

FRUIT AND NATIVE ORNAMENTAL TREES



UNIVERSITY OF GUAM
COLLEGE OF NATURAL
& APPLIED SCIENCES

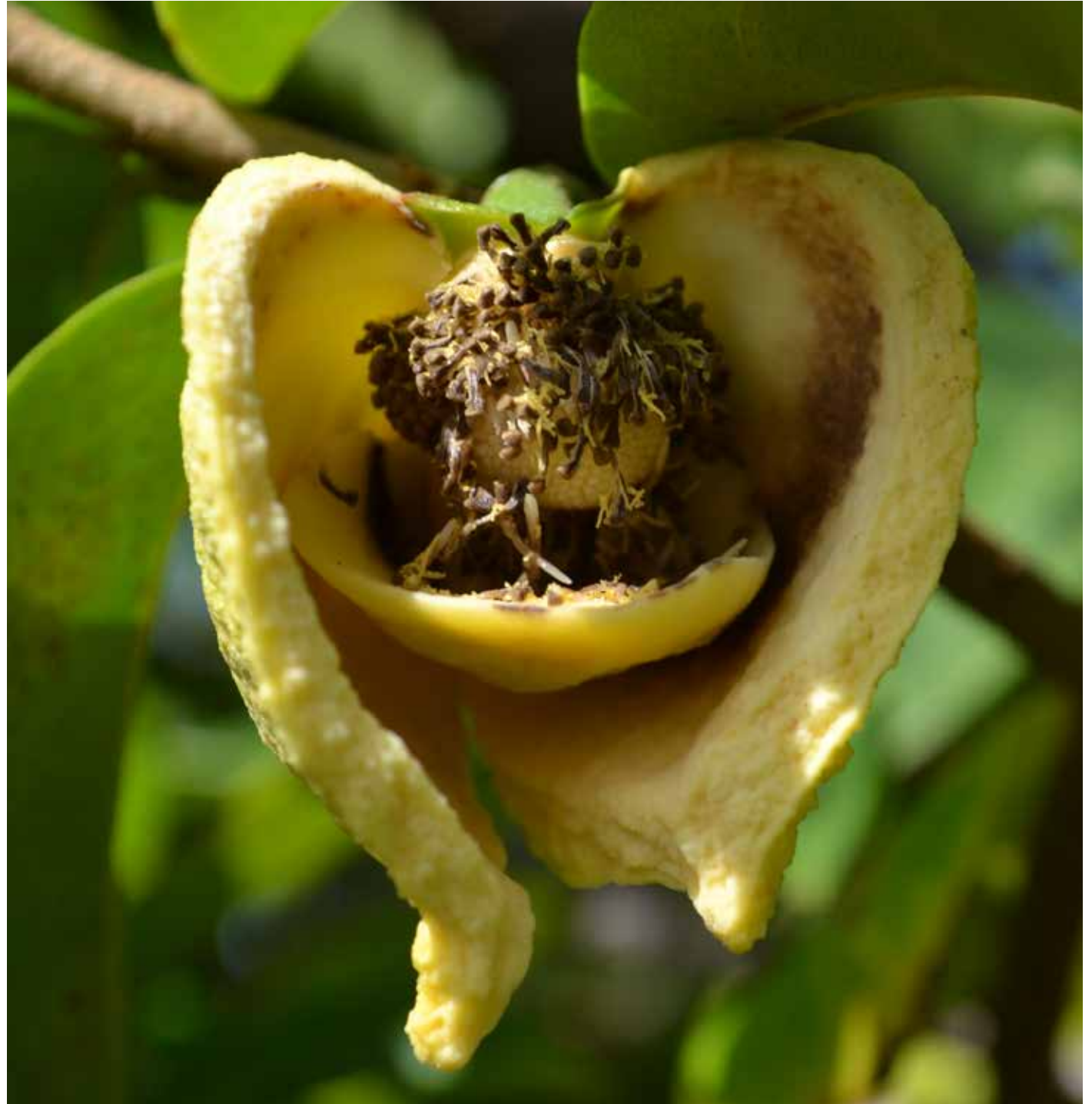
Annona muricata
Laguana, soursop

A popular fruit on Guam, laguana is one of the seven fast-to-fruit trees recommended for planting in the “Seven Trees, Seven Practices” agroforestry education project conducted by CNAS Extension and Outreach personnel.

A valuable tropical tree, laguana fruit is high in vitamins C and B and antioxidants. The leaves, bark and seeds are used medicinally and have been found to support anticancer, antiparasitic and insecticidal activity.

Originally from Mexico and South America, *Annona muricata* is grown in tropical regions around the world.

Photo credits: Olympia Terral



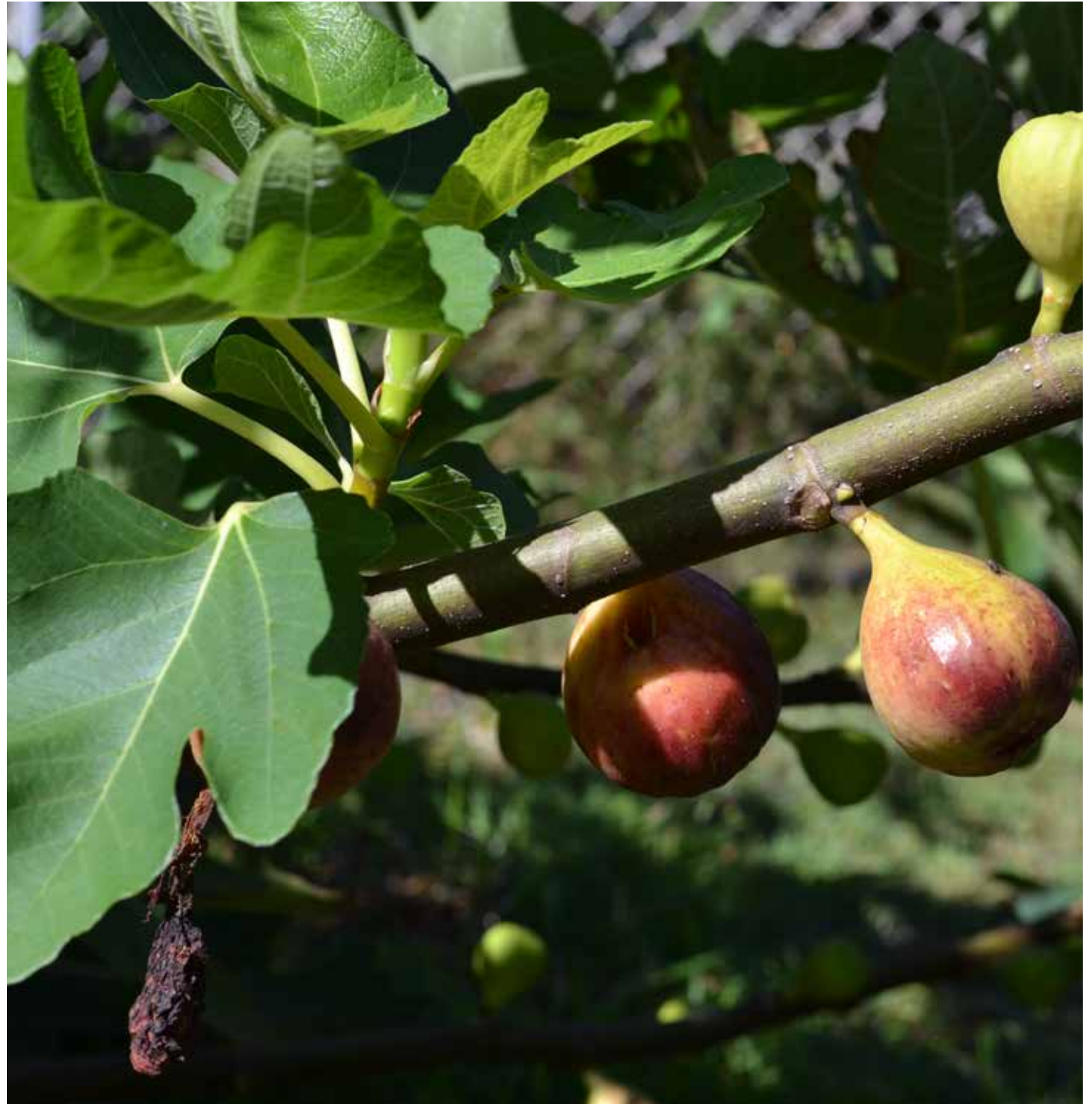
Ficus carica
Fig

Ficus carica is one of the seven fast-to-fruit trees recommended for planting in the “Seven Trees, Seven Practices” agroforestry education project conducted by CNAS Extension and Outreach personnel.

Originally from Asia Minor and the Mediterranean, figs are currently cultivated worldwide. Fig trees can tolerate a range of soil types but require good drainage.

Figs have a high concentration of phytosterols, which block the absorption of cholesterol in the body, helping to maintain healthy cholesterol levels. Figs are high in potassium, which helps to control blood pressure, making them an excellent snack choice for people who have high blood pressure.

Photo credits: Olympia Terral



Elaeocarpus joga
Yoga, blue marble tree

This striking tree is indigenous to the Mariana Islands and produces beautiful flowers and vibrant blue marble-sized fruit. The blue color is not caused by blue pigmentation in the fruit; rather, it is an optical phenomenon due to the refraction of light.

The authors of *Trees and Shrubs of the Northern Mariana Islands* recommend planting yoga trees in reforestation efforts and as an ornamental in parks and home gardens. With its characteristic spreading crown, it provides a good home for orchids and ferns. The fruits are a favorite food of doves.

Photo credits: Olympia Terral



Bikkia tetrandra
Gausáli, torch wood

Gausáli is endemic to the Mariana Islands. It grows happily on limestone cliffs most often near the sea. It is called torch wood because the wood ignites easily and can be used to make torches.

This plant can be propagated by seed on crushed limestone. Gausáli is highly salt and wind tolerant and with its beautiful white flowers makes an attractive ornamental planting. A hardy endemic with beautiful flowers, gausáli has been nominated as the territorial flower of Guam, which currently is the South American native bougainvillea.

Photo credits: Olympia Terral



Intsia bijuga
Ifit, ifil

Ifit is the territorial tree of Guam known for its durable and very hard wood. In the past, it was highly prized for its use in construction as house beams, window frames, flooring and furniture. Ifit wood is still sought after by carvers today.

The number of ifit trees on Guam today remains low due to habitat loss, indiscriminate harvesting and predation by invasive species. Although ifit is a slow growing tree, it is recommended for planting as an agroforestry tree. It is also handsome enough to be used as an ornamental planting.

Photo credits: Olympia Terral & Lauren Gutierrez



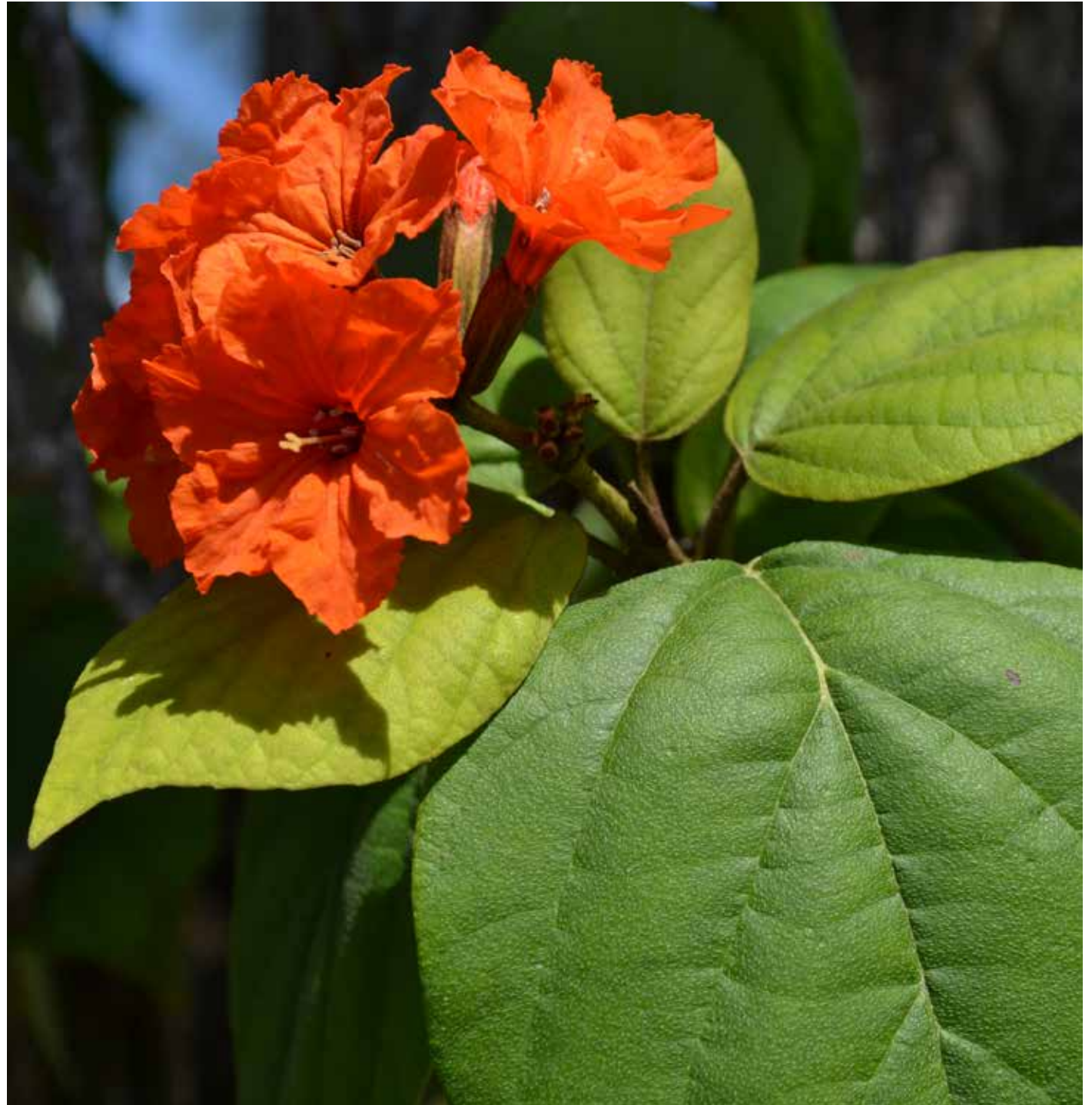
Cordia subcordata
Niyoron

Found from Zanzibar through Indomalaysia to the Pacific islands, niyoron grows on limestone boulders and cliffs. As an indigenous plant, there is no concern about this tree becoming an invasive species. With its bright orange flowers, this fast-growing tree makes an excellent ornamental planting.

Niyoron's malleable and durable wood has been used for outriggers on canoes and for carving. The flowers are used in making mwarmwars and leis.

This coastal species is resistant to wind and salt spray. It prefers full sun exposure, offering shade to all who pass.

Photo credits: Olympia Terral



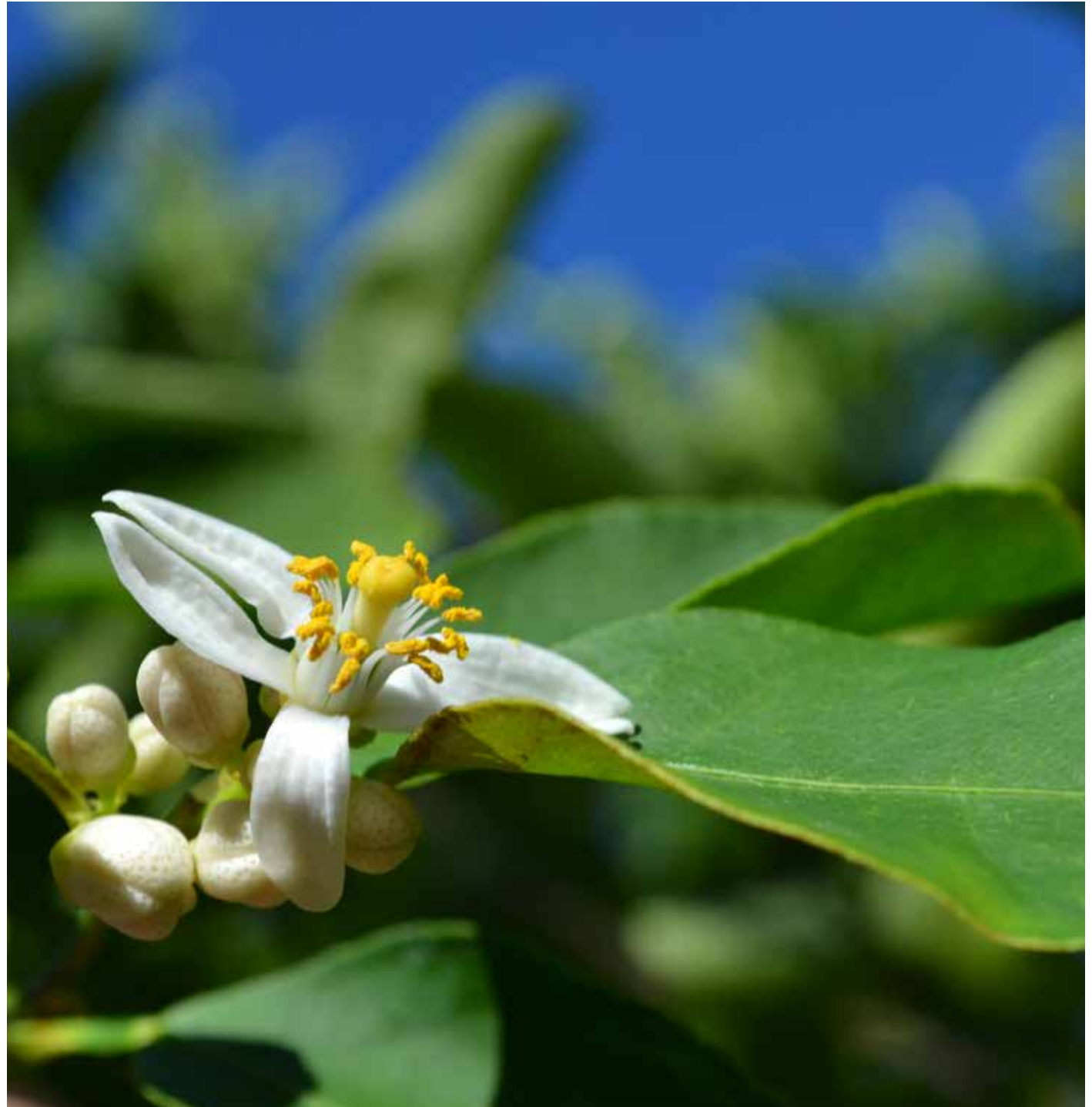
Citrus aurantifolia
Key Lime, Mexican lime

Key lime has a distinctive taste that gives the flavor to Key lime pie. It is originally from Southeast Asia and most likely a hybrid cross with *Citrus micrantha* × *Citrus medica*.

Citrus aurantifolia thrives in a warm moist climate, preferring well-drained soils.

Key lime is one of the seven fast-to-fruit trees recommended for planting in the “Seven Trees, Seven Practices” agroforestry education project conducted by CNAS Extension and Outreach personnel.

Photo credits: Olympia Terral & Forest & Kim Starr



Punica granatum
Pomegranate

Native to the region of present day Iran to India, pomegranate fruit is a common culinary ingredient throughout the region. The juice of this fruit has been shown to have anti-inflammatory effects that can protect the heart and memory function.

Extremely drought tolerant and able to grow in a variety of soil types, the fruits ripen 6-7 months after flowering. The fruits have a long storage life and actually get sweeter and juicier during storage. They can be kept up to 7 months when maintained at the ideal temperature and humidity.

Pomegranate is one of the seven fast-to-fruit trees recommended for planting in the “Seven Trees, Seven Practices” agroforestry demonstration and education project conducted by CNAS Extension and Outreach personnel.

Photo credits: Olympia Terral



Cerbera dilatata
Chiute

Although the genus occurs from India through the Pacific, this species is endemic to the Mariana Islands.

Chiute grows in a variety of habitats and tolerates clay or limestone soils. It can be found growing near streams in savanna ravines.

As mentioned in *Trees and Shrubs of the Mariana Islands*, "Its showy flowers are quite attractive and with proper soil would make a good ornamental -- an island plumeria."

Photo credits: Lauren Gutierrez



Thespesia populnea
Bañlo, rosewood

Bañlo is indigenous to the Mariana Islands and is often found near beaches or in the strand. It has heart shaped leaves. Its yellow flowers are usually open by noon and last only one day.

The leaves and flowers are used medically as antibacterial and anti-inflammatory agents. The bark and fruits produce a yellow dye.

Bañlo is in the same family as pãgo and hibiscus, Malvaceae, hence the resemblance of the flowers. According to the authors of *Trees and Shrubs of the Northern Mariana Islands*, bañlo “is an excellent street and shade tree that should be more widely planted.”

Photo credits: Lauren Gutierrez



Cycas micronesica
Fadang, cycad

Worldwide, cycads are one of the most threatened plant species today. They belong to a class of plants called gymnosperms, which literally means “naked seeds.”

Cycas micronesica is found only on the islands of Guam, Rota, Yap, and Palau. It is currently listed as endangered on the IUCN Red List of Threatened Species. It was once the most abundant tree species on Guam, but several invasive insects, the Asian cycad scale, and the cycad blue butterfly, have reduced the population by 90%.

Fadang make attractive ornamental plantings. The female plant has a beautiful reproductive structure called megastrobilus.

Photo credits: Olympia Terral & Thomas Marler



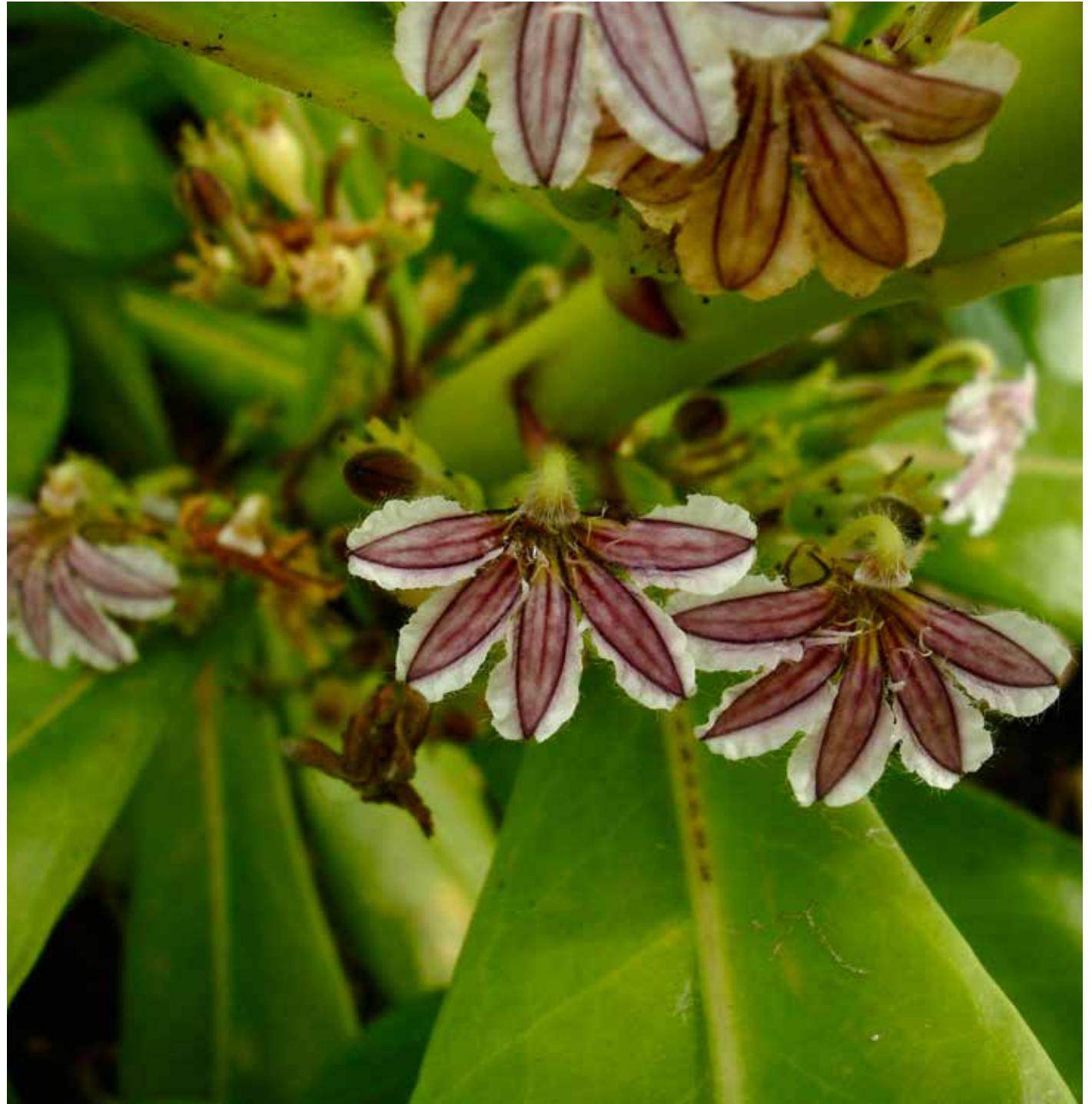
Scaevola taccada
Nanâso, fan flower

With a native range from Africa through to Oceania, nanâso is a pioneer species preferring coral beach sand. It is native to the Mariana Islands, readily found on beaches but also in savannas and on limestone.

This plant is very salt tolerant with an unusual flower. The five petals grow only on one side, giving the flower a fan-shaped appearance. Flowers are used in making leis and mwarmwars.

Nanâso prefers full sun and is often used to stabilize sandy areas of beach strand and as an ornamental.

Photo credits: Lauren Gutierrez



Cocos nucifera
Niyok, coconut palm

Coconut trees are thought to have originated in Southeast Asia and Melanesia. Ocean currents and humans helped spread this extremely useful plant throughout the islands of the Pacific Ocean and elsewhere.

Pacific Islanders consider the coconut “the tree of life” and use all parts of the tree for food, drink, oil, wood, leaves for thatching, and fiber for cordage.

Niyok needs YOU to cover your green waste with a tekken net to prevent the invasive coconut rhinoceros beetles from laying eggs in the decaying matter. This is one way you can help control the beetle. Remember, invasive species are everyone's responsibility!

Photo credits: Lauren Gutierrez





Sources:
Trees & Shrubs of the Northern Mariana Islands. 1991. Raulerson, L. and A. Rinehart.

Traditional Trees: <http://www.agroforestry.org>

Fruits of Warm Climates. 2013. Julia F. Merton. <http://www.hort.purdue.edu/newcrop/SearchEngine.html>

Twelve Fruits: With Potential Value-Added and Culinary Uses. 2007. Love, K., R. Bowen, K. Flemming. University of Hawaii

<http://www.cabi.org>

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4519917/>

<https://commons.wikimedia.org/>

Cover photo:
 Lauren Gutierrez
Intsia bijuga / Ifit flower

Layout and design by Olympia Terral and Emily Shipp, CNAS creative team.

We would like to express our gratitude to Lauren Gutierrez who generously gave us permission to use her photographs.

Finally, thanks go to our esteemed Dean Yudin for his approval of our creative projects.

