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The plants of Waya Island, Fiji

Rhys O. Gardner Auckland War Memorial Museum

Abstract

An annotated species-list is given for Waya Island (Yasawa Is. Group, Fiji). It contains 38 ferns and lycophytes, 1 cycad, 55 monocotyledons, and 224 dicotyledons. Nearly all these 318 species are indigenous to Fiji or are likely to be ancient (pre-European) introductions. Except for six species, post-European introductions (weeds and cultivated species) have not been included.

Two species are endemic to Waya: *Embelia deivanuae* (Myrsinaceae) and *Psychotria volii* (Rubiaceae). Five are rare in Fiji: *Guettarda wayaensis* (Rubiaceae), *Mollugo pentaphylla* (Molluginaceae), *Ormocarpum orientale* (Leguminosae), *Polystichum pilosum* (Dryopteridaceae), and *Prosaptia vomaensis* (Polypodiaceae). Another two Fijian rarities, *Euphorbia plumerioides* (Euphorbiaceae) and *Sarcolobus stenophyllus* (Asclepiadaceae), were found on Waya in 1937 but have not been seen since.

Waya's taller native vegetation is situated mostly on rugged rocky topography and is dominated by members of Leguminosae (*Cynometra*, *Kingiodendron*, *Maniltoa*), Sapindaceae and Sapotaceae. In Fiji at large such "dry zone" cover has been greatly reduced by continual fires, so Waya's remnants, though small and discontinuous, have substantial biodiversity value.

Keywords

Waya Island; Yasawa Islands; Fiji archipelago; higher-plant species; dry-zone forest.

INTRODUCTION

This account of the higher-plants found on the small Fijian island of Waya mainly concerns species native to Fiji, but a number of post-European introductions have been included too — in total 318 species are treated. It is largely based on specimens collected by Harold St John in 1937 and cited in A. C. Smith's *Flora Vitiensis Nova*, and on collections made by the author in 1991, 1992 and 2017. St John seems to have been the first botanist to visit Waya — although both the U.S. Exploring Expedition in 1840, and Berthold Seemann in 1860, made collections from a range of Fiji's islands they did not make landfall in the Yasawas. Since St John's time, this group of islands has been collected from only infrequently (Smith 1979: 76). I hope to show that this neglect is undeserved.

I have written twice already on Wayan botany: on my most noteworthy finds (Gardner 1997), and on plant-names in the Wayan ("West Fijian") language (Gardner & Pawley 2006). The latter article makes no mention of those indigenous species — mainly the less common ones and those of no use to humans — that lack a Wayan name.

THE SETTING

Waya is located at the southern end of the Yasawa Islands chain, 50 km off the northwestern coast of Fiji's largest island, Viti Levu (Fig. 1). It is a "high" (volcanic) island, irregularly circular in outline, c. 7 km in diameter

and 2100 ha. in extent. Its rugged topography, deriving from andesitic flows, agglomerates and tuff, reaches 510 m (1673 feet) at the peak of Vatunareba in the southeast, overlooking the bay of Yalobi. The highest point, of 561 m (1841 feet), is reached in the northeast by the less dramatic peak of Uluiwaya.

Yalobi (to early Europeans, Alacrity Bay) on the southern coast is the largest of the island's several, reef-fringed bays. In Yalobi village, and in the island's three other coastal villages, Nalauwaki, Waya Levu, Natawa, there live c. 1200 people, their lifestyle based on fishing and gardening (cassava, bananas, yams), together with income from cruise-ship visits, backpacker tourism, and off-island work, e.g., in Fiji's tourist resorts (Waya has just one of these).

Human occupation of Waya goes back 2,500 years or more (Hunt et al. 1999), so it is unlikely that any of the existing taller vegetation can be thought of as "original". The slopes above the gardened valleys are mainly of induced grassland or scrub, with forest only in those areas too steep or too rocky to cultivate and where fire cannot get to. There are considerable areas of bare or scrubby rocky ground on Vatunareba.

The central part of the island consists of broken topography between the island's two high- points. Relatively well-forested, it is the watershed for a number of small streams, but in its more fertile places trees are continually being felled, often for the cultivation of *agona* (the kava plant, *Piper methystichum*).

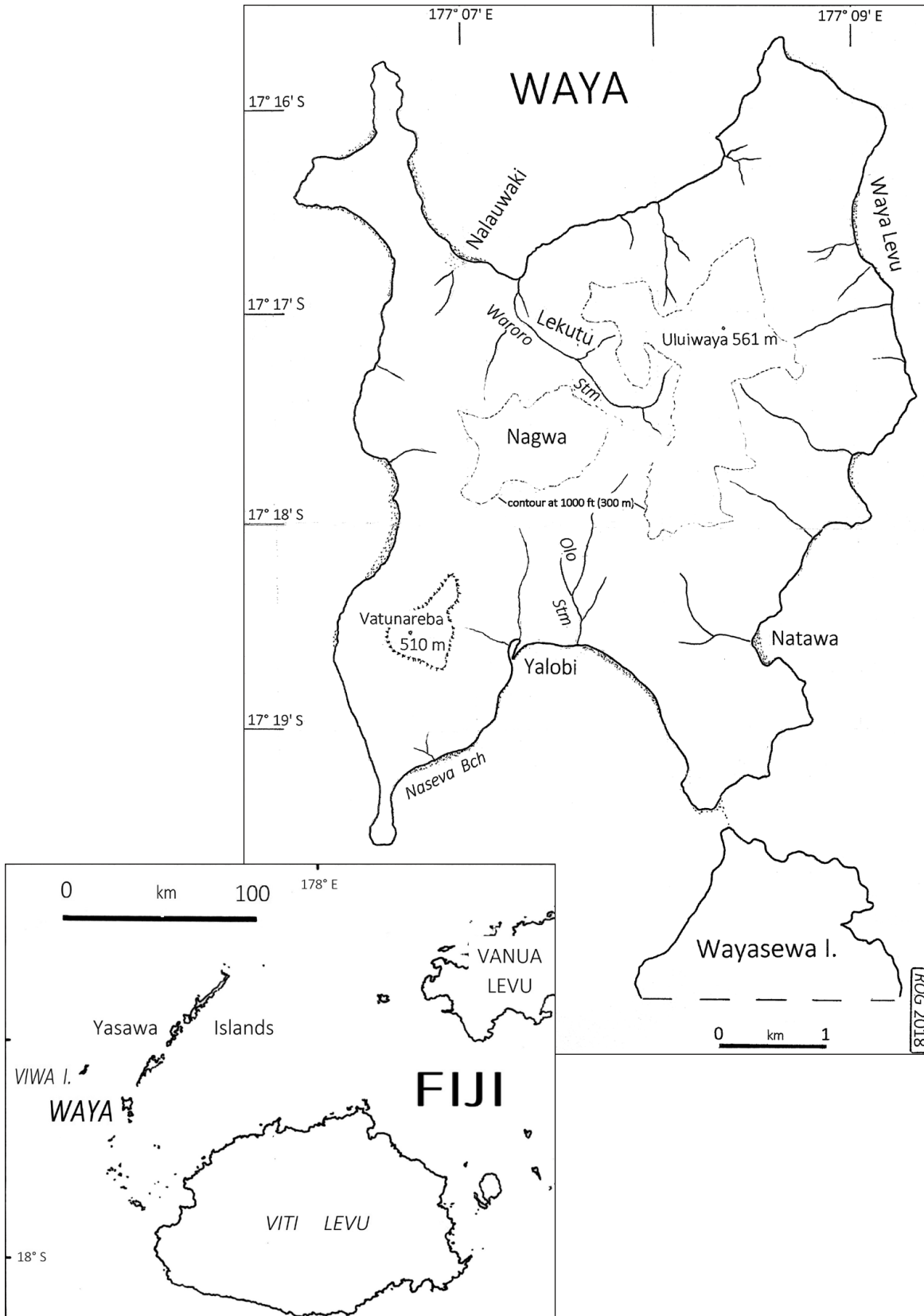


Figure 1. Waya Island. Based on the chart "Yasawa Islands, Fiji. Sheet 1: Waya Group", surveyed by A. H. Pickmere. Alexander Turnbull Library, Wellington. [Privately published 1973; reproduced here with the permission of the copyright holder Janet M. Watkins, Auckland]. Note: the location of "Lekutu" is approximate only.

Waya has a climate similar to that of the eastern (leeward) coast of Viti Levu, with a distinctly dry, cool season during the middle part of the year (Derrick (1957: 108; Twyford & Wright 1965: 76). This dryness is intensified by the often very shallow character of its predominantly steepland soils (Twyford & Wright 1965: 491). The island then has special ecological and conservation interest, with “dry zone forest” now greatly depleted not just on the larger Fijian islands but in the New Caledonia-Fiji-Tonga region at large (Mueller-Dombois & Fosberg 1997; Gillespie & Jaffré 2003; Keppel & Tuiwawa 2007).

Most of Waya’s coastal and low- to mid-altitude forest has gone, but the woody plants that remain can be taken to indicate what “dry zone forest” here was like:

- a) a low presence of “moist rainforest” taxa, e.g., absence of Arecaceae, Elaeocarpaceae and Podocarpaceae, only one member of Hymenophyllaceae (*Trichomanes atrovirens*), only one member of Lauraceae (*Litsea vitiana*), absence of *Elatostema* (and the wide-ranging *Procris pedunculata* is present but rare), and just one species each of *Cyrtandra* and *Medinilla* (both rare on Waya);
- b) an abundance of species belonging to Anacardiaceae, Ebenaceae, Sapindaceae and Sapotaceae; abundance of *Geissois ternata* (Cunoniaceae); local dominance of legume trees, that is, species of *Cynometra*, *Kingiodendron*, *Maniltoa* and *Serianthes* — cf. the dry *Maniltoa-Pleiogynium* forest of the Tonga island of Eua (Mueller-Dombois & Fosberg 1997: 353);
- c) a predominance of drought-resistant species in the regrowth communities: *Dodonaea viscosa*, *Ficus barclayana*, *Mallotus tiliifolius*, *Melochia degeneriana* and *Parasponia andersonii*, these small trees together with semi-scandent “cast-iron” shrubs such as *Rhamnella vitiensis*, *Smythea lanceata* and *Ventilago vitiensis* (all Rhamnaceae), and *Celastrus richii* (Celastraceae).

Although Waya’s forest and scrub is now very discontinuous it is still “natural” in that the most aggressively weedy trees of other dry parts of Fiji — notably the legumes *Adenanthera pavonina*, *Albizia saman*, and *Leucaena leucocephala*, are relatively restricted in extent.

Waya’s ecological values are also greatly enhanced by the absence of that Fijian pest the small Asian mongoose, *Herpestes javanicus*. Consequently, smaller lizards are abundant, and also, Fiji’s largest and most endangered lizard, the Fijian crested iguana (*Brachylophus vitiensis*), is still regularly sighted. Unfortunately for its indigenous plants though the island is home to a fair number of goats, their introduction dating back to the late 1940s or early ‘50s (A. Pawley pers. comm.).

SCOPE AND STYLE

No keys or descriptions of the families and genera represented in Waya’s flora are given here. However, scans of herbarium specimens of some of the more

notable species (mostly those endemic to Fiji, or species indigenous to Fiji but uncommon there) can be found on the web-site of the Auckland War Memorial Museum (<http://www.aucklandmuseum.com/collections-research/collections/search>). All are my own Wayan collections, housed in the herbarium of this museum.

In the main text below the species are arranged alphabetically by family, within the following sequence: 38 ferns and lycophytes (*Lycopodiella*, *Psilotum* and *Selaginella*); 1 gymnosperm (a species of *Cycas*); 55 monocotyledons; 224 dicotyledons. A concise listing is given in Appendix 1.

A number of the species treated are probably not indigenous to Fiji. Most of these are likely to have been introduced in pre-European times, being food-plants or weeds associated with the peopling of the Pacific Ocean region. Six species likely to be modern introductions have been included, either because they are so conspicuous in the Wayan landscape, e.g., the grassland-dominant *Cenchrus polystachios*, or because they represent a new distribution record, e.g., *Adiantum trapeziforme*. Also, coastal species not so far known from Waya but occurring (or likely to occur) 27 km westwards on the atoll of Viwa I. have been included.

Two species appear to be endemic to Waya: *Embelia deivanuae* (Myrsinaceae) and *Psychotria volii* (Rubiaceae). Two species of wide distribution westwards of Fiji, *Carex brunnea* and *Rinorea benghalensis*, are currently known in the Fiji archipelago only from Waya. Two or possibly three Wayan species appear to be rare Fijian endemics: *Guettarda wayaensis*, *Polystichum pilosum* and possibly *Prosaptia vomaensis*. The legume tree *Serianthes vitiensis*, rare on Waya, is known otherwise by only two or three old collections from Vanua Levu. St John collected two rare Fijian plants I was unable to find: the widespread *Euphorbia plumerioides*, and the Fijian endemic *Sarcolobus stenophyllus* (Asclepiadaceae).

SCIENTIFIC NAMES

Names for the ferns and lycophytes, including family ones, have been updated from those of Brownlie (1977), using mainly the checklist of Brownsey & Perrie (2011). For the flowering-plant genera and families *Flora Vitiensis Nova* (hereafter, FVN) has largely been adhered to, in order to assist reference to that comprehensive work’s keys etc. However, three updated placings have been made: *Cordyline* is transferred into Asparagaceae, *Dianella* into Xanthorrhoeaceae, and all legumes into Leguminosae. Also, because FVN’s family-level classification is now seriously out of date, reference is sometimes made to the latest scheme (“APG IV”) of the Angiosperm Phylogeny Group (2016), e.g., “*Casearia* FLACOURTIACEAE (APG IV Salicaceae)”. Where names at specific or generic level have been updated, the ones used by Brownlie (1977) or FVN are given using the phrase “Formerly known as X”.

WAYAN PLANT NAMES

The language of Waya belongs to the Western Fijian Language grouping (Geraghty 1983: 268). The Wayan plant-names offered in the present work do not include the obsolete ones (cited as such by Gardner & Pawley 2006). These names, recorded by St John but not confirmed by me in 1991/2, have been included here in the citation of St John's specimens, with modern spelling added if necessary.

THE SPECIMENS

Except for a relatively small number of entries (mainly sight-records of the writer) this work is specimen-based. Almost all the specimens were collected by St John or me, but a few others have been added from the citations of FVN. For the identification of St John's specimens reliance has been placed on Brownlie (1977), FVN, and modern revisions. Some of St John's Wayan collections at US can be viewed at that institution's online database.

Collection details for St John and me are as follows (modern spellings in brackets):

St John

Collection numbers 18005–18173, made 15–22 July 1937; specimens at BISH in the first instance, with some duplicates at US and (at least of some ferns) at SUVA. The numbers (which include several bryophytes) and their localities are:
 18005–18012, 18030, 18059–18060, 18089–18097, 18171–18173 Yalobi
 18013–18029 Olo Creek, N of Yalobi
 18031–18058 Naruarua Gulch, W side of Batinareba [Vatunareba]
 18061–18067 woods along Waroro Creek
 18068–18088 woods along Wailevu Creek
 18098–18120, 18153–18170 Nagua [Nagwa]
 18121–18130 woods along Olo Creek, N of Yalobi
 18131–18152 Nakawa Gulch, W side of Batinareba [Vatunareba]

St John's obsolete plant-names are cited as written in his notebook (BISH), as are the names of his localities (which are cited only where I did not rediscover the species). The exact location of St John's two gullies ("gulches"), on the west side of Vatunareba, and his "Wailevu Creek", seem to be unknown to the Wayan people of today.

R.O. Gardner

My specimens, which were obtained from numerous localities on Waya, are numbered 6249–6541 (27 Oct to 15 Nov 1991), 6654–6890 (12 July to 16 August 1992), and 11291–11344 (2–11 June 2017). Their label-notes on habitat etc., have sometimes been rewritten in the present work, in the interest of brevity and clarity. A first set of these collections is at AK; others are at BISH, CHR, SUVA and US.

THE ENTRIES

If a species is endemic to Fiji this is stated. For distribution within the Fijian archipelago the data offered here is just a summary of that in Brownlie (1977) and FVN. These works were based on a thorough knowledge of the Fijian collections gathered up to that time, so they should still be adequate, at least for comparative and conservation purposes. For abundance on Waya itself some indication is often given in the specimen-notes.

All St John specimens cited in FVN, but only the most informative of the my own have been included in the species-entries.

In the entries the citing of synonyms and references has been kept to a minimum. To find more about a particular Wayan fern or lycophyte's taxonomic history, and relevant keys and descriptions, see Brownlie (1977), Orchard & McCarthy (1998), Nakamura & Matsumoto (2008), and Chen et al. (2017). For flowering plants the best source of such data is FVN, but it is not yet available as an e-book. However, the two classic accounts of Fiji's flowering plants, Asa Gray's (1854) U.S. Exploring Expedition volume (only partly about Fiji) and Berthold Seemann's *Flora Vitiensis* (1865–73), are available at free-access Web sites like Botanicus and Biodiversity Heritage Library. When referring to Gray and Seemann I have noted page numbers, which will make it unnecessary to first consult FVN or other secondary sources.

Gray is still worth reading, for his expressive descriptions. Seemann's descriptions are in Latin but his long asides on Fijian ethnobotany and history, e.g., on *Cocos*, *Excoecaria*, *Ficus obliqua*, *Piper methysticum*, *Santalum* and *Tacca*, are in English. Both works, and also the U.S. Exploring Expedition volume on ferns (Brackenridge 1855) contain superb illustrations of Fijian plants, and these have been noted in the species-entries.

SIGNS AND ABBREVIATIONS

- * Superscript before species' name indicates a likely introduction in post-European times.
- Ø diameter
- dbh diameter breast height (of a tree trunk)
- E east(ern)
- flr(s) flower(s)
- Illn illustration
- infl., infls. inflorescence(s)
- l.s. longitudinal section
- occ. occasionally
- NW north-west(ern), SE south-east(ern), etc.
- t.s. transverse [cross-]section
- us. usually

FV *Flora Vitiensis* [B. Seemann 1865–73]

FVN *Flora Vitiensis Nova* [A.C. Smith, 1979–91]

USEE 15, *Atlas U.S. Exploring Expedition Vol. 15, Atlas* [A. Gray, 1856]

USEE 16, *Atlas U.S. Exploring Expedition Vol. 16, Atlas* [W. Brackenridge, 1855]

- AK Botany Department, Auckland War Memorial Museum, Auckland, New Zealand
 BISH Herbarium Pacificum, Bishop Museum, Honolulu, Hawaii
 CHR Allan Herbarium, Landcare Research, Lincoln, New Zealand.
 DA Department of Agriculture, Fiji (herbarium collection series; first set at SUVA).
 SUVA South Pacific Regional Herbarium, University of the South Pacific, Suva, Fiji
 TNS National Museum of Nature and Science, Tsukuba, Japan
 US United States National Herbarium (Smithsonian Institution), Washington D.C., U.S.A.

FLORA, PART 1: FERNS, LYCOPHYTES, CYCAD

1.1 ASPLENIACEAE

Asplenium amboinense Willd.

Abundant in Fiji's forests. *ROG* 6796, E side of peaks above Waya Levu, occ. in mesic places in forest. Illn: USEE 16, Atlas pl. 19 fig. 2.

Asplenium polyodon G. Forst.

In Fiji most abundant in higher-altitude forests of the larger islands. *St John* 18033, "tokalo". Illn: USEE 16, Atlas pl. 22 fig. 1, as *A. falcatum* var. *attenuatum*.

1.2 BLECHNACEAE

Blechnum orientale L.

Widespread in Fiji's forests. *St John* 18061, "ndondobalawa".

1.3 CYATHEACEAE

Cyathea lunulata (G. Forst.) Copel. *balabala*

Widespread in Fiji, often abundant. *St John* 18098, "mbalambala". *ROG* 6336, -7, near Nagwa, to 7 m tall 15 cm dbh, in damp gullies in secondary forest. Illn: USEE 16, Atlas pl. 39, as "*Alsophila lunulata* R.Br. ?". Holttum (1964:267) considered that this plate represents the Fijian plant, i.e., the endemic subspecies *C. lunulata* subspecies *vitiensis* (Carr.) Holttum.

1.4 DAVALLIACEAE

Davallia heterophylla Sm.

Widespread in Fiji's lowland forests. *St John* 18157, "kara". Formerly known as *Humata heterophylla*.

Davallia solida (G. Forst.) Sw.

Widespread on Fiji's dry-zone coasts, including those of the smaller islands. *ROG* 6438, towards the peaks N of Yalobi, on shady rock cliffs away from goats.

1.5 DENNSTAEDTIACEAE

Microlepia speluncae (L.) T. Moore

Rather local in Fiji (Waya, the three largest islands, and Ovalau). *ROG* 6514, slope NW of Vatunareba, common in open bouldery forest.

Pteridium esculentum (G. Forst.) Cockayne *mata*

Abundant locally in the drier parts of Fiji's two largest islands. No specimen known from Waya, but species presence recorded on label of *ROG* 6536 (*Pteris vittata*).

1.6 DICKSONIACEAE

Calochlaena straminea (Labill.)

M.D. Turner & R.A. White *balabala leke*

Widespread in Fiji, in open mesic forest sites. *St John* 18064. *ROG* 6341, Nagwa, uncommon in shady secondary forest. Formerly known as *Culcita straminea*. Illn: USEE 16, Atlas pl. 38 fig. 2, as *Dicksonia torreyana*.

1.7 DRYOPTERIDACEAE

Polystichum pilosum Copel.

Endemic to Fiji, rare; in open forest or scrub, known just from Waya and two dry montane localities (Ba, Viti Levu; Macuata, Vanua Levu). *ROG* 6785, towards Vatunareba summit, occ. in uppermost gully forest.

1.8 GLEICHENIACEAE

Dicranopteris linearis (Burm.f.) Underw. *mata*

Common in Fiji's dry regions, often with *Pteridium esculentum*. *St John* 18071, "kavindi".

1.9 HYMENOPHYLLACEAE

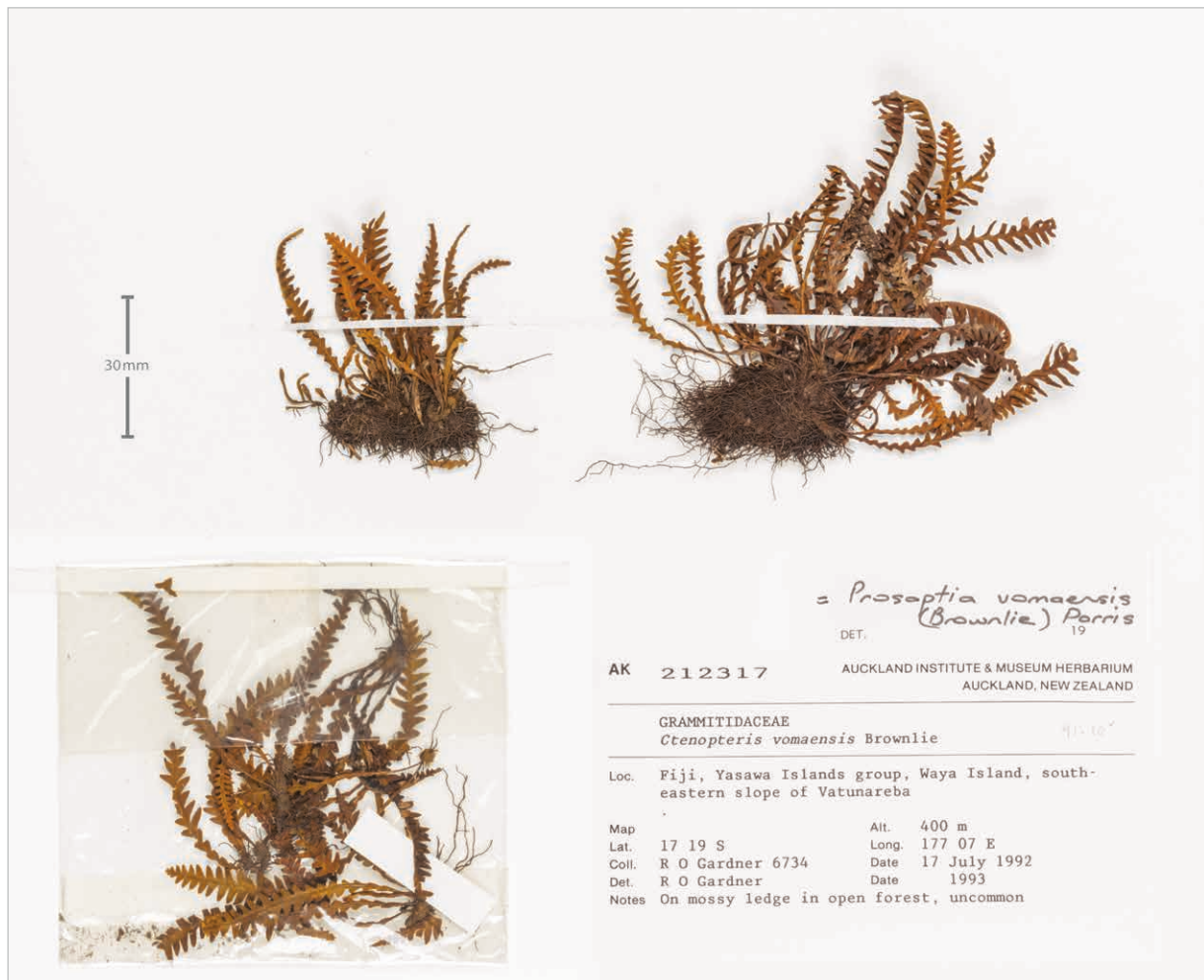
Trichomanes atrovirens (C. Presl) Kunze

Widespread and abundant in Fiji's forests, *St John* 18122, "rhausongiri". *ROG* 6863, E of Koroimatalevu peak (high point S of Lekutu), local on clay banks of stream in shady forest. Formerly known as *Trichomanes boryanum*.

1.10 LOMARIOPSIDACEAE

Nephrolepis hirsutula (G. Forst.) C. Presl *digi*

Abundant in Fiji. *ROG* 6377, Yalobi to Nalauwaki track, occ. at forest edges and straggling among *Miscanthus*. In Gardner & Pawley (2006) this collection was identified as *N. biserrata* (Sw.) Schott. I now think it agrees better with *N. hirsutula*, having dark-centred appressed scales on the base of the stipe, and rachis-scales that are red-brown, acuminate and strongly dentate distally (Hovenkamp & Miyamoto 2005).

Figure 2. *Prosaptia vomaensis*, AK212317. © Auckland Museum CC BY.

1.11 LYCOPODIACEAE

Lycopodiella cernua (L.) Pic.Serm.

Abundant in Fiji. *St John* 18068, “*o ranaranga*”. Formerly known as *Lycopodium cernuum*.

1.12 LYGODIACEAE

Lygodium reticulatum Schkuhr *vere lumuka*

In Fiji widespread on forest margins and in secondary forest. *ROG* 6251, Yalobi, common in dryish scrub. Wrongly cited as *L. articulatum* by Gardner & Pawley (2006: 107).

1.13 MARATTIACEAE

Angiopteris evecta (G. Forst.) Hoffm. *bāwale*

Widespread and abundant in Fiji’s wetter forests. *St John* 18114. *ROG* 6489, peaks W above Nagwa, in dense forest away from goats, uncommon.

1.14 POLYPODIACEAE

Drynaria rigidula (Sw.) Bedd. *sova ni gwata*

Widespread in Fiji, especially in open forest. *St John* 18046, “*temba*”. *ROG* 6456, slope W of Yalobi, perching on older trees.

Microsorium grossum (Langsd. & Fisch.)

S.B. Andrews *vativati*

Widespread in Fiji’s dry open forests. *ROG* 6320, gardens in valley NW of Yalobi, edge of relic forest among boulders. Formerly known as *Phymatosorus grossus*.

Prosaptia vomaensis (Brownlie) Parris

Perhaps endemic to Fiji, in rocky forest (Waya, Viti Levu) at mid-altitude. *ROG* 6734, SE slopes of Vatunareba, on mossy ledge in open forest, uncommon. Formerly known as *Ctenopteris vomaensis*. Recorded from Vanuatu (Nakamura & Matsumoto 2008: 249) but a voucher cannot be located (A. Ebihara of TNS, pers. comm. March 2015). Fig. 2.

***Pyrrosia lanceolata* (L.) Farw.** *tuāida*
Widespread in drier forests of Fiji. *St John* 18141, “*komokomo*”. *ROG* 6688, SE slopes of Vatunareba, uncommon epiphyte in gully forest. Formerly known as *Pyrrosia adnascens*.

1.15 PSILOTACEAE

***Psilotum nudum* (L.) P. Beauv.** *velau kai*
Widespread in Fiji. *ROG* 6665, above Olo stream, a few plants on ledge of shaded rock face, seemingly uncommon on the island.

1.16 PTERIDACEAE

***Acrostichum aureum* L.** *būrete*
Widespread in Fiji at the rear of mangrove and in other estuarine situations. No specimen known from Waya, but sighted in the mangrove at Yalobi (obs. *ROG* 1990s).

***Adiantum hispidulum* Sw.**
Widespread in Fiji, in open dry places. *St John* 18081, “*tokalo*”.

* ***Adiantum trapeziforme* L.**
Native to tropical America; naturalized in Fiji on Waya, and in southern Viti Levu (Brownsey & Perrie 2011: 526). *ROG* 6864, stream E of Koroimatalevu peak (high point S of Lekutu), local in open hillside regrowth.

***Antrophyum plantagineum* (Cav.) Kaulf.**
Widespread in Fiji’s wetter forests. *St John* 18048.

***Cheilanthes nudiuscula* (R.Br.) T. Moore**
Local in Fiji (Waya and the three largest islands), in dry open rocky places. *St John* 18148. *ROG* 6453, slope W of Yalobi, occ. on rocky ledges. Formerly known as *C. hirsuta*.

***Doryopteris concolor* (Langsd. & Fisch.) Kuhn**
Widespread in Fiji in dry open rocky places, sometimes on limestone. *St John* 18083, “*turalo*”. *ROG* 6454, 11311, slope W of Yalobi, occ. on rocky ledges.

***Haplopteris elongata* (Sw.) E.H. Crane**
Widespread in Fiji’s wetter forests. *St John* 18049, “*o ni koro*”. Formerly known as *Vittaria elongata*.

***Pteris tripartita* Sw.**
Widespread in Fiji. *ROG* 6515, slope NW of Vatunareba peak, local in open forest of bouldery slope on good soil, “[a kind of] *balabala*”.

* ***Pteris vittata* L.**
Probably not native to Fiji (rare here, known only from Waya and Viti Levu). *ROG* 6536, high point on E side of Olo stream, local on burnt knoll, on shallow soil; *Dicranopteris* and *Pteridium* also seen only here.

***Taenitis pinnata* (J. Sm.) Holttum**
Rather local in Fiji, in mesic and somewhat shaded forest sites. *St John* 18063, “*totondro lo*”. *ROG* 6755, peaks E above Yalobi gardens, local in shady dry forest.

1.17 SCHIZAEACEAE

***Schizaea dichotoma* (L.) Sm.**
Widespread in Fiji, in all vegetation types, from *Pteridium* fernland to dense forest. *St John* 18020, “*seisei*”.

1.18 SELAGINELLACEAE

***Selaginella firmula* A. Braun ex Kuhn**
Endemic to Fiji, widespread in forest, often abundant. *St John* 18022. *ROG* 6866, stream E of Koroimatalevu (high point S of Lekutu), on stiff clay at edge of stream terrace in shady forest.

***Selaginella laxa* Spring**
Widespread in Fiji in damp to mesic open forests. No specimen known from Waya, but seen by *ROG* in 2017, on Vatunareba (soil overhangs at upper edge of shady ravines), and along the higher part of Olo stream, in scrubby cover close to the water.

***Selaginella victoriae* T. Moore**
Endemic to Fiji, in mesic to rather dry forests, widespread. *St John* 18021, “*mbambaranga*”. *ROG* 6340, Nagwa, locally common in older forest.

1.19 TECTARIACEAE

***Tectaria latifolia* (G. Forst.) Copel.**
Widespread and often abundant in Fiji’s drier forests. *St John* 18014, “*gutivi*”. *ROG* 6303, Olo stream, abundant among rocks in relic streamside forest.

1.20 THELYPTERIDACEAE

***Macrothelypteris torresiana* (Gaudich.) Ching**
Local in Fiji, mainly on the two largest islands, in dry open sites. *ROG* 6418, slope above Naseva Beach, among boulders in open forest.

Sphaerostephanos invisus* (G. Forst.) Holttum *digii
Common in Fiji, in open ground. *ROG* 6314, E of Olo stream, occ. in rocky tall forest on slope.

1.21 CYCADACEAE

***Cycas celebica* Miq.** *niuniu*
Common in drier regions of Fiji. *St John* 18045, “*wiro*”. *ROG* 6419, slope above Naseva Beach, abundant in burnt scrub and grassland, only the youngest leaves nibbled by goats. Sometimes known as *Cycas rumphii* f. *seemannii* (de Laubenfels & Adema 1998: 371). *St John*’s name was misspelt “*wairo*” by Gardner & Pawley (2006: 108).

FLORA, PART 2: MONOCOTYLEDONS

2.1 ARACEAE

Alocasia macrorrhizos (L.) G. Don *via sam*

Anciently cultivated in Fiji, often persisting or naturalizing at least by vegetative means. *ROG* 6356, gardens in valley NW of Yalobi, scattered in the lower, damper places, ripe fruit. *ROG* 6513, slope NW of Vatunareba, common in open forest on bouldery slope, in good soil.

Amorphophallus paeoniifolius

(Dennst.) Nicolson *abia sã*

Widespread in Fiji (anciently introduced?) mainly in disturbed coastal forest. *ROG* 6517, slope NW of Vatunareba, occ. in open forest on good soil of bouldery slope.

Cyrtosperma merkusii (Hassk.) Schott *via kau*

Anciently cultivated in Fiji, often naturalized in wet places. *ROG* 6333, gardens in valley NW of Yalobi, cultivated. Formerly known in the central and eastern Pacific as *C. chamissonis*.

Epipremnum pinnatum (L.) Engl. *alu*

Common in Fiji's forests. *St John* 18056. *ROG* 6309, Olo stream, climbing over rocks and trees in shady streamside forest.

2.2 ARECACEAE

Cocos nucifera L. *niu*

Ubiquitous in Fiji. No specimen known from Waya. Sighted by *ROG* (1990s, 2017) at Yalobi, etc., cultivated, and sporadic in coastal forest.

Pritchardia pacifica Seem. & H. Wendl. *mãsei*

Widely cultivated in Fiji since pre-European times. No specimen is known from Waya, but the plant was sighted by *ROG* at Yalobi in 2017, where a tree c. 5 m tall stands at the site of the former *bure* of the Tui Waya. There are no wildings on the scrubby slopes around, perhaps because the seeds are avidly eaten by rats (D. Watling, pers. comm. 2014). Illn: FV t. 79.

2.3 ASPARAGACEAE

Cordyline fruticosa (L.) A. Chev. *ãkoto, qolo*

Widespread in Fiji, in cultivation and as a forest understorey plant. *St John* 18075. *ROG* 6319, gardens in valley NW of Yalobi, occ. in relic forest. Illn: FV t. 94, as *Dracaena sepiaria*.

2.4 CYMODOCEACEAE

Halodule pinifolia (Miki) den Hartog *lãcau*

Widespread and often abundant on Fiji's coast. *ROG* 6449, between Yalobi and Naseva Beach, local on shallow sandy reef-flat. *ROG* 6831, Yalobi, a few patches on sand on coral platform a short way below high-water mark, with *Halophila minor*.

Syringodium isoetifolium (Aschers.) Dandy *lãcau*

Quite frequent on Fiji's muddy reef-flats. *ROG* 6829, beach at Yalobi, abundant in the drift.

2.5 CYPERACEAE

Carex brunnea Thunb.

In Fiji known just from the highest part of Waya (Gardner 1997: 491). *ROG* 6508, 6672, SE Vatunareba, locally common in open forest above c. 300 m, amongst *Scleria lithosperma*.

Carex dietrichiae Boeck.

In Fiji's forests, perhaps widespread. *ROG* 6849, E side of peaks above Waya Levu, in ridge thicket. Listed as a dry-zone Fijian forest species by Keppel & Tuiwawa (2007: 561). Fig. 4.

Cyperus javanicus Houtt.

Common in Fiji, usually near beaches and creek mouths. *ROG* 6396, Waya Levu, on gravel berm at beach rear. Sometimes known as *Mariscus javanicus*.

Fimbristylis cymosa R. Br.

Uncommon in Fiji (Viti Levu and Viwa I.), on rocks at the coast. No specimen known from Waya, but sighted on Viwa I. in July 1992; see label of *ROG* 6771, *Sesuvium portulacastrum*.

Fimbristylis dichotoma (Burm. f.) Kern

Abundant in Fiji, usually weedy in open ground. *ROG* 6302, near sandy mouth of Olo stream.

Fimbristylis ovata (Burm. f.) Kern

Widespread in Fiji in dry open ground. *St John* 18129, "dodobawale". *ROG* 6803, above Yalobi school, common among grasses on dry hillside.

Gahnia aspera (R. Br.) Spreng.

In Fiji's dry forests, infrequent. *ROG* 6460, slope W of Yalobi, rare in forest of dry gully, ripe fruit. Listed as a dry-zone forest species by Keppel & Tuiwawa (2007: 561).

Rhynchospora corymbosa (L.) Britton

Abundant in Fiji, in swamps, along streams, and as a weed. *St John* 18080, "o nice". *ROG* 6802, Yalobi, in wet ground below school water-tanks, not seen elsewhere.

Scleria lithosperma (L.) Sw.

Widespread and abundant in Fiji. *St John* 18015, "weisa". *ROG* 6254, Yalobi, 30 cm high tussocks, common in dryish scrub, ripe fruit.

Scleria polycarpa Boeck.

Abundant in Fiji's drier forests. *St John* 18016, "nitiniti". *ROG* 6253, Yalobi, to c. 1.5 m tall, in dryish open scrub and on grassy hillsides; ripe fruit.

2.6 DIOSCOREACEAE

Dioscorea bulbifera L. *qwā karai*
Widespread in Fiji in dry open places. *ROG* 6342, near Nagwa, abundant in overgrown garden. *ROG* 6437, valley NW of Yalobi, regrowing abundantly on recently burnt slopes.

Dioscorea pentaphylla L. *kwaileni*
Widespread in Fiji in dry open places. *ROG* 6468, Lekutu, in *aqona* garden, perhaps kept on from the wild.

2.7 HEMEROCALLIDACEAE
(APG IV: Asphodelaceae)

Geitonoplesium cymosum (R. Br.)
A. Cunn. ex Hook. *wā bitubitu*
Local in Fiji's forests (mainly Viti Levu). *ROG* 6806, peaks E above gardens in valley NW of Yalobi, climbing at scrub margin on dry ridge, uncommon here, not seen elsewhere on island.

2.8 HYDROCHARITACEAE

Halophila minor (Zoll.) den Hartog
Abundant on Fiji's shores. *ROG* 6813, Yalobi, a few patches on sand at W end of beach.

2.9 ORCHIDACEAE

Calanthe triplicata (Willemet) Ames
Common in Fiji's forests. *ROG* 6486, peaks W above old Nagwa village site, on ground in dense forest, away from goats.

Dendrobium tokai Reichenb. f. ex Seem.
Widespread epiphyte in Fiji's forests. *St John* 18051, "viavia ni delana". *ROG* 6696, SE slopes of Vatunareba, in dry forest, rare here.

Eulophia pulchra (Thouars) Lindl.
Scattered in Fiji's lower-altitude forests (Waya and five other islands). *St John* 18024, Olo Creek, N of Yalobi, "parapara".

Liparis condylobulbon Rchb. f.
Widespread and often abundant in Fiji's drier forests. *ROG* 6812, peaks E above gardens in valley NW of Yalobi, low on tree trunk in open *Geissois* forest.

Oberonia equitans (G. Forst.) Mutel
Widespread in Fiji's drier forests (most common on Viti Levu). *ROG* 6847, E side of peaks above Waya Levu, epiphytic in open ridge-crest thicket, at one place only.

Pseuderia smithiana C. Schweinf.
Endemic to Fiji, rather local (Waya, Viti Levu, Vanua Levu, Kandavu). *St John* 18158, close to rocky summit, climbing over trees, "theme".

Spathoglottis pacifica Rchb. f.

Widespread and abundant in Fiji's grassland and dry open scrub. *St John* 18069, "varavara". *ROG* 6823, SE side of ridge above Yalobi-Waya Levu track, in light *Arytera-Guioa* dry forest.

Taeniophyllum fasciola (G. Forst.) Seem.

Widespread in Fiji, in forest and often on cultivated trees too. No specimen known from Waya; seen by *ROG* in 2017 in forest on SE slope of Vatunareba.

2.10 PANDANACEAE

Freycinetia urvilleana Hombron & Jacq. *wā mē*
Widespread in the forests of Fiji (known from six high islands, including Waya). *ROG* 6715, high point NE of Olo stream, common low climber in forest around summit. The Fijian plants are sometimes segregated as the endemic *F. milnei* Seem.

Pandanus tectorius Sol. ex Parkinson *vadra*
Common in coastal parts of Fiji. *St John* 18132, "vandu [va du]", 18138, "vandra". *ROG* 6481, slope W of Yalobi, 3 m tall in forest of rocky gully, ripe fruit. The Wayan plants have been segregated as *P. yasawaensis*. This is said to have notably small (4 cm long) phalanges, and to grow only on Waya and in the vicinity of Sigatoka on Viti Levu (FVN 1: 489). It seems likely it is just a small-leaved inland ecotype of *P. tectorius*.

2.11 POACEAE

* *Cenchrus polystachios* (L.) Morrone *manivusi*
Introduced to Fiji, now abundant in the dry grasslands of the two largest islands, and on Waya. *ROG* 6300, Yalobi, dominating dry grassy slope. Formerly known as *Pennisetum polystachyon*.

Centotheca lappacea (L.) Desv.

Widespread in Fiji's forests. No specimen known from Waya; presumed present but rare.

Chrysopogon aciculatus (Retz.) Trin.

Widespread in Fiji, often near the coast. No specimen known from Waya; seen by *ROG* in 2017 on dry grassy slopes above Yalobi.

Coix lacryma-jobi L.

silā
Widespread in Fiji, weedy in damp open sites. *ROG* 6369, near Nagwa, local at stream edge.

* *Cymbopogon coloratus*

(Hook. f.) Stapf *ō cagicagi*
An introduction, now found locally in Fiji (Waya, Viti Levu) in dry open places. *ROG* 6738, SE slopes of Vatunareba, open lava slope, one tussock on soil patch. Brought to Fiji from India in the early 1900s in error for the true lemon-grass *C. citratus* (FVN 1: 380); wrongly noted as indigenous to Fiji by Gardner & Pawley (2006: 103).

***Cymbopogon refractus* R. Br.** *ō cagicagi*
Widespread in Fiji on dry open hillsides. *St John* 18102. Gardner & Pawley (2006: 103) may have been wrong in saying that this grass is not indigenous to Fiji.

***Cyrtococcum oxyphyllum* (Hochst. ex Steudel) Stapf**

Widespread in Fiji, in light dry forest and as a weed. *St John* 18127, “*o salasala*”. *ROG* 6313, east of Olo stream, common grass of shady tall relic forest in dryish gullies.

***Digitaria setigera* Roth ex Roem. & Schultes**

Widespread but uncommon in Fiji. No specimen known from Waya; presumed present.

***Heteropogon contortus* (L.) P. Beauv. ex Roem. & Schultes**

Local in drier regions of Fiji (the two largest islands, and Waya). in grassland. *ROG* 6804, Yalobi, above the school, local on dry grassy ridge, 40 cm tall.

***Imperata conferta* (J. Presl) Ohwi** *ō tirau*

Widespread Fiji on hillsides and as a weed, but said not to cover extensive areas (FVN 1: 365). *ROG* 6509, slope SW of Yalobi, uncommon in soil remnants of eroded slope. The similar-looking *Imperata cylindrica* (L.) P. Beauv. is said to occur in Fiji (Clayton & Snow 2010: 81). The single, Wayan specimen (cited here) is more like *I. conferta* in its inflorescence, but lacks fertile spikelets. It was identified as *I. cylindrica* by Gardner & Pawley (2006: 103).

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

Widespread on Fiji’s coast. No specimen known from Waya; presumed present.

***Miscanthus floridulus* (Labill.) Warb.**

ex K. Schum. & Lauterb. *ō sina, sina*
Widespread in Fiji’s dry zone grasslands. *ROG* 6269, Yalobi, to 2 m tall, abundant on the island’s burnt-over hillsides.

***Oplismenus compositus* (L.) Beauv.**

Widespread in Fiji’s forests. No specimen known from Waya; seen by *ROG* in 2017 on forest edges at mid-altitude on Vatunareba. For a treatment of this taxon as three species see Clayton & Snow (2010: 52).

***Paspalum scrobiculatum* L.**

Widespread in Fiji, often with *Dicranopteris linearis* in open infertile (wet or dry) sites.

ROG 11316, inland from Yalobi, at edges of water-filled pools in rocky outcrops in grassland, and local on dry grassy hillside. Often known, in the Pacific Ocean region, as *P. orbiculare*.

Schizostachyum glaucifolium

(Rupr.) Munro *bitu dū, ō bitubitu*

Widely cultivated in Fiji. *ROG* 6417, slope above Naseva Beach, at foot of cliffs below peaks, a few groves in open forest, the culms to c. 6 m tall and 7 cm Ø. The status of this bamboo is unclear; some consider it a Fijian endemic, or at least, indigenous there (FVN 1: 294; W. A. Whistler, pers. comm.).

***Stenotaphrum micranthum* (Desv.) Hubbard**

Widespread on Fiji’s coast, perhaps most abundant on the smaller islands. No specimen known from Waya; presumed present.

***Thuarea involuta* (G. Forst.) R. Br. ex Sm.**

Widespread on Fiji’s coast. *ROG* 6291, Yalobi, plentiful along stable sandy foreshore.

2.12 SMILACACEAE

***Smilax vitiensis* (Seem.) A. DC. in DC.** *wā bitubitu*

Abundant and widespread in Fiji. *St John* 18025, “*wa me*”. *ROG* 6487, track between Yalobi and Nalauwaki, in dense forest at the peaks W of Nagwa. *ROG* 6712, towards high point NE of Olo stream, in open ridge forest below summit. Illn: FV t. 93, as *Pleiosmilax vitiensis*.

2.13 TACCACEAE (APG IV: Dioscoreaceae)

***Tacca leontopetaloides* (L.) Kuntze** *abia dū*

Widespread in Fiji’s coastal forests; perhaps an ancient naturalization. *St John* 18028.

2.14 XANTHORRHOEACEAE (APG IV: Asphodelaceae)

***Dianella adenanthera* (G. Forst.) R.F. Henderson**

Widespread in Fiji’s drier forests. *ROG* 6709, towards high point NE of Olo stream, local in open ridge forest, inflorescence notably fragile. Not included in the dry-zone forest species-list of Keppel & Tuiwawa (2007).

2.15 ZINGIBERACEAE

***Curcuma longa* L.** *reregwa*

Anciently cultivated in Fiji. *St John* 18027. *ROG* 6661, Yalobi, abundant on dry grassy slope, having spread vegetatively downslope from an old garden, apparently able to resist fire.

***Zingiber zerumbet* (L.) Sm.** *cegwata*

Anciently cultivated in Fiji. *ROG* 6366, near Nagwa, common in open forest, not flowering, no old fruit seen.

FLORA, PART 3: DICOTYLEDONS

3.1 ACANTHACEAE

Graptophyllum insularum (A. Gray) A.C. Sm.

Widespread and abundant in Fiji. *St John* 18107. *ROG* 6440, towards the peaks N of Yalobi, above the gardens, in scrub on ridge crest. *ROG* 6710, towards high point NE of Olo stream, local in open ridge forest, flrs without scent.

3.2 AIZOACEAE

Sesuvium portulacastrum (L.) L.

Widespread but rather local on Fiji's coast. No specimen known from Waya, Present on Viwa I.: *ROG* 6771, on coral with *Fimbristylis cymosa*.

3.3 AMARANTHACEAE

**Achyranthes aspera* L. *sorisori tavui*

Widespread weed in Fiji. *ROG* 6664, above Olo stream, in scrub below rock face. The Fijian plants belong to var. *pubescens* (Moq.) C.C. Towns.

Deeringia amaranthoides (Lam.) Merr. *tokoi*

Rather local on Fiji's coast (Waya, Viti Levu and several other islands). *ROG* 6834, E end of Yalobi, 1.5 m tall bush, rare in coastal forest; leaves said to be cooked and eaten with octopus [cf. resemblance between animal's tentacles and plant's infructescence].

3.4 ANACARDIACEAE

Dracontomelon vitiense Engl. *tawarau*

Scattered in Fiji's drier forests, also a village tree. *ROG* 6530, slope E of Olo stream, behind the school on dry slope, several 15 m tall 70 cm dbh buttressed trees.

Pleiogynium timoriense (DC.) Leenh.

Widespread and abundant in Fiji's drier forests, but apparently rare on Viti Levu. *St John* 18120. *ROG* 6458, 6466, 6474 & 6480, slope W of Yalobi, 4–5 m tall, in forest of rocky gully. *ROG* 6730, above Naseva beach, fruit ripe, skin pinkish crimson, the flesh of similar colour and with a slippery-mealy texture, slightly acid, not sweet but not unpalatable. Although not uncommon on Waya, no local name has been obtained for it.

Rhus taitensis Guillemain *manawī*

Widespread in Fiji, often abundant in dry scrub and secondary forest. *St John* 18067, "tawarau". *ROG* 6420, above Naseva beach, 6 m tall 25 cm dbh, in open forest. *ROG* 6482, W above Nagwa, 4 m tall, in scrub on rocky slope. Sometimes known as *R. simarubifolia*. Illn: USEE 15, Atlas pl. 44 B, as *Rhus simarubaefolia*.

Semecarpus vitiensis (A. Gray) Engler

Widespread in Fiji's drier forests. *ROG* 6435, towards peaks N of Yalobi, above village's gardens, 12 m tall 30 cm dbh, in forest among boulders. Illn: USEE 15, Atlas pl. 43, as *Oncocarpus vitiensis*.

3.5 APIACEAE

Centella asiatica (L.) Urb. *totodro*

Abundant in Fiji. *ROG* 6363, ridge above Yalobi, occ. at edge of track through grassland.

3.6 APOCYNACEAE

Alyxia bracteolosa A. Gray *vono*

Common in Fiji (Waya and six other high islands), in open drier sites. *St John* 18117. *ROG* 6756, peaks E above Yalobi village gardens, local in open ridge forest. At least some of the Wayan plants have been placed in a narrow-leaved variety, var. *angustifolia* A. Gray, which is said to occur in Fiji (Waya and three other high islands) and Tonga. However, this variety is not maintained by Middleton (2002).

Alyxia stellata (J.R. & G. Forst.) Roem. & Schult.

Widespread in Fiji, in open drier sites. *St John* 18052 & 18161, "vono"; *St John* 18113, "vundi".

Cerbera manghas L. *rewa*

Widespread in Fiji. *ROG* 6347, W above Nagwa, trees to 8 m tall 20 cm dbh, common in secondary forest, not eaten by goats. *ROG* 6678, SE slopes of Vatunareba, 4 m tall 10 cm dbh, in dry open forest. A colonizer of grassy slopes, the fruits being dropped there by fruit-bats.

Melodinus glaber Turrill *wata*

Local in Fiji (Waya and the two largest islands). *St John* 18053A, "wata". *ROG* 6475, slope W of Yalobi, vine to 5 m high in forest of rocky gully.

Ochrosia oppositifolia (Lam.) K. Schum. *vāō*

Widespread but rather local on Fiji's coasts. The species seems not to grow on Waya but does occur on nearby islets, e.g., *ROG* 6853, W side of Narara I., trees to 8 m tall, locally common on rocky slopes just above high-water; this stand said to provide house-posts for the Wayan people. Formerly known as *Neisosperma oppositifolium*.

Ochrosia vitiensis (Markgraf) Pichon

Local in Fiji's coastal forests. *ROG* 6784, gap in ridge S of Vatunareba summit, one 2 m tall treelet in dry scrub.

Tabernaemontana pandacaqui Lam. *lāqaiqai*

Common in Fiji's drier light and rocky forests. *St John* 18149, "totoka". DA 13656. *ROG* 6305, Olo stream, among rocks in streamside forest; abundant elsewhere

on the slopes, not eaten by goats. *ROG* 6674, SE slopes of Vatunareba, abundant in dry open places, ripe fruit. Formerly known as *Ervatamia obtusiuscula*. The first two specimens above are said to belong to a “narrow-leaved form”, which is found elsewhere in Fiji besides Waya (FVN 4: 98).

3.7 ARALIACEAE

Polyscias multijuga
(A. Gray) Harms *walanibekwa*
Widespread and abundant in Fiji’s forest and forest regrowth. *St John* 18104, “*wala nimbangua*”. *ROG* 6271, Yalobi, 2.5 m tall, in scrub and open forest, infl. with female flrs proximally and males distally. Illn: FV t. 18 & 19, as *Nothopanax multijugum*.

3.8 ASCLEPIADACEAE (APG IV: Apocynaceae)

Hoya australis R. Br.
Widespread in Fiji, often abundant in dry coastal forest. *St John* 18164. *ROG* 6307, Olo stream, above the washing place, uncommon in scrub of gorge. *ROG* 11323, gully on lower E slope of Vatunareba, epiphytic with *Drynaria*, flrs fragrant.

Sarcobolus stenophyllus (A. Gray) P.I. Forst.
Endemic to Fiji, rare (Waya and northern Vanua Levu). *St John* 18032, “*langaingai*”. Illn: FV t. 31, as *Gymnema stenophyllum*. Formerly known as *Leichardtia stenophylla* (FVN 4: 114; Forster 1992). Apart from the Wayan collection, only three 20th C. collections are known.

3.9 ASTERACEAE

Wollastonia biflora (L.) DC. *cikawa*
Widespread on Fiji’s rocky shores. *St John* 18011, “*thekawa*”.

3.10 BALANOPHORACEAE

Balanophora fungosa J.R. & G. Forst. *varavara*
Apparently rather local in Fiji’s forests. *St John* 18029. *ROG* 6747, E side of peaks above Waya Levu, in open mesic forest on good soil, also nearby in old *Hibiscus tiliaceus* scrub on fine talus; male flrs ochre-yellow and pollen white, female flrs brown. The Fijian population belongs to subspecies *fungosa*, whose members are monoecious.

3.11 BARRINGTONIACEAE

(APG IV as Lecythidaceae)
Barringtonia asiatica (L.) Kurz *vutu*
Widespread and abundant on Fiji’s coast. No specimen known from Waya; commonly observed, e.g., at Yalobi (*ROG* 1990s & 2017).

Barringtonia edulis Seem. *kutuvala*
Endemic to Fiji; known from forests on Waya and several other high islands. *ROG* 6317, E of Olo stream and school, common in relic forest among boulders; fruit green, bat-chewed stones on ground. *ROG* 6717, *loc. supra*, trees to 20 m tall, regenerating in rocky gully.

3.12 BORAGINACEAE

Cordia subcordata Lam. *nawanawa*
Widespread on Fiji’s coast. *ROG* 6861, Yalobi, near Olo, 7 m tall 30 cm dbh trees, locally common in sand among rocks just above HWM, ripe fruit. Illn: FV t. 34.

Heliotropium foertherianum
Diane & Hilger *evo*
Widespread on Fiji’s coast. No specimen known from Waya; presumed present on Viwa I. Formerly known as *Argusia argentea*.

3.13 CAPPARIDACEAE

Capparis cordifolia Lam.
Apparently rather local on Fiji’s coast. No specimen known from Waya, but there is one from Viwa I.: *ROG* 6770, on coral among *Casuarina*, *Pemphis*, *Guettarda*, “*bēbē ni vatu*”.

3.14 CASUARINACEAE

Casuarina equisetifolia J. R. & G. Forst. *velau*
Widespread in Fiji. *St John* 18155.

3.15 CELASTRACEAE

Cassine vitiensis (A.C. Sm.) A.C. Sm.
Endemic to Fiji (Waya, Viti Levu, Ovalau). *ROG* 6787, towards summit of Vatunareba, 8 m tall 15 cm dbh, uncommon in gully forest.

Celastrus richii A. Gray
Endemic to Fiji, rather uncommon. *St John* 18053. *ROG* 6502, slope W of Yalobi, towards Vatunareba, liane in open forest. *ROG* 6724, SE slope of Vatunareba, brittle-stemmed liane, common in dry open forest, ripe fruit, each with six seeds.

3.16 CLUSIACEAE (APG IV: Calophyllaceae)

Calophyllum inophyllum L. *dilo*
Abundant on Fiji’s coast. *St John* 18903. *ROG* 6359, Yalobi, at the Sayaba compound, 3 m tall tree on sand at rear of beach, ripe fruit.

Calophyllum vitiense Turrill *damanu*
Endemic to Fiji (Waya, Viti Levu, Vanua Levu and several other high islands). *ROG* 6527, Lekutu, 8 m tall 15 cm dbh tree by stream; 6674, *loc. cit.*, 10 m tall 30 cm dbh tree, fruit on ground, probably ripe.

***Garcinia pseudoguttifera* Seem.** *suweru*
Widespread in Fiji's forests. *St John* 18072, "nambulinomati". *ROG* 6345, Nagwa, treelet 3 m tall, locally common in older forest. *ROG* 6748, E side of peaks above Waya Levu, 4 m tall, common in forest.

3.17 COMBRETACEAE

***Terminalia catappa* L.** *tivi*
Abundant in Fiji's coastal forests. *St John* 18094, "tavola". *ROG* 6278, Olo end of Yalobi, occ. in open forest. *ROG* 6668, above Olo stream, 10 m tall, in streamside forest, ripe fruit.

***Terminalia litoralis* Seem.** *tivi ava*
Abundant in Fiji's coastal forests. *ROG* 6720, Olo stream mouth, 6 m tall, above mangrove.

***Terminalia vitiensis* A.C. Sm.**
Endemic to Fiji (Waya and south-central coast of Viti Levu), in dry forest. *ROG* 6682, SE slopes of Vatunareba, 4 m tall 10 cm dbh, uncommon, bark hard, scaly and fissured; flrs lemon-yellow, not scented; fruit unripe, winged along each side. Fig. 3.

***Connarus pickeringii* A. Gray**
Endemic to Fiji, widespread in drier forests. *St John* 18130, "wa watu". *ROG* 6499, slope W of Yalobi, locally common in forest of rocky gully. Illn: USEE 15, Atlas pl. 45.

3.18 CONVOLVULACEAE

***Evolvulus alsinoides* (L.) L.**
Uncommon in Fiji (Waya and Navutu-i-loma), in dry open places. *St John* 18134, "o-chichi". *ROG* 13030, E side of Vatunareba, steep open slope, local on thin soil.

***Ipomoea littoralis* Bl.** *sovivi*
Widespread on Fiji's coasts. *ROG* 11313, slope W of Olo stream, uncommon scrambler in open scrub.

***Ipomoea pes-caprae* (L.) R. Br.** *wā vulavula*
Widespread on Fiji's sandy shores. *ROG* 6444, Naseva beach, on sand-berm above drift-line.

***Merremia peltata* (L.) Merr.** *veliawa*
Widespread in Fiji, especially in disturbed forest. No specimen known from Waya. Abundant in forest at top of Olo Creek (obs. *ROG*, 2017).

***Operculina turpethum* (L.) A. Silva Manso**
Widespread in Fiji. *ROG* 6395, near Waya Levu, vine in scrub, ripe fruit. *ROG* 11317, W of middle part of Olo stream, locally common in rather damp place in scrubby grassland.

3.19 CUNONIACEAE

***Geissois ternata* A. Gray** *vuga*
Endemic to Fiji; known from drier forests on at least six of the high islands, including Waya. *St John* 18128. *ROG* 6376, Lekutu forest between Yalobi and Nalauwaki, 10 m tall 40 cm dbh, locally dominant. *ROG* 11340, above mid- part of Olo stream, relic tree in grassland, 8 m tall. The *St John* collection is said to belong to the endemic var. *serrata* A.C. Sm., which has large, conspicuously toothed leaflets and bristly-hairy stipules (FVN 3: 18). *ROG* 6376 has such stipules, but its leaflets are subtentire. Recorded as a dry-zone forest species by Keppel and Tuiwawa (2007), but apparently infrequent at their study sites. Illn: USEE 15, Atlas pl. 86.

***Weinmannia vitiensis* Seem.**

Endemic to Fiji (Waya, Kadavu, Moala, Taveuni). *ROG* 6704, towards high point NE of Olo stream, 5 m tall multi-trunked tree on forest margin. *ROG* 6789, 4 m tall bushes, local towards ridge crest.

3.20 DICHAPETALACEAE

***Dichapetalum vitiense* (Seem.) Engl.**
Widespread in Fiji but rather local *ROG* 6433, towards the peaks N of Yalobi, liane, stems 1 cm Ø, in forest. *ROG* 6750, E side of peaks above Waya Levu, uncommon in open forest.

3.21 DILLENIACEAE

***Dillenia biflora* (A. Gray) Martelli** *kulukulu*
Widespread in Fiji's forests (Waya, the three largest islands and Ovalau). *ROG* 6335, Nagwa, 10 m tall 20 cm dbh, locally abundant in light forest, bark falling in large, nearly square, greyish red flakes. Illn: USEE 15, Atlas pl. 1, as *Capellia biflora*.

3.22 EBENACEAE

***Diospyros gillespiei* (Fosb.) Kostermans** *kailo*
Endemic to Fiji. *ROG* 6675, 6972, SE slopes of Vatunareba, 4 m tall 10 cm dbh, common in dry forest up to c. 300 m. The Wayan plant belongs to var. *gillespiei*, which is known also from four of the larger islands. Fig. 4.

***Diospyros major* (G. Forst.) Bakh.**
Widespread in Fiji. *St John* 18167, "bamba". *ROG* 6516, 3 m tall 10 cm dbh, seen once in open forest of ridge below rock peaks, flrs male, apparently opening at night and dropping the next day. *ROG* 6684, SE slopes of Vatunareba, 3 m tall treelet, occ. in light forest at higher altitudes. *ROG* 6760, peaks E above Yalobi village gardens, 2 m tall, common in ridge thickets. ***Diospyros phlebodes* (A.C. Sm.) A.C. Sm.** *kailo*
Endemic to Fiji (the several largest islands, and some smaller ones, often near the coast).



Figure 3. *Terminalia vitiensis*, AK211400. © Auckland Museum CC BY.



Figure 4. *Diospyros gillespiei gillespiei*, AK218476. © Auckland Museum CC BY.

ROG 6331, 6430, Yalobi village gardens, trees 2 m tall, occ. in relic forest on bouldery slope. ROG 6740, 6677, SE slopes of Vatunareba, 4 m tall, occ. in dry light forest and middle and higher altitudes, fruit ripe. Fig. 5.

Diospyros vitiensis Gillespie

Endemic to Fiji. *St John* 18121, “*sawira*”. ROG 6745, -9, E side of peaks above Waya Levu, 3 m tall treelets in open forest. The Wayan plant belongs to var. *longisepala* (Gillespie) A.C. Sm., which is also found on Viti Levu and some other high islands.

3.23 EUPHORBIACEAE

Acalypha lanceolata Willd.

Rare in Fiji. No specimen is known from Waya, but the following comes from nearby Naukacuvu I.: ROG 6857, Aug 1992, plant 50 cm tall, on sandy waste ground around construction site of future resort; presumed to have arisen from the seed-bank. FVN (2: 524, under *A. boehmerioides*) cites three old collections from Fiji but only one modern one, which supports the idea that the species is an ancient Polynesian weed, unable to compete with more-aggressive newcomers.

Acalypha repanda Muell. Arg. *karabusi*

Widespread in Fiji. *St John* 18170, “*kalambuthi*”. ROG 6304, Olo, shrub 3 m tall, common in streamside scrub. ROG 6352, Yalobi, coast E of Olo, 2 m tall treelets in degraded forest. The Wayan plants belong to var. *denudata* (Muell. Arg.) A.C. Smith, a small-leaved variety endemic to Fiji and said to be common in the drier zones of Viti Levu and Vanua Levu.

Claoxylon echinospermum Muell. Arg.

Endemic to Fiji (three highest islands and Waya). ROG 6413, slope above Naseva Beach, 1.5 m tall treelet in young forest. ROG 6707, towards high point NE of Olo stream, 2 m tall treelet, local on forest margin.

Codiaeum variegatum (L.) A.H.L. Juss. *gwali*

Widely cultivated (an ancient introduction?) in Fiji, and often naturalizing. ROG 6741, 6793, E side of peaks above Waya Levu, 3 m tall, in forest near ridge crest.

Croton metallicus Seem. *asiravu*

Endemic to Fiji (Waya, Vanua Levu, Kambara). *St John* 18039, “*asirapu*”. *St John* 18119, “*asiravu*”. ROG 6505, W side of Vatunareba, near summit, a few 2.5 m tall bushes, leaves scented of mint and sawdust; orange to crimson when dry. Illn: FV t. 56.

Croton microtiglium Burkill

Fiji (Waya, Viti Levu and elsewhere). *St John* 18162, “*sobusobu*”. ROG 6731, SE slope of Vatunareba, 3 m tall 10 cm dbh, rare in open forest, perhaps eaten by goats, leaves brittle and hardly fragrant. Illn: FV t. 57, as *Croton verreauxii* var. *storckii*.

Euphorbia plumerioides Teijsm. ex Hassk.

Rare on Fiji’s rocky coasts (Waya, Viti Levu, and elsewhere). *St John* 18035, open ledges, 3 m tall shrub, 600 feet [180 m] a.s.l. “*reanitua*”, medicinal, for constipation. Previously treated as *E. fidjiana* and said to be endemic to Fiji. Forster (1994: 260) suggests that the plant might not be native to Fiji and that its current sites are mainly where it has been cultivated, e.g., as a garden boundary-marker. Peekel (1984: 320), Henderson & Hancock (1988: 248) and Hopkins and Menzies (1995: 79) provide ethnobotanical data and illustrations.

Excoecaria agallocha L. *sinu*

Widespread on Fiji’s coast. *St John* 18160, “*tuku*”.

Glochidion concolor Muell. Arg.

Widespread in Fiji. ROG 6403, Waya Levu gardens, 2 m tall, in regrowth. ROG 6412, slope above Naseva Beach, crooked treelets 4 m tall in young forest. ROG 6659, 6691, above Yalobi in thickets on steep slope. The genus is referred by APG IV to the Phyllanthaceae.

Glochidion seemannii Muell. Arg.

Endemic to Fiji (Waya and six other high islands). ROG 6713, high point NE of Olo stream, 7 m tall 15 cm dbh tree at edge of forest. The genus is referred by APG IV to the Phyllanthaceae.

Glochidion vitiense (Muell. Arg.) Gillespie *qalo*

Endemic to Fiji (Waya, and seven other islands). ROG 6476, slope W of Yalobi, 3 m tall tree in forest of rocky gully. The genus is referred by APG IV to the Phyllanthaceae.

Homalanthus nutans (G. Forst.) Guill.

Widespread and often abundant in Fiji’s secondary forests. *St John* 18085, “*tautau*”. ROG 6350, near Nagwa, c. 250 m alt., treelets to 3 m tall, dominating some recently burnt slopes, rather infrequent below this altitude.

Macaranga seemannii (Muell. Arg.) Muell. Arg. *velutu*

Widespread in Fiji’s forests. *St John* 18074, “*velutu*”. ROG 206377, Yalobi, c. 4 m tall, cut for firewood. The Wayan plants belong to var. *seemannii*, which has the range of the species.

Mallotus tiliifolius (Bl.) Muell. Arg. *aqwata*

Widespread in Fiji in dry coastal forest. ROG 6258, 6267, Yalobi village, 4 m tall, cut for firewood, bark grey-brown, thin and flaky. ROG 6511, slope SW of Yalobi, 4 m tall 10 cm dbh, common in open forest of rocky gully, male flrs with a spicy scent.

Phyllanthus virgatus G. Forst.

Formerly widespread in Fiji (an ancient weed?), now rare. No specimen is known from Waya, but there is one from elsewhere in the Yasawa Is.: Naviti I., DA 11765. The genus is referred by APG IV to the Phyllanthaceae.



Figure 5. *Diospyros phlebodes*, AK211395. © Auckland Museum CC BY.

***Stillingia pacifica* Muell. Arg.** *rewarewa*

Local on Fiji's coast (Waya, Viti Levu and several other islands). *St John* 18057, "vasa". *DA* 13668. *ROG* 6306, Olo stream, to 3 m tall, occ. among rocks in relict streamside forest, abundant elsewhere on dry volcanic slopes, not eaten by goats. *ROG* 6443, slope above Naseva beach, 3 m tall, locally dominant on rocky ground, fruit ripe, "rewarewa". Also known as *S. lineata* (Lam.) Muell. Arg. subspecies *pacifica* (Muell. Arg.) Steenis.

3.24 FLACOURTIACEAE (APG IV: Salicaceae)***Casearia longifolia* A.C. Sm.**

Endemic to Fiji, dry forest (Waya, Viti Levu). *St John* 18111, "bombongua". *DA* 13667. *ROG* 6405, gardens of Waya Levu village, 3 m tall in regrowth. *ROG* 6692, -3, SE slopes of Vatunareba, 3 m tall, common in dry forest.

***Erythrospermum acuminatissimum* (A. Gray) A.C. Sm.**

Widespread in Fiji. *St John* 18073, "dakariwai". *ROG* 6495, slope W of Yalobi, 2 m tall, occ. in forest of rocky gully, ripe fruit. *ROG* 6697, SE slopes of Vatunareba, 6 m tall, common here in mid-altitude forest, flrs rose-scented. The genus is referred by APG IV to the Achariaceae.

***Flacourtia subintegra* A.C. Sm.**

Endemic to Fiji (Waya, Viti Levu Vanua Levu, Ovalau and Vanua Mbalavu). *St John* 18166 (US), Nakawa Gulch, upper woods, tree 8 m tall 4 cm dbh, "ngalo". *ROG* 11332, foot of rocky slope W of Yalobi, 10 m tall 20 cm dbh sprawling male tree, flrs honey-scented.

***Homalium vitiense* Benth.** *tura*

Endemic to Fiji, rather infrequent, mainly on the two largest islands and Waya. *St John* 18146. *ROG* 6421, slope above Naseva Beach, crooked tree 3 m tall 25 cm basal Ø in scrub on rocky slope. *ROG* 6888, SE slope of Vatunareba, 5 m tall 15 cm dbh tree, common in dry open scrub.

***Xylosma simulans* A.C. Sm.**

Fiji (Waya and several other islands but not Viti Levu). *St John* 18166, "ngalo". *ROG* 6673, SE slopes of Vatunareba, 3 m tall, local in dry open scrub.

3.25 GESNERIACEAE***Cyrtandra anthropophagorum* Seem.**

Endemic to Fiji. *ROG* 6851, E side of peaks above Waya Levu, 1 m tall plants in open place in thicket near ridge crest, not seen elsewhere. This is the most widespread and abundant *Cyrtandra* species in Fiji, presumably because it tolerates relatively dry sites.

3.26 GOODENIACEAE***Scaevola sericea* Vahl** *drēdrē*

Widespread on Fiji's coast. *ROG* 6535, E of Olo stream mouth, 2 m tall, at rear of beach. Often known as *S. taccada*.

3.27 GYROCARPACEAE (APG IV: Hernandiaceae)***Gyrocarpus americanus* Jacq.** *toca, toutou*

Widespread in Fiji's drier coastal forests. *St John* 18110, "toto". *St John* 18151, "toto". *ROG* 6362, Yalobi, ridge above Sayaba compound, 10 m tall 50 cm dbh, in relic forest among boulders. *ROG* 6827, ridge E of Yalobi, on rocky grassy hillside; crushed leaves smell of beans.

3.28 HERNANDIACEAE***Hernandia nymphaeifolia* (Presl) Kubitz** *buevu*

Widespread on Fiji's coast. *St John* 18090, "mbuevu". *ROG* 6283, Yalobi, 8 m tall tree on sandy low terrace at rear of beach, flrs with a spicy fragrance.

3.29 HIPPOCRATEACEAE***Salacia vitiensis* A.C. Sm.**

Endemic to Fiji, rather uncommon (Waya, Viti Levu, Vanua Levu, Vanua Mbalavu). *ROG* 6687, SE slopes of Vatunareba, liane in dry forest. *ROG* 6868, loc. cit., in open place in gully forest.

3.30 ICACINACEAE (APG IV: Cardiopteridaceae)***Citronella vitiensis* R. Howard**

Endemic to Fiji (Waya, Viti Levu, Ovalau, Vanua Levu), perhaps usually in drier forests. *ROG* 6744, E side of peaks above Waya Levu, 3 m tall tree in ridge thicket, fruit green to purple.

3.31 LAMIACEAE***Leucas decemdentata* (Willd.) Sm.**

Rather local in Fiji. *ROG* 6772, Nagwa peaks (E above gardens in valley NW of Yalobi), on rock ledge in the open, not seen elsewhere. Formerly widespread in open dry sites, now losing to competition from more-aggressive weeds (cf. *Acalypha lanceolata*, *Mollugo pentaphylla*, *Phyllanthus virgatus*, and *Plectranthus forsteri*).

***Plectranthus forsteri* Benth.**

Uncommon in Fiji. *St John* 18109, "mbambaranga". *ROG* 6890, near Vatunareba summit, on rock ledge in open scrub, not seen elsewhere, ripe fruit. Apparently another of Fiji's pre-European weeds; see the preceding entry. Illn: FV t. 47.

3.32 LAURACEAE***Cassytha filiformis* L.** *walawala*

Abundant on Fiji's coast. *St John* 18097, Wailevu Creek. *ROG* 6654, Olo stream, in rocky streamside hibiscus scrub.

3.33 LAURACEAE

***Litsea vitiana* (Meissn.) Benth. & Hook. f.**

Endemic to Fiji (Waya and the three largest islands, and others). *St John* 18054, “*tarutaru ni lolo*”. *ROG* 6497, slope W of Yalobi, 15 m tall 30 cm dbh, rare in forest of rocky gully. *ROG* 6839, high point NE of Olo stream, 8 m tall 25 cm dbh, in open forest of ridge crest. Illn: FV t. 50, as *Tetranthera vitiana*.

3.34 LEEACEAE

***Leea indica* (Burm. f.) Merr.**

Widespread in Fiji. *ROG* 6751, peaks above Waya Levu, uncommon in open forest on talus.

3.35 LEGUMINOSAE

***Abrus precatorius* L.** *lele*

Widespread on Fiji’s coast. *St John* 18030. *ROG* 6400, near Waya Levu village, occ. in streamside scrub.

***Acacia simplex* (Sparman) Pedley** *tāgia*

Widespread on Fiji’s coast. *ROG* 11295, above Vunasinu Point (between village and Olo stream mouth), several trees in secondary forest on dry slope.

***Caesalpinia bonduc* (L.) Roxb.** *kai lalālau, qalausori*

Widespread in Fiji. *ROG* 6408, Yalobi, occ. climber in open bush and under *Cocos* on sand.

***Caesalpinia major* (Medik.) Dandy & Exell** *kai lalālau, qalausori*

Quite widespread in Fiji but apparently not known from Viti Levu. *ROG* 6446, Naseva Beach, at edge of coastal scrub. *ROG* 6510, slope SW of Yalobi, occ. in open forest of rocky gully.

***Canavalia cathartica* Thou.**

Widespread in Fiji’s lowland scrub. *St John* 18078, Wailevu Creek, “*wati koori*” [*wa tikuri*].

***Canavalia rosea* (Sw.) DC.** *rautolu*

Widespread on Fiji’s coast. *ROG* 6448, Naseva Beach, in sandy waste at coastal fringe.

***Canavalia sericea* A. Gray**

Widespread on Fiji’s coast. *ROG* 6814, 11333, Naseva Beach, occ. on sand just above HWM.

***Cynometra insularis* A.C. Sm.** *namo*

Endemic to Fiji (Waya and five other high islands), in dry forest. *St John* 18055, “*cibicibi*”. *ROG* 6349, Nagwa, 12 m tall 30 cm dbh, locally common in older forest. *ROG* 6655, Olo stream, 6 m tall, in rocky streamside scrub. *ROG* 6837, towards high point above Olo stream, in open forest on rocky slope, flrs with a slightly sour odour.

***Dendrolobium umbellatum* (L.) Benth.** *seuseutavē*
Widespread in Fiji, in dry coastal scrub. *St John* 18086, “*seuseutavei*”. *ROG* 6250, Yalobi, 4 m tall bushes in dryish scrub, common only where goats cannot get to. *ROG* 6733, towards summit of Vatunareba, treelets in *Dodonaea-Decaspermum* scrub.

***Derris trifoliata* Lour.** *tuva du*

Widespread and abundant on Fiji’s coast. *ROG* 6275, Yalobi, common climber in open bush.

***Entada phaseoloides* (L.) Merr.** *wā qiri, wā tiqiri*

Widespread in Fiji. *ROG* 6387, between Yalobi and Nalauwaki, climber in secondary forest.

***Erythrina variegata* L.** *rara*

Widespread in Fiji’s drier coastal forests. *St John* 18091. *Weiner* 254, Yalobi. *ROG* 6316, E of Olo stream, a few trees 12 m tall 60 cm dbh in open forest among boulders, small spines of branchlets ± proximal on growth flushes, fruit ripe. Seemann (FV: 60) noted that the Fijians coordinated the time of planting of the yam *Dioscorea alata* with the flowering of the *rara*.

***Inocarpus fagifer* (Parkinson) Fosberg** *ivi*

Anciently cultivated in Fiji, often naturalized near the coast, *ROG* 11329, rear of mangrove E of Yalobi village, a few out-of-season flrs, scented as violets.

***Intsia bijuga* (Colebr.) Kuntze** *vesi, vesi dū*

Widespread and abundant in Fiji’s drier coastal forests. *St John* 18007. *ROG* 6297, Yalobi, 13 m tall 50 cm dbh, in open bush at foot of hillside. Illn: USEE 15, Atlas pl. 51, as *Afzelia bijuga*.

***Kingiodendron platycarpum* B.L. Burtt** *namo*

Endemic to Fiji (Waya and five other high islands). *ROG* 6532, slope W of Yalobi, towards Naseva beach, 8 m tall 30 cm dbh, in forest along bouldery gully, fruit green turning to brown, perhaps nearly ripe. *ROG* 6722, SE slope of Vatunareba, 10 m tall 25 cm dbh, common in open dry forest.

***Maniltoa grandiflora* (A. Gray) Scheffer** *namo*

Widespread in Fiji’s drier forests. *ROG* 6736, SE slope of Vatunareba, 3 m tall treelet in gully forest. *ROG* 6746, 6800, E side of peaks above Waya Levu, 3 m tall, in ridge-crest thicket. Illn: USEE 15, Atlas pl. 52, as *Cynometra grandiflora*.

***Milletia pinnata* (L.) Panigrahi** *vesi, vesi wai*

Widespread in Fiji’s coastal forests. *St John* 18089, “*tosinga*”. *ROG* 6353, coast E of Olo end of Yalobi, 10 m tall 40 cm dbh sprawling tree, fruit ripe. Formerly known as *Pongamia pinnata*.

***Mucuna gigantea* (Willd.) DC.** *kori, tikori*

Widespread in Fiji’s forests. *St John* 18092, “*wa tikoori*”. *ROG* 6414, slope above Naseva Beach. *ROG* 6528, 6529, Olo stream, in *Hibiscus tiliaceus* scrub, ripe fruit.

***Ormocarpum orientale* (Spreng.) Merr.**

Rare on Fiji's dry coasts (Waya, Ovalau, Matuku). *ROG* 6762, SE slope of Vatunareba, two small treelets in dry open scrub; seen just once elsewhere. The two non-Wayan collections from Fiji are 19th C. ones. The species is also known as *O. cochinchinense* (Lour.) Merr.

***Pueraria lobata* (Willd.) Ohwi** *aka*

Widespread in Fiji's dry scrubby hillsides, perhaps after cultivation as a famine-food. *ROG* 6263, Yalobi, common in dry open places, sometimes initially dominant after grassland fires.

***Schleinitzia insularum* (Guillemin) Burkart**

Local on Fiji's drier coasts (Waya, Vanua Levu and several other islands). *ROG* 11326, near S end of Naseva beach, several old trees at one place on coral rock and sand, to 4 m tall 15 cm dbh, not regenerating here (the bush frontage being dominated by *Leucaena leucocephala*).

Serianthes vitiensis

A. Gray *sē agoago, kaimoemoce*
Endemic to Fiji, rare (Waya; two collections from Vanua Levu). *ROG* 6872, N side of Lekutu, 15 m tall 80 cm dbh short-boled tree in forest among rocks. *ROG* 6810, *ROG* 6825, summit of second peak E of top of gardens in valley NW of Yalobi, in *Geissois* forest. The related *S. melanesica* is listed as a dry-forest species by Keppel & Tuiwawa (2007: 563). Fig. 6

***Tephrosia purpurea* (L.) Pers.**

Widespread on Fiji's coast. *St John* 18137, "rhausenge". *ROG* 6398, Waya Levu, occ. in gravel berm at beach rear, ripe fruit.

***Vigna marina* (Burm.) Merr.**

Widespread on Fiji's coast. *ROG* 6281, Yalobi, at Olo, prostrate vine at beach rear.

3.36 LOGANIACEAE***Geniostoma vitiense* Gilg & Benedict** *buibuitā*

Widespread and abundant in Fiji's forests. *St John* 18018, "boiboinda". *ROG* 6365, Nagwa, 4 m tall treelet in older secondary forest. *ROG* 6506, slope W of Yalobi towards Vatunareba, 8 m tall 20 cm dbh, occ. in forest of rocky gully, ripe fruit. *ROG* 6841, towards high point north of Olo stream, 4 m tall treelet in open forest, flrs pale green, with a faecal odour.

3.37 LYTHRACEAE***Pemphis acidula* J.R. & G. Forst.** *giagia*

Rather local in Fiji, on coral shores. No specimen is known from Waya, but the species occurs on Viwa I. (*ROG* obs., July 1991).

3.38 MALPIGIACEAE***Hiptage myrtifolia* A. Gray**

Endemic to Fiji (Waya, the larger high islands but not Taveuni, and some smaller islands). *ROG* 6534, slope W of Yalobi, towards Naseva Beach, liane to 4 m high in forest of bouldery gully. *ROG* 6737, SE slope of Vatunareba, occ. in dry forest. Illn: USEE 15, Atlas pl. 21.

3.39 MALVACEAE***Hibiscus tiliaceus* L.** *rea, vau*

Widespread in Fiji. *ROG* 6257, Yalobi, shrub 4 m tall, common throughout the island.

***Sida rhombifolia* L.**

Widespread in Fiji, a weed of dry open places. *ROG* 6287, nr Yalobi school, common in grassy waste, ripe fruit.

***Thespesia populnea* (L.) Solander** *wiriwiri*

Widespread in Fiji's coastal forests. *ROG* 6276, Yalobi, common at beach rear, ripe fruit.

***Urena lobata* L.** *qatima*

Widespread in Fiji in dry open places (an ancient introduction?), but perhaps declining in frequency. *ROG* 6426, above Naseva Beach, 1 m tall single-stemmed bushes, local in open forest, ripe fruit.

3.40 MELASTOMATACEAE***Medinilla ovalifolia* (A. Gray) A.C. Sm.**

Endemic to Fiji (Waya, Viti Levu, Vanua Levu, Ovalau). *ROG* 6848, E side of peaks above Waya Levu, rare (only two plants seen), epiphytic in low ridge-crest forest.

***Memecyclon vitiense* A. Gray**

Widespread in Fiji's forests. *St John* 18044. *ROG* 6461, slope W of Yalobi, 3 m tall 5 cm dbh, in forest of rocky gully. *ROG* 6671, in forest high on SE slopes of Vatunareba, locally common.

3.41 MELIACEAE***Aglaia vitiensis* A.C. Sm.**

Endemic to Fiji. *St John* 18165, "boibo". *ROG* 6703, SE slopes of Vatunareba, 2 m tall treelet, ripe fruit. *ROG* 6685, loc. cit., occ. in dry light forest at middle and higher altitudes. The Wayan plant belongs to var. *minor* A.C. Sm., which is known from six of the larger islands.

***Dysoxylum mollissimum* Miq.**

Widespread, abundant in Fiji's forests. *ROG* 6429, near peaks N of valley above Yalobi village's garden valley, 12 m tall 30 cm dbh, in forest among boulders. Illn: USEE 15, Atlas pl. 20, as *Didymochiton richii*. Until recently, known as *Dysoxylum richii*.

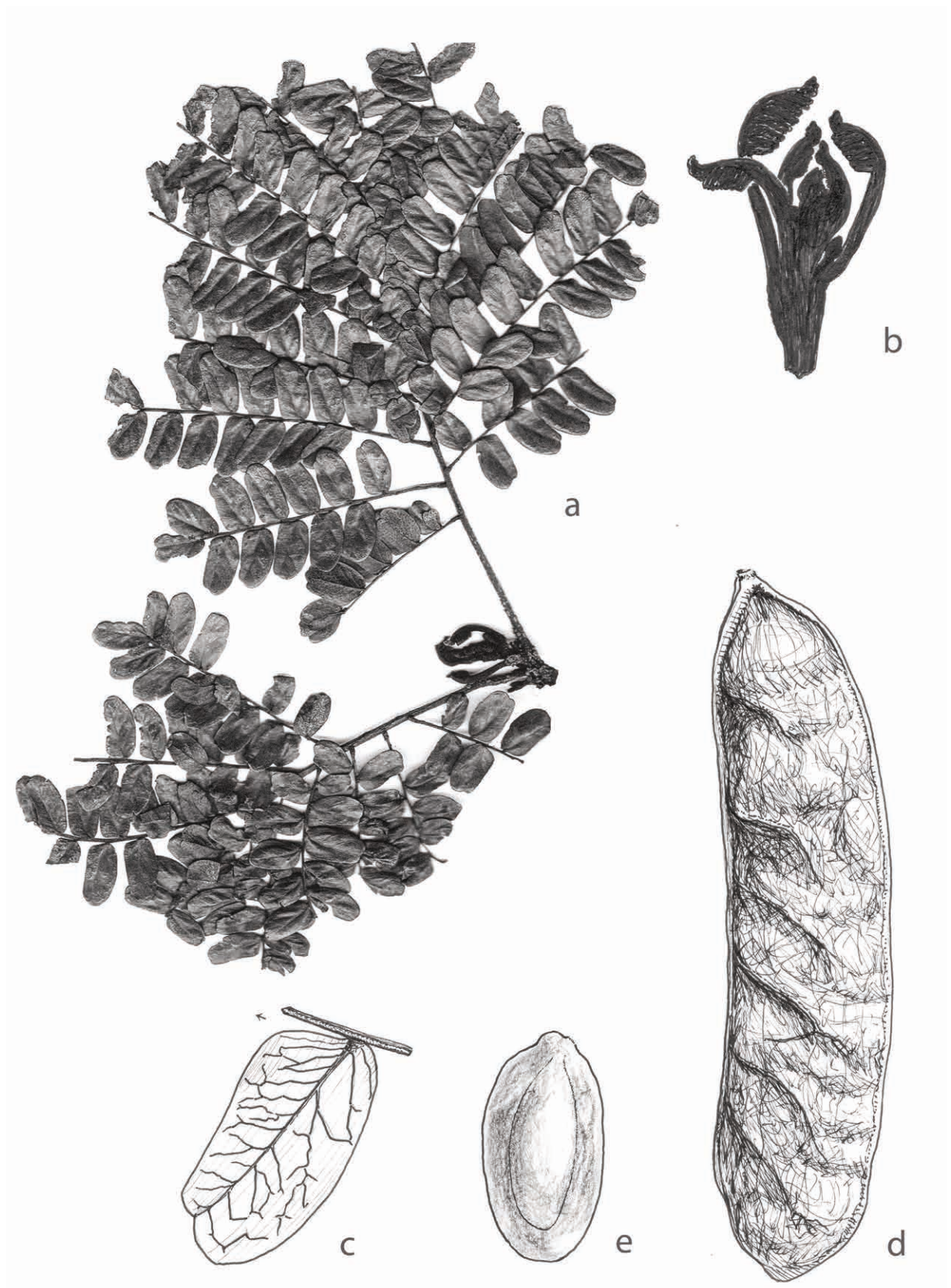


Figure 6. *Serianthes vitiensis*. *a*, Leaf [scan, lflts 1.5 cm long]; *b*, Shoot apex [photo, image 3 cm long]; *c*, Leaflet (abaxial), showing prominent nerves [lflt 1.5 cm long]; *d*, Fruit-pod, its seed-bearing edge on left [pod 5 cm wide]; *e*, Seed in face view [seed 1.35 cm long]. *a-c* from AK 213349, Waya; *d, e* from AK 213395, Waya.

***Dysoxylum seemanii* Gillespie**

Endemic to Fiji, apparently widespread in drier forests. *ROG* 6310, Olo stream, 2 m tall, occ. among rocks in relic forest, cut bark without odour. *ROG* 6701, S side of Vatunareba, 3 m tall, local in forest of old talus slope, near-ripe fruit. *ROG* 6821, loc. cit.

***Vavaea amicorum* Benth.**

Widespread in Fiji's forests. *ROG* 6457, 5 m tall 10 cm dbh, in forest of rocky gully. *ROG* 6679, SE slopes of Vatunareba, occ. in dry light forest, ripe fruit. This fruit is said to be the favorite food of the Fijian crested iguana (Morrison *et al.* 2009). Illn: USEE 15, Atlas pl. 16 B.

Xylocarpus granatum* Koenig *leqileqi

Widespread on Fiji's coast. *ROG* 6286, Yalobi, at the Olo stream lagoon, 3 m tall, infrequent.

3.42 MOLLUGINACEAE***Mollugo pentaphylla* L.**

Uncommon (an ancient introduction?) in Fiji in dry places; *ROG* 6729, SE slopes of Vatunareba, on shallow soil on lava. Other than this Wayan record only one 20th C. collection, from Viti Levu, seems to have been made of this plant.

3.43 MORACEAE***Ficus barclayana* (Miq.) Summerhayes *masimasi***

Endemic to Fiji (Waya, the three largest islands, and elsewhere). *St John* 18096, "masimasi". *ROG* 6381, Yalobi, 2.5 m tall treelet in scrub at foot of hillside, hacked-about to provide goat fodder. *ROG* 6384, Yalobi to Nalauwaki track, in scrub at stream S of Koroimatalevu peak (high point S of Lekutu), 4 m tall, ripe fruit. *ROG* 11298, -9, Yalobi to Natawa track, common in degraded tall coastal forest. *ROG* 6658, Olo stream, 2.5 m tall 5 cm dbh, in dry streamside forest, the figs soft, white, with wasps exiting apically. *ROG* 6807, peaks E above top of Yalobi's garden-valley, 4 m tall tree in scrub on steep slope, the figs ripe, dark and soft, with seeds. Illn: FV t. 66, as *F. barclayi*.

***Ficus masonii* Horne ex Baker**

Endemic to Fiji (Waya, the three largest islands, and elsewhere). *St John* 18040, Naruarua Gulch, "masimasi". *ROG* 6767, Viwa I., 4 m tall 10 cm dbh tree in garden; supposedly brought from Likuliku on Waya I., to provide a famine food.

Ficus obliqua* G. Forst. *baka

Widespread in Fiji's drier forests. *St John* 18037, "bak". *ROG* 6415, rocky slope above Naseva, 12 m tall banyan, ripe fruit. The record of *F. prolixa* from Waya (Gardner & Pawley 2006: 99) is probably based on a sighting of *F. obliqua*; no Wayan specimen of *F. prolixa* is known, and the species is infrequent in Fiji. Illn: FV t. 68, excl. fig. 8, which is *Ficus prolixa* (FVN 2: 174).

Ficus pritchardii* Seem. *aawa

Endemic to Fiji, abundant on many of the larger islands. *St John* 18013, "kamba". *ROG* 6716, towards high point NE of Olo stream, 8 m tall, 15 cm dbh. *ROG* 6757, peaks E above gardens in valley NW of Yalobi, 10 m tall 20 cm dbh, common in forest with *Dillenia* and *Geissois*, figs turning from greenish pink to red and soft and wasps in them now escaping through apex. Illn: FV t. 70.

Ficus tinctoria* G. Forst. *aawa

Widespread in Fiji's coastal forests. *St John* 18041, Naruarua Gulch, "mbaka". *ROG* 6493, slope W of Yalobi, 4 m tall tree in forest of rocky gully, uncommon. Illn: FV t. 63.

Ficus vitiensis* Seem. *kaba

Endemic to Fiji, widespread and often abundant. *ROG* 6270, Yalobi, above the Sayaba compound, 4 m tall 10 cm dbh tree on dry hillside.

Trophis scandens* (Lour.) Hook. & Arn. *wata

Rather local in Fiji (Waya, Mamanuca Is., the three largest islands). *ROG* 6462, slope W of Yalobi, brittle-stemmed liane in forest of rocky gully. Formerly known as *Malaisia scandens*.

3.44 MYRISTICACEAE***Myristica chartacea* Gillespie *kaidam***

Endemic to Fiji (Waya, the two largest high islands and several others). *ROG* 6496, slope W of Yalobi, single 6 m tall tree in forest of rocky gully, ripe fruit. *ROG* 6698, SE slopes of Vatunareba, uncommon in mid-altitude gully forest.

3.45 MYRSINACEAE (APG IV Primulaceae)***Embelia deivanuae* R.O. Gardner**

Endemic to Fiji, so far known only from Waya (Gardner 1997: 487). *ROG* 6811, on the peak east above top of Yalobi village gardens. Not rediscovered in 2017.

Maesa persicifolia* A. Gray *butabuta

Endemic to Fiji (Yasawa Is., Viti Levu and Vanua Levu). *St John* 18010. *ROG* 6249, Yalobi, 2 m tall, common in dry scrub, ripe fruit. *ROG* 6504, slope W of Yalobi, towards Vatunareba, 2 m tall, in open forest, ripe fruit. *ROG* 6656, Olo stream, 1 m tall shrub on scrubby dry slope.

***Myrsine myricifolia* A. Gray**

Widespread and abundant in Fiji's forests. *St John* 18159, "becebece". *ROG* 6439, towards the peaks N of Yalobi above the village's gardens, rare, rock cliffs. *ROG* 6670, SE slopes of Vatunareba, locally common in dry forest. Sometimes known as *Rapanea myricifolia*.

3.46 MYRTACEAE

***Decaspermum vitiense* (A. Gray) Niedenzu** *nuqa*
Endemic to Fiji, common in light dry forest. *ROG* 6469, Lekutu forest, sprouting from cut 10 cm Ø stump in *aqona* garden, flrs fragrant. Illn: USEE 15, Atlas pl. 60 B, C, D, as *Nelitris vitiensis* and *N. fruticosa*.

***Eugenia reinwardtiana* (Bl.) DC.** *qē ni koro*
Abundant on Fiji's coast. *ROG* 6832, E end of Yalobi coastal frontage, 2 m tall bushes, local in coastal forest remnant on clay slope. Sometimes known as *Jossinia reinwardtiana* or *Eugenia rariflora*. Illn: USEE 15, Atlas pl. 60 A, as *E. rariflora*.

***Metrosideros collina* (J.R. & G. Forst.) A. Gray**
Widespread in Fiji's rocky forests. *St John* 18156, "sekula". *ROG* 6735, SE slope of Vatunareba, 5 m tall bushes at top of rock face, uncommon. The Wayan plant has been identified as belonging to var. *villosa* (L.f.) A. Gray, which appears to have the range of the species, excepting Hawaii. Illn: USEE 15, Atlas pl. 68.

***Syzygium corynocarpum* (A. Gray) C. Muell.** *ulalo*
Widespread in Fiji's forests. *St John* 18043. *ROG* 6503, slope W of Yalobi towards Vatunareba, 300 m, 5 m tall 10 cm dbh, local in open forest in gap between the peaks. Illn: USEE 15, Atlas pl. 64, as *Eugenia corynocarpa*.

***Syzygium gillespiei* Merr. & Perry**
Endemic to Fiji (Waya and also, though rather infrequently, on the two largest islands). *ROG* 6850, E side of peaks above Waya Levu, 4 m tall 5 cm dbh treelets, local in ridge-crest thicket.

***Syzygium gracilipes* (A. Gray) Merr. & Perry**
Endemic to Fiji, as a widespread forest-understorey tree, *St John* 18172, Olo Creek, "naaaloalo [*na aloalo*]". Illn: FV t. 15, as *Eugenia gracilipes*.

***Syzygium malaccense* (L.) Merr. & Perry** *kavika*
Anciently cultivated in Fiji. *St John* 18124.

***Syzygium neurocalyx* (A. Gray) Christophersen** *leba*
Widespread in Fiji's forests, and often cultivated for its scented fruit. *ROG* 6464, Yalobi, 2 m tall tree by main entrance to chief's *bure*. Illn: USEE 15, Atlas pl. 59, as *Eugenia neurocalyx*.

***Syzygium richii* (A. Gray) Merrill & Perry** *dakadaka*
Widespread in Fiji's coastal forests. *ROG* 6779, Olo, old 4 m tall tree on beach frontage; also nr mangrove here, otherwise not seen on island. Illn: USEE 15, Atlas pl. 58, as *Eugenia richii*.

***Syzygium rubescens* (A. Gray) C. Muell.**
Endemic to Fiji (Waya, the two largest islands, and Ovalau). *ROG* 6459, slope W of Yalobi, 7 m tall 40 cm dbh, in forest of rocky gully. *ROG* 6477, slope W of Yalobi, 5 m tall 20 cm dbh, in rocky gully forest. Listed as a dry-zone forest species by Keppel & Tuiwawa (2007: 560). Illn: USEE 15, Atlas pl. 63, as *Eugenia rubescens*.

***Syzygium seemannianum* Merr. & Perry** *asiasi*
Endemic to Fiji (Waya and five other high islands); a rheophyte, often abundant in its streamside habitat. *ROG* 6308, 6667, 6870 [with ripe fruit], above Olo stream near Yalobi, to c. 10 m tall 50 cm dbh, common at forested stream edge among boulders. The suggestion (Gardner & Pawley 2006: 99) that *ROG* 6308 might represent *S. curvistylum* is wrong.

3.47 NYCTAGINACEAE

***Boerhavia glabrata* Bl.**
Local on Fiji's coast. *ROG* 6390, Olo, occasional at rear of sandy beach. The names *B. diffusa* or *B. repens* (in the broadest sense) might apply to this plant.

***Pisonia grandis* R. Br.** *koakoa*
Local in Fiji's coastal forests (Waya, Kadavu, Vanua Levu, Nayambo). *ROG* 6875, top of gardens in valley NW of Yalobi, a single tree 15 m tall 80 cm dbh on rocky slope, trunk stout and cylindrical, with smooth pale bark and rather sappy wood; said to be rare on the island.

3.48 OLACACEAE

***Ximenia americana* L.**
Widespread on Fiji's coast. *ROG* 6781, rocky coast near Vanuaseva, a single 1 m tall bush, "soni" given as possible Wayan name.

3.49 OLEACEAE

***Chionanthus vitiensis* (Seem.) A.C. Sm.**
Fiji (Waya and four other high islands). *ROG* 6686, SE slopes of Vatunareba, 4 m tall, occ. in light dry forest at middle and higher altitudes, fruit nearly ripe.

***Jasminum didymum* G. Forst.** *rautolu*
Widespread in Fiji, in dry open forest. *St John* 18036, Naruarua Gulch, "nunganunga"; *St John* 18103, Nagua, "rautolu". *ROG* 6808, central peaks above Yalobi village gardens, climber in open fire-damaged forest on dry ridge, uncommon; fruit mostly not quite ripe. The Wayan specimens of *St John* here have been identified (FVN 4: 127) as *Jasminum degeneri* Kobuski, a taxon so far known only from Waya and coastal northern Viti Levu. This seems to be just a xerophytic form of *J. didymum*.

3.50 PEPEROMIACEAE (APG IV: Piperaceae)

Peperomia blanda Kunth

Widespread in Fiji. *St John* 18108, “*tangatanga*”. *ROG* 6452, slope W of Yalobi, 20 cm tall juveniles, rare on shady rocky ledges in forest, only near the sea and where goats cannot get to; no fertile plants seen. The Wayan plants belong to var. *floribunda* (Miq.) H. Huber, the Old World representative of the species, formerly recognized as *P. leptostachya* Hook. & Arn. It is said to be distinguished from the typical variety especially by its non-stipitate fruits.

Peperomia lasiostigma C. DC.

Endemic to Fiji; probably found on most of the high islands. *St John* 18112. *ROG* 6759, peaks E above gardens in valley NW of Yalobi, local on rocky ledges in open forest. The Wayan plant belongs to the type variety, which is found on numerous other Fijian high islands.

3.51 PIPERACEAE

Piper puberulum Benth. *aqonaaqona, aqoaqona*

Widespread in Fiji's forests. *St John* 18062. *ROG* 6371, Lekutu, occ. in shady forest, fruit ripe. Formerly known as *Macropiper puberulum*. The Wayan plant belongs to what has been recognized as a glabrous form of the species (FVN 2: 68). Illn: FV t. 75.

3.52 PITTOSPORACEAE

Pittosporum brackenridgei A. Gray

Rather local in Fiji's drier forests. *St John* 18145, “*tuba*”. *ROG* 6699, SE slopes of Vatunareba, 2 m tall, uncommon in lower-altitude forest. Illn: USEE 15, Atlas pl. 17 A.

Pittosporum rhytidocarpum A. Gray

Endemic to Fiji, widespread in forest. *St John* 18050, Naruarua Gulch, “*mbau*”. Illn: USEE 15, Atlas pl. 18.

3.53 PORTULACACEAE

Portulaca samoensis Poelln.

Rather local on Fiji's coast (Waya, the two largest islands and several others). *St John* 18152, Nakawa Gulch, “*ndomindomi*”.

3.54 RHAMNACEAE

Alphitonia franguloides A. Gray *doi*

Endemic to Fiji, widespread and often abundant in forest. *St John* 18116, “*ndoi ndra*”. *ROG* 6518, 4 m tall 25 cm dbh crooked-trunked tree in scrub, especially the branchlets smelling of oil-of-wintergreen. Illn: USEE 15, Atlas pl. 22 B.

Alphitonia zizyphoides (Spreng.) A. Gray *doi*

Widespread and often abundant in Fiji's forests. *St John* 18019, Olo Creek, N of Yalobi, “*ndoi ndu*”. Illn: USEE 15, Atlas pl. 22 A.

Colubrina asiatica (L.) Brongn. *kāvere, vere*

Widespread on Fiji's coast. *St John* 18031, “*sili*”. *ROG* 6357, gardens in valley NW of Yalobi, 3 m tall bush edge treelet, ripe fruit. *ROG* 6463, Yalobi, 2 m tall scandent plant at lagoon edge.

Rhamnella vitiensis (Benth.) A.C. Sm. *wata*

Local in Fiji (mostly the high islands). *ROG* 6404, Waya Levu gardens, shrub in regrowth.

Smythea lanceata (Tul.) Summerhayes

Uncommon in Fiji (Waya and the two largest islands), in dry open scrub. *DA* 13670, Yalobi. Illn: FV t. 14, as *Smythea pacifica*.

Ventilago vitiensis A. Gray

Quite widespread in Fiji. *St John* 18105, “*wawa*”. *ROG* 6322, gardens in valley NW of Yalobi, common in forest on bouldery slope. *ROG* 6694, SE slopes of Vatunareba, in dry forest.

3.55 RHIZOPHORACEAE

Bruguiera gymnorrhiza (L.) Lam. *lailai*

Widespread in Fiji's mangrove. *ROG* 6277, Yalobi, 6 m tall, at lagoon edge.

Rhizophora stylosa Griffith *tiritiri*

Widespread in Fiji's mangrove. *ROG* 6409, Yalobi, to c. 6 m tall, dominant at lagoon edge.

3.56 RUBIACEAE

Antirhea inconspicua (Seem.) Christophersen

Widespread in Fiji's dry coastal forests. *ROG* 6431, towards the peaks N of Yalobi, in forest among boulders. *ROG* 6721, SE slopes of Vatunareba, occ. in dry open forest, ripe fruit.

Badusa corymbifera (G. Forst.) A. Gray

Widespread in Fiji's dry rocky forests, often on limestone (but not so on Waya). *St John* 18099, “*tarutaru nikora[ni koro]*”. *St John* 18133. *St John* 18163, “*tarutaru*”. *ROG* 6708, towards high point NE of Olo stream, 2 m tall shrub, local in forest, flrs scentless by day.

Dolicholobium oblongifolium A. Gray

Endemic to Fiji, widespread and abundant in light forest on the high islands. *ROG* 6798, E side of peaks above Waya Levu, 3 m tall bushy trees, local in forest towards ridge crest.

Gardenia grieviei Horne ex Baker

Endemic to Fiji, known just from Waya and Vanua Levu. *ROG* 6478, slope W of Yalobi, 2.5 m tall 5 cm dbh, uncommon in forest of rocky gully. *ROG* 6680, SE slopes of Vatunareba, 2.5 m tall, local in light dry forest.

Guettarda speciosa L. *buatoka*

Widespread on Fiji's coast. *ROG* 6284, Yalobi, by the school, 4 m tall, on sandy beach rear. *ROG* 6828, beach at Olo stream mouth, common at scrub edge, to c. 8 m tall.

***Guettarda wayaensis* R.O. Gardner**

Endemic to Fiji. *ROG* 6498, slope W of Yalobi, 6 m tall 10 cm dbh, occ. in forest of rocky gully. *ROG* 6700, SE slopes of Vatunareba, local in low-altitude forest, to 12 m tall 20 cm dbh, old fruit on ground. Not relocated in 2017. Described from Waya, and subsequently reported from westernmost Vanua Levu (Keppel & Tuiwawa 2007: 463). Resembles a hybrid between *Antirhea inconspicua* and *Guettarda speciosa*.

***Hedyotis lapeyrousii* DC.**

Widespread in Fiji's disturbed forests. *ROG* 6344, Nagwa, on clay bank above stream in secondary forest, rare, apparently without a Wayan name. Sometimes considered conspecific with the Asian taxon *H. auricularia*.

***Ixora vitiensis* A. Gray**

Endemic to Fiji, known from five islands. *St John* 18047, "rauyangili". *St John* 18118. *St John* 18140, "rautolu". *ROG* 6330, valley NW of Yalobi, 2 m tall treelets, occ. in forest among boulders. *ROG* 11318, W above grassy mid-part of Olo stream, common on rock outcrops.

***Mastixiodendron flavidum* (Seem.) A.C. Sm.**

Endemic to Fiji (Waya, the two largest islands, and Rabi). *ROG* 6501, slope W of Yalobi village, towards Vatunareba, local in open forest, ripe fruit. *ROG* 6507, loc. cit., 3 m tall, uncommon in forest of rocky gully.

Morinda citrifolia* L.kura*

Widespread in Fiji's coastal forests. *ROG* 6442, Naseva beach, 3 m tall trees in scrub, fruit nearly ripe (yellow but firm).

Morinda myrtifolia* A. Graywata*

Widespread in Fiji's drier forests and scrub. *ROG* 6483, W above Nagwa, on rocky slope, fruit hard, purple.

Mussaenda raiateensis* J.W. Moorebobo*

Widespread in Fiji, in open forest and regrowth. *DA* 13674, below Yalobi and Natawa. *ROG* 6379, Yalobi, brought from bush and cultivated at one house.

***Ophiorrhiza laxa* A. Gray**

Endemic to Fiji, common and widespread in mesic forests. *St John* 18126 [type of *O. leptantha* var. *yasawana* Fosberg], "karaua". *ROG* 6786, towards summit of Vatunareba, 40 cm tall, uncommon in gully forest. *ROG* 6852, E side of peaks above Wayalevu, 50 cm tall, locally common along rocky channel of gully on steep forested slope. See Darwin (1976) for photographs of this species.

***Ophiorrhiza peplodes* A. Gray**

Endemic to Fiji, common in rocky mesic forests. *ROG* 6783, towards Vatunareba summit, occ. in uppermost gully forest. *ROG* 6788, E side of peaks above Waya Levu, 40 cm tall, locally common in mesic gully forest. See Darwin (1976) for photographs of this species.

***Psychotria amoena* A.C. Sm.**

Endemic to Fiji (Waya and the two largest islands). *ROG* 6348, Nagwa, treelets to c. 3 m tall, locally common in older forest. *ROG* 6470, Lekutu, locally common in shady forest; new growth from cut stump in *Piper methystichum* garden. *ROG* 6714, high point NE of Olo stream, 2 m tall, common in forest, ripe fruit. *ROG* 6816, towards summit of Vatunareba, common in mid- and higher-altitude gully forest, ripe fruit.

***Psychotria tephrosantha* A. Gray**

Endemic to Fiji, widespread and abundant in the drier forests. *ROG* 6743, E side of peaks above Waya Levu, juveniles creeping on rocks and bases of tree trunks. *ROG* 6792, loc. cit., common here, scrambling on lower parts of trees in forest towards ridge crest, ripe fruit.

***Psychotria volii* R.O. Gardner**

Endemic to Fiji, known only from Waya. *ROG* 6488, peaks W above Nagwa, 3 m tall, along ridge crest. *ROG* 6500, slope W of Yalobi, towards Vatunareba, local in open forest. *ROG* 6727, SE peak of Vatunareba, treelet of light dryish forest. *ROG* 6754, 6805, 6809, 6860, peaks E above gardens in valley NW of Yalobi, relict tree on dry fire-swept ridge. *ROG* 6858, towards S peak of Vatunareba, 2 m tall, in light dry forest. At the time of its description this tree was not seen in abundance anywhere on Waya. Continued firing of the island's hillsides and the presence of goats now seriously threaten its survival.

***Psydrax odorata* (G. Forst.) A.C. Sm. & S.P. Darwin**

Widespread in Fiji, in dry open forest. *St John* 18101, "bolabatu". *ROG* 6432, peaks N of Yalobi, 300 m; 3 m tall, in forest among boulders. *ROG* 6676, SE slopes of Vatunareba, locally common in dry light forest, fruit ripe.

***Tarennia sambucina* (G. Forst.) Durand ex Drake**

Widespread in Fiji, in dry forest, mostly near the coast. No specimen known from Waya; sighted by *ROG* in 1991 on the peak opposite Nagwa.

3.57 RUTACEAE***Euodia hortensis* J.R. & G. Forst.***uci*

Widespread in Fiji, usually just as a village plant. No specimen known from Waya; sighted by *ROG* at Yalobi village in the 1990s.

Melicope cucullata**(Gillespie) A.C. Sm.***qālaka, rautolu*

Apparently rather infrequent in Fiji. *St John* 18034, "rautolu". *ROG* 6328, gardens in valley NW of Yalobi, 3 m tall, occ. in relic forest on bouldery slope. *ROG* 6842, high point NE of Olo stream, 3 m tall, common in open forest. *ROG* 6406, regrowth in Waya Levu gardens, 3 m tall.

The Wayan plant belongs to var. *cucullata*, known from Waya and the three largest islands.

Micromelum minutum**(G. Forst.) Seem.** *madamada*

Widespread in Fiji's drier secondary forests. *St John* 18017, "mandamanda". *ROG* 6394, Olo stream, 3 m tall treelet at scrub edge.

3.58 SANTALACEAE***Santalum yasi* Seem.***asi*

In Fiji known from several of the high islands, but not Taveuni. No specimen is known from Waya, but the plant is said to have been cultivated on the island, at least in former times. Said to grow in other parts of Fiji from near sea-level to c. 200 m, in dry or open forest, often in the *talasinga*, that is, areas of infertile, fire-swept open ground (FVN 3:738). Apparently overlooked by Keppel & Tuiwawa (2007) in their list of dry-zone forest species. Illn: FV t. 55.

3.59 SAPINDACEAE***Arytera brackenridgei* (A. Gray) Radlk.** *marasa*

Widespread in Fiji's forests. *St John* 18115, "marasa". *ROG* 6410, slope above Naseva Beach, 6 m tall 20 cm dbh, in young forest. *ROG* 6683, SE slopes of Vatunareba, 3 m tall, dominant in dry ridge scrub at middle and higher altitudes.

***Cupaniopsis leptobotrys* (A. Gr.) Radlk.**

Endemic to Fiji (Waya and four other high islands), often abundant in forest. *ROG* 6795, E side of peaks above Waya Levu, 3 m tall 3 cm dbh, locally common at one place on ridge crest.

***Dodonaea viscosa* (L.) Jacq.** *osi*

Widespread in Fiji on dry grassy hillsides and scrub and open rocky forest. *St John* 18005. Dominant of lower E slope of Vatunareba (after many fires ?), to c. 1.5 m tall (*ROG*, 2017).

***Elattostachys apetala* Radlk.** *marasa*

Widespread in Fiji's forests. *St John* 18169, "marasa". *ROG* 6484, W above Nagwa, 12 m tall 25 cm dbh tree in forest among boulders. *ROG* 6728, SE slope of Vatunareba, 10 m tall smooth-barked tree at edge of gully forest. Formerly known as *E. falcata*.

***Guioa rhoifolia* (A. Gray) Radlk.** *marasa*

Quite widespread in Fiji's forests. *St John* 18143. *ROG* 6537, high point on E side of Olo stream, 5 m tall, in open forest. *ROG* 6845, E side of peaks above Waya Levu, 5 m tall, in open forest towards ridge crest. In a revision of the genus (van Welzen 1989; see also FVN 5: 593) the *St John* specimen cited above was said to belong to a new species *G. punctata* van Welzen, endemic to Fiji. But my two collections agree better with *G. rhoifolia*, having relatively small, straight leaflets (blades 7 cm long or less), with only a single domatium or often, none. The critical petal-scales seem to be very short and carry robust clavate crests,

which does not agree with van Welzen's description of *G. punctata*. Perhaps both species are present on Waya. Neither *G. punctata* nor *G. rhoifolia* is noted by Keppel & Tuiwawa (2007) as characteristic of Fijian dry-zone forests.

***Pometia pinnata* J.R. & G. Forst.** *tawa*

Widespread in Fiji, at least as a cultivated plant. No specimen is known from Waya; seen by *ROG* at Yalobi village in 1990s. Illn: FV t. 10.

***Sapindus vitiensis* A. Gray** *tōsiga*

Widespread but local in Fiji's coastal forests (the three largest islands and several others). *ROG* 6519, mouth of stream at W end of Yalobi, 10 m tall 30 cm dbh crooked-trunked tree among rocks, ripe fruit on ground, yellow-brown, with a pleasant odour. *ROG* 6782, towards head of Yalobi's village gardens, 10 m tall 30 cm dbh, occ. in mesic gully-forest. Sometimes regarded as conspecific with *S. saponaria* L., an almost pantropical taxon.

3.60 SAPOTACEAE***Burckella richii* (A. Gray) Lam** *bau*

Uncommon in Fiji (Waya and one of the Lau Is.). *ROG* 6324, gardens in valley NW of Yalobi, trees to 15 m tall 40 cm dbh, occ. in relict forest, bark grey, regularly rectangular-platy. *ROG* 6663, E above Olo stream, 12 m tall 40 cm dbh, on grassy hillside, sap yellowish-cream and hardly sticky. *ROG* 6867, SE slope of Vatunareba, 10 m tall 40 cm, locally common in gully forest; bat-gnawed fruit on ground, green, 7.5 x 5 cm, a thin fleshy layer over spongy tissue. Fig. 7.

Manilkara vitiensis**(H.J. Lam & Olden) B. Meeuse** *bau, bau som*

Endemic to Fiji, local in rocky coastal forest (Waya, Mamanucas, northern Lau Group). *ROG* 6689, SE slopes of Vatunareba, 10 m tall, in gully forest. *ROG* 6732, loc.cit., windswept 6 m tall 15 cm dbh tree on edge of gully forest.

***Palaquium fidjiense* Pierre ex Dubard** *bau*

Endemic to Fiji, rather local (Waya, the two largest high islands, and several others). *ROG* 6711, high point NE of Olo stream, 10 m tall, local in forest below summit. *ROG* 6791, E side of peaks above Waya Levu, 3 m tall, local near ridge crest, flrs borne just below leaves.

***Planchonella garberi* Christopherson** *bau, bau leke*

Scattered in low- to mid-altitude forest (Waya, Viti Levu, and elsewhere). *St John* 18168, "tandiri". *ROG* 6479, slope W of Yalobi, 5 m tall 10 cm dbh tree in forest of rocky gully. *ROG* 6725, SE slopes of Vatunareba, 10 m tall 15 cm dbh smooth-barked tree, fruit green but apple-scented, nearly ripe ?



Figure 7. *Burckella richii*, AK211381. © Auckland Museum CC BY.

***Planchonella smithii* (van Royen) A.C. Sm.** *bau*
Endemic to Fiji (Waya and three largest islands). *ROG* 6836, high point NE of Olo stream, a single 10 m tall 25 cm dbh tree in forest on mesic site (old talus slope), the fruit unripe (?), green under a brown scurf, to 5 cm Ø.

***Planchonella tahitensis* (Nadeaud) Pierre ex Dubard** *bau, bau levu*
Widespread in Fiji's coastal forests (absent from Viti Levu). *ROG* 6533, between Yalobi village and Naseva beach, 5 m tall 15 cm dbh tree in scrub. *ROG* 6399, 10 m tall 30 cm dbh, bark rough and rectangularly fissured, fruit flattened-globose, glaucous, 3.5 cm Ø, nearly ripe. *ROG* 6450, Yalobi, at the coast E past school, 4 m tall, in coastal forest remnant, flrs not scented. *ROG* 6726, SE slopes of Vatunareba, 10 m tall 15 cm dbh, occ. in dry forest. Formerly known as *P. grayana* (Swenson *et al.* 2013).

3.61 SOLANACEAE

***Solanum americanum* Mill.** *boro dū, boroboro*
Widespread in Fiji as a village and cultivation weed. No specimen is known from Waya but the species is known from elsewhere in the Yasawa Is.: *Weiner* 248, Yaqeta I.

***Solanum vitiense* Seem.**
Quite widespread in Fiji's forests. *ROG* 6524, Lekutu, 3 m tall treelets at trackside; seen at only two other places. Illn: FV t. 36.

3.62 STERCULIACEAE (APG IV: Malvaceae)

***Heritiera littoralis* Ait.** *kea ivi na kula*
Widespread in Fiji, often abundant at the inland edge of mangrove. *St John* 18095, "kaenaivinakaka". *ROG* 6531, Olo stream, sprouts from a cut stump at lagoon edge.

***Kleinhovia hospita* L.**
Common in Fiji's forests. *ROG* 6315, E of Olo stream, a few 4 m tall trees together at edge of forest among boulders; 6718, loc. cit., several trees to 8 m tall, not seen elsewhere, said to be "a kind of *vau*".

***Melochia degeneriana* A.C. Sm.** *vuvudi*
Endemic to Fiji, quite common on Viti Levu and nearby islands. *St John* 18009, "pupuinti". *ROG* 6268, Yalobi, to c. 4 m tall. *ROG* 6361, Yalobi, ridge above Sayaba compound, 3 m tall 20 cm dbh treelets, occ. on grassy slope, fruit ripe.

3.63 THYMELAEACEAE

***Phaleria disperma* (G. Forst.) Baill.** *tarutaru*
Widespread in Fiji's coastal forests. *ROG* 6445, 6780, Naseva Beach, 2–3 m tall shrubs, uncommon on sandy beach frontage.

***Phaleria ixoroides* Fosb.** *tarutaru*
Endemic to Fiji; known only from drier forests of Waya and Viti Levu. *St John* 18123 [type of species], small

tree 5 m high, in woods by stream, "tarutaru". *ROG* 6388, Yalobi to Nalauwaki, stream S of Koroimatalevu peak (high point S of Lekutu), 1.5 m tall, seen twice at track edge. *ROG* 6669, above Olo stream, locally common in streamside forest. *ROG* 6695, SE slopes of Vatunareba, 2 m tall bush in dry forest.

***Phaleria lanceolata* (A. Gray) Gilg**
Endemic to Fiji; known only from Waya and Vanua Levu. *ROG* 6723, SE slope of Vatunareba, a few 2 m tall bushes in dry open forest, ripe fruit red, oblong, 1.6 x 1.2 cm. Presumably recognized by the Wayans as a kind of *tarutaru*. The identification is a tentative one; the relatively small size (c. 8 cm long and 2.5 cm wide) of the leaves of *ROG* 6723 and the lack of persistent involucre bracts, would, according to Smith (FVN 2: 581), rule out *P. glabra* (Turrill) Domke but not *P. acuminata* (A. Gray) Gilg.

***Wikstroemia coriacea* Seem.** *muđu*
Widespread in Fiji's drier forests. *St John* 18006. *ROG* 6323, gardens in valley NW of Yalobi, 2 m tall treelet in light forest, ripe fruit. The name *W. foetida* (L.f.) A. Gray has been commonly used for this species.

3.64 TILIACEAE (APG IV: Malvaceae)

***Grewia crenata* (J.R. & G. Forst.) Schinz & Guillaumin** *nice*
Widespread in Fiji's open, rather dry coastal forests. *St John* 18150. *ROG* 6374, Lekutu, 2 m tall, occ. in shady places.

***Trichospermum richii* (A. Gray) Seem.**
Widespread in forest of Fiji's larger islands. *ROG* 6706, towards high point N of Olo stream, 3 m tall, local on forest margin. The usual Fijian name *mako* for this distinctive tree is probably used on Waya. Illn: USEE 15, Atlas pl. 14, as *Diclidocarpus richii*.

****Triumfetta rhomboidea* Jacq.** *qatima*
Widespread and often abundant in Fiji, often on open scrubby hillsides, etc. *ROG* 6256, Yalobi, 1 m tall, common weed here and throughout island, ripe fruit.

3.65 ULMACEAE (APG IV: Cannabaceae)

***Parasponia andersonii* (Planch.) Planch.** *drou*
Widespread in Fiji, a forest pioneer. *DA* 13673, below Yalobi and Natawa. *ROG* 6299, Yalobi village, 3 m tall, among grass on dry slope.

***Trema cannabina* Lour.**
Widespread in Fiji, a forest pioneer. *ROG* 6705, towards high point NE of Olo stream; 3 m tall, local on forest edge, ripe fruit, "rome alewa". *ROG* 11296, above Vunasinu Point (between village and Olo stream mouth), uncommon in dry scrub. This species is much less common on Waya than the very similar-looking *Parasponia andersonii*. There appears to be no well-attested, contrastive Wayan name for it.

3.66 URTICACEAE

***Boehmeria virgata* (G. Forst.) Guillemain** *rōmē*
Local in Fiji's drier forests (Waya, the three larger islands, and others). *ROG* 6797, E side of peaks above Waya Levu, at one place in open mesic forest on talus.

***Cypholophus heterophyllus* (Wedd.) Wedd.**
Widespread in Fiji's forests. *St John* 18076. *ROG* 6383, 6386, stream S of Koroimatalevu peak (high point S of Lekutu), to 1.5 m tall, local in scrub about the gardens of Nalauwaki village.
Illn: FV t. 62, as *Boehmeria harveyi*.

***Dendrocnide harveyi* (Seem.) Chew** *salato*
Widespread in Fiji's forests (Waya, the three larger islands, and others). *ROG* 6416, slope above Naseva beach, 10 m tall 80 cm basal Ø trees at foot of cliff below peaks. *ROG* 6512, slope on NW side of Vatunareba peak, to 12 m tall, common on good soil of old talus slope.
Illn: FV t. 59, as *Laportea harveyi*.

***Leucosyke corymbulosa* (Wedd.) Wedd.** *rōmē*
Widespread in Fiji's forests and scrub, mostly near the coast. *St John* 18065, "kalakuro". *ROG* 6255, Yalobi, 3 m tall shrub in dryish scrub, ripe fruit mucilaginous, slightly sweet and bitter.

***Pipturus argenteus* (G. Forst.) Wedd.** *rōmē, rōmē kavukavu*
In Fiji known mainly from drier forests of Viti Levu. *St John* 18077. *ROG* 6428, gardens in valley NW of Yalobi, 2.5 m tall treelet in grassy scrub. *ROG* 6662, E above Olo stream, 2 m tall bush on rock face. *ROG* 6752, E side peak above Waya Levu, occ. in open forest, ripe fruit.

***Procris pedunculata* (J.R. & G. Forst.) Wedd.**
Widespread in Fiji in rocky forests. No specimen is known from Waya. Sighted by *ROG* 22 July 1992, east from central peaks towards Lekutu, a colony in rock crevice in light shade.

3.67 VERBENACEAE (APG IV: Lamiaceae)

***Clerodendrum inerme* (L.) Gaertn.** *aria, ria*
Widespread and abundant on Fiji's coasts. *ROG* 6397, Waya Levu village, sprawling 2 m tall shrub on coral gravel berm at beach rear.

***Premna protrusa* A.C. Sm. & S. Darwin** *araro*
Endemic to Fiji, widespread in coastal and inland places. *DA* 13671, below Yalobi and Natawa. *ROG* 6690, SE slopes of Vatunareba, 8 m tall 25 cm dbh, occ. in dry forest, ripe fruit.
Illn: FV t. 43, as *P. taitensis* [except for a detached branchlet at lower left, which belongs to *P. serratifolia*; FVN 5: 192].

***Premna serratifolia* L.** *araro*
Widespread in Fiji's coastal forests. *St John* 18136. *DA* 13669, Yalobi. *ROG* 6298, Yalobi, 4 m tall 10 cm dbh bushes on dry grassy hillside. See under *P. protrusa* for reference to FV t. 43.

***Vitex trifolia* L.** *drala*
Common in Fiji, usually at or near the coast. *ROG* 6301, Yalobi, ridge above Sayaba compound, prostrate bushes, common among rocks on dry grassy slope, not eaten by goats. *ROG* 6354, coast E of Olo end of Yalobi, 3 m tall treelet behind beach. Some of the Wayan plants (e.g., *ROG* 6301) belong to var. *subtrisecta*, whose leaves usually have three leaflets; the type variety (e.g., *ROG* 6354) has three to five.

3.68 VIOLACEAE

***Agatea violaris* A. Gray**
Widespread in Fiji's forests. *ROG* 6822, SE side of range above track between Yalobi and Waya Levu, scandent in light forest on ridge. Illn: USEE 15, Atlas pl. 7.

***Rinorea benghalensis* (Wall.) Kuntze**
In Fiji known only from Waya (Gardner 1997). *ROG* 6494, slope W of Yalobi, towards Vatunareba, 2.5 m tall, local in open forest. *ROG* 6701, E slopes of Vatunareba, 3 m tall, locally common in mid- and higher-altitude gully forest, not seen on other peaks of Waya. An earlier record of *R. benghalensis* for Fiji (Ovalau) is wrong, being based on a specimen of *Casearia richii* (FVN 2: 644).

3.69 VITACEAE

***Tetrastigma vitiense* (A. Gray) A.C. Sm.**
Endemic to Fiji (Waya and several of the higher islands). *ROG* 6799, 6846, E side of peaks above Waya Levu, occ. in open ridge thickets.

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APPENDIX 1: Summary list.

- e = species endemic to Fiji
 * = may not be indigenous to Fiji

Ferns and lycophytes

- ASPLENIACEAE
Asplenium amboinense Willd.
Asplenium polyodon G. Forst.
 BLECHNACEAE
Blechnum orientale L.
 CYATHEACEAE
Cyathea lunulata (G. Forst.) Copel.
 DAVALLIACEAE
Davallia heterophylla Sm.
Davallia solida (G. Forst.) Sw.
 DENNSTAEDTIACEAE
Microlepia speluncae (L.) T. Moore
Pteridium esculentum (G. Forst.) Cockayne
 DICKSONIACEAE
Calochlaena straminea (Labill.) M.D. Turner & R.A. White
 DRYOPTERIDACEAE
 e *Polystichum pilosum* Copel.
 GLEICHENIACEAE
Dicranopteris linearis (Burm.f.) Underw.
 HYMENOPHYLLACEAE
Trichomanes atrovirens (C. Presl) Kunze
 LOMARIOPSIDACEAE
Nephrolepis hirsutula (G. Forst.) C. Presl
 LYCOPODIACEAE
Lycopodiella cernua (L.) Pic.Serm.
 LYGODIACEAE
Lygodium reticulatum Schkuhr
 MARATTIACEAE
Angiopteris evecta (G. Forst.) Hoffm.
 POLYPODIACEAE
Drynaria rigidula (Sw.) Bedd.
Microsorium grossum (Langsd. & Fisch.) S.B. Andrews
 e *Prosaptia vomaensis* (Brownlie) Parris
Pyrrosia lanceolata (L.) Farw.
 PSILOTACEAE
Psilotum nudum (L.) P. Beauv.
 PTERIDACEAE
Acrostichum aureum L.
Adiantum hispidulum Sw.
 * *Adiantum trapeziforme* L.
Antrophyum plantagineum (Cav.) Kaulf.
Cheilanthes nudiuscula (R.Br.) T. Moore
Doryopteris concolor (Langsd. & Fisch.) Kuhn
Haplopteris elongata (Sw.) E.H. Crane
Pteris tripartita Sw.
 * *Pteris vittata* L.
Taenitis pinnata (J. Sm.) Holttum
 SELAGINELLACEAE
Selaginella laxa Spring
Selaginella firmula A. Braun ex Kuhn
Selaginella victoriae T. Moore
 SCHIZAEACEAE
Schizaea dichotoma (L.) Sm.
 TECTARIACEAE
Tectaria latifolia (G. Forst.) Copel.
 THELYPTERIDACEAE
Macrothelypteris torresiana (Gaudich.) Ching
Sphaerostephanos invisus (G. Forst.) Holttum

Gymnosperm

- CYCADACEAE
Cycas celebica Miq.

Monocotyledons

- AGAVACEAE
 * *Cordyline fruticosa* (L.) A. Chev
 ARACEAE
 * *Alocasia macrorrhizos* (L.) G. Don
 * *Amorphophallus paeoniifolius* (Dennst.) Nicolson
 * *Cyrtosperma merkusii* (Hassk.) Schott
Epipremnum pinnatum (L.) Engl.
 ARECACEAE
Cocos nucifera L.
 * *Pritchardia pacifica* Seem. & H. Wendl.
 CYMODOCEACEAE
Halodule pinifolia (Miki) den Hartog
Syringodium isoetifolium (Aschers.) Dandy
 CYPERACEAE
Carex brunnea Thunb.
Carex dietrichiae Boeck.
Cyperus javanicus Houtt.
Fimbristylis cymosa R. Br.
Fimbristylis dichotoma (Burm. f.) Kern
Fimbristylis ovata (Burm. f.) Kern
Gahnia aspera (R. Br.) Spreng.
Rhynchospora corymbosa (L.) Britton
Scleria lithosperma (L.) Sw.
Scleria polycarpa Boeck.
 DIOSCOREACEAE
 * *Dioscorea bulbifera* L.
 * *Dioscorea pentaphylla* L.
 HEMEROCALLIDACEAE
Geitonoplesium cymosum (R. Br.) A. Cunn. ex Hook.
 HYDROCHARITACEAE
Halophila minor (Zoll.) den Hartog
 ORCHIDACEAE
Calanthe triplicata (Willemet) Ames
Dendrobium tokai Reichenb. f. ex Seem.
Eulophia pulchra (Thouars) Lindl.
Liparis condylobulbon Rchb. f.
Oberonia equitans (G. Forst.) Mutel
 e *Pseuderia smithiana* C. Schweinf.
Spathoglottis pacifica Rchb. f.
Taeniophyllum fasciola (G. Forst.) Seem.
 PANDANACEAE
Freycinetia urvilleana Hombron & Jacq.
Pandanus tectorius Sol. ex Parkinson
 POACEAE
 * *Cenchrus polystachios* (L.) Morrone
Centotheca lappacea (L.) Desv.
Chrysopogon aciculatus (Retz.) Trin.
 * *Coix lacryma-jobi* L.
 * *Cymbopogon coloratus* (Hook. f.) Stapf
Cymbopogon refractus R. Br.
Cyrtococcum oxyphyllum (Hochst. ex Steudel) Stapf
Digitaria setigera Roth ex Roem. & Schultes
Heteropogon contortus (L.) P. Beauv. ex Roem. & Schultes
Imperata conferta (J. Presl) Ohwi
Lepturus repens (G. Forst.) R. Br.

- Miscanthus floridulus* (Labill.) Warb. ex K. Schum. & Lauterb.
Oplismenus compositus (L.) Beauv.
Paspalum scrobiculatum L.
 * *Schizostachyum glaucifolium* (Rupr.) Munro
Stenotaphrum micranthum (Desv.) Hubbard
Thuarea involuta (Forst. f.) R. Br. ex Sm.
 SMILACACEAE
Smilax vitiensis (Seem.) A. DC. in DC.
 TACCACEAE
 * *Tacca leontopetaloides* (L.) Kuntze
 XANTHORRHOACEAE
Dianella adenanthera (Forst. f.) R.F. Henderson
 ZINGIBERACEAE
 * *Curcuma longa* L.
 * *Zingiber zerumbet* (L.) Sm.

Dicotyledons

- ACANTHACEAE
Graptophyllum insularum (A. Gray) A.C. Sm.
 AIZOACEAE
Sesuvium portulacastrum (L.) L.
 AMARANTHACEAE
 * *Achyranthes aspera* L.
 AMARANTHACEAE
Deeringia amaranthoides (Lam.) Merr.
 ANACARDIACEAE
Dracontomelon vitiense Engl.
Pleiogonium timoriense (DC.) Leenh.
Rhus taitensis Guillemain
Semecarpus vitiensis (A. Gray) Engler
 APIACEAE
Centella asiatica (L.) Urb.
 APOCYNACEAE
Alyxia bracteolosa A. Gray
Alyxia stellata (J.R. & G. Forst.) Roem. & Schult.
Cerbera manghas L.
Melodinus glaber Turrill
Ochrosia oppositifolia (Lam.) K. Schum.
Ochrosia vitiensis (Markgraf) Pichon
Tabernaemontana pandacaqui Lam.
 ARALIACEAE
Polyscias multijuga (A. Gray) Harms
 ASCLEPIADACEAE
Hoya australis R. Br.
 e *Sarcolobus stenophyllus* (A. Gray) P.I. Forst.
 ASTERACEAE
Wollastonia biflora (L.) DC.
 BALANOPHORACEAE
Balanophora fungosa J.R. & G. Forst.
 BARRINGTONIACEAE
Barringtonia asiatica (L.) Kurz
Barringtonia edulis Seem.
 BORAGINACEAE
Cordia subcordata Lam.
Heliotropium foertherianum Diane & Hilger
 CAPPARIDACEAE
Capparis cordifolia Lam.
 CASUARINACEAE
Casuarina equisetifolia J. R. & G. Forst.
 CELASTRACEAE
 e *Cassine vitiensis* (A.C. Sm.) A.C. Sm.
 e *Celastrus richii* A. Gray
 CLUSIACEAE
Calophyllum inophyllum L.
 e *Calophyllum vitiense* Turrill
Garcinia pseudoguttifera Seem.
 COMBRETACEAE
Terminalia catappa L.
Terminalia litoralis Seem.
 e *Terminalia vitiensis* A.C. Sm.
 CONNARACEAE
 e *Connarus pickeringii* A. Gray
 CONVULVACEAE
Evolvulus alsinoides (L.) L.
Ipomoea littoralis Bl.
Ipomoea pes-caprae (L.) R. Br.
Merremia peltata (L.) Merr.
Operculina turpethum (L.) A. Silva Manso
 CUNONIACEAE
 e *Geissois ternata* A. Gray
 e *Weinmannia vitiensis* Seem.
 DICHAPETALACEAE
Dichapetalum vitiense (Seem.) Engl.
 DILLENIACEAE
Dillenia biflora (A. Gray) Martelli
 EBENACEAE
 e *Diospyros gillespiei* (Fosb.) Kostermans
Diospyros major (Forst. f.) Bakh.
 e *Diospyros phlebodes* (A.C. Sm.) A.C. Sm.
 e *Diospyros vitiensis* Gillespie
 EUPHORBIACEAE
Acalypha lanceolata Willd.
Acalypha repanda Muell. Arg.
 e *Claoxylon echinospermum* Muell. Arg.
 * *Codiaeum variegatum* (L.) A.H.L. Juss.
 e *Croton metallicus* Seem.
Croton microtiglium Burkill
Euphorbia plumerioides Teijsm. ex Hassk.
 EUPHORBIACEAE ctd
Excoecaria agallocha L.
Glochidion concolor Muell. Arg.
 e *Glochidion seemannii* Muell. Arg.
 e *Glochidion vitiense* (Muell. Arg.) Gillespie
Homalanthus nutans (Forst. f.) Guill.
Macaranga seemannii (Muell. Arg.) Muell. Arg.
Mallotus tiliifolius (Bl.) Muell. Arg.
 * *Phyllanthus virgatus* G. Forst.
Stillingia pacifica Muell. Arg.
 FLACOURTIACEAE
 e *Casearia longifolia* A.C. Sm.
Erythrospermum acuminatissimum (A. Gray) A.C. Sm.
 e *Flacourtia subintegra* A.C. Sm.
 e *Homalium vitiense* Benth.
Xylosma simulans A.C. Sm.
 GESNERIACEAE
 e *Cyrtandra anthropophagorum* Seem.
 GOODENIACEAE
Scaevola sericea Vahl
 GYROCARPACEAE
Gyrocarpus americanus Jacq.
 HERNANDIACEAE
Hernandia nymphaeifolia (Presl) Kubitzki
 HIPPOCRATEACEAE
 e *Salacia vitiensis* A.C. Sm.
 ICACINACEAE
 e *Citronella vitiensis* R. Howard
 LAMIACEAE
Leucas decemdentata (Willd.) Sm.
Plectranthus forsteri Benth.
 LAURACEAE
Cassytha filiformis L.
 e *Litsea vitiana* (Meissn.) Benth. & Hook. f.
 LEEACEAE
Leea indica (Burm. f.) Merr.
 LEGUMINOSAE
Abrus precatorius L.

- Acacia simplex* (Sparman) Pedley
Caesalpinia bonduc (L.) Roxb.
Caesalpinia major (Medik.) Dandy & Exell
Canavalia cathartica Thou.
Canavalia rosea (Sw.) DC.
Canavalia sericea A. Gray
e *Cynometra insularis* A.C. Sm.
Dendrolobium umbellatum (L.) Benth.
Derris trifoliata Lour.
Entada phaseoloides (L.) Merr.
Erythrina variegata L.
* *Inocarpus fagifer* (Parkinson) Fosberg
Intsia bijuga (Colebr.) Kuntze
e *Kingiodendron platycarpum* B.L. Burt
Maniltoa grandiflora (A. Gray) Scheffer
Milletia pinnata (L.) Panigrahi
Mucuna gigantea (Willd.) DC.
Ormocarpum orientale (Spreng.) Merr.
* *Pueraria lobata* (Willd.) Ohwi
Schleinitzia insularum (Guillemin) Burkart
e *Serianthes vitiensis* A. Gray
Tephrosia purpurea (L.) Pers.
Vigna marina (Burm.) Merr.
LOGANIACEAE
Geniostoma vitiense Gilg & Benedict
LYTHRACEAE
Pemphis acidula J.R. & G. Forst.
MALPIGIACEAE
e *Hiptage myrtifolia* A. Gray
MALVACEAE
Hibiscus tiliaceus L.
* *Sida rhombifolia* L.
Thespesia populnea (L.) Solander
Urena lobata L.
MELASTOMACEAE
e *Medinilla ovalifolia* (A. Gray) A.C. Sm.
Memecylon vitiense A. Gray
MELIACEAE
e *Aglaia vitiensis* A.C. Sm.
Dysoxylum mollissimum Miq.
e *Dysoxylum seemanii* Gillespie
Vavaea amicornum Benth.
Xylocarpus granatum Koenig
MOLLUGINACEAE
Mollugo pentaphylla L.
MORACEAE
e *Ficus barclayana* (Miq.) Summerhayes
e *Ficus masonii* Horne ex Baker
Ficus obliqua Forst. f.
e *Ficus pritchardii* Seem.
Ficus tinctoria Forst. f.
e *Ficus vitiensis* Seem.
Trophis scandens (Lour.) Hook. & Arn.
MYRISTICACEAE
e *Myristica chartacea* Gillespie
MYRSINACEAE
e *Embelia deivanuae* R.O. Gardner
e *Maesa persicifolia* A. Gray
Myrsine myricifolia A. Gray
MYRTACEAE
Decaspermum vitiense (A. Gray) Niedenzu
Eugenia reinwardtiana (Bl.) DC.
Metrosideros collina (J.R. & G. Forst.) A. Gray
Syzygium corynocarpum (A. Gray) C. Muell.
e *Syzygium gillespiei* Merr. & Perry
e *Syzygium gracilipes* (A. Gray) Merr. & Perry
* *Syzygium malaccense* (L.) Merr. & Perry
Syzygium neurocalyx (A. Gray) Christophersen
Syzygium richii (A. Gray) Merrill & Perry
e *Syzygium rubescens* (A. Gray) C. Muell.
e *Syzygium seemannianum* Merr. & Perry
NYCTAGINACEAE
Boerhavia glabrata Bl.
NYCTAGINACEAE ctd
Pisonia grandis R. Br.
OLACACEAE
Ximenia americana L.
OLEACEAE
Chionanthus vitiensis (Seem.) A.C. Sm.
Jasminum didymum G. Forst.
PEPEROMIACEAE
Peperomia blanda Kunth
e *Peperomia lasiostigma* C. DC.
PIPERACEAE
Piper puberulum Benth.
PITTOSPORACEAE
Pittosporum brackenridgei A. Gray
Pittosporum rhytidocarpum A. Gray
PORTULACACEAE
Portulaca samoensis Poelln.
RHAMNACEAE
Alphitonia franguloides A. Gray
Alphitonia zizyphoides (Spreng.) A. Gray
Colubrina asiatica (L.) Brongn.
Rhamnella vitiensis (Benth.) A.C. Sm.
Smythea lanceata (Tul.) Summerhayes
Ventilago vitiensis A. Gray
RHIZOPHORACEAE
Bruguiera gymnorrhiza (L.) Lam.
Rhizophora stylosa Griffith
RUBIACEAE
Antirhea inconspicua (Seem.) Christophersen
Badusa corymbifera (Forst. f.) A. Gray
e *Dolicholobium oblongifolium* A. Gray
e *Gardenia grievae* Horne ex Baker
Guettarda speciosa L.
e *Guettarda wayaensis* R.O. Gardner
Hedyotis lapeyrousii DC.
e *Ixora vitiensis* A. Gray
e *Mastixiodendron flavidum* (Seem.) A.C. Sm.
Morinda citrifolia L.
Morinda myrtifolia A. Gray
Mussaenda raiateensis J.W. Moore
e *Ophiorrhiza laxa* A. Gray
e *Ophiorrhiza peplodes* A. Gray
e *Psychotria amoena* A.C. Sm.
e *Psychotria tephrosantha* A. Gray
e *Psychotria volii* R.O. Gardner
Psydrax odorata (G. Forst.) A.C. Sm. & S.P.
Darwin
Tarenna sambucina (G. Forst.) Durand ex Drake
RUTACEAE
Euodia hortensis J.R. & G. Forst.
Melicope cucullata (Gillespie) A.C. Sm.
Micromelum minutum (Forst. f.) Seem.
SANTALACEAE
Santalum yasi Seem.
SAPINDACEAE
Arytera brackenridgei (A. Gray) Radlk.
e *Cupaniopsis leptobotrys* (A. Gr.) Radlk.
Dodonaea viscosa (L.) Jacq.
Elattostachys apetala Radlk.
Guioa rhoifolia (A. Gray) Radlk.
* *Pometia pinnata* J.R. & G. Forst.
Sapindus vitiensis A. Gray
SAPOTACEAE
Burckella richii (A. Gray) Lam
e *Manilkara vitiensis* (H.J. Lam & B. Meeuse

- e *Palaquium fidjiense* Pierre ex Dubard
- Planchonella garberi* Christopherson
- e *Planchonella smithii* (van Royen) A.C. Sm.
- Planchonella tahitensis* (Nadeaud) Pierre ex Dubard
- SOLANACEAE
- Solanum americanum* Mill.
- Solanum vitiense* Seem.
- STERCULIACEAE
- Heritiera littoralis* Ait.
- Kleinhovia hospita* L.
- e *Melochia degeneriana* A.C. Sm.
- THYMELAEACEAE
- Phaleria disperma* (Forst. f.) Baill.
- e *Phaleria ixoroides* Fosb.
- e *Phaleria lanceolata* (A. Gray) Gilg
- Wikstroemia coriacea* Seem.
- TILIACEAE
- Grewia crenata* (J. R. & G. Forst.) Schinz & Guillaumin
- Trichospermum richii* (A. Gray) Seem.
- * *Triumfetta rhomboidea* Jacq.

- ULMACEAE
- Parasponia andersonii* (Planch.) Planch.
- Trema cannabina* Lour.
- URTICACEAE
- Boehmeria virgata* (Forst. f.) Guillemin
- Cypholophus heterophyllus* (Wedd.) Wedd.
- Dendrocnide harveyi* (Seem.) Chew
- Leucosyke corymbulosa* (Wedd.) Wedd.
- Pipturus argenteus* (Forst. f.) Wedd.
- Procris pedunculata* (J.R. & G. Forst.) Wedd.
- VERBENACEAE
- Clerodendrum inerme* (L.) Gaertn.
- e *Premna protrusa* A.C. Sm. & S. Darwin
- Premna serratifolia* L.
- Vitex trifolia* L.
- VIOLACEAE
- Agatea violaris* A. Gray
- Rinorea benghalensis* (Wall.) Kuntze
- VITACEAE
- e *Tetrastigma vitiense* (A. Gray) A.C. Sm.