

Fog Bay

Location and Description

Fog Bay is located about 65 km south-west of Darwin. The Site includes the coastline of the Bay and associated tidal flats, and the chain of small islands to the north of Native Point. The mouth of the Finniss River bisects the Site – to the north, the coastline is dominated by sandy beaches and grassy dunes, and to the south, the Bay comprises extensive intertidal mudflats backed by mangroves. The mudflats in this site gradually merge into the Finniss River coastal floodplain (SOCS 4).

Tenure and Land Use

The southern portion of the Fog Bay site is Aboriginal freehold land and within lands held by Wagait/ Delissaville/ Larrakia Aboriginal Land Trust. Some portions of the site north of the Finniss River are Crown leasehold land; most of the islands in the north of the site are vacant Crown land; and many small portions of freehold land occur around the community of Dundee Beach. The main land use within the site is Indigenous, and other uses include rural residential blocks, recreation, tourism, and commercial fisheries.

Significance Rating

International Significance

Ecological Values

Bare Sand Island and the southern portion of Fog Bay regularly support large numbers of migratory shorebirds during their non-breeding season, including internationally significant numbers of at least six species (Greater Sand Plover, Grey-tailed Tattler, Great Knot, Terek Sandpiper and Black-tailed Godwit). The sandy beaches of Fog Bay and some of the nearby islands are significant for Flatback Turtle nesting, and the surrounding waters are important feeding areas for three other species of marine turtle.

Management Issues

Unrestricted driving of recreational vehicles on the beaches of Fog Bay may be affecting turtle nesting and some high-tide shorebird roosting sites. Further research and monitoring is required to ascertain whether this activity is significantly impacting on the ecological values.

Condition

The site is generally in good condition, though areas around Dundee Beach have been degraded by weeds and heavy recreational use.



Current Conservation Initiatives

The Indigenous ranger group at Bulgul has participated in surveys and collection of marine debris in Fog Bay. The waters of Fog Bay are included in the proposed Beagle Gulf Marine Park.

FOG BAY - SITE OF CONSERVATION SIGNIFICANCE



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LOCATION	SOCS Number	5 (NT Parks and Conservation Masterplan Map Number 14)
	Latitude/Longitude	12° 45' South, 130° 20' East (at centre)
	Bioregion	Darwin Coastal
	Description	<p>This site extends along the coastline of Fog Bay from Native Point in the north to Point Jenny in the south and is dominated by tidal flats. It also includes the chain of islands to the north of Native Point, including Dum In Mirrie, Beer Eetar, Windirr, Grose, Bare Sand and Quail islands, and encompasses an area of 124 km².</p> <p>The extensive coastal floodplain associated with the Finniss River, immediately east of this site, are also recognised as a site of high conservation significance in the NT.</p>
THREATENED SPECIES	Significance Rating	National Significance
	Threatened plants and animals (Listings at National/NT level CR - Critically Endangered, EN - Endangered, VU - Vulnerable, NT - Near Threatened, LC - Least Concern, DD - Data Deficient)	Six threatened species are reported from this site. Vertebrates <ul style="list-style-type: none"> ▪ Australian Bustard <i>Ardeotis australis</i> (-/VU) ▪ Flatback Turtle <i>Natator depressus</i> (VU/DD) ▪ Green Turtle <i>Chelonia mydas</i> (VU/LC) ▪ Hawksbill Turtle <i>Eretmochelys imbricata</i> (VU/DD) ▪ Loggerhead Turtle <i>Caretta caretta</i> (EN/EN) ▪ Olive Ridley <i>Lepidochelys olivacea</i> (EN/DD)
ENDEMIC SPECIES	Significance Rating	Not Significant
	Notes	Endemic to the NT: 14 plant species recorded from this site are only found in the NT.
WILDLIFE AGGREGATIONS	Significance Rating	International Significance
	Marine turtles	Five Mile Beach, north of the mouth of the Finniss River is highly significant for nesting Flatback Turtles. Bare Sand Island and Quail Island also support significant breeding activity by Flatbacks and are among the more important nesting sites for this species in the NT. The waters of Fog Bay are an important feeding area for Olive Ridley, Green, and Hawksbill Turtles (Chatto and Baker 2008). Here the site is considered of national significance to marine turtles.
	Seabirds	One small (40 nests) Black-naped Tern and Little Tern breeding colony is reported on Bare Sand Island (Chatto 2001).
	Waterbirds	Large numbers of waterbirds are not known from Fog Bay but one breeding colony (W024) with >3000 egrets and herons, is located in mangroves near the mouth of the Finniss River (Chatto 2000a). Large aggregations of waterbirds are reported from the adjoining Finniss River floodplain.
	Shorebirds	<p>Total numbers of shorebirds: This site comprises extensive tidal flats and supports significant numbers of shorebirds. Highest counts include >38 000 (1995) for the Bay and 14 500 (1993) for the islands (Chatto 2003).</p> <p>Counts of individual species: Maximum counts of species that are internationally significant (>1% East Asian-Australasian Flyway population; Bamford <i>et al.</i> 2008) include: 1800 Greater Sand Plover; 560 Grey-tailed Tattler; 10 000 Great Knot; 800 Terek Sandpiper; and 1700 Black-tailed Godwit (Chatto 2003).</p> <p>Chatto (2003; R. Chatto, NRETAS unpubl.) notes 76 important shorebird records for this site including the significant counts identified above as well as other high counts that are regionally important.</p>
	Other aggregations	None known
WETLANDS	Significance Rating	National Significance (possible International)
	Ramsar criteria met	This site has not been formally assessed against Ramsar criteria but is likely to satisfy at least waterbird-based criteria (criterion 5: important waterbird aggregation site with >20 000 waterbirds; criterion 6: regularly supports >1% of the individuals in a population) for listing as a wetland of international importance under the Ramsar Convention.
	DIWA criteria met	This site is listed as a wetland of national significance in the Directory of Important Wetlands in Australia (DIWA: NT025 Finniss Floodplain and Fog Bay System). The site meets criteria 1, 2, 3, 4, 6, and includes DIWA wetland types: B4, A7, B2, B9, B10, B14, A6, A8, and A9.
	Notes	The site (including the Finniss Floodplain) is a good example of a beach-fringed, curved bay with continuous intertidal mudflats, and a modified but relatively intact floodplain with extensive paperbark swamps (DIWA).
	Rivers	The Finniss River drains to the sea through the site. In this area the river is tidal and mangrove-lined.

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FLORA	Significance Rating	Regional Significance	
	Notes	Rainforest: About 900 ha of dry rainforest occur in this site, especially around Stingray Head and Native Point. Most of the rainforest occurs as small patches <10 ha but two patches are >100 ha each (Russell-Smith 1991).	
OTHER ENVIRONMENTAL VALUES		Fog Bay and the adjoining Finniss River floodplain are proposed to be nominated by Birds Australia as an internationally-recognised <i>Important Bird Area</i> (G. Dutson in prep.) due to the occurrence of globally significant numbers of some waterbird and shorebird species. Fog Bay and the adjacent islands (Bare Sand, Quail and others) are identified as an internationally important site for migratory shorebirds in the East Asian-Australasian Flyway (Bamford <i>et al.</i> 2008). The Finniss River supports high densities of Saltwater Crocodiles (Fukuda <i>et al.</i> 2007). 48 species recorded from this site are listed under international conventions or bilateral agreements protecting migratory animals. The marine areas within this site are likely to encompass significant biodiversity values and these are currently being explored and collated in a project by the Marine Biodiversity Group of NRETAS (K. Edyvane, NRETAS, pers. comm.).	
		Fire: In the period 1993-2004, 69% of the site was burnt in fewer than 3 years, and 2% was burnt in more than 6 years. Feral animals: No information located Weeds: One Weed of National Significance (<i>Mimosa pigra</i>), six declared Category B weeds (<i>Calotropis procera</i> , <i>Hyptis suaveolens</i> , <i>Senna obtusifolia</i> , <i>Sida acuta</i> , <i>Stachytarpheta australis</i> , <i>Tribulus cistoides</i>) and one undeclared but problematic environmental weed (high priority weeds: Smith 2001) (<i>Hibiscus sabdariffa</i>) are recorded from this site. Other: Unlimited vehicle and quad bike access to the beach may be affecting significant aggregations of migratory shorebirds and nesting marine turtles, particularly between the mouth of the Finniss River and Dundee Beach (Chatto 2003). All coastal areas in northern Australia are at risk of degradation from sea-level rise resulting from climate change (Hyder Consulting 2007). Further research and monitoring is needed to more fully assess the management issues affecting this site (G. Dutson in prep.).	
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MANAGEMENT INFORMATION	NRM groups	Ngatpuk Land Management (Bulgul) (Northern Land Council 2006).	
	Protected areas	The site is not included within the NT system of protected areas.	
	Current management plans	Site-specific plans: No information located. National recovery plans for threatened species: marine turtles (Environment Australia 2003). Other management plans: Australian Weeds Strategy (NRMCC 2007).	
	Monitoring programs and research projects	Detailed surveys of populations of Flatback, Hawksbill and Green Turtles have been conducted in the Bare Sand Island area (S. Whiting, NRETAS, pers. comm.). Fire in the tropical savannas is mapped continuously under the North Australia Fire Information Project http://www.firenorth.org.au/nafi/app/init.jsp	
	Management recommendations	Assist landholders, community ranger group, to survey conservation values and develop natural resource management programs (NRETA 2005). Provide financial and technical support to landholders and community ranger groups to undertake conservation management programs (NRETA 2005).	
KEY REFERENCES	Papers and reports	Chatto, R. and Baker, B. (2008). <i>The distribution and status of marine turtle nesting in the Northern Territory</i> . Technical Report 77. Parks and Wildlife Service, Northern Territory Department of Natural Resources, Environment & the Arts, Darwin. Chatto, R. (2003). <i>The distribution and status of shorebirds around the coast and coastal wetlands of the Northern Territory</i> . Technical Report 73, Parks and Wildlife Commission of the Northern Territory, Palmerston. 257pp. Chatto, R. (2000b). <i>A management strategy and protected areas system for coastal wildlife</i> . (Documentation of selected sites in the Northern Territory of Australia that would qualify for nomination under the East Asian-Australasian shorebird site network). Parks and Wildlife Commission of the Northern Territory, Darwin. DIWA (A Directory of Important Wetlands in Australia) <i>Australian Wetlands Database</i> . Department of Environment, Water, Heritage & the Arts, Canberra ACT (accessed February 2008).	
	Contributors		