



*Marine Studies*

The University of the South Pacific

# Technical Report

**VASCULAR PLANTS OF MABUALAU  
REEF ISLET, TAILEVU PROVINCE, FIJI**

by

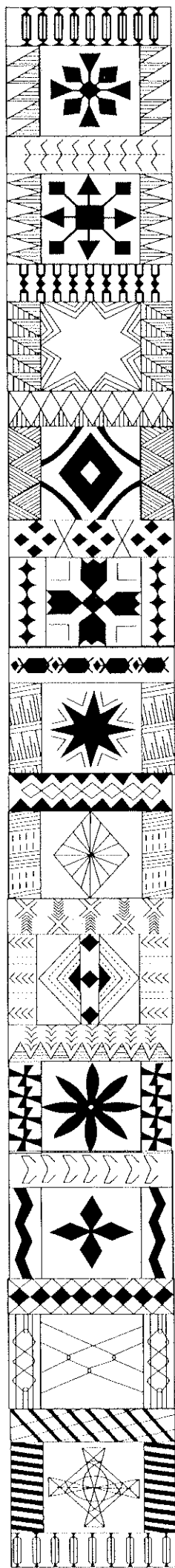
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**VASCULAR PLANTS OF MABUALAU  
REEF ISLET, TAILEVU PROVINCE, FIJI**

**by**

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## INTRODUCTION

This preliminary listing of "The Plants of Mabualau Reef Islet" is based on observations made on Mabualau Island on two one-day visits to the island, the first on 26 August 1995 and the second on 17 August 1996. Reference is also made to some information on plants contained in a short section on "Vegetation" and a checklist of 11 plants contained in a small booklet entitled "Toberua Island Resort Introduces Mabualau - Fiji's Bird Island" prepared by Dr. Dick Watling of Environmental Consultants Fiji Ltd. with assistance on the geology by Dr. Patrick Nunn of the Geography Department of The University of the South Pacific. The booklet reported that there were about 42 species of vascular plants, which included at least 17 tree species and over 25 other plants. This list contains a total of 56 vascular plants, of which 19 are listed by name in Watling's pamphlet, and only one of which, **dilo** (*Calophyllum inophyllum*), was not seen in either 1995 or 1996, and is probably no longer present on the island. An abbreviated list is found in the Appendix at the end of this paper.

Particular thanks are given to: Michael Dennis, Owner and Managing Director of Toberua Island Resort, for his hospitality and for facilitating our visits to Mabualau; the Toberua Island Resort staff, particularly boatman, Maika Qiolevu, for guiding my students around the island; the boatmen from Kaba Peninsula for the safe and enjoyable boat trips to island; Peter Newell, Professor of Biology at USP, for giving my students insight into to complexity of Mabualau's coral reef ecosystem; and Ratu Isoa Gavidi, Ratu Wilikii Takiveikata and the people of Bau Island, the owners of Mabualau, for allowing University of the South Pacific staff and students to visit the island, and for protecting Mabualau as an important part of Fiji's important natural and cultural heritage. This study and continuing efforts to promote community-based biodiversity conservation in Fiji and Melanesia have been supported by funding from The John D. and Catherine T. MacArthur Foundation-funded University of the South Pacific Community-Based Biodiversity Conservation Project.

It is hoped that this short paper will serve as an incentive to continue to preserve Mabualau as a unique part of Fiji's natural, cultural and scientific heritage for the benefit of future generations. It is hoped that the people of the chiefly island of Bau, the traditional owners of Mabualau, the people of the Kaba Peninsula and nearby areas who use the island as a fishing ground and fishing base, the staff and visitors from Toberua Island Resort, and other visitors to the island will set an example to the rest of the Fiji and the world by protecting this unique island so that our children and their children will have the same opportunities that we have to visit Mabualau.

## MABUALAU ISLET

Mabualau is a raised limestone reef islet located about 5 km east of Toberua Island, a popular tourist resort located about 3 km north of the tip of the Kaba Peninsula in eastern Viti Levu, Fiji's main island (see location map and aerial photo). Mabualau has an estimated area of just under 4 hectares and extends in a northwest-southeast direction, its southern tip lying about 300 m west of edge of the edge of the reef flat and the reef drop-off. The wider northwestern tip of the island has a sandy beach and decent boat landing or anchorage, while the rest of the island consists of jagged upraised limestone cliffs (emerged former reefs) up to 3 to 5 m above mean high tide (see aerial photo), surrounded by intertidal reef flats.

Mabualau belongs to the people of the chiefly island of Bau, located about 16 km to the west of Mabualau, just off the coast of Viti Levu. The island is one of Fiji's only uninhabited islands with significant populations of seabirds, the most common being the red-footed booby (*Sula sula*) and the brown booby (*Sula leucogaster*). These are nest mainly in the *Pisonia grandis* rookeries on the northwest coast of the island. Although tourists and staff from Toberua Island Resort have permission to visit and care for the island, there has been increasing disturbance and felling of trees on the island over the past four years by fishermen, mainly those exploiting the beche-de-mer resources from the surrounding reefs. The people of Bau have recently tried to prohibit the use of the island for such purposes.

## THE FLORA AND VEGETATION

Of the total of 56 plants listed here, 44 are presumed to be indigenous and 12 exotic introductions to the island. The indigenous species include two fern species, one of which, **vativati** (*Phymatosorus scolopendria*), is locally abundant on limestone throughout the island. The second, is the bird's nest fern or **beluve** (*Asplenium nidus*) of which only one large individual was found as a terrestrial fern near the east-central part of the island.

There are six indigenous monocotyledons, which include 20 or so coconut palms or **niu**; one pandanus or **vadra** near the boat landing; the epiphytic taro vine or **yalu** (*Epipremnum pinnatum*) which is abundant as an epiphyte on trees and as a terrestrial plant in the understorey vegetation throughout the island; and three indigenous grasses, *Digitaria setigera*, *Stenotaphrum micranthum* and *Lepturus repens*, the latter which is found in a number of coastal sites and bordering the sand near the boat landing.

The 37 indigenous dicotyledons include 5 small to medium-sized herbs, 3 vines or lianas, 4 shrubs and 25 trees. The exotic species include four introduced grasses and seven, primarily weedy species found in disturbed sites.

The vegetation of Mabualau consists of: 1) significant areas of inland coastal forest; 2) some remaining coastal strand or coastal limestone forest; 3) low-lying vegetation on the exposed limestone outcrops; and, 4) limited areas of ruderal vegetation near the boat landing, along paths and in other disturbed habitats.

The inland forest is dominated by *Pisonia grandis*, *Dysoxylum forsteri*, *Neissosperma oppositifolium* and *Aglaia saltatorum*. Other rare or locally occasionally species found in the inland forest include *Dendrocnide harveyi*, *Ficus prolixa*, *Hibiscus tiliaceus*, *Planchonella grayana*, *Syzygium richii* and *Terminalia catappa*. Common understorey species include *Morinda citrifolia*, the herbs *Achyranthes aspera* and *Procris pedunculata*, and the vine *Epipremnum pinnatum*.

Trees found in remaining coastal littoral forest along the west coast, south of the boat landing, include *Barringtonia asiatica*, *Cordia subcordata*, *Grewia crenata*, *Guettarda speciosa*, *Pandanus tectorius*, *Pisonia grandis*, *Premna serratifolia*, *Thespesia populnea* and *Vitex trifolia*. There are about 20 scattered coconut palms (*Cocos nucifera*) near the boat landing and on the southern part of the island that were possibly planted by visitors to the island.

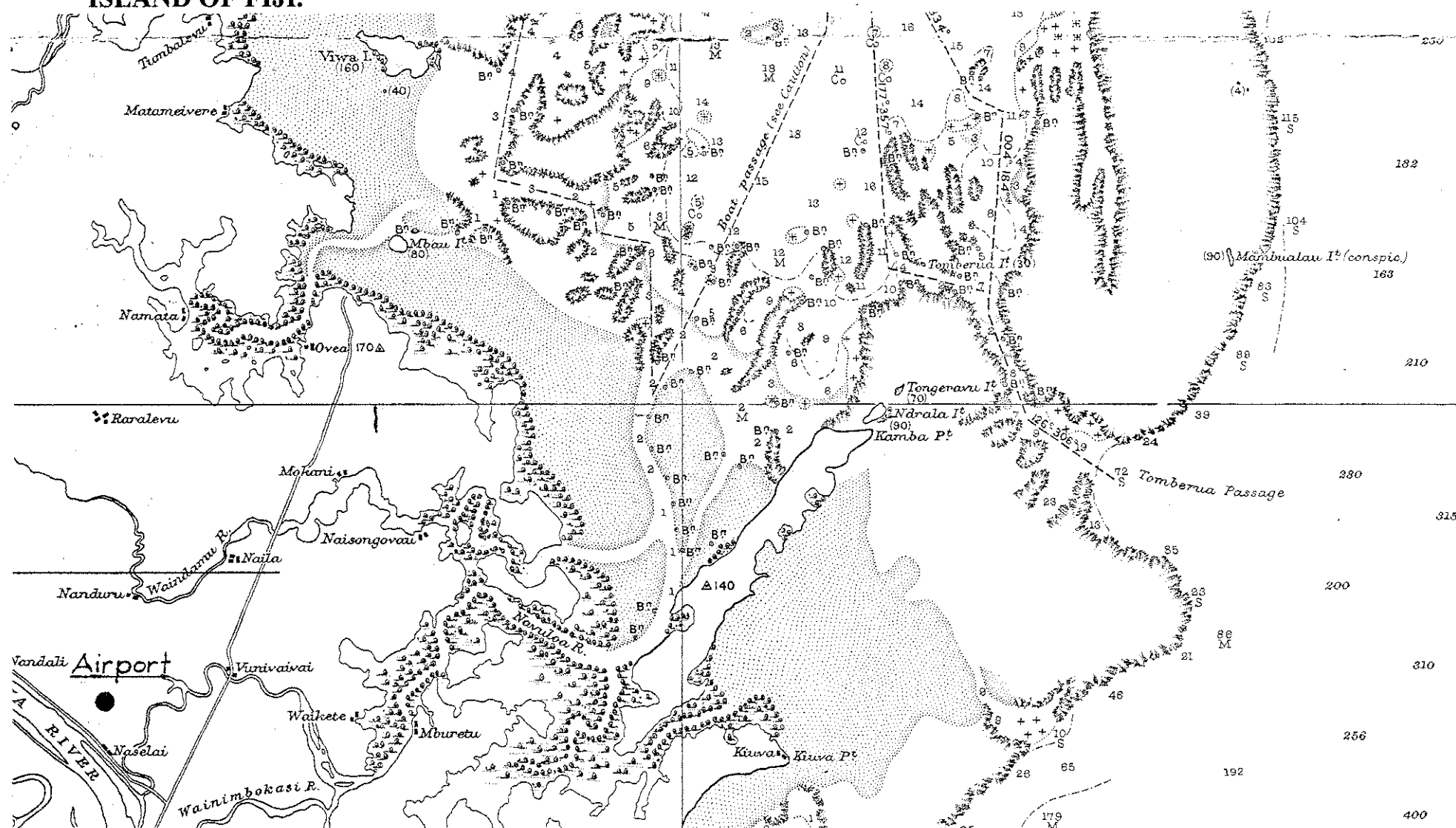
Dominant trees or shrubs in the outpost zone on limestone include *Hibiscus tiliaceus*, *Scaevola taccada* and *Tournefortia argentea*. Rare trees or shrubs on limestone include *Excoecaria agallocha* and *Pongamia pinnata*, on the north end of the island, and *Pemphis acidula* and *Xylocarpus moluccana* on the southwestern tip of the island. Other locally abundant to uncommon coastal shrubs or vines include *Clerodendrum inerme*, *Derris trifoliata*, *Ipomoea macrantha* and *Wollastonia biflora*. The salt-tolerant herbs, *Boerhavia repens* and two succulents, *Portulaca lutea* and *Sesuvium portulacastrum*, dominate the low vegetation on the tops of the windswept uplifted limestone terraces, while locally abundant coastal grasses include *Lepturus repens* and *Stenotaphrum micranthum*. Rare or endangered species found in limestone forest or on limestone outcrops include *Abrus precatorius* and *Solanum viride*.

The disturbed or ruderal sites are dominated by exotic grasses, such as *Brachiaria subquadripara*, *Cyrtococcum oxyphyllum* and the possibly indigenous *Digitaria setigera*; and herbs such as *Passiflora foetida*, *Phyllanthus amarus* and *Portulaca oleracea*. Other exotics found in disturbed sites include papaya (*Carica papaya*) and the shrubs, *Acalypha lanceolata* and *Piper aduncum*.

## NOTES

The "W" at the end of the description indicates that a given species was mentioned or listed as being present by Watling. "T1" and "T2" indicate that the species was found present in 1995 and/or 1996, respectively, by the author (Thaman). The asterisk (\*) indicates that a given species is probably a non-indigenous, exotic species. All other species are presumed to be indigenous. Numbers in brackets, e.g., (26303), are the numbers of herbarium specimens collected and lodged at the South Pacific Regional Herbarium at The University of the South Pacific.

**MAP SHOWING MABUALAU ISLET AND SURROUNDING REEFS (centre right), TOBERUA ISLAND (west of Mabualau), THE KABA PENINSULA ( below and right of centre), BAU ISLAND (in the centre of the northwest quadrant), AND THE EAST COAST OF VITI LEVU, THE MAIN ISLAND OF FIJI.**



# MABUALAU ISLET



## PTERIDOPHYTA

### ASPLENIACEAE

**Asplenium nidus** L.

"bird's-nest fern"

**Fijian:** beluve, butubutu

Indigenous. Paleotropical. One large terrestrial fern found near the east-central part of the island among limestone outcrops. W, T2.

### POLYPODIACEAE

**Phymatosorus scolopendria** (Burm.) Pichi Sermolli

"scented fern"

syns. *Polypodium scolopendria* Burm.f. *Phymatodes scolopendria* (Burm.)

Ching; *Microsorium scolopendria* (Burm.) Copel.

**Fijian:** vativati

Indigenous. Paleotropical. Very abundant. Terrestrial and epiphytic fern found in both the interior and on outer edges of the coastal limestone cliffs. T1, T2.

## ANGIOSPERMAE

### MONOCOTYLEDONAE

### ARACEAE (Arum Family)

**Epipremnum pinnatum** (L.) Engl.

"taro vine"

syn. *Pothos pinnatus* L.

**Fijian:** yalu

Indigenous. Very abundant. Branched high climbing vine with dark green lobed leaves climbing in trees and on the ground throughout the interior of the island. W, T1, T2.

### ARECACEAE (PALMAE)

**Cocos nucifera** L.

"coconut palm"

**Fijian:** niu

Aboriginal introduction. S. Asia and Indian Ocean Islands. About 20 trees on the island located near the boat landing and on the southern part of the island, possibly planted deliberately by visitors. W, T1, T2.



## PANDANACEAE (Pandanus Family)

**Pandanus tectorius** Warb.

"pandanus", "screw pine"

syn: *P. pyriformis* Gaud.

**Fijian:** vadra

Indigenous and probably an aboriginal introduction in the case of some cultivars. Pacific Is. One large tree located near the boat landing just inland from the beach on the northwest. T1, T2.

## POACEAE OR GRAMINAE (Grass Family)

**\*Brachiaria subquadrifida** (Trin.) Hitchc.

Now pantropical; first recorded from Fiji in 1927. Occasional in ruderal sites inland from the boat landing on the north end of the island and along trails. T1, T2 (26303).

**\*Cynchocoma oxyphyllum** (Steud.) Staph

**Fijian:** covatu, o salasala

Indigenous to Indomalaysia, Australia and Polynesia; probably a very early, possibly an aboriginal, introduction. Locally common in disturbed sites, especially in ruderal sites inland from the boat landing on the northwest end of the island. T1, T2.

**Digitaria setigera** Roth

"crab grass", "slender crab grass"

syn. *D. pruriens* (Fisher ex Trin.) Buse; *D. microbachne* (J.S. Presl) Henr.

Indigenous. India and S.E. Asia to Queensland and Polynesia. Locally common in disturbed sites occurring in clusters or tufts, along the trail through the center of the island. T1, T2.

**\*Eleusine indica** (L.) Gaertn.

"wiregrass", "goosegrass"

Pre-World War II introduction. India; long naturalised in Old World. Locally common in the disturbed area near the boat landing on the northwest end of the island. T1, T2.

**Lepturus repens** (Forst. f.) R. Br.

"bunch grass", beach bunch grass"

Indigenous. Pacific Is. Abundant. Occurring in clusters among strand vegetation along the beach on the northwest end of the island and inland from the limestone cliffs on the southeast coast and on the isthmus.

**Stenotaphrum micranthum** (Desv.) Hubb.

"buffalo grass"

Indigenous. Mascarene Islands to Malesia, Micronesia and Polynesia. Occasional, forming a mat about 10 m inland from coast on the east coast of the island, just north of the isthmus. T1, T2.

## DICOTYLEDONAE

### AIZOACEAE (Iceplant Family)

**Sesuvium portulacastrum** (L.) L.

Pantropical extending to Hawai'i. Locally abundant on bare limestone in outpost zone, especially on the south and south east sides of the island and on small offshore upraised limestone remnants. T1, T2.

### AMARANTHACEAE (Amaranth Family)

**Achyranthes aspera** L.

"prickly chaffflower"

**Fijian:** sono ivi (Moala)

Probably indigenous, but possibly an aboriginal introduction because of its medicinal value in Polynesia? Common throughout the island and near the coasts on exposed limestone. Important antibacterial medicinal plant in Tonga, where it is known as **tamatama**. W, T1, T2.

### APOCYNACEAE (Dog-bane Family)

**Neisosperma oppositifolium** (Lam.) Fosb. & Sachet

**Fijian:** vavakana, vao, vaokaka, vavaoa

Indigenous. Philippines to S.E. Polynesia and Micronesia. Abundant. One of the dominant species in inland forest and merging into the littoral outpost zone. Possibly referred to as "**bau**" in Watling's booklet. W?, T1, T2.

### ASTERACEAE OR COMPOSITAE (Aster, Sunflower or Composite Family)

**Wollastonia biflora** (L.) DC. var. **biflora**

"beach sunflower"

syn. *Wedelia biflora* (L.) DC.

**Fijian:** kovekove

Indigenous. Trop. Asia to Polynesia and Micronesia. Common just inland from the outpost zone and dominant in some areas on open limestone on the southeast coast and on the southern peninsula. T1, T2.

### **BORAGINACEAE (Heliotrope Family)**

***Cordia subcordata* Lam.**

"sea trumpet", "kou" (Hawai'i)

**Fijian:** nawanawa

Indigenous or aboriginal introduction. Indian Ocean to Hawaii. Rare in coastal strand forest on limestone terrace on the northwest part of the island, with one medium-sized tree along the inner margin of the beach on the northwest end of the island. T1, T2.

***Tournefortia argentea* L. f.**

"beach heliotrope"

syn. *Messerschmidia argentea* (L.f.) M. Johnst.

**Fijian:** roro ni bebe, kau ni yalewa

Indigenous. Indian Ocean to S.E. Polynesia. Occasional in strand forest on ocean and lagoon shores, often as stunted individuals on the windswept outer edges of the limestone cliffs. T1, T2.

### **CARICACEAE (Papaya Family)**

**\**Carica papaya* L.**

"papaya", "pawpaw"

**Fijian:** weleti, maouli

Recent introduction. Indigenous to tropical America. Common as spontaneous trees in open areas throughout the island. T1, T2.

### **COMBRETACEAE (Terminalia Family)**

***Terminalia catappa* L.**

"beach almond", "Indian almond", "Malabar almond"

**Fijian:** tavola

Indigenous to tropical Asia and Australia to W. Polynesia and Micronesia. Occasional tree on the north end of island and in the interior. W, T1, T2.

### **CONVOLVULACEAE (Morning-Glory Family)**

**\**Ipomoea batatas* (L.) Poiret**

"sweet potato"

**Fijian:** kumala

Native to tropical America; an 18th century introduction into Fiji. Single concentration of vines growing in sandy soil inland from the boat landing on the northwest end of the island, probably planted or growing spontaneously from tubers

brought by fishermen or picnickers during late 1995 or early 1996, as these were not present in August 1995. T2.

***Ipomoea macrantha* R. & S.**

"wild moon flower"

syn. *I. tuba* (Schlecht.) G. Don

**Fijian:** wa ika, tobici

Indigenous. Pantropical. Common somewhat woody creeping or climbing vine in coastal strand forest and in open sites, often climbing high in trees; found throughout the island, both on open windswept limestone on the windward eastern side and in open sites, festooned on trees on the western side. T1, T2.

### **EUPHORBIACEAE (Spurge Family)**

**\**Acalypha lanceolata* Willd.**

syn. *A. boehmeriodes* Miq.

Indigenous to the Old World tropics, and possibly an aboriginal introduction into Fiji. Locally common in disturbed sites inland from the boat landing on the northwest end of the island. T1, T2.

***Excoccaria agallocha* L.**

blinding tree, poison mangrove tree

**Fijian:** sinu gaga

Indigenous from India to Niue in Polynesia, and Yap and Chuuk (Truk) in the Caroline Islands of Micronesia. Rare tree on limestone on the northeast coast of the island on limestone overhanging the small undercut beach. T2.

**\**Phyllanthus amarus* Sch. & Th.**

"sleeping plant", "six-o'clock"

syn. *P. niruri* L.

Probably indigenous to tropical America, or possibly Africa; a recent introduction into Fiji. Locally common in the open disturbed area just inland from beach near boat landing at the northwest end of the island. T1, T2.

### **FABACEAE OR LEGUMINOSAE (Bean, Pea or Legume Family)**

***Abrus precatorius* L.**

**Fijian:** leredamu

Indigenous from tropical Africa to the Marquesas in French Polynesia. Rare in trees about 8 m from the coast on the east side of the island. Not seen in 1996. T1.

**Derris trifoliata** Lour.

"derris vine"

**Fijian:** duva, tuva

Indigenous from eastern Africa to tropical Asia eastward through Malesia to Tonga and Samoa in Polynesia and to Nauru and the Caroline Islands in Micronesia. Locally common on limestone on the peninsula on the southern end of the island. T1, T2.

**Pongamia pinnata** (L.) Merr.

syn. *Cytisus pinnatus* L.

**Fijian:** tavesivesi, vesivesi, vesi wai, vesi ni wai, tosigā

Indigenous from the Indian Ocean to Fiji and Samoa and into the large islands of Micronesia. Locally occasional large tree near the coast and slightly inland on the northeastern part of the island. T1, T2.

### **GOODENIACEAE (Naupaka Family)**

**Scaevola taccada** (Gaertn. ) Roxb.

"saltbush", "half-flower"

**Fijian:** vevedu

Indigenous from India eastward to Polynesia all the way to Hawai'i and throughout Micronesia. Occasional to locally common on the outer margins of the coastal forest on limestone rock on the southeast end of the island. T1, T2.

### **LECYTHIDACEAE (Brazilnut Family)**

**Barringtonia asiatica** (L.) Kurz.

"fish-poison tree", "barringtonia"

**Fijian:** vutu, vutu rakaraka

Indigenous on high islands from Madagascar to southeastern Polynesia and Micronesia, but perhaps an aboriginal or modern introduction to some atolls in this area. Occasional along coast and sometimes inland on the western, leeward side of the island. W, T1, T2.

**\*Barringtonia edulis**

"cut nut"

**Fijian:** vutu kana, vutu loukana, vutu vala

Indigenous to Melanesia, possibly an aboriginal introduction into Fiji. A small stand of these trees, probably deliberately planted, or bird or bat dispersed, is found on the south central part of the island. W, T1, T2.

## LYTHRACEAE (Loosestrife Family)

**Pemphis acidula** J.R. & G. Forst.

"pemphis"

**Fijian:** gigia

Indigenous. Trop. E. Africa to S.E. Polynesia and Micronesia. Rare. One single mature stunted plant about 80 cm high on the east face of the limestone cliff on the southern peninsula. T1, T2.

## MALVACEAE (Mallow Family)

**Hibiscus tiliaceus** L.

"beach hibiscus tree"

**Fijian:** vau

Indigenous throughout the tropics and subtropics, but possibly an aboriginal introduction to some isolated high islands, such as Hawai'i, and on atolls, where it does not thrive. Occasional in inland thickets and common in the outpost zone in limestone forest along the eastern, windward coast. W, T1, T2.

**Thespesia populnea** (L.) Sol. ex Correa

"Thespian's tree"

**Fijian:** mulomulo

Indigenous from East Africa to Polynesia and Micronesia, but probably an aboriginal introduction in the easternmost extent of its range (Hawai'i) and on some atolls. Uncommon on coast near the northwest end of the island. T1, T2.

## MELIACEAE (Mahogany Family)

**Aglaia saltatorum** A.C. Smith

**Fijian:** lagakali

Probably indigenous to Fiji and an aboriginal introduction to western Polynesia. A common tree throughout the northcentral part of the interior of the island. Important sacred plant of the chiefly island of Bau, the strongly scented unusual flowers of which are used in garlands (**salusalu**) and for scenting coconut oil. W, T1, T2.

**Dysoxylum forsteri** (Juss.) C. DC.

"stinkwood"

syn: *Dysoxylum richii* (A. Gray) C. DC.

**Fijian:** tarawau kei rakaka, sasawira, sasauira

Indigenous to Fiji, Tonga and Niue. Common in inland forest throughout the interior of island, probably bird or bat dispersed. W, T1, T2.

**Xylocarpus moluccensis** (Lam.) M. Roemer

"puzzlenut"

**Fijian:** dabi

Indigenous. Rare on seaside limestone terrace on the southeast side of the southern peninsula; one tree also found on the limestone cliff along the east coast. T1, T2 (26305).

### MORACEAE (Mulberry Family)

**Ficus prolixa** Forst. f

"banyan", "strangler fig"

**Fijian:** baka, baka ni Viti

Large banyan, occasional through the central part of the island as a full grown banyan tree and as a young epiphyte; also found on the limestone escarpment on the northeast coast above the beach. Tentative identification indicates that this is *F. prolixa*, which commonly colonises limestone outcrops. It was identified by Watling as *F. obliqua* Forst. f., which is more common on inland sites. W, T1, T2 (26302).

**Ficus tinctoria** Forst.

**Fijian:** nunu, mati, savirewa ?

Indigenous to Southeast Asia to Polynesia and Micronesia. Occasional throughout the island as small trees or stunted shrubs on the windward coast T1, T2.

### MYRTACEAE (Myrtle Family)

**Syzygium richii** (A. Gray) Merr. & Perry

syn. *Eugenia richii* A. Gray

**Fijian:** bokoi, oqori, kavika ni waitui, qoriquoriwai

Indigenous (endemic) to Fiji, Tonga, Rotuma, Samoa and Niue. A few large trees inland from littoral zone on the southcentral part of the island; one tree also found on the northeast-central part of the island. Reportedly bird-dispersed from the mainland. T1, T2.

### NYCTAGINACEAE (Four-O'clock Family)

**Boerhavia repens** L.

Indigenous from tropical Africa to Hawai'i. Abundant on limestone on the outer edges of limestone cliffs and on remnant limestone stacks. T1, T2 (26307).

**Pisonia grandis** R. Brown  
"pisonia"  
**Fijian:** buka

Indigenous from Madagascar through tropical Asia to Formosa, Queensland and Southeastern Polynesia and Micronesia. Abundant throughout the island and the major rookery species along the sheltered western leeward side of the island, the location of the main booby nesting sites. W, T1, T2.

### **PASSIFLORACEAE (Passion Fruit Family)**

**\*Passiflora foetida** L. var. **hispida** (DC. ex. Triana & Palnch.) Killip  
"stinking passion flower"  
**Fijian:** sou (Macuata), loliloli ni kalavo (Lakeba)

Native to tropical America, but now widely distributed as a pantropical weed. Occasional in open, disturbed sites on the southcentral part of the island. T1, T2.

### **PIPERACEAE (Pepper Family)**

**\*Piper aduncum** L.  
**Fijian:** yaqona ni Onolulu, Onalulu, yaqoyaqona

Indigenous to the West Indies, apparently introduced into Fiji in the 1920s, but now dispersed by birds or bats and widely naturalised throughout the wet and intermediate zones of Fiji. One shrub found on the southeast-central part of the island in 1996. T2.

### **PORTULACACEAE (Purslane Family)**

**\*Portulaca oleracea** L.  
"pig weed", "purslane"  
**Fijian:** taukuku ni vuaka, taukuka ni vuaka

Recent introduction. Europe, now Pantropical. One small population in a disturbed site near the boat landing on the northwest of the island. T1, T2.

**Portulaca lutea** Soland.

Indigenous from New Caledonia eastward through Polynesia to Pitcairn Island and the Line Islands of Kiribati south of Hawai'i. Abundant on seaward-facing areas of the limestone cliffs on the east, south and west coasts. T1, T2 (263304).



## RUBIACEAE (Coffee Family)

**Guettarda speciosa** L.

"guettarda"

**Fijian:** buabua, buabua ni baravi, buabua ni waitui

Indigenous from East Africa to the Marshall Islands and the Marquesas, but not to Hawai'i. A number of large trees found inland from the coast on the southeast central part of the island. W, T2.

**Morinda citrifolia** L.

"beach mulberry"

**Fijian:** kura

Indigenous to tropical Asia and Australia and eastward into Melanesia, Polynesia and Micronesia. Abundant throughout the island, both in the interior and just inland from the littoral forest. W, T1, T2.

## SAPOTACEAE (Sapodilla Family)

**Planchonella grayana** St. John

**syns.** *Planchonella costata* (Endl.) Pierre ex Lam var. *vitiensis* (Gray) Lam.

**Fijian:** qalaka, bausa

Indigenous from Vanuatu to the Austral Islands and Tuamotus in French Polynesia. Occasional as a seedling in the inland forest, with a least one large tree in the southeast-central part of the island. Possibly Watling's Bau. W?, T1, T2.

## SOLANACEAE (Nightshade Family)

**\*Capsicum frutescens** L.  
chilli"

"tabasco", "bird chilli", "perennial

**Fijian:** rokete

Indigenous to tropical America; a pre-World War II introduction. Trop. America. Common in open areas throughout the islands. T1, T2.

**?Solanum inamoenum** Benth.

"thorn apple", "datura"

**Fijian:** kai ni mara (Ba), kiyadre (Macuata), moloa (Cakaudrove)

Indigenous to Fiji, Samoa and Tonga, and possibly to Vanuatu and New Caledonia. Found bordering the trail in a disturbed site on the southeast-central end of the island. T1, T2 (26306).

**Solanum viride** Sol. ex Forst. f.

**Fijian:** boro

Indigenous from Fiji and Tonga to the Tuamotus and Hawai'i. Occasional on coastal limestone outcrops on the east and southeast coasts. T1, T2 (26301).

### **TILIACEAE (Linden Family)**

**Grewia crenata** (J.R. & G Forst.) Schinz & Guill.

**Fijian:** siti

Indigenous to Vanuatu and New Caledonia eastward to the Society Islands, and possibly to the Marianas and Caroline Islands in Micronesia. Occasional on inner margins of coastal forest on the northwest end of the island. T1, T2.

### **URTICACEAE (Nettle Family)**

**Dendrocnide harveyi** (Scem.) Chew

"stinging-nettle tree"

**Fijian:** salato

Indigenous to Fiji, Samoa, Tonga and Niue. Occasional in inland forest throughout the southern part of the island. W, T1, T2.

**Procris pedunculata** (J.R. and G. Forster) Wedd.

Indigenous from Malesia, and possibly tropical Asia, to the Marquesas and Tuamotus in Eastern Polynesia. Occasional in shady sites on limestone in the shady central part of the island. T1, T2.

### **VERBENACEAE (Verbena Family)**

**Clerodendrum inerme** L.

"beach privet"

**Fijian:** verevere

Indigenous. Indomalaysia, Australia and the Pacific Is. Locally common on the east coast on limestone cliffs and on the southern peninsula and isthmus. T1, T2.

**Premna serratifolia** L.

**Fijian:** yaro

Indigenous. Indo-Pacific. Occasional tree or shrub in coastal vegetation and near the northwest coast. T1, T2.

**Vitex trifolia** L.

"beach vitex"

**Fijian:** vulokaka, dralakaka, molokaka

Indigenous from tropical Africa to southeastern Polynesia. Uncommon in sandy soils near northwest coast of island. T1, T2.

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APPENDIX. ABBREVIATED CHECKLIST OF THE FLORA OF MABUALAU  
ISLET, TAILEVU PROVINCE, VITI LEVU, FIJI.

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PTERIDOPHYTA

ASPLENIACEAE

*Asplenium nidus* L.

"bird's-nest fern"

Fijian: beluve, butubutu

POLYPODIACEAE

*Phymatosorus scolopendria* (Burm.) Pichi Sermolli

"scented fern"

Fijian: vativati

ANGIOSPERMAE

MONOCOTYLEDONAE

ARACEAE (Arum Family)

*Epipremnum pinnatum* (L.) Engl.

"taro vine"

Fijian: yalu

ARECACEAE (PALMAE)

*Cocos nucifera* L.

"coconut palm"

Fijian: niu

PANDANACEAE (Pandanus Family)

*Pandanus tectorius* Warb.

"pandanus", "screw pine"

Fijian: vadra

POACEAE OR GRAMINAE (Grass Family)

\**Brachiaria subquadrifida* (Trin.) Hitchc.

\**Cyrtococcum oxyphyllum* (Steud.) Staph

Fijian: covatu, o salasala

*Digitaria setigera* Roth

"crab grass", "slender crab grass"

\**Eleusine indica* (L.) Gaertn.

"wiregrass", "goosegrass"

*Lepturus repens* (Forst. f.) R. Br.

"bunch grass", "beach bunch grass"

*Stenotaphrum micranthum* (Desv.) Hubb.

"buffalo grass"

## DICOTYLEDONAE

### AIZOACEAE (Iceplant Family)

*Sesuvium portulacastrum* (L.) L.

### AMARANTHACEAE (Amaranth Family)

*Achyranthes aspera* L.

"prickly chaffflower"

Fijian: sono ivi (Moala)

### APOCYNACEAE (Dog-bane Family)

*Neisosperma oppositifolium* (Lam.) Fosb. & Sachet

Fijian: vavakana, vao, vaokaka, vavaoa

### ASTERACEAE OR COMPOSITAE (Aster, Sunflower or Composite Family)

*Wollastonia biflora* (L.) DC. var. *biflora*

"beach sunflower"

Fijian: kovekove

### BORAGINACEAE (Heliotrope Family)

*Cordia subcordata* Lam.

"sea trumpet", "kou" (Hawai'i)

Fijian: nawanawa

*Tournefortia argentea* L. f.

"beach heliotrope"

Fijian: roro ni bebe, kau ni yalewa

### CARICACEAE (Papaya Family)

\**Carica papaya* L.

"papaya", "pawpaw"

Fijian: weleti, maouli

### COMBRETACEAE (Terminalia Family)

*Terminalia catappa* L.

"beach almond", "Indian almond", "Malabar almond"

Fijian: tavola

### CONVOLVULACEAE (Morning-Glory Family)

\**Ipomoea batatas* (L.) Poiret

"sweet potato"

Fijian: kumala

*Ipomoea macrantha* R. & S.

"wild moon flower"

Fijian: wa ika, tobici

### EUPHORBIACEAE (Spurge Family)

\**Acalypha lanceolata* Willd.

*Excoecaria agallocha* L.

blinding tree, poison mangrove tree

Fijian: sinu gaga

\**Phyllanthus amarus* Sch. & Th.

"sleeping plant", "six-o'clock"

## **FABACEAE OR LEGUMINOSAE (Bean, Pea or Legume Family)**

**Abrus precatorius** L.

**Fijian:** leredamu

**Derris trifoliata** Lour.

"derris vine"

**Fijian:** duva, tuva

**Pongamia pinnata** (L.) Merr.

**Fijian:** tavesivesi, vesivesi, vesi wai, vesi ni wai, tosig

## **GOODENIACEAE (Naupaka Family)**

**Scaevola taccada** (Gaertn.) Roxb.

"saltbush", "half-flower"

**Fijian:** vevedu

## **LECYTHIDACEAE (Brazilnut Family)**

**Barringtonia asiatica** (L.) Kurz.

"fish-poison tree", "barringtonia"

**Fijian:** vutu, vutu rakaraka

**\*Barringtonia edulis**

"cut nut"

**Fijian:** vutu kana, vutu loukana, vutu vala

## **LYTHRACEAE (Loosestrife Family)**

**Pemphis acidula** J.R. & G. Forst.

"pemphis"

**Fijian:** gigia

## **MALVACEAE (Mallow Family)**

**Hibiscus tiliaceus** L.

"beach hibiscus tree"

**Fijian:** vau

**Thespesia populnea** (L.) Sol. ex Correa

"Thespian's tree"

**Fijian:** mulomulo

## **MELIACEAE (Mahogany Family)**

**Aglaia saltatorum** A.C. Smith

**Fijian:** lagakali

**Dysoxylum forsteri** (Juss.) C. DC.

"stinkwood"

**Fijian:** tarawau kei rakaka, sasawira, sasauira

**Xylocarpus moluccensis** (Lam.) M. Roemer

"puzzlenut"

**Fijian:** dabi

## **MORACEAE (Mulberry Family)**

**Ficus prolixa** Forst. f

"banyan", "strangler fig"

**Fijian:** baka, baka ni Viti

**Ficus tinctoria** Forst.

**Fijian:** nunu, mati, savirewa ?

## **MYRTACEAE (Myrtle Family)**

**Syzygium richii** (A. Gray) Merr. & Perry

**Fijian:** bokoi, oqori, kavika ni waitui, qoriquoriwai

## **NYCTAGINACEAE (Four-O'clock Family)**

**Boerhavia repens** L.

**Pisonia grandis** R. Brown

"pisonia"

**Fijian:** buka

## **PASSIFLORACEAE (Passion Fruit Family)**

\***Passiflora foetida** L. var. **hispida** (DC. ex. Triana & Palneh.) Killip

"stinking passion flower"

**Fijian:** sou (Macuata), loliloli ni kalavo (Lakeba)

## **PIPERACEAE (Pepper Family)**

\***Piper aduncum** L.

**Fijian:** yaqona ni Onolulu, Onalulu, yaqoyaqona

## **PORTULACACEAE (Purslane Family)**

\***Portulaca oleracea** L.

"pig weed", "purslane"

**Fijian:** taukuku ni vuaka, taukuka ni vuaka

**Portulaca lutea** Soland.

## **RUBIACEAE (Coffee Family )**

**Guettarda speciosa** L.

"guettarda"

**Fijian:** buabua, buabua ni baravi, buabua ni waitui

**Morinda citrifolia** L.

"beach mulberry"

**Fijian:** kura

## **SAPOTACEAE (Sapodilla Family)**

**Planchonella grayana** St. John

**Fijian:** qalaka, bausa

## **SOLANACEAE (Nightshade Family)**

\***Capsicum frutescens** L. "tabasco", "bird chilli", "perennial chilli"

**Fijian:** rokete

?**Solanum inamoenum** Benth..

"thorn apple", "datura"

**Fijian:** kai ni mara (Ba), kiyadre (Macuata), moloa (Cakaudrove)

**Solanum viride** Sol. ex Forst. f.

**Fijian:** boro

## **TILIACEAE (Linden Family)**

**Grewia crenata** (J.R. & G Forst.) Schinz & Guill.

**Fijian:** siti

## **URTICACEAE (Nettle Family)**

**Dendrocnide harveyi** (Seem.) Chew

"stinging-nettle tree"

**Fijian:** salato

**Procris pedunculata** (J.R. and G. Forster) Wedd.



**VERBENACEAE (Verbena Family)**

**Clerodendrum inerme** L.

"beach privet"

**Fijian:** vereverc

**Premna serratifolia** L.

**Fijian:** yaro

**Vitex trifolia** L.

"beach vitex"

**Fijian:** vulokaka, dralakaka, molokaka