Piscidia piscipula, Jabin, Dogwood, with Hummingbird Pollinator Yaxha and Nakum areas of Parque Nacional Yaxha, Nakum and Naranjo



Volume 6 for Series:

Flowers worth experiencing at Parque Nacional Yaxha, Nakum and Naranjo, PNYNN Reserva de la Biosfera Maya, RBM, Peten, Guatemala

Nicholas Hellmuth, FLAAR Reports, FLAAR (USA) and FLAAR Mesoamerica (Guatemala), October 2025

# Introduction to Piscidia piscipula, Jabin, Dogwood

We have found and photographed *Piscidia piscipula* at Yaxha and at Nakum. It is probably also in other parts of Parque Nacional Yaxha, Nakum and Naranjo.

Piscidia piscipula (L.) Sarg. is a tree in the pea family, Fabaceae or some botanists still use the older name Leguminosae.

*Piscidia piscipula* is another species of tree that likes to flower when it has shed its leaves.

Most discussions are on the uses of *Piscidia piscipula* are for lumber, and medical properties. But the chemicals in this plant have a lot more uses, as we will mention later.

Most discussions of pollinators of *Piscidia piscipula* feature bees and mention how important this tree is to further honey production (Porter-Bolland 2001: 102, 110, 145, 150, 159). But of course hummingbirds don't produce honey.





It would take an 800mm prime lens to capture a better view of this humming-bird, but I was able to crop this photo to at least show it.

Photos of
Piscidia
piscipula by
Maria Alejandra
Gutierrez were
taken with the
Canon EOS 1D
X-Mark II
camera.

Several of her photos of the flowers also captured an active hummingbird.

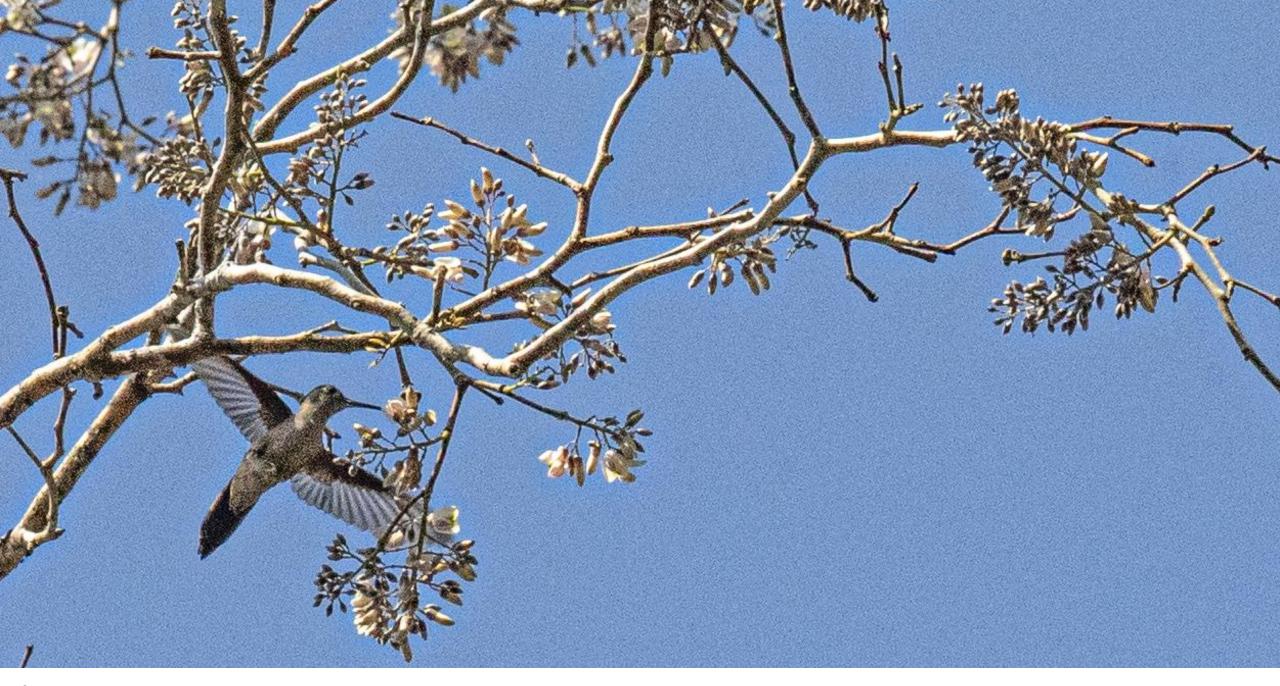




From one twig to another, the hummingbird flies towards its next meal.

Very acrobatic hummingbird—you do what you have to do to get your meal. To freeze a bird in flight you need to change all the settings in the camera. This camera was set for photographing the flowers.





Finally captured a moment when the hummingbird was not flapping its wings.

Piscidia piscipula is listed as pollinated by bees and butterflies—yet we documented with photographs of Maria Alejandra Gutierrez that hummingbirds are also attracted to these flowers of Piscidia piscipula.

That is one of many goals of FLAAR and FLAAR Mesoamerica—to find, photography and thus document aspects of flora, fauna and biodiverse ecosystems not previously found in the RBM.



No leaves anywhere on this Piscidia *piscipula* tree while it is flowering. With no leaves, all the attention of pollinators is on the flowers. And, with no leaves, it's easier for the pollinators to reach the flowers (and not be obstructed by the leaves).



Most of the flowers are on the twigs, not on the thick limbs.



Flowers are the twigs get more sunlight plus are easier for the pollinators to notice and to reach.



Would help if a graduate student could do a PhD dissertation on why some twigs have lots of flowers and other twigs have none.





On March 25<sup>th</sup>, 2019, the same species of hummingbird was also noticed, but at Yaxha. This and the following other photos of a hummingbird at the tree was March 29, at Nakum. Obviously there are a lot of this species of hummingbird at PNYNN and elsewhere in the Reserva de la Biosfera Maya.

Hummingbirds are frequently pictured in Late Classic Maya art.

In this photo, the photographer is focused on the hummingbird. In most of the other photos, the focus was on the flowers.

The focus was on the flowers, not the humming-bird. But at least we can show its presence.



Several twigs still have all their leaves.



The humming-bird is ready to begin sucking nectar.

Yet not a single bee is visible, despite dozens of articles saying that this tree species is a favorite for bees.



This hummingbird is trying to decide which flowers to select for its next nectar meal.





Most leaves have indeed fallen off, to help make the flowers more visible and more accessible.



This tree is flowering with leaves still present, and two short twigs with several young leaves starting to grow. But overall, most *Piscidia piscipula* trees let their leaves wilt and fall off while the flowers are ready to burst out to attract pollinators.



# Botanical Description of *Piscidia piscipula* by Standley and Steyermark

For every plant of Mesoamerica there are dozens of experienced botanists in USA, Mexico, Guatemala, Belize and other countries that have written articles, chapters, or entire monographs on a single plant genus or family. But the botanical resource I prefer is that of Standley and co-authors because Standley documents ethnobotanical information also—local names in Mayan languages and local use of the plants by Maya and other people of Mesoamerica. Most other botanical documents are focused on the leaves, flowers and details. I also cite Cyrus Lundell since he was focused on ecosystems—how many different plants are in each kind of area: savanna, bajo forest, high forest, river bank, etc.

**Piscidia piscipula** (L.) Sarg. Gard. & For. 4: 436. 1891. Erythrina piscipula L. Sp. Pl. 707. 1753. P. Erythrina L. Syst. Pl. ed. 10. 1155. 1759. Ichthyomethia piscipula Hitchc. ex Sarg. Gard. & For. 4: 472. 1891. P. americana Moc. & Sesse", Pl. Nov. Hisp. 116. 1887. L communis Blake, Journ. Wash. Acad. Sci. 9: 247. 1919. I. americana Blake, op. cit. 248. Habin (Peten, Maya).

In lowland forest or thickets, 300 meters or less; Peten; Escuintla. Southern Mexico; British Honduras; Ruatan Island, Honduras; southern Florida; West Indies; northern South America.

A large shrub or a tree, sometimes 15 meters high, the branchlets strigillose at first; leaflets 9-13, petiolulate, elliptic-oblong to obovate-oval, 4-8 cm. long, obtuse or rounded at the apex, rarely acute, rounded at the base, glabrous above or nearly so, minutely and usually densely strigillose beneath, pale; panicles 8-20 cm. long, the pedicels 2-7 mm. long; calyx 6-7 mm. long, strigillose with pale hairs; petals pink or white and red, the standard 1.5 cm. long; legume 2-7.5 cm. long, 2-4 cm. wide, 1-6-seeded, strigillose, the wings glabrate, much wider than the body, thin, undulate or ruffled, the stipe much longer than the calyx.

Called "dogwood" and "May bush" in British Honduras. The wood is yellowish brown, lustrous, the sapwood gray; hard and heavy, the specific gravity 0.87, the weight about 54 pounds per cubic foot; grain fairly roey, the texture medium; rather difficult to work, takes a high polish, is very strong and durable. It has been used in various regions for boat and vehicle construction, firewood, and charcoal, also for posts and piling. The dry bark, especially that of the root, is reported to have a strong and disagreeable odor resembling that of opium, and it produces a burning sensation in the mouth. It contains various narcotic substances, one of which has been named piscidin. An extract of the bark, applied locally, has been used in tropical America to relieve toothache, and in Jamaica to cure mange in dogs. The most remarkable use of the tree, however, is as a fish poison, the bark and leaves being crushed and thrown into the water, where they soon stupefy the fish, causing them to float upon the surface. Piscidia bark is said to be used in this manner in Baja Verapaz and probably in other parts of Guatemala. The specific name assigned by Linnaeus refers to the poisonous properties of the genus.

Standley and Steyermark 1946: 336-337

Piscidia piscipula is in Lundell's 1937 Vegetation of Peten on many pages. I start with page 100:

As in savannas throughout the tropical world, scattered trees dot the landscape. The low gnarled nanze, *Byrsonima crassifolia*, and the shaggy-barked saha, *Curatella americana*, are two scrubby, fire-resistant xerophytes which characterize the well-drained grasslands of central Petén (Plates 24 and 27). When the nanze trees clump together in a small grove, the stand is called an annual. A grove of the saha trees is known locally as a sahaal (Plate 27, fig. 1).

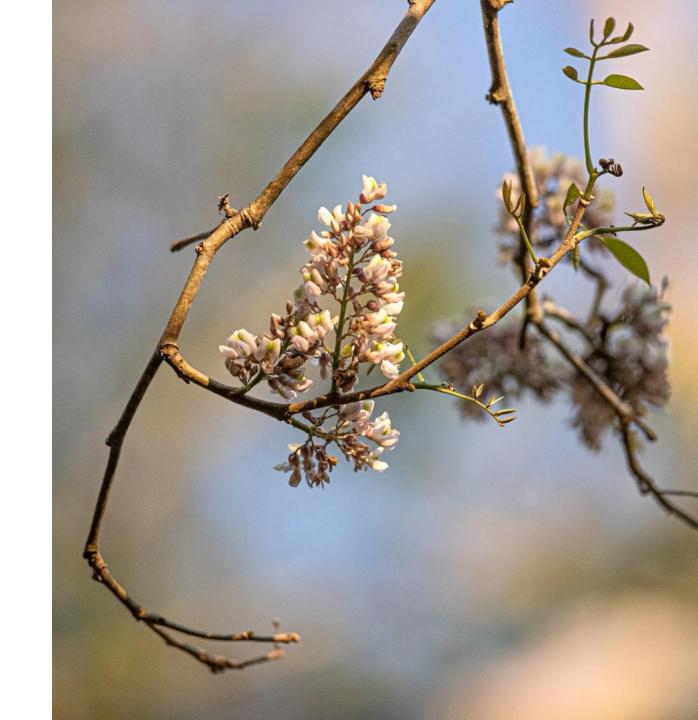
The cocoyol palm, *Acrocomia mexicana* (Plate 28, fig. 2), grows in the campo, being even more conspicuous than the nanze and saha trees in some areas. Among the other trees standing solitary in the open grasslands, *Crescentia cujete* (Plate 29), *Ternstroemia tepezapote*, *Dipholis salicifolia*, *Hippocratea subintegra*, *Piscidia piscipula*, *Acacia angustissima*, and *Haematoxylum campechianum* are deserving of mention. The occurrence of Haematoxylum campechianum, the dominant species of the swampy tíntales (pp. 27 to 29), in the habitat is of unusual interest, as its presence indicates edaphic conditions similar to those in the akalches. (Lundell 1937: 100).

Piscidia piscipula is also mentioned on pages 101, 112, 132, 135, 136, 171.

Plus Piscidia communis (page 64)

The best publication in the world on where each plant is found in Mexico is by Villaseñor: *Piscidia piscipula* (L.) Sarg. CAM, CHIS, GRO, HGO, JAL, MEX, MICH, NAY, NLE, OAX, PUE, QRO, QROO, SLP, TAB, TAMS, VER, YUC (Villaseñor 2016: 755).

An excellent botanical documentation of ethnobotanical uses by local people is by Balick, Nee and Atha: **Piscidia piscipula** (L.) Sarg. — **Syn:** *Piscidia communis* S.F. Blake; *Piscidia erythrina* L. — **Loc Use:** PRD, MED, CNST. — **Reg Use:** FUEL, CNST, MED, POIS. — **Nv:** dogwood, habim, iguano blossom, jabin (Balick, Nee and Atha 2000).



JAB'IN [ja(a)b'-in = ano (medido por las aguas)-sufijo activo, "el de los anos, que marca los anos y ademas dura mucho" (BM)]. Jabin. Tipos específicos (por el color del duramen):

- 1) aj b'ox jab'in [b'ox[+]jab'in = jabin negro], 2) aj k'iinjab'in [k'iin[+]jab'in = jabin amarillo] *Piscidia piscipula* (1,2). (che); amb'iil.
- En medicina, se usa el cogollo (ver UYOK WAKAX, FABAC. y TZ'IMUL, ANNON.); para gripes y ninos fatigados se cocina el cogollo de hojas tiemas mezclado con cogollo y tlor de TAMAN (MALVA.) y AJIIX su'UKLIMON (POACE.), agregando miel a! final y luego se soba con manteca de gallina; para el catarro de los perros mezclado con AJfiX SU 1UKLIMON, hoja de UYOK WAKAX y hoja deJA 1 AS (MUSAC.); la corteza molida en polvo para el dolor de dientes; la corteza raspada con su resina para desinfectar heridas de la pie!. En construccion, el duramen para 'okom, kolojche', aj taanche'; es una de las maderas preferidas para construccion de casas (aguanta entre 50 a 60 anos bajo tierra). La corteza machacada y remojada en agua 8 dias mezclada con corteza de AJIIX SIN A 'ANCHE' (RUTAC.) se usa como herbicida y como insecticida para fumigar. Como adomo, la flor,

Companero de AJIIX K'ANTE 1 y'MANCHIICH (FABAC.).

- (JM): tiene acido piscídico toxico y rotenona; los extractos de Ia hoja, corteza y madera envenenan insectos y peces; los ingredientes son moderadamente narcoticos para los humanos.
- (AC): la decoccion de hojas inhiben seis dermatofitos; el extracto de corteza es insecticida; todas las partes tienen potente actividad depresora uterina en animales experimentales; la infusion de hojas es espasmolítica (tipo atropfnico).

#### Atran, Lois, and Ucan Ek' 2024: 166

amarilla o lila, en ramilletes. Buena lena.

The ancient Maya used narcotics and alcohol in every orifice of the body except their ears. This is the first time I have heard of jabin being usable as a narcotic. Rätsch is clearly aware of *Piscidia piscipula* but does not go into depth on this plant as a narcotic. Even though I was a student at Harvard during the Hippy Years of the 1960's, I was so happy with archaeology during 12 months at Tikal in 1965, that I did not need drugs to make me happy. I went to Palenque a dozen times but never ate the mushrooms there. And now I am so fascinated learning about flora, fauna and remote biodiverse ecosystems that I don't even drink cerveza any more. That said, the Classic Maya, just as the Aztec and their neighbors, loved to imbibe plant chemicals to "levitate to another world". But I am content with the Peten, Alta Verapaz, all the bosque seco areas, the Caribbean wetlands of Izabal, and the mangrove swamps of the Pacific Ocean coast so that I don't need chemicals (other than chocolate!).

# References Cited and Additional Suggested Reading on Piscidia piscipula

#### ATRAN, Scott; LOIS, Ximena and Ediberto UCAN Ek'

2004. Plants of the Peten Itza' Maya. Memoirs of the Museum of Anthropology, University of Michigan, Number 38. 249 pages.

#### BALICK, M. J.; NEE, M. H. and D. E. ATHA

2000 Checklist of the Vascular Plants of Belize with Common Names and Uses: i-x, 1-246. New York Botanic Garden Press.

#### LUNDELL, Cyrus Longworth

1937 The Vegetation of Peten. Carnegie Institution Washington Publication No. 478. 244 pages.

#### PORTER-BOLLAND, Luciana

2001 Landscape Ecology of Apiculture in the Maya Area of La Montaña, Campeche, México. PhD dissertation, University of Florida. 196 pages in the PDF.

#### RÄTSCH, Christian

1998 The Encyclopedia of Psychoactive Plants Ethnopharmacology and Its Applications. Simon & Schuster. 944 pages.

#### RUDD, Velva E.

1969 A Synopsis of the Genus *Piscidia* (Leguminosae). *Phytologia*. Volume. 18, pages 473-499,

#### STANDLEY, Paul C. and STEYERMARK

1946 Flora of Guatemala. Vol. 24, Part V. Chicago Natural History Museum. 502 pages.

#### VILLASEÑOR, José Luis

2016 Checklist of the native vascular plants of Mexico. Revista mexicana de biodiversidad, Vol. 87, pages 559-902...

## **Acknowledgements and Appreciation**

#### FOR COOPERATION, HOSPITALITY, & ASSISTANCE AT PARQUE NACIONAL YAXHA, NAKUM AND NARANJO PROJECT (Aug. 2018 – Jul 2019)

Ing. Jorge Mario Vásquez Kilkán (CONAP, Santa Elena, Peten)

Arq. Jose Leonel Ziesse (IDAEH, Santa Elena, Peten)

Biolg. Ana Lorena Lobos Morales (CONAP)

#### INITIATION AND COORDINATION OF THE PROJECT OF COOPERATION FOR 2021-2026

Licda. Merle Fernandez, CONAP

Marla Mercedes Bolvito Jerónimo, Unidad de Cooperación Nacional e Internacional de la Secretaría Ejecutiva de CONAP

Licda. Ana Luisa De León N., Directora de Educación para el Desarrollo Sostenible, CONAP

Ing. Sergio Balan, Director Regional, CONAP, Peten

Ing. Jorge Mario Vásquez Kilkán (CONAP, Santa Elena, Peten)

Lic. Lester Ely García González, Coordinador Administrativo de Yaxhá para el Ministerio de Cultura y Deportes

Lic. Apolinario Córdova, CONAP Petén (in initial years)

#### FOR COOPERATION, HOSPITALITY, AND ASSISTANCE AT PNYNN WE THANK

all the helpful and knowledgeable guides of IDAEH CONAP at PNYNN who accompanied us each day. It is essential to have either an IDAEH and/or CONAP guardabosque or comparable when doing flora and fauna research in a national park. Plus we appreciate the assistance of the military at the Yaxha park entrance to help us on field trips to find and document the far-away Savanna of 3 Fern Species at the west end of PNYNN.

#### ASSISTANCE FOR KNOWLEDGE OF PLANTS AND ANIMALS OF PNYNN

Teco, Moises Daniel Perez Diaz, park ranger, PNYNN

We sincerely thank Juan Manuel Segovia of Lonas Segovia for donating several giant tarps that are essential for our field trips to remote areas.

#### TENTS AND COOKING EQUIPMENT AT NAKUM CAMP, PNYNN

Manola Margot Lima Diaz owner of Restaurante El Portal de Yaxha, La Maquina

**FLAAR was formed in 1969 to map Yaxha (and nearby Topoxte Island and Nakum)** and we worked with the then president of Guatemala and the head of FYDEP to initiate protection of this area as a national park. Other conservationists added the Naranjo segment. Recently we were asked to return for flora, fauna, and biosphere field work from August 2018 to July 2019. This project was successful and as a result we were asked by CONAP to return for five more years, 2021-2026, of coordination and cooperation with them, both in the Yaxha, Nakum and Naranjo national park plus all the rest of the Reserva de la Biosfera Maya (RBM), Peten, Guatemala.

# Base Camp Assistance at Naranjo-Sa'al

We thank Arqueologa Vilma Fialko and Arquitecto. Raul Noriega for hospitality and place to stay and kitchen while doing field work in flora, fauna and wetlands ecosystems in the Naranjo-Sa'al area of PNYNN. We thank Horacio Palacios who assisted as a guide for how to reach the amazing Savanna West of Naranjo-Sa'al.

## **Base Camp Assistance at Yaxha**

We thank Biologist Lorena Lobos and both co-administrators of PNYNN (Arq. Jose Leonel Ziesse (IDAEH) and Lic. Jorge Mario Vazquez (CONAP) for providing a place to stay for the photographers, biologists, and assistants of the FLAAR Mesoamerica team of flora and fauna during the 1-week-a-month field trips August 2018 through July 2019.

In turn FLAAR purchased and donated a cooking stove when the original one no longer functioned, plus we have photographed and documented many tree and insect species that we found around this camp.

#### **Ecolodge El Sombrero**

I thank Gabriella Moretti, owner of Ecolodge El Sombrero, for providing hotel room and meals while we have been doing field work at Parque Nacional Yaxha Nakum Naranjo. We also appreciate the hospitality of her sons Sebastian de la Hoz and Juan Carlo de la Hoz. Every workday is exhausting because we are carrying and then using very heavy cameras, super-telephoto lenses, sturdy tripods, large gimbals or ball tripod heads. Thus it is crucial for my health to be able to rest and totally recuperate every night in order to be ready for the following day of botanical and zoological adventures in Parque Nacional Yaxha, Nakum and Naranjo.

Equally crucial is having a place to charge the batteries of the computers, or all the cameras, and of the cell phones. Solar power is great, but it lasts only an hour, or less, if you plug in multiple computers and cameras and flash batteries to charge. So a place with enough electricity to charge the entire mass of essential field work equipment is essential and thus very much appreciated.

In order to post photographs on botanical and zoological websites, you can't do this if there is either no Internet or weak Internet. Thus it is very helpful that when we are provided rooms and meals, that Internet is also provided by the Ecolodge El Sombrero.

Contact Info: +502 5460 2934, VentasElSombrero@gmail.com or WhatsApp.

www.elsombreroecolodge.com/en-us 26

## **Donations make our Field Trips and Research and Publications Possible**

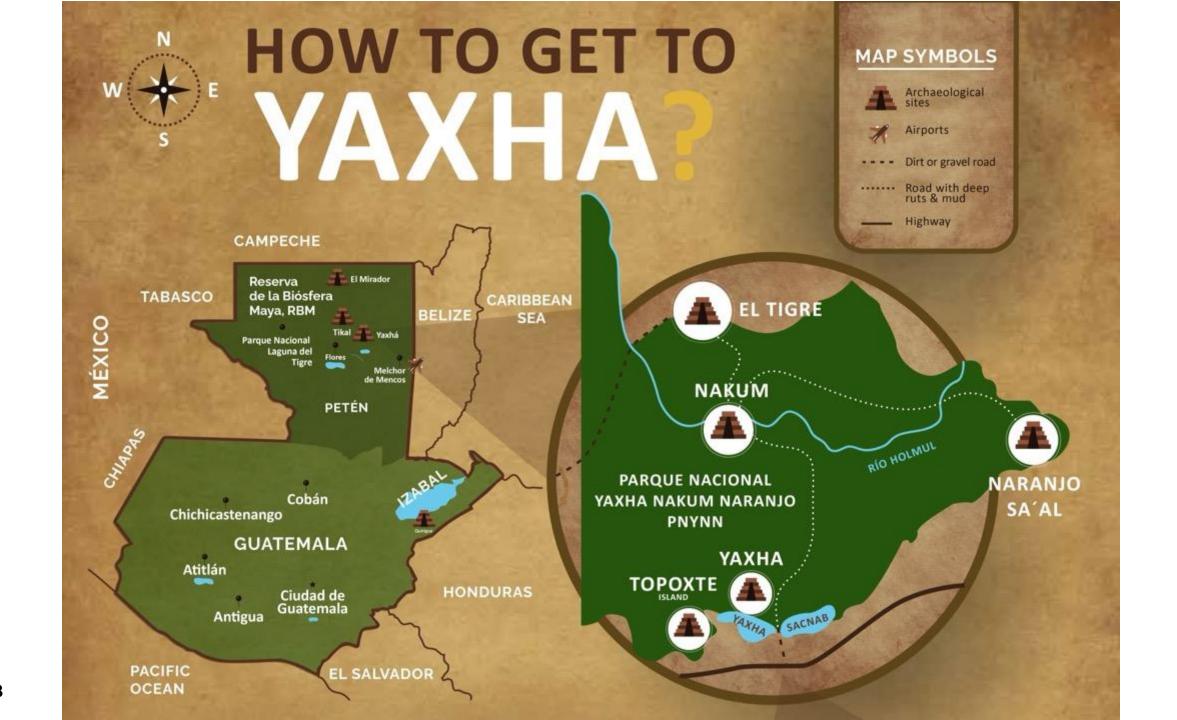
We appreciate a donation during November 2021 to help cover the costs of FLAAR research projects specifically to assist and support the current FLAAR project of flora and fauna in the Reserva de la Biosfera Maya (RBM). This donation also assisted the FLAAR (USA) and FLAAR Mesoamerica (Guatemala) research project in the Municipio de Livingston area of the departamento of Izabal, Guatemala.

In a subsequent year we received an additional helpful donation from this family to help fund the field work and research and publications on flora, fauna and biodiverse ecosystems of PNYNN and surrounding RBM of Peten, Guatemala.

These donations are from a family in Chicago in honor and memory of botanist Dr John D. Dwyer, who worked in many areas of Mesoamerica, including in the Yaxha area in the 1970's while the site was being mapped by FLAAR.

These donations are also in recognition of the urgency and need for conservation of both wildlife and rare plants in the bio-diverse ecosystems of the Reserva de la Biosfera Maya (RBM) of Guatemala. Parque Nacional Yaxha, Nakum and Naranjo (PNYNN) is one part of the over 5 million acres of the RBM.

FLAAR is a non-profit research institute, tax exempt in USA.





Go to the Mundo Maya airport in Santa Elena and then you will find a services of tourist vehicles to go to the archaeological site. If you want to go by car from Guatemala City, take the following route: Río Dulce - Poptún-Flores. At the junction further on you will find on the left the route to Tikal. Go straight on to the right towards Yaxha (towards Melchor de Mencos). In km. 521 at the village La Maquina, turn left to the site. Ecolodge El Sombrero is 50 meters before the entrance to National Park Yaxha - Nakum - Naranjo.

# The following four pages Show the Front Covers of the first fifteen FLAAR Reports on Flowers of PNYNN worth Seeing and Learning About

The front covers are not yet hot links because we are still finishing these reports. But by end of October 2025, all fifteen will be on-line on <a href="https://www.Maya-ethnobotany.org">www.Maya-ethnobotany.org</a> and on other of our web sites.

We are also preparing FLAAR Reports on orchids and bromeliads of PNYNN.

FLAAR Reports on "How to Recognize which Tree Genus and Species by the Pattern, Color, or other Features of the Bark on their Trunk"

FLAAR Reports on edible insects of PNYNN. There are over 500 edible insects across Mexico, so we are looking for samples at PNYNN.

FLAAR Reports on waterbirds of PNYNN, published as part of a project of coordination and cooperation with FUNDAECO.

#### Bright Orange Flowers of *Cordia dodecandra,* Nakum Area of PNYNN, Peten, Guatemala



Volume 1 for Series: Flowers worth experiencing at Parque Nacional Yaxha, Nakum and Naranjo, PNYNN Reserva de la Biosfera Maya, RBM, Peten, Guatemala

Nicholas Hellmuth, FLAAR Reports, FLAAR (USA) and FLAAR Mesoamerica (Guatemala) October 2025

# 4-Petalled Flowers of River Banks, Lake Shores, and Seasonally inundated Savannas Ludwigia octovalvis





Volume 2 for Series:

Flowers worth experiencing at Parque Nacional Yaxha, Nakum and Naranjo, PNYNN
Reserva de la Biosfera Maya, RBM, Peten, Guatemala

# Masses of Yellow Flowers, Genus *Combretum*, along road between Yaxha and Nakum, PNYNN



Volume 3 for Series: Flowers worth experiencing at Parque Nacional Yaxha, Nakum and Naranjo, PNYNN Reserva de la Biosfera Maya, RBM, Peten, Guatemala

Text and Photographs: Nicholas Hellmuth, FLAAR Reports, FLAAR (USA) and FLAAR Mesoamerica (Guatemala)
October 2025

Flowers and bizarre Bracts of *Calathea lutea*, relative of *Heliconia* and of Banana Naranjo-Sa'al and Savanna of 3 Fern Species areas of Parque Nacional Yaxha, Nakum and Naranjo (PNYNN)

Fresh Green Leaves of Calathea lutea are a great Alternative to Plastic

Volume 4 for Series:
Flowers worth experiencing at Parque
Nacional Yaxha, Nakum and Naranjo,
PNYNN
Reserva de la Biosfera Maya, RBM, Peten,
Guatemala

Nicholas Hellmuth, FLAAR Reports, FLAAR (USA) and FLAAR Mesoamerica (Guatemala), October 2025



Costus pictus, Medicinal Flowers, Yaxha and Naranjo-Sa'al Areas of PNYNN

Volume 5 for Series:
Flowers worth experiencing at Parque
Nacional Yaxha, Nakum and Naranjo,
PNYNN
Reserva de la Biosfera Maya, RBM,
Peten, Guatemala



Nicholas Hellmuth, FLAAR Reports, FLAAR (USA) and FLAAR Mesoamerica (Guatemala), October 2025

A beautiful Red Flower, a Hibiscus Relative, but the Petals and Sepals never open Malvaviscus arboreus, Sleeping Hibiscus



Volume 7 for Series:

Flowers worth experiencing at Parque Nacional Yaxha, Nakum and Naranjo, PNYNN Reserva de la Biosfera Maya, RBM, Peten, Guatemala

Nicholas Hellmuth, FLAAR Reports, FLAAR (USA) and FLAAR Mesoamerica (Guatemala), October 2025

Piscidia piscipula, Jabin, Dogwood, with Hummingbird Pollinator Yaxha and Nakum areas of Parque Nacional Yaxha, Nakum and Naranjo



Volume 6 for Series: Flowers worth experiencing at Parque Nacional Yaxha, Nakum and Naranjo, PNYNN Reserva de la Biosfera Maya, RBM, Peten, Guatemala

Nicholas Hellmuth, FLAAR Reports, FLAAR (USA) and FLAAR Mesoamerica (Guatemala), October 2025

Photogenic wild Morning Glory Flowers of Nakum and Yaxha areas of PNYNN







Volume 8 for Series:

Flowers worth experiencing at Parque Nacional Yaxha, Nakum and Naranjo, PNYNN Reserva de la Biosfera Maya, RBM, Peten, Guatemala

Nicholas Hellmuth, FLAAR Reports, FLAAR (USA) and FLAAR Mesoamerica (Guatemala), October 2025

Photogenic Bright Yellow Morning Glory Flowers of Genus Merremia







Volume 9 for Series:

Flowers worth experiencing at Parque Nacional Yaxha, Nakum and Naranjo, PNYNN Reserva de la Biosfera Maya, RBM, Peten, Guatemala

Nicholas Hellmuth, FLAAR Reports, FLAAR (USA) and FLAAR Mesoamerica (Guatemala), October 2025

Yellow Flowers & Fruits of Wild Undomesticated Squash Vines, *Cucurbita lundelliana* 

Along the Shores of Lakes and Rivers in Parque Nacional Yaxha, Nakum and Naranjo



Volume 11 for Series:

Flowers worth experiencing at Parque Nacional Yaxha, Nakum and Naranjo, PNYNN Reserva de la Biosfera Maya, RBM, Peten, Guatemala



Nicholas Hellmuth, FLAAR Reports, FLAAR (USA) and FLAAR Mesoamerica (Guatemala)
October 2025

Yellow Flower Paradise, Yellow Flowers Covering the Tree Canopy

Nakum, East of Savanna Bajo, PNYNN



Volume 10 for Series: Flowers worth experiencing at Parque Nacional Yaxha, Nakum and Naranjo, PNYNN Reserva de la Biosfera Maya, RBM, Peten, Guatemala

Nicholas Hellmuth, FLAAR Reports, FLAAR (USA) and FLAAR Mesoamerica (Guatemala), October 2025

Orange Masses of Flowers of Parasitic Vine (but does not kill the host)
Genus Psittacanthus, Yaxha, Blom Sacbe and adjacent Grupo Maler



Volume 12 for Series: Flowers worth experiencing at Parque Nacional Yaxha, Nakum and Naranjo, PNYNN Reserva de la Biosfera Maya, RBM, Peten, Guatemala

Text and Photographs: Nicholas Hellmuth FLAAR Reports, FLAAR (USA) and FLAAR Mesoamerica (Guatemala) October 2025

# Yellow-Orange Flowers of Trees of the *Caesalpinia* species, Fabaceae family Bajo La Justa, between Yaxha and Nakum, PNYNN



Volume 13 for Series:
Flowers worth experiencing at Parque Nacional Yaxha, Nakum and Naranjo, PNYNN
Reserva de la Biosfera Maya, RBM, Peten, Guatemala

Nicholas Hellmuth, FLAAR Reports, FLAAR (USA) and FLAAR Mesoamerica (Guatemala), October 2025

Gorgeous Yellow Masses of Flowers of

Haematoxylum campechianum

at Parque Nacional Yaxha, Nakum and Naranjo

Volume 14 for Series: Flowers worth experiencing at Parque Nacional Yaxha, Nakum and Naranjo, PNYNN Reserva de la Biosfera Maya, RBM, Peten, Guatemala

Nicholas Hellmuth

FLAAR Reports, FLAAR (USA) and FLAAR Mesoamerica (Guatemala)

October 2025



# Flowers of Orchids on Trees

surrounding the Maya Ruins of Yaxha, PNYNN

Vol 15 for Series:

Flowers worth experiencing at Parque Nacional Yaxha, Nakum and Naranjo (PNYNN)

Reserva de la Biosfera Maya RBM Peten, Guatemala

Nicholas Hellmuth

October 2025





