

**GUIDE TO THE MOST COMMONLY USED
MEDICINAL PLANTS OF SAMOA**

by

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INTRODUCTION

This guide comprises a taxonomic key to the most commonly used medicinal plants in Samoa, followed by an account of each of the species. The featured species, which are the same plants included in *Samoa Herbal Medicine* (Whistler 1996), are arranged in alphabetical order by their Samoan name. The accounts include the scientific name of the plant, the family to which it belongs, its English name (if any), followed by a botanical description. Following the description are notes on the species' status (native or introduced), range, habitat, and any other names they are known by in Samoa. Following the taxonomic key are a glossary of the botanical terms used in the key, and an index to the Samoan names, including the less commonly used ones, which may be of some help in locating plants when the less common names are used.

The Samoan plant names are written phonetically in this guide, although this is a not common practice in written communication between Samoans and in newspapers. In spoken Samoan, most letters are pronounced as they are in English, with the exception of the vowels (a is pronounced AH, e is pronounced as the a in "day," i pronounced EEE as the two e's in "bee," and u is pronounced OOOH--rhyming with moo) and the letter g, which is pronounced as an "NG." All Samoan words end in a vowel, consonants are never found next to each other, and all vowels are pronounced, even where several occur in a row. The pronunciation stress in Samoan words is almost always on the penultimate (next-to-the-last) syllable. A macron over another vowel (written as a line drawn over it) means that it is stressed instead of the expected one. An apostrophe represents a glottal stop, which is a break in a word. Thus the word **fa' i** (banana) is pronounced FAH-EEE rather than FEYE (*fai*, to make).

To identify an unknown medicinal plant, the taxonomic key is used first. If the plant keys out to a Samoan name, the description of the plant in the species accounts' section can then be consulted to see if the plant fits the botanical description. Also included in the S.A.R.E. project that produced this guide are laminated herbarium specimens, upon which are mounted color photographs, and these specimens can be compared to the unknown plant to assist in identification. Not all medicinal plants are included in this guide, only the most common ones, so the unknown medicinal plant may still elude identification.

TAXONOMIC KEYS

A taxonomic key is a written device used by taxonomists (scientists who study classification) in order to help in the identification of plants. A brief description on how they are used is given below. A key is basically composed of a number of sequential pairs (often called "couplets") of opposing descriptive statements given to the reader, who then selects the one that best fits the plant (or animal) he or she is trying to identify. For example, the opposing choices of the couplet of a typical key may read

1. Leaves oppositely arranged
1. Leaves alternately arranged

Many of the choices in the key, i. e., the two parts to the couplet, are not next to each other, since other couplets may directly follow the chosen part of the couplet, so the reader may have to search the text to find the other similarly numbered part. The choice that best fits the plant is

then selected. If the selected choice leads to a species name, the process is complete; if not, the reader proceeds to the couplet with the next sequential number directly following the selected choice. In the example below, if the leaves are alternately arranged, the key indicates the species is *Cordyline fruticosa*; if not, the reader goes to couplet 2.

- 1. Leaves alternately arranged *Cordyline fruticosa*
- 1. Leaves oppositely arranged.

The process is repeated until the choice selected is the name of a plant. For example, if the reader has selected the “1. Leaves oppositely arranged,” he or she then goes to the line below that, couplet number 2, as in the example below:

- 1. Leaves alternately arranged *Cordyline fruticosa*
- 1. Leaves oppositely arranged.
 - 2. Flowers white *Gardenia taitensis*
 - 2. Flowers red.

In this example, if the plant has white flowers (and oppositely arranged leaves), then it is *Gardenia taitensis* (Tahitian gardenia); if the flowers are red, the second choice is selected and the reader then goes to couplet number 3. That couplet may be several lines later, if the first part of the couplet is further divided, as in the example below:

- 1. Leaves alternately arranged *Cordyline fruticosa*
- 1. Leaves oppositely arranged.
 - 2. Flowers white.
 - 3. Corolla with 6 to 8 lobes *Gardenia taitensis*
 - 3. Corolla with 5 lobes *Fagraea berteriana*
 - 2. Flowers red.
 - 3. Plant a tree *Spathodea campanulata*
 - 3. Plant not a tree.

Care must be taken for later choices, since in a key (which has two 1s), there may be as many as four 2s, eight 3s, sixteen 4s, and so on. If the plant you finally come to does not match the description given, then begin again and see where you went wrong. Or the plant may not be in the key, in which case other means must be used to identify the plant.

THE KEYS

The plants in this key have been arranged into five sections--Trees, Shrubs, Dicot Herbs and Subshrubs, Moncot Herbs, and Vines, so there are actually five different keys here. The keys are followed by a glossary of plant terms, and an index to Samoan plant names.

I. TREES

(Trunk distinct, venation pinnate or netted)

1. Venation of leaves parallel; monocots.
 2. Leaves pinnately compound; plant a palm; fruit a coconut NIU
 2. Leaves simple; plant not a palm; fruit not a coconut.
 3. Leaves flat in cross section; trunk and leaf margins never thorny.
 4. Stems narrow, ringed, hard; leaves tough, often colored; veins angled to midrib; fruit a small red berry TĪ
 4. Stems thick, not ringed, soft and herbaceous; leaves large and easily broken or torn; veins at right angles to midrib; fruit a banana FA' I
 3. Leaves M-shaped in cross section; trunk and usually leaf margins thorny FASA
1. Venation of leaves netted or palmate; dicots.
 2. Leaf blade compound, divided into leaflets.
 3. Leaflets 3-9, palmately arranged.
 4. Leaf arrangement opposite; leaflets 3-9, lower leaf surface gray NAMULEGA
 4. Leaf arrangement alternate; leaflets 3; lower leaf surface green.
 5. Tree trunk smooth, sometimes spiny; flowers large, butterfly-like, red; fruit a black pod, seasonal; leaflet margins smooth GATAE
 5. Tree trunk flaky, never spiny; flowers tiny, greenish, in large panicles; fruit a small round berry; leaflet margins shallowly toothed 'O' A
 3. Leaflets many, pinnately arranged; fruit mango-like, edible, with a fibrous pit VĪ
 2. Leaf blades simple, not divided into leaflets.
 3. Leaf arrangement alternate, with one leaf per node (point of leaf attachment).
 4. Blade of leaf lobed or deeply divided.
 5. Tree large, widely branching;
 6. Leaf blade toothed or deeply pinnately lobed; sap a milky latex; fruit large, edible, covered with facets (breadfruit) 'ULU
 6. Leaf blade palmately lobed, surfaces mealy; sap faintly milky; fruit walnut-sized, containing a single hard-shelled seed LAMA
 5. Tree small, unbranched or branching only at the base.
 6. Flowers profusely produced, male flowers in hanging racemes, female flowers solitary in leaf axils; fruit a large orange berry (papaya) ESI
 6. Flowers rare, fruit never produced; plant profusely branching from the base..... U' A
 4. Blade of leaf not lobed, margins smooth or sometimes shallowly toothed.
 5. Sap milky, white.
 6. Flowers large, showy.

- 7. Flowers white with a red “eye”; fruit large, ovoid, shiny red; tree found in littoral forest, uncommon in cultivation **LEVA**
- 7. Flowers white often suffused with red or yellow; fruit a woody pod infrequently formed; common tree in cultivation **PUA FITI**
- 6. Flowers tiny, enclosed within the fruit, or not formed.
 - 7. Leaves heart-shaped or lobes, surfaces pubescent; no fruit forming **U’A**
 - 7. Leaves never heart-shaped or lobed, always glabrous.
 - 8. Tree small, sometimes small and banyan like; fruit distinctly stalked, ca. 1 cm (2/5 inch) in diameter **MATI**
 - 8. Tree a large banyan; fruits half as big, orange, sessile **ÄOA**
- 5. Sap not milky.
 - 6. Flowers large and showy, plant often cultivated for them.
 - 7. Corolla yellow with purple at the base; stamens fused into a column.
 - 8. Leaves glossy green; fruit a round, non-splitting capsule; tree found only near the shore **MILO**
 - 8. Leaves dull green; fruit a capsule splitting open; tree of plantations, secondary forest, and coastal areas **FAU**
 - 7. Corolla and stamens otherwise.
 - 8. Flowers all yellowish green; fruit a dark ovoid berry; tree of villages, plantations, and inland forests **MOSO’ OI**
 - 8. Flowers white with many pink stamens; fruit large, brown, top-shaped; tree of littoral and coastal forests **FUTU**
 - 6. Flowers not large and showy, plant never cultivated for them.
 - 7. Stalk of leaf attached to the lower leaf surface inside the margin (peltate).
 - 8. Fruit covered with soft spines; flowers tiny, yellow; small tree of disturbed places **LAU PATA**
 - 8. Fruit black, round, surrounded by a lantern-like structure; large tree of coastal areas **PU’ A**
 - 7. Stalk of leaf attached to the end of the blade; fruit never soft-spiny nor surrounded by a white, lantern-like structure.
 - 8. Fruit a citrus; spines often present on stems; flowers white, fragrant, with many stamens.
 - 9. Fruit skin orange, smooth; rind relatively thin **MOLI ’AI**
 - 9. Fruit skin green to yellow, lumpy; rind relative thick **TĪPOLO**
 - 8. Fruit not a citrus; spines never present; flowers usually tiny and greenish or yellow.
 - 9. Leaves heart-shaped, ovate, obovate, or triangular, less than twice as long as wide.
 - 10. Leaf blade heart-shaped or obovate (ovate with the broadest end at the tip).
 - 11. Leaf veins on lower surface purple; stinging hairs present; fruit tiny; leaf blade ovate; tree of secondary forest . **SALATO**
 - 11. Leaf veins green; no stinging hairs; fruit large, corky; leaf blade obovate; tree of lowlands and coasts **TALIE**
 - 10. Leaf blade ovate or triangular.

- 11. Flowers pink; fruit inflated, bladder-like; leaf blade heart-shaped, surfaces rough; large tree **FU' AFU' A**
- 11. Flowers green, tiny; fruit a 2-lobed capsule; leaf blade triangular, surfaces smooth; small tree ... **MAMALA**
- 9. Leaves elliptic, lanceolate, or oblanceolate, more than twice as long as wide.
 - 10. Fruit (or fruit-like structure) large, edible;
 - 11. Tree large; fruit large, more than 8 cm (3.4 inches) in diameter, ovoid, red to yellow.
 - 12. Trunk fluted with conspicuous buttresses; flowers small, one to several; outer part of fruit hard, with an edible seed inside **IFI**
 - 12. Trunk smooth; flowers tiny, many in large panicles; fruit (mango) juicy with a stringy pit **MAGO**
 - 11. Tree small to medium-sized; fruit less than 5 cm (2 inches) in diameter, red.
 - 12. Leaf blade oblanceolate, margins entire; flowers red; stalk of fruit swollen, edible **'APU 'INITIA**
 - 12. Leaf blade elliptic to lanceolate, margins toothed; flowers white; fruit itself edible **FILIMOTO**
 - 10. Fruit tiny, not edible.
 - 11. Leaf margins entire; flowers tiny, yellow; fruit a wheel-shaped capsule that splits open to release the many, small red seeds **MASAME**
 - 11. Leaf margins toothed; flowers tiny, white or greenish; fruit a tiny dark colored berry **MÄGELE**
- 3. Leaf arrangement opposite, with two leaves per node.
 - 4. Large tree over 10 m (33 feet) in height when mature; flowers red, or white with yellow.
 - 5. Sap yellow; leaves finely veined from midrib; flowers white and yellow; fruit a large round, green, hard, inedible "stone fruit" **FETAU**
 - 5. Sap clear; leaves coarsely veined; flowers seasonal, red; fruit a large edible berry red to white at maturity **NONU FI' AFI' A**
 - 4. Small tree under 5 m (16.5 feet); flowers all white;
 - 5. Stems without a ridge or structure (stipule) connecting the petiole bases; flowers with many white stamens; fruits longer than 2.5 cm (1 inch); trees cultivated for their edible fruits, sometimes weedy.
 - 6. Bark flaky; leaves strongly veined; flowers with many long white stamens; fruit round, over 5 cm (2 inches) in diameter when ripe **KU' AVA**
 - 6. Bark not flaky; leaves not strongly veined; glossy, flowers seasonal, with many short white stamens; fruit irregularly cylindrical **SEASEA**
 - 5. Stems with a ridge or small structure (stipule) connecting the bases of the paired leaves; flowers with five stamens; trees of forest, rarely cultivated.
 - 6. Fruit a small colored berry.
 - 7. Stamens sticking out from corolla; fruit black at maturity **MA' ANUNU**

- 7. Stamens not sticking out very far; fruit red at maturity **MATALAFI**
- 6. Fruit otherwise
 - 7. Flowers large, white, showy, with 6—8 corolla lobes **PUA SÄMOA**
 - 7. Flowers small, not showy
 - 8. Corolla ca. 15 cm (3/5 inch) long; flowers borne on a head-like structure; fruit large, pale yellow, faceted, foul-smelling **NONU**
 - 8. Corolla less than 8 mm long; flowers in short axillary clusters; fruit a capsule that opens to expose the small red seeds **TÄIPOIPO**

II. SHRUBS

(Bush-like woody plants branching at the base, venation pinnate or netted)

- 1. Leaf blade compound, divided into leaflets.
 - 2. Compound leaf palmately divided (hand-like).
 - 3. Leaflets 3, green on both surfaces, fragrant; flowers white **USI**
 - 3. Leaflets 3—7, gray on lower surface; flowers lavender **NAMULEGA**
 - 2. Compound leaf pinnately divided (feather-like).
 - 3. Leaflet margins toothed; base of petiole sheathing the stem **TAGITAGI SÄMOA**
 - 3. Leaflet margins smooth; base of petiole not sheathing the stem.
 - 4. Flowers showy yellow and orange; fruit a black pod **LÄ' AU FAI LAFA**
 - 4. Flowers tiny, white; fruit a red berry **TALAFALU**
- 1. Leaf blade simple, not divided into leaflets.
 - 2. Leaves oppositely arranged, two together at a node.
 - 3. Corolla large, white, showy.
 - 4. Stamens purple, long-protruding from the corolla; corolla lobes 5; calyx cup-shaped **ALOALO TAI**
 - 4. Stamens yellow, barely protruding from the corolla; corolla lobes 6—8; calyx strongly winged **PUA SÄMOA**
 - 3. Corolla small, white or yellow, not particularly showy (except for a white, leaf-like calyx lobe on **aloalo vao**).
 - 4. Stems with a ridge or structure (stipule) across them connecting the petioles of the opposite leaves; corolla over 1 cm (2/5 inch) long.
 - 5. Flowers with a white leaf-like calyx lobe and yellow corolla; fruit ovoid, brown with white spots **ALOALO VAO**
 - 5. Flowers without a white, leaf-like structure, instead borne in clusters from a head-like structure; fruit large, pale yellow, faceted, foul-smelling **NONU**
 - 4. Stems without a ridge or stipule across them connecting the petioles of the opposite pairs; corolla less 6 mm (1/4 inch) long.
 - 5. Inflorescence flat topped, many flowered; fruit a small black drupe **ALOALO**
 - 5. Inflorescence not flat-topped; fruit otherwise.
 - 6. Flowers several, in axillary clusters; flowers with small white corolla; fruit a capsule that opens to expose the red seeds **TÄIPOIPO**
 - 6. Flowers seasonal, many, in branching panicles; corolla inconspicuous, stamens many, showy; fruit a cylindrical, fleshy drupe **SEASEA**
 - 2. Leaves alternately arranged, one per node.

- 3. Sap milky; flowers inconspicuous or absent.
 - 4. Leaf blade unlobed, glossy; fruit a yellow to orange berry **MATI**
 - 4. Leaf blade lobed; flowers rarely formed, fruits never **U' A**
- 3. Sap not milky; flowers or inflorescences conspicuous.
 - 4. Leaf blade heart-shaped, palmately many-veined from the base; flowers tiny, lacking petals, arranged in spikes.
 - 5. Shrub of forest, up to 1.5 m (5 feet) in height; tiny red fruits formed on the female spikes **'AVA' AVAAITU**
 - 5. Shrub in cultivation, up to 4 m (16.5 feet) in height; fruits never formed ... **'AVA**
 - 4. Leaf blade mostly ovate, not palmately veined from the base; flowers mostly conspicuous, never in spikes.
 - 5. Branches drooping; flowers tiny, white to yellow, stamens 5 **FĪSOA**
 - 5. Branches or stems erect; flowers larger, stamens many.
 - 6. Flowers red, showy; a large shrub **'AUTE SÄMOA**
 - 6. Flowers pale orange; a small shrub or subshrub **MAUTOFU**

III: DICOT HERBS OR SUBSHRUBS

(non-woody plants, pinnate or netted venation)

- 1. Leaf blade pinnately compound or simple with deeply pinnately lobed margins.
 - 2. Flowers large, orange, showy; leaves fragrant **MAKERITA**
 - 2. Flowers tiny, white, inconspicuous; leaves not fragrant **A' ATASI**
- 1. Leaf blade simple, leaf margins not deeply lobed.
 - 2. Leaves arranged oppositely, two together at a node (point of attachment); subshrubs.
 - 3. Flowers conspicuous, colored yellow or purple; sap clear
 - 4. Leaf blade green; flowers sunflower-like, yellow **ATEATE**
 - 4. Leaf blade often colored; flowers small, purple and white **PATE**
 - 3. Flowers greenish, inconspicuous, tiny; sap milky **VAO ÄPULUPULU**
 - 2. Leaves arranged alternately, with only one leaf at a node; subshrubs or herbs.
 - 3. Plants creeping.
 - 4. Leaf blade ovate; tiny pink flowers in long-stalked clusters **UFI VIOLĚ**
 - 4. Leaf blade kidney-shaped; tiny inconspicuous in short, axillary clusters **TOGO**
 - 3. Plants erect.
 - 4. Flowers white, cream colored, or pale orange, distinct.
 - 5. Corolla of free, pale orange petals; flowers solitary on a long stalk **MAUTOFU**
 - 6. Fruit black, round, enclosed within a bladder-like calyx **VĪ VAO**
 - 6. Fruit a red cylindrical berry very "hot" to the taste (chili pepper) ... **POLO FEÜ**
 - 4. Flowers tiny, greenish, inconspicuous.
 - 5. Margin of leaf smooth; leaf blade heart-shaped; flowers in spikes **VAO VAI**
 - 5. Margin of leaf toothed; leaf blade ovate; inflorescence not a spike.
 - 6. Leaf surface dull, pubescent; stems green; tiny fruit 3-lobed .. **OGOOGO TEA**
 - 6. Leaf surface shiny; stems reddish; tiny fruit not lobed **OGOOGO TOTO**

IV. MONOCOT HERBS

(Erect or creeping, non-woody plants with parallel venation)

- 1. Plants grasses; stems erect; flowers (spikelets) green.
 - 2. Plant less than 1 m high; leaves lemon scented **MOEGÄLÖ**

- 2. Plant more than 2 m high; stems hard, leaves not fragrant.
 - 3. Stems solid, pith filled with sugar, often dark colored **TOLO**
 - 3. Stems hollow, yellow or green; bamboo **'OFE**
- 1. Plants not grasses; flowers (when present) usually colored.
 - 2. Leaf blade one, large, divided several times, arising from the ground, stemless **TEVE**
 - 2. Leaf blades simple, not divided or lobed.
 - 3. Plant forming a creeping underground rhizome; members of the ginger family.
 - 4. Plants growing wild in forests and plantations; flowers periodically formed, white, borne among red bracts in an ovoid head atop a leafless stem **'AVA PUI**
 - 4. Plants mostly in cultivation, never truly growing wild; flowers rarely formed.
 - 5. Rhizome yellow inside; turmeric **AGO**
 - 5. Rhizome white inside; ginger **FIU**
 - 3. Plant not forming thick underground rhizomes; not gingers.
 - 4. Leaves narrowly triangular, soft spiny on margins, succulent, forming a stemless basal rosette; flowers yellow to red, on tall racemes **ALOE**
 - 4. Leaves ovate to elliptic, not succulent; stems creeping, rooting at the nodes; flowers blue with 3 petals, borne within a boat-shaped bract **MAU' UTOGA**

V. VINES

(Climbing or creeping plants)

- 1. Leaves oppositely arranged in pairs, two per node.
 - 2. Leaf blade elliptic, succulent, tip rounded; flowers showy white with red at the base, in umbels; stems somewhat woody, tough **LAU MÄFIAFIA**
 - 2. Leaf blade triangular, not succulent, tip pointed; flowers white, not showy; stems herbaceous and weak **FUE SAINA**
- 1. Leaves alternately arranged, one per node.
 - 2. Leaf blade compound, with 3 leaflets; flowers pea-like, yellow **FUE SINA**
 - 2. Leaf blade simple; flowers not pea-like or yellow.
 - 3. Plants climbing tree trunks by means of roots that form along the stems; leaf blade usually lobed or margins split (at maturity at least).
 - 4. Leaf margins with 3-13 acute-tipped lobes; plant a fern with brown discs (sori) of sporangia on lower leaf surface **LAU 'AUTÄ**
 - 4. Leaf margins unlobed when young, ovate to elliptic and split into segments when older and climbing; plant not a fern and not having sori **FUE LAUFAO**
 - 3. Plant climbing trees by means of twining stem tips or not climbing at all.
 - 4. Leaves pinnately veined with a distinct midrib; leaf fleshy, notched at the tip; flowers showy, bell-shaped, purple; prostrate vine found on the coast **FUE MOA**
 - 4. Leaves palmately veined from the base; leaf blade heart-shaped, acute at tip, not fleshy; tubers often forming on the green stems; flowers tiny, white; climbing vine of secondary forest and plantations **SOI**

GLOSSARY OF TERMINOLOGY USED

Acute—Tapering to a sharp, but not drawn-out point.

Alternate—Arrangement of leaves one to a node. Compare opposite.

Berry—A fleshy fruit formed by a single flower and containing more than one seed.

Bulb—A short underground stem with leaves modified for food storage, as in onions.

Calyx—The outer, usually green whorl of a flower that encloses the flower bud, comprising the sepals, or when fused, the calyx lobes. In flowers lacking a corolla, the sepals or calyx are sometimes petal-like.

Capsule—A dry, splitting fruit with two or more cells (compartments) opening along seams between the valves.

Compound leaf—A leaf divided into several parts (leaflets). See pinnate and palmate.

Corolla—The inner, usually colored whorl of a flower, composed of free or fused petals, or sometimes absent.

Dicot—A member of the Dicotyledonae, one of the two divisions of flowering plants, which are characterized by seeds with two seed leaves and flower parts usually in multiples of 4 or 5, and leaf venation netted or pinnate..

Elliptic—Shaped like an ellipse, referring to leaves that are much longer than wide and have the sides curving and not parallel to each other.

Entire—Smooth-edge, without teeth, usually referring to the margin of a leaf blade.

Interpetiolar stipule—Stipules of opposite leaves that fuse together and extend all the way around a node.

Lanceolate—Lance-shaped in outline, several times longer than wide, with the widest portion towards the base of a leaf. Compare oblanceolate under “ob-.”

Leaflet—A division of a compound leaf.

Monocot—A member of the Monocotyledonae, one of the two divisions of the flowering plants, which are characterized by having a single seed leaf and flower parts usually in multiples of 3 and leaf venation parallel.

Node—Point of attachment of a leaf on a stem.

Ob- —A prefix referring to reverse condition; e.g., oblanceolate means reverse lance-shaped (broader towards the point than the base).

Oblanceolate—Lance-shaped, with broadest end toward the tip rather than the base, as in leaves.

Opposite—Referring to leaves that are paired and attached at opposite sides of the node.

Compare alternate.

Ovate—Egg-shaped; broad and rounded at the basal end and tapering towards the tip.

Palmate—Lobed or divided in a hand-like fashion, usually in reference to leaf blades or their veins. Compare pinnate.

Panicle (paniculate)—A compound inflorescence with a main axis and racemose branches, with the youngest flowers towards the tip.

Peltate—Said of a leaf blade with petiole attached inside the leaf margin rather than at the edge.

Petiole—The stalk of a leaf. Leaves without a petiole are referred to as being sessile.

Pinnate—Divided in feather-like fashion. Compare palmate.

Pubescent—Hairy, covered with hairs.

Raceme—Simple, elongated inflorescence with stalked flowers on a single main axis (rachis), with the youngest ones at the top.

Rhizome—An underground stem, usually with nodes and buds.

Rosette—A tight spiral of basal leaves found in some plants.

Sepal—A division of a calyx, usually 3, 4, or 5 per calyx.

Sessile—Lacking a stalk, often said of leaves or flowers.

Spike—A simple (unbranched) inflorescence bearing sessile flowers, the youngest ones at the tip. It is like a raceme, which differs in having stalked flowers.

Spikelet—The inflorescence of a grass or sedge comprising small green flowers and membranous scales.

Stamen—The male part of a flower comprising a stalk (filament) and pollen sac (anther).

Staminal column—Column formed by fused stamens.

Stipule—One of a pair of appendages found at the base of some leaves, usually without known function.

Tuber (tuberous)—A swollen, underground, root-like stem of some plants.

Umbel—A flat- or round-topped inflorescence with the stalks of the flowers all arising from one point, the oldest flowers at the center.

Winged—Having flattened, often wide ridges (or “wings”), said of stems, petioles, or fruits.

INDEX TO SAMOAN PLANT NAMES

The following index is in alphabetical order by Samoan names. It includes the scientific name of the plant, the family to which the plant belongs, and the English name of the plant (when there is one).

- A'ATASI**—*Rorippa sarmentosa*. Brassicaceae (Mustard Family).
Polynesian cress.
- AGO**—*Curcuma longa*. Zingiberaceae (Ginger Family). Turmeric.
- ALOALO**—*Premna serratifolia*. Verbenaceae (Verbena Family).
- ALOALO FANUA**—See aloalo.
- ALOALO SAMI**—See aloalo tai.
- ALOALO TAI**—*Clerdendrum inerme*. Verbenaceae (Verbena Family).
- ALOALO VAO**—*Mussaenda raiateensis*. Rubiaceae (Coffee Family).
- ALOE**—*Aloe vera*. Agavaceae (Yucca Family). Aloe vera.
- ALOFILIMA**—See lau autä.
- ÄOA**—*Ficus obliqua*. Moraceae (Mulberry Family). Polynesian banyan, strangler fig.
- 'APU 'INITIA**—*Anacardium occidentale*. Anacardiaceae (Cashew Family). Cashew.
- ATEATE**—*Wollastonia biflora*. Asteraceae (Sunflower Family).
Beach sunflower.
- 'AUTE SÄMOA**—*Hibiscus rosa-sinensis*. Malvaceae (Mallow Family).
Red hibiscus.
- 'AVA**—*Piper methysticum*. Piperaceae (Pepper Family). Kava.
- 'AVA' AVAAITU**—*Macropiper puberulum*. Piperaceae (Pepper Family).
- 'AVA' AVAAITU SOSOLO**—See fue manogi.
- 'AVA' AVAAITU TÛ**—See 'ava'avaaitu.
- 'AVAPUI**—*Zingiber zerumbet*. Zingiberaceae (Ginger Family). Wild ginger, shampoo ginger.
- 'AVA SÄMOA**—See 'ava.
-
- ESI**—*Carica papaya*. Caricaceae (Papaya Family). Papaya, pawpaw.
- FA'I**—*Musa x paradisiaca*. Musaceae (Banana Family). Banana, plantain.
- FASA**—*Pandanus tectorius*. Pandanaceae (Screwpine Family).
Screwpine, pandanus.
- FAU**—*Hibiscus tiliaceus*. Malvaceae (Mallow Family). Beach hibiscus.
- FÄUA POVI**—See 'avapui.
- FAU TÛ**—See fau.
- FETAU**—*Calophyllum inophyllum*. Clusiaceae (Mangosteen Family).
Calophyllum.
- FILIMOTO**—*Flacourtia rukam*. Flacourtiaceae (Flacourtia Family).
Indian plum.
- FÏSOA**—*Colubrina asiatica*. Rhamnaceae (Buckthorn Family).
- FIU**—*Zingiber officinale*. Zingiberaceae (Ginger Family). Ginger.

FU'AFU'A—*Kleinhovia hospita*. Sterculiaceae (Cacao Family).
FUEFUE MOA—See **fue moa**.
FUEFUE SINA—See **fue sina**.
FUE LAUFAO—*Epipremnum pinnatum*. Araceae (Taro Family).
FUE MANOGI—*Piper graeffei*. Piperaceae (Pepper Family).
FUE MOA—*Ipomoea pes-caprae*. Convolvulaceae (Morning-glory Family). beach morning-glory.
FUA PIPILO—See **täipoipo**.
FUE SAINA—*Mikania micrantha*. Asteraceae (Sunflower Family). Mile-a-minute weed.
FUE SELELÄ—See **fue selelä**.
FUE SINA—*Vigna marina*. Fabaceae (Pea Family). Beach pea.
FUTU—*Barringtonia asiatica*. Barringtoniaceae (Barringtonia Family). Fish-poison tree.

GATAE—*Erythrina variegata*. Fabaceae (Pea Family). Coral tree.
GATAE SÄMOA—See **gatae**.

IFI—*Inocarpus fagifer*. Fabaceae (Pea Family). Tahitian chestnut.
KU'AVA—*Psidium guajava*. Myrtaceae (Myrtle Family). Guava.

LÄ'AU FAI LAFA—*Senna alata*. Fabaceae (Pea Family). Danglebush, acapulco.
LÄ'AU SAUGA—See **makerita**.
LAMA—*Aleurites moluccana*. Euphorbiaceae (Spurge Family). Candlesnut.
LAU ATEATE—See **ateate**.
LAU YÄUTÄ—*Phymatosorus scolopendria*. Polypodiaceae (Common-fern Family).
LAUFALA—See **fasa**.
LAU MÄFATIFATI—See **täipoipo**.
LAU MÄFIAFIA—*Hoya australis*. Asclepiadaceae (Milkweed Family). Wax plant.
LAU MAGAMAGA—See **lau autä**.
LAU OLIVE—See **fue selelä**.
LAU PAPATA—See **lau pata**.
LAU PATA—*Macaranga harveyana*. Euphorbiaceae (Spurge Family).
LAU TÏ—*Cordyline fruticosa*. Agavaceae (Yucca Family). Ti, ti plant.
LAU USI—See **usi**.
LEGA—See **ago**.
LEVA—*Cerbera manghas*. Apocynaceae (Dogbane Family).

MA'ANUNU—*Tarenna sambucina*. Rubiaceae (Coffee Family).
MÄGELE—*Trema cannabina*. Ulmaceae (Elm Family).
MAGO—*Mangifera indica*. Anacardiaceae (Cashew Family).

MAKERITA—*Tagetes erecta*. Asteraceae (Sunflower Family). African marigold.
MAMALA—*Omalanthus nutans*. Euphorbiaceae (Spurge Family).
MASAME—*Glochidion ramiflorum*. Euphorbiaceae (Spurge Family).
MATALAFI—*Psychotria insularum*. Rubiaceae (Coffee Family).
MATI—*Ficus tinctoria*. Moraceae (Mulberry Family). Dyer's fig.
MAUTOFU—*Sida rhombifolia*. Malvaceae (Mallow Family). Broom weed.
MAU'UTOGA—*Commelina diffusa*. Commelinaceae (Spiderwort Family). Day flower.
MILO—*Thespesia populnea*. Malvaceae (Mallow Family). Milo, Pacific rosewood.
MOA—See togo.
MOEGÄLÖ—*Cymbopogon citratus*. Poaceae (Grass Family). Lemon grass.
MOLI 'AINA—*Citrus sinensis*. Rutaceae (Citrus Family). orange, sweet orange.
MOSO'OI—*Cananga odorata*. Annonaceae (Soursop Family). ilangilang, perfume tree.

NAMULEGA—*Vitex trifolia*. Verbenaceae (Verbena Family).
NIU—*Cocos nucifera*. Arecaceae (Palm Family). coconut.
NONU—*Morinda citrifolia*. Rubiaceae (Coffee Family). Indian mulberry.
NONU 'AI—See nonu fi'afi'a.
NONU FI'AFI'A—*Syzygium malaccense*. Myrtaceae (Myrtle Family). Malay apple.
NONU TOGIANONU—See nonu.

'O'A—*Bischofia javanica*. Euphorbiaceae (Spurge Family).
'OFE—*Schizostachyum glaucifolium*. Poaceae (Grass Family). Polynesian bamboo.
'OFE SÄMOA—See 'ofe.
OGOOGO—*Laportea interrupta*. Urticaceae (Nettle Family). Island nettle.
OGOOGO PA'EPA'E—See ogoogo tea.
OGOOGO SINA—See ogoogo tea.
OGOOGO TEA—*Acalypha lanceolata*. Euphorbiaceae (Spurge Family).
OGOOGO TOTO—See ogoogo.

PATA—See lau pata.
PATE—*Coleus scutellarioides*. Lamiaceae (Mint Family). Coleus.
POLO FEÜ—*Capsicum frutescens*. Solanaceae (Nightshade Family). Chili pepper.
PUA—See pua Fiti and pua Sāmoa.
PU'A—*Hernandia nymphaeifolia*. Hernandiaceae (Hernandia Family). Chinese-lantern tree.

PUA FITI—*Plumeria rubra*. Apocynaceae (Dogbane Family).
 Plumeria, frangipani.
PUA SÄMOA—*Gardenia taitensis*. Rubiaceae (Coffee Family).
 Tahitian gardenia.
PUA SÄMOA—See pua Fiti.
PUA TAHITI—See pua Sāmoa (gardenia).

SALATO—*Dendrocnide harveyi*. Urticaceae (Nettle Family).
 Stinging nettle tree.
SEASEA—*Syzygium corynocarpum*. Myrtaceae (Myrtle Family).
SOI—*Dioscorea bulbifera*. Dioscoreaceae (Yam Family). Bitter
 yam.
SUNI TAI—See aloalo tai.
SUNI VAO—See fue selelä.

TAGITAGI—*Polyscias fruticosa*. Araliaceae (Panax Family). Panax.
TAGITAGI SÄMOA—See tagitagi.
TÄIPOIPO—*Geniostoma rupestre*. Loganiaceae (Logania Family).
TALAFALU—*Micromelum minutum*. Rutaceae (Citrus Family).
TALAVALU—See talafalu.
TALIE—*Terminalia catappa*. Combretaceae (Tropical Almond Family).
 Tropical almond.
TEVE—*Amorphophallus paeoniifolius*. Araceae (Aroid Family).
TĪ—See lau tī.
TIARE—See pua Sāmoa.
TĪPOLO—*Citrus medica*. Rutaceae (Citrus Family). Citron.
TĪPOLO PATUPATU—See tipolo.
TOGO—*Centella asiatica*. Apiaceae (Carrot Family). Asiatic
 pennywort.
TOGOTOGO—See togo.
TOLO—*Saccharum officinarum*. Poaceae (Grass Family). sugar cane.

U'A—*Broussonetia papyrifera*. Moraceae (Mulberry Family). paper
 mulberry.
UFI—*Boerhavia repens*. Nyctaginaceae (Four-o'clock Family).
UFI VIOLĒ—See ufi.
'ULU—*Artocarpus altilis*. Moraceae (Mulberry Family). Breadfruit
 tree.
USI—*Euodia hortensis*. Rutaceae (Citrus Family). Island musk.

VAO ÄPULUPULU—*Chamaesyce hirta*. Euphorbiaceae (Spurge Family).
 Garden spurge.
VAO VAI—*Peperomia pellucida*. Piperaceae (Pepper Family).
VĪ—*Spondias dulcis*. Anacardiaceae (Cashew Family). Otaheite
 apple, Polynesian plum.
VĪ VAO—*Physalis angulata*. Solanaceae (Nightshade Family). Wild
 cape gooseberry.

DESCRIPTIONS OF THE MEDICINAL PLANTS

A' ATASI

Rorippa sarmentosa (DC.) Macbr.

Brassicaceae (mustard family)

Polynesian cress

Slender glabrous herb up to 60 cm in height, arising from a long, thick tap root. **Leaves** pinnately compound, alternate in a basal rosette, leaflets 3—7, broadly ovate to kidney-shaped, up to 3 cm long, glabrous, margins toothed. **Inflorescence** of erect, several-flowered racemes up to 23 cm long arising from the rosette. **Corolla** of 4 free round petals 1—2 mm long, white or tinged purple. Ovary superior; stamens 6, free. **Fruit** a cylindrical pod 1.4—3 cm long, with many tiny reddish brown seeds in 2 rows separated by a partition.

It ranges from the Solomon Islands to the easternmost islands of Polynesia (Hawai'i and Easter Island), but it may have been an ancient introduction rather than a native species over much of this range. It is occasional as a weed of disturbed places, particularly around houses, where it may be semi-cultivated for its medicinal properties. It only rarely occurs in native habitats, mostly in wet places. In Manu'a, the name **a' atasi** is also applied to another herbaceous plant with a tap root, *Boerhavia repens* (see **ufi**).

AGO

Curcuma longa L.

Zingiberaceae (ginger family)

turmeric

Glabrous, erect herb up to 1 m in height, arising from a fleshy, yellow, aromatic rhizome. **Leaves** simple, erect, blade lanceolate to elliptic, up to 40 cm long, finely parallel-veined, glabrous. **Inflorescence** a cylindrical spike 12—25 cm long on a leafless flowering stalk, bearing few-flowered clusters among the numerous, overlapping, green to reddish bracts. **Corolla** sympetalous, tubular, mostly 2.5—4 cm long, white to yellow. Ovary inferior; stamen 1. **Fruits** (and flowers) rarely formed.

It is widespread in the Old World tropics from West Africa to eastern Polynesia, but is thought to have originated in cultivation somewhere in Southeast Asia (it is not known to occur in the wild state), and from there was carried throughout the Pacific by early voyagers. It occurs mostly in plantations and around villages in Samoa, but is uncommon. Also sometimes called **lega**, which more correctly applies to the yellow turmeric powder made from the rhizome.

ALOALO

Premna serratifolia L.

Verbenaceae (verbena family)

Shrub or small tree up to 7 m in height, with subglabrous stems. **Leaves** simple, opposite, blade ovate to elliptic, 5—18 cm long, glabrous, margins entire. **Inflorescence** of dense, many-flowered, repeatedly branching, flat-topped terminal panicles. **Corolla** sympetalous, slightly bilabiate, pale green, 2—3 mm long. Ovary superior; stamens 4, epipetalous, exerted. **Fruit** a

fleshy, black, globose to ovoid drupe 3—7 mm long, 4-seeded, with a persistent, enlarged, saucer-shaped calyx at the base.

It is distributed from tropical East Africa to the Marquesas, and is native to Samoa, where it is occasional in coastal areas in open native vegetation, particularly on lava flows, and rarely inland in sunny places in the mountains at up to 500 m in elevation. Also sometimes called **aloalo fanua** or **aloalo vao**.

ALOALO TAI

Clerdendrum inerme (L.) Gaertn.
Verbenaceae (verbena family)

Spreading or scandent shrub up to 3 m in height. **Leaves** simple, opposite, blade ovate to elliptic, 7—15 cm long. **Inflorescence** of 1—several-flowered axillary cymes on a peduncle 1—5 cm long. **Corolla** sympetalous, salverform, white, tube 2.5—4 cm long, limb deeply divided into 5 oblong lobes 0.6—1.1 cm long. Ovary superior; stamens in 2 pairs, long-exserted, with purple filaments. **Fruit** obovoid, 1—1.7 cm long, shallowly 4-lobed, splitting at maturity into 4 one-seeded nutlets.

It ranges from tropical Asia to western Polynesia (Niue), and is found on most of the high islands of this region. It is occasional to common in Samoa on rocky or sandy beaches, as a shrub or sometimes almost vine-like in littoral forest. It is apparently called **sunī tai** by some people, which is more correctly applied to an unrelated species, *Phaleria disperma*, a shrub now rare in Samoa. Also sometimes called **aloalo sami**.

ALOALO VAO

Mussaenda raiateensis J.W. Moore
Rubiaceae (coffee family)

Shrub or small tree up to 10 m in height, but usually much shorter, and bearing interpetiolar stipules. **Leaves** simple, opposite, blade ovate to elliptic, 7—25 cm long, glabrous*. **Inflorescence** of several-flowered terminal clusters, each flower with a single ovate, white, leaf-like sepal 5—12 cm long. **Corolla** sympetalous, tubular, yellow, 2.5—3.5 cm long with 5 spreading lobes. Ovary inferior; stamens 5, epipetalous. **Fruit** an ellipsoid berry 10—18 mm long, brown with lighter colored spots at maturity.

It is found on nearly every high island from Vanuatu (the New Hebrides) to Tahiti. It is native to Samoa, where it occurs in open secondary vegetation in coastal and lowland areas, and is occasionally cultivated in villages for its medicinal properties.

ALOE

Aloe vera L.
Agavaceae (yucca family)
aloe vera

Perennial succulent herb up to 1 m in height with a short thick stem. **Leaves** simple, arranged in a basal rosette, succulent, sessile, blade lanceolate, 20—60 cm long, gray to purplish green or mottled white and green, margins soft-spiny. **Inflorescence** of many flowers borne on an erect, basal raceme up to 1 m long. **Corolla** sympetalous, of 6 fused tepals, tubular, 2—3.3 cm long, divided about halfway, the outer 3 tepals red to orange, the inner 3 commonly yellow. Ovary inferior; stamens 6. **Fruit** an ovoid, many-seeded capsule 1.5—2.5 cm long.

It is native to North Africa, but is now cultivated throughout the tropics and subtropics. In Samoa, it is mostly grown in pots or in houseyard gardens, but its popularity began only as recently as the 1980s.

ÄOA

Ficus obliqua Forst. f.

Moraceae (mulberry family)

Polynesian banyan, strangler fig

Huge banyan tree up to 30 m in height, with a spreading crown and a composite trunk made of fused and enlarged aerial roots, sap milky. **Leaves** simple, alternate, blade leathery, elliptic to lanceolate, 6—15 cm long, glabrous. **Inflorescence** a syconium with tiny flowers, enclosed within. **Corolla** absent. Ovary superior to inferior; stamens 1 or more. **Fruit** a globose, orange, berry-like syconium 5—7 mm in diameter.

It is native from New Caledonia to Niue, and in Samoa is most commonly found in lowland to montane forest, where it often towers over the canopy. It begins life as an epiphyte, sends aerial roots to the ground, and eventually becomes a huge banyan tree. Another very similar banyan, *Ficus prolixa* Forst. f., is used in the same ways and is usually called by the same name.

`APU `INITIA

Anacardium occidentale L.

Anacardiaceae (cashew family)

cashew, cashew nut

Shrub or small tree up to 3 m or more in height. **Leaves** simple, alternate, blade mostly ovate, up to 20 cm long, glabrous. **Inflorescence** of many flowers borne in short terminal panicles. **Corolla** of 5 free, pinkish yellow to red, linear-lanceolate petals about 8 mm long. Ovary superior; stamens 8—10, free. **Fruit** a kidney-shaped drupe containing a single seed (the cashew nut), all borne on an oblong, red to yellow, fleshy, fruit-like stalk 5—7 cm long.

It is originally native to tropical America, but is now pantropic in cultivation. It is grown for its tasty seed, the cashew, which must be roasted before being eaten. In Samoa it is occasional in cultivation around houses, but does not grow wild. The name literally means "Indian apple," because the swollen stalk of the fruit is somewhat apple-like and is eaten (instead of the cashew itself).

ATEATE

Wollastonia biflora (L.) DC.

Asteraceae (sunflower family)

beach sunflower

Large, erect to sprawling herb or subshrub up to 2 m or more in height. **Leaves** simple, opposite, blade ovate, 6—28 cm or more in length, appearing palmately 3-veined from the base, slightly hairy to subglabrous; margins toothed. **Inflorescence** of composite heads 0.8—1.5 cm wide (excluding the rays), arranged in loose terminal panicles, with 2 series of ovate to ovate-lanceolate involucre bracts. **Ray florets** 8—13, ray 6—9 mm long, yellow, notched or nearly entire at the tip. **Disc florets** 20—40, tubular, 4—6 mm long, yellow. Ovary superior; stamens 5, epipetalous. **Fruit** a black obconical achene 2.5—4 mm long, without any terminal scales.

It is native from tropical Asia to eastern Polynesia. It is dispersed by means of its saltwater-resistant fruits, and is restricted mostly to littoral and coastal areas of high islands, often being the dominant species in dense, scrubby vegetation on exposed coastal slopes and cliffs. It is also frequent as a weed in coastal coconut plantations in Samoa. Also sometimes called **lau ateate**.

‘AUTE SÄMOA

Hibiscus rosa-sinensis L.

Malvaceae (mallow family)

red hibiscus

Shrub up to 3 m in height. **Leaves** simple, alternate, blade ovate, 4—12 cm long, glabrous, margins toothed. **Inflorescence** of solitary, axillary flowers below which is a whorl of 5 or more ovate to lanceolate bracts (the epicalyx). **Corolla** of 5 free, obovate petals (or sometimes “double-flowered” with many petals) mostly 5—10 cm long, bright red (or variously colored in its hybrids). Ovary superior; stamens many, their filaments fused into a staminal column. **Fruit** a capsule, but rarely forming.

It is native to subtropical or tropical Asia, but has long been cultivated elsewhere in Asia and was carried in ancient times as far eastward as the Marquesas. Many varieties and colors exist, but the one used in Samoan medicine, ‘**aute sämoa**, has a double row of short, dark red petals. It is occasional around houses, and sometimes in plantations, and even in mature forest (where it is a relict of former cultivation, since it does not produce seeds).

‘AVA

Piper methysticum Forst. f.

Piperaceae (pepper family)

kava

Woody shrub up to 4 m in height, with green, scarcely branching stems having swollen nodes arising from a woody rootstock. **Leaves** simple, alternate, blade heart-shaped, up to 30 cm long, 9—13-veined from the base. **Inflorescence** unisexual, male flowers tiny, arranged in solitary, axillary, greenish white spikes up to 6 cm long, arising from an axil opposite a leaf, female flowers and fruits are unknown in Samoa. **Corolla** absent. Stamens 2—4.

It is native to Melanesia, but was introduced throughout the high islands of Polynesia by ancient voyagers. It thrives in wet, somewhat shady places, but in Samoa is found only in cultivation, usually in inland plantations. It has long been used in Samoa and the rest of Polynesia to prepare a mildly narcotic beverage known by the same name. Also sometimes called ‘**ava samoa**.

'AVA' AVAAITU

Macropiper puberulum (Benth.) Benth.

Piperaceae (pepper family)

Shrub 50 to 150 cm in height branching mostly at the base. **Leaves** simple, alternate, blade ovate to heart-shaped, 8—23 cm long, with 5—9 veins radiating out from the base.

Inflorescence of tiny unisexual flowers in solitary, axillary spikes 2—15 cm long, borne on separate male and female plants. **Corolla** absent. Ovary superior; stamens 3. **Fruit** a tiny red, fleshy drupelet about 1.5 mm in diameter, numerous, entirely covering the female spike.

It is native to Fiji, western Polynesia, and Rapa in eastern Polynesia. It is uncommon in lowland to montane forest in Samoa, but at high elevations is replaced by a related, nearly identical *Macropiper timothianum* A.C. Sm. The name '**ava' avaaitu**, which literally means "small ghost-kava," also refers to another related species, *Piper graeffei*, which is a vine. To distinguish between the two, the former is called '**ava' avaaitu tü** ("standing '**ava' ava**"), and the latter '**ava' avaaitu sosolo** ("climbing '**ava' ava**").

'AVAPUI

Zingiber zerumbet (L.) Sm.

Zingiberaceae (ginger family)

wild ginger, shampoo ginger

Erect herb 1 m or more in height, arising from a thickened underground rhizome. **Leaves** simple, borne in two vertical rows, blade lanceolate, mostly 10—25 cm long. **Inflorescence** of many flowers borne among green to red, rounded and overlapping bracts in terminal, cone-like spikes 6—10 cm long on a leafless stalk, with only one flower per bract, and only one or two open at a time. **Corolla** sympetalous, of 6 white to pale yellow tepals 3—5 cm long. Ovary inferior; stamen 1. **Fruit** a small, inconspicuous capsule enclosed within the bract.

It is native to tropical Asia, perhaps originally to India or Ceylon, but has long been cultivated in Southeast Asia, and was carried by ancient voyagers across the Pacific as far east as Hawai'i. In Samoa, it is naturalized in old secondary forests, often forming dense stands, particularly in and around old habitations and on ridge trails. Also sometimes called **fāua povi**.

ESI

Carica papaya L.

Caricaceae (papaya family)

papaya, pawpaw

Tree up to 8 m or more in height, usually unbranched, with milky sap. **Leaves** simple, alternate, blade round but deeply palmately 5—9-lobed, 15—60 cm in diameter, glabrous. **Inflorescences** of male and female flowers on separate trees; male flowers many, in long, hanging cymes; female flowers mostly solitary, axillary, sessile. **Corolla** of male flowers sympetalous, tubular, 2—3.5 cm long, 5-lobed, corolla of female flower larger, campanulate, divided to near the base into 5 lobes. Ovary superior; stamens 10, epipetalous. **Fruit** a large

variously shaped berry mostly 12—35 cm long, orange at maturity, containing an orange pulp and many hard black seeds.

It is native to tropical America, but is now distributed throughout the tropics. It was an early European introduction to Polynesia and quickly spread to nearly every high island in the region. Papaya is cultivated around houses and in plantations in Samoa for its delicious fruit, and often escapes to secondary forest and waste places.

FA' I

Musa x paradisiaca L.

Musaceae (banana family)

banana, plantain

Large tree-like herb up to 5 m or more in height, with a trunk composed of the bases of the leaves. **Leaves** simple, spirally arranged, blade large and oblong, 2 m or more in length, with finely parallel veins from the thick midrib. **Inflorescence** of many flowers borne in massive racemes with large, brightly colored bracts. **Corolla** sympetalous, of 6 orange sepals. Ovary inferior; stamens 5. **Fruit** is a large spindle-shaped, seedless berry that is green or yellow at maturity.

This “species” is a complex of bananas and plantains that originated somewhere in the Indo-Malayan area from hybrids between two other species. There has been much confusion in the taxonomy of this plant, and many named varieties are found in Samoa, some brought by ancient Polynesians, some by Europeans.

FASA

Pandanus tectorius Parkinson

Pandanaceae (screwpine family)

screwpine, pandanus

Shrub or tree up to 8 m or more in height, with prop roots and prickly stems. **Leaves** spirally arranged, clustered at the branch tips, linear, up to 2 m or more in length, M-shaped in cross section, margins and midrib of lower surface prickly. **Inflorescences** of unisexual flowers on separate male and female trees. **Male flowers** tightly packed, consisting only of clusters of numerous stamens on spikes arranged in large panicle inflorescences bearing large, showy white, lanceolate bracts. **Female flowers** in a terminal head subtended by several leafy bracts. **Fruit** a subglobose, woody syncarp of several fused, 1- to several-seeded phalanges with a fibrous husk.

In its broadest sense, it is native to most of Polynesia, but so many other "species" have been named from the area that it is difficult to delineate ranges. Several kinds of pandanus are recognized in Samoa, one of them growing wild in littoral forest, another two in montane forest and scrub, and many others cultivated around houses and in plantations. The related, cultivated screwpine, **paogo** (*Pandanus whitmeeanus*), is sometimes used interchangeably in medicinal applications. Also called **laufala**.

FAU

Hibiscus tiliaceus L.

Malvaceae (mallow family)

beach hibiscus

Erect to scrambling tree up to 10 m or more in height. **Leaves** simple, alternate, blade heart-shaped to round, 8—30 cm long, lower surface gray; margin entire to rarely lobed.

Inflorescence of axillary, solitary flowers or short, few-flowered cymes, with a many-lobed epicalyx below the calyx. **Corolla** of 5 free, obovate petals 5—8 cm long, lemon yellow with purple at the base, aging to reddish. Ovary superior; stamens many, their filaments fused to form a staminal tube. **Fruit** an oblong to ovoid capsule 1.3—2.8 cm long, splitting open by 5 valves.

It is a wide-ranging tree found in both the Old and New World tropics. It is native throughout Polynesia, and is common on beaches, in disturbed places, secondary forest, and on the margins of estuaries and swamps in Samoa. Also sometimes called **fau tü**.

FETAU

Calophyllum inophyllum L.

Clusiaceae (mangosteen family)

calophyllum, Alexandrian laurel

Large tree up to 20 m in height, with yellow sap. **Leaves** simple, opposite, blade leathery, elliptic, 10—25 cm long, surfaces finely pinnately veined, glabrous. **Inflorescence** a many-flowered axillary raceme-like panicle 4—17 cm long, each flower subtended by a calyx of 4 round sepals. **Corolla** of 4 free white, round petals 0.8—1.4 cm long. Ovary superior; stamens numerous, free, yellow. **Fruit** a globose drupe 2—3.5 cm long, green to yellow at maturity.

It is widely distributed from tropical eastern Africa to eastern Polynesia, and although its floating fruits are well-adapted to seawater dispersal, it may be a Polynesian introduction to the eastern part of its range. The tree occurs in coastal areas, particularly on rocky, cliff-bound coasts and coastal slopes, where it is often the dominant species, and it is sometimes planted as an ornamental in coastal villages.

FILIMOTO

Flacourtia rukam Zoll. & Mor. ex Mor.

Flacourtiaceae (flacourtia family)

Indian plum

Medium-sized tree up to 15 m in height, with somewhat zigzag stems. **Leaves** simple, alternate, blade ovate to elliptic 5—15 cm long, margins toothed. **Inflorescence** of unisexual flowers in short axillary racemes on separate male and female trees. **Corolla** absent. Ovary superior; male flowers with many conspicuous, spreading white stamens. **Fruit** a fleshy red, globose, several-seeded, berry-like drupe mostly 2—2.5 cm in diameter.

It ranges from Malaysia to Polynesia, and although apparently native to Samoa, it is a recent introduction to Fiji, where it is known only in cultivation. It is occasional in secondary forest and disturbed areas in Samoa.

FÏSOA

Colubrina asiatica (L.) Brongn.
Rhamnaceae (buckthorn family)

Sprawling shrub up to 2 m or more in height, with somewhat zigzag stems. **Leaves** simple, alternate, blade ovate, 3—12 cm long, glossy green, and somewhat 3-veined from the base. **Inflorescence** of many flowers borne in short axillary cymes. **Corolla** of 5 free, yellow petals 1—2 mm long. **Fruit** a globose, 3-seeded capsule 6—10 mm in diameter, brown and papery at maturity.

It ranges from tropical east Africa to Hawai'i, and is found on all the major high islands of Polynesia. It is common on sandy and rocky beaches in Samoa, and is sometimes almost vine-like as it climbs into the canopy of littoral forest.

FIU

Zingiber officinale Roscoe
Zingiberaceae (ginger family)
Ginger

Erect herb up to 75 cm in height, arising from a fleshy, creeping, underground rhizome (the ginger "root"). **Leaves** on the lower stem reduced and sheath-like, upper ones simple, arranged in two rows, blade narrowly lanceolate, up to 30 cm or more in length, with parallel veins from the midrib. **Inflorescence** of many flowers borne in spikes on bract-bearing, leafless stems. **Corolla** sympetalous, of 6 fused tepals that are yellow with purple and cream-colored markings, rarely formed. Ovary inferior; stamen 1. **Fruit** is a capsule, but rarely formed.

It is native to somewhere in tropical Asia, but has now been distributed throughout the tropics. It is a European introduction to Samoa, where it is occasional in cultivation around houses and in plantations.

FU' AFU' A

Kleinhovia hospita L.
Sterculiaceae (cacao family)
guest tree

Large spreading tree up to 20 m in height, but usually much less. **Leaves** simple, alternate, blade heart-shaped, 5—24 cm long, glabrous. **Inflorescence** of many flowers in large, freely branched, terminal panicles. **Corolla** of 4 free, pink petals 7—10 mm long, with shorter, colored sepals. **Fruit** a pink, inflated, papery, 5-lobed capsule 1.2—2.4 cm in diameter, containing 5 white seeds.

It is native from tropical Africa eastward to Tahiti, and is a common tree in secondary forest and plantations in the lowlands of Samoa.

FUE LAUFAO

Epipremnum pinnatum (L.) Engl.

Araceae (aroid family)

pothos

High-climbing liana clinging to tree trunks by means of adventitious roots. **Leaves** alternate, blade ovate to elliptic, mostly 50 or more cm long (when climbing), often with deep incisions on the margins when large. **Inflorescence** of many, unisexual flowers tightly packed on a cylindrical spadix mostly 10—17 cm long, with a longer, 1—4 in the axil, each surrounded by a cream-colored spathe of similar length that soon withers. **Corolla** and calyx absent. Stamens 4. **Fruit** a 1- or 2-seeded, small ellipsoid berry, numerous, sessile on the spadix.

___ It is native from tropical Asia to eastern Polynesia, but a variegated type is now widespread in cultivation in the tropics. The native type is common sprawling on the forest floor and climbing tree trunks in relatively undisturbed lowland to montane forest in Samoa.

FUE MANOGI

Piper graeffei Warb.

Piperaceae (pepper family)

Trunk-climbing vine with prominent nodes and bearing adventitious roots that adhere to tree bark. **Leaves** simple, alternate, blade ovate to heart-shaped, 8—16 cm long with 5—7 veins radiating from the base. **Inflorescence** of tiny green, unisexual flowers borne in long, narrow, unisexual spikes that develop opposite a leaf, on separate male and female plants. **Corolla** absent. Ovary superior; stamens usually 3, often covered with cream colored pollen. **Fruit** a fleshy red drupelet 1—2 mm in diameter, covering the female spikes.

It is endemic to Samoa, where it is found on all the main islands. It is common in undisturbed lowland and montane forest up to an elevation of about 900 m. When young, it creeps along the ground, and in this state it is often called **ÿavaÿavaaitu** or **ÿavaÿavaaitu sosolo** ("creeping ghosts' kava"). When it encounters a tree, it grows up the trunk until it becomes a thick vine, when it is usually called **fue manogi** because of its fragrant leaves and stems.

FUE MOA

Ipomoea pes-caprae (L.) R. Br.

Convolvulaceae (morning-glory family)

beach morning-glory

Trailing glabrous vine with purple stems often rooting at the nodes, sap faintly milky. **Leaves** simple, alternate, blade oblong to suborbicular, 3—10 cm long, fleshy, notched or rounded at the tip. **Inflorescence** of axillary, solitary flowers or few-flowered cymes up to 30 cm long. **Corolla** sympetalous, funnellform, pink to rose-purple, 3.5—5.5 cm long, shallowly 10-lobed. Ovary superior; stamens 5, epipetalous. **Fruit** an ovoid to subglobose capsule 1.2—1.7 cm long, containing 4 dark, ovoid, densely hairy seeds.

It is found throughout the tropics, and grows on all the high islands in the tropical Pacific. It and the beach pea (**fue sina**) are the two most common and characteristic vines on Samoan

beaches, particularly on sandy shores, where one or both species typically dominate the beach down to the high tide mark. Also sometimes called **fuefue moa**.

FUE SAINA

Mikania micrantha H.B.K.
Asteraceae (sunflower family)
mile-a-minute weed

Scrambling or climbing, perennial herbaceous vine with glabrous, ribbed stems. **Leaves** simple, opposite, blade heart- or triangle-shaped, 4—10 cm long, glabrous. **Inflorescence** of dense axillary or terminal corymbs, bearing discoid heads surrounded by an involucre of 4 subequal, dorsally ribbed bracts 3—4 mm long. **Ray florets** absent. **Disc florets** mostly 4 per head, corolla tubular, 5-lobed, 1.5—2.5 mm long, white. **Fruit** a black, 5-angled, linear-oblong achene 1.5—2 mm long, with a pappus of many white bristles 2.5—3.5 mm long.

It is native to tropical America, but has now been established as a weed on many islands of the tropical Pacific. It is the most common weed in Samoa, where it can occur from near the shore to the tops of the highest mountains, and can completely dominate disturbed areas and plantations. The mile-a-minute weed was introduced sometime after the turn of the century when the first groups of Chinese arrived, hence the origin of its Samoan name (=Chinese weed).

FUE SINA

Vigna marina (Burm.) Merr.
Fabaceae (pea family)
beach pea

Prostrate or weakly climbing vine with longitudinally striate stems. **Leaves** trifoliate, alternate, leaflet blades ovate to suborbicular, 4—12 cm long, 3-veined from the base. **Inflorescence** of several-flowered axillary racemes 5—25 cm long. **Corolla** papilionaceous, yellow, 1.2—1.5 cm long, banner obcordate, wings slightly shorter than the banner. Ovary superior; stamens 10, diadelphous, enclosed within the keel. **Fruit** a black, narrowly cylindrical pod 4—8 cm long, containing many dark brown, bean-like seeds.

It is widely distributed throughout the tropics, and is found on most tropical Pacific islands. It is a common component of sandy beaches of Samoa, often in combination with *Ipomoea pes-caprae* (**fue moa**), and is somewhat weedy in coastal coconut plantations. It is also sometimes found along inland roads, possibly spreading there by its seed in beach sand used in road work. Also called **fuefue sina**.

FUTU

Barringtonia asiatica (L.) Kurz
Barringtoniaceae (barringtonia family)
fish-poison tree

Large tree up to 20 m in height, often with a massive trunk and thick, spreading branches. **Leaves** simple, alternate, crowded at the branch tips, blade obovate to oblanceolate, 10—60 cm long, leathery, subsessile. **Inflorescence** of several large flowers in short, terminal racemes, each

flower on a pedicel 1.5—8 cm long. **Corolla** of 4 white, ovate petals 6—10 cm long. Ovary inferior; stamens numerous, filaments white and pink, united at the base. **Fruit** large, ovoid or turbinate, 4-angled, 8—12 cm long, husk fibrous, surrounding a single large seed.

It ranges from Madagascar to the Marquesas, and is native to most of the high islands in the tropical Pacific, and even to some atolls. It is often the dominant tree on undisturbed rocky shores all around Samoa, often excluding nearly all other tree species. The grated seed of the large fruit was formerly used as a fish poison.

GATAE

Erythrina variegata L.

Fabaceae (pea family)

coral tree

Large tree up to 20 m in height, often with a spiny trunk and branches. **Leaves** trifoliate, alternate, leaflet blades ovate to nearly round, 4—25 cm long. **Inflorescence** of many flowers borne in terminal or axillary racemes. **Corolla** papilionaceous, 4—6 cm long, red orange, of 4 unequal petals with 10 fused stamens. **Fruit** a dark, curved, linear-oblong pod 12—30 cm long, containing kidney-shaped, bean-like seeds.

It is native from Zanzibar in the Indian Ocean to eastern Polynesia, but is now widely cultivated in the tropics. Its native habitat is littoral forest on rocky shores of high islands, and sometimes inland in coastal and ridge forests. It is also commonly cultivated, particularly a type with ascending branches that make excellent "living fences." The related, introduced **gatae palagi** (*Erythrina subumbrans* or dadap), is sometimes used medicinally in the same way as **gatae**. Also called **gatae sãmoa**.

IFI

Inocarpus fagifer (Parkinson) Fosb.

Fabaceae (pea family)

Tahitian chestnut

Large tree up to 15 m or more in height, with a strongly fluted and buttressed trunk. **Leaves** simple, alternate, blade elliptic to oblong, up to 30 cm or more long. **Inflorescence** of many flowers borne in simple or branched axillary spikes. **Corolla** of 5 free white linear petals mostly 6—10 mm long. Ovary superior; stamens 8—10, free. **Fruit** a compressed, ovoid to obovoid, hard-shelled fruit up to 10 cm in diameter, containing one large edible seed.

It is distributed from Malaysia to the Marquesas, but is probably an ancient introduction throughout Polynesia. It is casually cultivated in plantations, but is also occasionally naturalized in native forest, particularly in wet soil along streams and on the margins of mangrove swamps. The fruit contains a large, edible, peanut-like seed esteemed by Samoans; these are collected from the ground and roasted unopened on a fire, or the seeds are extracted and boiled.

KU' AVA

Psidium guajava L.

Myrtaceae (myrtle family)

guava

Shrub or small tree up to 10 m in height, with a smooth flaky bark. **Leaves** simple, opposite, blade elliptic to oblong, 6—15 cm long, pubescent and strongly veined. **Inflorescence** of solitary flowers, or 1—3 per axil, on a peduncle 1.2—2.5 cm long. **Corolla** of 5 free, white, elliptic petals 10—16 mm long that fall soon after the flower opens. Ovary inferior; stamens many, showy white. **Fruit** a globose to ovoid, many-seeded berry 5—10 cm long, yellow, with a pink or rarely yellow pulp.

It is native to tropical America, but is now widely distributed in the tropics. It was introduced to Polynesia in the 19th century, and soon became a serious weed of open, disturbed places such as pastures, plantations, roadsides, and fallow land.

LÄ' AU FAI LAFA

Senna alata (L.) Roxb.

Fabaceae (pea family)

candlebush, acapulco

Shrub up to 4 m in height. **Leaves** even-pinnately compound, alternate, leaflets in 6—13 pairs, blades mostly oblong, 7—21 cm long, slightly notched at the tip. **Inflorescence** of many flowers borne in terminal racemes, each flower with a showy orange or yellow, ovate bract below it. **Corolla** of 5 free, obovate to nearly round petals 1.3—2 cm long. **Fruit** a narrowly oblong, black, papery pod 12—20 cm long, with 4 wings extending its entire length.

It is native to the New World tropics, but was introduced into tropical Asia early in the European Era and was so commonly grown there that many authors considered it to be native to India. It is a recent European introduction to Samoa, perhaps around the 1920s, and is occasional in cultivation in villages and plantations, particularly in wet places.

LAMA

Aleurites moluccana (L.) Willd.

Euphorbiaceae (spurge family)

candlenut

Large tree up to 25 m in height, with young stems and foliage having a mealy surface with a characteristic gray-green color. **Leaves** simple, alternate, blade ovate to irregularly palmately-lobed, 9—22 cm long. **Inflorescence** of many unisexual flowers borne together in dense panicles. **Corolla** of 5 free white petals 5—10 mm long. **Fruit** a green, subglobose drupe 3.5—4.5 cm long, containing a hard, bony shell enclosing the oily seed.

It is probably native to Indo-Malaya, but was carried by ancient seafarers throughout the Pacific islands as far east as Hawai'i. It is only occasionally found in native forest, such as at 'Asau on Savai'i and on Nu'utele off the east coast of 'Upolu (Western Samoa), but is also sometimes cultivated in villages.

LAU `AUTA

Phymatosorus scolopendria (Burm. f.) Pichi Serm.
Polypodiaceae (common-fern family)

Terrestrial fern with a creeping green rhizome covered with scattered dark brown scales. **Fron**d up to 60 cm long or a stipe shorter or nearly as long, pinnately divided to near the midrib into 4—16 acuminate-tipped lanceolate lobes, venation reticulate, margins wavy to entire, surfaces glossy green, glabrous. **Sori** round, 1—3 mm across, in two rows on either side of the midrib, shallowly depressed into the frond to form a raised or bordered pit on the upper surface.

—It is a terrestrial or epiphytic fern distributed from tropical Africa to eastern Polynesia, and is native to Samoa. It is probably the most common and widespread fern in Polynesia, where it occurs in a wide variety of habitats—from coral rock crevices in littoral scrub vegetation to tree trunks in montane rain forest. Some botanists believe that the larger type occurring mostly on the ground belongs to a separate species, *Phymatosorus grossus*. Also called **lau magamaga** or **alofilima**.

LAU MÄFIAFIA

Hoya australis R. Br.
Asclepiadaceae (milkweed family)
wax plant

Perennial vine with milky sap, climbing trees by means of adventitious roots and twining stems. **Leaves** simple, opposite, blade elliptic to nearly round, mostly 5—12 cm long, glabrous, succulent. **Inflorescence** of many flowers borne in umbels from old flower spurs situated between the petiole pairs, fragrant. **Corolla** sympetalous, wheel-shaped, 1.3—2 cm across, deeply cut into 5 lobes, waxy white with red at the base, the 5 stamens fused to the stigma to form a “corona.” Ovary superior. **Fruit** a cylindrical follicle filled with silky-tufted seeds.

It is native from Vanuatu and Australia eastward to Samoa. This wide distribution can be attributed to its plumed seeds that are carried long distances in air currents. *Hoya* is most commonly found climbing over low vegetation in littoral areas, and as an epiphyte in coastal to lowland forest, but is occasionally in forest and scrub vegetation at up to 600 m elevation. Also sometimes called **lau olive**, **fue selela**, or **sun**i vao.

LAU PATA

Macaranga harveyana (Muell. Arg.) Muell. Arg.
Euphorbiaceae (spurge family)

Spreading tree up to 10 m in height. **Leaves** simple, alternate, peltate, blade ovate, mostly 10—25 cm long, surfaces glabrous, margins shallowly toothed. **Inflorescence** of axillary, many-flowered panicles 6—18 cm long, on separate male and female trees. **Corolla** absent. Female flowers tiny, mostly solitary on the rachis, ovary superior; male flowers tiny, inconspicuous, with 6—9 stamens. **Fruit** a globose, 3-lobed capsule 6—10 mm in diameter, sparsely covered with soft processes 3—8 mm long, mostly 3-seeded.

It ranges from Fiji to the Society Islands, and is native to Samoa, where it is common in disturbed forests and waste places, frequently as the dominant species in old plantations that have been abandoned for several years. Also sometimes called **lau papata** or **pata**.

LAUTĪ

Cordyline fruticosa (L.) Chev.

Agavaceae (yucca family)

ti, ti plant

Sparsely branching shrub up to 5 m in height, growing from an enlarged tuber. **Leaves** simple, spirally arranged in a cluster at the ends of the stems, blade lanceolate to oblong, 30—70 cm long, venation pinnately parallel, veins closely arranged and forming a shallow angle with the midrib. **Inflorescence** of many flowers borne in compound spikes with a leaflike bract at the base. **Corolla** sympetalous, of 6 similar tepals 8—14 mm long, white, pink, or purple. Fruit a globose berry up to 8 mm in diameter, red to purple at maturity.

It is probably native to tropical Asia, but is now widely distributed across the Pacific and is cultivated throughout the tropics and subtropics. It was probably an ancient introduction to Samoa, where a number of local varieties have long been cultivated, and is now completely naturalized there as an understory shrub of primary and disturbed forests. Also called **tī**.

LEVA

Cerbera manghas L.

Apocynaceae (dogbane family)

Small to medium-sized tree up to 12 m in height, with thick, succulent stems and milky latex. **Leaves** simple, spirally arranged and crowded at the branch tips, blade elliptic to oblanceolate, 9—20 cm long, glossy green. **Inflorescence** of several flowers borne in terminal cymes 10—30 cm long. **Corolla** sympetalous, salverform, white with a red throat, tube 2.5—4.5 cm long, lobes 5, oblong, 1—2 cm long. Ovary superior; stamens 5, epipetalous. **Fruit** an ovoid drupe 5—10 cm long, red, fleshy on the surface, fibrous within.

It is distributed from the Seychelle Islands in the Indian Ocean eastward to the Marquesas, and is occasional to uncommon on rocky or sandy shores of Samoa. It has a patchy distribution in Polynesia, and on many islands the related *Cerbera odollam* is found instead. The fruit of the two species is reported to be poisonous.

MA' ANUNU

Tarenna sambucina (Forst. f.) Durand

Rubiaceae (coffee family)

Small tree up to 6 m or more in height, with interpetiolar stipules, stems four-angled when young. **Leaves** simple, opposite, blade elliptic, 6—18 cm long, glabrous. **Inflorescence** of many flowers borne in dense, widely branching, terminal cymose clusters. **Corolla** sympetalous, tubular, yellowish to white with 5 spreading lobes about 6 mm long. **Fruit** a globose berry about 5 mm in diameter, black at maturity.

It is native from Vanuatu to the Marquesas, and is found on most of the high islands in this region. It is occasional in scrub forest, open secondary forest, and in disturbed places in the lowlands and foothills of Samoa.

MÄGELE

Trema cannabina Lour.

Ulmaceae (elm family)

Small slender tree up to 8 m or more in height. **Leaves** simple, alternate, blade ovate to lanceolate, 6—12 cm long, with rough (scabrous) surfaces, serrate margins, and a cordate base with unequal sides. **Inflorescence** of several flowers borne in short, axillary, cymose clusters up to 2 cm long. **Corolla** absent, but the calyx greenish white, ca. 1 mm long. **Fruit** an ovoid drupe 1.5—3 mm long, red-brown to black at maturity.

It is distributed from India to western Polynesia, and is native to Samoa, where it is occasional in disturbed places.

MAGO

Mangifera indica L.

Anacardiaceae (cashew family)

mango

Large spreading tree up to 25 m in height, often forming a massive trunk. **Leaves** simple, alternate, blade lanceolate, 10—30 cm long, glabrous. **Inflorescence** of numerous tiny flowers borne in large, branching panicles. **Corolla** of 5 free tiny white petals. **Fruit** a red to yellow, obovoid drupe up to 10 cm or more long, with a pungent orange pulp and a single flattened, fibrous seed within.

It is probably native to India or Burma, but is now cultivated throughout the tropics. It was an early European introduction to Polynesia, where it is commonly grown in villages and plantations. It is not reported to be naturalized in Samoa, and trees found in forests are relicts of former cultivation.

MAKERITA

Tagetes erecta L.

Asteraceae (sunflower family)

African marigold

Annual erect herb up to 1 m in height, with strongly scented foliage. **Leaves** simple to nearly pinnately compound, alternate to opposite, blade 5—20 cm long but progressively shorter upwards, deeply pinnately cut into 4—15 pairs of narrowly elliptic lobes with toothed margins. **Inflorescence** of large, terminal, bell-shaped heads, on a long stalk inflated at the top and surrounded by a cup-like series of bracts. **Ray florets** several in 1 series, or “double-flowered” with an obovate corolla limb mostly 1—4 cm long, orange to yellow. **Disc florets** many, sometimes modified and petal-like, yellow to orange. **Fruit** a narrow achene with scales on top.

It is native to Mexico, but is now widely distributed in the tropics as an ornamental flower. It is a European introduction to Samoa, where it is common in flower gardens around houses.

Also sometimes called **laÿau sauga**. Both Samoan names also apply to different plants (**makerita** to *Zinnia elegans* and **laÿau sauga** to *Ocimum* spp.), so there is some confusion about which plant is meant when the two names are used.

MAMALA

Omalanthus nutans (Forst. f.) Guillemin
Euphorbiaceae (spurge family)

Small tree up to 10 m in height, with milky sap. **Leaves** simple, alternate, blade triangular to broadly ovate, 3—15 cm long, with a somewhat waxy surface darker on the top side than on the bottom. **Inflorescence** of unisexual flowers borne on the same tree, the tiny yellowish male flowers in long narrow racemes, the female flowers solitary. **Corolla** absent. Ovary superior, with two style lobes; stamens 6—many. The flattened-ovoid fruit is red at maturity and is borne on a long stalk.

It is native from New Caledonia to Tahiti, and is found on most of the high islands in this range. It is a common tree in abandoned plantations and secondary scrub in Samoa, sometimes dominating these types of vegetation, mostly in the lowlands but sometimes at up to over 1000 m elevation. In previous times it was apparently called **fogamamala** or **fanua mamala**, but nowadays this is rarely heard and the plant is simply called **mamala**. The spelling of "*Homalanthus*" by some authors is incorrect.

MASAME

Glochidion ramiflorum Forst.
Euphorbiaceae (spurge family)

Small to medium-sized tree up to 10 m or more in height. **Leaves** simple, alternate, blade elliptic to lanceolate, mostly 4—15 cm long, surfaces glabrous. **Inflorescence** of several flowers in axillary fascicles, tiny, inconspicuous, unisexual, borne on the same tree. **Corolla** absent, but calyx tiny, petal-like, 3—9 lobed, yellow. Female flowers with a superior, several-celled ovary; male flowers with 3—8 stamens. **Fruit** a compressed-globose schizocarp 6—12 mm in diameter, green at maturity and splitting into several 2-seeded sections, seeds red.

It is native from Vanuatu to the Marquesas, but there is some difference of opinion as to the exact range of this species, and whether or not the populations on some islands within this range should be recognized as separate species. It occurs in primary and secondary forest at all elevations in Samoa, but most frequently in disturbed vegetation and on lowland lava flows. It is occasional to common, but is rarely a dominant species.

MATALAFI

Psychotria insularum A. Gray
Rubiaceae (coffee family)

Small tree 1—4 m in height, with interpetiolar stipules. **Leaves** simple, opposite, blade mostly elliptic, 8—20 cm long, glabrous. **Inflorescence** of branching, axillary or terminal, cymose clusters on thin pedicels. **Corolla** sympetalous, tubular, 5-lobed, 4—8 mm long, white.

Ovary inferior; stamens 5, epipetalous. **Fruit** an oval berry up to 1 cm long, glossy red, with 2 pyrenes (seeds) longitudinally ribbed and stuck together at the center of the fruit.

___ It is native to much of western Polynesia, but is most frequent in Samoa, where it is a common tree in the understory of lowland and montane forest up to over 1000 m elevation. The genus *Psychotria* is the largest in Samoa with 20 species, nearly all of them found only in Samoa. Many of these would also be called **matalafi**, but they are all much less common and are probably not used medicinally. Some healers distinguish a **matalafi tane** (male) and a **matalafi fafine** on the basis of leaf differences.

MATI

Ficus tinctoria Forst. f.

Moraceae (mulberry family)

dyer's fig

Small tree mostly less than 4 m in height, with milky sap and a sheathing cap covering the stem tip. **Leaves** simple, alternate, blade elliptic to oblong, mostly 6—22 cm long, leathery. **Inflorescence** with the numerous tiny flowers entirely enclosed within the fruit. **Corolla** absent. Ovary superior to inferior; stamens 1-several. **Fruit** a globose structure called a syconium that matures into a subglobose, orange to red "fig" fruit 10—17 mm in diameter.

It is native from India eastward as far as Tahiti, and is found on most of the high islands of the tropical Pacific. It is common in open places in Samoa, such as lava flows, and is also occasional as an understory tree in lowland forest. It may begin life as an epiphyte and eventually turn into a "strangler fig," but rarely does it become a banyan like *Ficus obliqua* (**aoa**). The fruits are edible, but their use for this has not been reported from Samoa.

MAUTOFU

Sida rhombifolia L.

Malvaceae (mallow family)

broom weed

Perennial subshrub up to 1.5 m in height, with finely stellate-pubescent stems. **Leaves** simple, alternate, blade rhomboid to ovate, 2—6.5 cm long, lower surface densely stellate-pubescent; margins serrate. **Inflorescence** of solitary, axillary and subterminal flowers borne on a thin pedicel 1—3.5 cm long. **Corolla** rotate, with 5 free, pale orange, obovate, unequally bilobed petals 7—10 mm long. Ovary superior; stamens many, their filaments fused into a staminal tube. **Fruit** a flattened-globose schizocarp 4—7 mm in diameter, breaking up at maturity into 9—12, awned segments.

It is probably native to somewhere in the Old World tropics, but is now pantropic in distribution. It was an ancient introduction to Samoa, where it is a common weed of disturbed places such as plantations, roadsides, and pastures. Several other weedy shrubs are called by the same name, and may be used for medicine, but this one is usually described as the "small-leaved one."

MAU' UTOGA

Commelina diffusa Burm. f.
Commelinaceae (spiderwort family)
commelina, day flower

Annual erect to decumbent herb with glabrous stems up to 40 cm long, rooting at the nodes. **Leaves** simple, alternate, blade lanceolate, 3—10 cm long, subsessile, with a sheath 1—2.8 cm long that is ciliate on the upper edge. **Inflorescence** a few-flowered cyme opposite a leaf, enclosed or protruding from a heart-shaped, leaf-like spathe 1.5—3 cm long. **Corolla** of 3 unequal, free, blue petals 5—9 mm long, upper 2 kidney-shaped, lower one ovate, smaller. Ovary superior; fertile stamens 3. **Fruit** an ovoid capsule 6—10 mm long, enclosed within the spathe, containing 5 pitted seeds.

It is native to tropical Asia, and by the European Era was distributed as far east as western Polynesia. It is probably an ancient introduction to Samoa, most likely from Tonga judging by its name, and is now a common weed in disturbed places, especially in wet areas, such as taro patches and along sunny stream banks.

MILO

Thespesia populnea (L.) Sol. ex Corr.
Malvaceae (mallow family)
milo, Pacific rosewood

Medium-sized tree up to 12 m in height. **Leaves** simple, alternate, blade broadly ovate to cordate, 6—22 cm long, glabrous. **Inflorescence** of mostly solitary, axillary flowers on a stalk 1.5—5 cm long, with a cup-shaped calyx. **Corolla** of 5 petals 4—6 cm long, pale yellow with purple at the base. Ovary superior; stamens many, their filaments fused into a staminal column. **Fruit** a subglobose capsule 2—3 cm in diameter, several-seeded, not splitting but eventually disintegrating to release the seeds.

It is distributed from eastern Africa to eastern Polynesia, but may be an ancient introduction to Polynesia, at least to the eastern part. It is probably native to Samoa, where it is occasional to common in littoral forests and coastal villages, but is rarely found inland.

MOEGÄLÖ

Cymbopogon citratus (DC. ex Nees) Stapf
Poaceae (grass family)
lemon grass

Perennial clump-forming grass up to 1.5 m in height, but usually much shorter. **Leaves** spirally arranged, lemon-scented, blade linear, up to 1 m long and mostly 5—20 mm wide, with a truncate ligule up to 2 mm long. **Inflorescence** a pair of racemes arising from a leaf-like spathe, ultimately in spikelets. **Spikelets** in dissimilar pairs, lanceolate, one sessile, one stalked, but are not known to form in Samoa.

It is native to the Old World tropics, but is now widely cultivated throughout the tropics and subtropics. It is a European introduction to Samoa, where it is occasional in cultivation around

houses. The identification of this species is tentative, since it has not been noted to produce flowers in Samoa.

MOLI 'AINA

Citrus sinensis (L.) Osbeck
Rutaceae (citrus family)
orange, sweet orange

Small to medium-sized tree up to 10 m in height, with or without axillary spines. **Leaves** simple, alternate, blade ovate to elliptic, mostly 5—12 cm long, glossy green, with a narrowly winged petiole. **Inflorescence** of solitary flowers, or flowers several in axillary racemes. **Corolla** of five free, oblong petals 1.2—2.5 cm long, white, fragrant. Ovary superior; stamens 20—25, free. **Fruit** an orange, sweet-pulped, globose berry mostly 5—10 cm in diameter, with a rind about 5 mm thick.

It is probably native to Southeast Asia, but reached the Mediterranean in the late 15th century, and from there was introduced throughout the tropical and warm-temperate regions of the world, including all the high islands of Polynesia. It is occasional in cultivation in villages and plantations in Samoa, where it is grown for its edible fruit. Other species of oranges are sometimes used interchangeably in Samoan medicine.

MOSO' OI

Cananga odorata (Lam.) Hook. f. & Thoms.
Annonaceae (soursop family)
ilangilang, perfume tree

Tree up to 20 m in height, with leaves in one plane on spirally arranged, horizontal branches. **Leaves** simple, alternate, blade oblong to elliptic, 10—35 cm long. **Inflorescence** of many flowers borne in stalked axillary clusters. **Corolla** of 6 free, linear-lanceolate, yellow-green petals 4—9 cm long, with several ovaries and numerous stamens forming a disc in the center. **Fruit** a cluster of black globose berries 1—2 cm long originating from the same flower.

It is native to Southeast Asia, possibly originally to the Philippines, but is now widely cultivated in the tropics. It was probably an ancient introduction to Samoa and the rest of western Polynesia, but did not reach Tahiti and the rest of eastern Polynesia until the European Era. The tree is common in secondary forest and clearings, but does not usually persist in mature forest, and is cultivated in villages for its showy, fragrant flowers.

NAMULEGA

Vitex trifolia L.
Verbenaceae (verbena family)

Shrub or small tree up to 5 m in height, with densely tomentose stems. **Leaves** simple or palmately compound, opposite, leaflets compound leaves 3—5, blades ovate to lanceolate, 1—12 cm long, upper surface green, lower surface gray-green. **Inflorescence** of many flowers in terminal, narrow panicles up to 18 cm long. **Corolla** sympetalous, bilabiate, violet, 4—7 mm

long. Ovary superior; stamens in 2 pairs. **Fruit** a fleshy, black, subglobose 4-seeded drupe 5–7 mm in diameter.

It is distributed from eastern Africa to the Marquesas, and is native to Samoa, where it is uncommon near the sea in coastal thickets and littoral scrub vegetation, but is sometimes cultivated in villages.

NIU

Cocos nucifera L.

Areaceae (palm family)

coconut

Palm tree up to 20 m or more in height. **Leaves** pinnately divided into numerous strap-shaped segments, spirally arranged, 6 m or more in length. **Inflorescence** of unisexual flowers arranged in 3s (2 male and 1 female, but only males are produced towards the tip) in axillary panicles up to 1 m or more in length, emerging from a woody, boat-shaped sheath. **Corolla** of 3 yellow petals 0.6–1.2 cm long in male flowers, larger in female flowers. Ovary superior; stamens 6. **Fruit** large, ovoid, up to 20–30 cm long, 1-seeded, with a fibrous husk surrounding the hard shelled “seed.”

It is native to somewhere in the Old World tropics, but spread naturally and by introduction throughout the area. At the time of Columbus' arrival in the New World, the coconut had not yet reached the Caribbean. It is probably native to Samoa, but the most common varieties were introduced by the ancient Samoans and some in more recent times.

NONU

Morinda citrifolia L.

Rubiaceae (coffee family)

Indian mulberry

Shrub or small tree up to 8 m or more in height, with glabrous stems and large interpetiolar stipules. **Leaves** simple, opposite, blade elliptic to ovate, mostly 10–35 cm long, glabrous, glossy green. **Inflorescence** a many-flowered capitulate head on a short stalk borne opposite a leaf in the axils of the upper 1–3 nodes. **Corolla** sympetalous, salverform, white, 1.3–2 cm long, divided about one third of its length into 5 acute lobes. Ovary inferior; stamens 5, epipetalous. **Fruit** an irregularly shaped syncarp up to 10 cm long, with a translucent, polygonal surface when ripe, bad smelling.

It is distributed from India to Hawai'i, but was originally native only to Southeast Asia, possibly only to the islands of Indonesia, and was probably carried by ancient seafarers over most of its current range. It occurs mostly in open coastal areas and lowland forests in Samoa, in disturbed places as a weed, and is sometimes casually cultivated in villages. Some healers recognize a **nonu tane** (male) and **nonu fafine** based upon differences in the leaves. Also called **nonu togianonu** to distinguish it from **nonu fi'afi'a**.

NONU FI' AFI' A

Syzygium malaccense (L.) Merr. & Perry

Myrtaceae (myrtle family)

Malay apple, mountain apple

Medium-sized tree 15 m or more in height. **Leaves** simple, opposite, blade ovate to oblong, mostly 10—30 cm long, glabrous, glossy. **Inflorescence** of short, few-flowered cymes borne on the trunks of older branches. **Corolla** of 4 free red petals which fall soon after opening. Ovary superior; stamens numerous, showy red, 1—2 cm long. **Fruit** a glossy, red to white, obovoid fleshy 1-seeded berry mostly 3—7 cm long.

It is distributed from India to eastern Polynesia, but is probably native only to Malaysia, and was carried throughout Polynesia by ancient voyagers. It is uncommon in villages, lowland secondary forests, and in cultivated areas in Samoa, where the tree is esteemed for its edible fruit as well as for its medicinal uses, which are mostly related to the astringent properties of the bark. Sometimes called **nonu** `ai, literally, “edible **nonu**.”

`O' A

Bischofia javanica Bl.

Euphorbiaceae (spurge family)

Large spreading tree up to 20 m or more in height. **Leaves** trifoliate, alternate, the leaflets ovate, mostly 4—12 cm long, margins crenate or serrate. **Inflorescence** of many small inconspicuous unisexual flowers borne in axillary panicles on separate male and female trees. **Corolla** absent, sepals 5, small, green. Ovary of female flower superior; male flowers with 5 stamens. **Fruit** a small subglobose berry 4—8 mm in diameter, brown at maturity, with persistent stigmas on top.

It is distributed from India eastward to the Cook Islands, but is possibly an ancient introduction in the eastern part of its range. In Samoa, it is occasional in secondary forest and plantations, but is more common in montane and cloud forest, where it appears to be native.

`OFE

Schizostachyum glaucifolium (Rupr.) Munro

Poaceae (grass family)

Polynesian bamboo

Large bamboo up to 15 m in height, with green jointed stems 3.5—6 cm in diameter. Slender branches 60—120 cm long form at the nodes, and surrounding the stem is a large deciduous sheath densely covered with hairs and bearing a narrow, bent-back tip. **Leaves** linear-lanceolate, up to 30 cm long, parallel-veined. **Inflorescence** of narrow spikes of 1-flowered spikelets, but infrequently occurring.

It is probably native to Fiji, but was carried in ancient times eastward across the Pacific as far as Hawai'i, and is found on most of the high islands of this region. It is occasional in Samoa in plantations, and sometimes in thickets in the forest, where it is probably a relict of former cultivation. It has largely been replaced in common usage by the introduced bamboo, *Bambusa*

vulgaris Schrad. ex Wendl., called 'ofe fiti. This latter species is often used medicinally in the same ways as the Samoan 'ofe. Also called 'ofe Samoa.

OGOOGO TEA

Acalypha lanceolata Willd.
Euphorbiaceae (spurge family)

Erect herb up to 1 m in height with pubescent, longitudinally grooved stems. **Leaves** simple, alternate, blade ovate, 1—8 cm long, densely pubescent, margins coarsely serrate. **Inflorescence** of 1—4 axillary spikes 5—30 mm long, bearing unisexual apetalous flowers, the lower ones female, upper ones male. **Male flowers** minute, less than 0.5 mm in diameter, clustered; stamens 8. **Female flowers** mostly solitary in a pubescent, sheathing, cup-shaped bract 1.5—3 mm long. **Fruit** a pubescent, 3-lobed schizocarp 1—2 mm long, splitting into 3 one-seeded segments.

It is native to somewhere in the Old World tropics. It was a European introduction to Samoa, where it is occasional as a weed of disturbed places in villages and plantations. It is easily confused with **ogoogo toto**, but healers distinguish it by its green rather than red stems, but this difference is sometimes unclear. Also called **ogoogo sina** or **ogoogo pa' epa' e** to distinguish it from the other **ogoogo**.

OGOOGO

Laportea interrupta (L.) Chew
Urticaceae (nettle family)
island nettle

Erect herb up to 80 cm in height, with irritant hairs on the foliage and inflorescence, and the stems often have a reddish base. **Leaves** simple, alternate, blade ovate, 3—17 cm long, pubescent, margins serrate. **Inflorescence** of narrow, axillary panicles up to 25 cm long with flowers in fascicles. Flowers unisexual, apetalous, with 4 or 5 greenish sepals 0.3—1.5 mm long. Ovary superior, with a 3-lobed stigma; stamens 4 or 5, free. **Fruit** a green, compressed-ovoid achene 1.5—2 mm long surrounded by a membranous wing that is dispersed with the achene.

It is probably native to somewhere in Southeast Asia, but is now widespread as a weed from Africa eastward to Hawai'i (where it is apparently no longer found). It was an ancient introduction to Samoa, where it is now uncommon as a weed of disturbed places, especially around houses in villages. There has been much confusion about the identity of **ogoogo**, since two species are distinguished, **ogoogo tea** or **ogoogo sina** (*Acalypha lanceolata*) and **ogoogo toto** (*Laportea interrupta*), based on the color of the stems.

PATE

Coleus scutellarioides (L.) Benth.
Lamiaceae (mint family)
coleus

Perennial herb or subshrub up to 1.5 m in height, with square stems. **Leaves** simple, opposite, blade mostly ovate, 3—15 cm long, margins scalloped, surfaces variously colored with

green, purple, red, and/or white. **Inflorescence** of whorls of 8—12 or more flowers borne on terminal racemes or panicles of racemes. **Corolla** sympetalous, 5-lobed, 2-lipped, 8—13 mm long, tube white, lips blue to purple. **Fruit** of small, subglobose nutlets enclosed within the papery, strongly 2-lipped calyx.

It is native to tropical Asia, but is now cultivated throughout the tropics for its attractive, colorful foliage. It is a European introduction to Samoa, where it is commonly grown around houses, and is also found in plantations, often in hedges. A small wasp that preys on the taro-damaging larva of a moth feeds on the nectar of this plant, which may be the reason it is so frequently planted by farmers around their taro patches.

POLO FEÜ

Capsicum frutescens L.
Solanaceae (nightshade family)
chili pepper, red pepper

Widely branching subshrub up to 2 m in height. **Leaves** simple, alternate, blade ovate to lanceolate, 4—12 cm long. **Inflorescence** of 1—3 flowers borne in the leaf axils, reflexed atop a stalk mostly 1—2 cm long. **Corolla** sympetalous, wheel-shaped, greenish white, ca. 1 cm in diameter, with five yellow stamens. **Fruit** a red, ovoid to ellipsoid berry 2—3 cm long, with a very pungent taste.

It is native to tropical America, but is now widely distributed throughout the warm regions of the world. It was an early European introduction to Samoa, where it is grown in villages for its spicy fruit, but escapes from cultivation and becomes somewhat weedy in disturbed places.

PU' A

Hernandia nymphaeifolia (Presl) Kub.
Hernandiaceae (hernandia family)
Chinese-lantern tree

Large tree up to 20 m in height, with a massive trunk and branches. **Leaves** simple, alternate, blade peltate with a red or yellow spot on the upper surface, ovate, mostly 10—23 cm long, glabrous. **Inflorescence** of unisexual flowers mostly in clusters of 3s, borne in long-stalked axillary cymes on the same plant. **Corolla** of 3 (male) or 4 (female) free, white petals 3—5 mm long. Ovary superior in female flowers; stamens 3, free, in male flowers. **Fruit** an ellipsoid drupe 1.5—2.3 cm long, surrounded by a globose vesicle open at the top, mostly 2.5—3.5 cm long, yellow or red at maturity.

It ranges from tropical eastern Africa eastward as far as Tahiti, and is found on most of the high islands and some atolls in the tropical Pacific. It is a common tree in the littoral forest of Samoa, mostly on sandy beaches. On rocky shores it is usually replaced by **futu**, *Barringtonia asiatica*.

PUA FITI

Plumeria rubra L.

Apocynaceae (dogbane family)

plumeria, frangipani

Spreading deciduous tree up to 7 m in height, with thick swollen stems and a copious milky sap. **Leaves** simple, spirally arranged and clustered at the stem tips, blade elliptic to oblanceolate, 20—40 cm, leathery, acute at the tip. **Inflorescence** of several-flowered terminal clusters. **Corolla** sympetalous, funnel-shaped, 5—8 cm long, with a limb 6—11 cm in diameter, deeply cut into 5 rounded lobes, white with a yellow center and reddish outside or reddish with a yellow center. **Fruit** a pair of cylindrical, divergent pods up to 20 cm long, infrequent in cultivation.

It is native to tropical America from Mexico to Panama, but is now cultivated throughout the tropics for its showy fragrant flowers. It was an early European introduction to Samoa, presumably from Fiji (hence the name **pua fiti**), and is widely cultivated in villages for its flowers. Also called **pua** and **pua sāmōa**.

PUA SĀMOA

Gardenia taitensis DC.

Rubiaceae (coffee family)

Tahitian gardenia

Shrub or small tree up to 4 m or more in height, with interpetiolar stipules. **Leaves** simple, opposite, blade obovate, mostly 5—16 cm long, glossy green, leathery. **Inflorescence** of solitary flowers borne at the tips of the stems. **Corolla** sympetalous, salverform, tube 2—4.5 cm long, limb of 6—8 spreading, elliptic lobes 2—4.5 cm long, showy white. **Fruit** an obovoid or ellipsoid drupe up to 4 cm long, with 3—5 longitudinal wings and persistent, lanceolate calyx lobes, infrequently formed.

It ranges from Vanuatu to eastern Polynesia, but is probably native only in the western part of its distribution, and was an ancient introduction throughout Polynesia. In Samoa, it is mostly cultivated in villages for its fragrance and beauty, but is uncommon nowadays. It is also uncommon in sunny littoral areas, possibly as an escape from cultivation. Also called **pua** or **pua tahiti**.

SALATO

Dendrocnide harveyi (Seem.) Chew

Urticaceae (nettle family)

stinging nettle tree

Large, dioecious, soft-wooded tree up to 15 m or more in height, with stinging hairs on the inflorescence and sometimes the leaves. **Leaves** simple, ovate, 10—30 cm long, margins toothed. **Inflorescence** of widely branching, many-flowered, axillary panicles 6—15 cm long. **Female flowers** apetalous, ovary superior, ca. 1 mm long. **Male flowers** apetalous, ca. 1.5 mm long, stamens 4. **Fruit** a flattened-ellipsoid achene 1.5—2.5 mm in diameter.

It is native from Fiji to Niue, and in Samoa is occasional to locally common in secondary forest in the lowlands and montane region (but is rare in American Samoa, known there only from Tafuna on Tutuila and at one place on Ta'u). The plant can produce an irritating sensation from its stinging hairs.

SEASEA

Syzygium corynocarpum (A. Gray) C. Muell.
Myrtaceae (myrtle family)

Small to medium sized tree up to 5 m in height, but usually much shorter. **Leaves** simple, opposite, blade lanceolate to oblanceolate, 7—13 cm long, glabrous. **Inflorescence** a widely branching axillary* panicle. **Corolla** of 4 free, small white petals, falling when the flower opens. Ovary inferior; stamens many, white. **Fruit** a fleshy, fragrant, one-seeded, spindle-shaped to cylindrical drupe 2.5—3.5 cm long, red to purple at maturity.

It is probably native only to Fiji, but was an ancient introduction to western Polynesia. It is occasionally cultivated around houses in Samoa, and is planted for its fragrant fruits, or perhaps escapes in plantations, but is almost never found in forest areas.

SOI

Dioscorea bulbifera L.
Dioscoreaceae (yam family)
bitter yam

High-climbing herbaceous vine arising from a large underground tuber, and often forming aerial tubers on its stems. **Leaves** simple, alternate, blade heart-shaped, 6—25 cm long, with 11—13 veins arising from the base. **Inflorescence** of 2—6 hanging, many-flowered, simple or branched spikes. **Corolla** of 3 tiny free, white petals 1—2 mm long. **Fruit** a several-seeded, papery, oblong, brown, 3-winged capsule 2—3 cm long.

It is native to somewhere in the Old World tropics, but was spread by voyagers in ancient times as far east as Hawai'i. It is an ancient introduction to Samoa, where it is a common weed of plantations and secondary forest. The underground and aerial tubers were formerly eaten in times of famine, but require much cooking to remove the bitter or poisonous compounds.

TAGITAGI

Polyscias scutellaria (Burm. f.) Fosb.
Araliaceae (panax family)
panax

Shrub or small tree up to 4 m in height, with sheathing petiole bases and spotted stems. **Leaves** odd-pinnately compound, alternate, leaflets 1—5, blades broadly elliptic to nearly round, mostly 3—20 cm long, the margins sometimes variously lobed and toothed (as in cv. 'Tricochleata') or entire and often white. **Inflorescence** of 8—24 flowers borne in umbels arranged mostly in terminal panicles. **Corolla** of 5—7 free, tiny greenish, inconspicuous petals 2—3 mm long. **Fruit** a subglobose drupe, rarely forming in cultivation.

It is probably native to the Solomon Islands, but is now cultivated throughout the tropics for its showy foliage. It was an early European introduction to Samoa, where it is cultivated in villages, often as a hedge plant. Several related species are all called by the same name, and some of them may also be used for Samoan medicines. Also called **tagitagi sāmōa**.

TÄIPOIPO

Geniostoma rupestre Forst.
Loganiaceae (logania family)

Shrub or small tree up to 6 m or more in height, with a ridge evident around the nodes. **Leaves** simple, opposite, blade ovate to elliptic, 2—18 cm long, glabrous. **Inflorescence** of short, axillary, few-flowered cymes. **Corolla** sympetalous, bell-shaped, tiny, white, five-lobed, 2—5 mm long. **Fruit** an ellipsoid capsule 5—9 mm long that splits open along two longitudinal seams to expose the numerous tiny red seeds.

It is native from Melanesia to the Tuamotus, but some authors recognize instead numerous endemic species in the islands. In Samoa, it is occasional in coastal to montane forests, but is common on lowland lava flows of Savai'i. Also called **lau mafatifati** or sometimes, **fua pipilo**.

TALAFALU

Micromelum minutum (Forst. f.) Seem.
Rutaceae (citrus family)
none

Small tree up to 6 m in height, but usually much less. **Leaves** pinnately compound, alternate, up to 50 cm long, with 7—12 alternate, unequally sided, ovate leaflets mostly 3—13 cm long. **Inflorescence** of widely branching, terminal and upper-axillary, many-flowered panicles. **Corolla** of 5 free, linear, white petals up to 5 mm long. Ovary superior; stamens 10, free. **Fruit** a fleshy, red, gland-dotted, subglobose up to 1 cm long.

It ranges from tropical Asia to western Polynesia, and appears to be native over this entire range. It is occasional as an understory tree in coastal, lowland, and secondary forests in Samoa, but relatively few people nowadays know its name.

TALIE

Terminalia catappa L.
Combretaceae (tropical almond family)
tropical almond

Large tree up to 25 m in height, with golden-velvety pubescent young stems. **Leaves** simple, alternate, crowded at the branch tips, blade obovate, mostly 13—35 cm long. **Inflorescence** of 50—90 flowers in axillary spikes 8—18 cm long. **Corolla** absent, but the calyx petaloid, white, campanulate, 1.5—2.5 mm long, divided about halfway into 5 triangular lobes. Ovary inferior; stamens 10, free, exserted. **Fruit** drupe-like, red, compressed-ovoid, mostly 3—8 cm long, usually with a prominent wing along the edge, fibrous within, 1-seeded.

It ranges from tropical Asia to Polynesia, but has been introduced over much of this range, probably including Samoa. The tree is widely planted in coastal villages for its edible fruit. In

Savai'i, the common **talie** of the lowland forest is *Terminalia glabrata*, which is probably used medicinally in the same ways as the other species.

TEVE

Amorphophallus paeoniifolius (Dennst.) Nicolson

Araceae (aroid family)

Stemless herbaceous plant with an underground tuber up to 30 cm in diameter. **Leaf** one, arising from the tuber after flowering, blade large, up to 1 m across, divided into 3 parts that are further pinnately lobed, on a mottled petiole up to 1 m in height. **Inflorescence** of tiny unisexual flowers densely arranged together on a fleshy spadix arising from the ground, and surrounded by a large, foul-smelling, greenish-purple spathe. **Corolla** absent. **Fruit** a small sessile berry.

It is native to tropical Asia or Indo-Malaya, but was an ancient introduction eastward as far as Hawai'i. In Samoa, it is uncommon in secondary forest, plantations, and other disturbed places. In former times, the rhizome was eaten as a famine food, but it requires much cooking since it is very acrid.

TÏPOLO

Citrus medica L.

Rutaceae (citrus family)

citron

Small tree up to 5 m in height, with short, sharp, axillary spines. **Leaves** simple, alternate, blade elliptic, 7—18 cm long, leathery, with finely toothed margins, but with the petiole not expanded into a wing like many other citrus species. **Inflorescence** of short, several-flowered axillary racemes, fragrant. **Corolla** of 5 free white petals tinged pink on the outside. Ovary superior; stamens 30—40 stamens, free. **Fruit** an oblong, lumpy, yellow berry 10—20 cm long, with a thick rind and a yellow, sour pulp.

It is probably native to somewhere in the Middle East, but is now widespread in cultivation throughout the Old World Tropics. It was introduced to Samoa sometime in the last century, and is occasional in cultivation. The lime, (*Citrus aurantifolia* (Christm.) Swingle (**tïpolo sãmoa**), is sometimes used in the same ways in Samoan remedies. Also called **tïpolo patupatu**.

TOGO

Centella asiatica (L.) Urb.

Apiaceae (carrot family)

Asiatic pennywort

Creeping perennial herb with glabrous stems that root at the nodes. **Leaves** simple, alternate, erect and often appearing clustered at the nodes, blade broadly heart- to kidney-shaped, 1—7 cm long and wide, with toothed margins. **Inflorescence** of 1—4 flowers in subsessile, axillary umbels subtended by 2 small bracts. **Corolla** of 5 free, purplish, suborbicular petals 0.5—1 mm long. Ovary inferior; stamens 5, free. **Fruit** a ribbed, compressed-globose schizocarp 2—3 mm long, splitting at maturity into 2 one-seeded segments.

It is native to tropical Asia, but is now widespread in the tropics and subtropics. It was a Polynesian or early European introduction to Samoa, where it is now a common weed of damp, sunny or shady places, such as forest clearings and pastures, and is often allowed to grow around houses for its medicinal uses. Also called **togotogo** or **moa**.

TOLO

Saccharum officinarum L.

Poaceae (grass family)

sugar cane

Robust perennial grass up to 4 m or more in height, with thick, hard stems 3—5 cm in diameter marked by conspicuous nodes. **Leaves** simple, alternate, blade lanceolate, up to 1.5 m long, falling from the stems when it withers. **Inflorescence** a large, dense, ovoid, terminal panicle with many fragile, jointed branches and numerous spikelets. **Spikelets** paired, similar, with long silky hairs spreading from the base.

It is native to the Old World tropics, and was an ancient introduction as far east as Hawai'i. It is grown commercially in large fields in much of the tropics, but in Samoa is cultivated only in small patches in plantations and around houses.

U' A

Broussonetia papyrifera (L.) Vent.

Moraceae (mulberry family)

paper mulberry

Shrub or small tree up to 8 m or more in height, with milky sap, densely hairy stems, and a fibrous bark that can be peeled off in long strips. **Leaves** simple, alternate, blade ovate, up to 18 cm long, with a rough upper surface, velvety lower surface, and margins entire to deeply lobed. **Inflorescence**, flowers, and fruits rarely forming in Samoa.

It is native to China and Japan, but was an ancient introduction as far east as Hawai'i. In Samoa, it is occasional in cultivation in plantations and around houses, but much less frequently nowadays since tapa cloth for which it was used is no commonly made.

UFI

Boerhavia repens L.

Nyctaginaceae (four-o'clock family)

Low slender herb with prostrate stems radiating from the thickened taproot. **Leaves** simple, opposite, blade ovate to lanceolate, mostly 2.5—5 cm long. **Inflorescence** of 10—50 flowers borne in umbellate or subumbellate clusters in axillary cymes, on a stalk 2—10 cm long. **Corolla** absent, but calyx petaloid, bell-shaped, white to pink, 2—3 mm long, shallowly 5-lobed. Ovary superior; stamens 2—4, exserted. **Fruit** dry, club-shaped to ellipsoid, 3—4 mm long, 5-ribbed, 1-seeded, with a sticky surface.

It ranges from Africa eastward to Hawai'i, but it is not known over how much of this range it is native, since it appears to be mostly weedy in Polynesia. It is uncommon in disturbed places in Samoa, mostly in villages, particularly on rocky ground, and rarely if ever is found in plantations.

Its name is confusing since this refers to the yam; however, the yam is not used in medicine, and *Boerhavia* is sometimes referred to as **ufi violē** or **ufi mūmū**, literally violet or red yam, referring to the color of the undersides of the leaves. In American Samoa, it is often called **a' atasi**, which elsewhere in Samoa is applied to *Rorippa sarmentosa*. Also called **ufi violē** to distinguish it from the yam, **ufi**.

ʼULU

Artocarpus altilis (Parkinson) Fosb.
Moraceae (mulberry family)
breadfruit tree

Large round-topped tree up to 20 m or more in height, with milky sap. **Leaves** simple, alternate, blade ovate to elliptic, up to 60 cm long, usually with deeply toothed or lobed margins, glossy green. **Inflorescence** of unisexual flowers on the same tree, the male flowers in a densely packed cylindrical spike 7—25 cm long, the female flowers fused into a globose head. **Corolla** absent. **Fruit** a globose to ovoid syncarp up to 15 cm long with the fused female flowers giving the surface a faceted appearance.

It is native to Indo-Malaya, possibly originally to the island of Java, and was an ancient introduction eastward to Hawai'i. It is restricted to cultivation in Samoa, and trees occurring in forest areas are usually relicts of past plantations since most varieties are seedless.

USI

Euodia hortensis Forst.
Rutaceae (citrus family)
island musk

Shrub or small tree up to 6 m in height, but usually much shorter. **Leaves** simple or trifoliate, opposite, strongly aromatic, blades of trifoliate leaves oblanceolate, 7.5—15 cm long, simple leaf blades linear-lanceolate, 10—30 cm long. **Inflorescence** of many-flowered racemes or narrow panicles up to 25 cm long, borne in the upper leaf axils. **Corolla** of 4 free white petals 1—2 mm long. **Fruit** divided into four subglobose, 1-seeded sections less than 5 mm long, green at maturity and splitting open to release their seeds.

It is widely distributed from Melanesia and Micronesia eastward as far as Niue, but is probably an ancient introduction to Polynesia. It grows around houses and occasionally in plantations in Samoa, and uncommonly in forests, where it is probably a relict of former cultivation. Also called **lau usi**.

VAO ÄPULUPULU

Chamaesyce hirta (L.) Millsp.
Euphorbiaceae (spurge family)
garden spurge

Ascending, scarcely branched herb up to 70 cm in height, with pubescent stems and milky sap. **Leaves** simple, opposite, blade ovate to lanceolate or oblong, mostly 1—4 cm long, pubescent, often tinged or spotted red to purple; margins finely serrate. **Inflorescence** of 1 or 2

globose axillary cymes on a stalk 0.3—1.5 cm long, ultimately in cyathia with a tiny 4- or 5-lobed involucre bearing 5 glands with or without a white appendage. **Corolla** absent. Female flower 1, consisting of a superior ovary; male flowers 2—8, tiny, consisting of 1 stamen each. **Fruit** a pubescent, 3-lobed, subglobose schizocarp 0.8—1.3 mm long, splitting into 3 one-seeded segments.

It is probably native to the somewhere in the Old World tropics, but is now pantropical in distribution. It is a European introduction to Samoa, where it is common in sunny disturbed places, such as roadsides, villages, and plantations.

VAO VAI

Peperomia pellucida (L.) H.B.K.

Piperaceae (pepper family)

Small, erect to ascending herb up to 30 cm or more in height, with translucent pale green stems. **Leaves** simple, opposite, blade broadly ovate, 1.5—4 cm long, palmately 3- or 5-nerved from the base. **Inflorescence** of 1-several, thin, terminal and upper-axillary, leaf opposed spikes 3—6 cm long, with loosely arranged flowers. **Corolla** and calyx absent, but flowers subtended by a peltate bract. Ovary superior; stamens 2, free. **Fruit** a subglobose, longitudinally ridged drupe ca. 0.5 mm in diameter.

It is native to tropical America, but is now found as a weed throughout the tropics. It was first reported in Samoa in 1921, and is occasional to common in sunny disturbed places such as on rocks in plantations and around houses. Its Samoan name is not well known, but means "water weed."

VĪ

Spondias dulcis Parkinson

Anacardiaceae (cashew family)

Otaheite apple, Polynesian plum

Large spreading tree up to 20 m in height. **Leaves** odd-pinnately compound, alternate, leaflets in 5—15 pairs, blades lanceolate to elliptic, mostly 4—10 cm long. **Inflorescence** of many tiny flowers in large, branched panicles. **Corolla** of 5 free white petals ca. 2 mm long. Ovary superior; stamens 5, free. **Fruit** a yellowish, ovoid or obovoid, mango-like drupe up to 8 cm long, with an edible outer, fibrous, fleshy portion enclosing the large seed.

It is native to the Malaysian area, but is now widely distributed in Southeast Asia, and was introduced by ancient seafarers into Polynesia as far east as the Marquesas. It is widely cultivated in villages and plantations in Samoa and the rest of Polynesia, but is not reported to be naturalized.

Vĭ VAO

Physalis angulata L.

Solanaceae (nightshade family)

wild capegooseberry

Erect, much-branched annual herb up to 1 m in height, with angled, hollow, mostly glabrous stems. **Leaves** simple, alternate, blade ovate to elliptic, 2—12 cm long, with entire to irregularly toothed margins. **Inflorescence** of solitary, axillary, nodding flowers. **Corolla** sympetalous, bell-shaped, 6—10 mm long, shallowly 5-lobed, pale yellow, often with darker spots in the center. Ovary superior; stamens 5, epipetalous, pale blue. **Fruit** a subglobose berry 1—1.5 cm long, surrounded by the membranous, inflated, ovoid or urn-shaped calyx 2.2—3.2 cm long.

It is native to tropical America, but appears to have been an ancient introduction to Polynesia. It is an occasional to common weed of disturbed places in Samoa, such as croplands and roadsides.