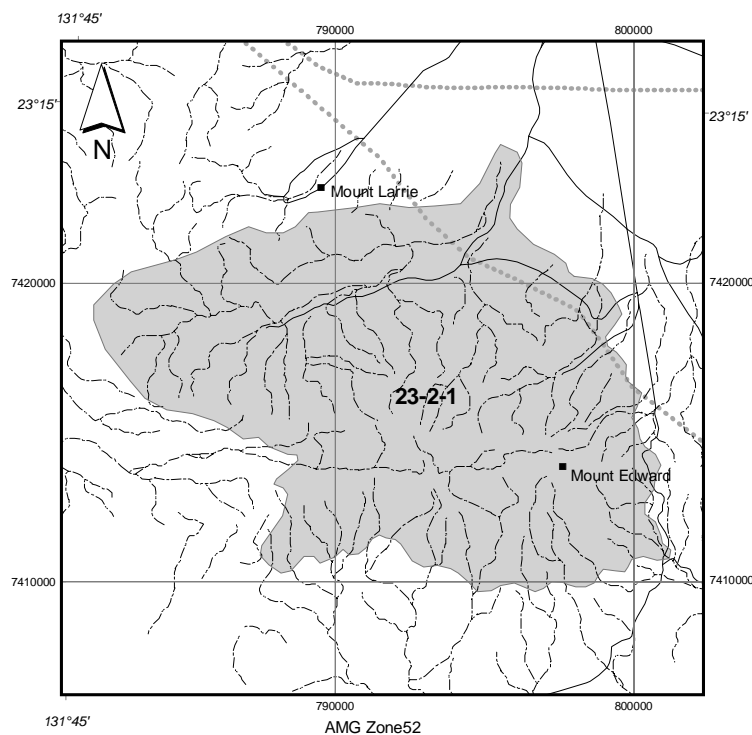
Type locations of the following were collected from the site: *Gymnanthera cunninghamii* (1978)

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

Map unit 71 (5 %): *Acacia aneura* (Mulga) tall sparse-shrubland with grassland understorey.

Map unit 43 (84 %): *Eucalyptus* low open-woodland and/or *Acacia* sparse-shrubland with *Triodia spicata* (Spike Flower Spinifex), *Triodia pungens* (Soft Spinifex) hummock grassland understorey.

Map unit 65 (11 %): *Acacia aneura* (Mulga) tall open-shrubland with *Eragrostis eriopoda* (Woollybutt) open-grassland understorey.



Site: 23-2-3 Talipata / Mount Liebig

Level of significance: national

Location: 23° 22' S 131° 28' E; Far western MacDonnell Range ca. 60 km west of Papunya.

Area: 262 km² **Map sheet:** Mount Liebig SF 52-26

Bioregions: MacDonnell Ranges (MAC 99.4%) & Great Sandy Desert (GSD 0.6%)

Tenure: Freehold - Haasts Bluff Aboriginal Land Trust (100% of site)

Description: This site includes outlying mountain areas of Heavitree quartzite in the far west of the MacDonnell Ranges Bioregion. The site consists of two discrete polygons, the boundaries of which incorporate Mount Palmer, Mount Crawford and Mount Liebig and the intervening plains and run-on areas. These ranges rise to over 1000 m ASL, which at some points are up to 500 m above the surrounding plains.

Notes: Talipata gorge has permanent springs and waterholes and these support many restricted plant taxa and highly disjunct, small populations of several mesic species. The site includes the type location for *Nephrolepis arida* and *Goodenia faucium*.

Criteria satisfied: A1 a i), A1 b i), A1 c i), A2 e i), B1 b1 i)

Taxa of Australian significance: *Goodenia faucium* {2R [NSEW] endemic to/only known from this site}, *Hakea grammatophylla* {3RC- [W]}, *Melaleuca faucicola* {3RC- [N]}, *Nephrolepis arida* {3KC- only known in study area from this site}, *Neurachne tenuifolia* {3RCa [NW]}, *Pluchea sp. Ormiston* (H.D.V. Prendegast 66) {3K [NW]}, *Scaevola sp. Mt Liebig* (P.K. Latz 2277) {3R [SW] endemic to/only known in MAC from this site}, *Schoenus centralis* {3K only known in MAC from this site}, *Teucrium grandiusculum subsp. grandiusculum* {3KC- [N]}

Taxa of NT significance: *Corchorus walcottii* {3k}, *Glycine sp. Talipata* (B.G. Thomson 699) {3rC-}, *Hibbertia glaberrima* {3rCa}, *Histiopteris incisa* {3rC-}, *Juncus continuus* {3rC-}, *Monotaxis luteiflora* {3r}, *Scaevola humilis* {3k only known in NT from this site}, *Swainsona disjuncta* {3k only known in MAC from this site}, *Triumfetta johnstonii* {3k only known in MAC from this site}, *Triumfetta maconochieana* {3k only known in MAC from this site}

Taxa of Southern NT (study area) significance: *Adiantum hispidulum var. hispidulum* {(disjunct)}, *Lindsaea ensifolia subsp. ensifolia* {(rare)}, *Triumfetta micracantha* {(apparently rare) [S] only known in MAC from this site}

Taxa of bioregional significance: *Acacia minutifolia* {MAC (disjunct)}, *Acacia strongylophylla* {MAC (northern range limit)}, *Baeckea polystemonea* {MAC (northern range limit) [N]}, *Gompholobium polyzygum* {MAC (disjunct)}, *Prostanthera sericea* {MAC (northern range limit) [N]}, *Stackhousia sp. Mt Liebig* (D.E. Albrecht 5837) {MAC (apparently rare) only known in MAC from this site}, *Tephrosia lasiochlaena* {MAC (southern range limit) [S]}, *Trema tomentosa var. aspera* {MAC (disjunct)}, *Vittadinia virgata* {MAC (southern range limit) [S] only known in MAC from this site}

Other taxa only known in MAC Bioregion from this site: *Acacia inaequilatera*, *Diplopeltis stuartii var. stuartii*, *Grevillea eriostachya*, *Heliotropium glabellum*, *Hibiscus leptocladus*, *Hibiscus sturtii var. platyklamys*, *Indigofera monophylla*, *Tribulus macrocarpus*

Type locations of the following were collected from the site: *Goodenia faucium* (1957), *Nephrolepis arida* (1984)

Botanically significant waterholes at the site: Talipata Springs

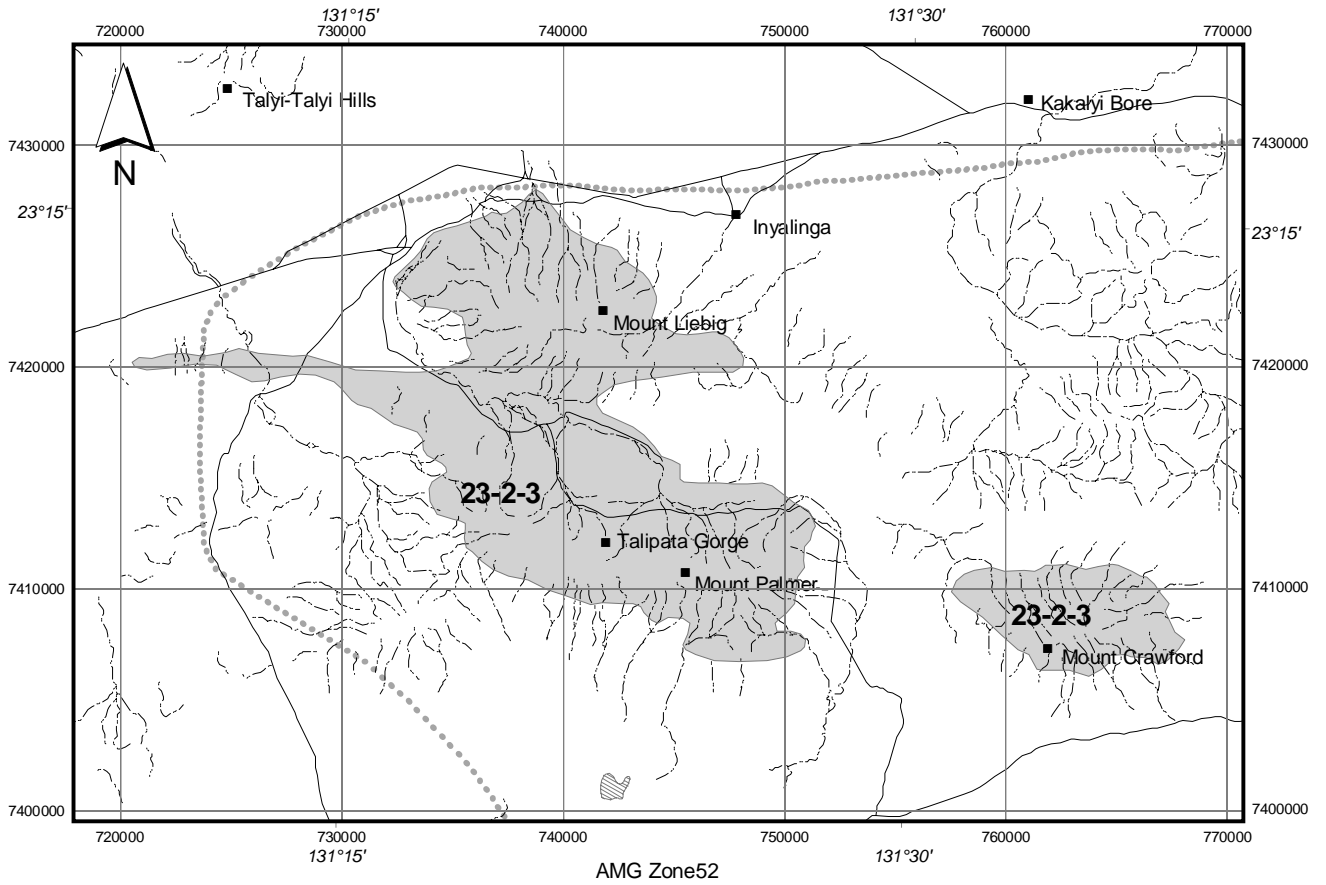
Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

Map unit 65 (10 %): *Acacia aneura* (Mulga) tall open-shrubland with *Eragrostis eriopoda* (Woolybutt) open-grassland understorey.

Map unit 59 (17 %): *Acacia estrophiolata* (Ironwood), *Atalaya hemiglauca* (Whitewood) low open-woodland with open-grassland understorey.

Map unit 71 (3 %): *Acacia aneura* (Mulga) tall sparse-shrubland with grassland understorey.

Map unit 43 (68 %): *Eucalyptus* low open-woodland and/or *Acacia* sparse-shrubland with *Triodia spicata* (Spike Flower Spinifex), *Triodia pungens* (Soft Spinifex) hummock grassland understorey.



Site: 23-3-1 Mount Zeil

Level of significance: national

Location: 23° 23' S 132° 24' E; Mount Zeil is approximately 55 km east of Haast Bluff.

Area: 104 km² **Map sheet:** Hermannsburg SF 53-13

Bioregions: MacDonnell Ranges (MAC 97.1%) & Burt Plain (BRT 2.9%)

Tenure: West MacDonnell Ranges National Park (48% of site); Pastoral Lease - Glen Helen Station (43% of site), Narwietooma Station (8% of site)

Description: This site includes the Mount Zeil massif, an isolated block composed of metamorphosed (gneissic) granite and a few minor ranges to the north of the site, which are composed of crystalline metamorphics (mainly granulite and gneiss).

Notes: This site supports many rare plants and some remarkably disjunct populations of plant taxa including *Cassinia laevis* and *Babbingtonia behrii*.

Criteria satisfied: A1 a i), A1 b i), A1 c i) , B1 b1 i)

Taxa of Australian significance: *Austrostipa centralis* {3RC-}, *Austrostipa feresetacea* {3RC- [NW]}, *Gossypium nelsonii* {3RC- [W]}, *Samolus eremaeus* {3KC-}

Taxa of NT significance: *Babingtonia behrii* {3r only known in NT from this site}, *Caesia sp. Mt Zeil* (G. Griffin 05/Oct/91) {3r only known in NT from this site}, *Cassinia laevis* {3r only known in NT from this site}, *Clematis decipiens* {3rC-}, *Corchorus walcottii* {3k [E]}, *Glycine sp. Talipata* (B.G. Thomson 699), {3rC-}, *Hibbertia glaberrima* {3rCa}, *Maireana lobiflora* {3k}, *Sida sp. Rainbow Valley* (D.E. Albrecht 6601) {3kC-}, *Spartothamnella puberula* {3rC-}

Taxa of Southern NT (study area) significance: none

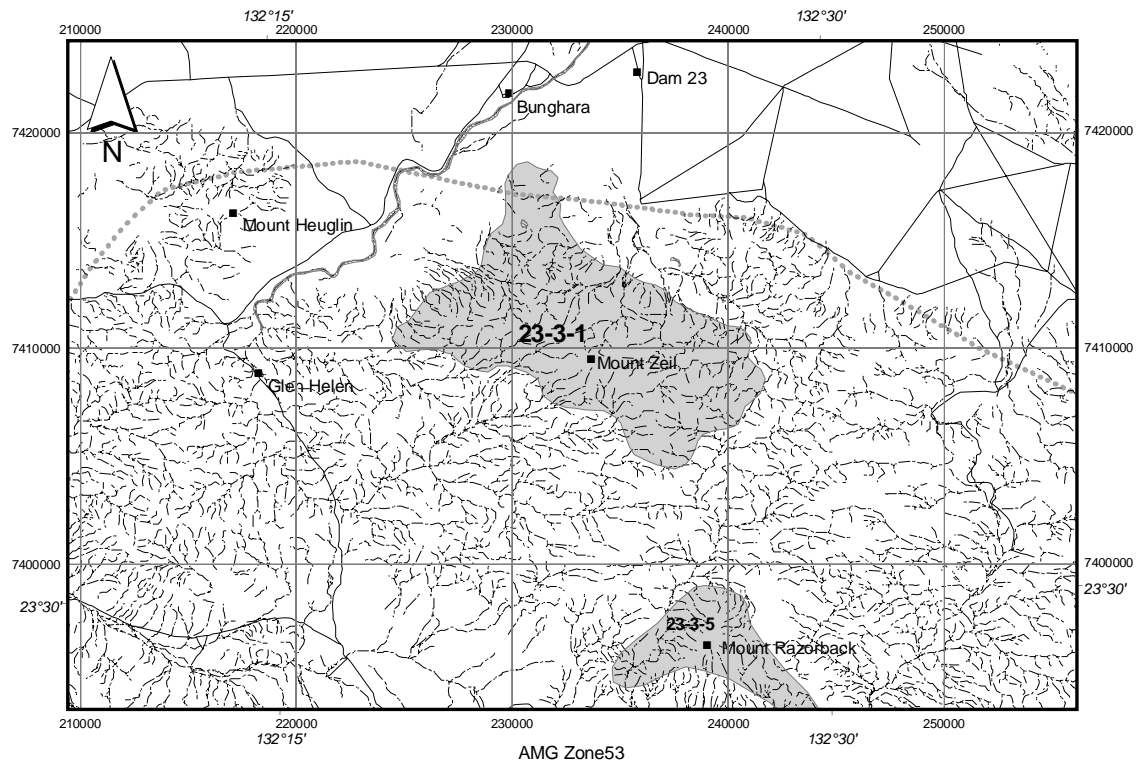
Taxa of bioregional significance: *Corymbia eremaea subsp. oligocarpa* {MAC (western range limit) [W]}, *Solanum eardleyae* {MAC (northern range limit) [N]}, *Vittadinia sulcata* {MAC (disjunct)}

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

Map unit 65 (1 < %): *Acacia aneura* (Mulga) tall open-shrubland with *Eragrostis eriopoda* (Woolybutt) open-grassland understorey.

Map unit 87 (97 %): *Triodia* (Spinifex) open-hummock grassland with *Acacia aneura* tall sparse-shrubland overstorey.

Map unit 27 (2 %): *Eucalyptus microtheca* s.lat. (Coolibah) low open-woodland with open-grassland understorey.



Site: 23-3-2 Missionary Plain

Level of significance: national

Location: 23° 49' S 132° 11' E; ca. 50 km west of Hermannsburg

Area: 2568 km² **Map sheets:** Hermannsburg SF 53-13, Mount Liebig SF 52-16 & Henbury SG 53-1

Bioregions: MacDonnell Ranges (MAC 96.6%) & Great Sandy Desert (GSD 3.4%)

Tenure: Freehold - Various Aboriginal Land Trusts (ABT), Haasts Bluff ABT (59% of site), Ltalaltuma ABT (31% of site) and Ntaria ABT (4% of site), Rodna ABT (3% of site); Tnorala (Gosse Bluff) Conservation Reserve (1% of site); West MacDonnell Ranges National Park (<1% of site)

Description: This site includes the western part of Missionary Plain, an extensive undulating sandplain bounded by the MacDonnell Ranges to the north and the Krichauff and Gardiner Ranges to the south. This plain is covered by a thin mantle of sand which covers mainly Devonian sandstones, which outcrop occasionally. The site has extensive areas of duricrust and alluvium which is associated with the creeks and rivers. The site includes the spectacular meteorite impact feature known as Gosses Bluff (Tnorala).

Notes: This site is poorly known and botanical values may not be uniform across the site. Most of the records of interesting taxa are currently from accessible places such as Mount Katapata and Gosses Bluff. Shallow sand plains such as Missionary Plain which are 'perched' in the ranges have consistently different floristics than sandplains and dunefields with deeper sand. Such areas require further study. Describing and mapping the plant communities which occur in these areas should be a priority.

Criteria satisfied: A1 bi), B1 b1 i)

Taxa of Australian significance: *Austrostipa aquarii* {3RC-}, *Comesperma viscidulum* {3KC-}, *Daviesia arthropoda* {3KCa}, *Logania centralis* {3KC-}, *Neurachne tenuifolia* {3RCa [S]}, *Pityrodia loricata* {3K [E]} only known in NT from this site}

Taxa of NT significance: *Calotis kempei* {3k}, *Elacholoma hornii* {3rC-}, *Eremophila ovata* {3k [W]} only known in GSD from this site}, *Lachnagrostis filiformis* {3rC-}, *Laxmannia arida* {3r}, *Leiocarpa tomentosa* {3kC-}, *Pimelea microcephala subsp. microcephala* {3r}, *Sclerolaena parviflora* {3r}, *Spartothamnella puberula* {3rC-}, *Vittadinia dissecta var. hirta* {3kC-}, *Vittadinia pustulata* {3kC-}, *Xanthorrhoea thortonii* {3rCa}

Taxa of Southern NT (study area) significance: *Adiantum hispidulum var. hispidulum* {(disjunct)}, *Bothriochloa bladonii subsp. bladonii* {(disjunct)}

Taxa of bioregional significance: *Alectryon oleifolius subsp. elongatus* {MAC (disjunct)}, *Aristida biglandulosa* {MAC (western range limit) [W]}, *Atriplex humifusa* {MAC (western range limit) [W]}, *Eremophila christophori* {MAC (western range limit) [W]}, *Lechenaultia striata* {GSD (northern range limit) [N]}, *Lomandra leucocephala subsp. robusta* {MAC (disjunct)}, *Polycarpaea involucreta* {MAC (disjunct), GSD (disjunct)}, *Vittadinia sulcata* {MAC (disjunct)}

Other taxa only known in MAC Bioregion from this site: *Goodenia modesta*, *Peplidium aithocheilum*, *Podolepis sp. Wollunga Well* (D.E. Albrecht 8794)

Other taxa only known in GSD Bioregion (NT portion) from this site: *Paspalidium constrictum*

Type locations of the following were collected from the site: *Anemocarpa saxatilis* (1956), *Corymbia eremaea subsp. oligocarpa* (1972)

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

Map unit 92 (1 < %): *Triodia brizoides* (Hillside Spinifex) hummock grassland with mixed species low open-woodland overstorey.

Map unit 81 (29 %): *Triodia basedowii* (Hard Spinifex) hummock grassland with *Acacia* tall sparse-shrubland overstorey.

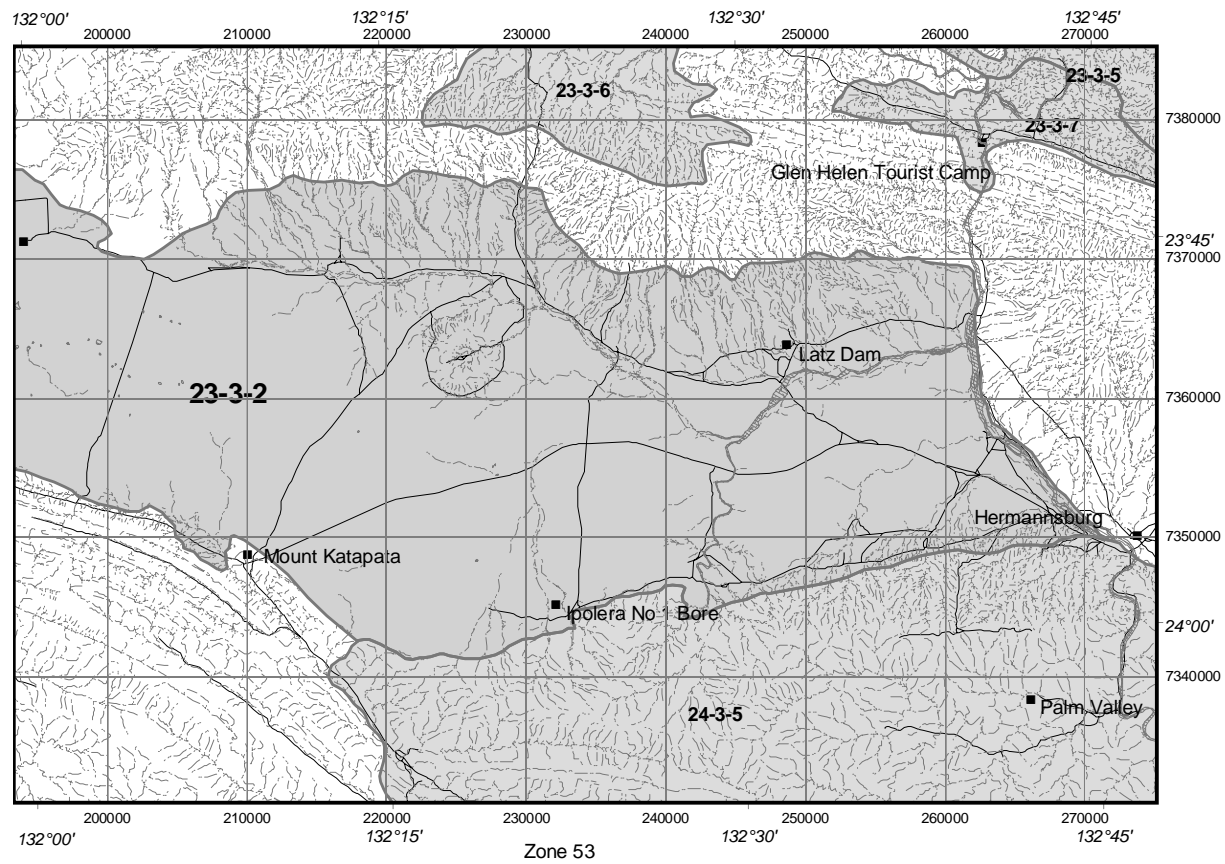
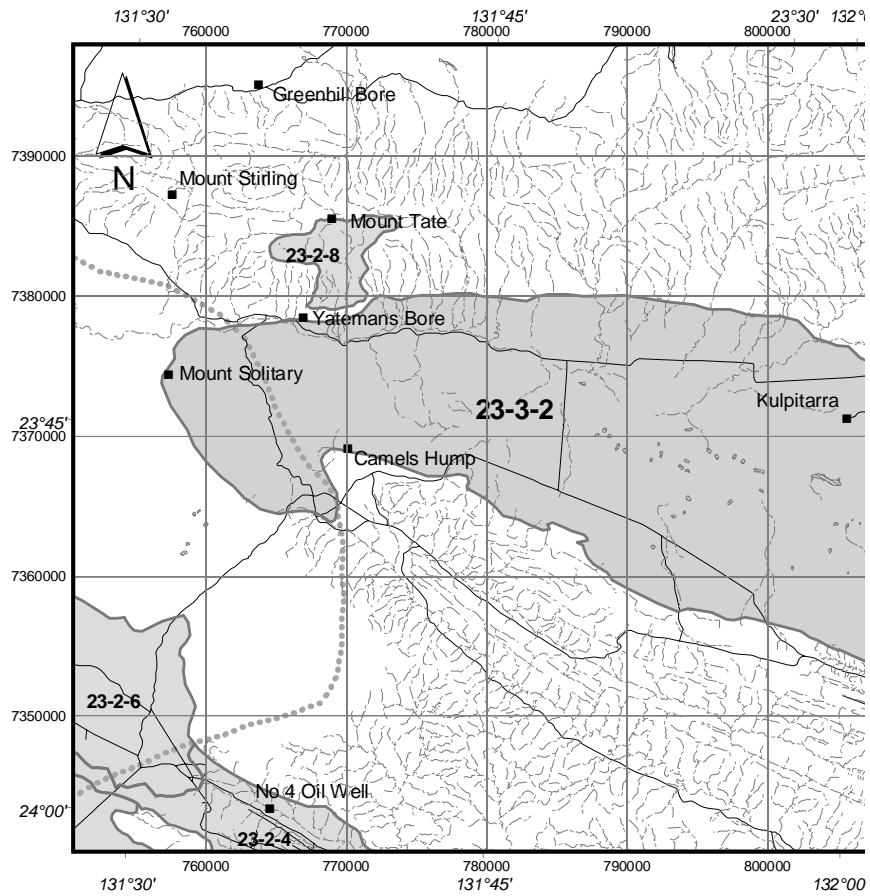
Map unit 93 (39 %): *Triodia basedowii* (Hard Spinifex) hummock grassland with *Allocasuarina decaisneana* (Desert Oak) open-woodland overstorey between dunes.

Map unit 71 (17 %): *Acacia aneura* (Mulga) tall sparse-shrubland with grassland understorey.

Map unit 87 (1 < %): *Triodia* (Spinifex) open-hummock grassland with *Acacia aneura* tall sparse-shrubland overstorey.

Map unit 68 (10 %): *Acacia kempeana* (Witchetty Bush) *Acacia* tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.

Map unit 65 (2 %): *Acacia aneura* (Mulga) tall open-shrubland with *Eragrostis eriopoda* (Woollybutt) open-grassland understorey.



Site 23-3-2 with respective portions mapped in AMG Zones 52 and Zone 53

Site: 23-3-5 Chewings Range

Level of significance: national

Location: 23° 42' S 133° 4' E; Central and western MacDonnell Ranges (west of Alice Springs)

Area: 1299 km² **Map sheets:** Hermannsburg SF 53-13 & Alice Springs SF 53-14

Bioregion: MacDonnell Ranges (MAC)

Tenure: West MacDonnell Ranges National Park (51% of site); Freehold - Roulmaulpma (5% of site), Iwupatatka (5% of site) and Rodna (<1% of site) Aboriginal Land Trusts; Pastoral Lease - Owen Springs (35% of site), Glen Helen & Hamilton Downs (both <1%).

Description: This site is broadly delineated by the outcropping of the meta-sandstone geologies in the western MacDonnell Ranges. The site trends east-west and is bounded in the north by the northern fall of the Chewings range - a prominent ridge of quartzite which rises steeply above the surrounding landscape. The range rises to a high point of 1,389 m ASL at Mount Giles and continues from Ormiston Pound in the west to Simpsons Gap in the east. The site is bounded in the south by the southern fall of the Heavitree Range another steep ridge of quartzite (composed of Heavitree quartzite). The site also includes the entire exposure of Heavitree quartzite which extends to the west of Ormiston Pound and includes several high peaks including Mount Sonder (1,380 m ASL) and terminates at Mount Razorback (1,274 m ASL). Between these ranges lies Ormiston Pound and the Alice Valley, which are broad undulating valleys with low rocky hills and alluvial fans and plains. Here the geology is predominantly crystalline metamorphic with minor occurrences of granite.

Notes: This site is undoubtedly of great botanical significance. The site supports numerous rare and significant plants and rare plant communities. Pitts (1994) identifies several plant communities of highly limited distribution. Of particular importance are: sparse shrublands dominated by *Acacia macdonnellensis*, *Eucalyptus eremaea* and *E. gilleni*; and open woodlands dominated by *Callitris glaucophylla* and *Acacia macdonnellensis* which occur on the highest and steepest parts (invariably on quartzite) of the west MacDonnell Ranges. These communities are of limited extent and support numerous rare, threatened and otherwise significant plant taxa. Four plant species of national significance are endemic to this site; *Acacia dolichophylla*, *Actinotus schwartzii*, *Hakea standleyensis* and *Wrixonia schultzei*, while other species of national conservation significance are either largely confined to this area; *Leucopogon sonderensis* and *Hibbertia* sp. *Chewings Range* (P.K. Latz 10660) or have their main stronghold in this site; *Neurachne tenuifolia*. The site is also of particular biogeographic interest, having many disjunct populations of plant taxa. Many of these records occur in the Chewings and Heavitree Ranges where the tributaries of the Hugh and Finke Rivers have carved out deep shaded gorges often with pools and waterholes. In addition, the Chewings Range has several important permanent springs which support many highly disjunct species and rare plant communities. Of particular note is the occurrence of a restricted stand of *Melaleuca faucicola* shrubland with a *Dicranopteris linearis* understorey, which occurs near Giles Spring. Many of these predominantly mesic plant taxa may be relictual, persisting at these locations from wetter periods in the climatic history of central Australia (Maconochie 1981). Among the more interesting of these disjunct species are *Adiantum capillus-veneris*, *Carex fascicularis* and *Christella dentata* (all known from small populations near permanent springs in the Chewings Range), which occur at no other location in the study area.

Criteria satisfied: A1 a i), A1 b i), A1 c i), A1 d i), A2 e i), A3 c i), B1 b1 i), B1 b2 i), C1 B i).

Taxa of Australian significance: *Acacia dolichophylla* {2RC- [NSEW] endemic to/only known from this site}, *Actinotus schwartzii* {3VCa [NSEW]}, *Austrostipa feresetacea* {3RC- [S]}, *Comesperma viscidulum* {3KC- [E]}, *Eucalyptus lucens* {3RC- [N]}, *Euphorbia sarcostemmoides* {3KCa}, *Gossypium nelsonii* {3RC-}, *Hakea grammatophylla* {3RC-}, *Hakea standleyensis* {3RC- [NSE]}, *Harnieria kempeana* subsp. *kempeana* {3RC- [N]}, *Hibbertia* sp. *Chewings Range* (P.K. Latz 10660) {3RC- [NE]}, *Kohautia australiensis* {3KC-}, *Leucopogon sonderensis* {3RC- [NE] only known in MAC from this site}, *Lomandra patens* {3RCa}, *Macrozamia macdonnellii* {3VCa}, *Melaleuca faucicola* {3RC-}, *Neurachne tenuifolia* {3RCa [S]}, *Olearia macdonnellensis* {3VCi [S]}, *Pluchea* sp. *Ormiston* (H.D.V. Prendegast 66) {3K [S]}, *Samolus eremaeus* {3KC-}, *Sauropus ramosissimus* {3KC-}, *Sedopsis filsonii* {3RC-}, *Wrixonia schultzei* {3VC- [SE]}

Taxa of NT significance: *Adiantum capillus-veneris* {3VCi only known in study area from this site}, *Arthropodium strictum* {3RC- [N]}, *Carex fascicularis* {3RC- only known in NT from this site}, *Clematis decipiens* {3RC-}, *Cymbopogon dependens* {3KC-}, *Doodia caudata* var. *caudata* {3RC-}, *Einadia nutans* subsp. *nutans* {3RC-}, *Enneapogon intermedius* {3k}, *Eremophila elderi* {3k}, *Glycine* sp. *Talipata* (B.G. Thomson 699) {3RC-}, *Hibbertia glaberrima* {3RCa}, *Histopteris incisa* {3RC-}, *Juncus continuus* {3RC-}, *Lachnagrostis filiformis* {3RC-}, *Oxalis radicata* {3kC-}, *Sclerolaena parviflora* {3r}, *Senecio lanibracteatus* {3r}, *Sida everistiana* {3r only known in MAC from this site}, *Spartothamnella puberula* {3RC-}, *Tricoryne elatior* s.lat. {3RC-}

Taxa of Southern NT (study area) significance: *Adiantum hispidulum* var. *hispidulum* {(disjunct)}, *Bothriochloa bladhii* subsp. *bladhii* {(disjunct)}, *Christella dentata* {(threatened) only known in study area from this site}, *Cymbopogon refractus* {(disjunct & apparently rare) only known in study area from this site}, *Dicranopteris linearis* var. *linearis* {(threatened) only known in study area from this site}, *Lindsaea ensifolia* subsp. *ensifolia* {(rare)}, *Psilotum nudum* {(rare)}, *Zornia muriculata* subsp. *angustata* {(disjunct) only known in MAC from this site}

Taxa of bioregional significance: *Alectryon oleifolius* subsp. *elongatus* {MAC (disjunct)}, *Aristida latzii* {MAC (western range limit) [W]}, *Convolvulus remotus* {MAC (disjunct)}, *Crassula colorata* var. *acuminata* {MAC (northern range limit) [N]}, *Cyanthillium cinereum* s.lat. {MAC (disjunct)}, *Cyperus exaltatus* {MAC (disjunct)}, *Cyperus polystachyos* {MAC (disjunct)}, *Eucalyptus minniritchi* {MAC (disjunct) [N]}, *Gastrolobium brevipes* {MAC (eastern range limit) [E]}, *Glycine falcata* {MAC (disjunct) only known in MAC from this site}, *Kennedia prorepens* {MAC (disjunct and apparently rare)}, *Melaleuca trichostachya* {MAC (disjunct and western range limit) [W]}, *Nicotiana excelsior* {MAC (northern range limit) [N]}, *Persicaria lapathifolia* {MAC (disjunct)}, *Pteris tremula* {MAC (rare)}, *Radyera farragei* {MAC (disjunct)}, *Rulingia magniflora* {MAC (northern range limit) [N]}, *Trema tomentosa* var. *aspera* {MAC (disjunct)}, *Tribulus hirsutus* {MAC (eastern range limit) [E] only known in MAC from this site}, *Vittadinia sulcata* {MAC (disjunct)}

Other taxa only known in MAC Bioregion from this site: *Cyperus betchei* subsp. *commiscens*, *Dicrastylis gilesii* var. *laxa* {[E]}, *Diplopeltis stuartii* {[E]}, *Dysphania rhadinostachya* subsp. *inflata*, *Glinus oppositifolius*, *Glycine tomentella*, *Ptilotus exaltatus* var. *glaber*, *Sclerolaena obliquicuspis*, *Trianthema pilosa*, *Triodia hubbardii* {[S]}

Type locations of the following were collected from the site: *Acacia dolichophylla* (1976), *Acacia macdonnelliensis* subsp. *macdonnelliensis* (1967), *Actinotus schwarzii* (1880s), *Austrostipa feresetacea* (1976), *Melaleuca faucicola* (1985), *Eucalyptus lucens* (1973), *Leucopogon sonderensis* (1966), *Olearia macdonnellensis* (1983), *Ptilotus exaltatus* var. *glaber* (1972), *Wrixonia schultzei* (1894)

Botanically significant waterholes at the site: Ellery Creek Gorge, Fringe Lily Gorge, Giles Spring, Giles Spring no. 3, Giles Yard Spring

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

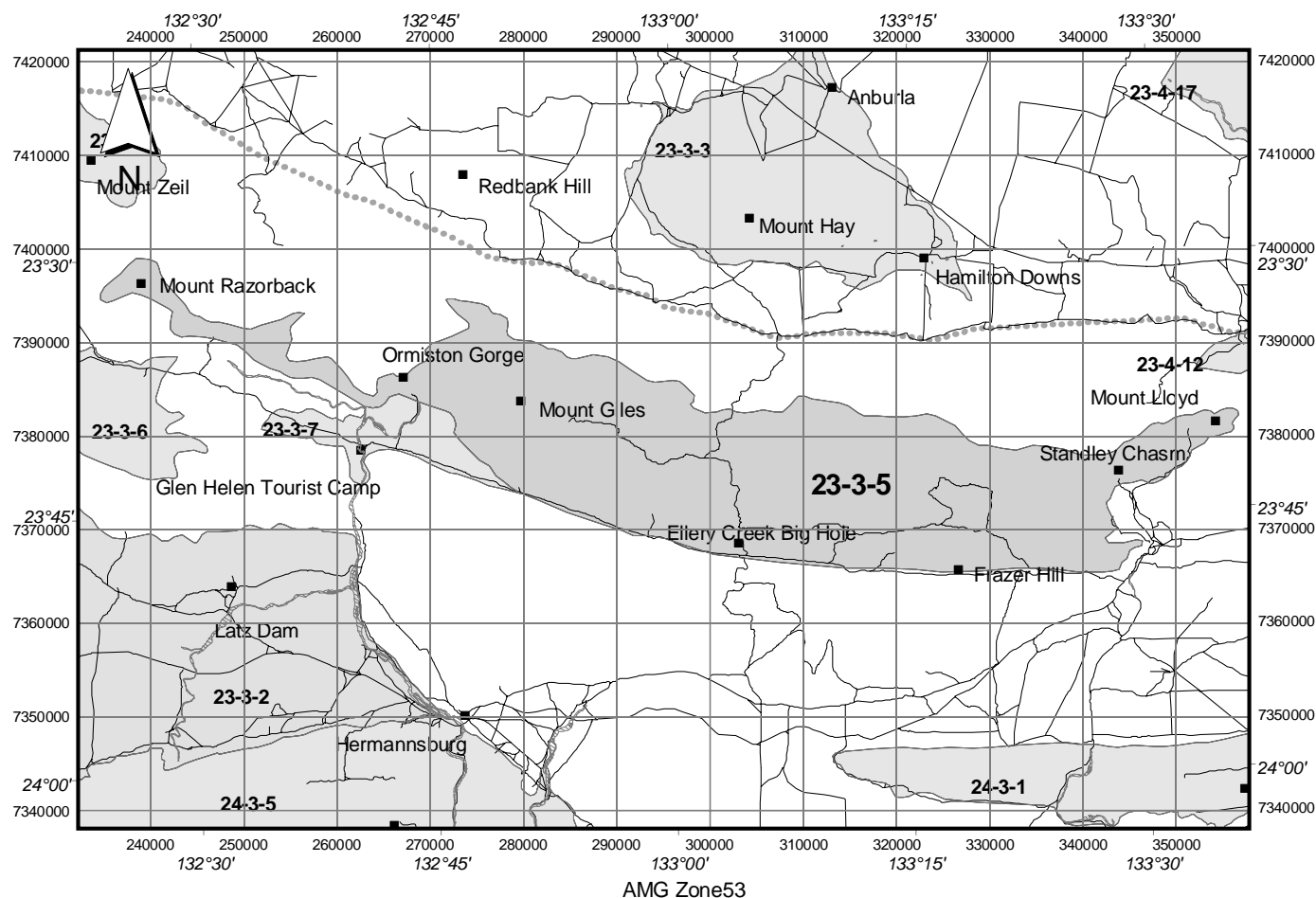
Map unit 69 (1 < %): *Acacia aneura* (Mulga) tall sparse-shrubland with *Aristida contorta* (Bunched Kerosene Grass) or *Triodia* open-tussock/hummock grassland understorey.

Map unit 66 (4 %): *Acacia aneura* (Mulga) tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.

Map unit 92 (16 %): *Triodia brizoides* (Hillside Spinifex) hummock grassland with mixed species low open-woodland overstorey.

Map unit 68 (21 %): *Acacia kempeana* (Witchetty Bush) *Acacia* tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.

Map unit 87 (57 %): *Triodia* (Spinifex) open-hummock grassland with *Acacia aneura* tall sparse-shrubland overstorey.



Site: 23-3-7 Glen Helen

Level of significance: national

Location: 23° 41' S 132° 42' E; Western MacDonnell Ranges - Glen Helen Homestead

Area: 107 km² **Map sheet:** Hermannsburg SF 53-13

Bioregion: MacDonnell Ranges (MAC)

Tenure: West MacDonnell Ranges National Park (94% of site); Freehold - Rodna Aboriginal Land Trust (5% of site)

Description: This site incorporates the confluence of Ormiston and Davenport Creeks and most of the catchments of Pioneer Creek. It also includes the Gorge of the Finke immediately south of Glen Helen. The site is mainly comprised of alluvial deposits adjacent to the Finke River and its tributaries and low rounded foothills.

Notes: The botanical values of this site are concentrated on the Finke River Gorge at Glen Helen and two active Mound springs. Cattle remain a threat to both mound Springs.

Criteria satisfied: B1 b i), B1 b2 i)

Taxa of Australian significance: *Cratystylis centralis* {3RC-}, *Goodenia anfracta* {3KC- only known in MAC from this site}, *Kohautia australiensis* {3KC-}, *Lomandra patens* {3RCa}, *Samolus eremaeus* {3KC-}, *Sedopsis filsonii* {3RC-}, *Wrixonia schultzei* {3VC- [S]}, *Zygophyllum crassissimum* {3RC- [N]}

Taxa of NT significance: *Hibbertia glaberrima* {3rCa}, *Juncus kraussii* subsp. *australiensis* {3rC-}, *Lawrencia squamata* {3r only known in MAC from this site}, *Maireana brevifolia* {3rC-}, *Maireana carnososa* {3rC-}, *Maireana lobiflora* {3k}, *Maireana schistocarpa* {3k}, *Ophioglossum polyphyllum* {3rC-}, *Senecio lanibracteus* {3r}, *Spartothamnella puberula* {3rC-}, *Tecticornia disarticulata* {3rC-}, *Verbena macrostachya* {3k}

Taxa of Southern NT (study area) significance: *Bothriochloa bladhii* subsp. *bladhii* {(disjunct)}, *Eriochloa procera* {(disjunct & apparently rare) only known in study area from this site}, *Fimbristylis sieberana* {(disjunct)}, *Imperata cylindrica* {(disjunct & apparently rare)}, *Phragmites australis* {(disjunct & apparently rare)}, *Sporobolus virginicus* {(disjunct) only known in MAC from this site}

Taxa of bioregional significance: *Alectryon oleifolius* subsp. *elongatus* {MAC (disjunct)}, *Cyperus exaltatus* {MAC (disjunct)}, *Cyperus polystachyos* {MAC (disjunct)}, *Nicotiana excelsior* {MAC (northern range limit) [N]}, *Persicaria lapathifolia* {MAC (disjunct)}, *Polymeria ambigua* {MAC (disjunct and southern range limit) [S]}, *Radyera farragei* {MAC (disjunct)}

Other taxa only known in MAC Bioregion from this site: *Maireana luehmannii*

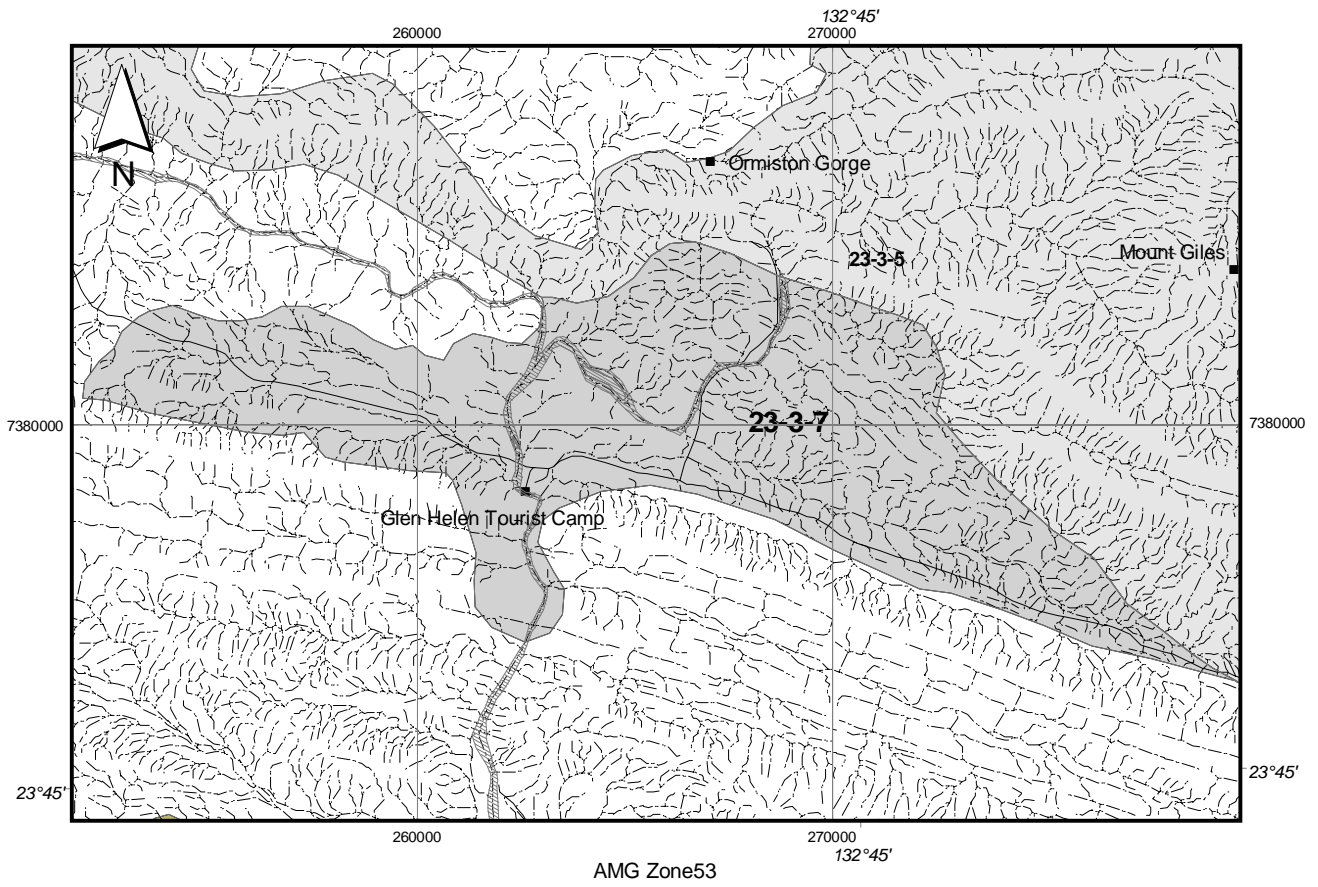
Type locations of the following were collected from the site: *Ipomoea racemigera*, *Samolus eremaeus* (1955)

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

Map unit 92 (93 %): *Triodia brizoides* (Hillside Spinifex) hummock grassland with mixed species low open-woodland overstorey.

Map unit 87 (1 %): *Triodia* (Spinifex) open-hummock grassland with *Acacia aneura* tall sparse-shrubland overstorey.

Map unit 69 (4 %): *Acacia aneura* (Mulga) tall sparse-shrubland with *Aristida contorta* (Bunched Kerosene Grass) or *Triodia* open-tussock/hummock grassland understorey.



AMG Zone53

Site: 23-4-14 Simpsons Gap

Level of significance: national

Location: 23° 32' S 133° 43' E; ca. 20 km west of Alice Springs.

Area: 94 km² **Map sheet:** Alice Springs SF 53-14

Bioregion: MacDonnell Ranges (MAC)

Tenure: West MacDonnell National Park (78% of site); Freehold - Iwupataka Aboriginal Land Trust (21% of site)

Description: The site incorporates much of the upper part of the catchment of Roe Creek. The site is bounded to the north by the outcropping of meta-sandstone geologies. The botanical values of the site are enhanced by the steep sheltered south facing slopes and the series of deep gorges (including the spectacular Simpson's Gap) cut down through the quartzite strike ridges. Other features of botanical interest are the extensive stands of mature Mulga (*Acacia aneura*) and small areas of outcropping metamorphic rocks rich in the mineral amphibolite - which weather to produce fertile soils.

Notes: The site is rich in plant taxa with over 430 species recorded (Gibson et al. 1990). Type locality for *Calandrinia reticulata*, *Crassula tetramera* and *Ricinocarpos gloria-medii*.

Criteria satisfied: B1 b1 i), A1 c i)

Taxa of Australian significance: *Austrostipa feresetacea* {3RC- [S]}, *Pluchea* sp. *Ormiston* (H.D.V. Prendegast 66) {3K [S]}, *Ricinocarpos gloria-medii* {2VCa [SW]}, *Samolus eremaeus* {3KC-}

Taxa of NT significance: *Corchorus pumilio* {3kC-}, *Einadia nutans* subsp. *nutans* {3rC-}, *Enneapogon intermedius* {3k}, *Harmsiodoxa puberula* {3rC-}, *Ixiochlamys nana* {3kC-}, *Ophioglossum lusitanicum* {3rC-}, *Ophioglossum polyphyllum* {3rC-}, *Oxalis radicata* {3kC-}, *Parietaria cardiostegia* {3r}, *Phyllanthus erwinii* {3k}, *Senecio lanibracteus* {3r}, *Spartothamnella puberula* {3rC-}, *Tricoryne elatior* s.lat. {3rC-}, *Triumfetta centralis* {3k only known in MAC from this site}

Taxa of Southern NT (study area) significance: *Plumbago zeylanica* {(disjunct)}

Taxa of bioregional significance: *Austrostipa scabra* subsp. *scabra* {MAC (disjunct)}, *Convolvulus remotus* {MAC (disjunct)}, *Crassula colorata* var. *acuminata* {MAC (northern range limit) [N]}, *Persicaria lapathifolia* {MAC (disjunct)}, *Radyera farragei* {MAC (disjunct)}, *Trema tomentosa* var. *aspera* {MAC (disjunct)}, *Vittadinia sulcata* {MAC (disjunct)}

Other taxa only known in MAC Bioregion from this site: *Brachyachne ciliaris*

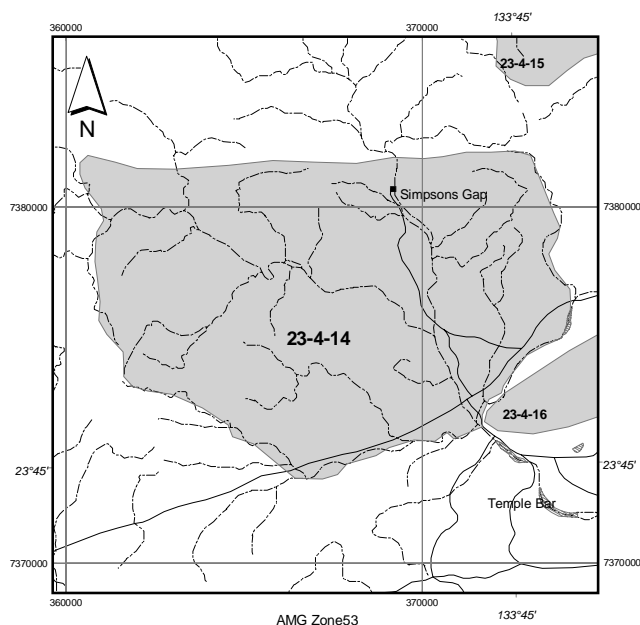
Type locations of the following were collected from the site: *Calandrinia reticulata* (1974), *Crassula tetramera* (1973), *Ricinocarpos gloria-medii* (1972)

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

Map unit 68 (2 %): *Acacia kempeana* (Witchetty Bush) *Acacia* tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.

Map unit 66 (3 %): *Acacia aneura* (Mulga) tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.

Map unit 87 (8 %): *Triodia* (Spinifex) open-hummock grassland with *Acacia aneura* tall sparse-shrubland overstorey.



Site: 23-4-16 Ilparpa

Level of significance: national

Location: 23° 45' S 133° 49' E; Central MacDonnell Ranges

Area: 61 km² **Map sheet:** Alice Springs SF 53-14

Bioregion: MacDonnell Ranges (MAC)

Tenure: Alice Springs Desert Park (13% of site); West MacDonnell Ranges National Park (12% of site); Freehold - Iwupataka Aboriginal Land Trust (3% of site); Vacant Crown Land (69% of site)

Description: The site is bounded to the north by the Heavitree range, to the south by the outwash slopes and depressions fringing the Blatherskite Range to the west by Roe Creek and the eastern boundary picks its way around areas disturbed by infrastructure and urban development.

Notes: The site is the type location for *Corymbia eremaea subsp. oligocarpa* and *Euphorbia centralis*. This relatively small site supports a wide range of contrasting habitats including claypans, seasonal swamps, quartzite and dolomite ranges, slot gorges and *Acacia* woodlands. Nearly 500 vascular plant taxa have been recorded from this site.

Criteria satisfied: B1 b1 i), A3 c i), A1 b i)

Taxa of Australian significance: *Austrostipa feresetacea* {3RC- [S]}, *Eleocharis papillosa* {3R only known in MAC from this site}, *Minuria tridens* {3VCi}, *Sida sp. Ambalindum* (C.R. Dunlop 2080) {3KC-}

Taxa of NT significance: *Bulbostylis pyriformis* {3rC-}, *Centipeda crateriformis* {3k [N]}, *Corchorus pumilio* {3kC-}, *Elacholoma hornii* {3rC-}, *Eriochiton sclerolaenoides* {3k}, *Lachnagrostis filiformis* {3rC-}, *Lythrum wilsonii* {3r only known in MAC from this site}, *Sida goniocarpa* {3r only known in MAC from this site}, *Zygophyllum rowelliae* {3k}

Taxa of Southern NT (study area) significance: none

Taxa of bioregional significance: *Convolvulus remotus* {MAC (disjunct)}, *Cyperus bifax* {MAC (disjunct)}, *Dysphania platycarpa* {MAC (disjunct) only known in MAC from this site}, *Josephinia eugeniae* s.lat. {MAC (disjunct)}, *Persicaria lapathifolia* {MAC (disjunct)}, *Radyera farragei* {MAC (disjunct)}, *Trema tomentosa var. aspera* {MAC (disjunct)}

Other taxa only known in MAC Bioregion from this site: *Goodenia berardiana* {[N]}, *Isotropis winneckeii*

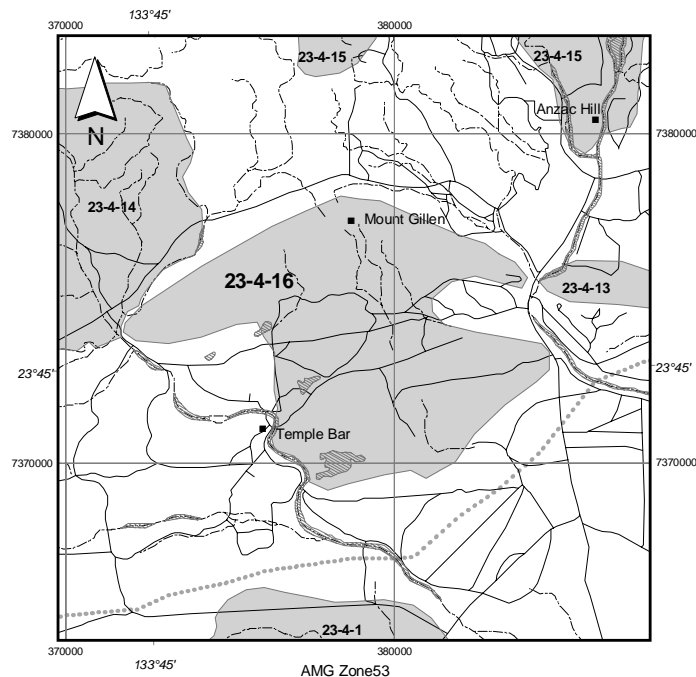
Type locations of the following were collected from the site: *Corymbia eremaea subsp. oligocarpa* (1933), *Eucalyptus gillenii* (1924), *Euphorbia centralis* (1990)

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

Map unit 59 (19 %): *Acacia estrophiolata* (Ironwood), *Atalaya hemiglauca* (Whitewood) low open-woodland with open-grassland understorey.

Map unit 68 (19 %): *Acacia kempeana* (Witchetty Bush) *Acacia* tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.

Map unit 87 (60 %): *Triodia* (Spinifex) open-hummock grassland with *Acacia aneura* tall sparse-shrubland overstorey.



Site: 23-4-5 Trepina

Level of significance: national

Location: 23° 33' S 134° 28' E; East MacDonnell Ranges; extending from just over 20 km east of Alice Springs to 100 km north-east of Alice Springs.

Area: 563 km² **Map sheet:** Alice Springs SF 53-14

Bioregions: MacDonnell Ranges (MAC 99.3%) & Simpson-Strzelecki Dunefields (SSD 0.7%)

Tenure: Pastoral lease - Undoolya (16%), The Garden (45%), Loves Creek (22%) and Ambalindum (<1%) Stations; Trepina Gorge National Park (3%); Arltunga Historical Reserve (4%); Freehold - Psanye and Melkne Aboriginal Land Trusts (both <1%), Other Freehold (5%)

Description: This large site incorporates much of the Heavitree Quartzite ranges of the East MacDonnell Ranges, and is roughly centred on Trepina Gorge Nature Park. It also incorporates part of Arltunga Historical Reserve in the north-east of the site. Other sediments of the Amadeus Basin sequence, of which Heavitree Quartzite is the oldest, occur in the site, including Bitter Springs Limestone.

Notes: Five plant species listed as nationally Vulnerable are found in the site as well as three nationally rare species, four species that are rare in the NT and 6 poorly known taxa. Records of these taxa are spread across the site, with few of the species co-occurring in one spot. The unifying feature is the landform and geology, which encompass a number of gorges, waterholes, and rivers in addition to the ranges which define the site. Several taxa are at or near the edge of their known range in the site. The site includes the type locations for *Amyema subcapitata* (not recognised as a distinct species), *Minuria tridens* and *Corymbia opaca*.

Criteria satisfied: B1 b2 i), B1 b1 i)

Taxa of Australian significance: *Acacia undoolyana* {2VCi [NSEW]}, *Hakea grammatophylla* {3RC-}, *Macrozamia macdonnellii* {3VCa}, *Melaleuca faucicola* {3RC- [NE]}, *Minuria tridens* {3VCi}, *Olearia macdonnellensis* {3VCi [E]}, *Ricinocarpos gloria-medii* {2VCa [NS]}, *Sedopsis filsonii* {3RC-}, *Sida sp. Ambalindum* (C.R. Dunlop 2080) {3KC-}

Taxa of NT significance: *Arabadella trisecta* {3kC-}, *Calotis kempei* {3k}, *Crotalaria dissitiflora var. dissitiflora* {3k}, *Eremophila elderi* {3k}, *Eucalyptus thozetiana* {3rC- [W]}, *Hibiscus sturtii var. sturtii* {3rC-}, *Lythrum paradoxum* {3k}, *Maireana carnososa* {3rC-}, *Spartothamnella puberula* {3rC-}

Taxa of Southern NT (study area) significance: none

Taxa of bioregional significance: *Austrostipa scabra subsp. scabra* {MAC (disjunct)}, *Baeckea polystemonea* {MAC (eastern range limit) [E]}, *Convolvulus remotus* {MAC (disjunct)}, *Cyanthillium cinereum* s.lat. {MAC (disjunct)}, *Iseilema macratherum* {MAC (disjunct and apparently rare) only known in MAC from this site}, *Juncus sp. MacDonnell Ranges* (B.G. Thomson 3412) {MAC (northern and eastern range limits) [NE]}, *Radyera farragei* {MAC (disjunct)}, *Rotala occultiflora* {MAC (disjunct)}, *Trema tomentosa var. aspera* {MAC (disjunct)}

Other taxa only known in MAC Bioregion from this site: *Atriplex vesicaria subsp. variabilis*, *Eriochloa australiensis*, *Ptilotus helipteroides var. minor*, *Triodia triaristata* {[S]}

Type locations of the following were collected from the site: *Amyema subcapitata*, *Minuria tridens* (1983)

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

Map unit 65 (1 < %): *Acacia aneura* (Mulga) tall open-shrubland with *Eragrostis eriopoda* (Woollybutt) open-grassland understorey.

Map unit 71 (1 %): *Acacia aneura* (Mulga) tall sparse-shrubland with grassland understorey.

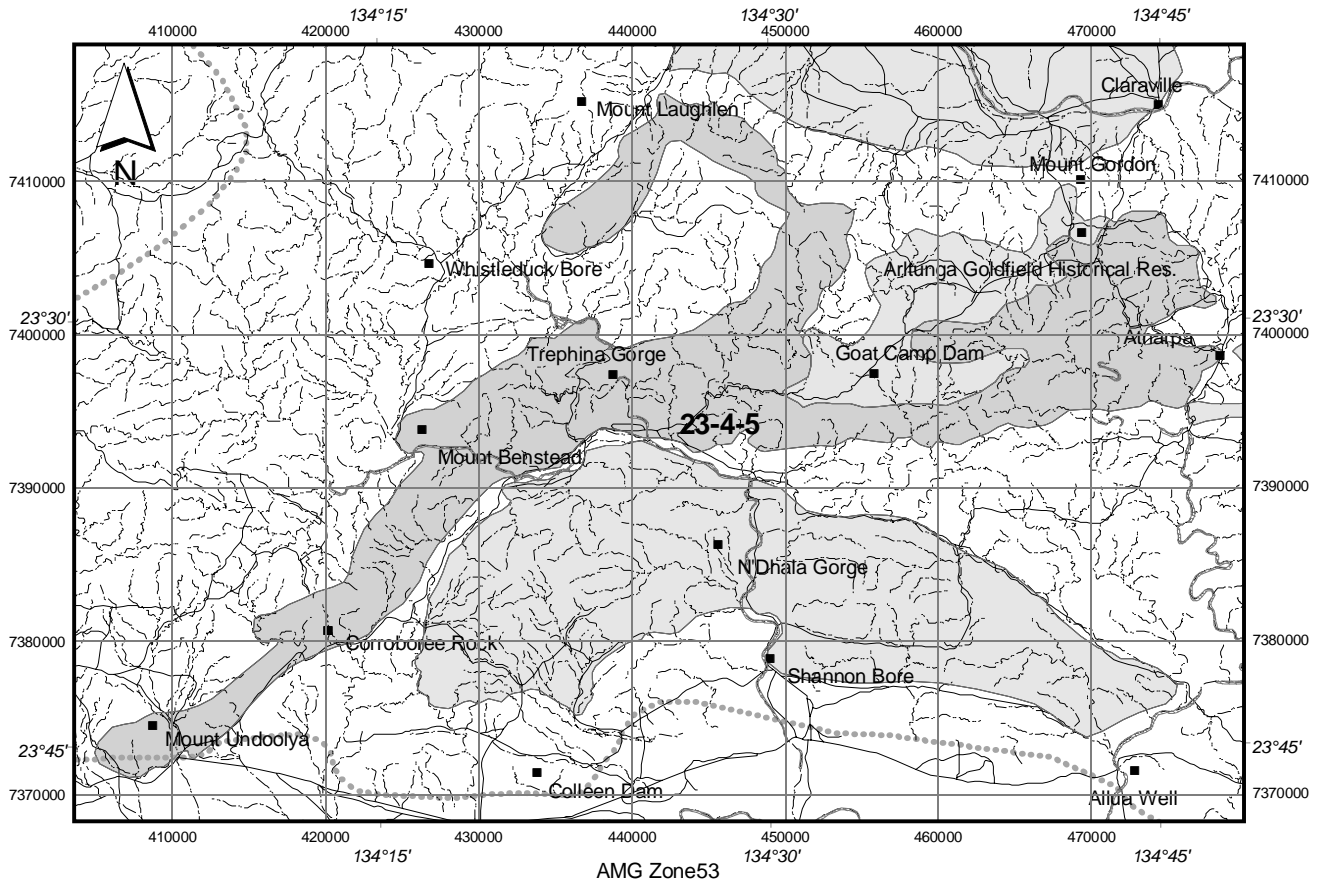
Map unit 66 (1 < %): *Acacia aneura* (Mulga) tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.

Map unit 68 (17 %): *Acacia kempeana* (Witchetty Bush) *Acacia* tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.

Map unit 92 (50 %): *Triodia brizoides* (Hillside Spinifex) hummock grassland with mixed species low open-woodland overstorey.

Map unit 80 (25 %): *Triodia longiceps* (Bull Spinifex) hummock grassland with *Acacia* tall open-shrubland overstorey.

Map unit 59 (4 %): *Acacia estropholata* (Ironwood), *Atalaya hemiglauca* (Whitewood) low open-woodland with open-grassland understorey.



Site: 23-4-6 N'Dhala

Level of significance: national

Location: 23° 40' S 134° 29' E; ca. 50 km east of Alice Springs.

Area: 484 km² **Map sheet:** Alice Springs SF 53-14

Bioregion: MacDonnell Ranges (MAC)

Tenure: Pastoral lease - Undoolya (39% of site), The Garden (4% of site) and Loves Creek (54% of site) Stations; N'Dhala Gorge Nature Park (1% of site); Arltunga Historical Reserve (4%); Freehold - Psanye and Melkngge Aboriginal Land Trusts, other freehold

Description: This site in the east MacDonnell Ranges is bounded in the north by the Ross River and Goat Camp Creek, to the east by Giles Creek, to the west by Williams Creek and to the south by exposures of the Arumbera Sandstone, which effectively marks the edge of the surrounding flood plains of the Todd and Ross Rivers. The site is centred on two striking geological features - the Ross River Syncline and the Fergusson Syncline. Thick somewhat concentric bands of Devonian and Cambrian sediments enclose small plains and pounds with alluvial soils.

Notes: The area supports a suite of rare plant taxa and at least one rare plant community - shrublands dominated by *Acacia undoolyana*. The site is of major importance in the conservation of the threatened plant species *Acacia undoolyana* and *Ricinocarpus gloria-medii*. Most of the known botanical values of the site are centred in the western portion of the site (west of the Ross River). The eastern section of the site (east of the Ross River) has had limited botanical exploration and values here are implied from geomorphology. The site includes the type location for *Acacia undoolyana*.

Criteria satisfied: B1 b2 i), B1 b1 i)

Taxa of Australian significance: *Acacia undoolyana* {2VCi [NSEW]}, *Austrostipa centralis* {3RC-}, *Phyllanthus oblanceolatus* {3KC- [N]}, *Ricinocarpus gloria-medii* {2VCa [SE]}, *Samolus eremaeus* {3KC-}, *Sedopsis filsonii* {3RC-}

Taxa of NT significance: *Bulbostylis pyriformis* {3rC-}, *Eucalyptus thozetiana* {3rC-}, *Hibiscus sturtii* var. *sturtii* {3rC-}, *Lythrum paradoxum* {3k}, *Sida* sp. *Bond Springs* (D.J. Nelson 2538) {3kC- only known in MAC from this site}, *Sida* sp. *Rainbow Valley* (D.E. Albrecht 6601) {3kC-}, *Spartothamnella puberula* {3rC-}

Taxa of Southern NT (study area) significance: none

Taxa of bioregional significance: *Austrostipa scabra* subsp. *scabra* {MAC (disjunct)}, *Convolvulus remotus* {MAC (disjunct)}, *Psydrax suaveolens* {MAC (eastern range limit) [E]}, *Rulingia magniflora* {MAC (northern range limit) [N]}, *Swainsona canescens* {MAC (eastern range limit) [E]}, *Trema tomentosa* var. *aspera* {MAC (disjunct)}

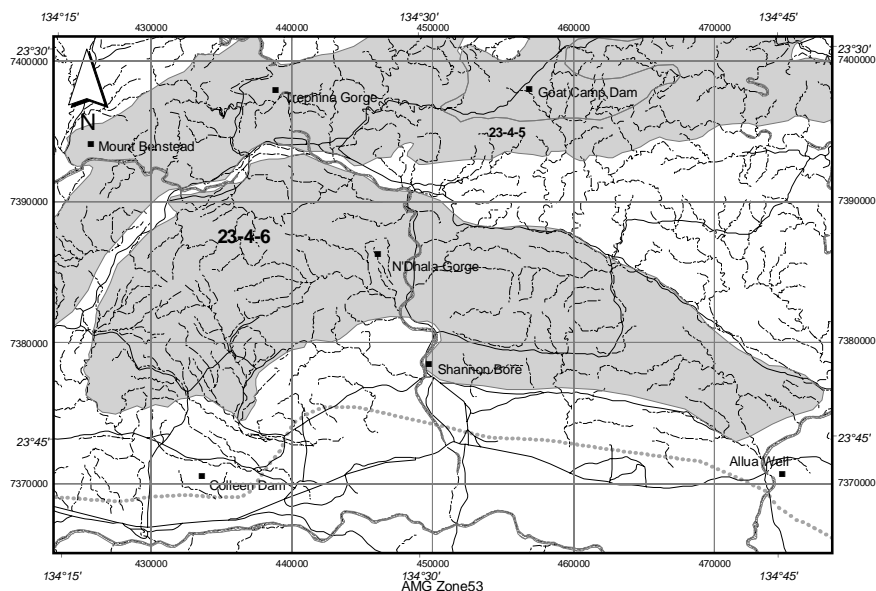
Type locations of the following were collected from the site: *Acacia undoolyana* (1987)

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

Map unit 92 (50 %): *Triodia brizoides* (Hillside Spinifex) hummock grassland with mixed species low open-woodland overstorey.

Map unit 80 (33 %): *Triodia longiceps* (Bull Spinifex) hummock grassland with *Acacia* tall open-shrubland overstorey.

Map unit 66 (15 %): *Acacia aneura* (Mulga) tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.



Site: 23-4-7 Amarata Range

Level of significance: national

Location: 23° 30' S 134° 55' E; ca 120 km east of Alice Springs.

Area: 144 km² **Map sheets:** Alice Springs SF 53-14 & Illogwa Creek SF 53-15

Bioregion: MacDonnell Ranges (MAC)

Tenure: Pastoral Lease - Ambalindum Station (14% of site) and Loves Creek Station (78% of site); Ruby Gap Nature Reserve (7% of site)

Description: This site is bounded by the Amarata and Atnarpa Ranges and the Hale River. The ranges rise 200 m or more above the surrounding uplands and are composed of Heavitree Quartzite, a particularly erosion resistant geology. The surrounding geology is predominantly fine grained granite and diorite between the two ranges and gneiss to the east of the Amarata Range.

Notes: The known botanical values of the site are concentrated on the quartzite ranges. At several places on the southern quartzite ridge the topographic and geomorphological features have afforded some protection from fire, and consequently they support interesting and restricted 'fire sensitive' plant communities. In addition the site has rocky quartzite hills where spinifex (*Triodia* spp) is not dominant in the understorey. This is an uncommon phenomenon in the eastern MacDonnell Ranges.

Criteria satisfied: A1 a ii), A1 b ii), B1 b2 ii), B1 b1 ii)

Taxa of Australian significance: *Austrostipa centralis* {3RC-}, *Hakea grammatophylla* {3RC- [E]}, *Sedopsis filsonii* {3RC- [E]}, *Sida* sp. *Hale River* (P.K. Latz 12036) {3K [W]}

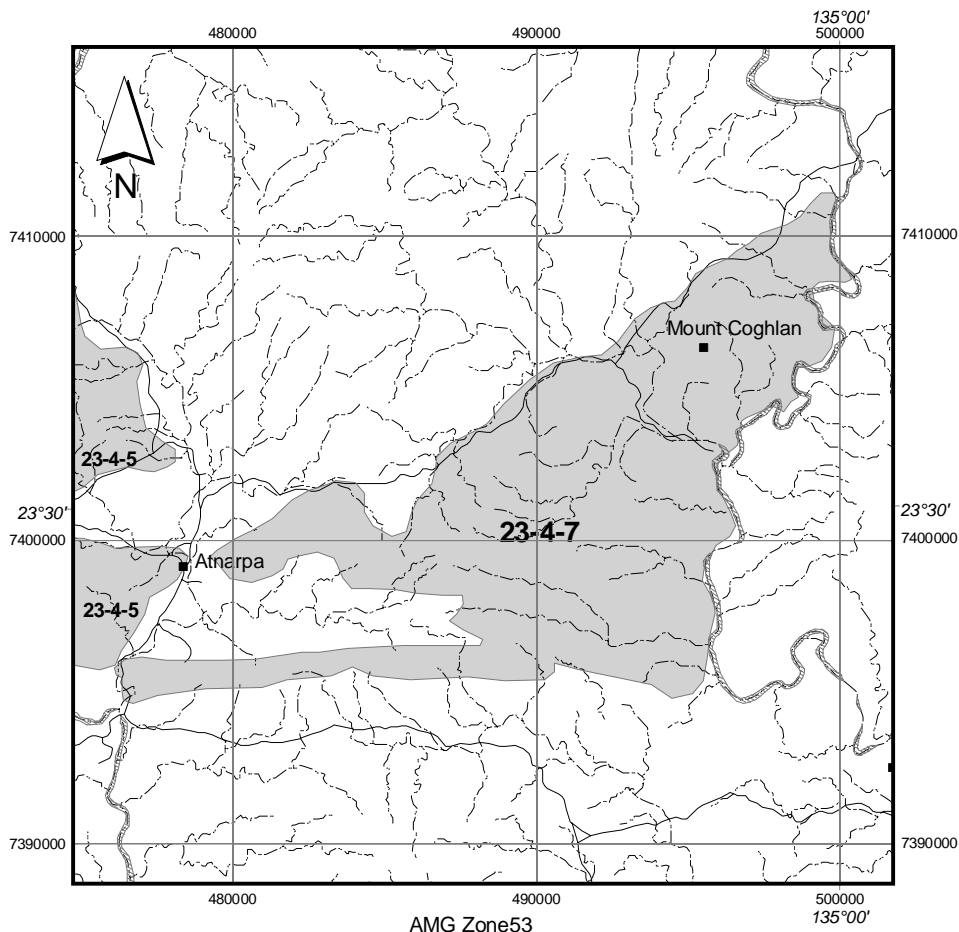
Taxa of NT significance: *Eucalyptus thozetiana* {3rC-}, *Hibiscus sturtii* var. *sturtii* {3rC-}, *Spartothamnella puberula* {3rC-}

Taxa of Southern NT (study area) significance: none

Taxa of bioregional significance: *Austrostipa scabra* subsp. *scabra* {MAC (disjunct)}

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

Map unit 68 (100 %): *Acacia kempeana* (Witchetty Bush) *Acacia* tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.



Site: 23-4-9 Harts Range

Level of significance: national

Location: 23° 4' S 134° 55' E; ca. 120 km north east of Alice Springs.

Area: 273 km² **Map sheet:** Alice Springs SF 53-14

Bioregions: MacDonnell Ranges (MAC 71.6%) & Burt Plain (BRT 28.4%)

Tenure: Pastoral Lease - Ambalindum Station (14% of site) and Mount Riddock Station (84% of site); Freehold - Akekarrwenteme Ureyenge Aboriginal Land Trust (1% of site)

Description: This site includes most of the Harts Range including Mount Palmer, Mount Brassey and surrounding peaks hills and footslopes. The geology of these ranges is primarily amphibolite and gneiss which are rich in mafic minerals and weather to nutrient rich soils.

Notes: This site supports populations of rare and threatened plant taxa and unique plant communities. Along with the Strangways Range it supports one of only two known populations of the rare and restricted *Hydrocotyle sp. Harts Range* (A.C. Beaglehole 44720).

Criteria satisfied: B1 b1 ii), B1 b2 ii)

Taxa of Australian significance: *Austrostipa centralis* {3RC- [NE]}, *Gossypium nelsonii* {3RC-}, *Hydrocotyle sp. Harts Range* (A.C. Beaglehole 44720) {2R [E]}, *Macrozamia macdonnellii* {3VCa [N]}, *Samolus eremaeus* {3KC-}

Taxa of NT significance: *Lythrum paradoxum* {3k}

Taxa of Southern NT (study area) significance: none

Taxa of bioregional significance: *Aristida latzii* {MAC (northern range limit) [N]}, *Brachycome blackii* {northern and eastern range limit [NE]}, *Pleurosorus subglandulosus* {MAC (northern range limit) [N] only known in BRT from this site}

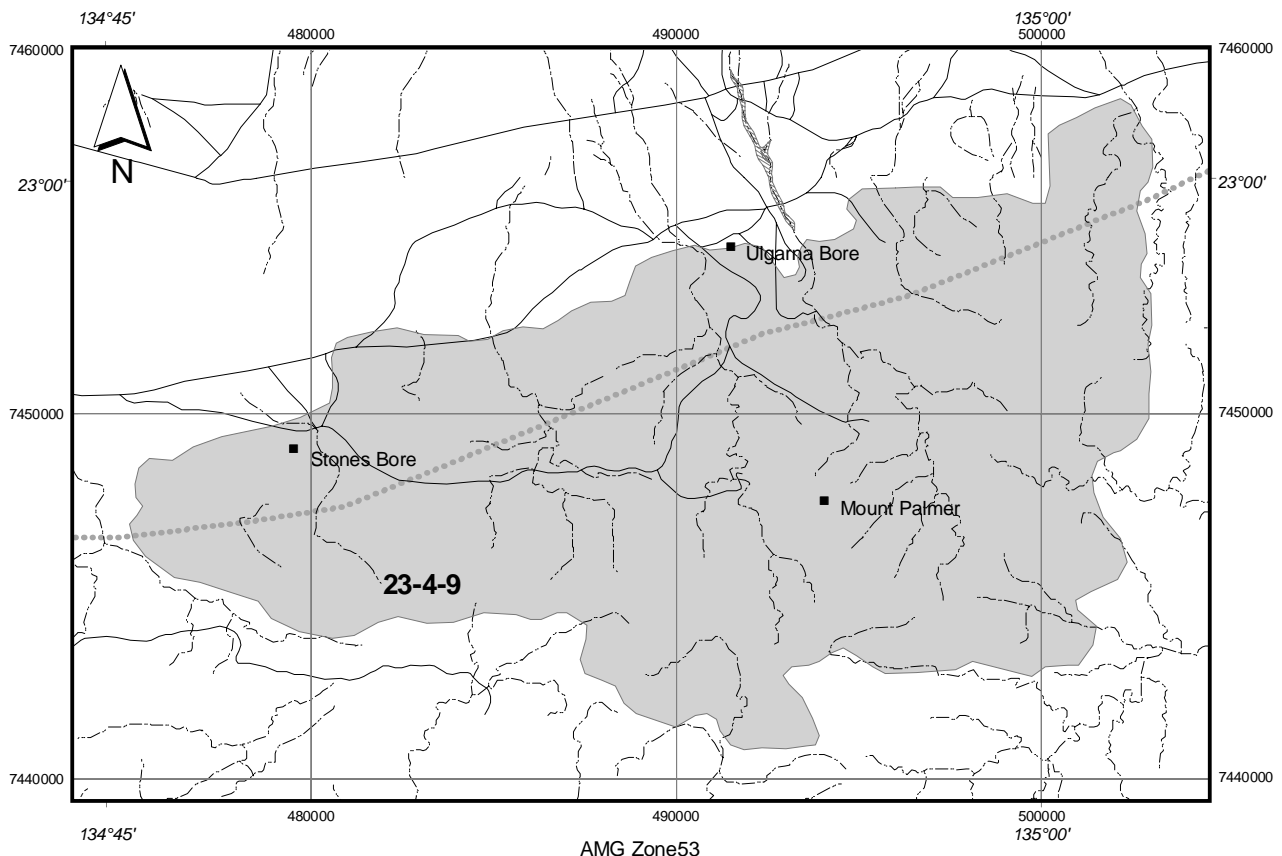
Other taxa only known in BRT Bioregion from this site: *Chenopodium desertorum subsp. anidiophyllum*, *Nicotiana gossei*

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

Map unit 68 (77 %): *Acacia kempeana* (Witchetty Bush) *Acacia* tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.

Map unit 58 (22 %): *Acacia aneura* (Mulga)/mixed species low open-woodland with open-grassland understorey.

Map unit 59 (1 < %): *Acacia estrophiolata* (Ironwood), *Atalaya hemiglauca* (Whitewood) low open-woodland with open-grassland understorey.



Site: 24-2-1 Watarrka

Level of significance: national

Location: 24° 16' S 131° 35' E; South-west edge of the MacDonnell Ranges uplands.

Area: 1243 km² **Map sheet:** Lake Amadeus SG 52-4

Bioregions: MacDonnell Ranges (MAC 87.3%) & Great Sandy Desert (GSD 12.7%)

Tenure: Watarrka National Park (57% of site); Freehold - Aboriginal Land Trusts (ALT). Haasts Bluff ALT (13%), Petermann ALT (5%), Alatiuta ALT (1%), Watarrka ALT (1%) and Urrampinyi Itjiltjarri ALT (16%), Land Settlement Aboriginal Corp. (3%)

Description: The site is largely circumscribed by the surface geology and topography. It is characterised by the large expanse of horizontally bedded Mereenie Sandstone and associated Cambrian marine sediments - calcareous sandstones, siltstones and limestones. The site also includes the catchment and floodout of Kings Creek.

Notes: Arguably the most important site for the conservation of plants in Central Australia. The site supports a remarkable diversity of species and plant communities - over 580 species have been recorded. In addition the site supports an extensive list of rare, threatened and disjunct plant taxa (see below). The largely horizontal bedding of the porous Mereenie Sandstone is largely responsible for this diversity of unusual, rare, endemic and relictual plant taxa. The porous rocks hold the water like a sponge following rainfall events. This water is retained in the catchment and is lost slowly, prolonging the growing season for deep rooted perennials, providing opportunities for germination and establishment. In addition, seepage and springs emerge from the base of the ranges and within shaded gorges. Numerous springs are - at least in recorded history - permanent. *Hydrocotyle sp. Watarrka* (A.C. Beaglehole 20471) and *Amperea spicata* are endemic to the site. It also contains the type localities for *Sedopsis filsonii*, *Amperea spicata*, *Euphorbia sarcostemmoides* and *Brachycome blackii*.

Criteria satisfied: A1 a i), A1 b i), A1 c i), A1 d i), A2 e i), A3 c i), B1 b1 i), B1 b2 i), C1 B i).

Taxa of Australian significance: *Amperea spicata* {2RCa [NSEW] endemic to/only known from this site}, *Austrostipa aquarii* {3RC- [SW]}, *Austrostipa centralis* {3RC- [SW]}, *Comesperma viscidulum* {3KC-}, *Daviesia arthropoda* {3KCa}, *Euphorbia sarcostemmoides* {3KCa}, *Hakea grammatophylla* {3RC- [S]}, *Hydrocotyle sp. Watarrka* (A.C. Beaglehole 20471) {2RC- [NSEW] endemic to/only known from this site}, *Logania centralis* {3KC-}, *Macrozamia macdonnellii* {3VCa [SW]}, *Melaleuca faucicola* {3RC-}, *Sauropus ramosissimus* {3KC-}, *Sedopsis filsonii* {3RC- [SW]}, *Stylidium inaequipetalum* {3RCa}

Taxa of NT significance: *Acacia grasbyi* {3RC- only known in MAC from this site}, *Acacia helmsiana* {3k [E] only known in MAC from this site}, *Baumea arthropphylla* {3vC- only known in NT from this site}, *Bulbostylis pyriformis* {3RC-}, *Calandrinia pleiopetala* {3RC- only known in MAC from this site}, *Calotis cymbacantha* {3kC-}, *Centipeda pleiocephala* {3kC- [W]}, *Centipeda crateriformis* {3k}, *Chthonocephalus pseudovax* {3r [N]}, *Cuphonotus andraeanus* {3r [N]}, *Doodia caudata var. caudata* {3RC-}, *Elacholoma hornii* {3RC-}, *Eleocharis pusilla* {3RC- only known in NT from this site}, *Eremophila ovata* {3k [S,W]}, *Glischrocaryon aureum var. angustifolium* {3RC-}, *Goodenia glandulosa* {3RC- only known in MAC from this site}, *Goodenia havilandii* {3RC-}, *Grevillea pterosperma* {3r only known in MAC from this site}, *Harmsiodoxa puberula* {3RC-}, *Heliotropium inexplicitum* {3k only known in MAC from this site}, *Hibbertia glaberrima* {3rCa}, *Histiopteris incisa* {3RC-}, *Isolepis australiensis* {3kC-}, *Isotropis centralis* {3RC-}, *Juncus continuus* {3RC-}, *Juncus kraussii subsp. australiensis* {3RC-}, *Lachnagrostis filiformis* {3RC-}, *Leiocarpa tomentosa* {3kC-}, *Maireana sedifolia* {3RC- only known in NT from this site}, *Menkea sphaerocarpa* {3RC- only known in MAC from this site}, *Mirbelia ramulosa* {3RC- only known in NT from this site}, *Ophioglossum lusitanicum* {3RC-}, *Oxalis radicata* {3kC-}, *Persicaria decipiens* {3RC- only known in NT from this site}, *Phyllanthus erwinii* {3k}, *Polystichum proliferum* {3k only known in NT from this site}, *Poranthera leiosperma* {3RC-}, *Poranthera triandra* {3RC- only known in MAC from this site}, *Sclerolaena birchii* {3k}, *Sclerolaena parallelispis* {3RC- only known in MAC from this site}, *Senecio lanibracteus* {3r}, *Sida sp. Kathleen Springs* (A.C. Beaglehole 26934) {3kC-}, *Sida sp. Golden Calyces* (G.J. Leach 1966) {3kC-}, *Sida sp. Watarrka* (D.E. Albrecht 8672) {3k only known in NT from this site}, *Swainsona colutooides* {3RC-}, *Swainsona purpurea* {3k only known in MAC from this site}, *Xanthorrhoea thorntonii* {3rCa}

Taxa of Southern NT (study area) significance: *Adiantum hispidulum var. hispidulum* {(disjunct)}, *Cyclosorus interruptus* {(disjunct) only known in study area from this site}, *Cyperus castaneus* {(disjunct) only known in MAC from this site}, *Fimbristylis sieberana* {(disjunct)}, *Imperata cylindrica* {(disjunct & apparently rare)}, *Lindsaea ensifolia subsp. ensifolia* {(rare)}, *Ottelia ovalifolia* {(disjunct)}, *Phragmites australis* {(disjunct & apparently rare)}, *Psilotum nudum* {(rare)}, *Schoenus falcatus* {(disjunct & apparently rare) only known in MAC from this site}, *Vallisneria annua* {(disjunct) only known in MAC from this site}

Taxa of bioregional significance: *Alectryon oleifolius subsp. elongatus* {MAC (disjunct and western range limit) [W]}, *Aristida arida* {MAC (western range limit) [W]}, *Cheilanthes brownii* {MAC (disjunct)}, *Crotalaria smithiana* {MAC (western range limit) [W]}, *Goodenia larapinta* {MAC (southern range limit) [S]}, *Juncus sp. MacDonnell Ranges* (B.G. Thomson 3412) {MAC (western and southern range limits) [SW]}, *Maireana spongocarpa* {MAC (western range limit) [W]}, *Polycarpha involucreta* {MAC (disjunct)}, *Pteris tremula* {MAC (rare) [W]}, *Swainsona oligophylla* {MAC (disjunct) only known in MAC from this site}, *Thyridolepis multiculmis* {MAC (northern range limit) [N] only known in MAC from this site}

Other taxa only known in MAC Bioregion from this site: *Acacia rhodophloia*, *Eragrostis speciosa*, *Eriocaulon* sp. *Arid Zone* (D. Schunke 28/Aug/90), *Eriocaulon cinereum*, *Erodium cygnorum* subsp. *cygnorum*, *Euphorbia australis* s.lat., *Gnephosis tenuissima*, *Halosarcia indica* subsp. *leiostachya*, *Phyllanthus maderaspatensis* var. *angustifolius*, *Senna sericea*, *Setaria surgens*, *Stackhousia megaloptera*, *Yakirra australiensis* var. *australiensis*

Other taxa only known in GSD Bioregion (NT portion) from this site: *Sclerolaena glabra*

Type locations of the following were collected from the site: *Amperea spicata* (1981), *Brachycome blackii*, *Euphorbia sarcostemmoides* (1966), *Sedopsis filsonii* (1966)

Botanically significant waterholes at the site: Bagot Springs Waterholes, Kathleen Spring waterhole, Kings Canyon waterholes, Penny Springs, Reedy Creek rockholes, Stokes Creek Springs, Wallaby Gorge waterholes

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

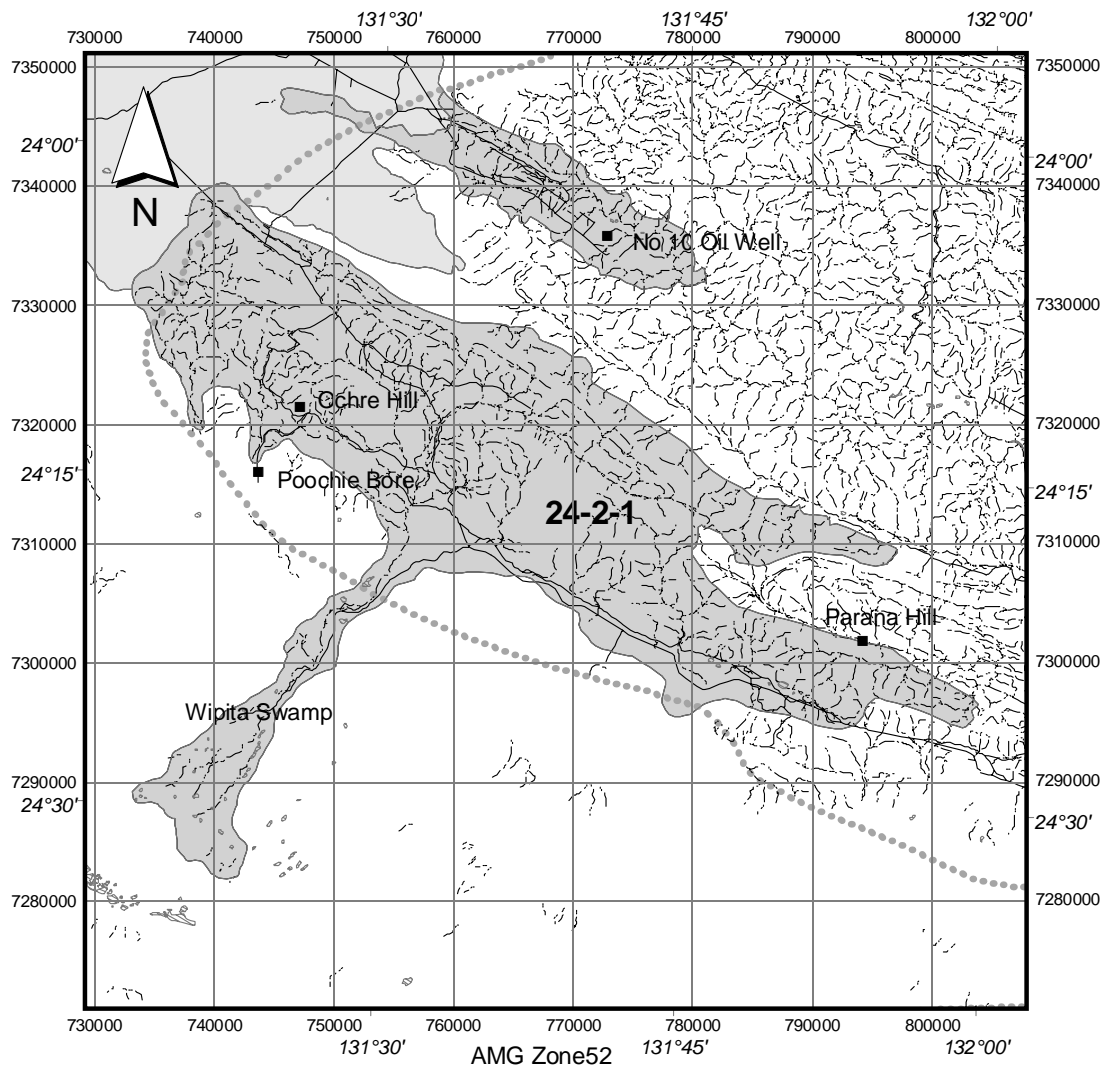
Map unit 93 (31 %): *Triodia basedowii* (Hard Spinifex) hummock grassland with *Allocasuarina decaisneana* (Desert Oak) open-woodland overstorey between dunes.

Map unit 73 (2 %): *Acacia tetragonophylla* (Dead Finish), *Acacia kempeana* (Witchetty Bush) sparse-shrubland with herb/grassland understorey.

Map unit 83 (10 %): *Triodia basedowii* (Hard Spinifex) or *Triodia pungens* (Soft Spinifex) hummock grassland with *Eucalyptus gamophylla* (Blue Mallee), *Acacia* tall sparse-shrubland overstorey.

Map unit 79 (14 %): *Triodia melvillei* (Soft Spinifex) hummock grassland with *Acacia aneura* (Mulga), *Acacia kempeana* (Witchetty Bush) tall open-shrubland overstorey.

Map unit 92 (40 %): *Triodia brizoides* (Hillside Spinifex) hummock grassland with mixed species low open-woodland overstorey.



Site: 24-3-1 Waterhouse Range

Level of significance: national

Location: 24° 1' S 133° 26' E; South-eastern MacDonnell Ranges

Area: 320 km² **Map sheet:** Henbury SG 53-1, Rodinga SG 53-2, Alice Springs SF 53-14, Hermannsburg SF 53-13

Bioregion: MacDonnell Ranges (MAC)

Tenure: Pastoral Lease - Owen Springs Station (99% of site); Freehold - Uruna Aboriginal Land Trust (<1% of site)

Description: The site encompasses the entire Waterhouse Range including Lawrence Gorge (which is the passage of the Hugh River through the Ranges) and run-on areas below the sandstone escarpments. The Range is composed of various sandstone geologies including the porous Mereenie Sandstone, which is consistently correlated with the presence of rare and threatened plant taxa.

Notes: The spread of *Melia azederach* (White Cedar) within Lawrence Gorge presents a potential threat to botanical values at this site. The invasion of this species at this location requires immediate investigation. The site contains the type locality of *Austrostipa aquarii*.

Criteria satisfied: B1 b1 i)

Taxa of Australian significance: *Austrostipa aquarii* {3RC-}, *Cratystylis centralis* {3RC-}, *Eucalyptus lucens* {3RC-[E]}, *Lomandra patens* {3RCa}, *Sauropus ramosissimus* {3KC-}, *Stenanthemum centrale* {3RC-[NE]}

Taxa of NT significance: *Amyema miraculosa* subsp. *boormanii* {3k}, *Bulbostylis pyriformis* {3RC-}, *Olearia xerophila* {3r}, *Ophioglossum lusitanicum* {3RC-}, *Sida* sp. *Rainbow Valley* (D.E. Albrecht 6601) {3KC-}

Taxa of Southern NT (study area) significance: none

Taxa of bioregional significance: *Atriplex velutinella* {MAC (apparently rare)}

Other taxa only known in MAC Bioregion from this site: *Corymbia chippendalei* {[E]}

Type locations of the following were collected from the site: *Austrostipa aquarii*

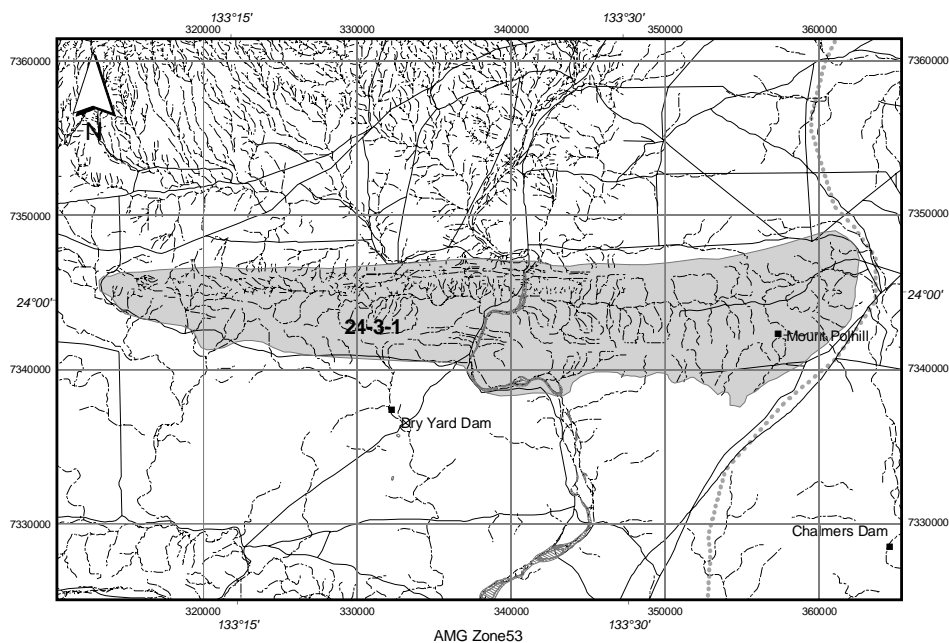
Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

Map unit 65 (17 %): *Acacia aneura* (Mulga) tall open-shrubland with *Eragrostis eriopoda* (Woolybutt) open-grassland understorey.

Map unit 83 (23 %): *Triodia basedowii* (Hard Spinifex) or *Triodia pungens* (Soft Spinifex) hummock grassland with *Eucalyptus gamophylla* (Blue Mallee), *Acacia* tall sparse-shrubland overstorey.

Map unit 72 (1 < %): *Acacia kempeana* (Witchetty Bush) sparse-shrubland to tall sparse-shrubland with grassland understorey.

Map unit 92 (58 %): *Triodia brizoides* (Hillside Spinifex) hummock grassland with mixed species low open-woodland overstorey.



Site: 24-3-5 Palm Valley

Level of significance: national

Location: 24° 6' S 132° 37' E; Southern MacDonnell Ranges

Area: 1575 km² **Map sheets:** Henbury SG 53-1 & Hermannsburg SF 53-13

Bioregion: MacDonnell Ranges (MAC)

Tenure: Finke Gorge National Park (27% of site); Pastoral Lease - Henbury Station (8% of site), Freehold - Aboriginal Land Trusts, Ntaria (32% of site), Ltalaltuma (20% of site), Urrampinyi Itjiltjarri (3%), Haasts Bluff (3%), Roulpmaulpa (2%) and Uruna (<1%)

Description: Includes the entire Krichauff Range, a large proportion of the James Range and the intervening plains and valleys including that of the Finke River and Palm Creek. Apart from the quaternary aeolian and alluvial deposits in the valleys and plains, the site is composed of porous Devonian sediments principally Hermannsburg and Mereenie sandstones.

Notes: Along with Watarrka (see site 24-2-1) and Chewings Range (23-3-5) this site is undoubtedly one of the most important sites for the conservation of rare and threatened plants in the study area and Central Australia. Almost 600 plant taxa have been recorded for Palm Valley National Park alone (B. Pitts unpublished data). The site incorporates the type locations for *Triodia longiceps*, *Enneapogon eremophilus*, *Stenanthemum centrale*, *Halosarcia halocnemoides* subsp. *longispicata*, *Plectranthus intraterraneus*, *Pimelea interioris*, *Lysiana spathulata* subsp. *parvifolia*, *Dodonaea viscosa* subsp. *mucronata*, *Dicrastylis gilesii* var. *laxa*, and *Livistona mariae*. The site supports four endemic plant taxa (*Livistonia mariae* subsp. *mariae*, *Indigofera* sp. *Areyonga* (D.J. Parsons 30), *Pimelea interioris* and *Acacia* sp. *Krichauff Range* (A. Soos 241) and numerous disjunct and significant plant taxa. Specific areas of this site have high concentrations of significant species. Little Palm Creek is particularly notable for high species richness and concentrations of significant taxa. Large areas of the site are still poorly known.

Criteria satisfied: A1 a i), A1 b i), B1 b2 i), A1 d1 i), A1 c i), A2 e i), A3 c i), C1 B i), B1 b2 i), B1 b1 i)

Taxa of Australian significance: *Acacia* sp. *Krichauff Range* (A. Soos 241) {2K [NSEW] endemic to/only known from this site}, *Austrostipa aquarii* {3RC- [S]}, *Eucalyptus lucens* {3RC- [W]}, *Euphorbia sarcostemmoides* {3KCa}, *Hakea grammatophylla* {3RC-}, *Harnieria kempeana* subsp. *kempeana* {3RC-}, *Hibbertia* sp. *Chewings Range* (P.K. Latz 10660) {3RC- [SW]}, *Indigofera* sp. *Areyonga* (D.J. Parsons 30) {2K endemic to/only known from this site}, *Livistonia mariae* subsp. *mariae* {2VCa [NSEW] endemic to/only known from this site}, *Lomandra patens* {3RCa}, *Macrozamia macdonnellii* {3VCa}, *Melaleuca faucicola* {3RC-}, *Minuria tridens* {3VCi}, *Pimelea interioris* {2RC- [NSEW] endemic to/only known from this site}, *Samolus eremaeus* {3KC-}, *Stenanthemum centrale* {3RC- [NS]}, *Teucrium grandiusculum* subsp. *grandiusculum* {3KC-}, *Thryptomene hexandra* {3VC- [E] only known in NT from this site}

Taxa of NT significance: *Arabidella trisecta* {3kC-}, *Bolboschoenus caldwellii* {3vC- only known in MAC from this site}, *Calotis cymbacantha* {3kC- [N]}, *Calotis kempei* {3k}, *Centipeda pleiocephala* {3kC-}, *Corynotheca licrota* {3rC- [N]}, *Elacholoma hornii* {3rC-}, *Eremophila ovata* {3k [E]}, *Hibbertia glaberrima* {3rCa}, *Juncus kraussii* subsp. *australiensis* {3rC-}, *Monotaxis luteiflora* {3r}, *Murchisonia volubilis* {3r}, *Najas marina* {3rC-}, *Olearia xerophila* {3r}, *Paractaenum novae-hollandiae* subsp. *reversum* {3kC-}, *Parietaria cardiostegia* {3r}, *Pimelea microcephala* subsp. *microcephala* {3r}, *Potamogeton crispus* {3rC-}, *Sauropus rigens* {3rC-}, *Sauropus thesioides* {3k only known in NT from this site}, *Sida* sp. *Rainbow Valley* (D.E. Albrecht 6601) {3kC-}, *Spartothamnella puberula* {3rC-}, *Spergularia brevifolia* {3r only known in MAC from this site}, *Swainsona acuticarinata* {3kC- only known in MAC from this site}, *Swainsona colutoides* {3rC-}, *Verbena macrostachya* {3k}

Taxa of Southern NT (study area) significance: *Eleocharis geniculata* {(threatened) only known in study area from this site}, *Fimbristylis sieberana* {(disjunct)}, *Imperata cylindrica* {(disjunct & apparently rare)}, *Ottelia ovalifolia* {(disjunct)}, *Phragmites australis* {(disjunct & apparently rare)}

Taxa of bioregional significance: *Acacia minutifolia* {MAC (disjunct and eastern range limit) [E]}, *Alectryon oleifolius* subsp. *elongatus* {MAC (disjunct)}, *Aristida latzii* {MAC (southern and western range limits) [SW]}, *Atriplex velutinella* {MAC (apparently rare)}, *Cheilanthes brownii* {MAC (disjunct)}, *Convolvulus remotus* {MAC (disjunct)}, *Cyperus bifax* {MAC (disjunct)}, *Cyperus exaltatus* {MAC (disjunct)}, *Enneapogon eremophilus* {MAC (southern range limit) [S]}, *Eucalyptus minniritchi* {MAC (disjunct)}, *Gomphrena cunninghamii* {MAC (disjunct) [S]}, *Josephinia eugeniae* s.lat. {MAC (disjunct)}, *Melaleuca trichostachya* {MAC (disjunct and western range limit) [W]}, *Persicaria lapathifolia* {MAC (disjunct)}, *Polycarpaea involucreta* {MAC (disjunct)}, *Triglochin hexagonum* {MAC (disjunct) only known in MAC from this site}

Other taxa only known in MAC Bioregion from this site: *Aristida pruinosa*, *Canthium attenuatum*

Type locations of the following were collected from the site: *Acacia minutifolia* (1880s), *Dodonaea viscosa* subsp. *mucronata* J.G. West, *Enneapogon eremophilus* (1973), *Eucalyptus sessilis*, *Halosarcia halocnemoides* subsp. *longispicata* (1967), *Livistonia mariae* (1870s), *Lomandra patens* (1958), *Lysiana spathulata* subsp. *parvifolia* (1961), *Menkea sphaerocarpa* (1870s), *Pimelea interioris* (1956), *Plectranthus intraterraneus*, *Stenanthemum centrale* (1971), *Triodia longiceps*

Botanically significant waterholes at the site: Gas well spring, Illbilla springs, Palm Valley springs, Running Waters

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

Map unit 87 (2 %): *Triodia* (Spinifex) open-hummock grassland with *Acacia aneura* tall sparse-shrubland overstorey.

Map unit 92 (63 %): *Triodia brizoides* (Hillside Spinifex) hummock grassland with mixed species low open-woodland overstorey.

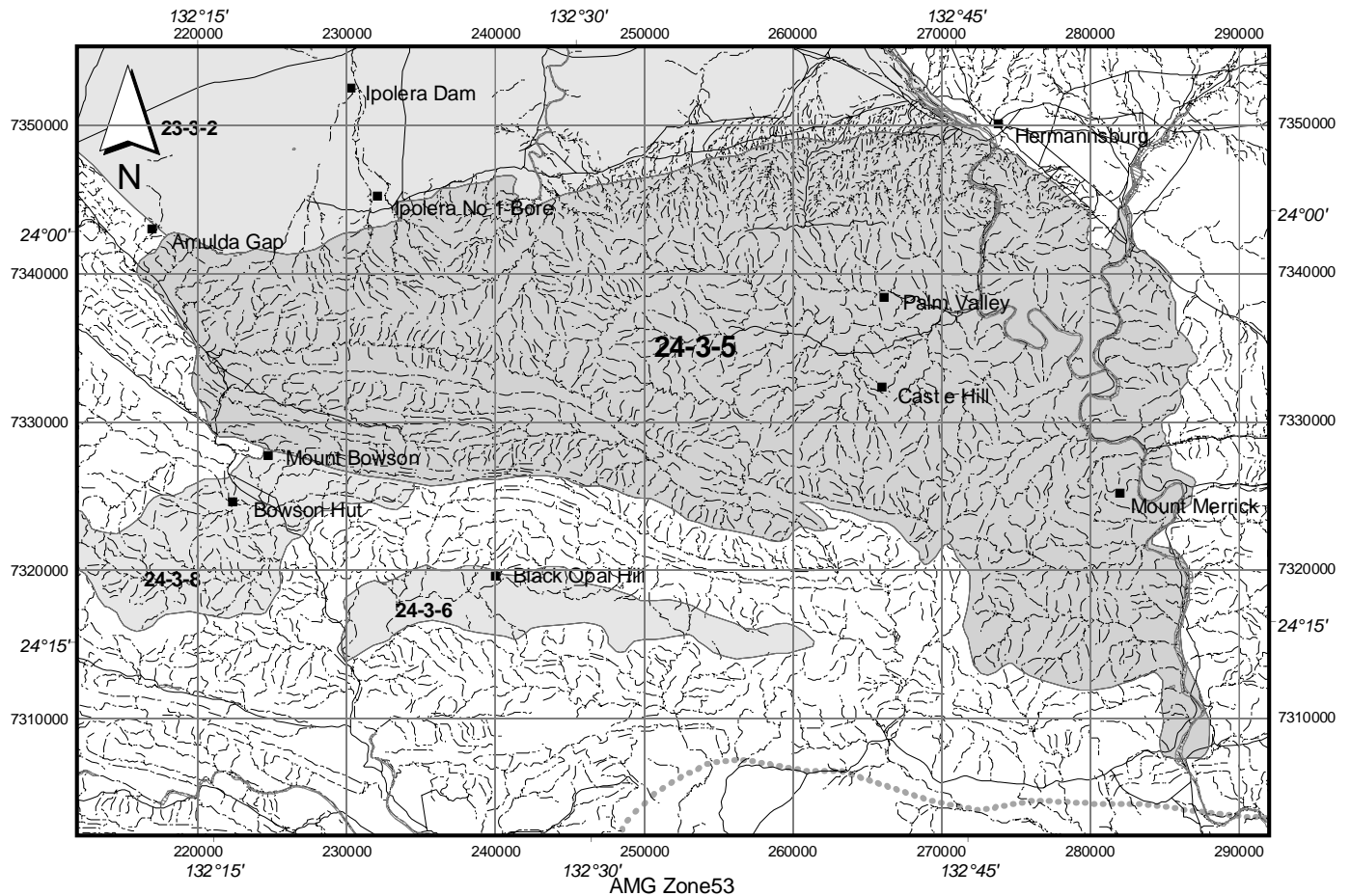
Map unit 66 (6 %): *Acacia aneura* (Mulga) tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.

Map unit 83 (2 %): *Triodia basedowii* (Hard Spinifex) or *Triodia pungens* (Soft Spinifex) hummock grassland with *Eucalyptus gamophylla* (Blue Mallee), *Acacia* tall sparse-shrubland overstorey.

Map unit 58 (1 < %): *Acacia aneura* (Mulga)/mixed species low open-woodland with open-grassland understorey.

Map unit 71 (1 < %): *Acacia aneura* (Mulga) tall sparse-shrubland with grassland understorey.

Map unit 93 (3 %): *Triodia basedowii* (Hard Spinifex) hummock grassland with *Allocasuarina decaisneana* (Desert Oak) open-woodland overstorey between dunes.



Site: 24-4-5 Rainbow Valley

Level of significance: national

Location: 24° 18' S 133° 30' E; Central James Range in the greater MacDonnell Ranges.

Area: 319 km² **Map sheets:** Rodinga SG 53-2 & Henbury SG 53-1

Bioregions: MacDonnell Ranges (MAC 97.1%) & Finke (FIN 2.9%)

Tenure: Rainbow Valley Conservation Reserve (6% of site); Pastoral Lease - Orange Creek Station (84% of site), Owen Springs Station (8% of site); Freehold Pwerte Marnte Marnte Aboriginal Corporation (1% of site)

Description: Includes the James Ranges, outwash plains and adjacent inselbergs between John Hollands bore and the Hugh River. The site approximates the extent of outcropping porous sandstone geologies - Hermannsburg and Mereenie Sandstones. The protracted weathering of the Hermannsburg sandstone has resulted in the formation of isolated mesas on the northern side of the range, including the spectacular Rainbow Valley.

Notes: The site is physiographically and edaphically heterogeneous. Broad habitat types relevant to the presence of rare plants includes rocky ridge-lines, gorges, run-on areas and freshwater, shallow sand sheets over limestone and sub-saline claypans.

Criteria satisfied: B1 b1 i)

Taxa of Australian significance: *Daviesia arthropoda* {3KCa}, *Eremophila prostrata* {2VCi [NSW] only known in MAC from this site}, *Zygophyllum crassissimum* {3RC-}

Taxa of NT significance: *Amyema miraculosa* subsp. *boormanii* {3k}, *Atriplex sturtii* {3rC- [N] only known in NT from this site}, *Eriochiton sclerolaenoides* {3k}, *Paractaenum novae-hollandiae* subsp. *reversum* {3kC-}, *Pomax* sp. *sand dunes* (P.G. Wilson 752) {3kC-}, *Sauropus rigens* {3rC-}, *Senna phyllodinea* {3k only known in MAC from this site}, *Sida* sp. *Rainbow Valley* (D.E. Albrecht 6601) {3kC-}

Taxa of Southern NT (study area) significance: none

Taxa of bioregional significance: *Alectryon oleifolius* subsp. *elongatus* {MAC (disjunct)}, *Dampiera cinerea* {eastern range limit [E]}, *Josephinia eugeniae* s.lat. {MAC (disjunct)}, *Tecticornia verrucosa* {MAC (eastern range limit) [E] only known in MAC from this site}, *Trema tomentosa* var. *aspera* {MAC (disjunct)}

Other taxa only known in MAC Bioregion from this site: *Acacia dictyophleba*, *Zygophyllum howittii*

Other taxa only known in FIN Bioregion (NT portion) from this site: *Boerhavia repleta*, *Cremnothamnus thomsonii*, *Oldenlandia pterospora*

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

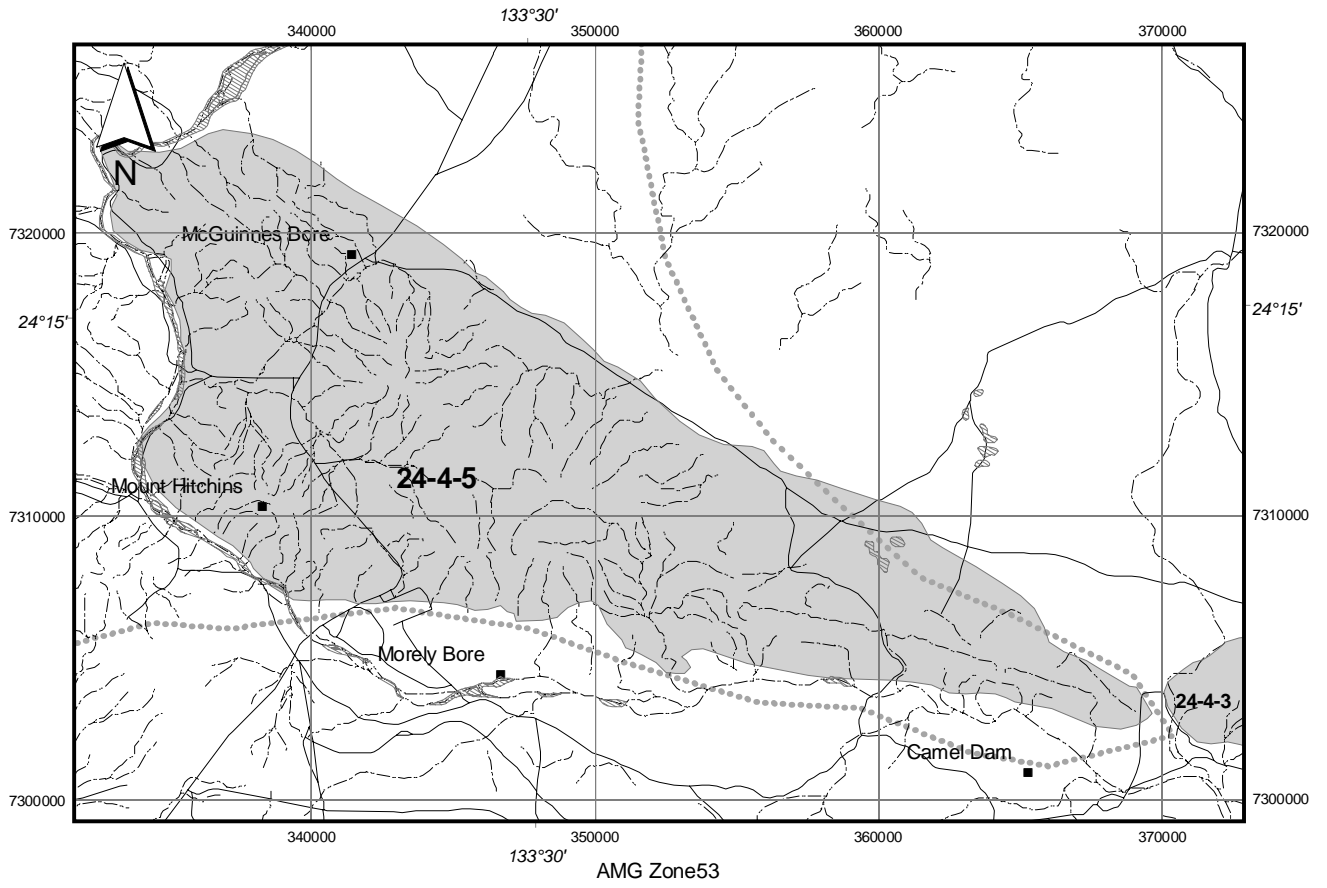
Map unit 71 (3 %): *Acacia aneura* (Mulga) tall sparse-shrubland with grassland understorey.

Map unit 83 (6 %): *Triodia basedowii* (Hard Spinifex) or *Triodia pungens* (Soft Spinifex) hummock grassland with *Eucalyptus gamophylla* (Blue Mallee), *Acacia* tall sparse-shrubland overstorey.

Map unit 87 (76 %): *Triodia* (Spinifex) open-hummock grassland with *Acacia aneura* tall sparse-shrubland overstorey.

Map unit 92 (1 < %): *Triodia brizoides* (Hillside Spinifex) hummock grassland with mixed species low open-woodland overstorey.

Map unit 66 (13 %): *Acacia aneura* (Mulga) tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.



SITES OF BIOREGIONAL SIGNIFICANCE IN THE MACDONNELL RANGES BIOREGION

Site: 22-4-2 Mueller Creek Catchment

Level of significance: bioregional

Location: 23° 3' S 134° 5' E; ca. 80 km north of Alice Springs.

Area: 490 km² **Map sheets:** Alcoota SF 53-10 & Alice Springs SF 53-14

Bioregions: MacDonnell Ranges (MAC 74.4%) & Burt Plain (BRT 25.6%)

Tenure: Pastoral Lease - Alcoota Station (15% of site), Yamba Station (26% of site), Bushy Park Stations (51% of site) and The Garden Station (2% of site); Freehold - Alatyeye (4% of site)

Description: This site includes the upper Catchment of Mueller Creek and crosses the boundary of the Burt Plain and MacDonnell Ranges bioregions. The upper reaches of the watershed are predominantly crystalline metamorphic hills with shallow soils (MacDonnell Ranges Bioregion) while the northern section of the site is dissected lowlands with loamy plains (Burt Plain Bioregion).

Notes: This site includes fertile loamy plains and supports extensive stands of mature 'groved' *Acacia aneura*.

Criteria satisfied: B1 b1 ii)

Taxa of Australian significance: *Hydrocotyle sp. Harts Range* (A.C. Beaglehole 44720) {2R [W]}, *Sedopsis filsonii* {3RC-}

Taxa of NT significance: *Aristida longicollis* {3r [W] only known in NT from this site}, *Cyperus gilesii* {3k}, *Ptilotus aervoides* {3k}, *Spartothamnella puberula* {3rC-}

Taxa of Southern NT (study area) significance: none

Taxa of bioregional significance: *Atriplex stipitata* {MAC (northern range limit) [N]}

Botanically significant waterholes at the site: Mt. Pfitzner Spring

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

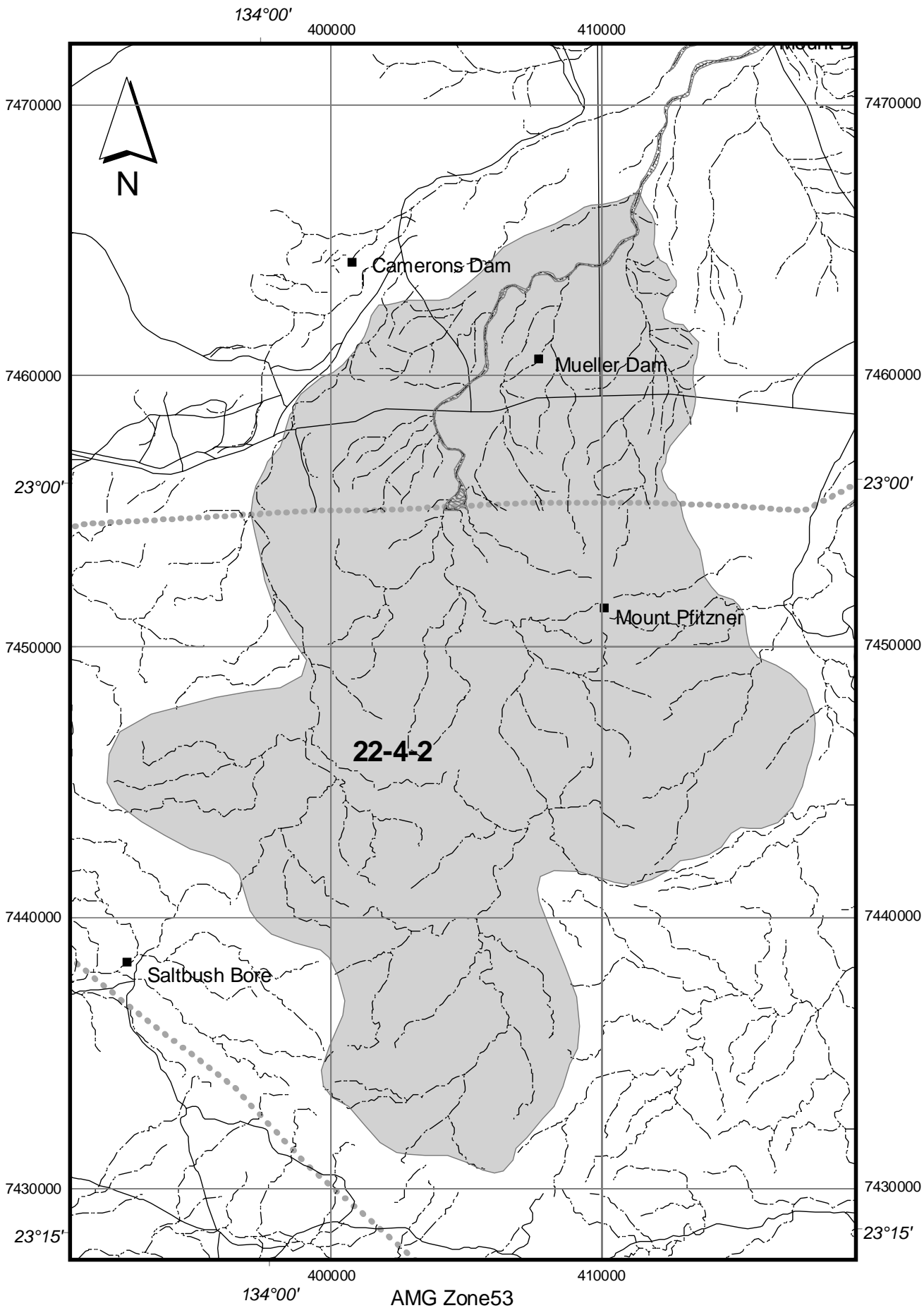
Map unit 68 (1 < %): *Acacia kempeana* (Witchetty Bush) *Acacia* tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.

Map unit 65 (2 %): *Acacia aneura* (Mulga) tall open-shrubland with *Eragrostis eriopoda* (Woollybutt) open-grassland understorey.

Map unit 66 (73 %): *Acacia aneura* (Mulga) tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.

Map unit 59 (23 %): *Acacia estrophiolata* (Ironwood), *Atalaya hemiglauca* (Whitewood) low open-woodland with open-grassland understorey.

Map unit 71 (1 < %): *Acacia aneura* (Mulga) tall sparse-shrubland with grassland understorey.



Site: 23-2-4 Mereenie

Level of significance: bioregional

Location: 24° 2' S 131° 38' E; Sand plains fringing the western margins of the MacDonnell Ranges. The site includes the Mereenie oil Fields.

Area: 160 km² **Map sheets:** Mount Liebig SF 52-16 & Lake Amadeus SG 52-4

Bioregions: MacDonnell Ranges (MAC 92.9%) & Great Sandy Desert (GSD 7.1%)

Tenure: Freehold - Haasts Bluff Aboriginal Land Trust (100% of site)

Description: This site includes the low sandstone ranges and sandplains of the Dare Plain. The site is broadly circumscribed by the occurrence of extensive outcropping of Mereenie sandstone. It is contiguous with the site no 23-2-6 Lay Cock's Sandplain which extends to the north.

Notes: The Dare plain is a shallow sand sheet underlain by Mereenie sandstone. These plains and low sandstone outcrops support populations of rare plants and potentially rare plant communities.

Criteria satisfied: A1 b ii)

Taxa of Australian significance: *Euphorbia sarcostemmoides* {3KCa}, *Phyllanthus oblanceolatus* {3KC-}

Taxa of NT significance: *Einadia nutans* subsp. *nutans* {3rC-}, *Eremophila ovata* {3k [W]}, *Leiocarpa tomentosa* {3kC-}

Taxa of Southern NT (study area) significance: none

Taxa of bioregional significance: *Polycarpaea involucrata* {MAC (disjunct)}

Other taxa only known in MAC Bioregion from this site: *Scaevola collaris*

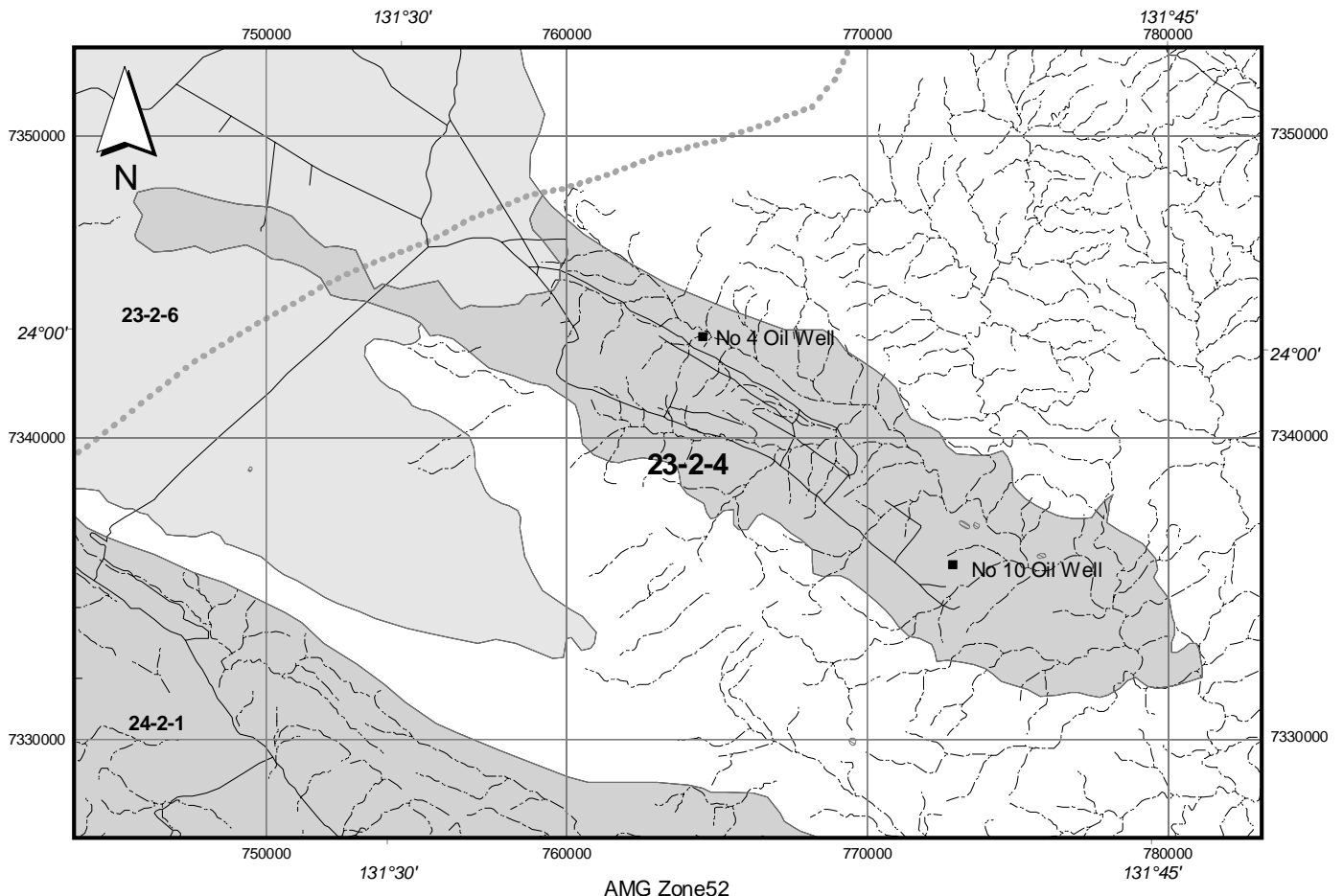
Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

Map unit 73 (68 %): *Acacia tetragonophylla* (Dead Finish), *Acacia kempeana* (Witchetty Bush) sparse-shrubland with herb/grassland understorey.

Map unit 87 (13 %): *Triodia* (Spinifex) open-hummock grassland with *Acacia aneura* tall sparse-shrubland overstorey.

Map unit 93 (11 %): *Triodia basedowii* (Hard Spinifex) hummock grassland with *Allocasuarina decaisneana* (Desert Oak) open-woodland overstorey between dunes.

Map unit 71 (6 %) : *Acacia aneura* (Mulga) tall sparse-shrubland with grassland understorey.



Site: 23-2-8 Idirriki

Level of significance: bioregional

Location: 23° 39' S 131° 38' E; ca. 30 km south west of Haasts Bluff community in the far western end of the MacDonnell Ranges.

Area: 31 km² **Map sheet:** Mount Liebig SF 52-16

Bioregion: MacDonnell Ranges (MAC)

Tenure: Freehold - Haasts Bluff Aboriginal Land Trust (100% of site)

Description: This site incorporates a minor south flowing tributary of Deering Creek which drains the steep sided meta-sandstone massif of the Idirriki Range. This range features Mount Tate and Mount Musgrave. The site includes several deep shaded gorges and most of the botanical values of the site are concentrated in these features.

Notes: Type location for *Bulbostylis pyriformis*.

Criteria satisfied: B1 b1 ii)

Taxa of Australian significance: *Melaleuca faucicola* {3RC-}, *Neurachne tenuifolia* {3RCa}

Taxa of NT significance: *Bulbostylis pyriformis* {3rC- [W]}, *Elacholoma hornii* {3rC-}, *Glycine* sp. *Talipata* (B.G. Thomson 699) {3rC-}, *Hibbertia glaberrima* {3rCa}

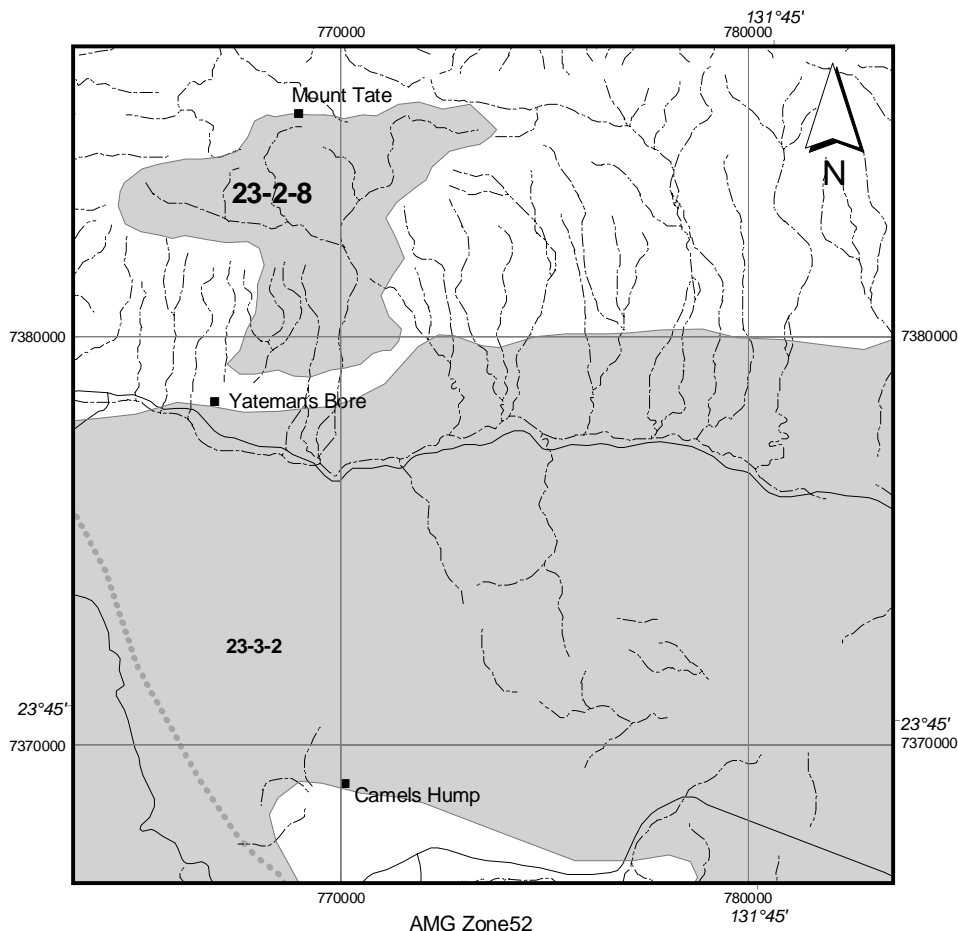
Taxa of Southern NT (study area) significance: *Fimbristylis nuda* {(disjunct & apparently rare) only known in MAC from this site}

Taxa of bioregional significance: *Cyanthillium cinereum* s.lat. {MAC (disjunct)}, *Rotala occultiflora* {MAC (disjunct)}, *Trema tomentosa* var. *aspera* {MAC (disjunct)}

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

Map unit 68 (1 < %): *Acacia kempeana* (Witchetty Bush) *Acacia* tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.

Map unit 92 (99 %): *Triodia brizoides* (Hillside Spinifex) hummock grassland with mixed species low open-woodland overstorey.



Site: 23-3-6 Goyder Pass

Level of significance: bioregional

Location: 23° 39' S 132° 24' E; Western MacDonnell Ranges

Area: 180 km² **Map sheet:** Hermannsburg SF 53-13

Bioregion: MacDonnell Ranges (MAC)

Tenure: West MacDonnell Ranges National Park (44% of site); Freehold - Ltalaltuma, Rodna and Haast Bluff Aboriginal Land Trusts (each <1% of site); Pastoral Lease - Glen Helen Station (55% of site)

Description: This site includes the catchments of three tributaries (including Davenport Creek) of Crawford Creek in the Mereenie Valley. The geology and geomorphology of this area is complex. The north flowing creeks have cut down through the east-west trending strike ridges of the western MacDonnell Ranges exposing various sedimentary geologies including dolostone, limestone and sandstone. The upper catchment of the site is mountainous with high points at around 950 m ASL and is composed of conglomerate. The 'floor' of the Mereenie Valley is an undulating surface with low 'broken' hills formed from the weathering of tertiary material (i.e. duricrusted land surfaces), and poorly consolidated sandstones. In addition, the site includes extensive areas of recent alluvial and colluvial deposition and minor outcroppings of gneiss.

Notes: The botanical values of this site have yet to be adequately determined and may extend more broadly particularly to the north towards the Razorback. It is known that the site currently supports extensive stands of mature *Acacia* shrublands and populations of Brushtail Possums (a rare mammal in central Australia). It is possible that this area supports mound springs and this possibility should be investigated.

Criteria satisfied: B1 b1 ii)

Taxa of Australian significance: *Austrostipa aquarii* {3RC-}, *Cratystylis centralis* {3RC-}, *Sauropus ramosissimus* {3KC-}

Taxa of NT significance: *Einadia nutans subsp. nutans* {3rC-}, *Eremophila ovata* {3k [N,E]}, *Pimelea microcephala subsp. microcephala* {3r}, *Ptilotus aevroides* {3k only known in MAC from this site}, *Spartothamnella puberula* {3rC-}, *Tecticornia disarticulata* {3rC-}

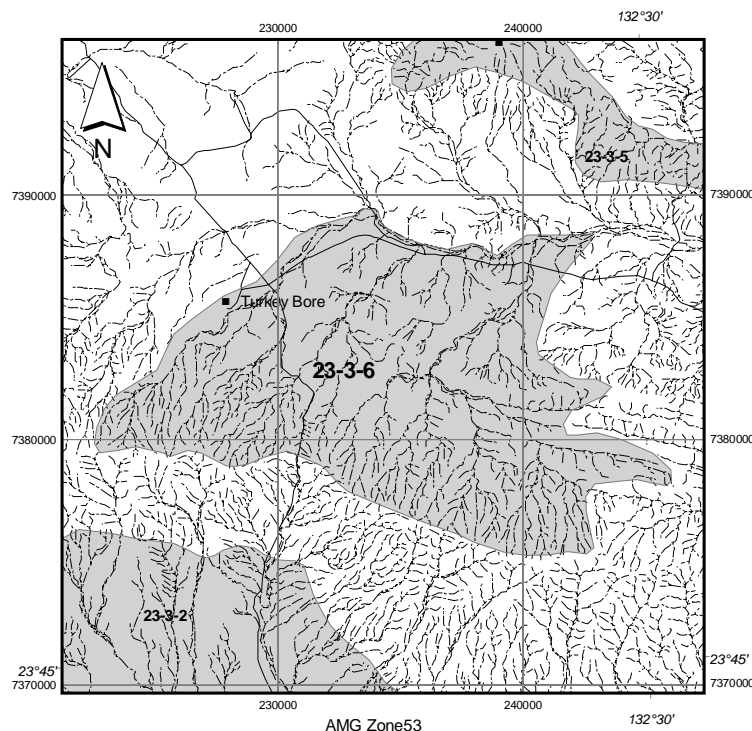
Taxa of Southern NT (study area) significance: none

Taxa of bioregional significance: *Polymeria ambigua* {MAC (disjunct and southern range limit) [S]}, *Trema tomentosa var. aspera* {MAC (disjunct)}

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

Map unit 92 (93 %): *Triodia brizoides* (Hillside Spinifex) hummock grassland with mixed species low open-woodland overstorey.

Map unit 69 (6 %): *Acacia aneura* (Mulga) tall sparse-shrubland with *Aristida contorta* (Bunched Kerosene Grass) or *Triodia* open-tussock/hummock grassland understorey.



Site: 23-4-10 Hale and Paddys Plains

Level of significance: bioregional

Location: 23° 25' S 134° 35' E; ca. 90 km north east of Alice Springs.

Area: 491 km² **Map sheet:** Alice Springs SF 53-14

Bioregion: MacDonnell Ranges (MAC)

Tenure: Pastoral Lease - Ambalindum Station (35% of site), Loves Creek Station (10% of site) and The Garden Station (51% of site); Arlunga Historical Reserve (2% of site)

Description: This site includes two peneplains enclosed within the east MacDonnell Ranges, delineated by two discrete polygons. The plains also encompass low hills composed of tertiary material, primarily silcrete, limestone and siltstone and minor outcroppings of gneiss. The weathering of the surrounding crystalline metamorphic rocks and tertiary sediments has given rise to calcareous clay-rich soils.

Notes: Heavy clay soils are uncommon in this and adjoining bioregions. As such, the site is an important area for disjunctions of plant taxa reaching the northern or southern edge of their continental range.

Criteria satisfied: A1 a ii), A1 b ii), B1 b1 ii)

Taxa of Australian significance: *Cratystylis centralis* {3RC-}, *Ixiochlamys integerrima* {3K only known in MAC from this site}, *Sedopsis filsonii* {3RC-}, *Sida sp. Ambalindum* (C.R. Dunlop 2080) {3KC-}

Taxa of NT significance: *Astrebla lappacea* {3k}, *Eriochiton sclerolaenoides* {3k [N]}, *Eucalyptus thozetiana* {3rC-[W]}, *Maireana schistocarpa* {3k}

Taxa of Southern NT (study area) significance: none

Taxa of bioregional significance: *Aristida strigosa* {MAC (northern range limit)[N]}, *Atriplex nummularia subsp. nummularia* {MAC (northern range limit) [N]}, *Cyanthillium cinereum* s.lat. {MAC (disjunct)}, *Heliotropium conocarpum* {MAC (disjunct and southern range limit) [S] only known in MAC from this site}, *Vittadinia sulcata* {MAC (disjunct)}

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

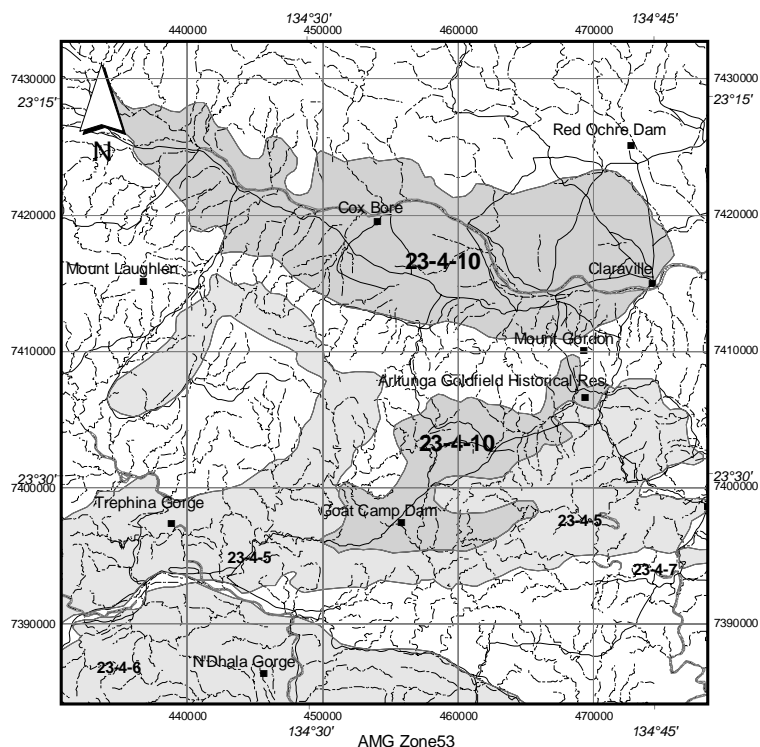
Map unit 92 (17 %): *Triodia brizoides* (Hillside Spinifex) hummock grassland with mixed species low open-woodland overstorey.

Map unit 59 (54 %): *Acacia estrophiolata* (Ironwood), *Atalaya hemiglauca* (Whitewood) low open-woodland with open-grassland understorey.

Map unit 68 (26 %): *Acacia kempeana* (Witchetty Bush) *Acacia* tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.

Map unit 66 (1 < %): *Acacia aneura* (Mulga) tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.

Map unit 80 (1 < %): *Triodia longiceps* (Bull Spinifex) hummock grassland with *Acacia* tall open-shrubland overstorey.



Site: 23-4-11 Mount Riddock

Level of significance: bioregional

Location: 23° 4' S 134° 38' E; ca 100 km north east of Alice Springs

Area: 47 km² **Map sheet:** Alice Springs SF 53-14

Bioregions: Burt Plain (BRT 98%) & MacDonnell Ranges (MAC 2%)

Tenure: Pastoral Lease - Mount Riddock Station (100% of site)

Description: This site includes the Mount Riddock massif and associated hills, footslopes and some of the surrounding plains. Mount Riddock is composed of amphibolite, a rock type rich in dark mafic minerals. This site is part of the greater MacDonnell Ranges area, however, it is currently located in the Burt Plain Bioregion. This is a consequence of the scale at which the bioregional boundary was prepared and digitised.

Notes: The mineralogy of this site is similar to the nearby Harts Range site (see site 23-4-9). It supports populations of several rare and poorly known plant species and potentially supports interesting and possibly rare plant communities. The southern fall of the range has associations of 'fire sensitive' vegetation. The site also includes the type locations for *Austrostipa centralis* and *Aristida latzii*.

Criteria satisfied: B1 b1 ii), C1 b ii)

Taxa of Australian significance: *Austrostipa centralis* {3RC-}, *Gossypium nelsonii* {3RC-}

Taxa of NT significance: *Eremophila elderi* {3k}

Taxa of Southern NT (study area) significance: none

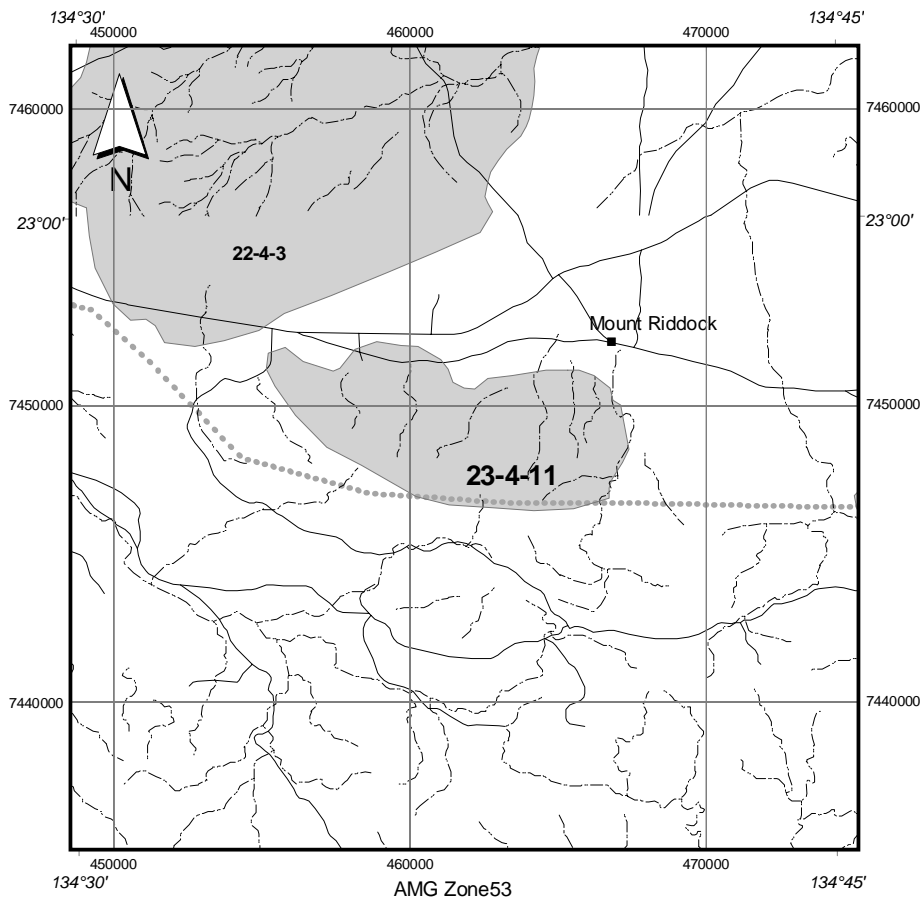
Taxa of bioregional significance: *Brachycome blackii* {BRT (northern range limit) [N] only known in BRT from this site}, *Corymbia eremaea subsp. eremaea* {MAC (northern range limit) [N] only known in BRT from this site}, *Vittadinia sulcata* {MAC (disjunct), BRT (disjunct)}

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

Map unit 58 (24 %): *Acacia aneura* (Mulga)/mixed species low open-woodland with open-grassland understorey.

Map unit 68 (14 %): *Acacia kempeana* (Witchetty Bush) *Acacia* tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.

Map unit 59 (60 %): *Acacia estrophiolata* (Ironwood), *Atalaya hemiglauca* (Whitewood) low open-woodland with open-grassland understorey.



Site: 23-4-12 New Well

Level of significance: bioregional

Location: 23° 36' S 133° 36' E; ca. 35 km WNW of Alice Springs.

Area: 27 km² **Map sheet:** Alice Springs SF 53-14

Bioregion: MacDonnell Ranges (MAC)

Tenure: Pastoral Lease - Hamilton Downs Station (40% of site); West MacDonnell National Park (59% of site)

Description: This site includes the upper watershed of a small creek draining the northern fall of the crystalline ranges and hills which lie to the north of the Chewings and Heavitree Ranges. The creek meets the Burt Plain at New Well, a stock watering point on Hamilton Downs Station.

Notes: The site supports extensive stands of Mulga (*Acacia aneura*) and includes the type location for *Gossypium nelsonii*.

Criteria satisfied: B1 b1 ii)

Taxa of Australian significance: *Austrostipa centralis* {3RC-}, *Gossypium nelsonii* {3RC-} *Macrozamia macdonnellii* {3VCa}

Taxa of NT significance: *Bulbostylis pyriformis* {3rC-}, *Einadia nutans subsp. nutans* {3rC-}, *Vittadinia pustulata* {3kC-}

Taxa of Southern NT (study area) significance: none

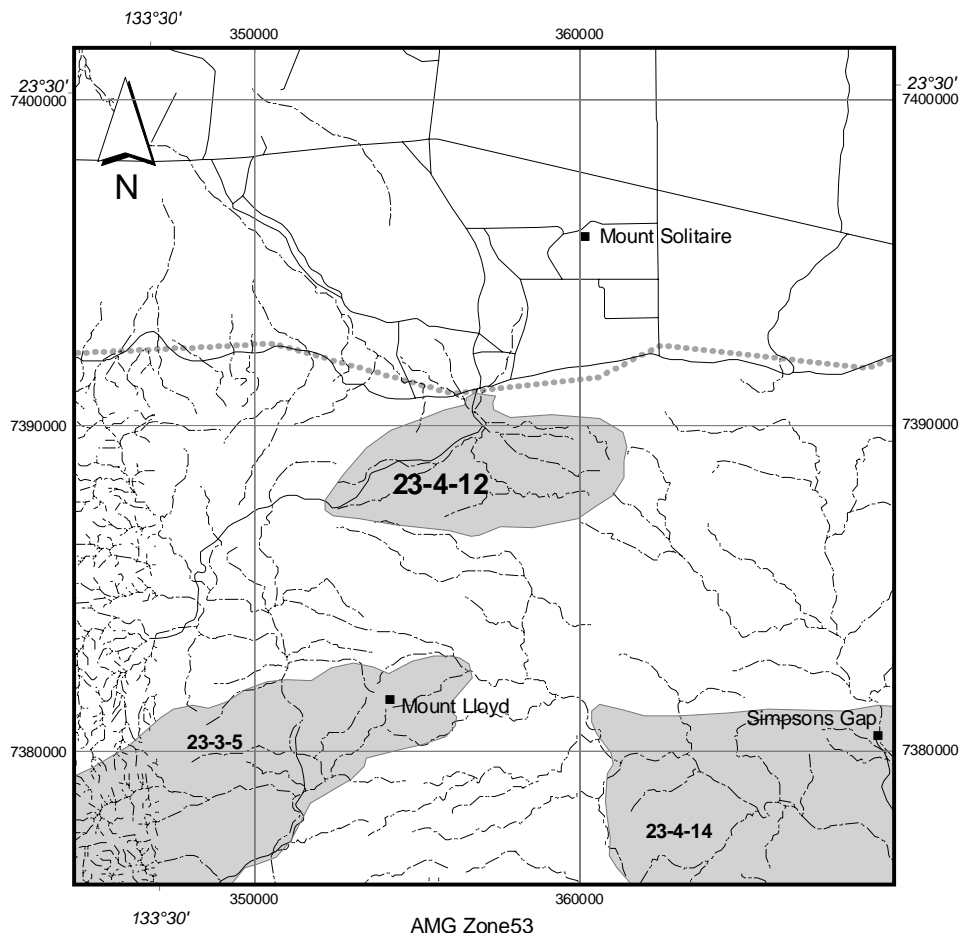
Taxa of bioregional significance: *Actinobole uliginosum* {MAC (northern range limit)}

Other taxa only known in MAC Bioregion from this site: *Polycarpaea spirostylis*

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

Map unit 66 (57 %): *Acacia aneura* (Mulga) tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.

Map unit 68 (42 %): *Acacia kempeana* (Witchetty Bush) *Acacia* tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.



Site: 23-4-13 Emily Gap

Level of significance: bioregional

Location: 23° 44' S 133° 57' E; Central MacDonnell Ranges - Alice Springs

Area: 25 km² **Map sheet:** Alice Springs SF 53-14

Bioregions: MacDonnell Ranges (MAC 96.5%) & Simpson-Strzelecki Dunefields (SSD 3.2%) & Finke (FIN 0.3%)

Tenure: Emily and Jessie Gaps Nature Park (27% of site); Pastoral Lease - Undoolya Station (31% of site); Uncommitted Crown Land (41% of site)

Description: The quartzite Heavitree Range east of Heavitree Gap to Jessie Gap including the southern fall of the Range and associated outcroppings of dolomite and isolated tertiary land surfaces.

Notes: The site supports rare and threatened plant taxa including populations of *Minuria tridens*.

Criteria satisfied: B1 b1 ii)

Taxa of Australian significance: *Austrostipa aquarii* {3RC-}, *Austrostipa feresetacea* {3RC-}, *Minuria tridens* {3Vci}

Taxa of NT significance: *Ophioglossum polyphyllum* {3rC- only known in SSD from this site}

Taxa of Southern NT (study area) significance: none

Taxa of bioregional significance: none

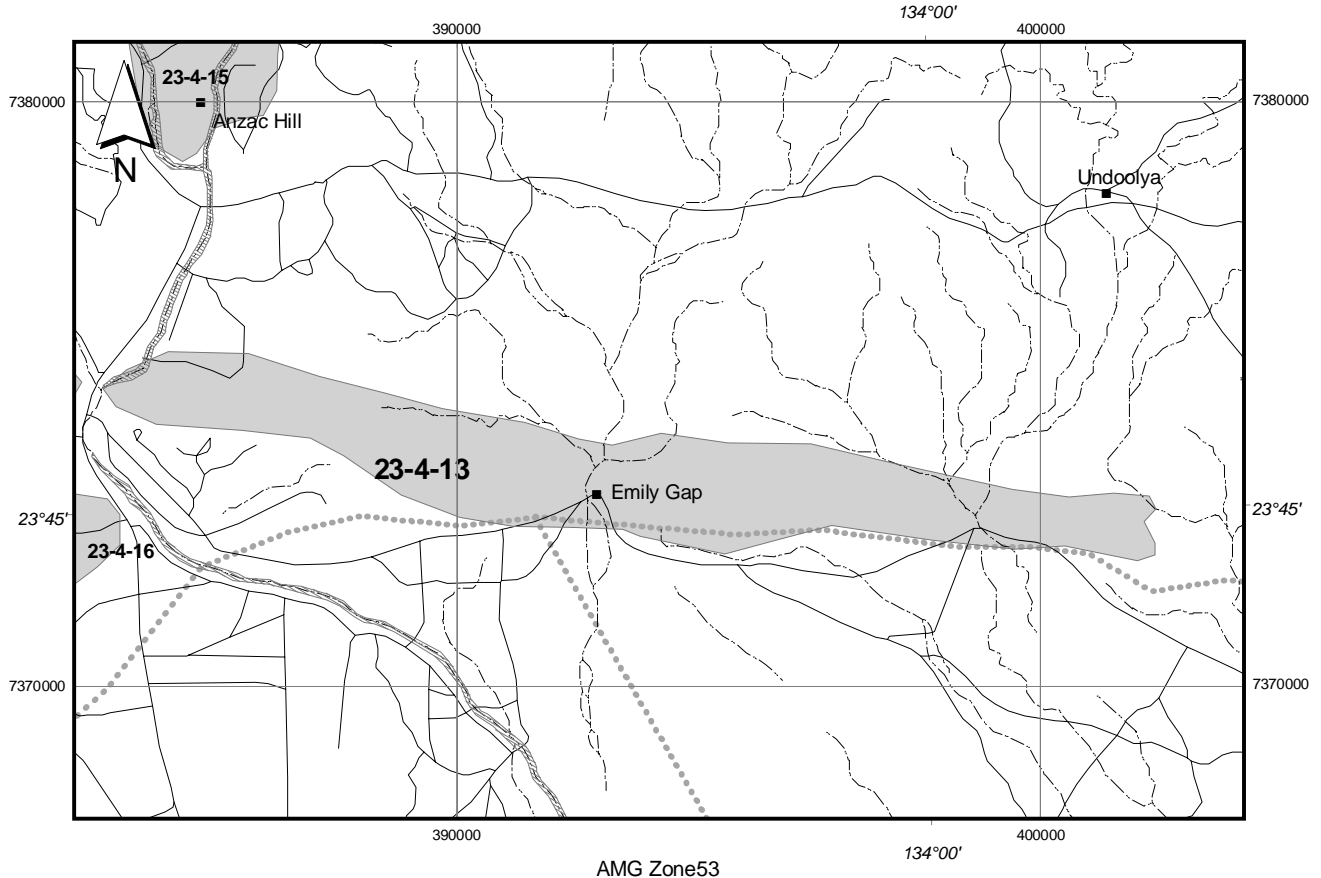
Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

Map unit 68 (4 %): *Acacia kempeana* (Witchetty Bush) *Acacia* tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.

Map unit 87 (82 %): *Triodia* (Spinifex) open-hummock grassland with *Acacia aneura* tall sparse-shrubland overstorey.

Map unit 59 (13 %): *Acacia estrophiolata* (Ironwood), *Atalaya hemiglauca* (Whitewood) low open-woodland with open-grassland understorey.

Map unit 27 (1 < %): *Eucalyptus microtheca* s.lat. (Coolibah) low open-woodland with open-grassland understorey.



Site: 23-4-15 Charles and Todd Rivers

Level of significance: bioregional

Location: 23° 38' S 133° 52' E; Central MacDonnell Ranges to the north of Alice Springs.

Area: 109 km² **Map sheet:** Alice Springs SF 53-14

Bioregion: MacDonnell Ranges (MAC)

Tenure: Pastoral Lease - Bond Springs Station (45% of site); Alice Springs Telegraph Station Historic Reserve (12% of site); West MacDonnell Ranges National Park (33% of site); Various small leaseholdings, freeholdings and reserved lands (&% of site)

Description: Includes the upper catchment of the Charles River and the middle reaches of the Todd River and its' tributaries. Geology is primarily gneiss - metamorphosed crystalline granites and granodiorites. This has resulted in an undulating 'rounded' landform with few small gorges associated with the major watercourses. The soils are generally shallow free-draining lithosols. The vegetation is predominantly shrublands dominated by *Acacia aneura* and *Acacia kempeana*.

Notes: The site includes several semi-permanent waterholes on the Todd River, notably Wigleys and Junction waterholes.

Criteria satisfied: B1 b1 ii)

Taxa of Australian significance: *Austrostipa centralis* {3RC-}, *Gossypium nelsonii* {3RC-}, *Pluchea sp. Ormiston* (H.D.V. Prendegast 66) {3K [SE]}, *Samolus eremaeus* {3KC-}

Taxa of NT significance: *Calandrinia polyandra* {3kC- only known in MAC from this site}, *Crotalaria dissitiflora var. dissitiflora* {3k}, *Einadia nutans subsp. nutans* {3rC-}, *Lythrum paradoxum* {3k}, *Oxalis radicata* {3kC-}

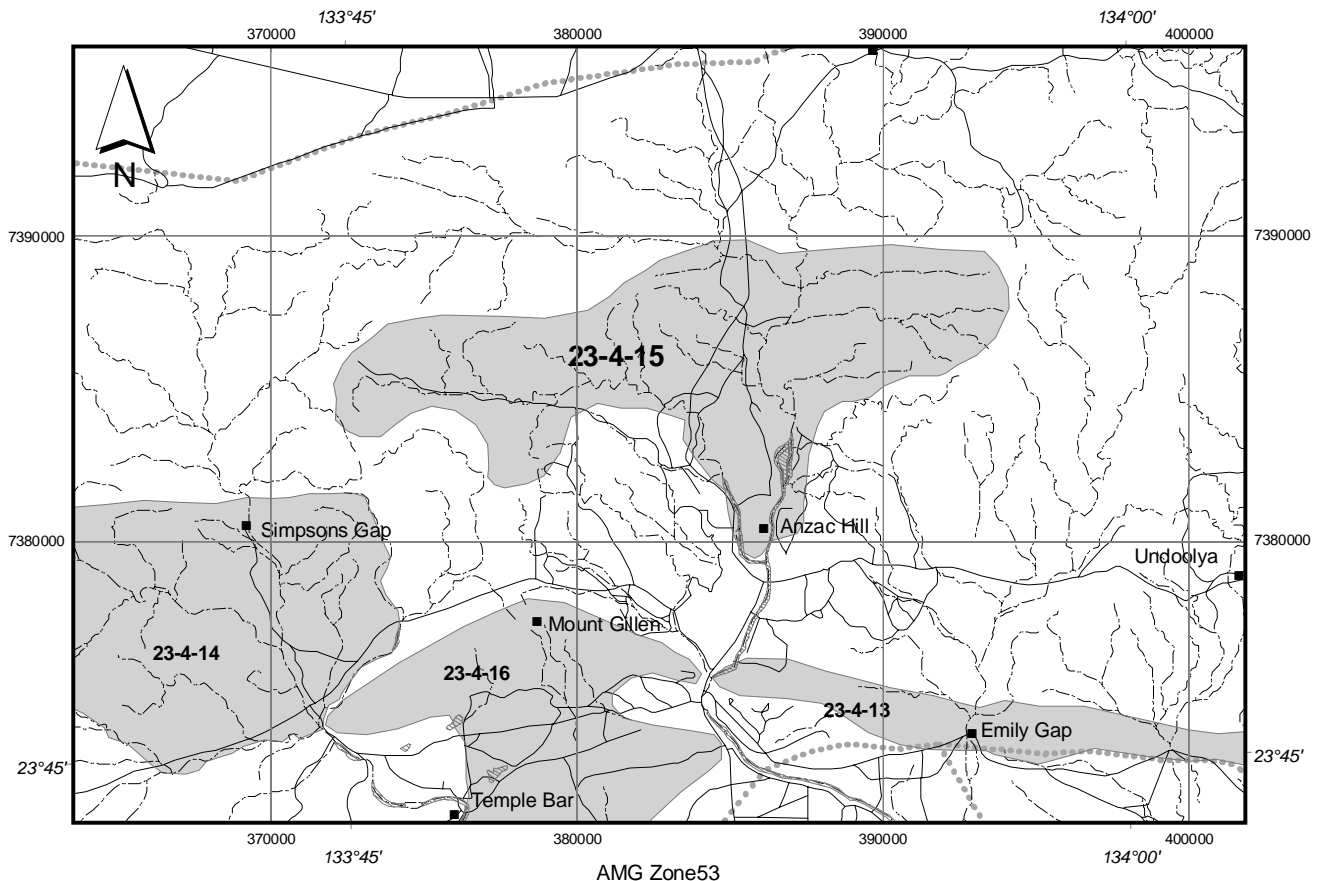
Taxa of Southern NT (study area) significance: *Plumbago zeylanica* {(disjunct)}

Taxa of bioregional significance: *Alectryon oleifolius subsp. elongatus* {MAC (disjunct)}, *Vittadinia sulcata* {MAC (disjunct)}

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

Map unit 66 (2 %): *Acacia aneura* (Mulga) tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.

Map unit 68 (97 %): *Acacia kempeana* (Witchetty Bush) *Acacia* tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.



Site: 23-5-2 Mount Ruby

Level of significance: bioregional

Location: 23° 22' S 135° 4' E; Forms part of the Illogwa Creek catchment at the eastern edge of the east MacDonnell Ranges.

Area: 31 km² **Map sheet:** Illogwa Creek SF 53-15

Bioregion: MacDonnell Ranges (MAC)

Tenure: Pastoral Lease - Ambalindum Station (84% of site) and Loves Creek Station (15% of site)

Description: The site includes Mount Ruby and associated hills. Geology is mafic metamorphics, predominantly amphibolites.

Notes: This area is difficult to access and is rarely visited. It warrants further investigation.

Criteria satisfied: B1 b1 ii)

Taxa of Australian significance: *Austrostipa centralis* {3RC- [E]}, *Samolus eremaeus* {3KC-}

Taxa of NT significance: none

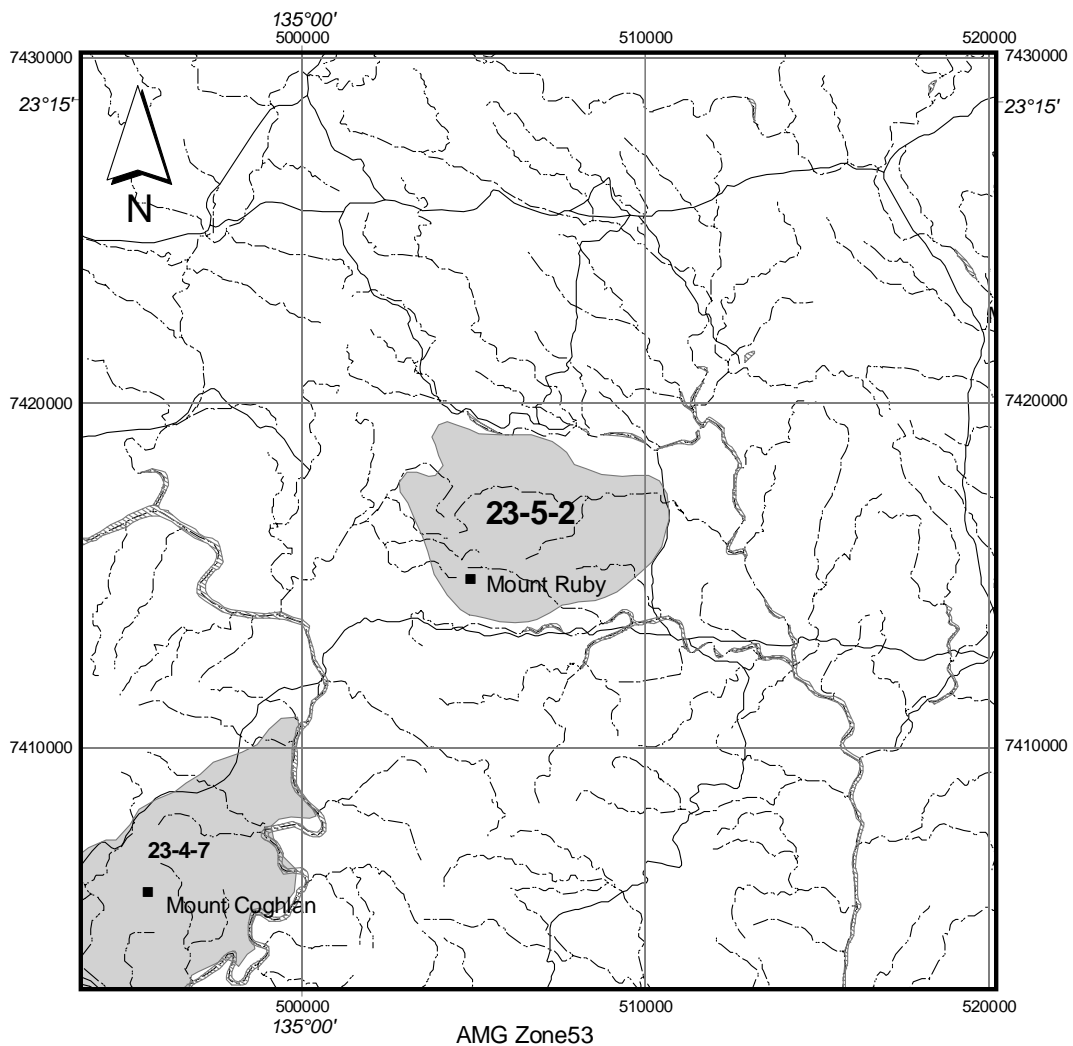
Taxa of Southern NT (study area) significance: none

Taxa of bioregional significance: none

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

Map unit 66 (41 %): *Acacia aneura* (Mulga) tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.

Map unit 68 (58 %): *Acacia kempeana* (Witchetty Bush) *Acacia* tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.



Site: 23-5-4 Mount Long / Mount Mary

Level of significance: bioregional

Location: 23° 3' S 135° 19' E; North-western extremity of the Harts Range.

Area: 42 km² **Map sheet:** Illogwa Creek SF 53-15

Bioregions: Burt Plain (BRT 59.8%) & MacDonnell Ranges (MAC 40.2%)

Tenure: Pastoral Lease - Huckitta Station (11% of site), Mount Riddock Station (89% of site)

Description: This site includes Mount Long and Mount Mary. The geology of the site is crystalline metamorphic and includes various types of schist and gneiss typical of the Harts Range Metamorphics.

Notes: Site is at the eastern margin of the extensive crystalline uplands of the north eastern MacDonnell Ranges.

Criteria satisfied: B1 b1 ii)

Taxa of Australian significance: *Samolus eremaeus* {3KC-}

Taxa of NT significance: *Lythrum paradoxum* {3k}, *Pimelea microcephala subsp. microcephala* {3r}

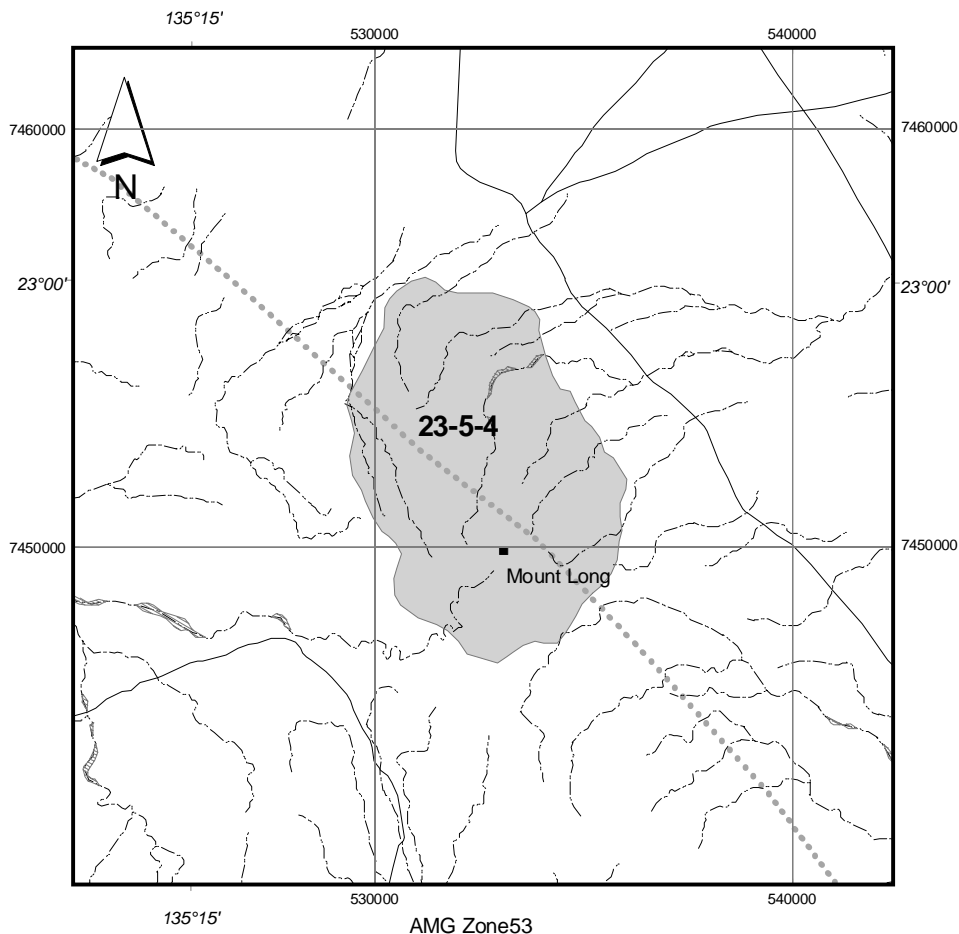
Taxa of Southern NT (study area) significance: none

Taxa of bioregional significance: *Acacia basedowii* {MAC (northern and eastern range limits) [NE]}, *Pleurosorus subglandulosus* {MAC (northern range limit) [N]}, *Vittadinia sulcata* {MAC (disjunct)}

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

Map unit 68 (69 %): *Acacia kempeana* (Witchetty Bush) *Acacia* tall open-shrubland with *Senna*, *Eremophila* (Fuchsia) open-shrubland understorey.

Map unit 59 (31 %): *Acacia estrophiolata* (Ironwood), *Atalaya hemiglauca* (Whitewood) low open-woodland with open-grassland understorey.



Site: 24-3-4 Illawilla

Level of significance: bioregional

Location: 24° 21' S 133° 6' E; Southern MacDonnell Ranges

Area: 240 km² **Map sheet:** Henbury SG 53-1

Bioregions: MacDonnell Ranges (MAC 74.6%) & Finke (FIN 25.4%)

Tenure: Pastoral Lease - Henbury Station (99% of site), Orange Creek (<1% of site)

Description: Includes the catchments of Illawilla Creek and neighbouring watercourses.

Notes: The significant values of this site centre on the narrow sandstone gorges, where several minor tributaries of the Palmer River including Illawilla Creek have 'cut' down through the soft sediments of Mereenie and Hermannsburg sandstone to create deep narrow gorges such as Caterpillar Gorge.

Criteria satisfied: B1 b1 ii)

Taxa of Australian significance: *Eucalyptus lucens* {3RC- [S]}, *Harnieria kempeana subsp. kempeana* {3RC-}

Taxa of NT significance: *Goodenia havilandii* {3rC-}, *Hibbertia glaberrima* {3rCa}, *Sida sp. Kathleen Springs* (A.C. Beaglehole 26934) {3kC-}

Taxa of Southern NT (study area) significance: none

Taxa of bioregional significance: *Vittadinia sulcata* {MAC (disjunct)}

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

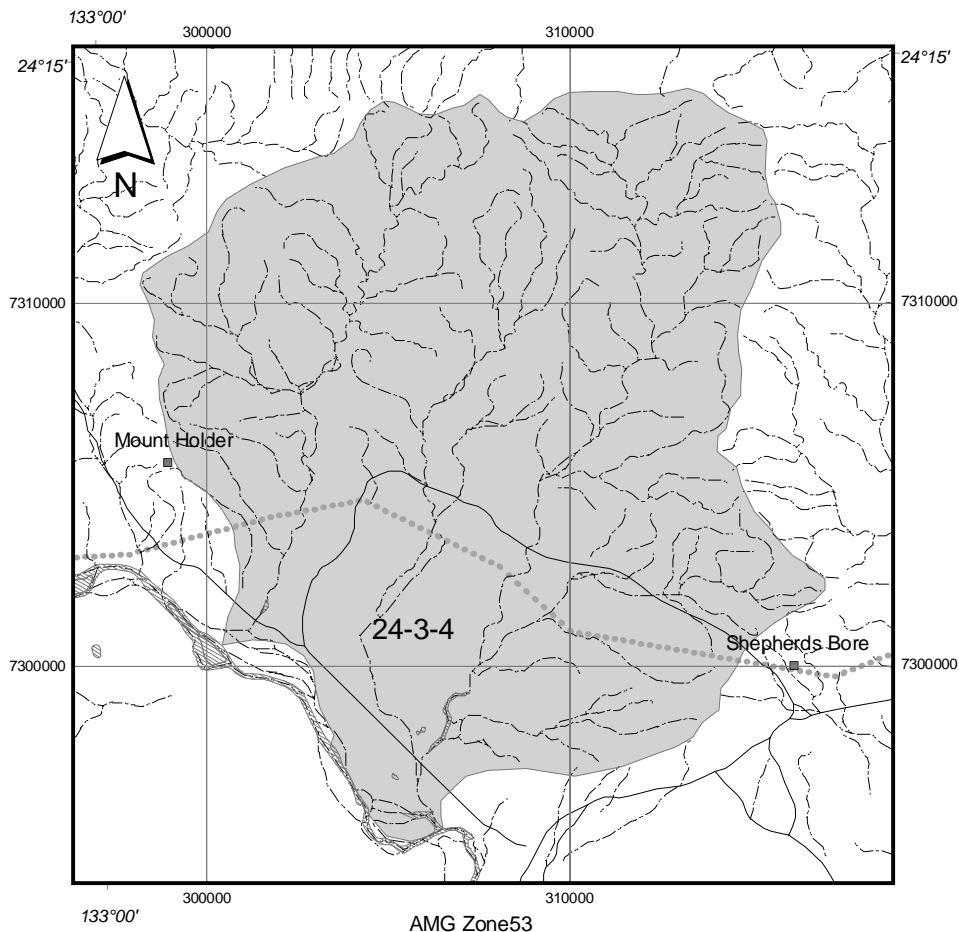
Map unit 87 (15 %): *Triodia* (Spinifex) open-hummock grassland with *Acacia aneura* tall sparse-shrubland overstorey.

Map unit 58 (1 < %): *Acacia aneura* (Mulga)/mixed species low open-woodland with open-grassland understorey.

Map unit 93 (1 < %): *Triodia basedowii* (Hard Spinifex) hummock grassland with *Allocasuarina decaisneana* (Desert Oak) open-woodland overstorey between dunes.

Map unit 92 (19 %): *Triodia brizoides* (Hillside Spinifex) hummock grassland with mixed species low open-woodland overstorey.

Map unit 71 (63 %): *Acacia aneura* (Mulga) tall sparse-shrubland with grassland understorey.



Site: 24-3-6 Wild Eagle Plains

Level of significance: bioregional

Location: 24° 14' S 132° 28' E; Southern MacDonnell Ranges

Area: 101 km² **Map sheet:** Henbury SG 53-1

Bioregion: MacDonnell Ranges (MAC)

Tenure: Pastoral Lease - Henbury Station (16% of site), Freehold - Urrampinyi Iltjiltjarri Aboriginal Land Trust (83% of site)

Description: This site is an elevated sandplain to the south of the central James Ranges enclosed by ranges. It is 'perched' on a large expanse of Mereenie sandstone.

Notes: Potentially interesting area which has been visited infrequently by botanists and ecologists. Further study is required.

Criteria satisfied: B1 b1 ii)

Taxa of Australian significance: *Daviesia arthropoda* {3KCa}

Taxa of NT significance: none

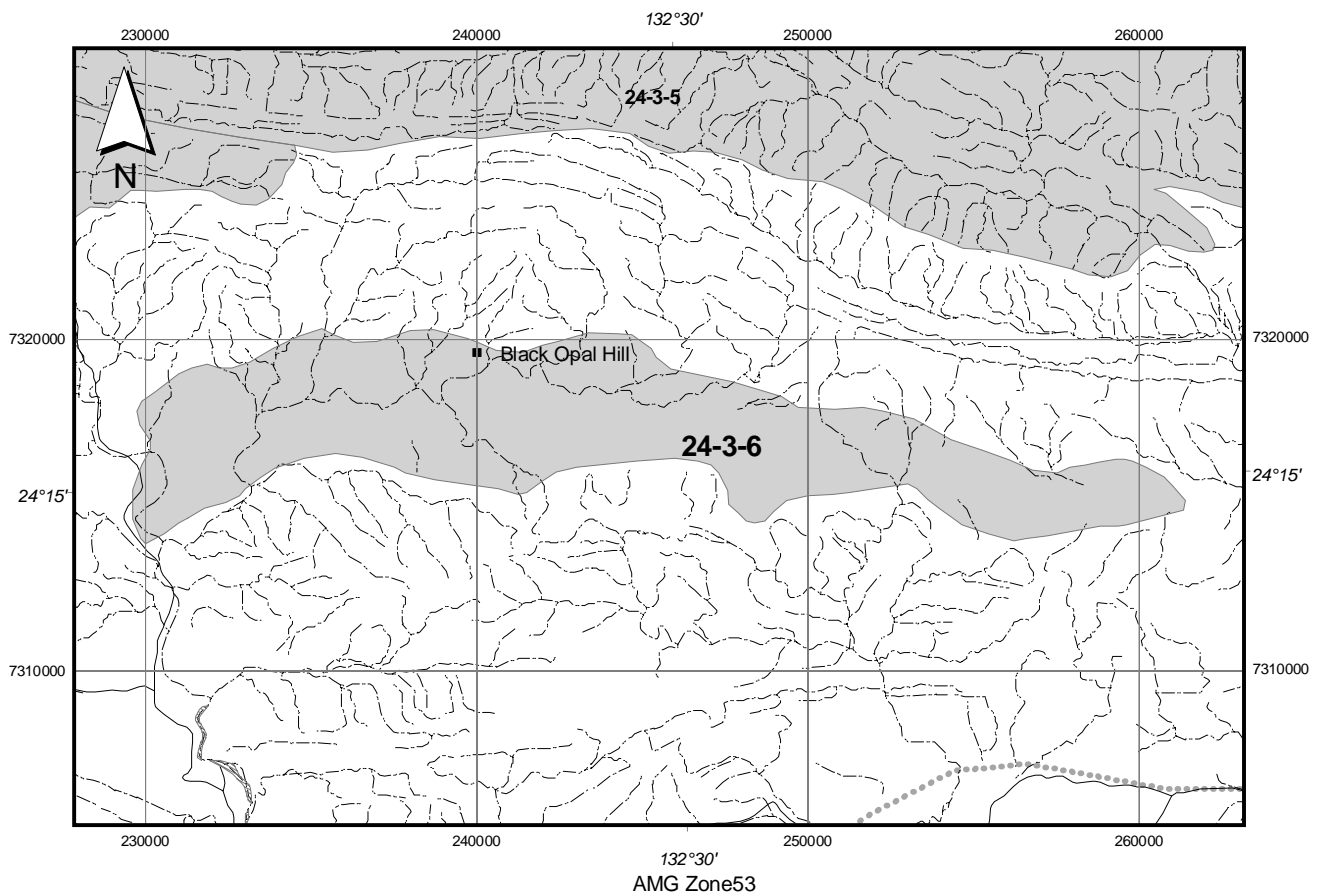
Taxa of Southern NT (study area) significance: none

Taxa of bioregional significance: none

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

Map unit 87 (17 %): *Triodia* (Spinifex) open-hummock grassland with *Acacia aneura* tall sparse-shrubland overstorey.

Map unit 59 (82 %): *Acacia estrophiolata* (Ironwood), *Atalaya hemiglauca* (Whitewood) low open-woodland with open-grassland understorey.



Site: 24-3-8 Bowson

Level of significance: bioregional

Location: 24° 11' S 132° 15' E; Southern MacDonnell Ranges

Area: 143 km² **Map sheet:** Henbury SG 53-1

Bioregion: MacDonnell Ranges (MAC)

Tenure: Freehold - Urrampinyi Itjiltjarri Aboriginal Land Trust (100% of site)

Description: This site incorporates the catchments of several unnamed tributaries of Areyonga Creek. The geology of the site is predominantly Hermannsburg sandstone and like the adjacent Palm Valley site (see site 24-3-5), includes several deep sandstone gorges.

Notes: A generally poorly known area requiring further exploration and collecting.

Criteria satisfied: B1 b1 ii)

Taxa of Australian significance: *Lomandra patens* {3RCa [W]}, *Stenanthemum centrale* {3RC- [SW]}

Taxa of NT significance: *Corynotheca licrota* {3rC-}, *Eremophila ovata* {3k [E]}, *Hibbertia glaberrima* {3rCa}

Taxa of Southern NT (study area) significance: none

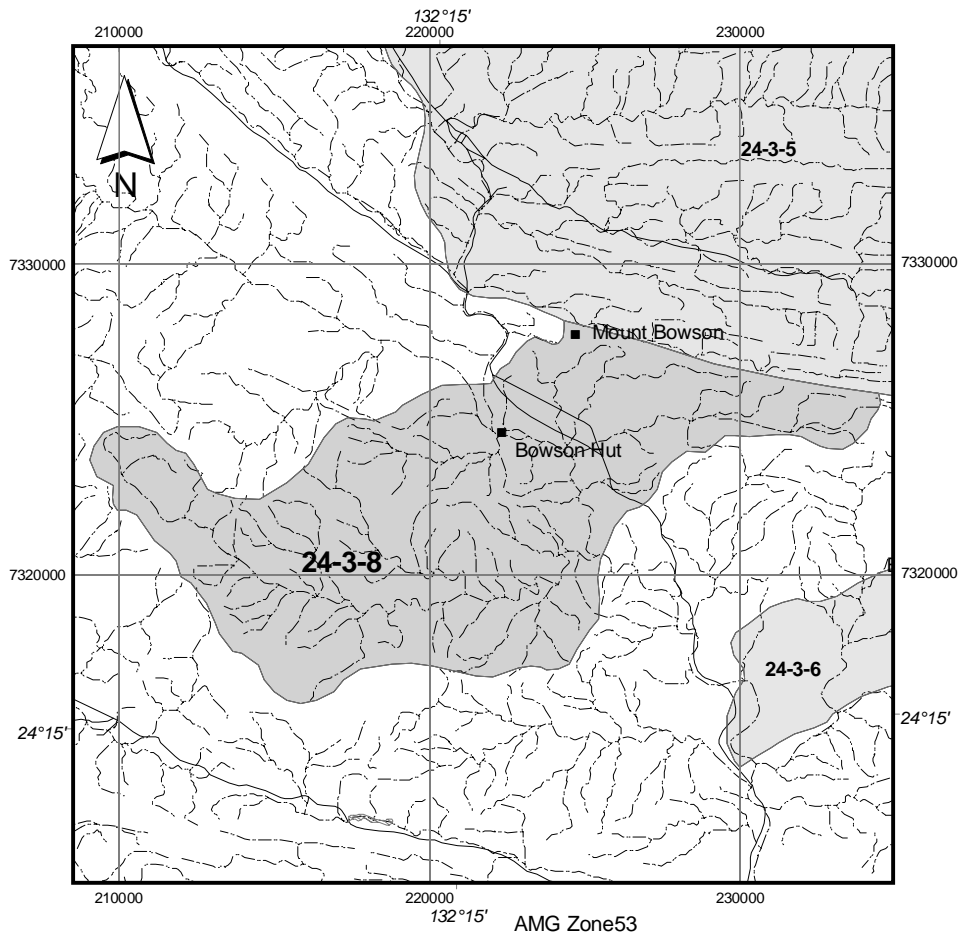
Taxa of bioregional significance: none

Vegetation Map Units (mapped as occurring at the site on the 1:1000,000 NT Vegetation Survey Map):

Map unit 87 (69 %): *Triodia* (Spinifex) open-hummock grassland with *Acacia aneura* tall sparse-shrubland overstorey.

Map unit 93 (15 %): *Triodia basedowii* (Hard Spinifex) hummock grassland with *Allocasuarina decaisneana* (Desert Oak) open-woodland overstorey between dunes.

Map unit 92 (14 %): *Triodia brizoides* (Hillside Spinifex) hummock grassland with mixed species low open-woodland overstorey.



WATERHOLES OF BOTANICAL SIGNIFICANCE IN THE MACDONNELL RANGES BIOREGION

Giles Spring

Significance: national

Included within Chewings Range site of significance, site no. 23-3-5

Reference coordinates (decimal degrees of latitude and longitude): -23.7° , 132.9°

Significant plant taxa: *Carex fascicularis* {3rC-}, *Cyanthillium cinereum* s.lat. {MAC (disjunct), BRT (disjunct), DAV (disjunct), TAN (disjunct)}, *Cymbopogon refractus* {sthn NT (disjunct & apparently rare)}, *Cyperus polystachyos* {BRT (rare and disjunct), MAC (disjunct)}, *Dicranopteris linearis* var. *linearis* {sthn NT (threatened)}, *Doodia caudata* var. *caudata* {3rC-}, *Histiopteris incisa* {3rC-}, *Juncus continuus* {3rC-}, *Lachnagrostis filiformis* {3rC-}, *Lindsaea ensifolia* subsp. *ensifolia* {sthn NT (rare)}, *Melaleuca faucicola* {3RC-}, *Pteris tremula* {MAC (rare)}

Kings Canyon waterholes

Significance: national

Included within Watarrka site of significance, site no. 24-2-1

Reference coordinates (decimal degrees of latitude and longitude): -24.3° , 131.65°

Significant plant taxa: *Hydrocotyle* sp. *Watarrka* (A.C. Beaglehole 20471) {2RC-}, *Melaleuca faucicola* {3RC-}, *Ottelia ovalifolia* {sthn NT (disjunct)}, *Stylidium inaequipetalum* {3RCa}

Mt. Pfitzner spring

Significance: national

Included within Mueller Creek Catchment site of significance, site no. 22-4-2

Reference coordinates (decimal degrees of latitude and longitude): -23.1° , 134.1°

Significant plant taxa: *Hydrocotyle* sp. *Harts Range* (A.C. Beaglehole 44720) {2R}

Palm Valley springs

Significance: national

Included within Palm Valley site of significance, site no. 24-3-5

Reference coordinates (decimal degrees of latitude and longitude): -24.1° , 132.7°

Significant plant taxa: *Livistona mariae* subsp. *mariae* {2VCa}, *Samolus eremaeus* {3KC-}, *Triglochin hexagonum* {FIN (apparently rare and disjunct), MAC (disjunct), BRT (disjunct), TAN (disjunct)}

Penny Springs

Significance: national

Included within Watarrka site of significance, site no. 24-2-1

Reference coordinates (decimal degrees of latitude and longitude): -24.3° , 131.6°

Significant plant taxa: *Cyclosorus interruptus* {sthn NT (disjunct)}, *Hydrocotyle* sp. *Watarrka* (A.C. Beaglehole 20471) {2RC-}, *Juncus continuus* {3rC-}, *Juncus continuus* {3rC-}, *Lachnagrostis filiformis* {3rC-}

Reedy Creek rockholes

Significance: national

Included within Watarrka site of significance, site no. 24-2-1

Reference coordinates (decimal degrees of latitude and longitude): -24.3° , 131.6°

Significant plant taxa: *Adiantum hispidulum* var. *hispidulum* {sthn NT (disjunct)}, *Cyclosorus interruptus* {sthn NT (disjunct)}, *Hydrocotyle* sp. *Watarrka* (A.C. Beaglehole 20471) {2RC-}, *Isolepis australiensis* {3kC-}, *Juncus continuus* {3rC-}, *Persicaria decipiens* {3rC-}, *Phragmites australis* {sthn NT (disjunct & apparently rare)}, *Phyllanthus erwinii* {3k}, *Phyllanthus erwinii* {3k}, *Poranthera triandra* {3rC-}, *Psilotum nudum* {sthn NT (rare)}

Talipata Springs

Significance: national

Included within Talipata/Mount Liebig site of significance, site no. 23-2-3

Reference coordinates (decimal degrees of latitude and longitude): -23.38333° , 131.3667°

Significant plant taxa: *Adiantum hispidulum* var. *hispidulum* {sthn NT (disjunct)}, *Lindsaea ensifolia* subsp. *ensifolia* {sthn NT (rare)}, *Nephrolepis arida* {3KC-}

Wallaby Gorge waterholes

Significance: national

Included within Watarrka site of significance, site no. 24-2-1

Reference coordinates (decimal degrees of latitude and longitude): -24.4° , 131.75°

Significant plant taxa: *Hydrocotyle* sp. *Watarrka* (A.C. Beauglehole 20471) {2RC-}, *Ottelia ovalifolia* {sthn NT (disjunct)}, *Poranthera triandra* {3rC-}

Bagot Springs Waterholes

Significance: bioregional

Included within Watarrka site of significance, site no. 24-2-1

Reference coordinates (decimal degrees of latitude and longitude): -24.4° , 131.8°

Significant plant taxa: *Imperata cylindrica* {sthn NT (disjunct & apparently rare)}, *Juncus kraussii* subsp. *australiensis* {3rC-}, *Ottelia ovalifolia* {sthn NT (disjunct)}

Ellery Creek gorge

Significance: bioregional

Included within Chewings Range site of significance, site no. 23-3-5

Reference coordinates (decimal degrees of latitude and longitude): -23.7° , 133.05°

Significant plant taxa: *Christella dentata* {sthn NT (threatened)}

Fringe Lily Gorge

Significance: bioregional

Included within Chewings Range site of significance, site no. 23-3-5

Reference coordinates (decimal degrees of latitude and longitude): -23.7° , 133.3°

Significant plant taxa: *Cyperus polystachyos* {BRT (rare and disjunct), MAC (disjunct)}, *Samolus eremaeus* {3KC-}

Gas well spring

Significance: bioregional

Included within Palm Valley site of significance, site no. 24-3-5

Reference coordinates (decimal degrees of latitude and longitude): -24.1° , 132.59°

Significant plant taxa: *Eleocharis geniculata* {sthn NT (threatened)}, *Juncus kraussii* subsp. *australiensis* {3rC-}

Giles Spring no. 3

Significance: bioregional

Included within Chewings Range site of significance, site no. 23-3-5

Reference coordinates (decimal degrees of latitude and longitude): -23.7° , 132.9°

Significant plant taxa: *Dicranopteris linearis* var. *linearis* {sthn NT (threatened)}, *Lindsaea ensifolia* subsp. *ensifolia* {sthn NT (rare)}, *Melaleuca faucicola* {3RC-}

Giles Yard Spring

Significance: bioregional

Included within Chewings Range site of significance, site no. 23-3-5

Reference coordinates (decimal degrees of latitude and longitude): -23.7° , 132.9°

Significant plant taxa: *Carex fascicularis* {3rC-}, *Cyanthillium cinereum* s.lat. {MAC (disjunct), BRT (disjunct), DAV (disjunct), TAN (disjunct)}, *Cymbopogon refractus* {sthn NT (disjunct & apparently rare)}, *Cyperus polystachyos* {BRT (rare and disjunct), MAC (disjunct)}, *Dicranopteris linearis* var. *linearis* {sthn NT (threatened)}, *Histiopteris incisa* {3rC-}, *Juncus continuus* {3rC-}, *Lachnagrostis filiformis* {3rC-}, *Pteris tremula* {MAC (rare)}

Illara Waterhole

Significance: bioregional

Reference coordinates (decimal degrees of latitude and longitude): -24.31667° , 132.35°

Significant plant taxa: *Phragmites australis* {sthn NT (disjunct & apparently rare)}

Illbilla springs

Significance: bioregional

Included within Palm Valley site of significance, site no. 24-3-5

Reference coordinates (decimal degrees of latitude and longitude): -24.2° , 132.7°

Significant plant taxa: *Samolus eremaeus* {3KC-}

Kathleen Spring waterhole

Significance: bioregional

Included within Watarrka site of significance, site no. 24-2-1

Reference coordinates (decimal degrees of latitude and longitude): -24.3° , 131.68333°

Significant plant taxa: *Centipeda pleiocephala* {3kC-}, *Cyclosorus interruptus* {sthn NT (disjunct)}, *Juncus continuus* {3rC-}, *Phragmites australis* {sthn NT (disjunct & apparently rare)}, *Schoenus falcatus* {sthn NT (disjunct & apparently rare)}, *Stylidium inaequipetalum* {3RCa}

Running Waters

Significance: bioregional

Included within Palm Valley site of significance, site no. 24-3-5

Reference coordinates (decimal degrees of latitude and longitude): -24.33° , 132.9°

Significant plant taxa: *Livistona mariae* subsp. *mariae* {2VCa}, *Phragmites australis* {sthn NT (disjunct & apparently rare)}

Stokes Creek Springs

Significance: bioregional

Included within Watarrka site of significance, site no. 24-2-1

Reference coordinates (decimal degrees of latitude and longitude): -24.4° , 131.75°

Significant plant taxa: *Fimbristylis sieberana* {sthn NT (disjunct)}, *Juncus kraussii* subsp. *australiensis* {3rC-}

Petermann Creek

Significance: undetermined

Reference coordinates (decimal degrees of latitude and longitude): -24.43° , 132.25°

Walker Creek

Significance: undetermined

Reference coordinates (decimal degrees of latitude and longitude): -24.33° , 132.25°