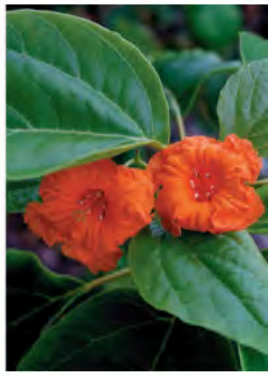



A Guide to the

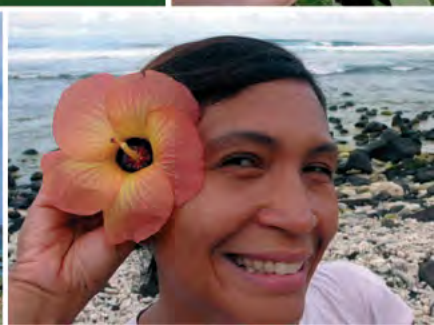
Native Ornamental Trees of American Samoa






Edward L. Webb



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The idea of this book and its purpose originated from Dr. Ruth Utzurrum of DMWR, and during the years that it took to produce, she and Dr. Joshua Seamon steered me towards flowering, fruiting, or otherwise interesting specimens to photograph. Essentially all information regarding wildlife use of flowers and fruits was provided by them, based on their many years of experience and research. Ruth and Josh provided enormous logistical support and personal encouragement, allowed me stay with them, supported all my efforts with DMWR, and gave very detailed and useful comments on the manuscript. I am very grateful to them for their help, and I owe them many thanks.

I would like to say *fa'afetai tele lava* to Siaifoi Fa'aumu, who has worked closely with me since 1997. Most of the photos in this book were taken in the field with him. He has always put forth his best efforts, rain or shine, and one day at a time. I thank the whole Fa'aumu family for their irreplaceable generosity and friendship over the years.

I must also acknowledge the expertise, knowledge and influence of Dr. W. A. Whistler on my work. Ailao Tualaulelei and Chris Solek introduced me to the trees during my early days on the islands. Rachel Conejos Webb helped with many of the photos as well as proofreading of the manuscript.

Taking publishable photographs of trees was done over a period of many years. And yet in the end, I found significant gaps between what I wanted to publish and what I had acquired. Therefore, many of the photographs have been donated by good colleagues, including Alden Tagarino, Joshua Seamon, Ruth Utzurrum, Art Whistler and Martin van de Bult. I gratefully acknowledge their generosity.

I received logistical assistance from many friends and colleagues. I thank the many staff members of the DMWR office for the years of great support. On Ta'u, James and Meleagi Chapman let me and my scruffy group stay in their home for weeks at a time, and I thank them for so much hospitality.

Thanks are also given to the landowners of American Samoa who allowed me to take photographs of plants on their land. The fine examples of their ornamentals should inspire the rest of us to do the same.

This book is dedicated to my father Clifton R. Webb, Jr.

INTRODUCTION

Ornamental plants have always been very important to people. They are enjoyed by nearly everyone and in almost every corner of the world, and their presence in Polynesian villages was documented by European explorers in the 1700s. Nowadays, with people able to travel around the world, new varieties of ornamental plants have made their way to Samoa, and one can find species from as far away as Africa and South America planted here on the islands.

The global plant trade allows people to appreciate the diversity of plants and to beautify their own homes with new and exotic species from faraway places. One unintended consequence of this, however, is that the ornamental potential of local plants may be overlooked, even though many are beautiful, have cultural significance, and in some cases are not found anywhere else in the world. American Samoa is home to a wide variety of native plants that have excellent ornamental potential, but many people are simply unaware of their existence.

This book is a guide to the native tree species of American Samoa that can be cultivated for ornamental purposes. My focus is on trees that range in size from about 1 meter to over 20 meters in height, but I have also included a few shrubs that have special potential. For each species I highlight the ornamental traits including size, form and color (of the trunk, leaves, crown, etc), ability to produce shade, flower and fruit characteristics (size, color, scent, etc), and attractiveness to native birds and bats. Some of the trees are already in use, both in American Samoa and across the South Pacific; others have never been considered but are ones that I believe should be tested.

Why focus only on Samoan species? Why not promote any tropical ornamental? There are several reasons. First is that there is enormous, untapped potential in American Samoa. New discoveries await in the forests of Tutuila and Manu'a, which hold dozens of unique species that are just as beautiful as imported varieties. It is amazing to realize that right outside your doorstep, in the tropical rainforest, there live many plants waiting to be discovered! All that is needed are people to collect seeds, plant and take care of them, and see what happens. Secondly, planting native species helps to preserve native Samoan plants and animals. Some of the plant species in this book are uncommon or rare, and some are found nowhere else in the world! Planting them on your land will help the species survive by increasing the population numbers. Planting native trees also helps populations of native Samoan wildlife, such as the pe'a, lupe, manuma and manutagi, which get nourishment from the flowers and fruits of many native species. Since Polynesians arrived to Samoa nearly 3000 years ago, many of the bird species have disappeared. By planting trees that provide food for birds and bats, you can help sustain those that remain. Third, planting native trees can help you pass on traditional Samoan knowledge and culture to your children. Every plant species in the forest has its own story to tell about where it grows best, what animals visit it, and how Samoans have used it for thousands of years. Unfortunately, much of this information is being lost. But we can fight the loss of knowledge by planting native trees, learning each species' story, and teaching it to our children. Finally, planting native species helps avoid the importation of exotic plants that could invade Samoan forests. For example, the rainforest of Tahiti is being conquered by an alien species (*Miconia calvescens*) that was brought in to be an ornamental. In American Samoa, there are several non-Samoan tree species that threaten forests, such as lopa (*Adenanthera pavonina*) and pulu mamoe (*Castilla elastica*). Luckily, however, the forests of Tutuila and Manu'a are largely pest-free. But by planting native trees, you might be protecting American Samoa's forests from possible invasion by unwanted, alien species!

There are government agencies that can help you learn more about native plant species that could serve as ornamentals. The Land Grant office propagates seedlings of many tree

species for distribution. If the demand for native tree seedlings increases, then hopefully the Land Grant will respond by increasing the number of native species they propagate. So, do not hesitate to make your voice heard! The Department of Marine and Wildlife has several scientists who can discuss the ecology and life history of the native plants and wildlife, so that you can get a better idea of what animals you might attract with particular trees.

PLANTING TIPS

The vast majority of ornamentals found in a garden or near a house have been planted. A yard with a wide diversity of species, planted in an artistic manner, commands attention from passers-by and neighbors. It will also enhance your own quality of life. Humans have an intimate connection to the land and to biological diversity, and a diverse garden of native plants that attract the native wildlife is far more preferable to a drab, uninteresting yard.

Creating a beautiful landscape of native trees and shrubs can be done by anyone with the desire to pursue his or her own artistic vision. You can plant trees and shrubs to reflect your family's taste and interests, and to attract as much wildlife as you desire! There is no limit to your own creativity and potential: you can create a yard that might look like a well-manicured garden, a forest, or something in between.

One of the most important ways to maximize your enjoyment is to find a balance between the number of species and the number of individuals per species you plant. If you plant many individuals of only one or two species, then the diversity of your garden will not be very high. But when that species has flowers and fruits, you can be sure to have a spectacular garden with lots of flowers and fruits, visited by many birds and bats. On the other hand, if you plant a wide variety species but only one tree for each, then you might get flowering and fruiting over most of the year, but with only a few trees at a time. Most people find the best option to be somewhere between these two extremes, and I encourage you to explore the endless combinations of tree diversity and abundance.

It is also worthwhile to decide what particular functions you want each tree to perform. This can help you decide what species to plant. Try asking yourself and your family some of these questions: Does our land need a large shade tree as the focal point of the yard, to sit under or to have a barbecue under? Do we need a small tree that will provide shade to a fale? Do we want to have a species with fragrant flowers near our house? Do we want to plant a tree that will attract wildlife, like segasegamau'u, lupe, manutagi or pe'a? Do we want to plant a rare species, or a species that is only found in Samoa? Asking yourself what you want out of a particular tree or shrub will help you decide what species you might want to plant. This guide is designed to help you decide what particular species might suit your needs.

Finally, you should consider the stature of the plant when deciding what species to choose and where it should be located in the yard. It is often very difficult to envision what a tree might look like 10 or 20 years in the future. But generally, large trees should be planted away from the house, whereas medium and small-sized trees can be planted closer to houses and fales.

PRESERVING EXISTING TREES IS IMPORTANT

While most ornamental trees are deliberately planted by the landowner, in American Samoa there is a great opportunity to preserve existing trees that grow naturally on the land. During traditional cultivation practices, land is cleared for plantations of taro, ta'amu, ulu, and other agricultural crops. The practice of clearing land, although considered a Samoan tradition, can be very harmful to the land if it is done in a careless manner. Soil can erode rapidly, and the

forest will not regenerate very quickly if invasive species such as fue saina (*Mikania micrantha*) or fua pepe (*Leucaena leucocephala*) become established. Also, developing land for building a new house or another structure usually requires clearing the land. But is it really necessary to cut down every tree on a piece of land? No, it is not! In fact, you can benefit from preserving trees on your land. This is an important way to protect the soil and to benefit wildlife at the same time. Trees produce shade, which can reduce invasion by unwanted weds. Preserving native trees will benefit birds and bats by providing food for them. Scientists have shown that even a single tree in an agricultural field can attract wildlife if it produces fruits or flowers attractive to animals! By attracting wildlife to those protected trees, new seeds from the forest will also be brought in, thereby assisting natural forest regeneration after agriculture has finished. You can help conserve Samoan plants and wildlife by protecting important Samoan tree species on your land and in your plantations. ***Preserving trees means to not cut them down and to protect them from being cut down by other people***.

One sad example of why trees should be preserved is in Tafuna, where once there was a huge, magnificent asi tree in a large planter near the roadside (see the photo of *Syzygium inophylloides*). The tree in that photo is no longer there because it was cut down. You can see how this incredible specimen beautified the roadside and invited respect. When that tree was flowering, it was busy with native bird species. Now, with that massive asi tree gone, the location is no longer visited by the iao or segasegamau'u. It is a tragedy that we can prevent if we preserve long-standing trees on land.

Similarly, the large aoa (*Ficus prolixa*) trees that have towered over the Tafuna plains for generations have become rarities due to habitat loss and people burning trash at the base of the tree. The aoa tree is perhaps the most important species to a broad range of fruit-eating animals such as the lupe, manuma, manutagi and pe'a. ***By killing aoa trees we are therefore affecting the wildlife as well!*** But by protecting and planting the aoa, we can help to sustain the diversity of wildlife on the islands. Please help to preserve the populations of native trees, and plant them whenever and wherever you can.

It is important to consider each tree on your land and decide if it has to be cut down, or if it can be preserved and continue to provide ecological services to you and your community. You can make a difference by preserving trees on your land.

ORGANIZATION OF THIS BOOK

On the next page you will find the list of Samoan trees and the page numbers where they can be found. After the table are the species descriptions, which include photographs and text describing their unique features. The species are presented alphabetically by scientific name. This was done because some trees do not have Samoan names, but all have scientific names. I hope you will enjoy browsing through and find many interesting ornamentals.

At the end of the book is a series of tables to help you determine the best species for your garden. The tables are listed according to specific features you might want: size, shade, leaf traits, flowers and fruits, attraction of wildlife, whether the species is rare, or other 'special uses'. Each table lists what I consider to be the 'best' species for each category. These tables reflect my opinion, which I try to articulate for each species.

I encourage you to experiment by planting many different types of native Samoan species. There are so many potential ornamental species of trees and shrubs that you can spend your whole life learning and planting only native species. Not only will you be able to pass on this knowledge to your children and grandchildren, but your home will be more beautiful too.

Tree species listed by Samoan name. Where a Samoan name refers to more than one species, the number of species discussed in this book is given in parentheses after the genus. Species that have no Samoan name are at the end of the table.

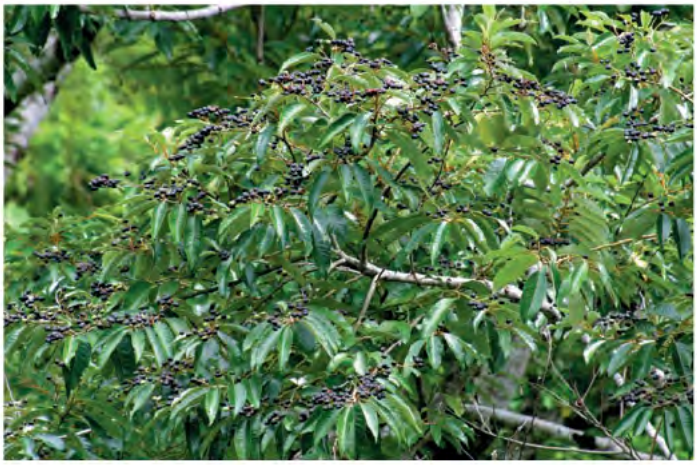
Name	Species	Page
A'amati'e	*Elaeocarpus* sp. (2)	24
Afa	*Neonauclea forsteri*	46
Ala'a	*Planchonella garberi*	49
Ala'alatoa	*Leukosyke corymbulosa*	42
Aoa	*Ficus* sp. (2 large)	30-31
Asi	*Syzygium inophylloides*	58
Asi vai	*Syzygium clusiifolium*	57
Falaga	*Barringtonia samoensis*	10
Fana'io	*Sterculia fanaiho*	56
Fau	*Hibiscus tiliaceus*	38
Fena vao	*Syzygium samoense*	59
Fetau	*Calophyllum inophyllum*	14
Filimoto	*Flacourtia rukam*	32
Fua lole	*Melastoma denticulatum*	44
Fu'afu'a	*Kleinhovia hospita*	41
Futu	*Barringtonia asiatica*	9
Gasu	*Palaquium stehlinii*	47
Gatae	*Erythrina variegata*	26
Ifi	*Inocarpus fagifer*	39
Ifilele	*Intsia bijuga*	40
Laga'ali	*Aglaia samoensis*	6
Laupata	*Macaranga* sp. (2)	43
Leva	*Cerbera manghas*	18
Malili	*Terminalia richii*	61
Mamala	*Dysoxylum samoense*	23
Mamalava	*Planchonella samoensis*	50
Mao'o'sina	*Trichospermum richii*	64
Maota	*Dysoxylum maota*	22
Masame	*Glochidion ramiflorum*	34
Mati	*Ficus* sp. (3 small)	28-29
Milo	*Thespesia populnea*	38
Moso'oi	*Cananga odorata*	16
O'a	*Bischofia javanica*	11
Olioli	*Cyathea* sp. (2)	20
Pipi	*Hernandia moerenhoutiana*	36
Pu'a	*Hernandia nymphaeifolia*	37
Pualulu	*Fagraea berteroana*	27
Puapua	*Guettarda speciosa*	35
Soga	*Pipturus argenteus*	48
Talafalu	*Micromelum minutum*	45
Talie	*Terminalia* sp. (2)	60, 62
Tamanu	*Calophyllum neo-ebudicum*	15
Taputo'i	*Elattostachys falcata*	25
Tauanave	*Cordia subcordata*	19
Tausuni	*Tournefortia argentea*	63
Tava	*Pometia pinnata*	51
Tavai	*Rhus taitensis*	52
Togo	*Rhizophora* and *Bruguiera*	12
Toi	*Alphitonia zizyphoides*	7
To'ito'i	*Scaevola taccada*	54
U'unu	*Sarcopygme pacifica*	53
Vivao	*Garuga floribunda*	33
	Astronidium navigatorum	8
	Buchanania merillii	13
	Casearia samoensis	17
	Cyrtandra sp. (2)	21
	Sophora tomentosa	55

Species Descriptions

Aglaia samoensis
Laga'ali

Laga'ali is only found in the Samoan islands and therefore has special importance as an ornamental. It is a small tree usually less than 5 m height, found in undisturbed lowland forest. If it is grown in moderate light levels, it produces a nice dense crown of leaves and flowers. The greatest ornamental feature of laga'ali is the flower, which is small, cream colored and highly fragrant. These flowers have been used for generations by Samoans to scent coconut oil. Laga'ali fruits are small brown spheres that split open to reveal one or a few seeds. The fruits are probably eaten by birds such as fuia, and possibly lupe. In fact, in the forest, it is difficult to find open fruits that have the seeds; laga'ali is a very popular food for wildlife.

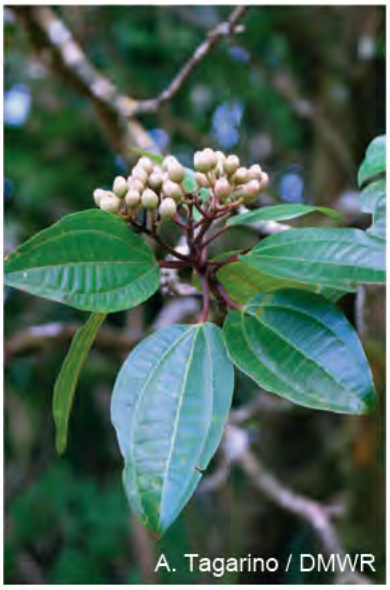
Laga'ali could be planted near the house or fale, where the fragrance could be smelled in the home, or it could be planted in groups as part of a hedge, where the fragrance could be quite noticeable from a distance. Perhaps the best place to plant laga'ali would be near doorways and windows in order to maximize the enjoyment of the flowers. The trees may attract fuia and lupe. Laga'ali probably requires moderate light levels.



Alphitonia zizyphoides
Toi

Toi is a large tree that can easily reach 20 m height with a wide but open crown. It is usually found in forest that is regenerating after a disturbance or cultivation. The trunk is straight, with smooth gray bark. The leaves are bright green above, with a light gray tint below and very short brown hairs on the leaf stalk. When the wind blows the leaves, the contrasting colors of the upper and lower parts of the leaves are highly visible and beautiful. The flowers are small and white, and produced in large quantities at the ends of the branches. They are visited by iao, and both species of pe'a. The fruits are dark purple spheres that contrast with the bright green to silvery tones of the leaves. They are eaten by lupe and probably miti vao. Although toi can grow very large, I have seen beautifully shaped small and medium-sized trees.

Toi is a great choice as a stand-alone tree in an open yard, planted at a good distance from the house. It should grow well in an open area.



Astronidium navigatorum

Astronidium navigatorum is found only in Samoa, yet has no Samoan name. It is a shrub or a small tree normally found at elevations above 200 m. The leaves have three primary veins arising from the base, with secondary veins intersecting the primary veins at nearly right angles, producing a square pattern on the leaf blade. The leaf stalk is purple. The white flowers have the shape of a five-pointed star and are found in dense clusters at the ends of the branches.

Astronidium has beautiful foliage and flowers. Nothing is known about how it would respond to pruning. If it can be grown at lower elevations it would make an interesting addition to a garden. It could definitely be planted in the higher elevation villages on Tutuila. This species could be planted virtually anywhere in the homestead: near the house to add texture and diversity, as part of a hedge, or simply as a stand-alone tree. It would grow best in a sunny location.

Barringtonia asiatica
Futu

Futu is common near the coastline. In some villages it is already used as an ornamental. Futu is usually less than 10 m tall, but it has a dense crown of large, shiny dark green leaves that produces excellent shade. When pruned properly, futu has a symmetrical, rounded crown. The flowers are large and white with many pink and white stamens with yellow tips. The fragrant flowers attract pe'a, which visit the trees at night. The green fruits are large, several inches across, and with four sides. In the old days, the seed would be ground up and used as a fish poison on the reefs.

Futu is an excellent choice for someone wanting a medium-sized, densely-crowned tree. It grows slowly so patience is required, but it produces excellent shade when it is mature. The tree could be planted anywhere since it does not get very tall. The flowers will attract pe'a so this is an excellent species to help conserve wildlife. It should withstand cyclones quite well. Because much of the coastal area in American Samoa is being developed, existing trees should be preserved wherever possible. To see an excellent specimen of futu, visit Lion's Park in Tafuna, where the photograph above was taken.

Barringtonia samoensis
Falaga

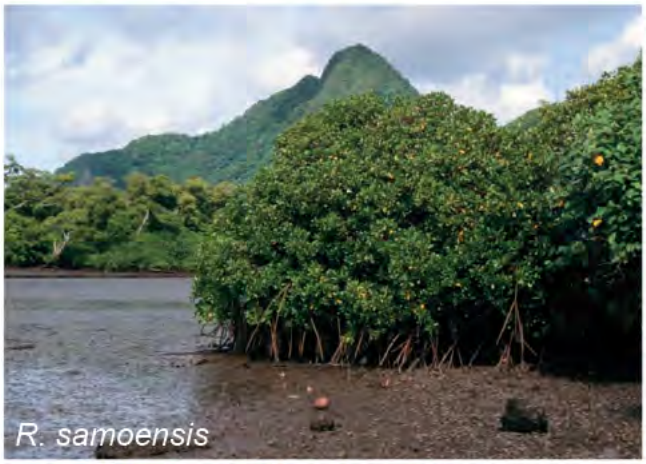
Falaga is a small or medium-sized tree usually less than 10 m height, found in moist areas near streams. The leaves are large and clustered at the ends of the branches, but the crown is open and does not provide much shade. Each tree usually has several bright red leaves in the crown, adding contrast to the greenery of the other leaves. The ornate flowers are 1-2 inches across with a small white calyx and many bright red filaments. The flowers are found in long, delicate, hanging clusters, a unique flower arrangement in American Samoa. The flowers are probably visited by iao, segasegamau'u and pe'a. The fruits are large and somewhat spherical, with a deep red color when ripe.

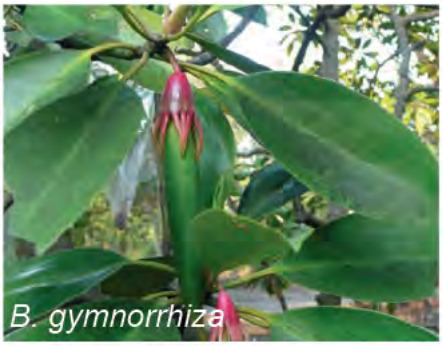
Falaga could be an excellent ornamental for wet or swampy areas, but it probably could be planted in drier areas too. In fact, I have seen small *Barringtonia* trees planted along the roadside in Singapore. My suggestion would be to plant this tree in a group with other trees that have fuller crowns, because falaga does not have a dense enough crown to make it a good stand-alone tree. The beauty of the flowers will make an excellent complement to other tree species.

Bischofia javanica
'O'a

The 'o'a tree is well known throughout Samoa as both an ornamental and culturally important tree. 'O'a can achieve a very large size with a wide trunk and a beautiful, full crown that provides a lot of shade. The bark is brown and flaky. The leaves are compound and consist of three leaflets with toothed edges. New leaves are light green and older leaves are dark green, making a beautiful contrast. The fruits are small orange to brown spheres and produced in large bunches every year. The fruits are eaten by lupe, manutagi and fuia. 'O'a grows fast in open light, so the species can quickly become a large tree.

'O'a can already be found as a stand-alone tree at many houses across American Samoa, and this species is an excellent choice for open areas where shade is desired. The tree is best planted alone, like in the photos above, so that the beauty of its trunk, crown and fruits can be appreciated. This species recovers from cyclones quickly.





Bruguiera gymnorrhiza and ***Rhizophora samoensis***
Togo

These are the two main mangrove species of American Samoa that live in swampy coastal mudflats flooded by high tides. Togo is found in Pala Lagoon, Leone, Vatia and Aunu'u, with smaller populations in a few other locations on the northern coast of Tutuila. The two species here are quite different but they have the same Samoan name. Both species are usually medium-sized trees, but they can grow large under the proper conditions. Both species have straight trunks, but *Rhizophora* has additional structures called stilt roots, which are beautiful arching structures that extend out from the trunk, provide stability to the tree and help it breathe! During high tide the stilt roots provide shelter for many marine creatures, such as juvenile fish, crabs and mollusks. *Bruguiera* leaves are thick and leathery, and produce a compact, dense crown. The flowers of *B. gymnorrhiza* have a bright red or pink calyx, and are visited by iao and segasegamau'u. The fruit is several inches long and looks like a cigar, but is actually a germinated seed! *Rhizophora* flowers are yellow and the fruit is similar to but smaller than *Bruguiera*. Mangroves are the only trees in the world where the seeds germinate while still on the tree.

Although togo is found in tidal mudflats, they can grow in upland soils as long as there is sufficient water. So, you can plant togo in your homegarden, and with proper care it will survive. However, togo will not survive on sandy beaches where there are waves. In Pala Lagoon, togo populations are in danger because of cutting. This could have serious impacts on the health of the Pala lagoon ecosystem. Mangroves need protection because many marine species depend on them.

Buchanania merillii

Buchanania is a large forest tree found only on the Samoan islands. It has no Samoan name. It is fairly common on Tutuila but largely absent from Manu'a. It can reach heights over 25 m, with a wide, dense crown. It has a straight trunk with smooth bark. *Buchanania* has long, shiny, dark green leaves clustered near the ends of the branches, with long leaf stalks, giving it very interesting foliage properties. It has small white flowers. The fruits are compressed spheres, purple when ripe, and are an important food for lupe and manutagi.

Buchanania is a large tree and therefore should not be planted close to a house. It would do well as a stand-alone tree, planted in a row near the edge of a property line, next to the road, or in groups with other trees. One of the primary reasons to plant *Buchanania* would be to attract lupe and manutagi when the trees have fruit.

Calophyllum inophyllum
Fetau

Fetau is a common coastal tree that can grow up to 15 m height, with a thick trunk and a dense crown of leaves that produces excellent shade. However, fetau can also be a beautifully sculpted medium-sized tree (see photo above). The trunk may have deep vertical cracks in the bark that provide interesting texture. The leaves are long, thick and leathery, shiny and dark green above, and lighter green below. The leaf stalk and the midvein of each leaf is a beautiful bright yellow, and the leaves have straight and tightly packed parallel secondary veins. Overall, these are some of the most beautiful and richly textured leaves in American Samoa. The flowers are magnificent and produced in abundance along the branches. They are about 1-2 inches across and have open white petals with many bright yellow filaments in a circular pattern. The flowers are visited by iao, segasegamau'u and pe'a. The fruits are medium-sized, light green to purple spheres that hang in attractive clusters. The fruits are eaten regularly by both species of pe'a, particularly pe'a fanua.

Fetau is an excellent candidate for ornamental planting. Although in American Samoa it is common near the coast, it can be planted far away from the shoreline, too. It can easily be a stand-alone tree, both near the house or along the roadside. Fetau species grows slowly, so wherever possible existing trees should be preserved.

Calophyllum neo-ebudicum
Tamanu

Tamanu is a medium-sized to large tree that can grow to more than 20 m height, with a fairly narrow crown that produces good shade. The bark may have vertical cracks, with beautiful tints of golden yellow or orange particularly on young trees. The leaves are shiny, deep green and with a bright yellow, thick midvein and closely packed straight secondary venation. New leaves are a bright, deep red color that makes the crown exceptionally beautiful during leaf flushes. The flowers are white or pinkish with yellow filaments (similar to fetau); they are visited by iao, lupe and pe'a. Mature fruits are green to purple spheres about 1-2 inches across, and found in clusters. Lupe eat tamanu fruit.

In contrast to its sister species fetau, I have never seen tamanu planted as an ornamental. However, I suspect that this species would make an excellent addition to a garden. The variety of textures and colors provided by the bark, leaves, flowers and fruits make it a unique species. It could be planted alone so that its bark and leaf features could be appreciated. Similar to fetau, tamanu is a slow-growing species so existing trees should be preserved wherever possible.

Cananga odorata
Moso'oi

Moso'oi is planted all across Polynesia and has a long cultural heritage in Samoa. It is a fast-growing, medium-sized tree with a fairly open crown. The trunk is straight with smooth gray bark. The long, slender branches are well spaced along the trunk and often hang downward with drooping leaves. The flowers are large and bright yellow with six long petals, and found in clusters along the branches. They are perhaps the most intensely scented flowers in all of Polynesia, and can be smelled from long distances. They are bold and sweetly fragrant, and are used in Samoa to scent coconut oil. Flowers are visited by iao and pe'a. The fruits are found in small clusters, and are smooth elongated spheres that are green when immature, and turning purple when ripe. Lupe and manutagi love to eat these fruits. Anyone who plants this species should have visits from birds and bats.

Moso'oi should be planted in open areas, where everyone can enjoy its unique growth form and beautiful, fragrant flowers. It grows fast, so trees will begin producing flowers within a few years. Perhaps the best location to plant moso'oi would be near a roadside or walking path, where the fragrance could be enjoyed by both residents and passers-by.




Casearia samoensis

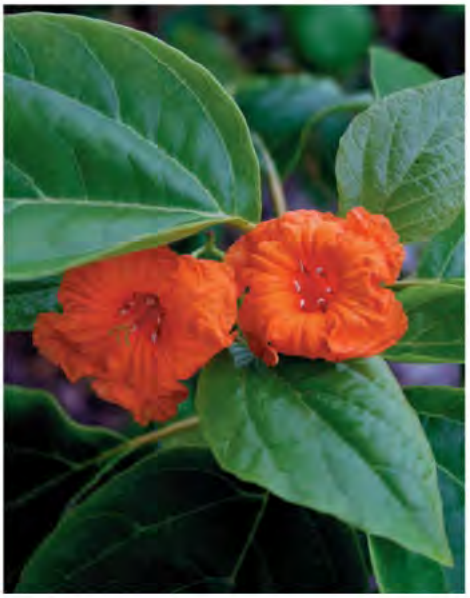
Casearia samoensis was only recently described as a new species to science, and is found only in the Samoan islands. As a result, it has important scientific value for American Samoa. *Casearia* is a small to medium-sized tree with an open, sparse canopy of medium-sized shiny leaves. The flowers are small and white, found in small clusters along the branch. The fruits are yellow when ripe and they split open to reveal numerous small black seeds embedded in an orange to red pulp. This pulp is very tasty to birds, because in the forest it is almost impossible to find open fruits with seeds and pulp inside. Fuia are most likely the birds that eat *Casearia* fruits.

Casearia has never been planted as an ornamental, so I recommend that you experiment with it. Although it has a sparse branching pattern when growing in the forest, it might have thick foliage and many flowers if grown in higher light. Overall, *Casearia* could be one of the better small tree ornamental trees on the islands. It should be planted near a house or a fale, either alone or in combination with small shrubs or taller trees. The fruits should attract a variety of fruit-eating birds. This is a high priority ornamental.

Cerbera manghas
Leva

Leva is coastal tree that is planted in many tropical countries as an ornamental, but it is not very common in American Samoan villages. Interestingly, I have found leva at old village sites in the forest, indicating that it was used as an ornamental in the past. This practice should be revived because leva has fantastic ornamental properties. The trees are usually about 5-10 m tall, with long, narrow leaves in a crown that produces light shade. The flowers are bright white, with flaring petals and a red margin surrounding the opening to the long narrow tube. The fruits are about four inches long and ellipsoid, turning deep red when mature.

Leva can grow in a wide variety of soil conditions, so it has excellent potential to be planted widely in American Samoa. This medium-sized tree has a growth form that can be used with many different planting strategies. It would provide a lovely accent next to a house or fale. It could be planted away from the house, either standing alone or in / next to a hedge in association with taller trees and shorter shrubs. It could be planted along the roadside, similar to the way people plant the non-Samoan pua fiti (*Plumeria rubra*). This is a versatile species that should be widely promoted. Revival of leva as a native ornamental should be a priority!



Cordia subcordata
Tauanave

Tauanave is usually found near sandy shores and in coastal forests. In some parts of Asia and the Pacific, it is already planted as an ornamental and pruned to emphasize its naturally beautiful form. It is usually a small to medium-sized tree, but it can become a large tree if left alone under the right growing conditions. The leaves are broad and a shiny, ranging from light to dark green. The flowers are about 2 inches across and bright orange, usually produced singularly or in small clusters. The fruits are spherical, and usually dark when they are mature.

In my opinion, this is one of the highest priority ornamental trees in American Samoa. It is an excellent coastal species that could be planted along the roadside. It can be planted near the house or fale, where the fantastic orange flowers will accent any structure and it will produce excellent shade without becoming a danger to the structure. Tauanave should be planted in open light conditions.

***Cyathea* species**
Olioli

Olioli is one of the most unique ornamental species of American Samoa. As a fern it is part of an ancient group of plants that do not have flowers. Instead, they reproduce using spores. Ferns were one of the dominant plant groups during the time of the dinosaurs more than 100 million years ago! Now, across American Samoa, tree ferns can be found as common residents in the hill and montane rainforests. Olioli is a type of tree fern, which can grow to over 5 m tall in open conditions. It has stunning large, feathery fronds clustered at the top of a dark brown or black, fibrous stem. New fronds uncurl from the top of the stem in a structure called a fiddlehead.

Tree ferns are already used as ornamentals throughout much of the world, adding complexity to the landscape. The vegetative features of olioli make it essential planting for anyone who is serious in having a structurally diverse garden. Its greatest ornamental features are the large, feathery fronds. Tree ferns should not be planted as stand-alone trees, because they will never produce flowers, and are therefore probably best considered as accent species. They are tall enough to be the upper layer in a multi-layer garden. I do not know how easily this species can be propagated; research should be initiated on the Samoan species.