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Vegetation and vascular flora of Faure Island, Shark Bay, Western Australia

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Abstract – The vegetation and flora of Faure Island, the second largest island in the Shark Bay World Heritage Site, is documented. The island has five major plant communities (*Acacia* shrublands, Mallee shrublands, Spinifex grasslands, Samphire and *Atriplex* shrublands and Mangrove woodlands) of which the Mallee shrublands and Mangrove woodlands are rarely recorded on offshore islands. A vascular flora of 163 species was recorded consisting of 142 native and 21 naturalized aliens.

Key words: shrubland, mangrove, birrida, grassland

INTRODUCTION

Faure Island with an area of 5,816 hectares is the second largest island in the Shark Bay World Heritage area after Dirk Hartog Island. The island has been a pastoral lease from 1905 held by the Hoult family of Denham until purchased by the Australian Wildlife Conservancy in 2000.

BACKGROUND

Geology and Geomorphology

Hocking *et al.* (1987) place the island as part of the coastal zone of the Carnarvon Basin, which is subdivided into six regions of which Faure Island is part of the Peron Region. This region is characterised by an undulating topography of stabilized, unconsolidated red quartoze sand dunes which probably formed 16–25,000 years ago. These dunes overlie a relict dune complex (the Peron Sandstone) and reach up to 30 m in height (Butcher *et al.* 1984).

Climate

Faure Island experiences an arid climate lying at the margin of the Subcyclonic arid belt (Gentilli 1977). Average rainfall at Hamelin Pool (26°25'S 114°11'E) averages 210 mm per year, with 39 rain days per year, mainly in winter though there is a component of summer cyclonic rains. Temperatures are warm to hot, with daily average maxima ranging from 21–25°C in winter to 30–35°C in summer.

Current bioregionalisations (Department of Environment and Water Resources 2007) place Faure Island in the Carnarvon Bioregion, which is a desert bioregion.

METHODS

The purpose of this paper is to document the flora and vegetation of Faure Island as part of a baseline survey of the vegetation and flora at the time of lease transfer. Unlike the other islands of the World Heritage Property, there have been no detailed studies of the flora and vegetation of Faure Island, including no current vascular flora list and no systematic vegetation map.

The expedition spent 10 days on Faure Island in May 2000. To sample and monitor changes in the vegetation ten quadrats and ten photo monitoring points were established in all landforms on the island in the same location as vertebrate monitoring sites described by Schmitz and Richards (2008).

The island was covered by extensive foot traverse to map and sample all major and minor landforms and habitats. Voucher collections were deposited at the Western Australian Herbarium in Perth. Subsequently, the senior author spent a day on Faure Island and Cynthia Playford collected flowering plants in spring 2003.

RESULTS

Flora

Surveys have recorded 163 species of vascular plants on Faure Island (Table 1) of which 142 were native and 21 were naturalized aliens.

Vegetation

Beard (1976) mapped the vegetation of Faure Island as *Acacia ligulata* X *rostellifera* thicket (placed in his Denham Vegetation System) in the

Table 1 The floras of Bernier, Dorre and Faure Islands in Shark Bay. Nomenclature follows Paczkowska and Chapman (2000) currently employed by the Western Australian Herbarium or recent revisions. An * before the genus indicates that the species is a naturalized alien.

Family	Genus	Species	Bernier Island	Dorre Island	Faure Island
Aizoaceae	*Carpobrotus*	*candidus* MS	X	X	X
	**Carpobrotus*	sp. (GJK 15959)			X
	Gunniopsis	*septifraga*			X
	**Mesembryanthemum*	*crystallinum*	X		X
	Sesuvium	*portulacastrum*	X	X	X
	Tetragonia	*diptera*			X
Amaranthaceae	*Amaranthus*	*pallidiflorus*			X
	Ptilotus	*divaricatus* var. *divaricatus*			X
	Ptilotus	*obovatus* var. *obovatus*			X
	Ptilotus	*polystachyus*			X
	Ptilotus	*villosiflorus*	X	X	X
Anthericaceae	*Dichopogon*	*tyleri*	X	X	
	Murchisonia	*volubilis*			X
	Thysanotus	*patersonii*	X		
	Thysanotus	*speckii*	X	X	
Apiaceae	*Daucus*	*glochidiatus*	X	X	X
	Trachymene	*elachocarpa*	X	X	
	Trachymene	*pilosa*	X		
Asclepiadaceae	*Marsdenia*	*australis*			X
	Marsdenia	*graniticola*	X		
	Rhyncharrhena	*linearis*			X
	Sarcostemma	*viminale* subsp. *australe*		X	
Asteraceae	*Actinobole*	*condensatum*	X		
	Angianthus	*acrohyalinus*			X
	Angianthus	*cunninghamii*	X	X	X
	Angianthus	*microcephalus*			X
	Angianthus	*milnei*		X	
	**Bidens*	*bipinnata*	X		
	Brachyscome	*cheilocarpa*			X
	Brachyscome	*ciliaris*	X		X
	Brachyscome	*iberidifolia*	X	X	
	Calocephalus	*aervoides*	X	X	
	Calocephalus	*francisii*			X
	**Centaurea*	*melitensis*	X		X
	Chthonocephalus	*tomentellus*			X
	Gnephosis	*arachnoidea*			X
	Gnephosis	*tenuissima*	X		
	**Hypochaeris*	*glabra*			X
	Millotia	*myosotidifolia*	X	X	
	Minuria	*cunninghamii*			X
	Olearia	*axillaris*	X	X	X
	Olearia	*dampieri* subsp. *dampieri*			X
	Olearia	*muricata*			X
	Olearia	*occidentissima*			X
	Pembertonia	*latisquamea*			X
	Podolepis	*microcephala*			X
	Pogonolepis	*muelleriana*			X
	**Pseudognaphalium*	*luteoalbum*	X		
	Pterocaulon	*sphacelatum*			X
	Rhodanthe	*condensata*	X		
	Rhodanthe	*humboldtiana*			X
	Senecio	*pinnatifolius*	X	X	X
	**Sonchus*	*oleraceus*	X	X	X
	**Sonchus*	*tenerrimus*			X
	**Urospermum*	*picroides*			X
	Vittadinia	*cervicularis*			X
Avicenniaceae	*Avicennia*	*marina*			X
Boraginaceae	*Heliotropum*	*ammophilum*			X
	Trichodesma	*zeylanicum*	X		X
Brassicaceae	**Brassica*	*tournefortii*			X
	**Cakile*	*maritima*		X	

Table 1 (cont.)

Family	Genus	Species	Bernier Island	Dorre Island	Faure Island
	**Hornungia*	*procumbens*		X	
	Lepidium	*lyratogynum*			X
	Lepidium	*puberulum*	X	X	
	**Sisymbrium*	*orientale*			X
Caesalpiniaceae	*Senna*	*chateliana*			X
Campanulaceae	*Wahlenbergia*	*gracilenta*	X		
Capparaceae	*Capparis*	*spinosa*	X	X	
Caryophyllaceae	**Polycarpon*	*tetraphyllum*		X	
Chenopodiaceae	*Atriplex*	*amnicola*			X
	Atriplex	*holocarpa*			X
	Atriplex	*paludosa* subsp. *moquiniana*			
	Atriplex	*semilunaris*			X
	Atriplex	*vesicaria*			X
	Chenopodium	*gaudichaudianum*			X
	Chenopodium	*melanocarpum*	X	X	X
	**Chenopodium*	*murale*		X	X
	Chenopodium	sp. (GK 16124)			X
	Didymanthus	*roei*			X
	Dysphania	*plantaginella*			X
	Dysphania	*sphaerosperma*	X	X	X
	Enchylaena	*tomentosa* var. *tomentosa*	X	X	X
	Halosarcia	*halocnemoides* subsp. *indica*			X
	Halosarcia	*halocnemoides* subsp. *tenuis*			X
	Halosarcia	*indica* subsp. *bidens*			X
	Halosarcia	*pruinosa*			X
	Halosarcia	*pterygosperma*			X
	Maireana	*amoena*			X
	Maireana	*appressa*			X
	Maireana	*carnosa*			X
	Maireana	*georgei*			X
	Maireana	*oppositifolia*			X
	Maireana	*stipitata*			X
	Maireana	*tomentosa*			X
	Neobassia	*astrocarpa*		X	X
	Rhagodia	*eremaea*			X
	Rhagodia	*latifolia* subsp. *latifolia*	X	X	X
	Rhagodia	*preissii* subsp. *obovata*	X	X	
	**Salsola*	*tragus*	X	X	X
	Sarcocornia	*quinqueflora*			X
	Sclerolaena	*uniflora*	X	X	
	Suaeda	*australis*			X
	Sclerostegia	*disarticulata*			X
	Threlkeldia	*diffusa*	X	X	X
Chloanthaceae	*Dicrastylis*	*maritima*		X	
	Physopsis	*chrysophylla*		X	
Colchicaceae	*Wurmbea*	*odorata*	X	X	
Convolvulaceae	*Convolvulus*	*angustissimus* subsp. *angustissimus*			X
Crassulaceae	*Crassula*	*colorata*	X	X	
Cucurbitaceae	*Cucumis*	sp.	X		
Cuscutaceae	**Cuscuta*	*planiflora*	X	X	
Cyperaceae	*Bulbostylis*	*barbata*			X
	Cyperus	*bulbosus*		X	X
Dasypogonaceae	*Acanthocarpus*	*preissii*	X	X	X
	Acanthocarpus	*robustus*	X	X	X
Euphorbiaceae	*Adriana*	*urticoides*			X
	Beyeria	*cinerea*	X	X	
	Euphorbia	*drummondii*			X
	Euphorbia	*sharkoensis*	X	X	
	Euphorbia	*tannensis* subsp. *eremophila*	X	X	
	Phyllanthus	*calycinus*	X	X	
	Phyllanthus	*maderaspatana*			X
	Phyllanthus	*fuernrohrii*	X	X	
	Poranthera	*microphylla*	X	X	

Table 1 (cont.)

Family	Genus	Species	Bernier Island	Dorre Island	Faure Island
Frankeniaceae	*Frankenia*	*cinerea*			X
	Frankenia	*pauciflora* var. *pauciflora*	X	X	X
Gentianaceae	*Schenkia*	*australis*	X	X	X
Geraniaceae	**Erodium*	*aureum*	X		
	**Erodium*	*cicutarium*	X	X	X
	Erodium	*cygnorum*			X
Goodeniaceae	*Dampiera*	*incana* var. *incana*	X	X	
	Goodenia	*ochracea*	X	X	
	Lechenaultia	*linarioides*			X
	Lechenaultia	*subcymosa*		X	
	Scaevola	*crassifolia*	X	X	X
	Scaevola	*repens* var. *erecta*	X		
	Scaevola	*spinescens*			X
	Scaevola	*tomentosa*	X		X
Gyrostemonaceae	*Gyrostemon*	*ramulosus*	X		X
Haloragaceae	*Haloragis*	*gossei*		X	
	Haloragis	*trigonocarpa*	X	X	
Juncaginaceae	*Triglochin*	*calcitrapum*		X	X
	Triglochin	*trichophora*	X		
Lamiaceae	*Westringia*	*dampieri*	X	X	
	Pityrodia	*loxocarpa*			X
Loranthaceae	*Amyema*	*preissii*			X
Malvaceae	*Abutilon*	*cunninghamii*	X	X	X
	Abutilon	*geranioides*	X		X
	Abutilon	*oxycarpum*			X
	Alyogyne	*cuneiformis*	X	X	
	Alyogyne	*pinoniana*	X	X	
	Hibiscus	*sturtii* var. *grandiflorus*	X	X	
	Lawrencia	*viridigrisea*			X
	Lawrencia	*densiflora*			X
	Sida	*calyxhymenia*	X		X
	Sida	*corrugata*			X
	Sida	*fibulifera*	X	X	
Mimosaceae	*Acacia*	*bivenosa*		X	
	Acacia	*coriacea*	X	X	
	Acacia	*ligulata*	X	X	X
	Acacia	*ramulosa* var. *ramulosa*			X
	Acacia	*sclerosperma* subsp. *sclerosperma*		X	X
	Acacia	sp. Ripon Hills (B.R. Maslin 8460)	X		X
	Acacia	*tetragonophylla*			X
Moraceae	*Ficus*	*platypoda*	X	X	
Myoporaceae	*Eremophila*	*deserti*	X	X	X
	Eremophila	*glabra* subsp. *psammorphora*		X	
	Eremophila	*glabra* subsp. *tomentosa*	X	X	
	Eremophila	*maitlandii*			X
	Myoporum	*insulare*	X	X	
	Myoporum	*montanum*	X		
Myrtaceae	*Beaufortia*	*dampieri*	X	X	
	Eucalyptus	*fruticosa*			X
	Eucalyptus	*obtusiflora*	X	X	X
	Eucalyptus	*oraria*	X	X	
	Melaleuca	*cardiophylla*		X	
	Pileanthus	*limacis*	X	X	
	Thryptomene	*baeckeacea*	X	X	
Nyctaginaceae	*Boerhavia*	*coccinea*			X
	Commicarpus	*australis*	X		X
Oleaceae	*Jasminum*	*calcareum*	X	X	X
Oxalidaceae	*Oxalis*	*perennans*	X		
Papilionaceae	*Glycine*	*canescens*			X
	Indigofera	*boviperda*			X
	Indigofera	*georgei*	X	X	
	Lotus	*cruentus*	X	X	X
	**Lupinus*	*cosentinii*			X

Table 1 (cont.)

Family	Genus	Species	Bernier Island	Dorre Island	Faure Island
	Mirbelia	*ramulosa*		X	
	Swainsona	*sp.*			X
Phormiaceae	*Dianella*	*revoluta*	X		
Plumbaginaceae	*Muellerolimon*	*salicorniaceum*			X
Pittosporaceae	*Pittosporum*	*phylliraeoides*	X	X	
Poaceae	*Aristida*	*contorta*			X
	Austrostipa	*crinita*	X	X	
	Austrostipa	*elegantissima*			X
	Austrostipa	*nitida*	X	X	X
	**Avena*	*barbata*			X
	**Bromus*	*japonicus* var. *japonicus*	X		X
	**Cenchrus*	*ciliaris*	X		X
	**Cenchrus*	*longispinus*			X
	**Cenchrus*	*setigerus*			X
	Cymbopogon	*ambiguus*	X	X	
	**Eragrostis*	*barrelieri*	X	X	X
	Eragrostis	*dielsii*	X	X	X
	Eragrostis	*pergracilis*			X
	Eulalia	*aurea*	X		
	Paractaenum	*novae-hollandiae*	X	X	X
	Perotis	*rara*			X
	**Rostraria*	*pumila*	X	X	
	**Setaria*	*verticillata*	X	X	
	Spinifex	*longifolius*	X	X	X
	Sporobolus	*virginicus*		X	X
	Triodia	*plurinervata*	X	X	X
	Triraphis	*mollis*		X	
Polygonaceae	**Emex*	*australis*			X
Portulacaceae	*Calandrinia*	*eremaea*	X		
Potamogetonaceae	*Ruppia*	*polycarpa*			X
	Ruppia	*tuberosa*			X
Primulaceae	*Samolus*	*repens* var. *paucifolius*			X
Proteaceae	*Hakea*	*preissii*			X
	Hakea	*stenophylla*		X	
Rhamnaceae	*Cryptandra*	*mutila*		X	
	Stenanthemum	*divaricatum*		X	
Rubiaceae	*Opercularia*	*spermacocea*			X
Rutaceae	*Diplolaena*	*grandiflora*	X	X	
Santalaceae	*Exocarpus*	*aphyllus*	X		X
	Santalum	*spicatum*	X	X	X
Sapindaceae	*Alectryon*	*oleifolius* subsp. *oleifolius*	X	X	X
	Dodonaea	*bursariifolia*	X	X	
	Dodonaea	*viscosa* subsp. *angustissima*		X	X
Solanaceae	**Lycium*	*ferocissimum*			X
	**Lycopersicon*	*esculentum*	X		
	Nicotiana	*occidentalis* subsp. *hesperis*	X	X	X
	Solanum	*hesperium*		X	
	Solanum	*lasiophyllum*	X		X
	Solanum	*orbiculatum* subsp. *orbiculatum*	X	X	X
	Solanum	*plicatile*			X
Stackhousiaceae	*Stackhousia*	*clementii*	X	X	
Sterculiaceae	*Hannafordia*	*quadrivalvis* subsp. *quadrivalvis*		X	
	Lasiopetalum	*angustifolium*		X	
Surianaceae	*Stylobasium*	*spathulatum*	X	X	
Thymelaeaceae	*Pimelea*	*microcephala* subsp. *microcephala*	X	X	X
Tiliaceae	*Corchorus*	*crozophorifolius*	X	X	
Urticaceae	*Parietaria*	*cardiostegia*	X	X	X
Zygophyllaceae	*Nitraria*	*billardierei*	X		X
	Tribulus	*forrestii*			X
	Zygophyllum	*compressum*			X
	Zygophyllum	*eremaeum*	X	X	X
	Zygophyllum	*fruticulosum*	X	X	X
	Zygophyllum	*simile*	X	X	

southern third of the island with the remainder as *Acacia ramulosa* scrub with scattered Samphire shrublands in the Birridas and saline marshes (placed in his Peron Vegetation System). He placed the island in the Eremaean (Desert) Phytogeographical Region.

Payne *et al.* (1980) in their land system mapping of the Carnarvon Basin mapped Faure Island as being S1 (nearly flat red sandplain), B1 (Birridas: gypsum dominated, normally circular wetlands that are connected to the sea via underground fissures in the limestone) and L1 (Littoral: Low coastal foredunes, samphire and tidal flats and Mangroves). These are the same units as they map on Peron Peninsula. There were two herbarium records in Perth from Faure Island resulting from this survey.

Thus, Faure Island has three major landforms each with their own suite of distinctive vegetation types: i) undulating sandplain (which corresponds to landform S1) has *Acacia* and Eucalypt shrublands, ii) beaches and coastal dunes (corresponds to landform L1) has beaches, dunes, saline flats, iii) mangroves and iv) birridas (corresponds to landform B1) has samphires (Figure 1). These are described in more detail below.

Acacia shrublands on sandplain

The majority of the island consists of an undulating red sand plain with a low *Acacia* (usually *Acacia ramulosa*) shrubland (Figure 1), height varying from 50–300 cm depending on soil depth and exposure. Dominants vary from *Acacia tetragonophylla, Acacia ramulosa* or *Acacia ligulata,* although in the central and eastern parts of the island, on deeper soils, *Acacia ramulosa* is the major dominant.

There is a variable understorey of shrubs usually containing *Pimelea microcephala, Rhagodia preissii, Ptilotus obovatus, Chenopodium guadichaudii* and scramblers of *Pembertonia latisquamea, Enchylaena tomentosa* and *Ptilotus divaricatus.* Buffel Grass (*Cenchrus ciliaris*) is normally present either as a layer or scattered plants. There are a layer of herbs present usually comprising *Chenopodium melanocarpum, Tribulus forrestii, Amaranthus mitchellii, Convolvulus erubescens, Nicotiana occidentalis* and *Heliotropum asperrimum.*

In the south of the island on low red dunes there are scattered stands of low open *Acacia tetragonophylla* and *Acacia ligulata* shrubland over mid-dense *Triodia plurinervata* grassland. Associated shrubs, herbs and grasses are similar.

Mallee Eucalypts

On the north of the island there are stands of Mallee Eucalypts (*Eucalyptus fruticosa* and *Eucalyptus oraria*) over a dense grassland of *Triodia plurinervata.* The Mallee vegetation occurs as long strips usually 2 m wide and 20 m long on a long wind-driven dune. Given each strip is composed of a single species it is possible that the stand could be one individual. Apart from the dominant Mallee Eucalypts, shrubs present under this community are the same as those recorded in the surrounding *Acacia* shrublands. Herbs, though also similar species are uncommon in this community because of the dense canopy of the Mallees.

Beaches and dunes

Beaches are found around the island, and are best developed on the southern parts. Beaches at and above high water mark are normally bare and backed by grassland of *Spinifex longifolius.* Beaches on the eastern side of the island are covered in a *Spinifex longifolius* grassland, but can also have scattered shrubs, such as *Santalum spicatum.*

The long sand spit on the southwestern side of the island contains a variety of plant communities that are uncommon elsewhere on the island. The sandy flats on the southern side of the spit are covered by a low grassland of *Sporobolus virginicus* with scattered shrubs of *Frankenia cinerea, Sarcocornia quinqueflora* and *Halosarcia halocnemoides.* Behind this flat are low white sand dunes covered by *Spinifex longifolius* grassland with scattered shrubs of *Calocephalus angianthoides, Scaevola crassifolia* and *Nitraria billardieri.*

A series of large mobile white and red dunes are found around the western margins of the island. Both sand types are covered by open to very open grasslands of *Spinifex longifolius* over scattered herbs of *Ptilotus villosiflorus.* Most dunes also have scattered plants of *Cenchrus ciliatus* present. Where these dunes are partially fixed they can have a low very open shrubland of *Ptilotus obovatus, Acacia tetragonophylla, Pimelea microcephala* and *Atriplex vesicaria* over the *Spinifex longifolius* grassland and mixed herbs.

Mangroves

Mangrove communities of *Avicennia marina* are scattered around the island except on the southern side. They are best developed along the northern side of the large sand spit on the southwestern side of the island and along Tadpole Lagoon on the northern side of the island. These Mangroves either form monospecific stands or have an understorey of *Halosarcia indica.*

Mangroves are normally interspersed or backed with bands of succulent shrublands, either dominated by *Sarcocornia* closest to the water then a band of *Halosarcia halocnemoides* and *Halosarcia indica* over *Sarcocornia, Muellerolimon* and grasses such as *Sporobolus virginicus.*

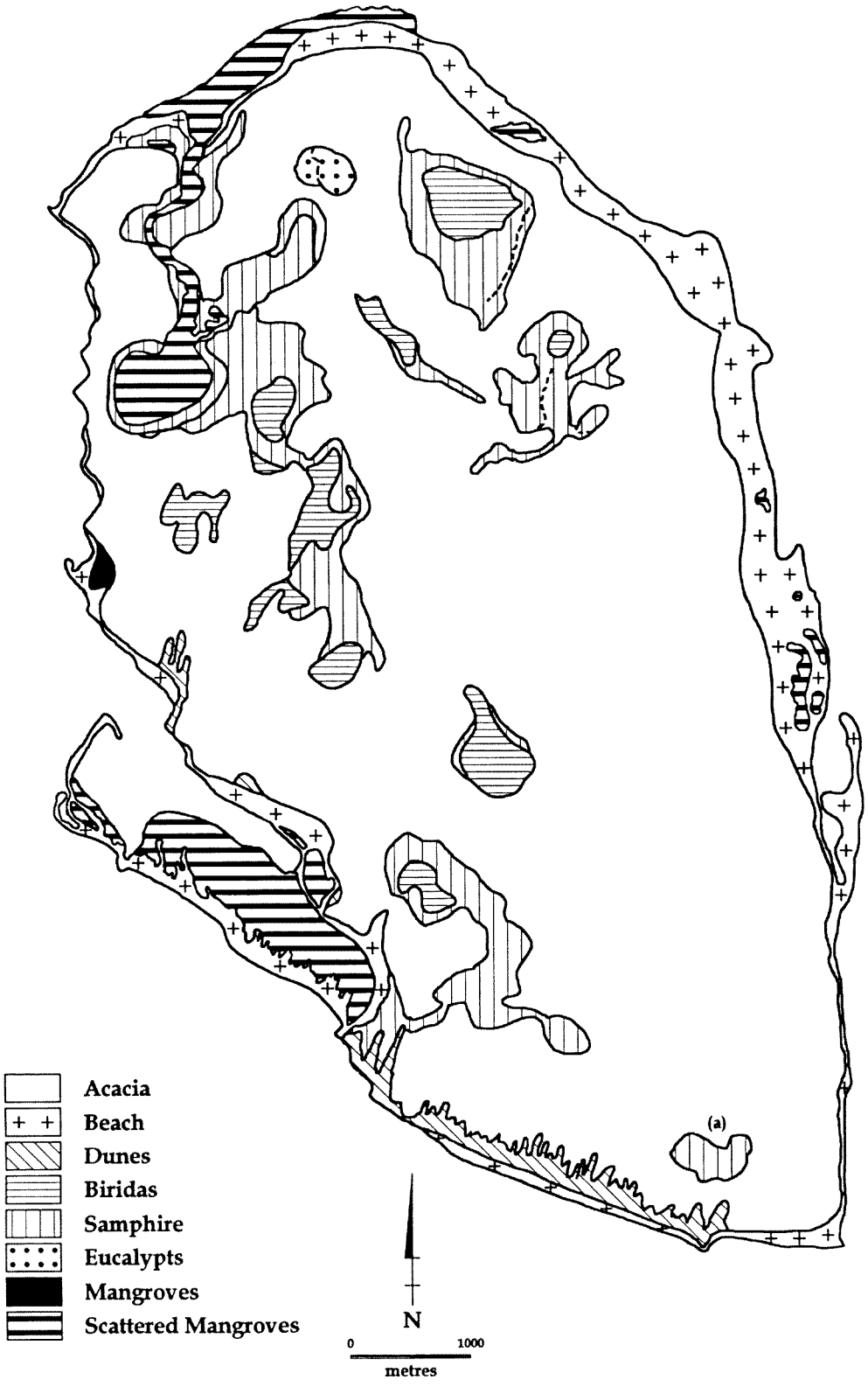

Figure 1 Vegetation of Faure Island.

Birridas and saline flats

There are at least ten large birridas on Faure Island. These are normally covered in a variety of low succulent shrublands in distinct zones. They may have a central "bare" area or a cover of low open *Sclerolaena* shrubs over herbs and grasses (*Zygophyllum, Gnephosis* and *Eragrostis pergracilis*). Most of the Birridas contain gypsum rises or flats which are covered by low open succulent shrublands of varying composition, usually *Halosarcia* spp. (*Halosarcia indica* and/or *Halosarcia halocnemiodes*) over *Frankenia cinerea* and herbs.

The birridas have areas of low dunes surrounding them which carry *Atriplex vesicaria* low shrublands with scattered emergent *Acacia tetragonophylla* over herbs and grasses. Many of these areas in the southern half of the island (labelled (a) on Figure 1) are now dominated by Buffel Grass and have a sparse shrub cover. Mr R. Hoult commented that these flats were once covered by Needle Grass (*Eragrostis dielsii*) and low open shrublands before Buffel Grass was introduced to the island by his father in the 1950's.

Planted species

There are a number of trees planted around the homestead and bores for shelter and shade (*Eucalyptus victrix, Eucalyptus platypus* (two varieties), *Melaleuca nesophila, Phoenix dactylifera* and *Tamarix aphylla*). None of these species appear to be spreading away from their planting sites. Although they will undoubtedly persist for long periods, it is unlikely that they will naturalize. As an example there remains only one shrub of *Schinus molle* at the old hospital site on Bernier Island from the gardens established there in the early twentieth century.

Weeds

There are 21 naturalized plants (weeds) recorded for the island. Most are confined to the highly disturbed areas around the homestead (*Carpobrotus* sp.) or are found in favourable heavily grazed habitats edging the Birridas (*Chenopodium murale, Hypochaeris glabra* and *Mesembryanthemum crystallinum*). Abundant weeds (*Brassica tournefortii, Cenchrus ciliaris* and *Cenchrus setiger*) are associated with the use of the island as a grazing lease. Other common weeds (*Sonchus* spp.) are extremely widespread weeds of the adjacent coast and islands and throughout southern Western Australia.

DISCUSSION

The flora of Faure Island is a subset of that found on the adjacent Peron Peninsula (Trudgen and Keighery 1995; Claymore and Markey 1999). We did not record any new records for the Shark Bay World Heritage area, but the vascular flora (163 species) is rich for an offshore island. A spring survey after winter rains would probably add 10–20 more herbs to the list, especially from the Birridas and associated flats.

By comparison Bernier Island has 124 species, Dorre 117 and Dirk Hartog 258. Dirk Hartog is the most temperate of all the Shark Bay Islands and is an order of magnitude larger than the other islands. However, the other comparable islands; Bernier and Dorre (Table 1) respectively have less than 40% of their flora in common with Faure Island. The major reasons for these differences are that the smaller islands lack certain habitats, such as birridas. For example, note the Chenopodiaceae (31 species on Faure Island compared with nine on Bernier and ten on Dorre Island) or mangroves. Faure Island also does not have the temperate southern component of the flora that constitutes approximately 25% of the flora of these islands (Claymore and Markey 1999). The flora of Faure Island is a desertic flora with a few isolated occurrences of temperate species (e.g. *Lechenaultia linarioides*).

Most species are widespread components of the arid flora with only two taxa listed by the Western Australian Department of Environment and Conservation as of conservation concern (*Chthonocephalus tomentellus*, P2 and *Olearia occidentissima*, P3).

The 21 weeds recorded from Faure Island are mostly a consequence of its long history as a pastoral lease. Widespread weeds are Buffel Grass and Birdwood Grass (*Cenchrus setiger*). The former is found throughout the island in all habitats, except the Birridas and Mangroves. A potentially serious weed found scattered on the sandplain areas and coastal cliffs is Boxthorn (*Lycium ferocissimum*). This species should be targeted for eradication.

The vegetation of Faure Island is essentially similar to the adjacent Peron Peninsula and unlike other large islands in Shark Bay (Dirk Hartog, Bernier and Dorre) is essentially arid in nature. Faure Island lacks the temperate heathlands composed of members of the Myrtaceae, Goodeniaceae and Proteaceae which dominate the vegetation of these islands. Unlike all other Shark Bay islands it contains extensive *Acacia ramulosa* shrublands, Eucalypt shrublands, and large stands of Mangroves. This means that the island provides a predator free area most similar to Peron Peninsula and an ideal monitoring site for recovery of the *Acacia* shrublands of the World Heritage area.

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