

# FIELD AND GARDEN PLANTS OF GUAM

tinanom kana yan hatdin siha giya guahan

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Cover - Photo taken at the Okura Hotel, looking northeast over Tumon Bay. Guam's flower, Bougainvillea, in the foreground.

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## PREFACE

Since 1970, Benjamin C. Stone's "Flora of Guam" has been the principal reference for botany students but some recent name changes have been made (Fosberg et al. 1979). In this text both the new and the earlier names are included, the earlier name is in parentheses. In the few cases where the species is in question, the specific name is in brackets followed by a question mark. When no common name is known, the generic name is suggested for common usage as in *Plumeria*, *Bauhinia* and *Bougainvillea*. Used as such in the text, the names are treated as common names and are not italicized.

## KEY TO LETTER SYMBOLS

- A - Scientific Name
- B - Family Name
- C - Common Name
- D - Local Name
- E - Description
- F - Distribution
- G - Notes

## INTRODUCTION

*Field and Garden Plants of Guam* is designed as a botanical field guide and its purpose is to provide a way for interested people to learn the names of the plants that they see around them. Like most other places, Guam has a flora that is well documented for use by specialists of the scientific world. Reliable reference tools for students and interested amateurs, however, are almost nonexistent and it is for these individuals that this book is intended.

The book is essentially additions to *Plants of Guam* (Moore and McMakin, 1979) but there are great differences in the organization of the material. Species included in *Plants of Guam* are arranged by plant community and consist of only the most representative or the most interesting plants in each of five different plant communities. In each case the species is typical of one particular plant community. Virtually all the plants included in the book are either native to Guam or of very early introduction.

The species in *Field and Garden Plants of Guam*, on the other hand, have been arranged by plant form, that is, Trees, Shrubs, Herbs, Vines and Ferns. One reason for this is that, with few exceptions, the plants described are of relatively recent introduction to Guam and are not generally thought of as belonging to a particular native plant community. This recent introduction may also account for the lack of local names.

Within each of the plant forms or groups, the species are arranged alphabetically by family. For cross reference, in addition to an alphabetical index, a list of the species in each family is included. This can help to provide botany students with an appreciation for the diversity within a family.

All the plants included in the text can be seen on roadsides and open fields, in gardens and lawns or along well traveled trails. Where practical, a specific location is given but for reasons of privacy this cannot always be done. For some of the trees which would be difficult to identify without detail of leaf, flower or fruit, a public building or landmark is included so that an interested reader can find the plant.

The majority of species described are seed plants and very little space has been devoted to the large number of plants that do not produce seeds. Among these seedless plants are about 65 different ferns found on Guam. These are represented by only a few of the more interesting ones.

## TREES

*"May I be a friend to all the trees"*

John K. Bangs - Friends Out of Doors.



- A. *Plumeria obtusa*
- B. Apocynaceae
- C. Plumeria, Frangipani
- D. Calachucha
  
- E. *P. obtusa* has dark green, waxy leaves that are rounded on the end. The trunk and branches are knobby. The flowers are white or creamy, and fragrant. The fruit is pod-like, usually twinned and inconspicuous.
- F. Native to Tropical America. Now widespread in the tropics.
- G. This plant is easily grown from cuttings and is perhaps the most widely grown ornamental on Guam. The plant is evergreen and it blooms almost continuously. The flowers are used for leis.



- A. *Plumeria rubra*
- B. Apocynaceae
- C. Plumeria, Frangipani
- D. Calachucha

- E. This species of *Plumeria* has yellowish-green leaves that are acute at the apex and not waxy. The trunk and branches are smooth. The flowers are pinkish-red or white with yellow centers. The fruit is usually twinned and pod-like.
- F. Native to Tropical America. Now widely cultivated in tropical countries.
- G. *P. rubra* is deciduous, dropping its leaves in the dry season.

- A. *Schefflera actinophylla*  
(*Brassaia actinophylla*)
- B. Araliaceae
- C. Umbrella Plant or Octopus Tree

- E. Umbrella Plant is a good name for this small tree. Conspicuous leaf scars on the trunk and large palmately compound, umbrella-shaped leaves are easy features to recognize. Dark red flowers grow in small heads along the widely spread, radiating floral branches at the crown.
- F. An Australian species. Widely grown as an ornamental in tropical countries.
- G. This plant sometimes starts life epiphytically and sends roots to the ground like the strangling figs. Commonly it grows directly from the ground. Several excellent specimens are growing on the George Washington High School Campus. Others can be found across the street from Latte Stone Park in Agana.



- A. *Araucaria heterophylla*  
(*Araucaria excelsa*)
- B. Araucariaceae
- C. Norfolk Island Pine, Star Pine
  
- E. Star Pine is a cone shaped, evergreen tree with whorled branches and short needle-like leaves. Pollen-bearing catkins and seed cones develop near the ends of branchlets. Male and female are usually in separate trees.
- F. Native to Norfolk Island. Common ornamental in many areas of the Pacific.
- G. This tree grows well on Guam but does not produce seeds here. Seeds can be obtained from Hawaii where weather conditions are cooler and less humid.



- A. *Catalpa longissima*
- B. Bignoniaceae
- C. Common Yokewood
  
- E. Yokewood is a medium sized tree with rather pale, thin leaves that are arranged in whorls, several at each node. The flowers are terminal, delicate and white, tinged with pink. The fruit is pod-like, pendent and up to 60 cm. long.
- F. Native to the West Indies. Introduced to Guam and Hawaii.
- G. Probably brought to Guam for its useful wood. A nice specimen is growing on the grounds of the Flores Library in Agana. Several other trees may be seen on the road between the prison and Chalan-pago and near the bridge at Maina. The latter are "protected" by the "White Lady".



- A. *Crescentia alata*
- B. Bignoniaceae
- C. Calabash
- D. Hikara

- E. Hikara is a small tree with long, spreading or drooping branches. The leaf is composed of three leaflets in the form of a cross with a distinctly winged petiole. The flowers, which grow along the trunk and branches, are reddish-brown and the fruit is gourd-like.
- F. Native to Mexico. Introduced to tropical regions as an ornamental.
- G. This species is rare on Guam, however, it has been planted at the Bishop's residence in Agana. It is reputed to have been brought to Guam from Italy by a former Bishop.



- A. *Spathodea campanulata*
- B. Bignoniaceae
- C. African Tulip

- E. This is one of the most striking of tropical trees. It grows to a height of about 25 meters and has a buttressed trunk and large dark green leaves. These are divided feather-fashion with 9 - 17 paired leaflets, plus a terminal leaflet. The large scarlet and yellow flowers are crowded in erect clusters at branch tips.
- F. Native to Tropical Africa. Cultivated in most tropical countries.
- G. African Tulip is easily propagated from seedlings or cuttings and grows rapidly, producing flowers while still young. The tree is shallow rooted and the trunk and branches are easily broken in high winds.





- A. *Tabebuia pallida*  
(*Tabebuia pentaphylla*)
- B. Bignoniaceae
- C. Pink Tecoma

- E. This is a small, compact tree with palmately compound leaves composed of 5 radiating leaflets. The flowers are showy, pale purple or pinkish-purple and grow in clusters from the ends of branches. The fruit is pod-like and opens when dry to reveal many winged seeds.
- F. A Tropical American species. Introduced to Guam as an ornamental.
- G. Pink Tecoma does well on Guam, sprouting readily from seeds in the vicinity of the parent tree. It flowers continuously when mature.



- A. *Cordia sebestena*
- B. Boraginaceae
- C. Cordia

- E. Cordia is a small tree with a grayish trunk and dark green, stiff, ovate leaves. The flowers are bright orange-red. The fruit is white, fleshy and about 2.5 cm. long.
- F. Native to Tropical America. Brought to Guam as an ornamental.
- G. A row of these trees line the street near the Post Office and the Police Station in Agana. Guam has a similar native species *C. subcordata*, locally called Niyoron.



- A. *Cycas revoluta*
- B. Cycadaceae
- C. Cycad

- E. Cycads are palm-like, usually unbranched trees with stiff, spiraled leaves, crowded at the crown. The sexes are separate, the male producing one or sometimes two large cones; the female tree, bearing seeds in modified leaves at the crown.
- F. Native to Japan and China. Introduced to Guam as an ornamental.
- G. This species is smaller than the native *C. circinalis*. The leaves are darker and stiffer with sharp spine-tipped leaflets. Several nice specimens are growing at the Agana Shopping Center and at McDonald's.



- A. *Aleurites moluccana*
- B. Euphorbiaceae
- C. Candlenut or Kukui
- D. Lumbang

- E. Kukui is a medium sized tree with simple, long petioled, angular, trilobed leaves that are usually covered with whitish down. The flowers are small, white and arranged in clusters at the ends of branches. The fruit is rounded and about the size of a golf ball.
- F. Native to Polynesia and to South Asia.
- G. The name "candlenut" refers to the use of the oily nuts, throughout Polynesia, for candles. The hard seed is used for ornament.



- A. *Jatropha integerrima*
- B. Euphorbiaceae
- C. Rose-flowered Jatropha

E. Rose-flowered Jatropha is a small, richly branched tree with simple, spirally arranged, long petioled leaves. The leaves may be entire or with one or two lobes. The flowers are borne in corymbs, each with five bright red petals. The fruit is a green, ridged capsule.

F. This plant came from Cuba.

G. Planted on Guam as an ornamental, the plant flowers continually.



- A. *Bambusa blumeana*
- B. Gramineae
- C. Spiny-bamboo
- D. Pio Titoca

E. This is a tall bamboo with stems to 15 meters long and 10 cm. thick. The stems (culms) are spiny near the base and the lower branches are armed with curved spines in groups of three. The sheath or tubular base of the leaf is hairy.

F. Native to Java. Widely planted in Southeast Asia and the Philippines.

G. According to Stone this bamboo was imported from the Philippines. The tender shoots can be eaten. A stand of this may be seen at Umatac.



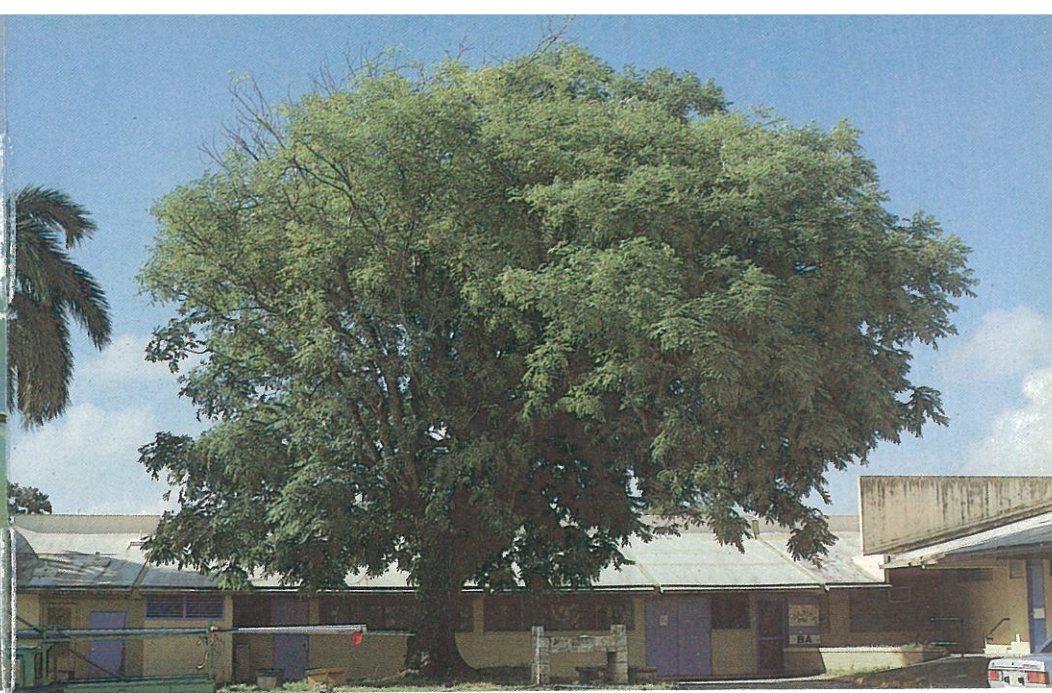
- A. *Calophyllum inophyllum*
- B. Guttiferae
- C. Palomaria
- D. Da'ok

- E. Palomaria is a medium to large tree with opposite, elliptic, smooth, dark green, leathery leaves. The flowers are white with numerous yellow stamens and grow in racemes at branch tips. The fruit is round, golf ball size, and hangs in clusters on long stems.
- F. Tropical Asia and the Pacific.
- G. This is a familiar strand plant on many Pacific islands. The wood is hard and of good quality and the tree is attractive for landscaping. It is planted along Marine Drive in Agana and in most parks on the island. The fruit is poisonous.



- A. *Merrilliodendron megacarpum*
- B. Icacinaceae
- C. Merrilliodendron
- D. Faniok

- E. Faniok is a medium sized tree having a dark trunk and simple, alternate, ovate or obovate leaves. The flowers are axillary and occur in an open panicle. The fruit is elliptic, about 5 cm. long with a thick seed coat and a very hard inner shell.
- F. This is a rare Western Pacific species.
- G. This species seems to require a water table that is near the surface as it is confined to habitats that meet this requirement. It is found in only a few places on Guam. The most accessible specimens can be seen near the fresh water pool at Hilaan point. Another young tree is well established at Agana Spring.



- A. *Acacia confusa*
- B. Leguminosae
- C. Acacia

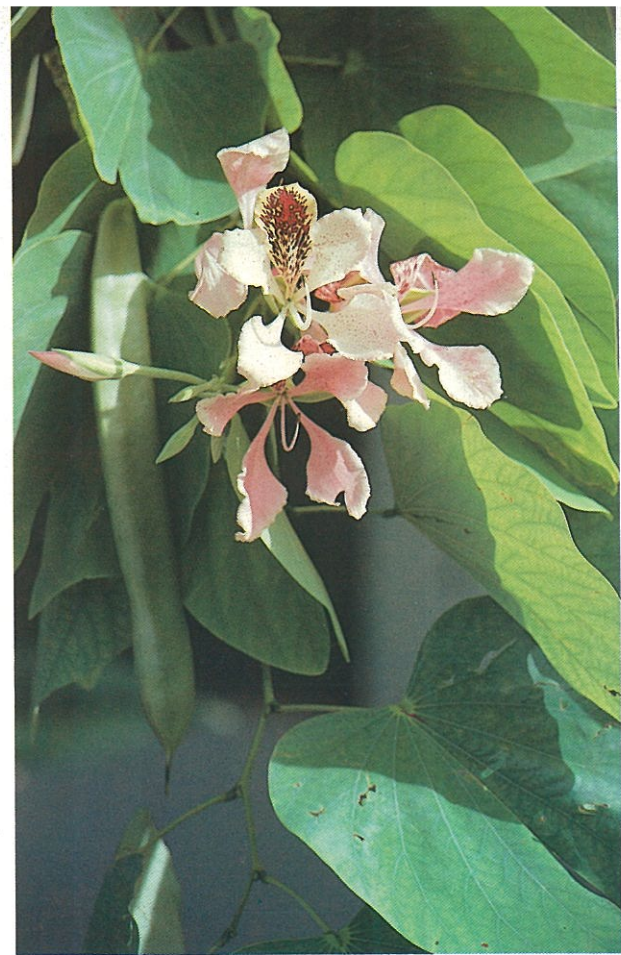
- E. Acacia is a small tree, having different adult and juvenile foliage. The mature leaf is a phyllode, a winged or expanded petiole without a blade. The juvenile leaf is bipinnate. The flowers are yellow and occur in small rounded heads.
- F. Native to the Philippines. Naturalized in many Pacific islands. Very common on Saipan and Tinian.
- G. Representatives of the genus *Acacia* are native from Africa to Asia, Australia and the Pacific islands. 500-900 species exist world wide. Guam has one other species *A. farnesiana* which is a shrub with prickles and normal bipinnate leaves.

- A. *Adenanthera pavonina*
- B. Leguminosae
- C. False Wiliwili
- D. Kolales

- E. False Wiliwili is a medium to large tree with pale green, rather thin, compound leaves. The flowers, growing from leaf axils, are small, yellow and sweet smelling. The pods are curved or twisted. The seeds are scarlet and lens-shaped.
- F. Tropical Asia and Malaysia. Introduced to many of the Pacific islands including Hawaii where it is sometimes called Red Sandalwood.
- G. This tree was introduced to Guam. It makes an attractive shade tree and of particular interest are the red seeds which are sometimes used in making leis. "In Asia the seeds are eaten and they are also used as weights by gold and silver smiths; the weight is uniform at nearly four grains" (Neal 1965). This picture was taken at Price School in Mangilao. Several trees are also planted at Agana Spring, the cliff line above Ypao Road and on Government Hill above Latte Stone Park.



- A. *Albizia lebbek*
  - B. Leguminosae
  - C. White monkeypod, Woman's-tongue
  - D. Trongkon-mammes
- 
- E. Trongkon-mammes is a medium sized tree with spreading branches, a gray trunk and bipinnate leaves, quite similar to the monkeypod. The flowers grow in loose heads and are yellowish-green. The pods are flat, straw colored and hang on the tree after opening and dropping the seeds.
  - F. Pantropical, native from Africa to North Australia.
  - G. The dry pods on this tree tend to rattle, hence the name Woman's tongue. Two or three White monkeypods are planted at the front door of the Governor's mansion and one is growing in the "tree bar" at the Guam Hilton in Tumon. These trees can also be seen on Saipan.



- A. *Bauhinia monandra*
  - B. Leguminosae
  - C. Orchid tree or St. Thomas tree
- 
- E. This is a small deciduous tree with butterfly wing shaped leaves and orchid-like flowers. The flowers occur several together in clusters at the ends of branches; each with one stamen and five pink petals mottled with purple. The pods are flat, brown when ripe and up to 20 cm. long.
  - F. Native to Tropical America, now widespread in cultivation.
  - G. At least six species of Bauhinia grow on Guam with flower color ranging from white to purple. This is not an orchid but a pea.



- A. *Cassia fistula*
  - B. Leguminosae
  - C. Golden Shower
  - D. Canafistula
- E. Golden Shower is a tree that grows to a medium size and has rather large compound leaves with 4-8 pairs of pointed, pale green leaflets up to 15 cm. long. The flowers hang from branchlets in long, bright yellow, axillary racemes. The pods, up to 50 cm. long, are cylindrical, brown or black and contain many seeds.
- F. Native to Tropical Asia. Now widespread in cultivation.
- G. In full bloom, this tree is nothing short of magnificent with its large, spectacular clusters of yellow flowers hanging like bunches of grapes from the branches. Several trees are planted in Skinner's Plaza near the Post Office in Agana.



- A. *Delonix regia*
  - B. Leguminosae
  - C. Flame tree, Royal Poinciana
  - D. Atbot
- E. The Flame tree grows to be very large with a thick, gray trunk and a wide spreading crown. The leaves are bipinnate with numerous pairs of small elliptical leaflets. The flowers are bright red, streaked with yellow and occur in large terminal racemes. The pods are woody, flat, dark brown and up to 50 cm. long.
- F. Native to Madagascar. Now common as an ornamental in the tropical countries of the world.
- G. The trees of this species are sometimes defoliated by looper worms which is rather alarming to those who have not seen this before. Entomologists are working on a possible biological control for the problem. This picture was taken in Saipan where the controls seem to be working well.



- A. *Enterolobium cyclocarpum*
- B. Leguminosae
- C. Elephant's-ear, Guanacaste

- E. Elephant's-ear is a wide spreading tree with a very large gray trunk and branches. The large compound leaves are dark green and resemble those of the Flame tree. The flowers are white and occur in small, round clustered heads. The pods are dark brown and circular or coiled. The leaflets are decidedly asymmetrical in contrast to the perfect symmetry of those of the Flame tree.
- F. Tropical American origin. Introduced to Hawaii and other tropical countries for its useful timber.
- G. This large *Enterolobium* can be seen in the Plaza de Espana where it still lives, lying on its side, a casualty of Typhoon Karen (1962). Three of these trees grow beside the Watch Tower in Merizo and two or three others at Ypao Beach.



- A. *Peltophorum pterocarpum*
- B. Leguminosae
- C. Yellow Poinciana

- E. Yellow Poinciana is a medium to large tree with bipinnate leaves, up to 50 cm. long, and yellow flowers that grow in large terminal panicles. The pods are flat, short and slightly curved.
- F. Native to Malaysia and Australia. Widely planted in Southeast Asia as an ornamental. Introduced to Guam.
- G. These trees are planted in a number of places on Guam. This picture was taken near the boat basin in Merizo. Others may be seen at Agana Spring.





- A. *Samanea saman*
- B. Leguminosae
- C. Monkeypod, Raintree

E. Monkeypods are large trees with wide spreading crowns and dense foliage. The large compound leaves are pinnately divided, each secondary division having 5-6 pairs of broad leaflets. The flowers, produced on the tops of branches in loose, feathery heads, are tubular with numerous white and pink stamens. The pods are elongate, thick and persistent.

F. Native to Tropical America. First brought to Guam from Hawaii by Safford in about 1900.

G. Monkeypod wood is extensively used for carving and trees are grown in the Philippines, Hawaii and other tropical countries for this purpose. They are planted as shade trees on Guam.

- A. *Serianthes nelsonii*
- B. Leguminosae
- C. Serianthes
- D. Hayun Lagu (Guam)  
Trongkon Guafi (Rota)

E. This is a medium to large tree with spreading branches and dark green bipinnate leaves. The leaves are similar to those of the Flame tree but more dense and covered with rusty hairs beneath. The delicate pink flowers grow in panicles from leaf axils.

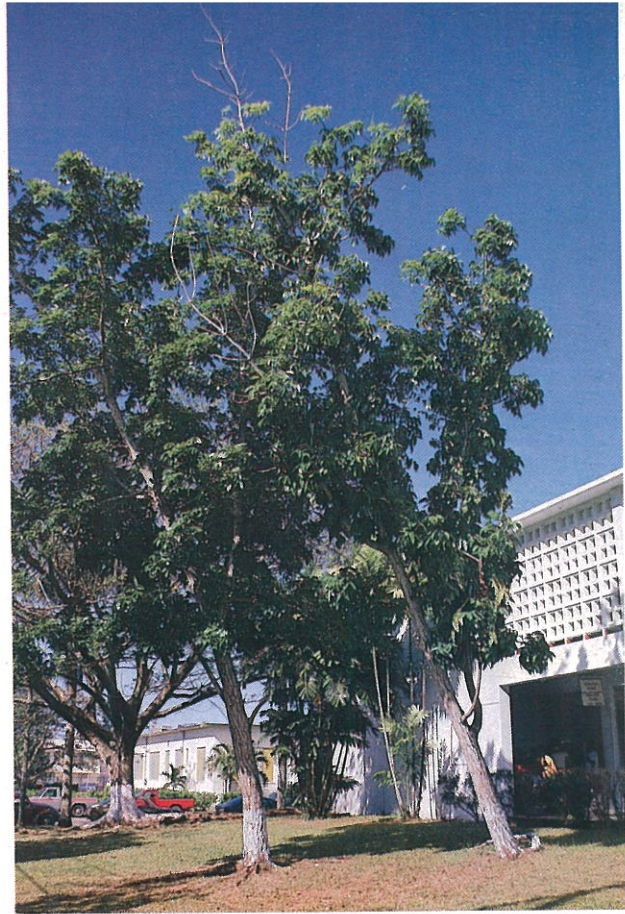
F. Endemic in Guam and Rota.

G. Serianthes is listed as an endangered species by the International Union for the Conservation of Nature. It is known only on Guam and Rota. The tree pictured is on Andersen Air Force Base.



- A. *Melia azedarach*
- B. Meliaceae
- C. Pride-of-India, Indian Lilac

- E. Indian Lilac is a small tree having bipinnate leaves up to 40 cm. long and 5-7 narrow, ovate, serrate leaflets. The inflorescence is a large, axillary, open panicle. The flowers are pale lavender. The fruit is yellow, oval and about 1.5 cm. long.
- F. Native to Tropical Asia. Naturalized in Hawaii and the southern United States. Introduced to Guam as an ornamental.
- G. This tree is not very common on Guam but has been seen in Agana Heights and Yigo. There are several planted at the Agricultural Experiment Station in Malojloj.



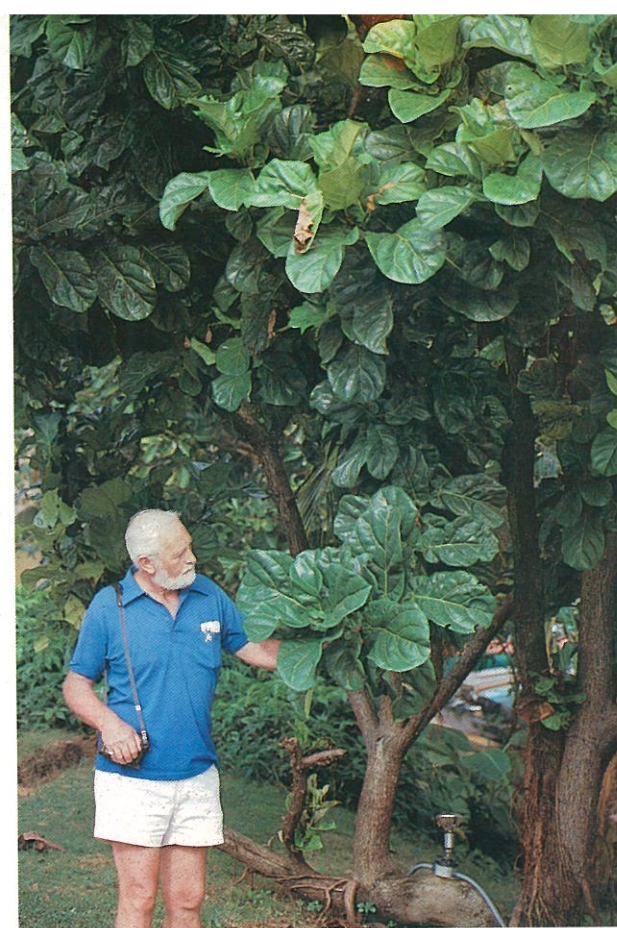
- A. *Swietenia macrophylla*
- B. Meliaceae
- C. Broad-leafed Mahogany

- E. This is a large tree with pinnately compound leaves that have pointed leaflets up to 15 cm. long. The small white flowers grow from branch tips in large open panicles. The fruit is woody and 10-20 cm. long.
- F. Native to Central America extending into South America. It has been introduced to other tropical regions for its valuable wood.
- G. This is probably the most valuable timber tree in Central America. These trees can be seen in a well established stand on a hill behind Piti Village. They were planted in about 1917 by the Agricultural Experiment Station.



- A. *Ficus elastica*
- B. Moraceae
- C. India-Rubber-Tree, Rubber-plant

- E. The India-Rubber-Tree has large, alternate, dark green leaves with a conspicuous midrib and an acute down-curved tip. The new leaves are pink and enclosed in a rosy sheath which drops off as the leaf opens. The plant does not flower or form fruit on Guam.
- F. Native plant from India. Grown ornamentally in tropical countries and as a potted plant in colder parts of the world.
- G. This is a common ornamental on Guam. A good stand can be seen at Price School in Mangilao and at the entrance to Agana Spring.



- A. *Ficus lyrata*
- B. Moraceae
- C. Ficus

- E. Ficus is a medium sized tree with large, dark green crinkly, fiddle-shaped leaves. The stems and leaves have thick, milky sap. Male and female flowers are separate. The fruit is about 5 cm. in diameter and white dotted.
- F. Native to Tropical Africa. Introduced to tropical countries as an ornamental.
- G. This species can be seen growing at the Guam Hilton on Tumon Bay. It is frequently used as a potted ornamental in public buildings outside of the tropics.



- A. *Ficus tinctoria*
- B. Moraceae
- C. Strangling Fig
- D. Hoda

- E. Hoda is a small tree that generally starts life as an epiphyte on a living host tree. The leaves are smooth, 10-15 cm. long and asymmetrical. The figs are red when ripe and about 1 cm. broad.
- F. Native to Guam, the Philippines and Polynesia.
- G. This is a fairly common species of the limestone and ravine communities on Guam. A nice specimen is growing near the water lily pond in the Plaza de Espana, rooted at the base of a Royal Palm Tree. Another interesting one is growing epiphytically on a Monkeypod Tree near the Sizzler Restaurant in Agana.



- A. *Streblus pendulinus*
- B. Moraceae
- C. Streblus

- E. Streblus is a small tree of the limestone community, having dark green alternate leaves that contain a thin milky sap. The leaves are serrate and crinkly along the edges, tapering to a point and rounded at the base. The flowers grow from leaf axils in spikes. The fruit is bright red and contains one seed.
- F. This species is native to the Marianas. A pantropical genus.
- G. Streblus is quite rare and little known on Guam. It resembles and is easily mistaken for the endemic species *Guamia marianae* or "Pai pai". There are, however, several of these plants growing along the path to the fresh water pool at Hilaan Point.



- A. *Ravenala madagascariensis*
- B. Musaceae
- C. Traveller's Tree
  
- E. The Traveller's Tree grows in the shape of a huge fan formed by the numerous long leaves growing out of an unbranched woody trunk. The leaves resemble those of the banana plant. The flowers are contained in boat-shaped bracts that arise from leaf axils.
  
- F. Native to Madagascar. Cultivated in tropical countries.
  
- G. The origin of the name "Traveller's Tree" has two versions. One states that the trees are navigational aids for travellers as they are always oriented in a N-S direction. The other is based on the fact that the leaf bases become reservoirs and hold a good supply of water which could provide a traveller with needed refreshment.



- A. *Eugenia cumini*
- B. Myrtaceae
- C. Java Plum, Jambolan
- D. Lumbuoy
  
- E. Lumbuoy is a medium sized tree with smooth opposite, oblong-elliptic leaves. The flowers are pinkish and clustered in leaf axils. The fruit is dark purple to black and contains one seed.
  
- F. Native to the East Indies. Widespread in cultivation. Introduced to Guam but not common on the island.
  
- G. This tree is grown for its edible fruit which is primarily used in the making of jam or jelly. Two of these trees are growing near the church in Mangilao. A good sized specimen can also be seen on the trail near Tarzan Falls.



- A. *Caryota urens*
- B. Palmae
- C. Fishtail Palm
  
- E. The Fishtail Palm is unusual because it is a member of the only genus in the palm family that has bipinnate leaves. These very large, wide-spreading leaves are borne, like branches, along a single trunk. The leaflets are wedge-shaped, obliquely cut and irregularly toothed.
  
- F. Native to Tropical Asia. Twelve species of Fishtail palms are native from India to Australia. The one found on Guam was introduced in 1911.
  
- G. This is a fairly common ornamental tree on Guam. Several can be seen along the road in Mangilao and there is one in front of a residence just north of Merizo.



- A. *Heterospathe elata*
- B. Palmae
- C. Heterospathe
- D. Palma-Brava
  
- E. This tall, slender palm reaches a height of 15 meters or more. The unbranched trunk is conspicuously ringed by old leaf scars. The branching inflorescence bears both male and female flowers in clusters of three, two male and one female. The fruit is bright red when mature.
  
- F. Guam and the Philippines.
  
- G. Palma-Brava has been mostly confined to the Agana area or west-central part of Guam but has spread out considerably in recent years. It can be seen at Agana Spring or along the road below Naval Hospital. This plant makes an excellent ornamental.



- A. *Livistona chinensis*
  - B. Palmae
  - C. Chinese Fan Palm
- E. This palm reaches a height of 15 meters or more in its native China but not usually more than 10 meters here. The leaves are palmate and wider than they are long. They are cut nearly to the middle in many long, forked parts which hang vertically. The petiole bears stout, brown spines. The fruit, growing in large clusters, is blue-green and about the size of an olive.
- F. Native to China and Malaysia. Introduced and cultivated in many tropical regions.
- G. Several nice specimens of Chinese Fan Palm have been planted in Agana parks and at Fort Santa Agueda.

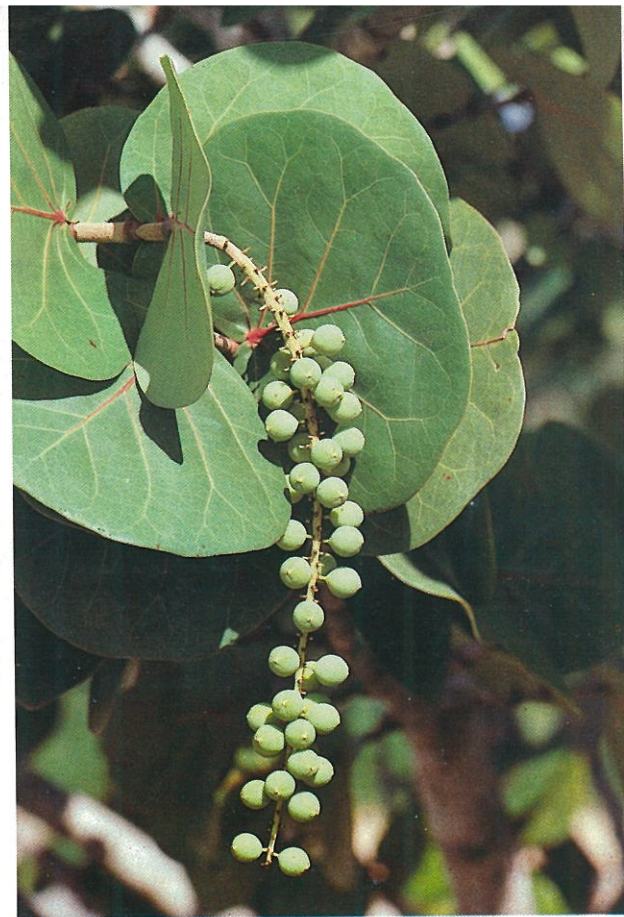


- A. *Roystonea elata*
  - B. Palmae
  - C. Royal Palm
- E. This species is a tall stately palm with an unbranched, grayish trunk bearing conspicuous leaf scars. The flowering clusters are produced below the leaves. The fruit is purplish and rounded.
- F. Native to Tropical Florida. Introduced to Guam.
- G. Royal Palms are planted on Guam as ornamentals. They appear at their best when planted in rows as in this photo. This is the state tree of Cuba.



- A. *Veitchia merrillii*
- B. Palmae
- C. Manila Palm
- D. Chinese Betel-Nut Palm

- E. Manila Palm is an erect, unbranched palm 5-7 meters tall with dark green, arching leaves up to 2 meters long. It looks much like the Betel-Nut Palm but is shorter and has a thicker trunk. The fruit is bright red and ovoid in shape and grows in a large branching cluster from the trunk below the leaves.
- F. Native to the Philippines. Introduced to Guam as an ornamental.
- G. This palm is quite common in gardens around the island. The picture was taken from Agana Heights.



- A. *Coccoloba uvifera*
- B. Polygonaceae
- C. Sea grape

- E. This small tree has rounded, thickish leaves with conspicuous red veins. The flowers are green and occur in spikes about 15 cm. long. The fruit is red and hangs in clusters. Each fruit contains one seed.
- F. Native of Tropical America. Planted in tropical countries for its fruit and its beauty as an ornament.
- G. The fruit of *G. uvifera* is said to make good jelly. It has been planted on the University of Guam campus and in numerous places around the island. Early Christians in Mexico are believed to have used the leaves for writing paper. Scratches made with a sharp point are white against the green surface.





- A. *Grevillea robusta*
- B. Proteaceae
- C. Grevillea, Silky Oak, She Oak
  
- E. Grevillea is a large tree with deeply lobed fern-like leaves. The flowers are orange and are borne in one-sided clusters along the branches. The fruit contains two seeds, the case remaining on the tree after the seeds have gone.
  
- F. Native to Australia. Introduced to Guam.
  
- G. The wood of this tree is used by cabinet makers in Australia and in Hawaii. Grevillea are also considered especially good trees for reforestation. There are several planted in Agana Heights near Fort Santa Agueda.

- A. *Tristiropsis obtusangula*  
(*Tristiropsis acutangula*)
- B. Sapindaceae
- C. Tristiropsis
- D. Faia
  
- E. Faia is a medium sized tree with large bipinnate leaves. The leaflets are glossy, alternate and 5-10 cm. long. The flowers occur in broad terminal panicles. The fruit is about 2 cm. long and is borne in a large pendent cluster.
  
- F. Marianas, Solomons and New Guinea. It was also found on Rota by Hosokawa in 1935.
  
- G. Tristiropsis can be found on Guam at Ritidian Point, Orote and in the Talofofu Valley. In the past, the trees have been cut for lumber and those left are in rather remote places. It could probably be considered threatened as a species on Guam.



- A. *Heritiera longipetiolata*
- B. Sterculiaceae
- C. Heritiera
- D. Ufa-halomtano

- E. Ufa-halomtano is a richly branched medium sized tree with a gnarled, gray trunk and large leaves that are glossy green above and silvery-tan on the underside. The flowers grow from leaf axils in an open panicle. The fruit is very hard, keeled and about 5 cm. long.
- F. Endemic in the Marianas. It has been recorded on Guam, Saipan, Tinian and Rota.
- G. This is a rare tree and one of two plant species from Guam listed by the International Union for the Conservation of Nature. There is an excellent specimen at Hilaan Point. It is restricted to the limestone community. The tree pictured is on Andersen Air Force Base.



- A. *Clerodendrum quadriloculare*
- B. Verbenaceae
- C. Clerodendrum

- E. This species of *Clerodendrum* grows as a small tree that soon becomes a dense thicket as new stems grow from the root system. The opposite leaves are large and pointed with crenate or wavy margins, dark green above and purple beneath. The tubular flowers, pinkish-white with long stamens, grow in dense terminal heads.
- F. Nobody seems to know how this species came to be growing on Guam or who introduced it. There are about 300 tropical species so it could have come from any direction.
- G. *C. quadriloculare* is grown on Guam as an ornamental.



- A. *Tectona grandis*
- B. Verbenaceae
- C. Teak
  
- E. Teak grows into a big spreading tree with very large, simple, opposite leaves. The flowers are pinkish and occur in large, open, terminal panicles.
  
- F. Native to Southeast Asia. Planted in tropical countries for its valuable wood. Introduced to Guam.
  
- G. Teak is a widely used lumber for ship building, furniture, bridges and many other purposes. The trees can live for 200 years or more and some teak woodwork has lasted for many generations. On Guam the tree may be seen at the University of Guam, Department of Agriculture, Agana Spring, Yona and several other locations.

## SHRUBS

*“Under moon and stars*

*In brambly wilderness”*

Tennyson - Song of the Brook.



- A. *Barleria cristata*
- B. Acanthaceae
- C. Philippine violet

- E. Philippine violet is a small erect shrub with opposite, hairy, oval leaves that are pointed at both ends. One to three white or violet flowers grow from leaf axils. The bracts are ovate with bristly margins and are about 2 cm. long.
- F. Native of India. Widely cultivated in tropical regions.
- G. Planted in Guam as an ornamental. This plant makes a good hedge. The white flowered kind is planted at the University of Guam Library. The violet flowered variety can be seen at the University of Guam Marine Laboratory. When photographed the violet colored flowers sometimes appear to be pale pink as in this picture.



- A. *Pseuderanthemum carruthersii*
- B. Acanthaceae
- C. Purple Pseuderanthemum

- E. This is a shrub that grows to a height of 2-2.5 meters. The leaves are purplish-red, opposite and up to 15 cm. long. The flowers are rosy-purple and occur in spike-like racemes.
- F. Native to Polynesia.
- G. Varieties of this species are widely scattered in the tropics and occur here also. The leaves may be variegated with irregular patches of dark purple to pink or with patches of green and white.



- A. *Thunbergia erecta*
- B. Acanthaceae
- C. Bush Thunbergia
  
- E. Bush Thunbergia is a low growing shrub with square stems and opposite, elliptic leaves. The flowers are violet and grow from the leaf axils, singly or in pairs.
- F. Native to Tropical Africa.
- G. This shrub is used in Guam as an ornamental. It can be seen growing near the Agana Post Office.



- A. *Cordyline fruticosa*
- B. Agavaceae
- C. Ti Plant
- D. Baston de San Jose
  
- E. Ti Plant is an erect woody shrub. The branches are straight and conspicuously ringed with leaf scars. The leaves are lance shaped, clustered at the ends of the branches and variously colored. The inflorescence is terminal and branching, with numerous pink flowers. The fruit is a scarlet berry.
- F. Pacific Islands.
- G. This plant is widely cultivated in the tropics and has many forms. Members of the genus are important in the folk-lore of Hawaii.



- A. *Allamanda cathartica*
- B. Apocynaceae
- C. Yellow Allamanda, Cup of Gold, Golden Cup
- E. *Allamanda* is a trailing shrub with whorled leaves and bright yellow, tubular flowers.
- F. Native to Brazil. Widely cultivated in tropical areas of the world.
- G. Yellow Allamanda is planted across the street from the Agana Post Office in the Plaza de Espana.

- A. *Nerium oleander*  
(*Nerium indicum*)
- B. Apocynaceae
- C. Oleander
- D. Adelfa
- E. Oleander grows as a large shrub with whorled leaves in groups of three. The leaves are linear, gray-green and pointed at both ends. The flowers are pink or white and occur in flat-topped clusters or corymbs.
- F. Native to Asia and widely cultivated in warm countries.
- G. The milky sap of this species is very poisonous and children should be warned to avoid it. Oleander is a common hedge plant and is abundant throughout Southern Europe, California and many tropical and subtropical areas.



- A. *Thevetia peruviana*
- B. Apocynaceae
- C. Yellow Oleander, Be-still-tree
  
- E. This tall shrub looks very much like the familiar *Oleander* except that the leaves are spirally arranged and the flowers are yellow. The plant contains copious milky sap.
- F. Native to Peru. Widely cultivated as an ornamental.
- G. There are beautiful specimens of this plant on the grounds of the Dai-Ichi Hotel. The sap is poisonous which may have inspired the name Be-still-tree.



- A. *Polyscias scutellaria*
- B. Araliaceae
- C. Saucer Plant, Panax
- D. Platitos
  
- E. Platitos becomes a large shrub with simple, usually solid green, saucer-like, concave leaves. The flowers growing from leaf axils in large spreading panicles, are small and inconspicuous. Members of this genus are quite varied with both simple and compound leaves, however, they can all be classified to genus by their clasping petioles and dentate leaf margins.
- F. An Indomalaysian cultivar, widespread in cultivation.
- G. Several species and numerous varieties of Panax grow on Guam. One native species, *P. grandifolia* occurs in the limestone community. The name "Platitos" means "little dishes". The leaves are sometimes used as salad plates for special occasions.



- A. *Crescentia cujete*
- B. Bignoniaceae
- C. Calabash

- E. Calabash is a rather large shrubby plant with leaves either spirally arranged or in tufts along the drooping branches. The leaf blade is obovate or broadest near the rounded tip. The bell shaped flowers have an unpleasant odor and are arranged singly or in clusters along the branches, the color is yellow-green with brownish stripes. The fruit is gourd-like.
- F. Native to Mexico. Introduced to many tropical areas.
- G. In Mexico the fruit pulp is used medicinally. The dried rind may be used as a bowl or container. Several of these plants are growing at the Julale Shopping Center.

- A. *Tecoma stans*
- B. Bignoniaceae
- C. Yellow Elder, Tecoma

- E. Tecoma is an ornamental shrub that has leaves divided feather-fashion into 5 to 13 narrow serrate leaflets. The flowers are yellow and are borne in clusters at the ends of branches. The fruit is a flattened, elongated pod.
- F. Tropical American origin. Cultivated throughout the tropics.
- G. This plant is a source of medicine in Tropical America. The American Indians used the wood at one time for making bows. This picture was taken at the Dai-Ichi Hotel. Another handsome specimen grows on the road to the University of Guam.





- A. *Capparis cordifolia*
- B. Capparidaceae
- C. Capers
- D. Atkaparas
  
- E. Capparis is a sprawling woody shrub with simple, rounded pale green, alternate leaves. The large, solitary flowers are axillary. The petals and numerous stamens are white, the latter becoming pinkish with age. The fruit is oblong and yellow when ripe. The seeds are brown.
  
- F. This plant is native from Micronesia to Polynesia.
  
- G. The flower buds and young fruit of *Capparis* are edible and used in pickling. The product known as "Capers" was a trade item during the Spanish occupation.



- A. *Acalypha amentacea*  
(*Acalypha wilkesiana*)
- B. Euphorbiaceae
- C. Copperleaf, Joseph's Coat
  
- E. Copperleaf is a medium to large shrub, sometimes reaching a height of three meters, with coppery-green leaves blotched with various shades of red. Male and female flowers grow on pendent spikes, each female flower growing from the axil of a bright red bract.
  
- F. A native of Fiji. Widespread in the Pacific.
  
- G. This plant makes an attractive hedge and is a very common ornamental on Guam. It was named in honor of Capt. Charles Wilkes who explored the Pacific from 1838 to 1842 as commander of a United States Exploring Expedition to the South Pole. (Stone 1970)



- A. *Acalypha hispida*
- B. Euphorbiaceae
- C. Chenille plant or Red-tassel bush

- E. This is a medium sized shrub with ovate, toothed leaves, up to 12 cm. long. The female flowers are bright red and hang down in velvety, cylindrical spikes. Male flowers are less conspicuous, sometimes occurring at the end of a spike with female flowers at the base and sometimes on an all male spike.
- F. A native of the East Indies.
- G. Good specimens of the Chenille plant can be seen along the main street of Merizo. Other varieties of the species include one with cream colored spikes. In Indonesia the leaves are cooked for food and other parts of the plant are used medicinally.



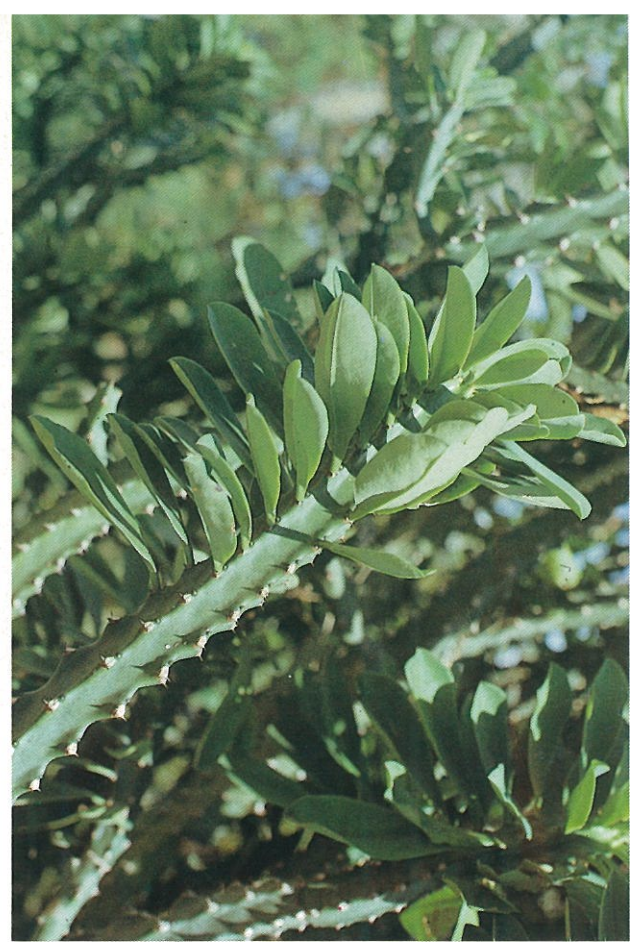
- A. *Breynia disticha*  
(*Breynia nivosa*)
- B. Euphorbiaceae
- C. Snow-bush

- E. Snow-bush is a shrubby plant with variegated white and green leaves, the young foliage is pinkish. The tiny green flowers hang down from leaf axils.
- F. Cultivated in and probably native to many Pacific Islands.
- G. This branching shrub makes a nice hedge. It is also very attractive as a single plant. It is fairly common in gardens around the Island.



- A. *Codiaeum variegatum*
- B. Euphorbiaceae
- C. Croton
- D. Buenavista or Leston puyitos

- E. Crotons are shrubs or sometimes small trees with smooth, waxy leaves that vary in color and shape. The flowers are inconspicuous and grow in axillary racemes. The fruit is pea-sized.
- F. Widely cultivated in the tropics. Native region unknown; perhaps Malaysia.
- G. Numerous varieties of crotons can be seen growing in gardens around Guam. They grow easily from cuttings and need very little care. These are also popular indoor plants both here and in colder climates where they are frequently seen in homes and public buildings.



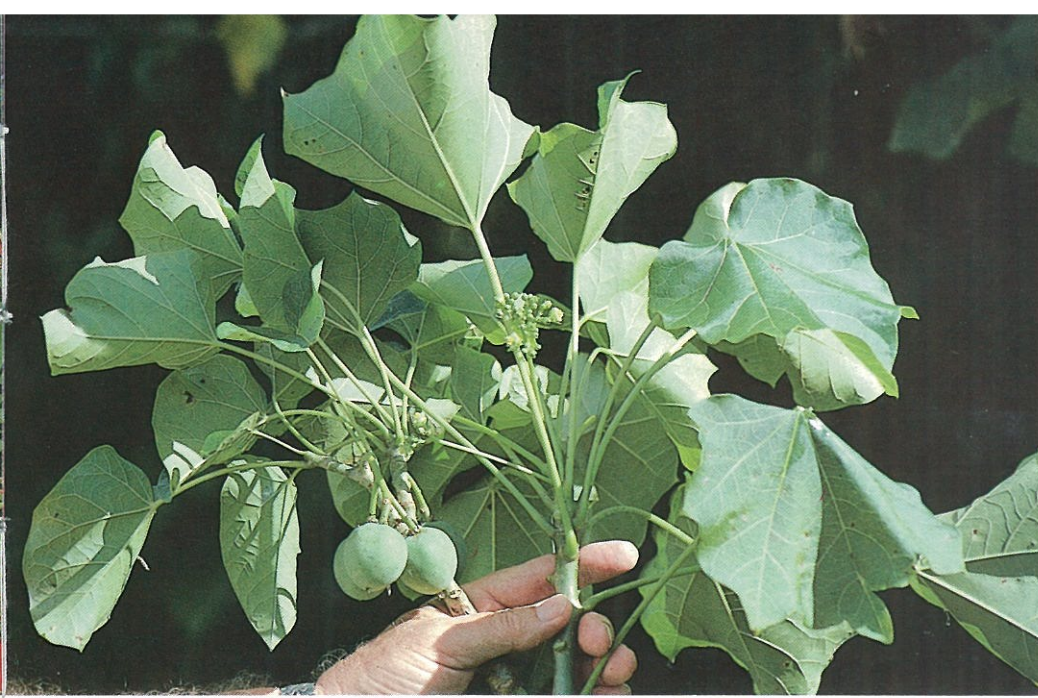
- A. *Euphorbia neriifolia*
- B. Euphorbiaceae
- C. Euphorbia
- D. Lengua-I-Baca

- E. This is a branching dark green shrub with 5-angled stems and paired spines at the base of each leaf. The leaves are thick and all parts of the plant contain milky sap. The fruit and flowers are rather inconspicuous.
- F. Native to India. Grown extensively in tropical areas for ornament.
- G. Euphorbia is sometimes mistakenly called a cactus. An excellent specimen can be seen at George Washington High School. In Africa, Euphorbias occupy the ecological position of cacti.



- A. *Euphorbia pulcherrima*
- B. Euphorbiaceae
- C. Poinsettia

- E. Poinsettia is a rather tall, branching shrub with elliptic leaves, acute at the top and variously lobed or not lobed. The large conspicuous bracts are bright red or white and the one large gland or nectary at the base of the flower is bright yellow.
- F. Native to Mexico. Common in tropical gardens.
- G. This plant is grown extensively under hothouse conditions for Christmas decoration. A beautiful specimen may be seen along the road in Chalan Pago.



- A. *Jatropha curcas*
- B. Euphorbiaceae
- C. Physic-nut
- D. Tuba-tuba

- E. Tuba-tuba is a rather large shrub with spirally arranged, palmately veined, olive green leaves. The flowers are yellowish-green and grow in terminal or axillary panicles. The fruit is a brown capsule.
- F. Tuba-tuba is a wide-spread tropical plant from Tropical America.
- G. This plant is sometimes used for a hedge. The seeds are poisonous. This picture was taken in Malojloj.



- A. *Jatropha gossypifolia*
- B. Euphorbiaceae
- C. Jatropha

- E. This richly branched shrub grows to about 1.5 meters tall. The leaves are green or purplish, moderately lobed and sticky with glandular hairs. The terminal flowers are dark red. The fruit is ridged, green and about 1 cm. in diameter.
- F. A native of Brazil and widespread in the tropics.
- G. *Jatropha* is a handsome plant but tends to spread and will become a noxious weed as on Tinian unless its growth is curbed. It is probably poisonous.

- A. *Bauhinia tomentosa*
- B. Leguminosae
- C. Bauhinia
- D. Flores de Mariposa

- E. Flores de Mariposa is a shrub with leaves like butterfly wings. The flowers are pale yellow and grow, often singly, from leaf axils.
- F. Native to Africa and Southeast Asia. Cultivated on Guam.
- G. One or two of these plants are growing near the Spanish Bridge in Agana.



- A. *Caesalpinia pulcherrima*
- B. Leguminosae
- C. Pride of Barbados or Dwarf Poinciana
- D. Caballero
  
- E. This is a handsome flowering shrub or small tree with prickly branches and pale green bipinnate leaves. The flowers are red and yellow with crinkly edges and long stamens; they resemble those of the Royal Poinciana but are smaller. The pods are flat, dark brown or black and occur, several together in a cluster.
  
- F. Native of Tropical America. Planted in tropical gardens around the world.
  
- G. This species of *Caesalpinia* is commonly used for hedges. It flowers for much of the year and is a good source of honey. The wood yields a red dye. Guam has five species.



- A. *Cassia occidentalis*
- B. Leguminosae
- C. Coffee Senna
- D. Amot Tumaga
  
- E. Coffee Senna is a small, weedy shrub with compound leaves and bright yellow flowers. The stems are ribbed and slender. The pods are narrow, up to 15 cm. long and contain many brown seeds.
  
- F. American origin. Introduced in tropical regions.
  
- G. This species of *Cassia* can be seen along roadsides and in waste places. Stone (1970) reports that the seeds may be used as a substitute for coffee, however, it is not recommended as the substitution leaves rather a lot to be desired.



- A. *Cassia surattensis*  
(*Cassia glauca*)
- B. Leguminosae
- C. Cassia
- E. This is a shrub with bipinnate leaves and 7-9 pairs of obovate, glabrous leaflets. The flowers are yellow or orange and grow in axillary clusters. The pods are flat and more or less constricted between seeds.
- F. Native to Southeast Asia and eastward to Polynesia. A common roadside plant on Guam.
- G. A good specimen of Cassia may be seen at the University of Guam Marine Lab. It may also be seen in many gardens.



- A. *Crotalaria pallida*  
(*Crotalaria mucronata*)
- B. Leguminosae
- C. Rattlebox
- E. Rattlebox is an erect, branching shrub with alternate, trifoliate leaves. The flowers are yellow with purple veins and grow in dense racemes. The pods are inflated, brown and shortly beaked.
- F. Old World Tropics. Common in many Pacific Islands.
- G. Rattlebox can be found growing beside the road or in pastures, usually in places where the ground has been disturbed. Cattle avoid this plant. Another species *C. quinquefolia* has palmately compound leaves with 5-7 leaflets.



- A. *Desmanthus virgatus*
- B. Leguminosae
- C. Desmanthus
  
- E. Desmanthus is an erect shrub, up to 3 meters tall, with green stems and finely divided, compound leaves. The flowers are white and grow in rather loose heads in leaf axils.
- F. A New World species. This plant may have come to Guam by way of Hawaii where it was first recorded about 1900.
- G. Desmanthus is a common wayside plant, often seen growing in nearly pure stands. The flowers wilt quickly after picking.



- A. *Indigofera suffruticosa*
- B. Leguminosae
- C. Indigo
- D. Aniles
  
- E. Indigo is a rather tall, branching shrub with compound leaves and reddish-brown stems. The leaflets are obovate and dark green with a mucronate tip. The flowers are pink and grow from leaf axils in slender, short racemes. The pods are curved and about 2 cm. long.
- F. A Tropical American species, now naturalized on Guam.
- G. This plant grows in old pastures and along roadsides. It is a source of the blue dye "Indigo".





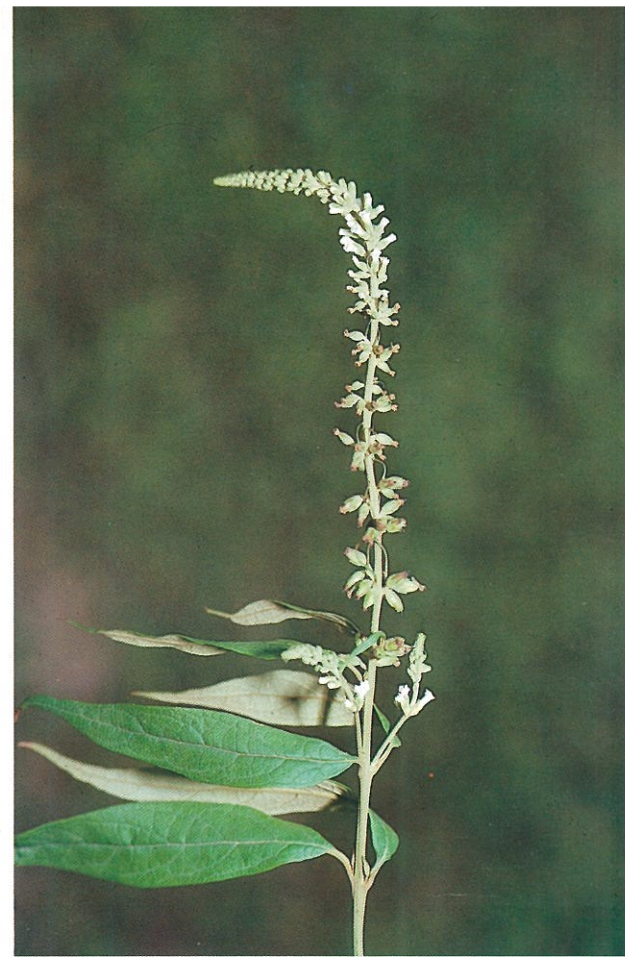
- A. *Leucaena insularum*
- B. Leguminosae
- C. Tangan-tangan
- D. Talantayan
  
- E. Tangan-tangan is a thickly branched shrub with dense foliage and white flowers in small rounded heads. The leaflets are paired and numerous along each pinna. The species is very like the introduced *L. leucocephala* but smaller in all respects and virtually always found close to the sea.
  
- F. Endemic to Guam.
  
- G. The two species of *Leucaena* can usually be found growing in the same general locations and may be compared by the size of the leaves, flowers and pods. A notable difference can also be seen in the numbers of leaflets; *L. leucocephala* has about 12 pairs per pinna whereas *L. insularum* has up to 50 pairs. Good places to find this plant are Togcha, Asanite Bay and Cocos Island.



- A. *Sesbania cannabina*
- B. Leguminosae
- C. Sesbania
  
- E. Sesbania is a slender branching shrub with large compound leaves, having 30-40 blunt, grayish-green leaflets. The flowers are pale yellow and about 1 cm. long. The pods are long, slender, curved, pendent and constricted between the seeds.
  
- F. Native of India and widespread in the Old World Tropics.
  
- G. This is a roadside plant and recognizable by the pale yellow flowers and long dangling pods.



- A. *Dracaena marginata*
  - B. Liliaceae
  - C. Dracaena
  - D. Money Tree
- E. Money Tree is a straight-stemmed shrub, often forked or branched, with conspicuous rings or leaf scars. The leaves are long and narrow, tapering to a point and spiraled or crowded at the ends of branches. The flowers grow from leaf axils in panicles.
- F. Known to be chiefly from the Eastern Hemisphere. Widely distributed as an ornamental.
- G. This is a common garden plant on Guam. "Dracaena" is Greek for dragon. The plant is so called because of the fancied resemblance of the thick sap to dragon's blood. (Neal 1965)



- A. *Buddleja asiatica*
  - B. Loganiaceae
  - C. Buddleja
- E. Buddleja is a shrub with long trailing branches and opposite leaves. The leaves taper gradually to a point and are pale green above and nearly white beneath. The flowers grow in dense, nodding, axillary or terminal spikes. The fruits are brown and crowded along the spikes where they remain attached long after the seeds have fallen.
- F. Native of Eastern Asia. Widespread in the tropics as a weed.
- G. A common weed of roadsides and waste places on limestone soil. This photo was taken on Barrigada Hill.



- A. *Lagerstroemia indica*
- B. Lythraceae
- C. Crape-Myrtle
- D. Melindaes
  
- E. Crape-Myrtle is a shrub or small tree with smooth, alternate leaves. New growth is pinkish with square stems. The flowers are rose-pink and grow in large, terminal panicles. The fruit is round and pea-sized.
- F. Native to South China. Now widespread in cultivation.
- G. Grown on Guam for its ornamental value. It is planted at several locations in downtown Agana.



- A. *Abutilon indicum*
- B. Malvaceae
- C. Abutilon
- D. Malbas
  
- E. Malbas is a branching shrub with long petioled, rounded, serrate leaves. The stems and leaves are covered by almost colorless hairs. The flowers are orange-yellow and solitary in leaf axils. The fruit is circular, wheel-like, with radiating carpels and is dark brown when ripe.
- F. Native to Southeast Asia
- G. Abutilon is a widespread tropical weed. The plant is attractive with its bright colorful flowers and unusual looking fruit.



- A. *Hibiscus rosa-sinensis*
- B. Malvaceae
- C. Red Hibiscus
- D. Flores Rosa
  
- E. Flores Rosa is an erect woody shrub with dark green, serrate leaves. The flowers are large, showy and dark red. The connate stamens and style are longer than the petals and tipped with a conspicuous 5-parted stigma.
  
- F. Pantropical in distribution. Native to Africa.
  
- G. This is a large genus with several hundred species and thousands of hybrids. Guam has one native species, *H. tiliaceus* or "Pago".



- A. *Malvastrum coromandelianum*
- B. Malvaceae
- C. Malvastrum
  
- E. Malvastrum is a tough, branching subshrub which grows to about 1 meter tall with serrate leaves that are three veined from the base. The solitary flowers are yellow and grow from leaf axils on .5 cm. long stems. The fruit is disk-shaped and dark brown when ripe.
  
- F. Native to North and Central America. A pantropical weed.
  
- G. This plant is similar to Sida which is locally called "escobilla". It is common in old fields and on roadsides.



- A. *Sida acuta*
- B. Malvaceae
- C. Sida
- D. Escobilla papago
  
- E. Sida is a low growing, slender shrub with acute, linear, sharply serrate leaves that are light green beneath. The flowers, one or two in leaf axils, are yellow. The fruit is dark brown to black.
- F. A pantropical weed.
- G. Common in waste ground and along roadsides.



- A. *Sida rhombifolia*
- B. Malvaceae
- C. Sida
- D. Escobilla dalili
  
- E. This species of *Sida* is a low growing shrub with ovate or rhombic-ovate, sharply serrate leaves, covered with whitish hairs beneath. The flowers are yellow with one or two growing in leaf axils.
- F. A pantropical weed.
- G. Sida is an aggressive plant that grows in pastures or on waste land. It has various common names, among them "Australian Hemp".



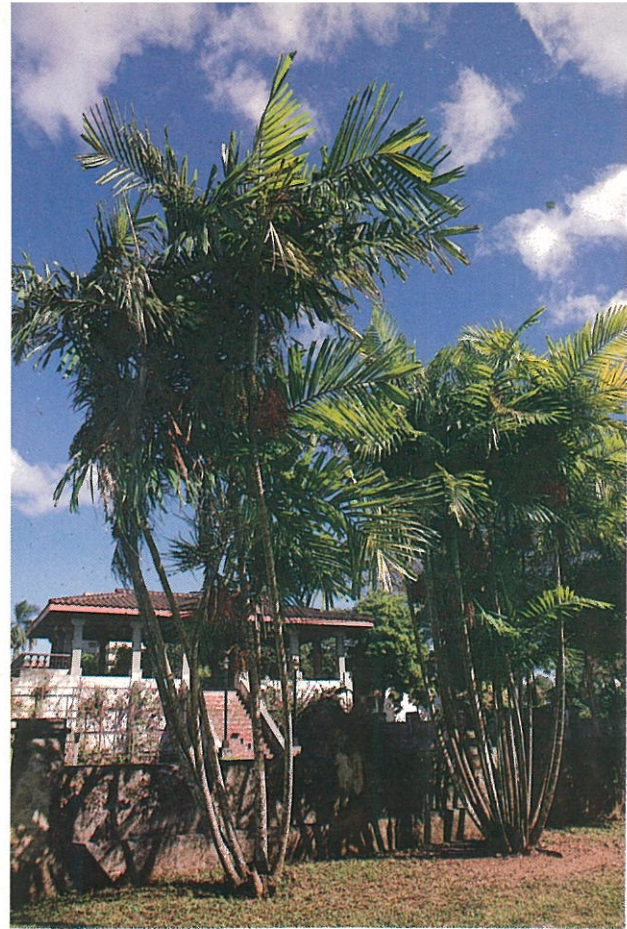
- A. *Bougainvillea spectabilis*
- B. Nyctaginaceae
- C. Bougainvillea
- D. Putitainobio
- E. Bougainvillea is a rather large woody climber with long, trailing branches, simple leaves and axillary spines. The flowers are in groups of 3, each with a single colorful bract.
- F. Native to Brazil. Cultivated in most tropical regions of the world.
- G. The genus is named in honor of the French navigator, Louis A. de Bougainville (1729-1811), who discovered it in Rio de Janeiro. It came to Guam via Hawaii and now decorates nearly every garden on the island.



- A. *Jasminum marianum*
- B. Oleaceae
- C. Jasmine
- D. Banago
- E. Banago is a sprawling shrub with simple, opposite, elliptic leaves. The short petioles are jointed and break off easily at that point. The flowers are white and the fruit is purple when ripe, with one large seed.
- F. Endemic to the Marianas.
- G. Common around the edges of limestone vegetation. At least 5 species grow on Guam. This one is night blooming and the flowers become brown and withered by morning.



- A. *Jasminum sambac*
- B. Oleaceae
- C. Jasmine
- D. Sampagita
  
- E. Sampagita is a rambling shrub having simple, opposite, ovate-elliptic leaves. The petioles or leaf stems are jointed; the blade is rounded at the base and acute at the apex. The flowers are white, very fragrant and occur in terminal heads.
- F. Native to India. Introduced to Guam and other tropical countries as an ornamental.
- G. Several varieties of this plant grow on Guam, some with flowers doubled. This is the national flower of the Philippines.

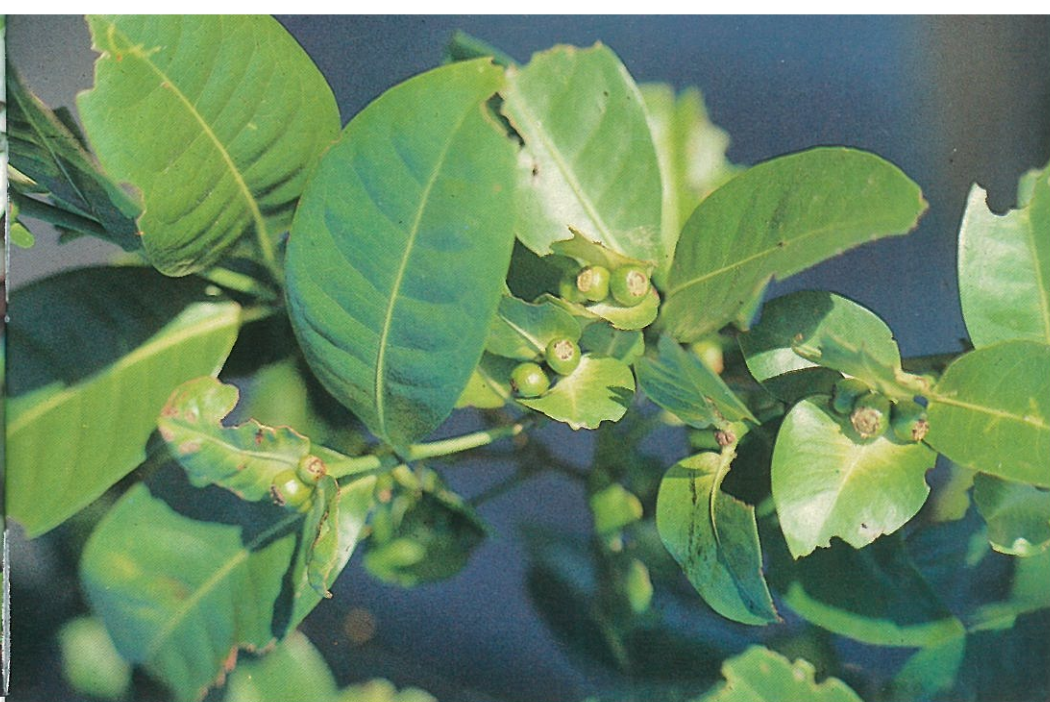


- A. *Ptychosperma macarthurii*
- B. Palmae
- C. Macarthur Palm
  
- E. Like several other kinds of palms, this one forms clumps with ringed stems, flat spreading fronds and broad leaflets having parallel edges and obliquely cut tips. Flowers develop below the leaves in long clusters. The fruit is red and about 1.5 cm. long.
- F. Native to New Guinea. Widespread as an ornamental from Australia to Hawaii.
- G. Macarthur Palm grows well on Guam and Hawaii. The ones pictured are growing near the road behind the Government buildings in Agana.



- A. *Ixora chinensis*
- B. Rubiaceae
- C. Chinese Ixora

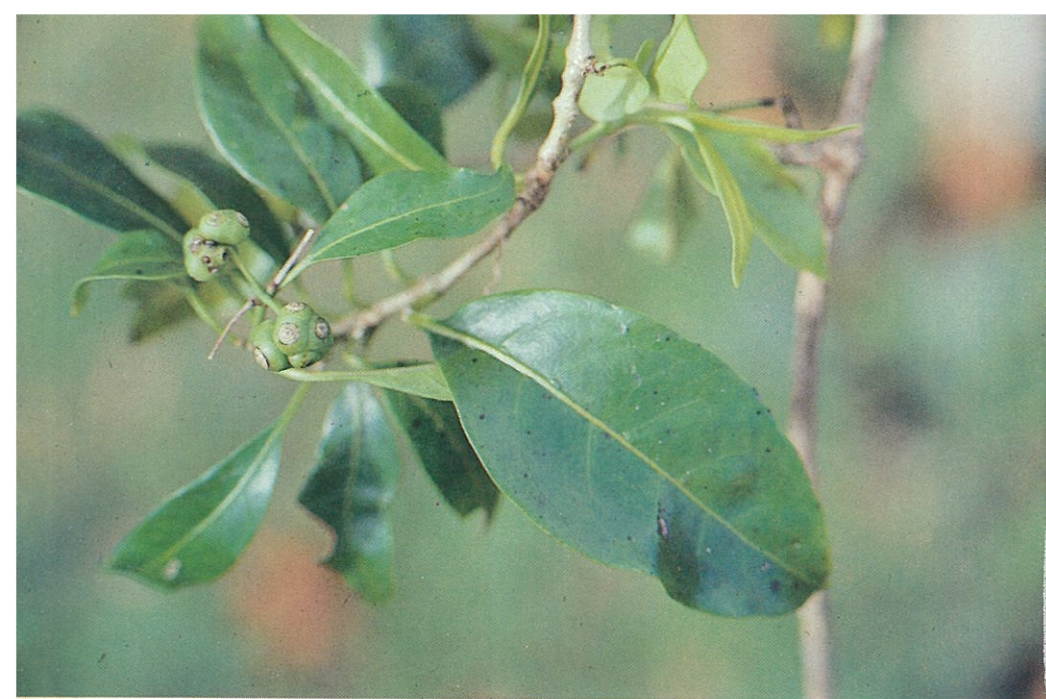
- E. Chinese Ixora is a shrub with smooth, squarish stems and opposite leaves. The leaves are elliptic or slightly ovate and rather stiff with wavy margins. The flowers occur in various shades of red, pink or creamy-white and grow in large, terminal, head-like cymes.
- F. Native of China.
- G. *Ixora* is a favorite ornamental on Guam. Children like to suck the nectar from the long tubular flowers. The bright red variety is reputed to have originated in Kosrae.



- A. *Ixora triantha*
- B. Rubiaceae
- C. Ixora

- E. Ixora is a shrub with opposite, short petioled leaves that are pointed at both ends and 7-14 cm. long. The inflorescence consists of 3 white flowers in the axils of a pair of short, ovate leaves at branch tips. The fruit is black and has 2-3 seeds.
- F. Endemic to the Marianas and Yap. Known only from these areas.
- G. This plant is not common but can sometimes be found at the edge of the limestone forest, as at the Guam Hilton.





- A. *Morinda umbellata* var. *glandulosa*
- B. Rubiaceae
- C. Vining Morinda
- E. Vining Morinda is a trailing shrub having opposite, elliptic leaves. The flowers are white and grow in densely crowded heads at branch tips. The seeds are embedded in a fleshy rounded fruit. The fruit is red or orange when ripe.
- F. The variety is endemic in Micronesia. The species *umbellata* is known from Tropical Asia, China, Taiwan, Japan and Australia.
- G. This species of *Morinda* is growing at the edge of the old quarry just north of Dededo.



- A. *Mussaenda philippica*
- B. Rubiaceae
- C. Mussaenda
- D. Donna Aurora
- E. Donna Aurora is a shrub or small tree with opposite, ovate leaves and small yellow flowers. The calyx is conspicuous having five large, white lobes.
- F. Native to Tropical Africa, Asia and the Pacific Islands. It was probably introduced to Guam from the Philippines.
- G. There are at least three species of *Mussaenda* growing on Guam. One has pink calyx lobes and another has only one large white lobe. This form was named for President Quezon's wife. The picture was taken in Chalan Pago.



- A. *Solanum (guamense)* ?
- B. Solanaceae
- C. Solanum
- D. Berenghenas Halomtano

- E. Solanum is a prickly, branching shrub with obscurely lobed, long petioled leaves that are hairy on both sides. The inflorescence is many flowered, each with white petals and yellow stamens. The fruit is red and contains many seeds.
- F. Endemic to the Marianas. It has been recorded as far north as Maug.
- G. The fruit of this plant looks like a small tomato but should not be eaten as it may be poisonous.



- A. *Waltheria indica*  
(*Waltheria americana*)
- B. Sterculiaceae
- C. Waltheria
- D. Escobilla sabana

- E. Waltheria is a small perennial shrub with simple, alternate, gray, hairy leaves. These are ovate with serrate margins and petioles to about 1.5 cm. long. The flowers are small, yellow and clustered at the ends of short axillary pedicels.
- F. Native to Tropical America. A pantropical weed.
- G. This plant is common in the grasslands of Guam, roadsides and open places. The root, when chewed, is said to relieve the pain of sore throat or headache as does aspirin.

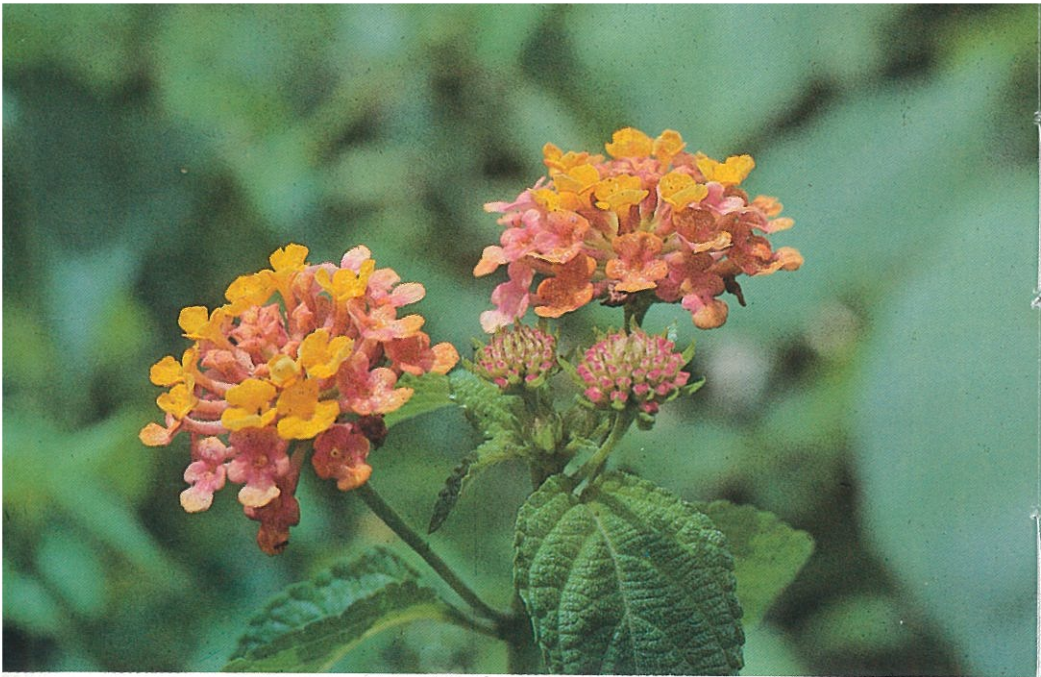


- A. *Suriana maritima*
- B. Surianaceae
- C. Suriana
- D. Nigas, Nietkot

- E. Suriana is a shrub with small, linear, alternate leaves that are crowded at branch tips. The flowers are yellow, about 1 cm. broad and solitary or in small clusters.
- F. This is a pantropical strand plant. On Guam it seems to be confined to the beach at the north end of the island (Tarague and Ritidian). It can be found also at the north ends of Rota and Saipan.
- G. Suriana looks a lot like *Pemphis acidula* and has the same local name. The leaves of *Pemphis*, however, are elliptic and the flowers are white.

- A. *Triumfetta procumbens*
- B. Tiliaceae
- C. Triumfetta
- D. Masigsig Hembra, Kamote-n-Tasi

- E. Triumfetta is a creeping beach plant with hairy, rounded, shallow-lobed leaves having serrate margins and long petioles. The flowers are yellow and are produced in leaf axils. The fruit is spiny and about 1 cm. long.
- F. Native from Malaya to Polynesia and Micronesia. A common sandy beach plant on Guam, Rota and Saipan.
- G. This plant has medicinal uses on Guam. It can be found between Tarague and Ritidian where it grows rooted in sandy soil.



- A. *Lantana camara*
- B. Verbenaceae
- C. Lantana
  
- E. Lantana is a trailing, prickly shrub with opposite, serrate leaves and orange-red flowers. The tiny black fruit occurs in a cluster.
  
- F. Native to Tropical America. Lantana has spread widely in the tropics both as a cultivated plant and as an unwanted weed.
  
- G. Several varieties of Lantana can be found on Guam. One particularly attractive one has violet colored flowers.

## HERBS

*“Among the fields above the sea  
Among the winds at play. . . .”*

Author Unknown - Out in the Fields with God.



- A. *Blechum brownei*
- B. Acanthaceae
- C. Blechum
- D. Jatbas babui

- E. Jatbas babui is an erect, perennial herb with short petioled, ovate leaves, rounded at the base and more or less pointed at the apex. The flowers may be white or violet and grow in dense terminal spikes. Modified leaves or bracts, at the base of the flowers, are white.
- F. Tropical American weed.
- G. Jatbas babui grows best on limestone soil and is most often seen growing along dirt roads or in the forest. The leaf is used medicinally by some suruhanos.



- A. *Hygrophila difformis*  
(*Limnophila indica* Fam. Scrophulariaceae)
- B. Acanthaceae
- C. Hygrophila

- E. Hygrophila is a dark green, aromatic herb that roots in mud. The leaves are opposite or whorled and dimorphic. The flowers are pale violet and grow from leaf axils. It is not known to form fruit on Guam.
- F. The species is native to South Asia. It is not known how this plant got to Guam and its identity has been a mystery until very recently.
- G. A healthy stand of Hygrophila can be found at the edge of Agana Spring.



- A. *Sansevieria trifasciata*  
(*Sansevieria guineensis*)
- B. Agavaceae
- C. Bowstring Hemp
  
- E. This perennial herb has creeping rhizomes and stiff sword-shaped leaves. The leaves are variously striped with yellow, green and white and conspicuously cross-banded. The flowers are arranged in a slender raceme and are white or pale yellow.
- F. About 60 species are known from Africa to India.
- G. Some species of Bowstring Hemp are cultivated in the tropics for the strong fiber in the leaves from which mats and other products are made. It is common in the gardens of Guam.



- A. *Sesuvium portulacastrum*
- B. Aizoaceae
- C. Seaside Purslane
- D. Chara
  
- E. Seaside Purslane is a succulent, spreading herb found on rocky sea coasts. The stems are reddish and the narrow, fleshy leaves are opposite. The solitary flowers are axillary and pale lavender.
- F. This halophyte is native to Guam and is widely distributed in the tropical world.
- G. Seaside Purslane is edible but rather salty. It is common along the southeast coast as at Togcha.



- A. *Gomphrena serrata*  
(*Gomphrena dispersa*)
- B. Amaranthaceae
- C. Gomphrena

- E. Gomphrena is a small creeping, hairy herb with opposite leaves and white terminal flowers in small globose heads.
- F. Native to Tropical America. A widespread tropical weed.
- G. Common on roadsides, in old lawns and waste places.



- A. *Crinum asiaticum*
- B. Amaryllidaceae
- C. Crinum
- D. Piga-Palayi

- E. Crinum is a large herb with fleshy strap-shaped leaves. The fragrant, white flowers occur, with many together, at the end of a fleshy stalk. Each flower is spidery with six long, narrow segments. The fruit is rounded and beaked.
- F. Native to Southern Asia where it is used medicinally. Widely cultivated in the tropics.
- G. This plant grows wild on several of the Mariana Islands including Maug.



- A. *Pancratium littorale*  
(*Hymenocallis littoralis*)
- B. Amaryllidaceae
- C. Spiderlily
- D. Lirio

- E. Spiderlily is a fleshy herb with strap-shaped leaves. The flowers are white and occur in a broad umbel at the end of a thick, slightly flattened stalk. The six narrow or linear flower segments are joined to the base of a broad, flat, circular staminal cup.
- F. Native of Tropical America. A widespread tropical ornamental.
- G. This is a common beach plant on Guam where it is found rooted in sandy soil. It also grows well in roadside ditches and in gardens. It has been reported that the flowers open abruptly at dusk. Spiderlily may be seen growing in several places along Tumon or Agana Bay.



- A. *Zephyranthes rosea*
- B. Amaryllidaceae
- C. Rain-Lily
- D. Nardo

- E. This is a small bulbous herb with solitary pink, 6-petaled flowers and linear, grass-like leaves.
- F. Native to Tropical America. Widespread tropical ornamental.
- G. Rain-Lily makes a good border plant and is common in Guam gardens. The bulbs multiply quickly and a thick pure stand is produced. Hawaii has a yellow and a white species as well as the rose.





- A. *Catharanthus roseus*
  - B. Apocynaceae
  - C. Periwinkle
  - D. Chichirica
- E. Periwinkle is an erect herb growing to about one meter tall, with opposite leaves up to 10 cm. long. The leaf veins are arranged like those of the Plumeria and the two plants are alike also in having milky sap. The flowers growing from the leaf axils are white or pink, each with five petals.
- F. Native to Madagascar. Established in Tropical America and grown for ornament around the world.
- G. This colorful plant is very common in gardens of Guam perhaps because it grows easily and blooms continuously. Some nice specimens of it can be seen growing on the University of Guam campus.



- A. *Caladium bicolor*
  - B. Araceae
  - C. Caladium
  - D. Corazon de Santa Maria
- E. Caladium is a terrestrial herb with large, taro-like, arrow shaped leaves that point downward and are variegated with irregular patches of green, pink and white. The inflorescence is a spike with male flowers above and female flowers near the base.
- F. Native of South America. Widespread in the tropics as an ornamental. A great many varieties and names are associated with this plant.
- G. Common in Guam gardens. The plants are easily grown from tubers which should be planted about 3 cm. deep.



- A. *Dieffenbachia picta*
- B. Araceae
- C. Dumb Cane
  
- E. Dumb Cane is a large terrestrial herb having variously mottled green and white leaves and thick ringed stems. All parts contain copious milky sap which is irritating to the skin.
- F. Native to Tropical America. Introduced to Guam as an ornamental.
- G. The name "Dumb-Cane" refers to the paralyzing effect to the tongue when the plant is chewed. This is a popular potted plant on Guam.



- A. *Asclepias curassavica*
- B. Asclepiadaceae
- C. Milkweed
- D. Asuncion
  
- E. Milkweed is an erect herb with opposite leaves that are pointed at both ends. The stems and leaves contain milky sap. Flowers are bright red and yellow and grow in umbels from leaf axils. The fruit is a pod containing white, silky hairs and numerous flat seeds.
- F. Native to Tropical America. Now widespread in tropical countries.
- G. This is a host plant for the larva of the monarch butterfly. (Stone 1970)



- A. *Heliotropium indicum*
- B. Boraginaceae
- C. Heliotrope
- D. Berbena
  
- E. Berbena is an erect, usually unbranched herb that grows to nearly 1 meter in height. The leaves are ovate, with crinkly margins. The inflorescence is terminal, nearly always unforked and consists of a coiled cincinnus with pale violet flowers along one side.
  
- F. A paleotropical herb. Widespread in the tropical world.
  
- G. A common and rather attractive weed on Guam.



- A. *Heliotropium procumbens*  
(*Heliotropium ovalifolium*)
- B. Boraginaceae
- C. Heliotrope
- D. Huning-tasi
  
- E. Huning-tasi is a small, branching, prostrate herb with tiny white flowers. These are produced along one side of a slender, coiled and often forked stem or cincinnus.
  
- F. Probably native to the Pacific Islands.
  
- G. This is a common weed of roadsides and waste places. Several species grow on Guam.



- A. *Rhoeo spathacea*
- B. Commelinaceae
- C. Rhoeo, Moses in the Cradle
  
- E. Rhoeo is a low growing, succulent herb with a rosette of leaves spiraled around a short stem. The leaves are linear, green on the upper surface and purple beneath. The flowers are white and grow from leaf axils.
- F. Tropical American origin. Widespread in the tropics as an ornamental.
- G. Common in Guam gardens. This plant sometimes grows as an epiphyte on walls or from the crotches of large trees.



- A. *Bidens alba*  
(*Bidens pilosa*)
- B. Compositae
- C. Beggar's Tick, Guam Daisy
  
- E. This is a branching herb with erect or straggling stems that root at the nodes. The serrate leaves vary in size and shape, the upper usually trifoliate, the lower ones simple and ovate. The flowering heads occur in panicles, the petals of the disk flowers are creamy, the outer or ray florets are white.
- F. This is a weed from Tropical America.
- G. Beggar's Tick was first collected on Guam near the end of World War II but may have been here for much longer. It can be found wherever man has gone in the tropical world.



- A. *Conyza canadensis*
- B. Compositae
- C. Conyza
  
- E. Conyza is an erect herb with small, linear leaves near the top, the lower leaves somewhat broader. Small, white, flowering heads are produced in a large terminal panicle. The stem is often inflated or bilaterally expanded due to a fusion of the branches.
  
- F. Native to North America. A common weed on Guam, probably introduced accidentally.
  
- G. A common plant of roadsides and waste places on limestone where the ground has been disturbed.



- A. *Eupatorium odoratum*
- B. Compositae
- C. Eupatorium
  
- E. Eupatorium is a large branching, rambling herb with opposite, hairy, coarsely serrate leaves. The leaves are conspicuously three veined from the base. The flowering heads are purplish or white and occur in flat-topped clusters at the ends of branches or in leaf axils.
  
- F. Native of Tropical America. A widespread tropical weed common on Guam.
  
- G. Eupatorium is also common on other islands of the Marianas and has recently been of great concern to farmers on Rota where it has taken over much of their pasture land.



- A. *Tridax procumbens*
- B. Compositae
- C. Coat Buttons

- E. This sprawling herb is often called Wild Daisy. The leaves are opposite and sharply lobed, the petioles covered with long, white hairs. The flowering head is terminal; ray flowers white, disk florets yellow.
- F. Native of Tropical America. A pantropical weed.
- G. Very common in lawns and waste places on Guam. More common on limestone soil than volcanic.



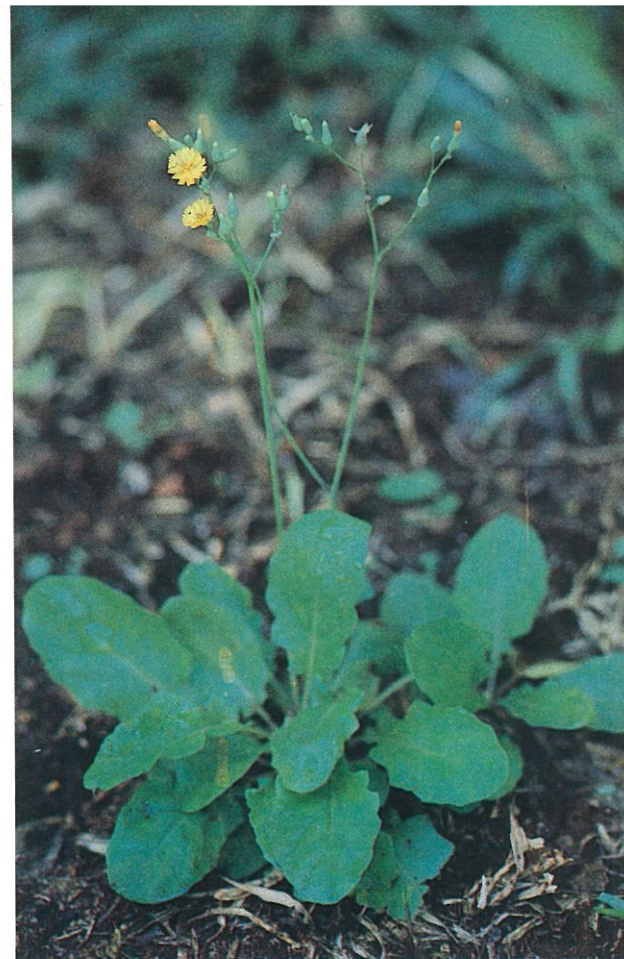
- A. *Vernonia cinerea*
- B. Compositae
- C. Vernonia
- D. Chaguan-Santa-Maria

- E. Vernonia is an erect, annual herb that grows to about 50 cm. tall. The leaves are variously shaped, the lower ones petiolate, the upper ones narrower and sessile. The flowering heads occur terminally in open corymbs. The petals are violet or pinkish violet.
- F. Native to Tropical Asia.
- G. This is a common weed that grows in lawns and along roadsides. A similar species, *V. patula* has larger leaves and flowering heads. The flowers are violet to nearly white.



- A. *Wedelia trilobata*
- B. Compositae
- C. Wedelia

- E. This is a creeping herb with dark green, paired, oval or three-lobed leaves and bright yellow flowers in terminal and axillary heads.
- F. Tropical American origin. It is grown as a ground cover in many tropical lands.
- G. Wedelia is planted in the gardens of several of Guam's public buildings. A similar native species that grows near the sea is locally called Masigsig.



- A. *Youngia japonica*
- B. Compositae
- C. Youngia

- E. Youngia is a low growing annual herb with a rosette of obovate, lobed, dentate leaves at the base of the flowering stems and a few smaller alternate leaves above. The flowers are yellow with 15 to 20 occurring in a spreading panicle.
- F. Native to East Asia, Australia and the Pacific Islands.
- G. Grows in lawns, waste places and along roadsides.



- A. *Cyperus alternifolius*
- B. Cyperaceae
- C. Umbrella-sedge

- E. Umbrella-sedge is a good name for this plant. It grows to a height of nearly 1.5 meters and the leaf-like bracts at the top of the culms overlap in a spiralled arrangement. These resemble small umbrellas. The flowers are brown and are arranged in broad umbels.
- F. A species from Tropical Africa. Widespread in the tropics as a weed.
- G. This plant was introduced to Guam as an ornamental and is often seen growing in gardens. It also grows in profusion as a weed by the Agana River near the tennis courts.



- A. *Cyperus kyllingia*
- B. Cyperaceae
- C. Sedge, Cyperus
- D. Chaguan Lemae, Botoncilla

- E. This small sedge has green, three-cornered, solid culms and short narrow leaves. The flower is a small white, rounded head.
- F. Pantropical. Native in Guam.
- G. *C. kyllingia* is not confined to wet places. It is often found in lawns and beside the road.





- A. *Cyperus ligularis*
- B. Cyperaceae
- C. Rocket-sedge

- E. The stems of this sedge may reach 1 meter in length. The inflorescence is dark, reddish-brown and made up of several dense, cylindrical spikes at the ends of short branches.
- F. Tropical America and Africa.
- G. Rocket-sedge was introduced to Guam in recent years, probably by accident. It is rather common in waste places and could make an attractive addition to dried flower arrangements.



- A. *Cyperus odoratus*
- B. Cyperaceae
- C. Cyperus, sedge

- E. *C. odoratus* has triangular culms that grow to 40 cm. in height. The basal leaves are shorter than the culms. The bracts (leaves just below the inflorescence) are stiff and elongate. The flowering cluster is green or brown when mature. It consists of many branched spikes and slender spikelets.
- F. Native to South Asia and the Philippines. A widespread tropical weed.
- G. This sedge is quite common on Guam where it can be seen on roadsides or in waste places particularly where water stands.



- A. *Cyperus polystachyos*
- B. Cyperaceae
- C. Cyperus, sedge
  
- E. This is a tufted sedge that may reach 80 cm. in height. The inflorescence is brown and head-like with several branches bearing spikelets to about 1.5 cm. long.
  
- F. Native to the Hawaiian Islands. Introduced to Guam.
  
- G. Not confined to wetlands. Common in waste places and along roadsides.



- A. *Acalypha indica*
- B. Euphorbiaceae
- C. Acalypha
- D. Hierba del Cancer
  
- E. Hierba del Cancer is a small, branching, weedy herb with alternate, coarsely toothed, ovate, long petioled leaves. The greenish flowers grow in spikes from leaf axils; male and female flowers are separate. The fruit is a capsule.
  
- F. Paleotropical in distribution.
  
- G. This plant has been long established on Guam and is valued by herb doctors as a medicine.



- A. *Euphorbia hirta*
- B. Euphorbiaceae
- C. Euphorbia
- D. Golondrina
- E. Golondrina is an annual herb with ascending, hairy stems. The leaves are sharply serrate, asymmetrical, purplish-green above and light green below. The flowers are axillary and condensed or congested in rounded cymes.
- F. Pantropical.
- G. Common in lawns, old pastures and on roadsides. The whole plant is used as an ingredient in the medicinal preparations of some local curers. It is also used in combination with *Phyllanthus marianus* as a douche.



- A. *Coix lachryma-jobi*
- B. Gramineae
- C. Job's-tears
- D. Bilen
- E. Bilen is a tall, branching grass with leaves and stems that look much like dwarf domestic corn. The ovoid beads at the tips of the flowering stems enclose the female flowers. Male flowers project from the tips of the beads on a slender stem which drops off at maturity. The beads are green at first, turning black and finally white.
- F. Originated in Tropical Asia. Now widely cultivated in the tropics.
- G. The seeds or "beads" of this plant are eaten in India for cereal. They are sometimes used for rosaries and are reputed to have curative properties.



- A. *Saccharum spontaneum*
- B. Gramineae
- C. Wildcane
  
- E. Wildcane is a tall, perennial grass with a stout, erect stem and narrow, pale green leaves. The inflorescence is a large, silvery plume-like panicle.
- F. Probably a native of India. Paleotropical in distribution.
- G. The Japanese experimented with wildcane on Saipan and it appeared on Guam in patches after World War II. It is now fairly widespread on the island. Common on roadsides. It is also on the Pacific Science list of noxious weeds, not to be encouraged.



- A. (*Curculigo orchioides*) ?
- B. (Hypoxidaceae) ?
- C. Golden-eyed grass
  
- E. This is a low growing herb with grass-like leaves and a thick tap root. The flowers are small and yellow, 1 or 2 in leaf axils. The fruit is fleshy with small black seeds.
- F. Both Old and New World Tropics. Native to Guam.
- G. Golden-eyed grass is confined to volcanic soil and is common on the savanna where it grows among the grasses.



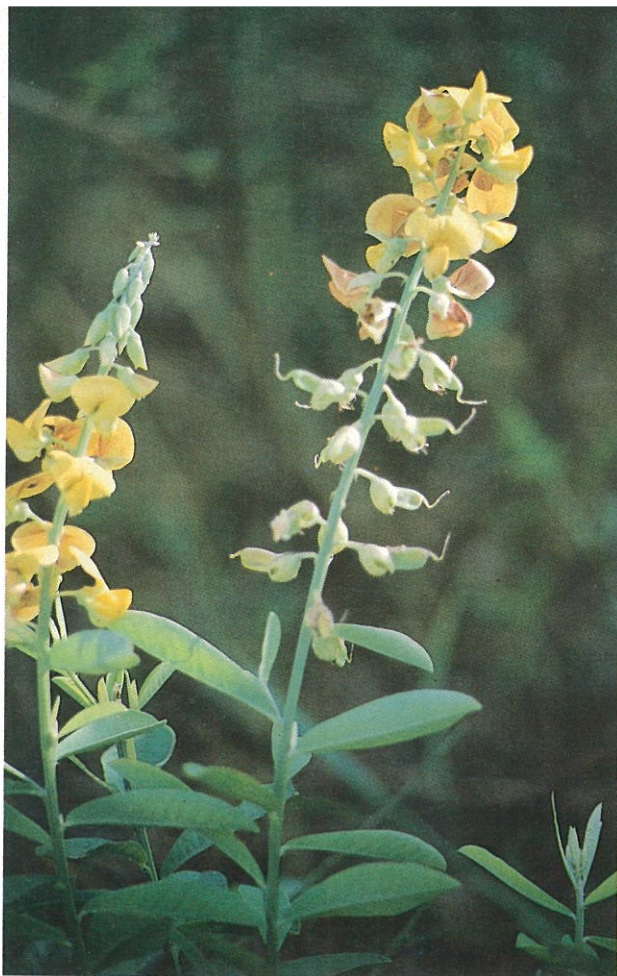
- A. *Aeschynomene americana*
- B. Leguminosae
- C. *Aeschynomene*

- E. The green stems and branches of this erect subshrub or herb are bristly and ridged. The leaves are pinnate 2.5-5 cm. long with numerous, acute leaflets. The flowers are bronzish-pink with yellow centers. The pods are flat, linear, jointed along one side, with 6-8 seeds.
- F. Native to Tropical America.
- G. This species does not seem to be very common on Guam but can sometimes be found beside the road or in waste places. Another species, *A. indica* which has pale yellow flowers, also grows here. This photo was taken near the parking lot at the Agana Pool.



- A. *Alysicarpus vaginalis*
- B. Leguminosae
- C. *Alysicarpus*

- E. *Alysicarpus* is a small, creeping or erect, branching herb with alternate, elliptic leaves. The flowers are reddish and occur in terminal racemes. The pods are jointed.
- F. Native to the Old World Tropics. A widespread weed.
- G. This is a common but very attractive lawn weed. The flowers are clover-like.



- A. *Crotalaria retusa*
- B. Leguminosae
- C. Crotalaria
- E. This is a coarse growing herb with simple alternate leaves. The flowers are yellow with purple veins and occur in dense terminal racemes. The inflated pods are brown and about 5 cm. long.
- F. The origin of this species of Crotalaria is uncertain, probably Old World Tropics. Introduced to Guam.
- G. Crotalaria is common along roads or in old fields.

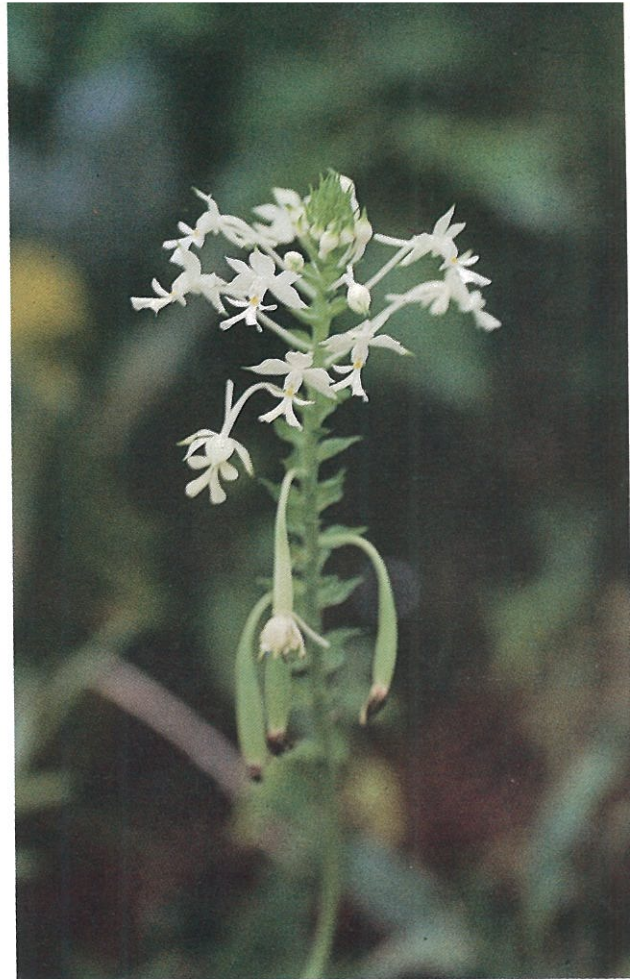


- A. *Laurentia longiflora*
- B. Lobeliaceae
- C. Star-of-Bethlehem
- E. Star-of-Bethlehem is a low growing herb with a rosette of dark green, sharply lobed leaves. The solitary flowers are white and grow out of leaf axils. The plant has an abundance of milky sap.
- F. Native to the West Indies. A widely spread tropical ornamental plant. On Guam it is usually considered a weed.
- G. This plant is poisonous. The milky juice is reputed to cause blindness if it gets in the eyes. It is common in gardens, on roadsides and in waste places.



- A. *Hibiscus sabdariffa*
- B. Malvaceae
- C. Red Sorrel
- D. Roselle

- E. Roselle is an annual herb with red cylindrical stems and three-lobed, coarsely toothed leaves. The short stemmed flowers, solitary in leaf axils, have yellow petals and a thick, juicy, red calyx.
- F. Native to tropical areas of the Eastern Hemisphere. Introduced to many tropical countries for its useful products.
- G. The juicy, red calyxes of this plant may be used for jam, jelly, tarts, flavoring for drinks or as a red dye. In Sri Lanka, the young leaves are used in curries and the stems furnish a kind of fiber. This picture was taken at the Agricultural Experiment Station in Malojloj.



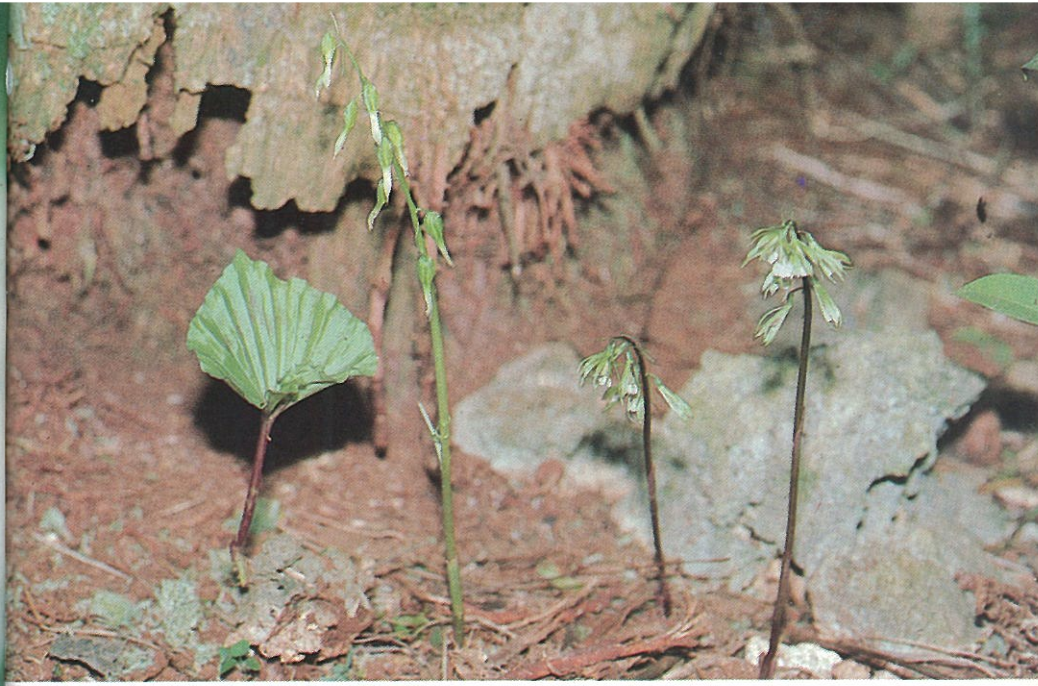
- A. *Calanthe furcata*
- B. Orchidaceae
- C. White Ground Orchid

- E. *Calanthe* is a large terrestrial orchid with oblong or lance shaped leaves and white flowers at the end of an erect stem arising from the leaf axil.
- F. Native to Malaysia and the Pacific.
- G. This is a rather rare orchid on Guam and can be considered endangered on the island. It can be found near the trail to Mt. Lamlam and on Mt. Santa Rosa.



- A. *Dendrobium guamense*
- B. Orchidaceae
- C. Dendrobium

- E. This endemic orchid grows as an epiphyte having numerous long stems and narrow, alternate leaves with parallel veins. The flowers are creamy-white with a pale yellow lip and occur in two-flowered racemes.
- F. Endemic to Guam.
- G. At least three species of *Dendrobium* grow on Guam. This one is common in moist, shady places, growing along large branches or in the crotches of trees.



- A. *Nervilia aragoana*
- B. Orchidaceae
- C. Water-root Orchid
- D. Seiyaihagon

- E. This small terrestrial orchid has a fleshy underground bulb and a single, rounded, long stalked leaf. The flowers are greenish and are borne on an erect, leafless stem.
- F. Native from Southeast Asia to Samoa and the Pacific Islands.
- G. Water-root Orchid is abundant in such places as Hilaan Point but has virtually disappeared from locations where it has been common in the past. For this reason it could be considered at least "threatened" as a species on Guam. It is used medicinally by some of the island curers.





- A. *Taeniophyllum mariannense*
- B. Orchidaceae
- C. Taeniophyllum
- D. Kamuke-Nanofe, Amot-Otdon
  
- E. The tiny white flowers and short cylindrical fruit are inconspicuous on this small stemless epiphytic orchid. The creeping roots, flattened against tree trunks, are pale green in color.
- F. Endemic in the Mariana Islands.
- G. Common in the limestone community of Guam.



- A. *Vanda (hybrid) V. teres x V. hookeriana*
- B. Orchidaceae
- C. Vanda-orchid
- D. Terete vanda
  
- E. Vanda is a long-stemmed, climbing orchid that blooms almost constantly. The flowers are lavender or light purple with wavy margins and occur several together on a long stalk.
- F. Originated in Singapore. Widely cultivated in tropical countries for commercial use.
- G. This hybrid orchid was produced by Agnes Joaquim of Singapore in 1893 (Stone 1970). It is most often seen growing in coconut husks in Guam gardens. This picture was taken in Chalan Pago.



- A. *Oxalis corniculata*
- B. Oxalidaceae
- C. Wood-sorrel
- D. Aksom, Apsom
- E. Wood-sorrel is a creeping, trifoliate herb with long petioles and rounded leaflets. The flowers are small, yellow and grow in cymes. The fruit is an elongated capsule.
- F. Paleotropical and warm-temperate regions.
- G. This plant grows in shady, damp places. It is often mistaken for clover or shamrock but it is unrelated to either plant.



- A. *Centella asiatica*
- B. Umbelliferae
- C. Asiatic Pennywort
- E. *Centella* is a creeping herb with long petioles and rounded, coarsely toothed leaves. The inflorescence is composed of several pinkish flowers together in short-stemmed umbels at leaf bases.
- F. Probably originated in Tropical Asia. Pantropical in distribution. Native to Guam.
- G. In the Orient, this plant has long been valued for its medicinal uses. It is used for both internal and external ailments, curing everything, it is believed, from colds to skin and circulatory problems. The leaves may also be used in salads or fed to chickens. It is a common plant of the savanna.



A. *Stachytarpheta jamaicensis*  
(*Stachytarpheta indica*)

- B. Verbenaceae
- C. False Verbena

- E. False Verbena is an erect herb with pale green, opposite, serrate leaves. The flowers are pale violet and occur in elongated, terminal spikes, two or three opening at a time.
- F. Native to Tropical America. Has become pantropical in distribution.
- G. A similar species, *S. urticifolia*, also grows on Guam. It has puckered, dark green leaves and dark violet flowers. According to Fosberg, an intermediate between these two species sometimes occurs which he designates as *S. jamaicensis* x *S. urticifolia*.



A. *Hedychium coronarium*  
B. Zingiberaceae  
C. White Ginger

- E. White Ginger is a leafy herb, growing to about 1.5 meters tall with narrow leaves up to 60 cm. long and 10 cm. wide. The flowers are white, rather large and very fragrant.
- F. A native of India. Introduced to Guam.
- G. According to Neal (1965), the flowers are, or were used commercially as a source of perfume. This is a wetland plant and can be found growing in profusion at Agana Spring. The flowers last for several days if the stems are put into water immediately after cutting.

## VINES

*I come creeping everywhere,  
By the dusty roadside  
On the sunny hillside  
Close by the noisy brook  
In every shady nook"*

Sarah Roberts - Voice of the Grass.



- A. *Thunbergia grandiflora*
- B. Acanthaceae
- C. Thunbergia
  
- E. This is a climbing or creeping plant with opposite, palmately veined leaves. The large showy white flowers occur in pendent racemes.
  
- F. Thunbergia is native to Southeast Asia.
  
- G. Well established specimens of Thunbergia may be seen along the road at the south edge of Barrigada Village.



- A. *Syngonium angustatum*
- B. Araceae
- C. Syngonium

- E. Syngonium is a large tree-climbing vine with palmately divided leaves, the outer lobes each with an ear-like lobe attached, which may be single or divided into three unequal segments. The male inflorescence is a cream-colored spadix, the female is pink, enclosing a many-celled ovary.
- F. The species is native to Mexico.
- G. This vine is a common ornamental on Guam. It is sometimes used to cover trashy areas as it can spread out on the ground if there is nothing upright to climb on.



- A. *Dischidia puberula*
- B. Asclepiadaceae
- C. Dischidia

- E. Dischidia is an epiphytic climber with fleshy, opposite or whorled leaves and clasping roots at each node. The flowers are cream-colored. Fruiting is rare and has not been recorded on Guam.
- F. Endemic to the Marianas. It has been found on Guam, Rota and Saipan.
- G. Dischidia grows well in pots on litter or peat moss (not soil) and is very attractive when it cascades over the sides of a hanging pot. Commonly found in deep shade in the limestone community.



- A. *Mikania scandens*
- B. Compositae
- C. Mikania
  
- E. This plant grows as a twining vine with opposite, palmately veined, dentate leaves. The flowering heads are white and occur in terminal clusters.
  
- F. This is a native of Tropical America. Very common on Guam and was probably introduced by accident either during or since the Second World War.
  
- G. Mikania tends to grow in a dense mass over other vegetation along roadsides or in disturbed places. The crushed leaves are reputed to be useful in reducing the pain from insect bites. (Stone 1970)



- A. *Cuscuta (campestris) ?*
- B. Convolvulaceae
- C. Dodder
  
- E. Dodder is a parasitic vine with slender stems that criss-cross over other vegetation to form dense yellowish or orange colored patches. The flowers are tiny and creamy white. It sucks the life juices of its host plant and eventually kills it.
  
- F. North American in origin. The local dodder is yet to be determined specifically.
  
- G. This is a recent arrival on Guam but has managed to spread out rapidly into gardens and along roadsides. Dodder occurs in Hawaii and has been found on Yap. If its spread is not controlled, it could easily become a pest here as it did in California.



- A. *Operculina ventricosa*
  - B. Convolvulaceae
  - C. Wood-rose
  - D. Alalag
- E. Wood-rose is a climbing or sprawling vine with broad, velvety leaves and large white flowers that grow from leaf axils. The whole plant contains a copious supply of milky sap. The broad tan-colored, thin-walled ovary, containing four black seeds, is enclosed in the calyx.
  - F. Native to Central America. Widespread in the tropical world.
  - G. The dried floral parts of this plant become the attractive wood-rose so popular in dried flower arrangements.



- A. *Momordica charantia*
  - B. Cucurbitaceae
  - C. Bitter-Melon
  - D. Atmagosa
- E. Bitter-Melon is a slender herbaceous climber with 5 to 7 lobed leaves and bright yellow flowers. The fruit is warty and orange colored when ripe. The seeds are bright red.
  - F. May have originated in some part of the Eastern Hemisphere, possibly Tropical Asia. Now widespread in tropical countries.
  - G. The fruit, leaves and shoots of this plant are edible. In Malaysia it is used medicinally for skin diseases, headaches and as a purgative. The cultivated variety has much larger fruit than this one and is grown extensively on Guam.



- A. *Calopogonium mucunoides*
- B. Leguminosae
- C. Calopogonium
- D. Akankan Guakag
  
- E. Calopogonium is a creeping, herbaceous vine, covered with brownish-red hairs. The leaves are trifoliate. The flowers are blue and are borne in short clustered racemes in leaf axils. The short, hairy pods are constricted between the seeds.
- F. A Tropical American species. A widespread tropical weed.
- G. Common on volcanic soil. It could be an effective ground cover and soil binder in the southern hills of Guam.



- A. *Clitoria ternatea*
- B. Leguminosae
- C. Butterfly-Pea
- D. Bukiki, Paokeke
  
- E. Butterfly-Pea is a densely foliated vine or climber with compound leaves of 5-9 leaflets. The flowers are solitary and bright blue with a white or yellowish spot. The pods are flat and 10-12 cm. long.
- F. Native to Tropical America. Naturalized on Guam.
- G. Cultivated on Guam as an ornamental. It may be seen growing at the University of Guam Marine Laboratory.





- A. *Mimosa pudica*
- B. Leguminosae
- C. Sensitive-Plant, Sleeping Grass

- E. *Mimosa* is a prostrate, creeping plant with reddish-brown, prickly stems. The leaves are compound, having many small paired leaflets that fold together if touched. The flowers are pink and occur in rounded heads about 1 cm. in diameter. The seed pods are flat and prickly.
- F. This is a pantropical weed common in lawns or waste places.
- G. The well known sleep-movements of *Mimosa* are due to a rapid depletion of water from the leaf tissues.



- A. *Teramnus labialis*
- B. Leguminosae
- C. Teramnus
- D. Chaguan cacaguates

- E. Teramnus is a twining herbaceous vine with trifoliate leaves and tiny, blue flowers that grow in the axils of leaves. The pods are slender, about 5 cm. long and hooked at the tip. The seeds are red.
- F. Pantropical. Probably introduced to Guam by accident.
- G. This inconspicuous vine is common on roadsides or in abandoned pastures where it grows over old stumps, fences and other vegetation. It can be seen growing on the fence in front of the Guam Community College.



- A. *Ficus pumila*
- B. Moraceae
- C. Creeping Fig

- E. Creeping Fig is an aggressive vine, well suited to stone walls to which it clings by means of a rubbery secretion which comes from the roots. The stems become woody and shrub-like with age. The small, oval, blunt leaves, as well as the stems, are hairy. The figs are pear-shaped and about 5 cm. long.
- F. Native to South China and Malaysia. Grown for ornament on Guam.
- G. Until recently, the Spanish Bridge in Agana was covered with this vine. It is hoped that the plant will recover from the severe "pruning" it received. It also covers the stone walls of some of the residences in Agana Heights.



- A. *Freycinetia reineckeii*
- B. Pandanaceae
- C. Vining Pandanus
- D. Fianiti

- E. Fianiti is a stout, climbing vine with clasping aerial roots and dark green, stiff, linear leaves. The bracts around the inflorescences are pinkish or red which makes a conspicuous flash of color in the green foliage.
- F. Native to the Marianas. The species has several forms which have spread through the Western Pacific.
- G. Vining Pandanus is found mostly on limestone outcrops in the southern part of Guam. It is quite abundant along the trail to Mt. Lamlam.



- A. *Antigonon leptopus*
- B. Polygonaceae
- C. Chain-of-Love
- D. Cadena de Amor
  
- E. Cadena de Amor is a vine with tendrils and simple, ovate, usually undulate leaves. The red, pink or white flowers occur in many-flowered racemes. The fruit is an achene.
- F. Native to Mexico. Introduced to Guam as an ornamental.
- G. The vines of this plant grow from an underground tuber which may become very large. In some tropical areas the tuber is used as a source of starch. It is very common on roadsides.

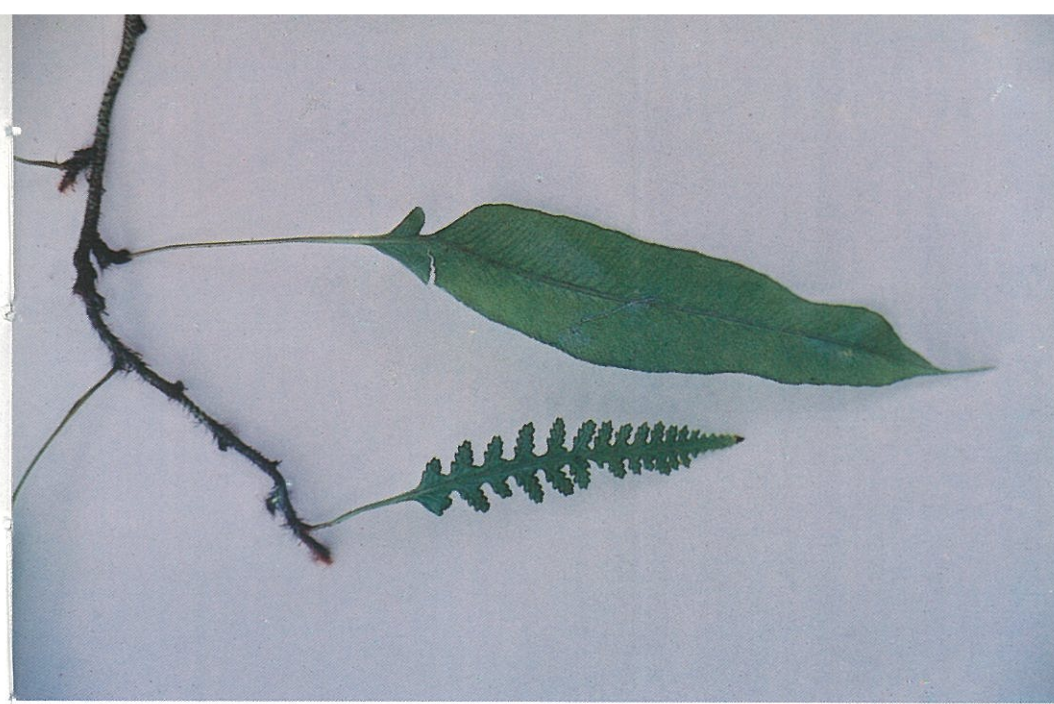


- A. *Clerodendrum thomsonae*
- B. Verbenaceae
- C. Bleeding Heart
  
- E. Bleeding Heart is a twining or climbing evergreen plant with glossy, heart-shaped leaves and open clusters of showy flowers. The heart-shaped calyxes are pure white, changing to pink with maturity. The flowers have long conspicuous stamens and the petals are crimson.
- F. Native to West Africa. Introduced to Guam as an ornamental.
- G. According to legend, this plant grew where the tears of a heart-broken maiden had fallen. This photo was taken near the church in Mangilao.

## FERNS

*"Catkins by the brook,  
Ferns in every nook."*

Elizabeth R. MacDonald - Song of Seasons.



- A. *Humata heterophylla*
- B. Davalliaceae
- C. Humata
- D. Galak
  
- E. Humata is a climbing, vine-like, epiphytic fern with reddish root-like hairs and two kinds of leaves. The sterile ones are linear, with smooth margins; the fertile fronds are pinnately lobed or have notched margins.
  
- F. Native to Southeast Asia, Fiji and Micronesia. Rather infrequent on Guam and possibly is threatened.
  
- G. The plant was named Humata in honor of the Village of Umatac which was formerly spelled "Humata" (Stone 1970). It can be found growing along the trail to Mt. Lamlam.



- A. *Nephrolepis acutifolia*
- B. Davalliaceae
- C. *Nephrolepis*
- D. Galak

- E. This is an epiphytic fern of the limestone or ravine forest community. The pendulous fronds hang down from the crotches of large trees in damp, shady habitats. Spores are produced in marginal sori.
- F. Paleotropical. Native to Guam.
- G. The fronds of *Nephrolepis* have been measured to 6 meters or more. It is fairly common and fine specimens can be seen in the jungle at Hilaan Point or at the Naval Communications Station.



- A. *Nephrolepis hirsutula*
- B. Davalliaceae
- C. *Nephrolepis*
- D. Galak

- E. This terrestrial, bipinnate fern has thick rusty colored hairs along the midribs of the fronds. The leaflets are crenulate and auricled at the base. The sori are dorsal and reniform or kidney shaped.
- F. Pantropical and indigenous to Guam.
- G. In shade or full sun, *Nephrolepis* is very common and can be seen on roadsides, in open fields or growing in gardens as an ornamental.



- A. *Angiopteris durvilleana*
- B. Marattiaceae
- C. Giant Fern
- D. Galak
  
- E. Giant Fern is a very large trunkless terrestrial plant with several widely-spaced bipinnate fronds that grow to 5 meters in length. The rootstock and crown are huge and the bases of the fronds are thickened. The sori are close to the margins and arranged in two rows along lateral veins.
  
- F. Pacific Islands, possibly endemic on Guam.
  
- G. These ferns are confined to moist and shady stream banks where they are rooted in clay. Places to see them are Togcha, Fonte and Almagosa river valleys. This photograph shows the fronds of one plant. The base is obscured.



- A. *Belvisia spicata*
- B. Polypodiaceae
- C. Spike Fern
- D. Galak
  
- E. Spike Fern is an epiphyte with simple, erect fronds. The sori are confined to spike-like extensions of the leaves and are covered, while immature, by folds along the margins.
  
- F. Malaysia and the Pacific to Polynesia.
  
- G. This is a rather common fern in moist forests. A good place to see it is along the trail to Mt. Lamlam.



- A. *Adiantum philippense*
- B. Pteridaceae
- C. Maidenhair Fern
  
- E. Maidenhair is a delicate bipinnate fern with smooth, black, very slender stems. The leaflets are fan-shaped and the sori are marginal.
- F. Paleotropical. Native to Guam.
- G. Many forms of Maidenhair Ferns are known in tropical countries. This one grows on muddy stream banks and was photographed in the Fonte River Valley.



- A. *Pteris vittata*
- B. Pteridaceae
- C. Pteris
- D. Galak
  
- E. *Pteris vittata* is a terrestrial fern with pinnate fronds on which the basal leaflets are reduced. The sori are marginal and continuous.
- F. Native to warm regions of the Eastern Hemisphere. Introduced to Guam.
- G. Commonly found on roadsides and in waste places or on disturbed rocky ground.



- A. *Lygodium auriculatum*
  - B. Schizaeaceae
  - C. Savanna Fern
  - D. Galak
- E. This is a slender, vine-like, climbing fern with wiry stems and palmate fronds. The spore producing structures are dorsal, on short spikes along the margins of fertile fronds.
- F. Indigenous to the Marianas and the Philippine Islands.
- G. *L. auriculatum* can be found on the savanna in creek beds or in seepage areas.



- A. *Lygodium scandens*
  - B. Schizaeaceae
  - C. Lygodium
  - D. Galak
- E. This vine-like, wiry stemmed fern has pinnately divided fronds. The leaflets are oval or rounded. The sori are dorsal and occur on short lobes around the margins of fertile leaflets.
- F. Paleotropical. Native to Guam.
- G. Lygodium is a grassland fern. It can usually be found in places where moisture is available, often climbing on sword grass or other savanna plants.