

## Wessel and English Company island groups

### Location and Description

The neighbouring continental island groups of the Wessel and English Company Islands are located off north-eastern Arnhem Land, about 600 km east-north-east of Darwin. The island chains stretch for up to 100 km from the mainland and represent remnants of a land connection between Australia and New Guinea many thousands of years ago. Both island groups are dominated by rugged sandstone plateaus and hills and this contrasts sharply with the relatively flat and featureless Elcho–Drysdale Island group (to the west) and adjacent mainland. Most of the islands have a cover of low vegetation, including grasslands, heathlands, coastal thickets and eucalypt woodlands, with smaller areas of paperbark forest and mangroves.

### Tenure and Land Use

The Wessel and English Company Island Groups are Aboriginal freehold land held by the Arnhem Land Aboriginal Land Trust. The land mainly supports Indigenous uses. Other uses include conservation, recreation, tourism and commercial fisheries. The island groups are part of the proposed Marthakal Indigenous Protected Area, which covers a broader area including the Elcho–Drysdale Island group and the adjoining mainland areas of north east Arnhem Land.

### Significance Rating

International Significance

### Ecological Values

The Wessel and English Company Island groups are significant due to their isolation and the protection they offer from threatening processes affecting mainland biota. The islands harbour ten threatened species, including the only known recent occurrence in the Northern Territory of the Golden Bandicoot. They also provide an important refuge area for local threatened species, including translocated populations of the Northern Quoll. Island beaches support nesting activity of four species of marine turtle, but are especially significant for the threatened Hawksbill Turtle. Large aggregations of colonial seabirds also use island habitats within this Site for nesting. European influence on the islands has been minimal and extensive areas of the native vegetation remain intact.

### Management Issues

While European influence on the island groups has been minimal to date, the disruption of traditional Aboriginal fire management will have implications for vegetation patterning over time. Weeds and feral animals are largely



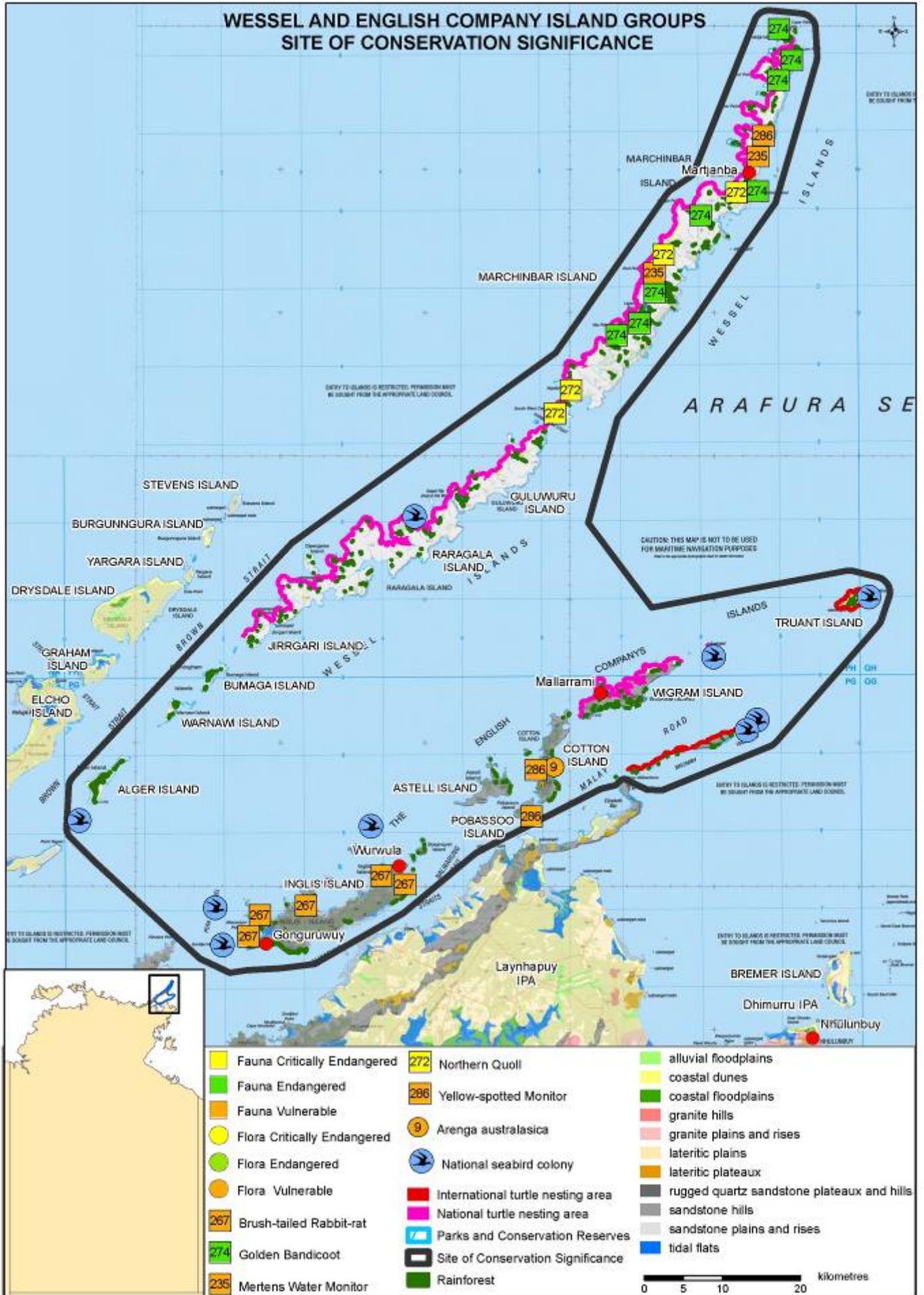
absent from the islands, but without active management, these issues could become more problematic in the future.

### Condition

Less than 3% of the known flora on the islands is of introduced species, which is relatively low in both a regional and national context. The environments of these island groups are in good to near-pristine condition.

### Current Conservation Initiatives

A draft sea and land management plan was developed in 2003 for the island groups, the neighbouring Elcho–Drysdale Island group, and the adjoining mainland areas of north east Arnhem Land, to identify important natural resource management issues and future priorities. The island groups also form part of the proposed Marthakal Indigenous Protected Area and Commonwealth funding has been granted to progress this proposal. Indigenous rangers based at Galiwin'ku, on Elcho Island, are working collaboratively with NT Parks and Wildlife staff on Golden Bandicoot and Northern Quoll translocation and population monitoring programs on the islands, and have had recent involvement in a baiting program for wild dogs on Wigram and Marchinbar Islands.



LOCATION	<b>SOCS Number</b>	23 (NT Parks and Conservation Masterplan Map Number 3)
	<b>Latitude/Longitude</b>	11° 42' South, 136° 23' East (at centre)
	<b>Bioregion</b>	Arnhem Coast
	<b>Description</b>	<p>This site comprises two island groups: the Wessel Islands with 35 islands (the south-western most islands of this group are also known as the Cunningham Islands), includes the largest island within the site (Marchinbar Island) which accounts for more than half of the land area of the islands (371 km<sup>2</sup>). The English Company Islands (including the Bromby Island chain off Cape Wilberforce), is smaller (total area of 154 km<sup>2</sup>) and less cohesive, and comprises 47 islands (Woinarski <i>et al.</i> 2000).</p> <p>At 98 km from the Australian mainland, Rimbija Island in the Wessel group is the most distant island from the mainland, while the islands in the English Company group are relatively closer. Both island groups are dissected by rocky rises, plateaus and low hills and are generally well-defined from the adjacent mainland and the Elcho–Drysdale Island group to the north-west, by their rugged nature.</p> <p>The Elcho Island Group, to the north-west of these island groups, is also recognised as a site of high conservation significance in the NT.</p>
THREATENED SPECIES	<b>Significance Rating</b>	<b>International Significance</b>
	<b>Threatened plants and animals</b> (Listings at National/NT level <b>CR</b> - Critically Endangered, <b>EN</b> - Endangered, <b>VU</b> - Vulnerable, <b>NT</b> - Near Threatened, <b>LC</b> - Least Concern, <b>DD</b> - Data Deficient)	<p>Ten threatened species are reported from this site.</p> <p><b>Plants</b></p> <ul style="list-style-type: none"> <li>▪ Australian arenga palm <i>Arenga australasica</i> (VU/DD)</li> </ul> <p><b>Vertebrates</b></p> <ul style="list-style-type: none"> <li>▪ Brush-tailed Rabbit-rat <i>Conilurus penicillatus</i> (-/VU)</li> <li>▪ Golden Bandicoot <i>Isodon auratus</i> (VU/EN)</li> <li>▪ Northern Quoll <i>Dasyurus hallucatus</i> (EN/CR)</li> <li>▪ Merten's Water Monitor <i>Varanus mertensi</i> (-/VU)</li> <li>▪ Yellow-spotted Monitor <i>Varanus panoptes</i> (-/VU)</li> <li>▪ Green Turtle <i>Chelonia mydas</i> (VU/LC)</li> <li>▪ Hawksbill Turtle <i>Eretmochelys imbricata</i> (VU/DD)</li> <li>▪ Olive Ridley <i>Lepidochelys olivacea</i> (EN/DD)</li> <li>▪ Flatback Turtle <i>Natator depressus</i> (VU/DD)</li> </ul> <p>The Golden Bandicoot once occurred over much of northern Australia and now appears extinct on the Northern Territory mainland, occurring naturally in the NT only on Marchinbar Island (Woinarski 2001). A current program is translocating bandicoots from Marchinbar to establish additional populations on nearby Guluwuru and Raragala Islands</p> <p>The Northern Quoll was introduced to Astell and Pobassoo Islands (English Company Islands) in 2003 as part of a translocation program in response to the spread of Cane Toads in the Northern Territory, and to date this population has flourished (Rankmore <i>et al.</i> 2008).</p>
ENDEMIC SPECIES	<b>Significance Rating</b>	<b>Regional Significance</b>
	<b>Notes</b>	<p><b>Endemic to the site:</b> One plant species is only known from this site (<i>Trachymene longipedunculata</i>).</p> <p><b>Endemic to the bioregion:</b> Two plant species recorded in this site are only known from the Arnhem Coast bioregion (<i>Spermacoce stigmata</i> and <i>Trachymene longipedunculata</i>).</p> <p><b>Endemic to the NT:</b> 38 plants and four vertebrates recorded in this site are endemic to the NT.</p> <p><b>Other:</b> 11 plant species and one vertebrate species are restricted to the site or Arnhem Coast bioregion within the NT but are also found in other states.</p>
WILDLIFE AGGREGATIONS	<b>Significance Rating</b>	<b>International Significance</b>
	<b>Marine turtles</b>	The Bromby Islands are a major nesting area for marine turtles, especially Hawksbill Turtles, and they support the highest counts of turtle tracks and/or nests recorded for any site in the NT (Chatto and Baker 2008). Scattered beaches along the northern coastline of the Wessel and English Company island groups are also significant for nesting Olive Ridley and Flatback Turtles (Chatto and Baker 2008). Here we consider the site of International significance to marine turtles.
	<b>Seabirds</b>	Nineteen seabird breeding colonies are confirmed from this site, including nine colonies considered to be of National significance for a range of nesting tern species (Chatto 2001).
	<b>Waterbirds</b>	Significant aggregations of waterbirds are not known from these island groups (Chatto 2006).
	<b>Shorebirds</b>	Coastal areas of these islands are mostly unsuitable for shorebirds and only low numbers of shorebirds are reported (Chatto 2003).
	<b>Other aggregations</b>	None known
WETLANDS	<b>Significance Rating</b>	<b>Regional Significance</b>
	<b>Ramsar criteria met</b>	Not assessed
	<b>DIWA criteria met</b>	Not assessed
	<b>Notes</b>	This site does not comprise extensive wetland habitat but a lagoon at Jensen Bay, on Marchinbar Island, could be considered of regional significance for freshwater birds with half the species known from the Wessel Islands recorded at this site (Woinarski and Fisher 1996).
	<b>Rivers</b>	No information located

FLORA	Significance Rating	Regional Significance
		Notes
OTHER ENVIRONMENTAL VALUES		<p>40 species recorded from this site are listed under international conventions or bilateral agreements protecting migratory animals.</p> <p>The Chestnut Rail is a range-restricted species which has been recorded frequently and in a broad range of habitats in these island groups (Woinarski <i>et al.</i> 1998).</p> <p>The Wessel and English Company Island groups are important for the study of island biogeography and for study of areas that remain largely removed from European influence (Woinarski <i>et al.</i> 2000).</p> <p>The conservation values of islands generally, are high due to their isolation and the protection they offer from threats to biodiversity operating on the mainland and this is evident by use of the islands for mammal translocation programs (Taylor and Woinarski 2004).</p> <p>The island groups are part of the proposed Marthakal Indigenous Protected Area.</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>
		<p><b>Fire:</b> The emigration of Aboriginal people from the islands over the past 50 years has led to less frequent but more extensive and intense fires. Woinarski <i>et al.</i> (2000) note signs of unusually long fire-free intervals and the potential impact on vegetation patterning over time. In the period 1993-2004, 100% of the site was burnt in fewer than three years.</p> <p><b>Feral animals:</b> Feral animals are largely absent from the islands, except for Black Rat and feral goat on Truant Island, Water Buffalo on Inglis Island, and feral dog on Wigram and Marchinbar Islands. Feral dogs are likely to be the most problematic of these species as their diet includes native mammals (Woinarski <i>et al.</i> 1999). Two species of exotic ants occur on two of the English Company Islands, but these species are also widespread on the north Australian mainland and on tropical islands elsewhere (Woinarski <i>et al.</i> 1998). The islands are presently free of Cane Toads but they may be accidentally introduced onto the islands in the future.</p> <p><b>Weeds:</b> Four Category B weeds (<i>Cenchrus echinatus</i>, <i>Senna alata</i>, <i>Tribulus cistoides</i>, <i>Tribulus terrestris</i>) are recorded from this site. Exotic plants comprise less than 3% of the known flora on the islands and their distribution is mostly restricted to disturbed areas around airstrips and buildings (Woinarski <i>et al.</i> 2000).</p> <p><b>Other:</b> Cyclones occur frequently off north-east Arnhem Land and cause extensive disturbance to the islands (Palmer <i>et al.</i> 2007).</p> <p>Limited resources for active management of fire and weeds on the islands is a potential problem.</p>
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		<p><b>NRM groups</b></p> <p>Gumurr Marthakal Rangers, Galiwin'ku (Elcho Island) (Northern Land Council 2006).</p> <p><b>Protected areas</b></p> <p>The island groups are within the proposed Marthakal Indigenous Protected Area.</p> <p><b>Current management plans</b></p> <p><b>Site-specific plans:</b> Draft Land and Sea Management Plan Marthakal Region (Mahney 2003).</p> <p><b>National recovery plans for threatened species:</b> Northern Quoll (Hill and Ward in prep.); Golden Bandicoot (Palmer <i>et al.</i> 2003); marine turtles (Environment Australia 2003).</p> <p><b>Other management plans:</b> Australian Weeds Strategy (NRMMC 2007); Threat Abatement Plan for Predation, habitat degradation, competition and disease transmission by feral pigs (DEH 2005); Threat Abatement Plan to reduce the impacts of tramp ants on biodiversity in Australia and its territories (DEH 2006); FIREPLAN: Fire management for the savanna community (Russell-Smith <i>et al.</i> in prep.).</p> <p><b>Monitoring programs and research projects</b></p> <p>The population of Golden Bandicoots on Marchinbar Island is being monitored over the period 2006-2010 (C. Palmer, NRETAS unpubl.).</p> <p>Populations of translocated Northern Quolls have been monitored at plots established on the English Company Islands over the period 2003-2008 (Rankmore <i>et al.</i> 2008).</p> <p>Olive Ridley Turtles nesting in the Wessel Islands has been monitored using satellite-relayed data loggers to help address knowledge gaps about turtle behaviour (McMahon <i>et al.</i> 2007).</p> <p>Irregular surveys and collection of fishing nets on island beaches by Indigenous rangers under the Carpentaria Ghost Net Program <a href="http://www.ghostnets.com.au/index.html">http://www.ghostnets.com.au/index.html</a></p> <p>Fire in the tropical savannas is mapped continuously under the North Australia Fire Information Project <a href="http://www.firenorth.org.au/nafi/app/init.jsp">http://www.firenorth.org.au/nafi/app/init.jsp</a></p> <p><b>Management recommendations</b></p> <p>Continue to support and build capacity of Gumurr Marthakal Rangers to manage threatening processes, monitor threatened species, and document natural resource values (NRETA 2005).</p> <p>Continue to implement the Golden Bandicoot management program for the islands (NRETA 2005).</p> <p>Continue to monitor the Northern Quoll translocated populations and implement the management program under the Island Ark project (NRETA 2005).</p> <p>In conjunction with Northern Land Council, NT Department of Primary Industry, Fisheries and Mines, traditional owners and other stakeholders, explore the options for conservation of biodiversity around these Island groups including options for joint management (NRETA 2005).</p> <p>Continue to build awareness in local communities about cane toad, cat and other feral plants and animals through the Island Ark project (NRETA 2005).</p>
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KEY REFERENCES

<p><b>Papers and reports</b></p>	<p>Rankmore, B.R., Griffiths, A.D., Woinarski, J.C.Z., Bruce Lirrwa Ganambarr, Taylor, R., Brennan, K., Firestone, K. and Cardoso, M. (2008). <i>Island translocation of the northern quoll <i>Dasyurus hallucatus</i> as a conservation response to the spread of the cane toad <i>Chaurus (Bufo) marinus</i> in the Northern Territory, Australia</i>. Report to The Australian Government's Natural Heritage Trust. Northern Territory Government, Darwin.</p> <p>Woinarski JCZ, and Fisher A (Eds) (1996). <i>Wildlife of the Wessel Islands</i>. Technical Report No. 60. (Parks and Wildlife Commission of the Northern Territory: Darwin)</p> <p>Woinarski, J.C.Z., Reichel, H. and Andersen, A.N. (1998). The distribution of ants on the Wessel and English Company Islands, in the seasonal tropics of Australia's Northern Territory. <i>Australian Journal of Zoology</i> 46, 557–579.</p> <p>Woinarski, J.C.Z., Palmer, C., Fisher, A., Southgate, R., Masters, P., and Brennan, K. (1999). Distributional patterning of mammals on the Wessel and English Company Islands, Arnhem Land, Northern Territory, Australia. <i>Australian Journal of Zoology</i>, 47, 87-111.</p> <p>Woinarski, J., Horner, P., Fisher, A., Brennan, K., Lindner, D., Gambold, N., Chatto, R., Morris, I. (1999). Distributional patterning of terrestrial herpetofauna on the Wessel and English Company Island groups, northeastern Arnhem Land, Northern Territory, Australia. <i>Austral Ecology</i> 24 (1), 60–79.</p> <p>Woinarski, J.C.Z., Brennan, K., Cowie, I., Fisher, A., Latz, P.K., Russell-Smith, J. (2000). Vegetation of the Wessel and English Company Islands, North-eastern Arnhem Land, Northern Territory, Australia. <i>Australian Journal of Botany</i> 48, 115–141.</p> <p>Woinarski, J.C.Z., Fisher, A., Brennan, K., Morris, I., Chatto, R. (2001). Patterns of bird species richness and composition on islands off Arnhem Land, Northern Territory, Australia. <i>Austral Ecology</i> 26 (1), 1–13.</p>
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**Jensen Bay east coast, Wessel and English Company Island Group  
(Photo: Kym Brennan)**



**Jensen Bay Lake, Wessel and English Company Island Group  
(Photo: Kym Brennan)**