

Buckingham Bay and associated coastal floodplains

Location and Description

Buckingham Bay is a remote bay in north east Arnhem Land, located about 120 km west of Nhulunbuy. The coastline and adjoining areas are predominantly intertidal mud and salt flats, with pockets of mangroves around the lower reaches of the Buckingham River. A seasonally inundated floodplain lies inland from the saline flats.

Tenure and Land Use

Buckingham Bay and the adjoining coastal floodplains are Aboriginal freehold land and part of the Arnhem Land Aboriginal Land Trust. The land mainly supports Indigenous use, and waters in the bay are likely to support commercial fisheries. Galiwin'ku on Elcho Island, and Gapuwiyak, near Lake Evalla, are the closest communities to the Site.



Significance Rating

International Significance

Ecological Values

The tidal flats in Buckingham Bay regularly support around 20 000 migratory shorebirds, with internationally significant numbers of at least three species, including Black-tailed Godwit, Eastern Curlew, and Great Knot. Numerous other migratory species covered by international conventions are also reported at this Site. Large numbers of waterbirds periodically congregate on the coastal floodplain, including large numbers of Brolga and Magpie Geese. The mangroves support a large breeding colony of Pied Herons, in internationally significant numbers.

Management Issues

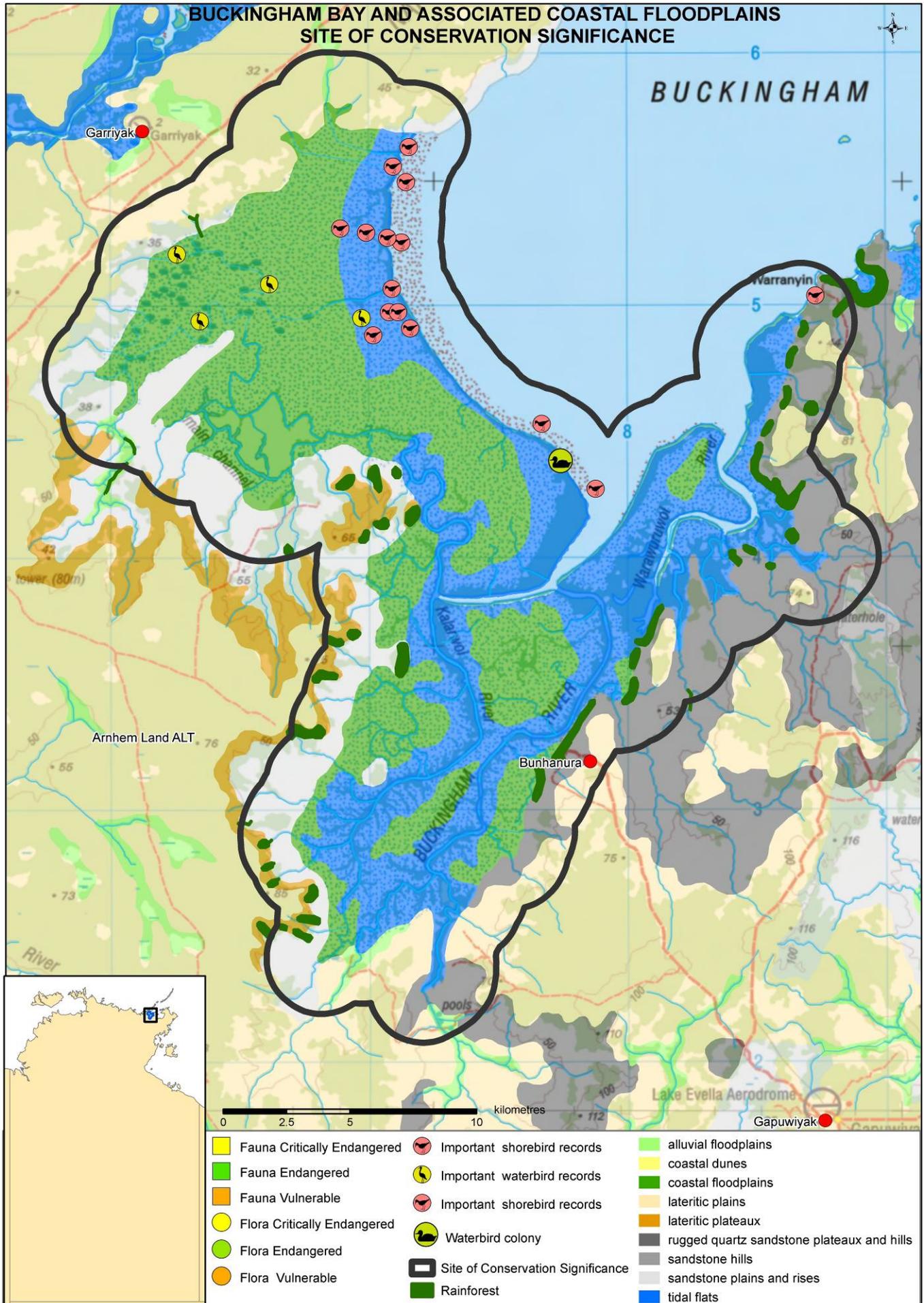
Feral animals, particularly Water Buffalo and pigs, are damaging the significant coastal floodplains within this Site. More survey work is required to document the flora and fauna, and more fully assess the management issues affecting the Site.

Condition

The area is generally in good condition, though parts are degraded by Water Buffalo and pigs.

Current Conservation Initiatives

None known



LOCATION	SOCS Number	21 (Not listed in the NT Parks and Conservation Masterplan)
	Latitude/Longitude	12° 17' South, 135° 40' East (at centre)
	Bioregion	Arnhem Coast
	Description	<p>This site includes the extensive intertidal mudflats around Buckingham Bay and the lower reaches of Buckingham River (144 km²), and the adjoining seasonally-inundated coastal floodplain (170 km²). It encompasses a terrestrial area of 550 km².</p> <p>Two groups of islands offshore from the site are also recognised as sites of high conservation significance in the NT. These are the Elcho Island Group and the Wessel and English Company Island Groups.</p>
THREATENED SPECIES	Significance Rating	Not Significant
	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)	No threatened species are reported from this site.
ENDEMIC SPECIES	Significance Rating	Not Significant
	Notes	Endemic to the NT: Seven plant species recorded from this site are endemic to the NT.
WILDLIFE AGGREGATIONS	Significance Rating	International Significance
	Marine turtles	The coastline of Buckingham Bay supports few, if any, nesting marine turtles (Chatto and Baker 2008).
	Seabirds	Large aggregations of colonial nesting seabirds are not known from this site (Chatto 2001).
	Waterbirds	<p>Total numbers of waterbirds: Highest total counts of waterbirds in this site include 8500+ birds in 1998 and about 7500 in 1995 (Chatto 2006).</p> <p>Counts of individual species: Maximum counts of one species, Pied Heron (2000 in 1999), are internationally significant (> 1% global population; G. Dutton in prep.).</p> <p>Chatto (2006) notes nine important waterbird records for this site including high counts of Brolgas and Magpie Geese that are of regional importance.</p> <p>Breeding records: One waterbird breeding colony (W040) is reported from this site (Chatto 2000). Located in mangroves near the mouth of the Buckingham River, 5500 waterbirds were present in 1999 with numbers dominated by Intermediate Egrets and Pied Herons.</p>
	Shorebirds	<p>Total numbers of shorebirds: The extensive mud and saline flats in Buckingham Bay support large numbers of shorebirds. A count of 19 000 shorebirds in 1996 is the highest count reported by Chatto (2003), and other counts are in excess of 15 000 birds and include some of the largest flocks of some species recorded in the NT. Other surveys (Garnett 1983, Garnett 1987) also regularly report numbers of around 20 000 shorebirds using this bay.</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: 6000 Black-tailed Godwit; 700 Far Eastern Curlew (Chatto 2003). Counts of 5000 Great Knots in 1992 (R. Chatto NRETAS unpubl.), are also likely to be significant.</p> <p>Chatto (2003; R. Chatto NRETAS unpubl.) notes 20 important shorebird records for this site, including the significant counts identified above and other 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 has not been assessed against the criteria for listing as a wetland of national significance.
	Notes	Coastal and alluvial floodplains, and extensive intertidal areas of bare saline flats, mud flats and mangroves provide a range of wetland types within the site.
	Rivers	None known

FLORA	Significance Rating	Regional Significance
		Notes
OTHER ENVIRONMENTAL VALUES		Buckingham Bay is identified as an internationally important site for migratory shorebirds in the East Asian-Australasian Flyway (Bamford <i>et al.</i> 2008). Buckingham Bay is proposed to be nominated by Birds Australia as an internationally-recognised <i>Important Bird Area</i> (G. Dutton in prep.) due to the occurrence of globally significant numbers of Pied Herons and Far Eastern Curlews. 30 species recorded from this site are listed under international conventions or bilateral agreements protecting migratory species. 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, 64% of the site was burnt in fewer than three years, and 10% was burnt in more than six years. Feral animals: Large numbers of Water Buffalo are present around the Buckingham River and there is evidence of their damage to sensitive floodplain, rainforest, and riparian habitat (Northern Land Council 2004). Feral pigs are also likely to be abundant. Weeds: There are no declared or problematic environmental weeds (high priority weeds: Smith 2001) recorded from this site. The majority of weeds within the Buckingham River catchment are confined to around major settlements (Smith 2001). Other: All coastal areas in northern Australia are at risk of degradation from sea-level rise resulting from climate change (Hyder Consulting 2007). More research is needed to better assess the management issues affecting this site.
MANAGEMENT ISSUES		
MANAGEMENT INFORMATION	NRM groups	Gumurr Marthakal Rangers, Galiwin'ku (Elcho Island) (Northern Land Council 2006).
	Protected areas	No parts of the site are within the formal network of protected areas in the NT.
	Current management plans	Site-specific plans: Draft Land and Sea Management Plan - Marthakal Region (Mahney 2003). Other management plans: Australian Weeds Strategy (NRMMC 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 press.).
	Monitoring programs and research projects	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	Continue to support and build capacity of Gumurr Marthakal Rangers to manage threatening processes, and document natural resource values (NRETA 2005).
KEY REFERENCES	Papers & Reports	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. Garnett, S. (1983). Report on the fifth aerial survey of migratory wading birds between Weipa and Millingimbi, 9-13 February 1983. <i>The Stilt</i> . No. 4: 15-17. Spring 1983. Garnett, S. (1987). Aerial surveys of waders (Aves: Charadriiformes) along the coast of north-eastern Australia. <i>Australian Wildlife Research</i> , 1987, 14: 521-28.
	Contributors	