

Cobourg Peninsula

Location and Description

The Cobourg Peninsula is situated 190 km north-east of Darwin, and is the northern-most part of the mainland of the Northern Territory. It is one of three listed Ramsar sites in the Northern Territory. The Peninsula comprises varied coastal habitats including rocky headlands, sandy beaches and isolated bays along the northern coastline. Mangrove communities are associated with extensive tidal flats and estuaries along the southern coastline. Coral and rocky reefs and seagrass communities fringe the coastline. The Peninsula is dominated by flat to undulating plains covered in tall open eucalypt forest with pockets of coastal vine thicket. The Site also includes a number of small islands.

Tenure and Land Use

The Cobourg Peninsula is Aboriginal freehold land, held by the Cobourg Peninsula Sanctuary Land Trust and the Arnhem Land Aboriginal Land Trust. Approximately 80% of the Site is managed as a conservation reserve (Garig Gunak Barlu National Park) and is used for conservation, regulated tourism, hunting and Indigenous uses. The waters surrounding the Peninsula are managed as part of the Cobourg Marine Park, and support commercial and recreational fisheries.

Significance Rating

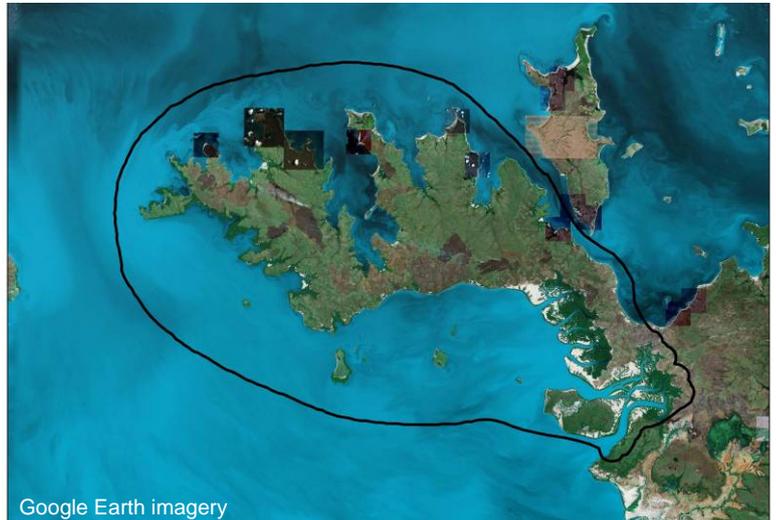
International Significance

Ecological Values

The Cobourg Peninsula has extensive, relatively unmodified landscapes, which support a largely intact biota. The beaches provide regular nesting habitat for three species of threatened marine turtles (Green Turtle, Flatback Turtle and Olive Ridley), and significant numbers of seabirds, notably Black-naped and Bridled Terns, breed on islands. The wetlands are recognised as being of international and national significance, and there are extensive areas of monsoon rainforest in coastal areas of the site. 21 threatened species are recorded from the Peninsula.

Management Issues

Feral pig and banteng numbers are growing and doing damage to wetland areas. Water Buffalo, Timor Pony, deer, cat and Cane Toad also occur on Cobourg Peninsula but numbers are reasonably low. A number of weeds are present, but there are no real problematic species. Cyclones are a natural occurrence in the area, and can do considerable damage to vegetation communities on the Peninsula.



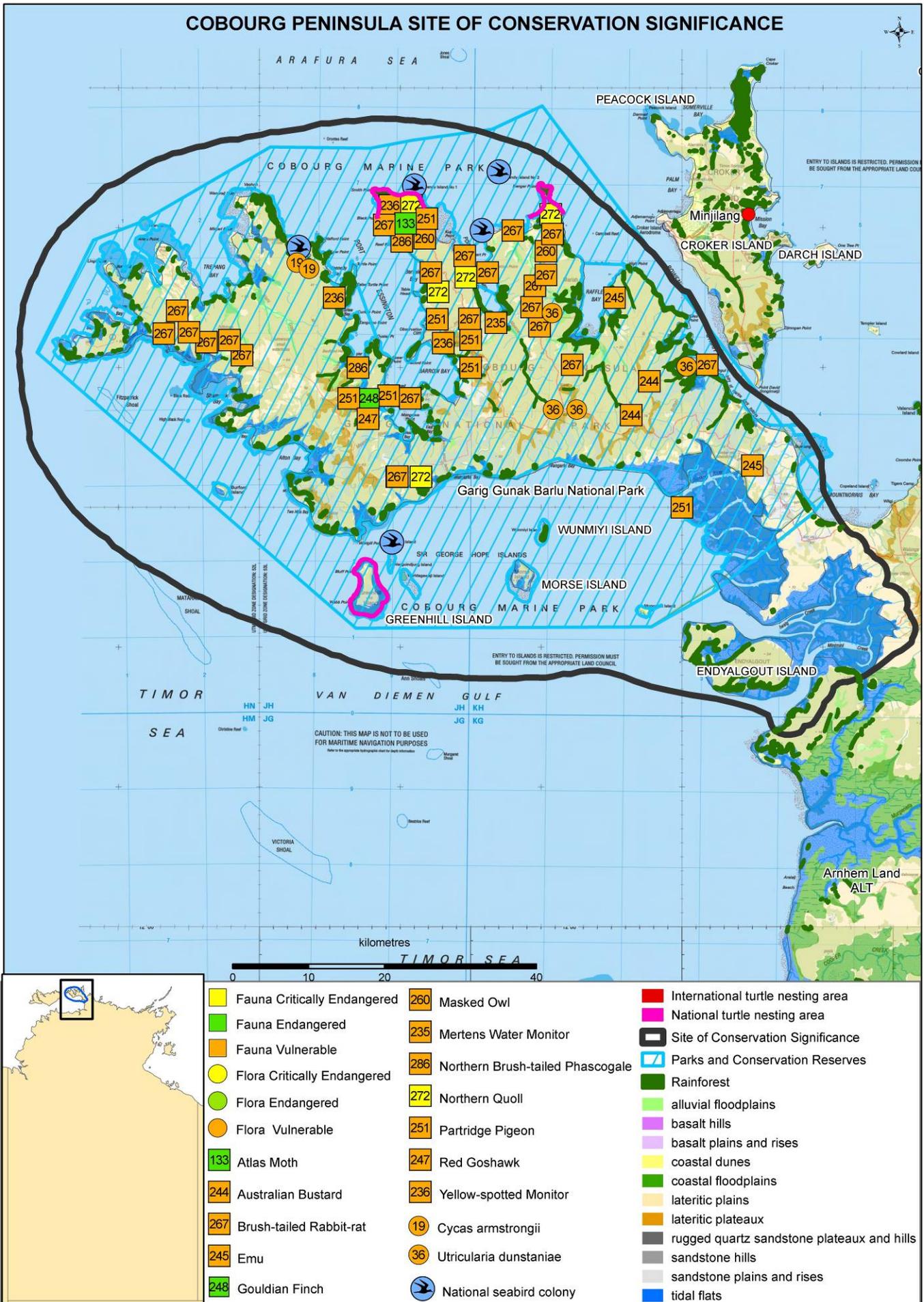
Google Earth imagery

Condition

The remote location and difficulty of access by land has ensured that this Site is relatively undisturbed.

Current Conservation Initiatives

A national park has been declared over most of the Peninsula, and is managed jointly by the traditional land owners and the Northern Territory Parks and Wildlife Service. A draft management plan for the park identifies management priorities and guides Parks and Wildlife ranger staff, who manage fire, weeds and tourism within the park.



COBOURG PENINSULA - SITE OF CONSERVATION SIGNIFICANCE

LOCATION	SOCS Number	10 (NT Parks and Conservation Masterplan Map Number 5)
	Latitude/Longitude	11° 24' South, 132° 13' East (at centre)
	Bioregion	Tiwi Cobourg (91%), Arnhem Coast (8%), Darwin Coastal (1%)
	Description	<p>This site includes the entire Peninsula as far south as Minimini Creek and nearby Endyalgout Island, as well as the numerous small islands associated with the coastline of the Peninsula. The site encompasses a terrestrial area of 2526 km² and is dominated by flat to undulating lateritic plains (1555 km²) with extensive tidal flats (499 km²) in the south.</p> <p>The adjacent Alligator Rivers coastal floodplains (including the Murgengella coastal floodplain south of the Cobourg Peninsula) and the Croker Island Group are also recognised as sites of high conservation significance in the NT.</p>
THREATENED SPECIES	Significance Rating	International 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)	<p>21 threatened species are reported from this site.</p> <p>Plants</p> <ul style="list-style-type: none"> ▪ <i>Cycas armstrongii</i> (-/NU) ▪ <i>Utricularia dunstaniae</i> (-/NU) <p>Vertebrates</p> <ul style="list-style-type: none"> ▪ Australian Bustard <i>Ardeotis australis</i> (-/VU) ▪ Emu <i>Dromaius novaehollandiae</i> (-/VU) ▪ Gouldian Finch <i>Erythrura gouldiae</i> (EN/EN) ▪ Masked Owl <i>Tyto novaehollandiae kimberlii</i> (VU/VU) ▪ Partridge Pigeon <i>Geophaps smithii</i> (VU/VU) ▪ Red Goshawk <i>Erythrotriorchis radiatus</i> (VU/VU) ▪ Blue Whale <i>Balaenoptera musculus</i> (EN/-) ▪ Brush-tailed Rabbit-rat <i>Conilurus penicillatus</i> (-/VU) ▪ Northern Brush-tailed Phascogale <i>Phascogale pirata</i> (-/VU) ▪ Northern Quoll <i>Dasyurus hallucatus</i> (EN/CR) ▪ Merten's Water Monitor <i>Varanus mertensi</i> (-/VU) ▪ Yellow-spotted Monitor <i>Varanus panoptes</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) ▪ Leatherback Turtle <i>Dermochelys coriacea</i> (VU/VU) ▪ Loggerhead Turtle <i>Caretta caretta</i> (EN/EN) ▪ Olive Ridley Turtle <i>Lepidochelys olivacea</i> (EN/DD) <p>Invertebrates</p> <ul style="list-style-type: none"> ▪ Atlas Moth <i>Attacus wardi</i> (-/EN) <p>The range and population size of the Brush-tailed Rabbit-rat in the NT have declined significantly since European settlement (Woinarski <i>et al.</i> 2007), but a recent study (PWCNT 2001) shows at least two locations on Cobourg Peninsula support a high population density of this species.</p> <p>The few records of Gouldian Finch in this site are pre 1970, and Masked Owls were likely to be more common on the Peninsula pre cyclone Ingrid in 2005. There is a record of the Blue Whale off Cobourg Peninsula, but the area is not considered of special importance to the species.</p>
ENDEMIC SPECIES	Significance Rating	Regional Significance
	Notes	<p>Endemic to the site: Two plant species recorded from the site are only known from the site (<i>Zornia oligantha</i> and <i>Cyclophyllum schultzei</i> f. <i>schultzei</i>).</p> <p>Endemic to the bioregion: Three plant species recorded in the site are only known from the Tiwi Cobourg bioregion (<i>Zornia oligantha</i>, <i>Cyclophyllum schultzei</i> f. <i>schultzei</i> and <i>Spermacoce protrusa</i>).</p> <p>Endemic to the NT: 45 plant and seven vertebrate species found in the site are NT endemics.</p> <p>Other: One plant species is only known from the site within the NT but is also found in other states. The population of Banteng (<i>Bos javanicus</i>) on Cobourg Peninsula is the only population in Australia and is the largest extant wild population of this species in the world. Banteng is an introduced species but the population on Cobourg is genetically pure.</p>
WILDLIFE AGGREGATIONS	Significance Rating	National Significance
	Marine turtles	<p>Significant numbers of Green and Flatback Turtles nest on parts of the northern coastline of the peninsula, and islands such as Greenhill Island and Mogogout Island off the southern shoreline are significant for nesting Flatback Turtles and a small number of Olive Ridley Turtles (Chatto and Baker 2008). Smith Point is among the best nesting sites in the NT for Green Turtle.</p> <p>The Leatherback Turtle has been reported breeding at Danger Point and these records are some of the few breeding records of this species in Australia. The Hawksbill Turtle is also likely to occasionally nest on the peninsula (Chatto and Baker 2008). Here the site is considered of National significance to marine turtles.</p>
	Seabirds	Seven seabird breeding colonies are reported from this site, mostly on small sand and rock islands associated with the northern coastline of the peninsula (Chatto 2001). Five colonies (S001, S004, S006, S007, S114) are considered to be of national significance for high numbers of Black-naped Terns, Bridled Terns and other tern species (Chatto 2001).
	Waterbirds	Large numbers of waterbirds are not known from this site (Chatto 2006).
	Shorebirds	Significant aggregations of shorebirds have not been recorded from this site (Chatto 2003).

COBOURG PENINSULA - SITE OF CONSERVATION SIGNIFICANCE

	Other aggregations	None known
WETLANDS	Significance Rating	International Significance
	Ramsar criteria met	Cobourg Peninsula is listed as a Wetland of International Importance under the Ramsar Convention on Wetlands. The Ramsar site comprises all wetlands on the Peninsula and nearby Sir George Hope Islands, including freshwater and intertidal areas. ID 5AU001: Cobourg Peninsula. Criteria met: 1a, 2a, 3a, 3b.
	DIWA criteria met	This site is listed as a wetland of national significance in the Directory of Important Wetlands in Australia (DIWA: NT023 Cobourg Peninsula System). The site meets criteria 1, 2, 3, 4, 5 and 6 and includes DIWA wetland types: A6, A7, A8, A9, B14 and A10. The Minimini Creek system, Endyagout Island, and swamp habitat on nearby Croker Island are all included within the site.
	Notes	The Cobourg Peninsula was the first wetland to be listed under the Ramsar Convention on Wetlands of International Importance, in May 1974. The site is identified as a priority High Conservation Value Aquatic Ecosystem (Commonwealth of Australia 2008) and a target for investment in the Caring for our Country Business Plan 2009-2010.
	Rivers	There are no large rivers or creeks within this site and only a few small springs (K. Brennan, NRETAS, pers. comm.). However, all are in near-pristine condition.
FLORA	Significance Rating	National Significance
	Notes	Rainforest: Almost 11 000 ha of rainforest (or 4% of the NT rainforest estate) is located in coastal areas of this site. Much of the rainforest is dry rainforest and occurs as small patches (<10 ha), but of significance are 25 patches >100 ha each (Russell-Smith 1991). Restricted range species: Kentia Palm <i>Hydriastele ramsayi</i> is widespread in the NT but is especially common in open forest habitats on the Peninsula (K. Brennan, NRETAS, pers. comm.).
OTHER ENVIRONMENTAL VALUES		<p>The isolation of this site from the rest of the mainland has allowed many species to remain unaffected by threatening processes impacting on populations elsewhere (Woinarski and Baker 2002).</p> <p>There is an abundance of the burrowing native rodent, the Pale Field-rat (<i>Rattus tunneyii</i>), in the extensive tall, eucalypt open forests on the peninsula. There are few other places in the NT where this species occurs so prolifically and they in turn appear to support equally impressive populations of predatory species such as large pythons and owls, including the Masked Owl which is common on Cobourg (pre cyclone Ingrid) but rather rare elsewhere (K. Brennan, NRETAS, unpubl.).</p> <p>Cobourg Peninsula is home to a large wild herd of feral banteng. These Indonesian cattle are considered to be vulnerable in their native range in south-eastern Asia and the population within this site may represent the largest free-living herd (Bradshaw 2007).</p> <p>65 species recorded from the site are listed under international conventions or bilateral agreements protecting migratory animals.</p> <p>Three sites on Cobourg Peninsula are listed on the Register of the National Estate for their natural values including: Cobourg Peninsula (Gurig) National Park and Cobourg Marine Park, Cobourg Peninsula Wildlife Sanctuary (former), and Black Point Area (Australian Heritage Council).</p> <p>The Garig Gunak Barlu National Park is the only national park in the NT that currently encompasses adjoining marine areas (PWSNT 2006).</p> <p>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.).</p>
MANAGEMENT ISSUES		<p>Fire: In the period 1993-2004, 91% of the site was burnt in fewer than three years, and none was burnt in more than six years.</p> <p>Feral animals: Feral pigs and banteng (<i>Bos javanicus</i>) are growing in numbers and damaging wetlands (P. Fitzgerald pers. comm.). Water buffalo degrade creek lines in the site but are in reasonably low numbers. Other introduced species include sambar (<i>Cervus unicolor</i>), horse (<i>Equus caballus</i>), cat (<i>Felis catus</i>) and Cane Toad (<i>Chaunus marinus</i>).</p> <p>Weeds: Ten declared Category A and B weeds (<i>Cenchrus echinatus</i>, <i>Cryptostegia madagascariensis</i> var. <i>indeterminate</i>, <i>Hyptis suaveolens</i>, <i>Opuntia inermis</i>, <i>Senna obtusifolia</i>, <i>Sida acuta</i>, <i>Sida cordifolia</i>, <i>Sida rhombifolia</i>, <i>Stachytarpheta cayennensis</i>, and <i>Tribulus cistoides</i>) and one undeclared but problematic environmental weed (high priority weeds: Smith 2001) (<i>Delonix regia</i>) are recorded from this site but the Cobourg Peninsula is relatively weed free with no real problematic species (K. Brennan, NRETAS, pers. comm.).</p> <p>Other: Cyclone Ingrid caused major structural damage to vegetation on Cobourg in March 2005, and large tracts of forest were then killed by hot fires.</p>

MANAGEMENT INFORMATION	NRM groups	No information located.
	Protected areas	Garig Gunak Barlu National Park (2062 km ² / 82% of site).
	Current management plans	<p>Site-specific plans: Garig Gunak Barlu National Park Gunak (Sanctuary) Plan of Management (CCNT 1987); Cobourg Marine Park Draft Plan of Management (PWSNT 2006).</p> <p>National recovery plans for threatened species: Northern Quoll (Hill and Ward in prep.), Gouldian Finch (O'Malley 2006); Masked Owl and Partridge Pigeon (Woinarski 2004a); marine turtles (Environment Australia 2003); Red Goshawk (Baker-Gabb in prep.).</p> <p>Other management plans: Australian Weeds Strategy (NRMMC 2007); Threat Abatement Plan for Predation, habitat degradation, competition and disease transmission by feral pigs (DEH 2005); Threat Abatement Plan for Predation by Feral Cats (Environment Australia, 1999); FIREPLAN: Fire management for the savanna community (Russell-Smith <i>et al.</i> in prep.).</p>
	Monitoring programs and research projects	<p>Biodiversity surveys were conducted in Garig Gunak Barlu National Park in 1974 (Frith and Calaby 1974) and 2004 (K. Brennan, NRETAS, unpubl.) to establish comprehensive baseline data.</p> <p>Annual surveys of marine debris on selected sandy beaches are conducted by park rangers and Conservation Volunteers Australia as part of the NT Marine Debris Monitoring program (NRETA 2007). Permanent sites have been established in the waters off the northern coast of the peninsula for long term monitoring of coral health (NRETA 2007).</p> <p>Breeding populations of marine turtles have been sampled regularly since 1995 on Greenhill Island, Black Point and Smith Point (Hope and Smit 1998).</p> <p>Populations of feral animals, especially banteng, are surveyed periodically (most recently in 2005) to help determine limits for safari hunting and culling (K. Saalfeld, NRETAS, unpubl.).</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>Conservation management actions and priorities for the Tiwi-Cobourg bioregion including reserve consolidation, management of threatened species, and other natural resource management activities are summarized in Woinarski and Baker (2002; Table 8 p.47).</p> <p>Management of feral animals and fire needs to be continued and upgraded.</p> <p>Simplify the structure of the management body of the Garig Gunak Barlu National Park.</p>	
KEY REFERENCES	Papers and reports	<p>CCNT (1987). <i>Garig Gunak Barlu National Park Gunak (Sanctuary) Plan of Management</i>. Conservation Commission of the Northern Territory, Darwin, NT.</p> <p>Frith H.J., and Calaby J.H. (Eds) (1974). <i>Fauna survey of the Port Essington district, Cobourg Peninsula, Northern Territory of Australia</i>. Technical Paper No. 28. (CSIRO Division of Wildlife Research: Canberra.)</p> <p>Frith, H.J., and Hitchcock, W.B. (1974). <i>Birds. In Fauna survey of the Port Essington district, Cobourg Peninsula, Northern Territory of Australia</i>. Technical Paper No. 28. (eds H.J. Frith and J.H. Calaby) pp. 109-178. (CSIRO Division of Wildlife Research: Canberra.)</p> <p>PWCNT (2001). <i>Studies of the brush-tailed tree-rat Conilurus penicillatus in Gurig National Park</i>. Parks and Wildlife Commission of the Northern Territory, Darwin.</p> <p>Woinarski, J. and Baker, B. (2002). <i>Biodiversity Audit - bioregional case study: Tiwi-Cobourg bioregion, Northern Territory</i>. In J. Woinarski (ed.) Biodiversity Audit - bioregional summaries. A report to the National Land & Water Audit. Parks and Wildlife Commission of the Northern Territory, Darwin.</p>
	Contributors	Kym Brennan, Biodiversity Conservation, NRETAS, Darwin.



Cape Don, Cobourg Peninsula (Photo: Kym Brennan)