



VALUES AND VISION

Values and Vision





Place and Landscape Values

The importance of place values of the Tiwi Islands cannot be overstressed: *the ownership, allocation and expression of land and natural resources provides the definition of who a person is, and where they fit within society.*

There has been an unbroken history of occupation and ownership of the Tiwi Islands by Tiwi people. Place values are important because of their role in determining how Tiwi people have and still define themselves today.

Some areas of land and specific sites have high spiritual value determined through Tiwi history and culture. Currently there are three sacred sites registered with the Aboriginal Areas Protection Authority, and another 56 recorded sites of significance including two sites on the Northern Territory mainland. In addition, there are sites of shared history that have significance to both Tiwi and non-Tiwi. These include Fort Dundas (listed on the National Estate), and several saw mills and World War II installations.

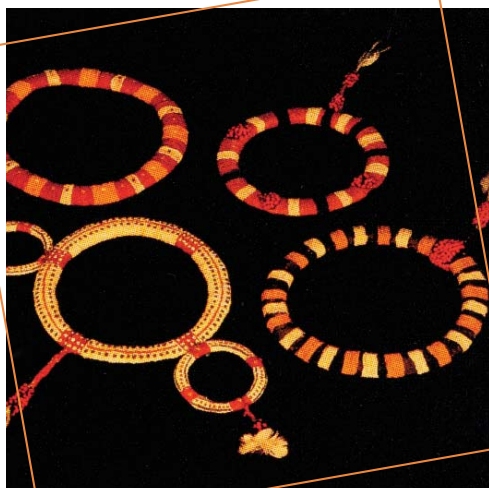
Land plays an important role in kinship and relationship networks, with each person belonging to a landowning group, and having particular connections to spatially defined areas. Similarly, there are aspects of managing and allocating land and natural resources that are inseparable from kinship and relationship ties. While landowning rights are inherited from the father, the responsibility for the care of particular sites comes through the mother's line.

The Tiwi landscape provides inspiration that is expressed through ceremonies, art, dance, stories and song. These are fundamental elements of Tiwi society that reaffirm individual and group roles and positions.



Traditional Use Values

There are many Tiwi plants and animals that are valuable for ceremonial purposes and for the traditional knowledge that is attached to them. One of the most important is Kurlama (*Dioscoria bulbifera*); a yam that is considered 'cheeky' (poisonous) if eaten without proper preparation. It provides the focus for the Kurlama ceremony, a three-day annual event that involves ritual cooking of the yam, singing and dancing. The purpose of the ceremony is to heal hurts and express sorrow over events of the previous year, to bestow Tiwi names on children, and to ensure good health and plentiful bush food for the coming year. Kurlama ceremonies are still practiced by suitably qualified people today.



Other ceremonial and knowledge values of Tiwi plants and animals are documented in Puruntatameri *et al.* (2001), and summarised below:

Value	No. of plant species	No. of animal species	Total no. of species
Calendar association	6	1	7
Medicine	37	6	43
Material culture			
Artefacts/carving	3		
Baskets	4		
Fibre crafts	18		
Firewood	7		
Glues/adhesives	4		
Poisonous/harmful	3		
Shade/shelter	5		
Toys	4		
Feathers/down		4	
Leather/fur		2	
Sinew/bone		1	
Others	11		66
Weapons/implements			
Canoes	11		
Clap-sticks	2		
Didgeridu	6		
Digging sticks	3		
Fighting/throwing sticks	6		
Fire sticks/carriers	13		
Smoking pipes	2		
Spears	14		
Other	7		64

Table 14: Tiwi Plant Uses (Puruntatameri *et al.* 2001)

Economic Values

Puruntatameri *et al.* (2001) recorded the names and uses of 216 plants and 171 animals on the Tiwi Islands. Of these, 133 (45.4%) of the plants were identified as a food resource, and 56 (81%) of the animals. Included are a number of introduced species that are highly valued as a food resource. These include cashew (*Anacardium occidentale*), mango (*Mangifera indica*), English yam (*Dioscorea alata*), water buffalo (*Bubalus bubalis*) and pig (*Sus scrofa*).

The marine environment is recognised as being particularly valuable for food, as relatively little effort is required to harvest a good quantity. Shellfish, mussels, oysters, periwinkles, mangrove worms and mud crabs occur in mangrove communities in abundance, while possums and other edible mammals can sometimes be found feeding on the flowers of mangrove trees. Fish, dugong and turtle are regularly harvested from the sea, and certain beaches are good sources of turtle and bird eggs.

The natural resource values of the Tiwi Islands have long been recognised for their economic potential in terms of enterprise development. Vegetables and fruit were successfully grown adjacent to communities during the Mission days, and Nguiu and Milikapiti still operate 'farms' which provide horticultural produce. In the mid 1990's, Milikapiti was successfully exporting sweet potato for sale on the mainland. The Islands were also assessed for improved pasture potential, with research and trials carried out from 1973 to 1975 (Archer 1979).

In 1921/22, C E J Allen, Superintendent of Agriculture in the NT, and Gerald Hill of the Townsville Institute suggested that a forestry reserve be established on the Islands. In 1960 the Commonwealth Government established plantations and trials, and Melville Island was chosen as the focus for future forestry development. The Island offered a number of advantages over the mainland, including better rainfall distribution, more favourable soil types, groundwater reserves and lower incidences of termite attack.

Plantation forestry and the subsequent harvest of native timber is now one of the major contributors to the region's economy. Sea cage

aquaculture is also proving to be viable, with 20 tonnes of farmed barramundi currently being exported every week.

In addition to forestry and aquaculture, potential exists for a range of economic opportunities based on the region's natural resources, including (but not limited to):

- Climatic conditions and soil types that are favourable for various cropping and grazing activities;
- Sand, topsoil and gravel suitable for construction and mineral extraction;
- Native fruit and wildlife for commercial harvest (for example Kakadu Plum and crocodile eggs);
- Pharmaceutical and cosmetic (for example essential oil) properties of native vegetation;
- Native vegetation and soils (timber, clay, ochres) for art and craft production;
- Quality and quantity of surface and groundwater for domestic supply, irrigation and tourism activities;
- Well stocked marine fishery for commercial and tourism activities;
- Large tracts of undisturbed areas for nature based tourism enterprises.

Hollingsworth (2003) carried out a land capability study on selected land uses of the Tiwi Islands from historical records and field survey. The classification of land capability was based on soil properties, landform, slope, elevation, distance from streamlines and distance from the coast. This information will provide a scientific basis for assessing potential future economic ventures based on the region's natural resources.





Conservation Values

Vegetation types

Woinarski *et al.* (2003a) identifies some major vegetation types on the Tiwi Islands that are significant for conservation at the Northern Territory scale:

Wet and dry rainforest

Many of the largest patches in the NT, many of the most floristically rich, and many with high numbers of endemic and threatened species. They are also more numerous on the Tiwi Islands compared with similar sized areas on the NT mainland, and distinctly different in plant species composition.

Treeless plains

Recognised as endemic to the Tiwi Islands.

Eucalypt forest

Best developed eucalypt formations in the Northern Territory, and floristically distinct with the exception of Coburg Peninsula.

In addition to the above, riparian zones and wetlands were considered to be of value for conservation planning due to their importance for regional biodiversity (Woinarski *et al.* 2000).

Native plant species

Of the 1082 native plant species recorded by Woinarski *et al.* (2003a), twenty are listed in the Northern Territory as endangered or vulnerable, with a further 43 listed as Data Deficient. Eleven species are endemic to the Tiwi Islands, and nineteen occur in the Northern Territory only on the Tiwi Islands, but also occur beyond the Northern Territory. Although all habitats are represented, most of the threatened plants occur in rainforests.

Scientific name	Habitat	Status
<i>Eliocarpus meigi</i>	Rainforest	Critically endangered (NT); NT distribution limited to the Tiwi Islands
<i>Burmanna</i> D61177 Bathurst Island	Rainforest	Endangered (NT); Endangered (National); Endemic to the Tiwi Islands
<i>Cephalomanes obscurum</i>	Rainforest	Endangered (NT)
<i>Garcinia warrenii</i>	Rainforest	Endangered (NT); NT distribution limited to the Tiwi Islands.
<i>Tarennoidea wallichii</i>	Rainforest	Endangered (NT); NT distribution limited to the Tiwi Islands.
<i>Typhonium jonesii</i>	Eucalypt open forest	Endangered (NT); Endemic to the Tiwi Islands
<i>Typhonium mirabile</i>	Eucalypt open forest	Endangered (NT); Endemic to the Tiwi Islands
<i>Utricularia subulata</i>	Melaleuca woodland	Endangered (NT)
<i>Xylopia</i> D30127 Melville Island	Rainforest	Endangered (NT); Endemic to the Tiwi Islands
<i>Calochilus caeruleus</i>	Paperbark swamp	Vulnerable (NT)
<i>Cycas armstrongii</i>	Eucalypt open forest	Vulnerable (NT)
<i>Dendromyza reinwardtiana</i>	Rainforest	Vulnerable (NT); NT distribution limited to the Tiwi Islands
<i>Endiandra limnophila</i>	Rainforest	Vulnerable (NT)
<i>Freycinetia excelsa</i>	Rainforest	Vulnerable (NT)
<i>Freycinetia percostata</i>	Rainforest	Vulnerable (NT)
<i>Hoya australis oramicola</i>	Rainforest	Vulnerable (NT); Endemic to the Tiwi Islands
<i>Luisia teretifolia</i>	Rainforest	Vulnerable (NT)
<i>Mapania macrocephala</i>	Rainforest	Vulnerable (NT)
<i>Mitrella</i> D24710 Melville Is.	Rainforest	Vulnerable (NT); Endemic to the Tiwi Islands
<i>Thrixspermum congestum</i>	Rainforest	Vulnerable (NT); NT distribution limited to the Tiwi Islands
<i>Desmodium tiwiense</i>	Eucalypt open forest	Endemic to the Tiwi Islands
<i>Goodenia</i> D1547 Melville Island	Eucalypt woodland	Endemic to the Tiwi Islands
<i>Lindernia cowiei</i>	Wetlands	Endemic to the Tiwi Islands
<i>Parsonsia</i> D30178 Melville Island	Rainforest	Endemic to the Tiwi Islands
<i>Spermacoce</i> D43976 <i>retitesta</i>	Eucalypt open forest	Endemic to the Tiwi Islands
<i>Acmenosperma claviflorum</i>	Rainforest	NT distribution limited to the Tiwi Islands
<i>Actinostachys wagneri</i>	Rainforest	NT distribution limited to the Tiwi Islands
<i>Calochilus caeruleus</i>	Paperbark swamp	NT distribution limited to the Tiwi Islands
<i>Clerodendrum longiflorum glabrum</i>	Rainforest margins	NT distribution limited to the Tiwi Islands
<i>Crinum venosum</i>	Paperbark swamps	NT distribution limited to the Tiwi Islands
<i>Dendrobium trilamellatum</i>	Paperbark swamps	NT distribution limited to the Tiwi Islands
<i>Hedyotis auricularia melanescia</i>	Rainforest	NT distribution limited to the Tiwi Islands
<i>Hypolytrum nemorum</i>	Rainforest	NT distribution limited to the Tiwi Islands
<i>Hypserpa decumbens</i>	Rainforest	NT distribution limited to the Tiwi Islands
<i>Hypserpa polyandra</i>	Rainforest	NT distribution limited to the Tiwi Islands
<i>Litsea breviumbellata</i>	Rainforest	NT distribution limited to the Tiwi Islands
<i>Scleria carphiformis</i>	Treeless plains	NT distribution limited to the Tiwi Islands
<i>Strychnos minor</i>	Rainforest	NT distribution limited to the Tiwi Islands
<i>Triumfetta repens</i>	Coastal dunes	NT distribution limited to the Tiwi Islands

Table 15: Listed Flora (Woinarski *et al.* 2003a)

Fauna

Woinarski *et al.* (2003b) considered that “The Tiwi Islands have outstanding values for fauna conservation”. Of the 542 native species recorded, eighteen are listed as endangered or vulnerable at either the Northern Territory or national level, eight subspecies of birds and two subspecies of mammals are regarded as endemic, as are 10% of the recorded ant species. In addition, 51 species are listed under international conventions for the protection of migratory species. Most of the threatened species occur in eucalypt open forest, although all main habitat types support at least one threatened taxon (Woinarski *et al.* 2003b).

Taxonomic group	Species	Status
Snails	<i>Amphidromus cognatus</i>	Vulnerable (NT)
	<i>Trochomorpha melwillensis</i>	Vulnerable (NT)
Butterflies	Dodd’s Azure butterfly <i>Ogyris iphis doddi</i>	Endangered (NT)
	Northern grassdart butterfly <i>Taractrocera ilia ilia</i>	Vulnerable (NT)
Reptiles	Green turtle <i>Chelonia mydas</i>	Vulnerable (national); BONN
	Hawksbill turtle <i>Eretmochelys imbricata</i>	Vulnerable (national); BONN
	Olive Ridley <i>Lepidochelys olivacea</i>	Endangered (national); BONN
	Flatback turtle <i>Natador depressus</i>	Vulnerable (national); BONN
	Loggerhead turtle <i>Caretta caretta</i>	Endangered (NT & national); BONN
	Saltwater crocodile <i>Crocodylus porosus</i>	BONN
Birds	Red goshawk <i>Erythrotriorchis radiatus</i>	Vulnerable (NT & national)
	Partridge pigeon (eastern subspecies) <i>Geophaps smithii smithii</i>	Near threatened (NT); Vulnerable (national)
	Masked owl (Melville Island subspecies) <i>Tyto novaehollandiae melwillensis</i>	Endangered (NT); Vulnerable (national)
	Hooded robin (Tiwi Islands subspecies) <i>Melanodryas cucullata melwillensis</i>	Endangered (NT)
	Brown booby <i>Sula leucogaster</i>	CAMBA; JAMBA
	Lesser frigatebird <i>Fregata ariel</i>	CAMBA; JAMBA
	Eastern reef egret <i>Egretta sacra</i>	CAMBA
	Great egret <i>Ardea alba</i>	CAMBA; JAMBA
	Glossy ibis <i>Plegadis falcinellus</i>	CAMBA
	White bellied sea eagle <i>Haliaeetus leucogaster</i>	CAMBA
	Pin tailed snipe <i>Gallinago stenura</i>	CAMBA; JAMBA
	Swinhoe’s snipe <i>Gallinago megala</i>	CAMBA; JAMBA; BONN
	Black tailed godwit <i>Limosa limosa</i>	CAMBA; JAMBA; BONN
	Bar tailed godwit <i>Limosa lapponica</i>	CAMBA; JAMBA; BONN
	Little curlew <i>Numenius minutus</i>	CAMBA; JAMBA; BONN
	Whimbrel <i>Numenius phaeopus</i>	CAMBA; JAMBA; BONN
	Eastern curlew <i>Numenius madagascariensis</i>	CAMBA; JAMBA; BONN
	Marsh sandpiper <i>Tringa stagnatilis</i>	CAMBA; JAMBA; BONN
	Common greenshank <i>Tringa nebularia</i>	CAMBA; JAMBA; BONN
	Terek sandpiper <i>Xenus cinereus</i>	CAMBA; JAMBA; BONN
	Common sandpiper <i>Actitis hypoleucos</i>	CAMBA; JAMBA; BONN
	Grey tailed tattler <i>Heteroscelus brevipes</i>	CAMBA; JAMBA; BONN



Birds (cont.)	Ruddy turnstone <i>Arenaria interpres</i>	CAMBA; JAMBA; BONN
	Asian dowitcher <i>Limnodromus semipalmatus</i>	CAMBA; JAMBA; BONN
	Red knot <i>Calidris canutus</i>	CAMBA; JAMBA; BONN
	Great knot <i>Calidris tenuirostris</i>	CAMBA; JAMBA; BONN
	Red necked stint <i>Calidris ruficollis</i>	CAMBA; JAMBA; BONN
	Sharp tailed sandpiper <i>Calidris acuminata</i>	CAMBA; JAMBA; BONN
	Curlew sandpiper <i>Calidris ferruginea</i>	CAMBA; JAMBA; BONN
	Sanderling <i>Calidris alba</i>	CAMBA; JAMBA; BONN
	Broad billed sandpiper <i>Limacola falcinellus</i>	CAMBA; JAMBA; BONN
	Grey plover <i>Pluvialis squatarola</i>	CAMBA; JAMBA; BONN
	Pacific golden plover <i>Pluvialis fulva</i>	CAMBA; JAMBA; BONN
	Lesser sand plover <i>Charadrius mongolus</i>	CAMBA; JAMBA; BONN
	Greater sand plover <i>Charadrius leschenaultii</i>	CAMBA; JAMBA; BONN
	Caspian tern <i>Sterna caspia</i>	CAMBA; JAMBA
	Lesser crested tern <i>Sterna bengalensis</i>	CAMBA
	Little tern <i>Sterna albifrons</i>	CAMBA; JAMBA
	Common tern <i>Sterna hirundo</i>	CAMBA; JAMBA
	White winged black tern <i>Chlidonias leucopterus</i>	CAMBA; JAMBA
	Oriental cuckoo <i>Cuculus saturatus</i>	CAMBA; JAMBA
	White throated needletail <i>Hirundapus caudacutus</i>	CAMBA; JAMBA
	Fork tailed swift <i>Apus pacificus</i>	CAMBA; JAMBA
	Rainbow bee eater <i>Merops ornatus</i>	JAMBA
	Leaden flycatcher <i>Myiagra rubecula</i>	BONN
	Restless flycatcher <i>Myiagra inquieta</i>	BONN
	Rufous fantail <i>Rhipidura rufifrons</i>	BONN
	Oriental reed warbler <i>Acrocephalus orientalis</i>	CAMBA
	Mammals	Butler's dunnart <i>Sminthopsis butleri</i>
Northern brush tailed phascogale <i>Phascogale (tapoatafa) pirata</i>		Vulnerable (NT)
Bare rumped sheath tail bat <i>Saccolaimus saccolaimus nudicluniatus</i>		Critically endangered (Bat action plan)
Little north western freetail bat <i>Mormopterus loriae cobourgiana</i>		Near threatened (NT)
Brush tailed rabbit rat <i>Conilurus penicillatus</i>		Vulnerable (NT)
False water rat <i>Xeromys myoides</i>		Vulnerable (national)
Dugong <i>Dugong dugon</i>		BONN

CAMBA = China-Australia Migratory Bird Agreement (CAMBA, 1986)

JAMBA = Japan-Australia Migratory Bird Agreement (JAMBA, 1974)

BONN = Convention of the Conservation of Migratory Species of Wild Animals (Bonn Convention, 1979)

Table 16: Listed Fauna (Woinarski *et al.* 2003b)



Statement of Vision

The Tiwi vision is a statement of the values placed on the natural resources of the Tiwi Islands by the majority stakeholders; Tiwi people. It recognises their importance in terms of economic development, while also acknowledging their cultural, spiritual and recreational values. Others also value the Islands' natural resources, predominantly for contemporary conservation aims. The challenge is to accommodate and protect the variety of values placed on the Tiwi Islands, while acknowledging that it is those who rely on the Islands for their daily living that will be most affected by natural resource management actions both now and into the future.

“Our vision is of an independent and resilient Tiwi society built on the orderly and well managed utilisation of our natural resources.

Inherent in this is the maintenance and protection of our unique cultural and natural resource values for the enjoyment and benefit of future generations of Tiwi.”

Tiwi Land Council
Management
Committee 2001.