

Boucaut Bay and associated coastal floodplains

Location and Description

Boucaut Bay is a mangrove and beach-lined bay located on a remote stretch of coast in northern Arnhem Land, 400 km east-north-east of Darwin. Extensive areas of intertidal mudflat along the coast are backed by open saline flats and mangrove-lined channels, which lead to the extensive seasonally flooded plains associated with the Blyth and Cadell Rivers. The floodplains support a mix of grassland and sedgeland and the tidal flats and estuaries support samphire (*Halosarcia* species) and narrow bands of mangroves.

Tenure and Land Use

Boucaut Bay and the associated coastal floodplains are Aboriginal freehold land, and held by the Arnhem Land Aboriginal Land Trust. The land mainly supports Indigenous use, and waters in the Bay support commercial and recreational fishing. The area is sparsely populated and the closest township to the Site is Maningrida (population 2070), near the western end of the Site. The Site is within the proposed Djelk Indigenous Protected Area.

Significance Rating

International Significance

Ecological Values

Boucaut Bay is a major stop-over area for migratory shorebirds, and regularly supports more than 20 000 waders in their non-breeding season, including internationally-significant numbers of three species. The extensive seasonally flooded plains also support large aggregations of waterbirds in the dry season and a number of waterbird breeding colonies in the wet season.

Management Issues

Frequent wildfires and relatively high densities of water buffalo and feral pigs are degrading floodplain swamps and grasslands. *Mimosa pigra* and other weeds are present within the Site and need to be controlled, but vigilance is also needed to keep out a variety of other potential weeds (e.g. *Hymenachne*). As for all coastal floodplains in northern Australia, the Site is at risk of degradation from sea-level rise resulting from climate change.

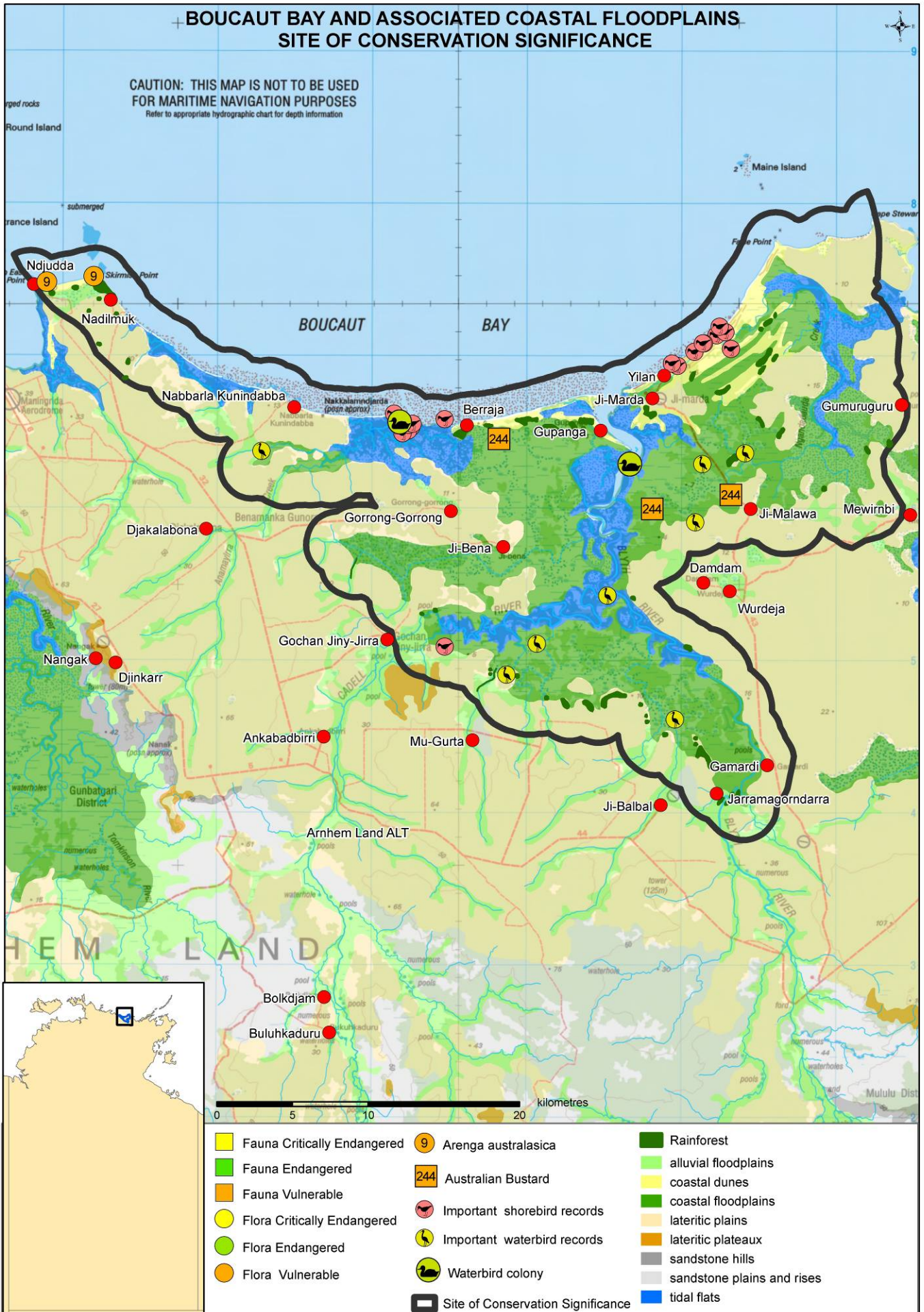
Condition

The Site is in relatively good condition.



Current Conservation Initiatives

Indigenous rangers based at Maningrida are currently engaged in fire, feral animal, and weed (notably *Mimosa pigra*) management and are undertaking flora and fauna surveys. The proposed Djelk Indigenous Protected Area includes much of the Site.



| | | |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LOCATION | SOCS Number | 18 (NT Parks and Conservation Masterplan Map Number 7) |
| | Latitude/Longitude | 12° 7' South, 134° 34' East (at centre) |
| | Bioregion | Arnhem Coast |
| | Description | This site extends along the coast from Skirmish Point in the west to False Point in the east and includes the coastal flats and freshwater floodplains associated with the Blyth and Cadell Rivers. The site encompasses a terrestrial area of 861 km ² and is dominated by coastal and alluvial floodplain (365 km ²) and extensive areas of tidal flats (114 km ²). Boucaut Bay is located between two other sites of high conservation significance in the NT, Castlereagh Bay to the east and the Maningrida Coastal Habitats site to the west. |
| THREATENED SPECIES | Significance Rating | Regional 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) | Three threatened species are reported from this site. Plants <ul style="list-style-type: none"> ▪ Australian arenga palm <i>Arenga australasica</i> (VU/DD) Vertebrates <ul style="list-style-type: none"> ▪ Australian Bustard <i>Ardeotis australis</i> (-VU) ▪ Flatback Turtle <i>Natator depressus</i> (VU/DD) |
| ENDEMIC SPECIES | Significance Rating | Not Significant |
| | Notes | Endemic to the NT: 29 plant species recorded from the site are endemic to the NT. |
| WILDLIFE AGGREGATIONS | Significance Rating | International Significance |
| | Marine turtles | Chatto and Baker (2008) report only occasional nesting of marine turtles on coastal beaches along this section of coast. |
| | Seabirds | No seabird breeding colonies are reported in this site (Chatto 2001). |
| | Waterbirds | Total numbers of waterbirds: Large numbers of Magpie Geese (10 000) and Whistling-ducks (100 000) occur in the broader Maningrida-Milingimbi district at times, and a large proportion of these birds are likely to use the Blyth-Cadell floodplain (DIWA). Separate surveys of other waterbird species in a small part of the site by Chatto (2006) recorded about 8000 birds in 1998 and 1999. Counts of individual species: Maximum counts of species that are internationally significant (>1% global population; G. Dutson in prep.) include: 1000 Pied Heron (1999) (Chatto 2006); and 1000 Brolga (1998). High counts of Great Egret (1000) (R. Chatto, NRETAS, unpubl.) are also likely to be nationally significant (>1% Oceania population; Wetlands International 2006). Chatto (2006) notes 13 important waterbird records for this site, including high counts of Magpie Geese and mixed waterbird species that are regionally important. Breeding records: Two waterbird breeding colonies (~2000 adults) dominated by egrets, herons and cormorants are reported from mangroves in this site (Chatto 2000a). |
| | Shorebirds | Total numbers of shorebirds: Boucaut Bay supports some of the largest flocks of shorebirds in the Top End and regularly supports more than 20 000 shorebirds in their non-breeding season. Highest single counts include >26 000 in 1998 and 19 500 in 1992 (Chatto 2003). 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: 5000 Black-tailed Godwit (1999); and 5500 Great Knot (1999) (Chatto 2003). Maximum counts of >110 Pied Oystercatchers (non-migratory shorebird) in 1993 and 1999 (R. Chatto NRETAS, unpubl.) are also internationally significant (>1% global population; G. Dutson in prep.). Chatto (2003; R. Chatto, NRETAS, unpubl.) notes 23 important shorebird records for this site including the significant counts identified above, as well as other high counts that are regionally important. |
| 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 ID: NT022 Blyth-Cadell Floodplain and Boucaut Bay System). The site meets criteria 1, 2, 3, 4, 5 and 6 and includes DIWA wetland types B4, A6, A8, A9, A7 and B10. |

| | | |
|----------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Notes | This site has been nominated as a national High Conservation Value Aquatic Ecosystem (the finalised list of HCVAE will replace the DIWA list). It is a good example of a floodplain-tidal wetlands system typical of the Top End region and is the largest, contiguous, non-forested freshwater floodplain in Arnhem Land, excluding sites on Van Diemen Gulf (DIWA). |
| | Rivers | The Blyth and Caddell rivers are relatively small Top End Rivers that flow out of the northern Arnhem plateau. Both are near-pristine. The Blyth River has significant perennial springs (K. Brennan, NRETAS, pers. comm.). |
| FLORA | Significance Rating | Regional Significance |
| | Notes | Rainforest: About 870 ha of mostly dry rainforest occur in coastal areas and around the margin of the floodplain in this site. Most of the rainforest occurs as small and scattered patches <10ha (Russell-Smith 1991). |
| OTHER ENVIRONMENTAL VALUES | | The Cadell and Blyth floodplains area is 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 range-restricted species and globally significant numbers of several waterbird and shorebird species. Boucaut Bay is identified as an internationally important site for migratory shorebirds in the East Asian-Australasian Flyway (Bamford <i>et al.</i> 2008). Forty species recorded from this site are listed under international conventions or bilateral agreements protecting migratory animals. Saltwater Crocodiles occur in high densities in the Blyth River (Fukuda <i>et al.</i> 2007). The Chestnut Rail is a range-restricted species that is reported from mangrove areas in this site (Chatto 2006). 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.). |
| MANAGEMENT ISSUES | | Fire: In the period 1993-2004, 58% of the site was burnt in fewer than three years, and 1% was burnt in more than six years. Feral animals: Increasing pig and Water Buffalo populations are degrading floodplain habitats. Weeds: One Weed of National Significance (<i>Mimosa pigra</i>), 3 declared Category B weeds (Mossman River grass <i>Cenchrus echinatus</i> , spinyhead sida <i>Sida acuta</i> , flannel weed <i>Sida cordifolia</i>) and one other undeclared but problematic environmental weed (high priority weeds: Smith 2001) (gambia pea <i>Crotalaria goreensis</i>) are recorded from this site. Other: All coastal floodplains in northern Australia are at risk of degradation from sea-level rise resulting from climate change (Hyder Consulting 2007). Further research is needed to assess the management issues affecting this site (G. Dutson in prep.). |
| MANAGEMENT INFORMATION | NRM groups | Djelk Rangers (Maningrida) (Northern Land Council 2006). |
| | Protected areas | Much of this site will be incorporated into the proposed Djelk Indigenous Protected Area. |
| | 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); 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 | There are regular surveys of Saltwater Crocodiles in the Blyth and Cadell Rivers (PWSNT 2005). The most recent surveys were in mid-2008. 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 | In conjunction with the Northern Land Council, assist traditional owners and Djelk Rangers to establish management and monitoring programs for waterbirds and shorebirds (NRETA 2005). Provide financial resources and extension services to support established monitoring and management programs and to increase the number of community-based rangers where required (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. 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. DIWA (A Directory of Important Wetlands in Australia). <i>Australian Wetlands Database</i> . Department of Environment, Water, Heritage & the Arts, Canberra ACT (accessed November 2007). |
| | Contributors | Kym Brennan, Biodiversity Conservation, NRETAS, Darwin |