

Foods for the Classic Maya of Petén: from Wild (uncultivated) Plants of Rain Forests, Savannas and Wetlands

"The Classic Maya did not rely only on Milpa Agriculture for their Food."



Dr. Nicholas Hellmuth
For IMS lecture, February 19, 2025



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This Powerpoint prepared by botanist-ecologist Sergio Jerez (FLAAR Mesoamerica) and ethnobotanist / archaeologist Nicholas Hellmuth (FLAAR) brings you the results of our recent SIX YEARS of field work hiking into remote areas of the Reserva de la Biosfera Maya, RBM, the northern half of Peten.

We have a photo database of our own photos of 30 TERAbytes—so the full-color PowerPoint presentation will really help you learn about and enjoy flowers and plants you may have seen (and did not realize were edible for the Classic Maya). The following slides are just a brief sample of what you can see and learn about on February 19th.



Wednesday evening, February 19, 2025, 8 pm ET, via ZOOM

hyperlink: <https://us06web.zoom.us/j/86930585524>

Edible plants of floodable savannas is a focus since the Yaxha-Nakum-and-PNLT savannas have not been fully studied before.





These are savannas 1 to 14 at Paso Caballos (Laguna del Tigre National Park), based on a numeration made by our team while documenting these ecosystems in the Maya Biosphere Reserve (Reserva de la Biosfera Maya, RBM for our five-year project of coordination and cooperation with CONAP, Consejo Nacional de Áreas Protegidas).



Each savanna has different areas, where different plants can be found. For instance, the species that grow in their borders, in forest transition areas, are different to those found in the center. Also, depending on the soil, some savannas get waterlogged, and therefore, different plant species inhabit them.

Many more edible plants exist in savannas, which will be described when someone camps in the border of each savanna to explore and document the plants that grow in their different areas.

Savanna of Three Fern Species, northwest to the west border of Lake Yaxhá.



Many savannas of Petén hold tasiste palm (*A. wrightii*) ecosystems, called *tasistales*. These grow almost exclusively in floodable savannas. The stem of a tasiste palm is edible. This small savanna has thousands of these palms.



This is Tasistal Arroyo Petexbatún, the first tasistal documented by FLAAR. It holds an approximate of more that one million tasiste palms.

Acoelorrhaphe wrightii (Griseb. & H.Wendl.) H.Wendl. ex
Everglades palm, palmetto palm, tasiste, pimiento or pimientilla is ~~poible~~ **poible**.





Edible plus ornamental, a source of natural fibers, medicinal, and for construction. Extracts of the seeds are used to treat cancer.



This edible plant is so common that it should get more attention.



FLAAR did the first ever photo documentation of this pine forest in 2023 near Tikal, where *tasiste* was also photographed and documented. Visited by many botanists and archaeologists but no photographs of this quality ever published before.

Byrsonima crassifolia Lunan ex Griseb.

Nance dulce, nance de monte, chi' (Mayan).



Tasistal savannas and also open grassland savannas have one or more species of nance. The most common in the savannas of Petén and on the pine ridges of British Honduras is *B. crassifolia*. The yellow fruits are gathered in large quantities (Lundell, "Edible plants of Peten").



Edible parts: fruits and leaves (may be used for tea).



***Crescentia cujete* L.**
Calabash tree, jícaro or morro.

I estimate that around 95% of the grasslands and tasiste savannas may have *Crescentia cujete* trees. This tree is often found throughout the savannas deep in Yaxhá, Nakum and Naranjo National Park (PNYNN) and elsewhere in the Maya Biosphere Reserve (RBM). FLAAR found many in the Savanna East of Nakum.

The jícaro (morro) trees fruit for several months each year, and many parts of the fruits are edible. The dry seed pods have many uses as well. For instance, the Maya would cut the seed pod in half and use each half as a drinking cup or small bowl. Many Tepeu 1 ceramics share the same size and shape for these uses.

The pulp is medicinal, and in theory, the liquid surrounding the pulp can be consumed. Oil can be extracted from the seeds. Edible uses are excellently covered by Kiersten Rankel.



Edible parts: mainly fruits and seeds. Leaves may be used in soups (Savanna East of Nakum, PNYNN, RBM).



Other uses: medicinal, for construction, and to make utilitarian crafts.

Cochlospermum vitifolium (Willd.) Spreng.

Buttercup tree or tecomasuchil.



Edible parts: leaves, the stamens, and potentially the seeds.
Stamens are used to adulterate saffron.



Sagittaria lancifolia L.
Bulltongue arrowhead or duck potato.



S. lancifolia are the most common edible plants in the savannas and other wetlands. However, you have to cross crocodile-infested areas to reach them. I am ignore those realities because I want to document aspects of the Yaxhá park that I didn't know when I lived and worked several kilometers to the east in the 1970s.



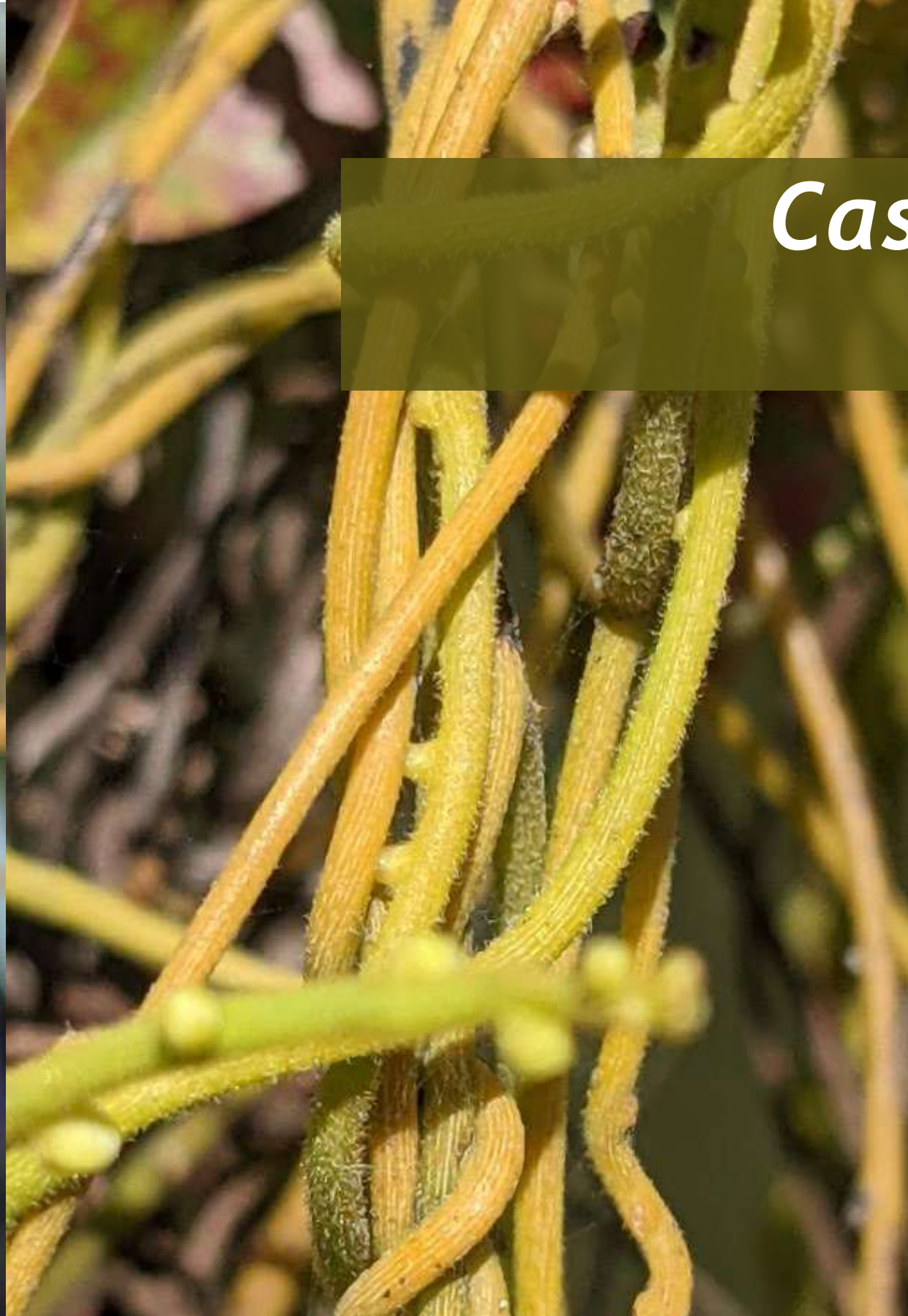
The water here is a permanent segment of the "water ring around the edge of a savanna" from the Savanna of Three Fern Species, northwest of the far western end of Lake Yaxhá, PNYNN.

My team did everything they could to stop me from getting in the dark water, which reached my knees, but I wanted to study these flowers on the other side. When the rest of the team saw that I was not eaten by a local crocodile, they crossed over and found one of the two species of water-associated orchids of Parque Nacional Yaxha, Nakum and Naranjo.

June 4, 2019, was the first time I saw *Sagittaria lancifolia* flowers in a savanna.



This species has been used as a food source by Mayan communities.



Cassytha filiformis L.
Dodder laurel.

Cassytha filiformis is edible and typically found in wetlands (along the shores of Lake Yaxhá and the Savanna East of Nakum). We estimate that the vine we found in the savannas and at Yaxhá is not *Cassytha filiformis*, a parasitic herb (which we would call a vine).



Edible parts: leaves.

Other uses: medicinal, ornamental, made into a paste for paper making, and to produce a brown dye.

The stems are also used as an eyewash and as a hair tonic when mixed with sesame oil.



This plant is an example of convergent evolution, as it is a near-total copy of the parasitic vine *Cuscuta*



Lots more edible plants we will show and identify.

Passiflora foetida L.

Goat-scented passionflower or maracuyá silvestre.





Edible parts: fruits (the pulp surrounding the seeds) and leaves (for tea).



The fruit is used to prepare very sweet juices and beverage. However, the fruit must be eaten fully ripe, otherwise it is completely toxic.



Thalia, Edible parts: roots. The leaves can be used to wrap tamales.



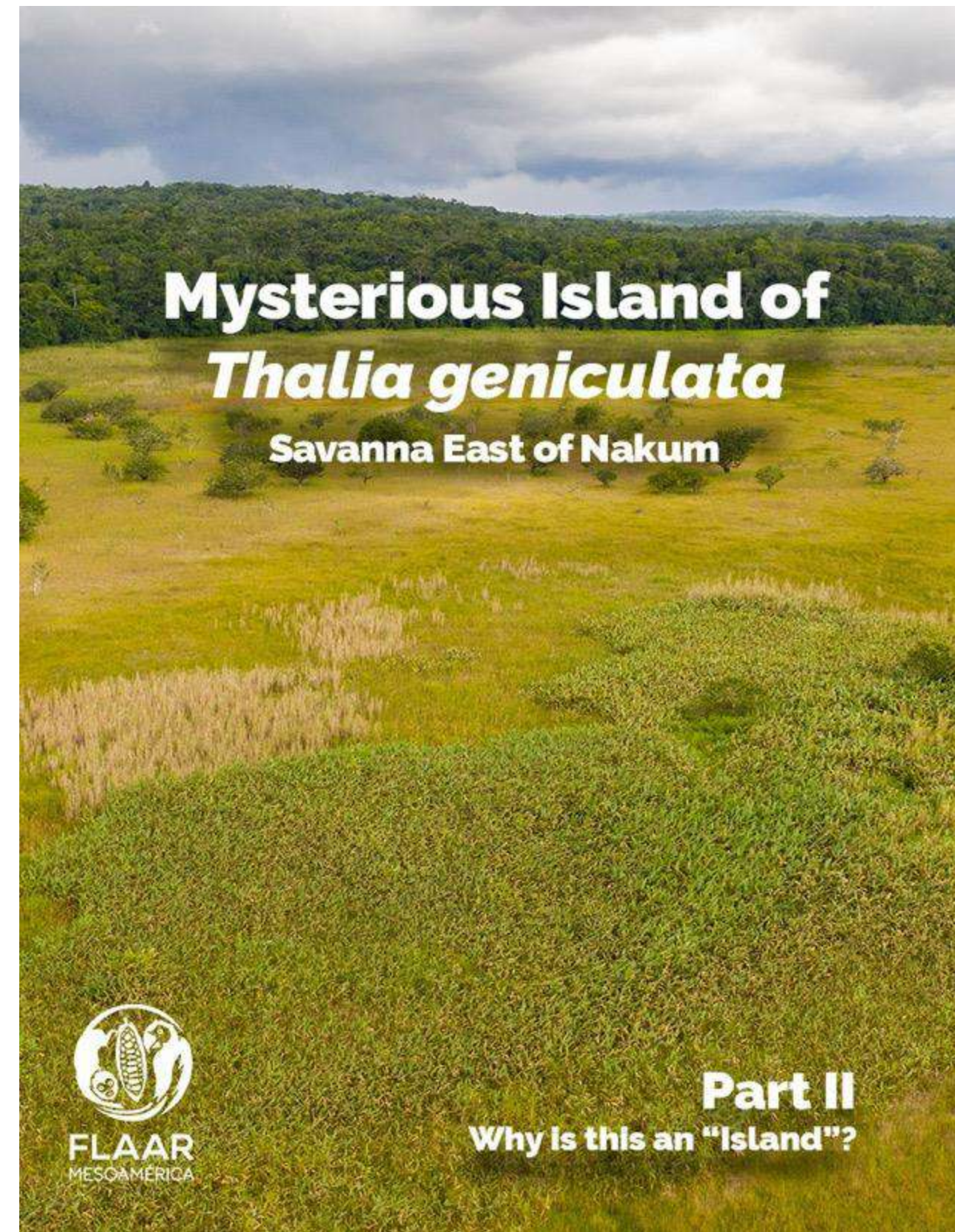
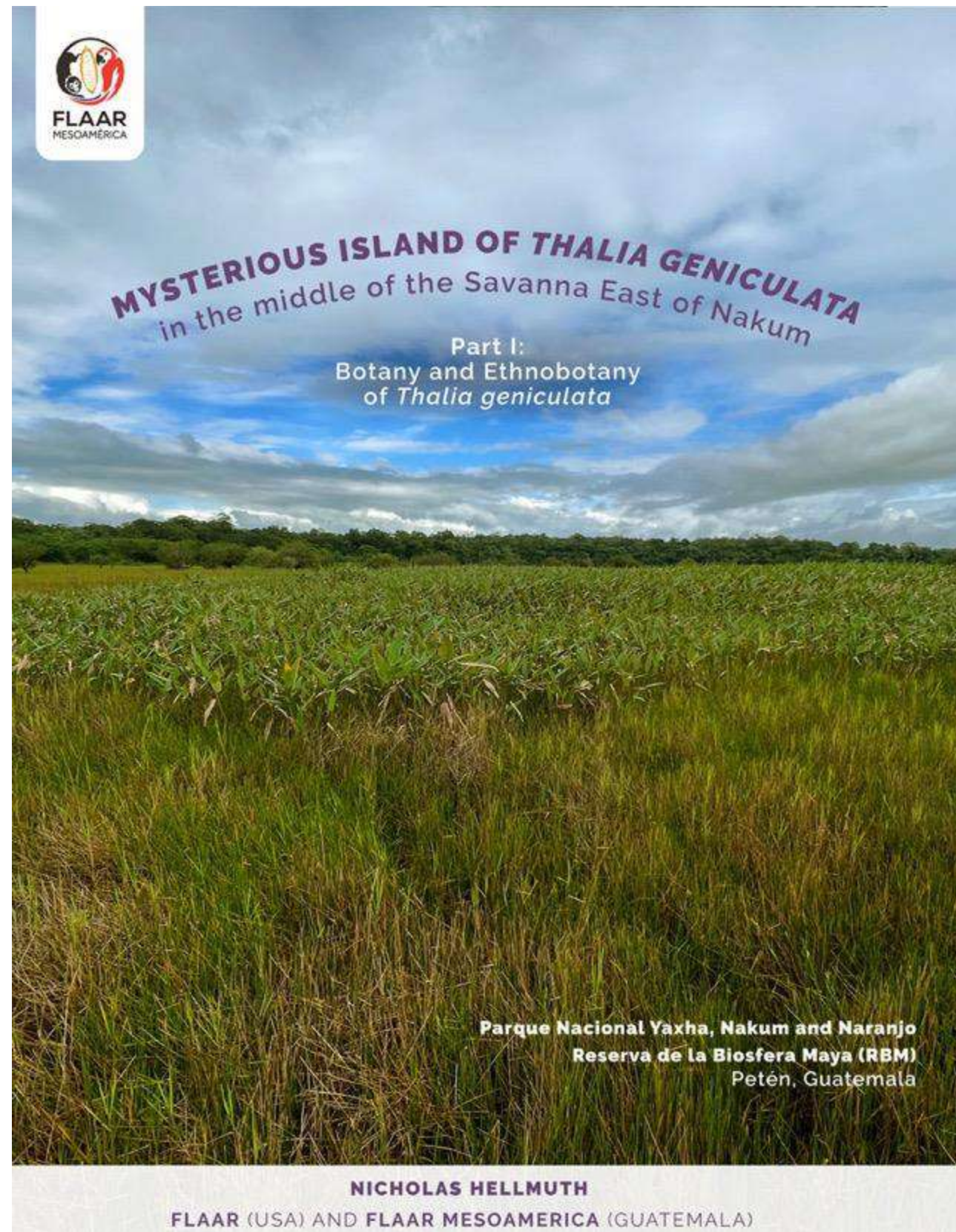
We found an entire “island” of solid Thalia plants in the Savanna East of Nakum



The Classic Maya had no access to plastic, so these leaves served as an excellent natural alternative to wrap food. Today, this practice remains an integral part of the cultural heritage of Guatemala, and is widely common not only for wrapping tamales, but also, to transport other kinds of food.



A helpful family in Chicago donated a very substantial sum and also paid for the cost of a one week field trip so they could visit this remarkably biodiverse ecosystem together with Hellmuth and the complete team of photographers, drone pilot, ecologists and biologists of FLAAR Meso=america. So this family (parents plus their son) could have this incredible experience. Obviously they could also explore the ruins of Yaxha and Nakum and Naranjo-Sa'al are worth adding to your schedule.



All the information compiled by our team regarding this *Thalia* species is covered in both of these photo reports, available on-line at FLAAR-mesoamerica.org.

***Aniseia martinicensis* (Jacq.) Choisy**
Whitejacket or morning glory.





Although not confirmed, based on other species of Convolvulaceae it is

Canna glauca L.
Water canna, arrowroot, bandera española or banderita.





Edible parts: tubers, and potentially the fruits.



Other uses: medicinal and ornamental.

Canna indica L. or *Canna tuerckheimii* Kraenzl.

Indian shot, Queensland arrowroot, or edible canna.



Edible parts: tubers. The leaves may be used for tea.

Other uses: medicinal, ornamental, for construction, and to make paper.



***Gonolobus lasiostemma* (Hemsl.) Woodson**
Cuchampera. The seeds are known as “mishos” or “mishitos”.



Edible parts: fruits. The pulp.



Edible plants of aguadas, marshes and riverbeds

Not many people have experienced a swamp with red surface plants plus green water plants. Hellmuth likes to explore wetlands of the rain forests.





Leimnoideae Bab.
Duckweeds, or ix'iim ja'.



Rhizophora mangle L.
Red mangrove, or mangrove tree



These mangroves grow along the Río San Pedro, at the Peten-Tabasco border, approximately 200 km far from the nearest beach. This could make them the most isolated mangrove swamp from the sea in the world.



Fire wood of these trees could have been used by the ancient Maya to produce salt, since it was an abundant resource in coastal ecosystems.



Acrostichum danaeifolium Langsd. & Fisch.
Giant leather fern or mangrove fern.

This fern grows both in fresh water and brackish water, since it is highly adaptable to high concentrations of salt.



Edible parts: fiddleheads and tender fronds.



Other uses: for thatching and ornamental.



Many giant ferns grow in marshes, swamps, riverbeds, and other waterlogged areas of the Reserva de la Biosfera Maya (RBM) of Peten, Guatemala.

FLAAR documented giant leather ferns in Poza Maya, north of Yaxha, in PNYNN, and many of the other plants that grow in the borders of this aguada are edible as well.



Poza Maya, also known as Aguada Maya, is documented to be a creation of the Maya. It has a rectangular shape and its borders have standing water about one meter wide, which look as a water ring when directly above (not visible at this angle).

***Pachira aquatica* Aubl.**

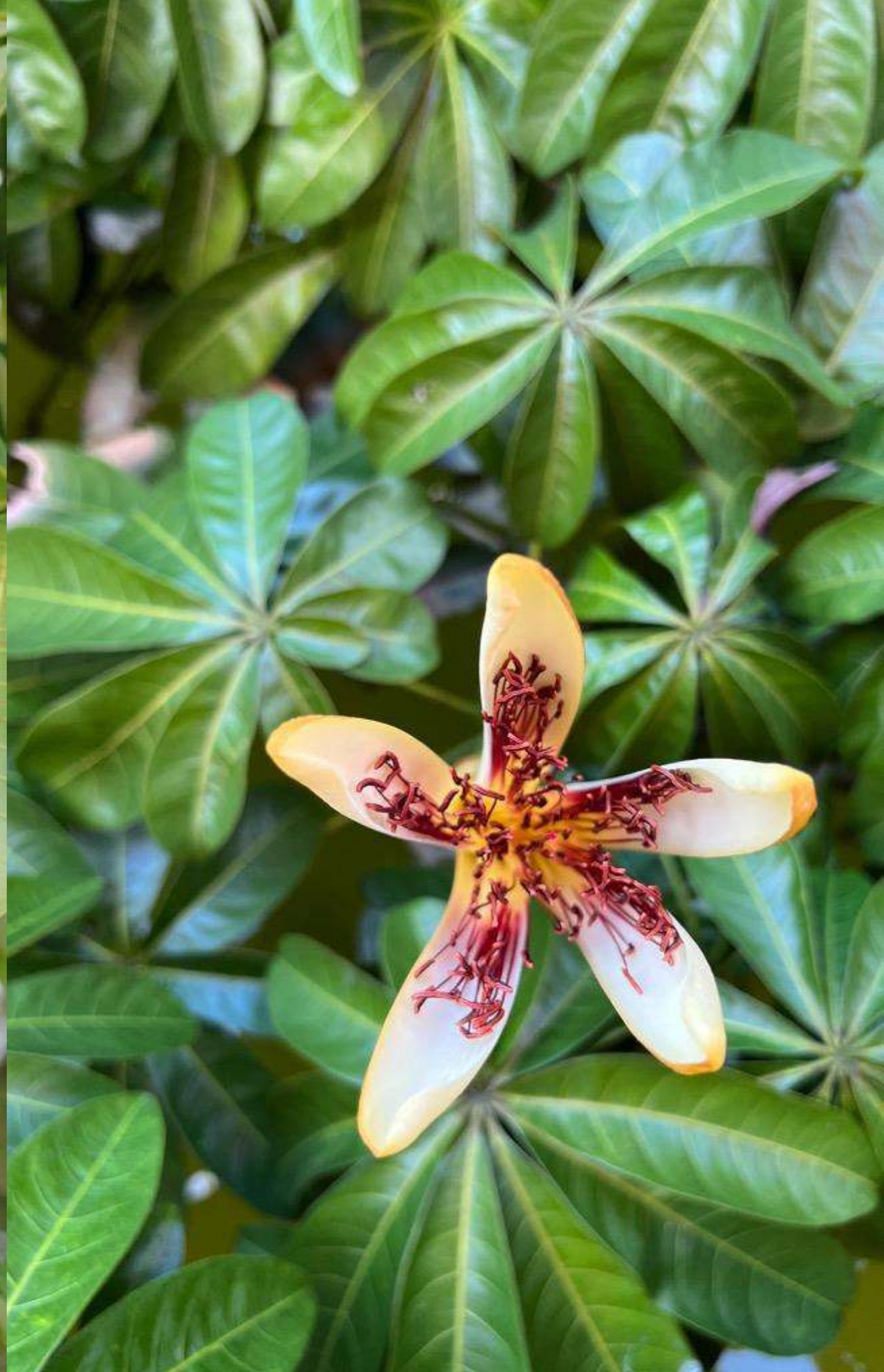
Money tree, zapotón, zapote bobo or zapote de agua.



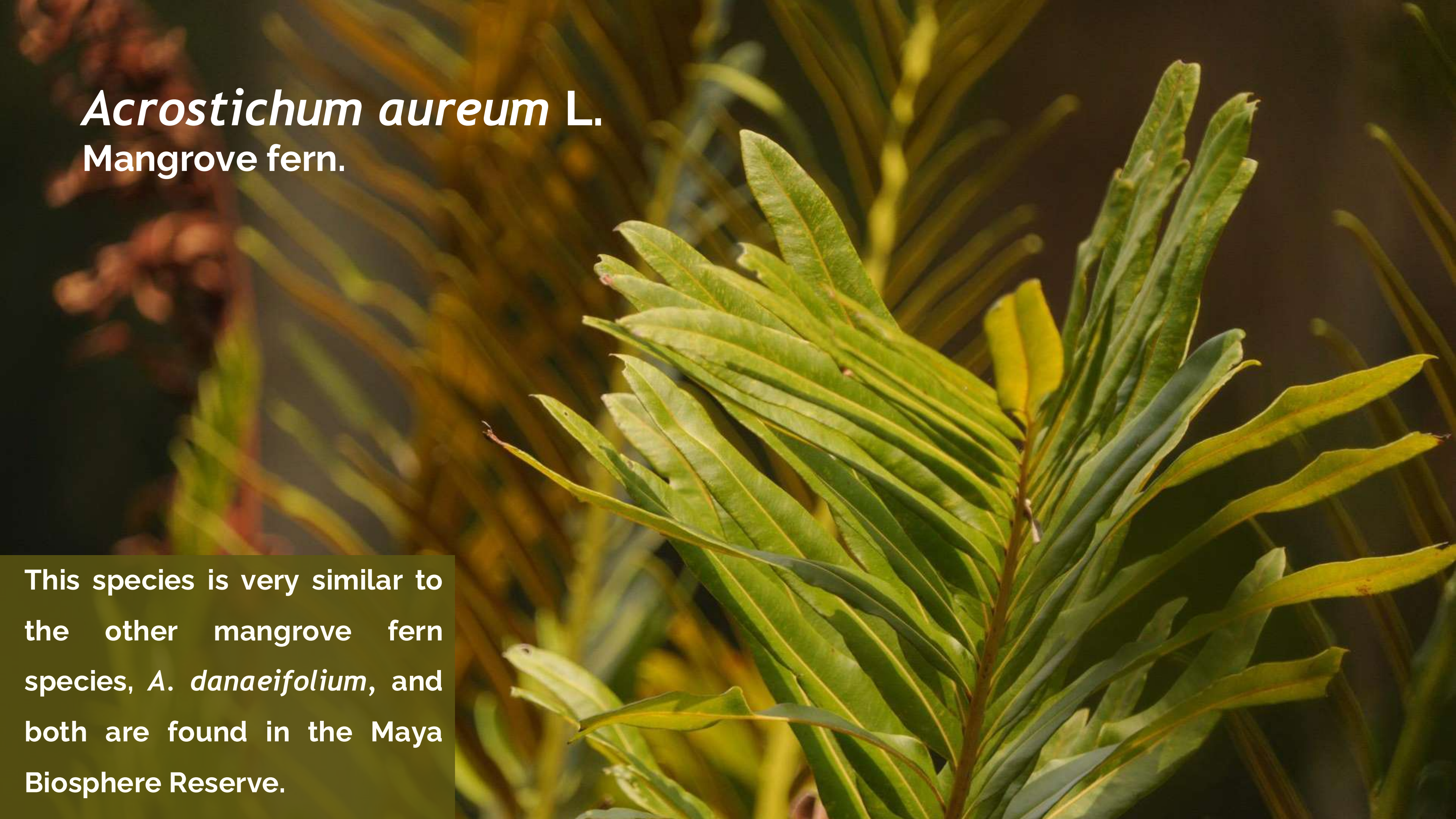
Most parts of this tree are edible, however, one of its most interesting uses is to create a substitute of cacao out of its seeds.



Edible parts: zapoton fruit (the largest fruit native to Guatemala), seeds, bark, flowers, and young leaves.



Other uses: timber, ornamental, source of a red dye, and medicinal.



Acrostichum aureum L.
Mangrove fern.

This species is very similar to the other mangrove fern species, *A. danaeifolium*, and both are found in the Maya Biosphere Reserve.



Edible parts: fiddleheads.

Other uses: medicinal and ornamental.

It is used worldwide for its medicinal properties: as an expectorant, diuretic, for medicinal baths, urinary problems and worm infections.



Acrocomia aculeata
(Jacq.) Lodd. ex R.Keith.
Coyol palm.





***Desmoncus chinantlensis* Liebm. ex Mart.**

Bayal a vine but nonetheless a true palm.



Edible parts of bayal palm vine: fruits. You can see dozens on the entrance road to hotel El Sombrero Ecolodge, at entrance to the Yaxha part of PNYNN.



Edible plants of broad leaf forests and *bajos*



***Vanilla insignis* Ames**
Wild vanilla, or vainilla.



Pimenta dioica (L.) Merr.
All spice, pimienta gorda, or pimienta.




Cordia dodecandra DC.
Cericote, or ciricote.





***Parmentiera aculeata* (Kunth) Seem.**
Cucumber tree, or cuajilote.

A large, green, ribbed cacao pod hangs vertically from a tree trunk. The pod is elongated and has a distinct ribbed texture. The tree trunk is dark brown and textured, with some lichen or moss visible. The background is a blurred forest scene.

Edible parts: fruits, and roots. Flowers and fruits from the trunk, like cacao.

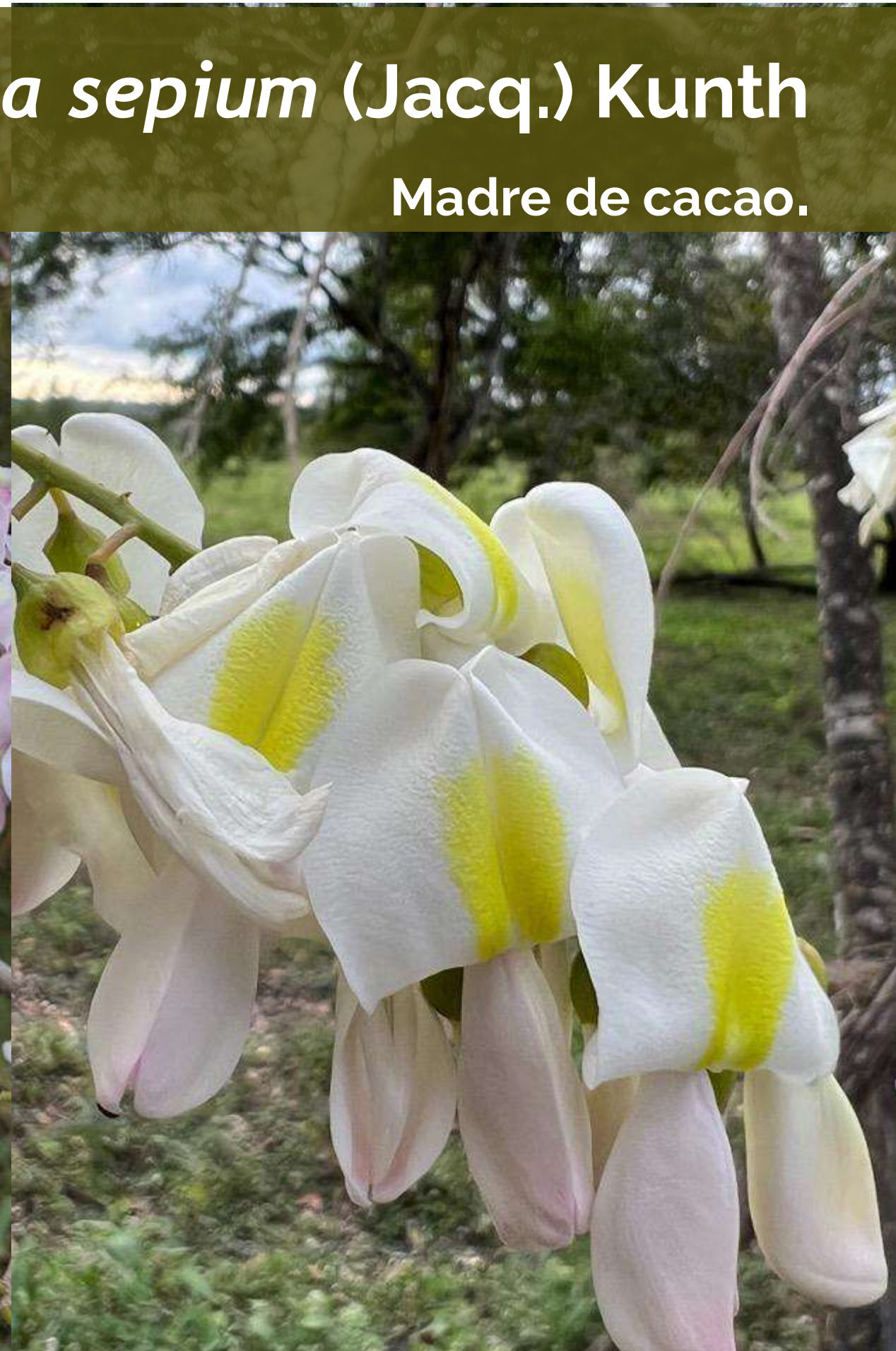


Other uses: medicinal.



Gliricidia sepium (Jacq.) Kunth

Madre de cacao.



Edible parts: flowers and potentially leaves also.



Other uses: fire wood, timber, medicinal, ornamental, and a source of dye. It is the most used shade tree in cacao agroforestry in Guatemala.



Cassia grandis

Apple-blossom cassia, pink shower tree, and bucutz.



***Aechmea magdalенаe* (André) André ex Baker**
Pita, forms pitales around aguadas in the bajos.



We can take you on the trail through this corozo palm island so you can experience it yourself, with your family, and friends.



www.Maya-ethnobotany.org

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Lecture is **Wednesday evening, February 19, 2025, 8 pm ET**, prepared by FLAAR for IMS—
Institute of Maya Studies, with Jim Reed..

On Wednesday evening access and download this active hyperlink:

<https://us06web.zoom.us/j/86930585524>