

Finniss River coastal floodplain

Location and Description

The Finniss River coastal floodplain is about 70 km south-west of Darwin and is at the northern end of a linked series of coastal floodplains and tidal flats in the west of the Top End. This floodplain differs in character from the better-known floodplains of the Adelaide-Mary-Alligator rivers system. The Finniss River coastal floodplain is dominated by seasonally inundated grassland and sedgeland with areas of paperbark open-forest.

Tenure and Land Use

The Finniss River coastal floodplain Site is predominantly Aboriginal freehold land and owned by the Delissaville/ Wagait/ Larrakia Aboriginal Land Trust. The portions of the Site north of the river are Crown leasehold land, privately owned freehold land, and a small area of pastoral leasehold land (Labelle Downs). The land mainly supports Indigenous uses, but other uses include pastoral operations, horticulture, and recreation.

Significance Rating

International Significance

Ecological Values

The Finniss River floodplain supports very large aggregations of waterbirds, including more than 1% of the world's populations of Magpie Geese and Pied Herons, and high densities of many other waterbird species. The floodplain supports important breeding activity by Saltwater Crocodiles, Magpie Geese and other waterbirds, and three large waterbird breeding colonies are located in paperbark swamps on the floodplain. Five threatened birds and one threatened plant are reported from this Site.

Management Issues

The two major management issues for the Finniss River coastal floodplain are weed invasion and feral animals. *Mimosa pigra* is a problem along some of the river banks and floodplain areas, and other exotic plants are choking the waterways and increasing fire fuel loads in woodland areas. Feral herbivores, such as Water Buffalo and pig, have disturbed riparian, floodplain and wetland vegetation. Further research and monitoring is needed to more fully assess the management issues affecting this site.

Condition

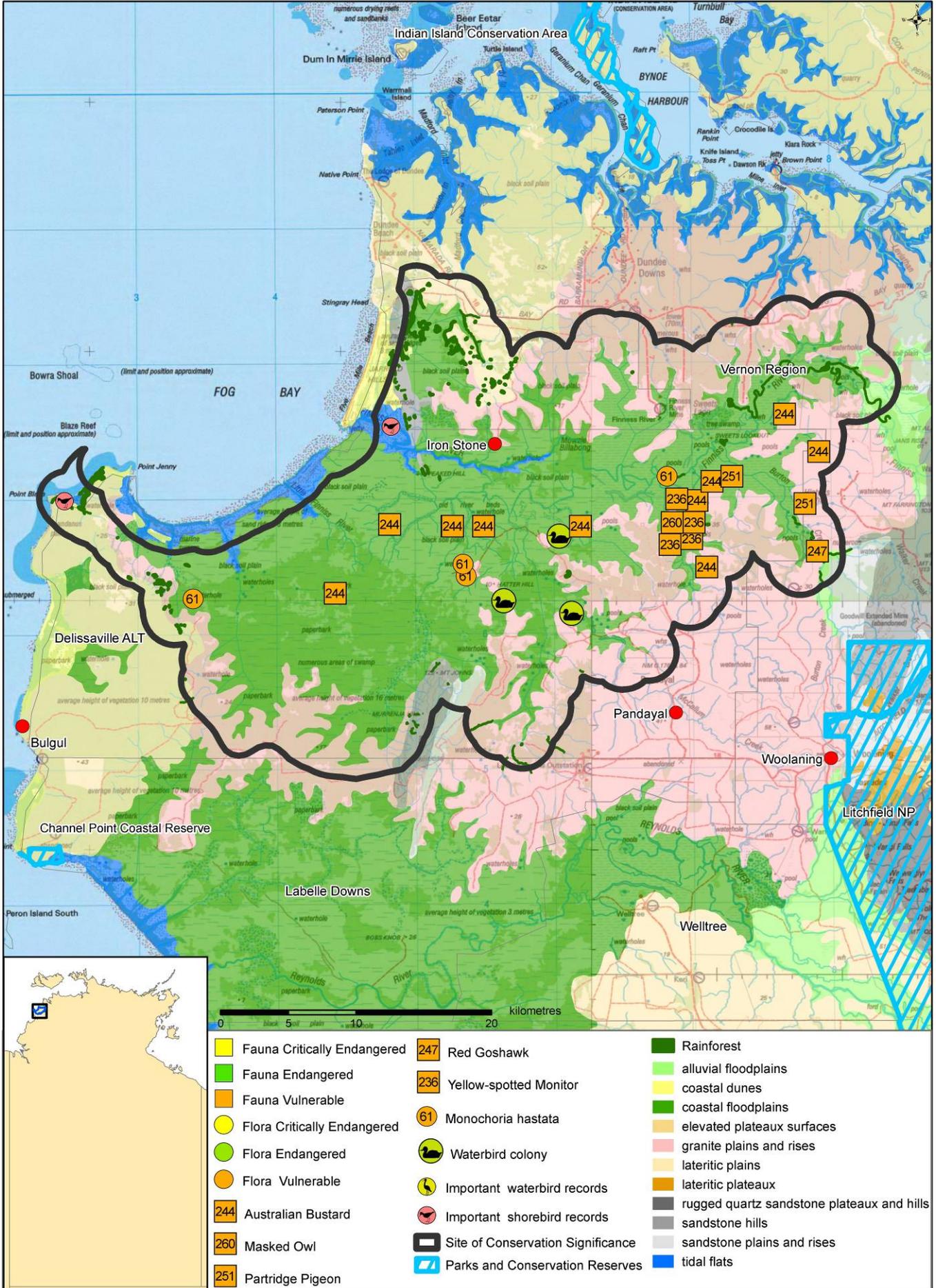
No information located.



Current Conservation Initiatives

Indigenous ranger groups based at Batchelor and Bulgul are currently managing infestations of *Mimosa pigra* on the Finniss River floodplain. The ranger groups also construct and maintain fire breaks and implement early season burns to help manage fire.

FINNISS RIVER COASTAL FLOODPLAIN SITE OF CONSERVATION SIGNIFICANCE



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LOCATION	SOCS Number	4 (NT Parks and Conservation Masterplan Map Number 121)
	Latitude/Longitude	12° 57' South, 130° 27' East (at centre)
	Bioregion	Darwin Coastal
	Description	<p>This site includes the entire floodplain associated with the Little Finnis and Finnis Rivers and extends from near the Finnis Range in the east to Fog Bay in the west. The northern extent of the site lies near the Cox Peninsula Road, and the southern extent is near the Reynolds River floodplain. The site encompasses an area of 1210 km² and is dominated by seasonally inundated freshwater floodplain (653 km²).</p> <p>The adjacent extensive tidal flats of Fog Bay 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. Plants <ul style="list-style-type: none"> ▪ <i>Monochoria hastate</i> (-/VU) Vertebrates <ul style="list-style-type: none"> ▪ Australian Bustard <i>Ardeotis australis</i> (-/VU) ▪ Masked Owl <i>Tyto novaehollandiae kimberli</i> (VU/VU) ▪ Partridge Pigeon <i>Geophaps smithii</i> (VU/VU) ▪ Red Goshawk <i>Erythrotriorchis radiatus</i> (VU/VU) ▪ Yellow-spotted Monitor <i>Varanus panoptes</i> (-/VU)
ENDEMIC SPECIES	Significance Rating	Not Significant
	Notes	<p>Endemic to the bioregion: One plant species (<i>Cycas canalis</i> subsp. <i>canalis</i>) recorded in this site is an NT endemic only found in the Darwin Coastal bioregion.</p> <p>Endemic to the NT: 37 plant and three vertebrate species recorded from this site are only found in the NT.</p> <p>Other: Three plant species recorded from this site only occur in the Darwin Coastal bioregion in the NT but are also found in other states.</p>
WILDLIFE AGGREGATIONS	Significance Rating	International Significance
	Marine turtles	Not applicable
	Seabirds	No major aggregations recorded
	Waterbirds	<p>Total numbers of waterbirds: The Finnis floodplain is highly significant for waterbirds. Numbers of Magpie Geese vary year to year and the highest estimated population is 394 000 in 1985 (DIWA). Separate surveys of other waterbird species in part of the site report numbers >22 000 (1996) (Chatto 2006).</p> <p>Counts of individual species: Maximum counts of species that are internationally significant (>1% global population; G. Dutson in prep.) include: 1000 Pied Heron (Chatto 2000a); 394 000 Magpie Geese (DIWA).</p> <p>High counts of other species such as Brolga, Australasian Darter, Great Egret, Little Black Cormorant and Royal Spoonbill (R. Chatto NRETAS unpubl.) are likely to be nationally significant (>1% Oceania population; Wetlands International 2006).</p> <p>Chatto (2006; R. Chatto NRETAS unpubl.) notes 37 important waterbird records for this site (including records for Fog Bay), including the significant counts identified above and counts of whistling-ducks, Brolgas and other species that are regionally important.</p> <p>Breeding records: Three large and significant waterbird breeding colonies (W019, W020, W022) are reported in paperbark trees on the Finnis floodplain (Chatto 2000a). The largest colony supports >13 500 adult birds and is dominated by egrets, cormorants and herons. Parts of the site are also a major breeding area for Magpie Geese and the highest reported count of nests is 11 460 in 1984 (DIWA).</p>
	Shorebirds	Large numbers of shorebirds have not been reported from the site, but the tidal flats around Fog Bay (west of the Finnis River floodplain) support internationally significant numbers of shorebirds.
	Other aggregations	None known
	WETLANDS	Significance Rating
Ramsar criteria met		While not yet formally assessed against Ramsar criteria, the Finnis River floodplain satisfies 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 (1971).
DIWA criteria met		This site is listed as a wetland of national significance in the Directory of Important Wetlands in Australia (DIWA: NT025 Finnis 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.

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	Notes	<p>This site has been nominated as a national High Conservation Value Aquatic Ecosystem (the finalised list of HCVAE will replace the DIWA list).</p> <p>The Finnis coastal floodplain is seasonal, with near- permanent water in deeper channels and billabongs. Surface inflow is from the Finnis River and other creeks, and the river is tidal for a few kilometres. The site (including Fog Bay) 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).</p>
	Rivers	The Finnis River is one of a series of five NT rivers that have almost contiguous floodplains and feed into the Joseph Bonaparte Gulf.
FLORA	Significance Rating	Regional Significance
	Notes	<p>Rainforest: About 870 ha of mostly dry rainforest occur in this site, especially in coastal areas near Stingray Head. Most of the rainforest occurs as small patches (<10 ha) but one patch is >100 ha (Russell-Smith 1991).</p> <p>Other: Large well-developed floating grass mats were formerly a feature of the billabongs of the Finnis and Reynolds Rivers, providing an important habitat refuge and source of food for a range of fauna in the dry season, especially crocodiles (Hill <i>et al.</i> 1987). However, the activities of feral water buffalo led to a dramatic loss of floating mats in these rivers. Their current status is not known.</p>
OTHER ENVIRONMENTAL VALUES		<p>The Finnis River floodplain and adjoining Fog Bay 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 a number of waterbird and shorebird species.</p> <p>Two sites on the Finnis coastal floodplain are listed on the Register of the National Estate including: Finnis and Reynolds Rivers Floating Grass Mats and the Reynolds River/ Tabletop Range (Australian Heritage Council).</p> <p>The Finnis River supports a high density of Saltwater Crocodiles (Fukuda <i>et al.</i> 2007).</p> <p>Thirty five species recorded from this site are listed under international conventions or bilateral agreements protecting migratory animals.</p>
MANAGEMENT ISSUES		<p>Fire: In the period 1993-2004, 30% of the site was burnt in fewer than three years, and 27% was burnt in more than six years.</p> <p>Feral animals: The floodplain supports relatively high densities of feral water buffalo and pig and these are degrading floodplain vegetation communities (DIWA). The Cane Toad is common in the area and likely to be causing declines in Monitor populations.</p> <p>Weeds: Three Weeds of National Significance (<i>Mimosa pigra</i>, <i>Salvinia molesta</i>, <i>Hymenachne amplexicaulis</i>), one declared Category B weed (<i>Sida acuta</i>), and two undeclared but problematic environmental weeds (high priority weeds: Smith 2001) (<i>Crotalaria goreensis</i>, <i>Urochloa mutica</i>) are recorded from this site.</p> <p>Other: Parts of the floodplain have a relatively long history of pastoral/agricultural development and further development for agriculture may occur in the future (DIWA).</p> <p>All coastal areas in northern Australia are at risk of degradation from sea-level rise resulting from climate change (Hyder Consulting 2007).</p> <p>Further research and monitoring is needed to more fully assess the management issues affecting this site (G. Dutson in prep.).</p>
MANAGEMENT INFORMATION	NRM groups	White Eagle Aboriginal Corporation (Batchelor), Ngatpuk Rangers (Bulgul) (Northern Land Council 2006).
	Protected areas	The site is not included within the NT system of protected areas.
	Current management plans	<p>Site-specific plans: No information located.</p> <p>National recovery plans for threatened species: Partridge Pigeon and Masked Owl (Woinarski 2004a); Red Goshawk (Baker-Gabb in prep.).</p> <p>Other management plans: Australian Weeds Strategy (NRMCM 2007); Threat Abatement Plan for Predation, habitat degradation, competition and disease transmission by feral pigs (DEH 2005); FIREPLAN: Fire management for the savanna community (Russell-Smith <i>et al.</i> in prep.).</p>
	Monitoring programs and research projects	<p>Crocodile numbers have been monitored in the Finnis River in recent years (M. Letnic, University of Sydney, pers. comm.).</p> <p>Fire in the tropical savannas is mapped continuously under the North Australia Fire Information Project http://www.firenorth.org.au/nafi/app/init.jsp</p>
	Management recommendations	<p>Assist landholders and the community ranger group to survey conservation values and develop natural resource management programs (NRETA 2005).</p> <p>Provide financial and technical support to landholders and community ranger groups to undertake conservation management programs (NRETA 2005).</p>
KEY REFERENCES	Papers and reports	<p>Chatto, R. (2006). <i>The distribution and status of waterbirds around the coast and coastal wetlands of the Northern Territory</i>. Technical Report 76, Parks and Wildlife Commission of the Northern Territory, Palmerston. 254pp.</p> <p>Chatto, R. (2000a). <i>Waterbird breeding colonies in the Top End of the Northern Territory</i>. Technical Report 69, Parks and Wildlife Commission of the Northern Territory, Darwin. 159pp.</p> <p>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).</p> <p>Hill, R., Webb, G.J.W. and Smith, A.M.A. (1987). Floating vegetation mats on a floodplain billabong in the Northern Territory of Australia. <i>Hydrobiologia</i> 150, 153-164.</p>
	Contributors	