# 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

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

# Introduction to 4-petalled yellow-petalled flores of the Wetlands of PNYNN, Peten

I enjoy studying ferns and flowering plants of swamps, seasonally inundated bajos, seasonally inundated savannas, plants of river banks and lake shores. One reason is because not many people want to wade into the crocodile-infested rivers or lagoons to accomplish macro photography of plants such as orchids of PNYNN that only grow floating on the roots of tule-like grasses that grow one to two meters from the lake shore. But I have been doing even underwater photography in Arroyo Pucte of *Nymphaea ampla* plants that bloom even though over a meter underwater because this 2-meter deep stream has water so pure that the sun shines all the way to the bottom to encourage water lily seeds to sprout far from the river bank. And to reach the incredible biodiversity of the Savanna of 3 Fern Species (west-northwest of the west end of Lake Yaxha) required hiking knee deep in the water-filled bog-moss covered surroundings--only Teco, Lorena and Nicholas dared to enter this amazing ecosystem during our 2018-2019 project with the PNYNN park administrators. Once my feet sunk so deep into the mud that it took both of them to pull me back up.

Another reason for focusing on plants of the wetlands is because my PhD dissertation was on the iconography of the Surface of the Underwaterworld of the Maya. Lots of plants and flowers are pictured in mythical scenes on vases, bowls, and plates. Water lily seed pods being nibbled on by fish are a common headdress of Maya kings. So as an archaeologist and iconographer it really helps to wade into the wetlands and study the plants and flowers that the Maya used in their scenes of mythical cosmology. Obviously I also study surrounded by a library of books on flora, fauna and ecology, but I prefer to learn in-person out in the wetlands. We also had an 18-month project of field work, research, and publications on the plants of the wetlands of the Municipio de Livingston, Izabal, Guatemala. Dozens of our FLAAR Reports are available—especially on all the wild native plants of wetlands that are edible—so were food for the Maya that did not require slash-and-burn milpa agriculture. We now wish to share our photos of the beautiful flowers of *Ludwigia octovalvis* of Parque Nacional Yaxha, Nakum, Naranjo, PNYNN, RBM, Peten.





When trees are flooded by the rising water level of the lake, as they die, the limbs and twigs turn bright white around the entire shore of Lake Yaxha. In the low-lying ground before the hill with trees, the Ludwigia love to grow.

Rio Ixtinto, PNYNN, photo by Maria Alejandra Gutierrez, Canon zoom lens, EF70-300mm f/4-5.6 IS USM.



North shore of Lake Yaxha, below IDAEH camp area.

Photo by Nicholas Hellmuth, Nov. 26, 2018, with Nikon D5 and 105mm Nikkor macro lens.



North shore of Lake Yaxha, below IDAEH camp area.

Photo by Nicholas Hellmuth, Nov. 26, 2018, with Nikon D5 and 105mm Nikkor macro lens.



North shore of Lake Yaxha, below IDAEH camp area. Photo by Nicholas Hellmuth, Nov. 26, 2018, with Nikon D5 and 105mm Nikkor macro lens.



I learn more from seeing and photographing these flowers close-up in-person, than studying dried, crushed specimens in a drawer. That said, herbaria collections have assisted botanists for decades and continue to be helpful because most botanists are at their botanical garden or university most of the year. I also used to be a professor, but I prefer to be out in the field, hiking to remote biodiverse ecosystems.

Another advantage of photography as a way to document plants is because these photos can be made available to botanists, students, and people around the world through our FLAAR Reports.

Back of the flower shows the four "petalled" sepals. This design of the green sepals is one of the most frequent floral motifs in Late Classic Maya art on ceramics.

North shore of Lake Yaxha, below IDAEH camp area. Photo by Nicholas Hellmuth, Nov. 26, 2018, with Nikon D5 and 105mm Nikkor macro lens.



The sepals and the stem have erect "hairs" sticking up, probably to attempt to keep some insects from crawling up the stem.

In the remarkable angle of sunlight that is shining on this flower you can see the green sepals under the yellow petals.

So not all of this Genus have open space between all the petals. The petals on this flower mostly overlap each other.

Rio Ixtinto, PNYNN, May 7, 2019, photo by Nicholas Hellmuth with Nikon D5 camera with Zeiss Makro-Planar T\* 2/100 ZF.2 lens.



First the yellow petals wilt and fall off. Then you see the sepals from the front. Lots of hairs sticking out, but widely spaced.

Shore of Lake Yaxha, May 7, 2019, photo with Nikon D5 with Zeiss Makro-Planar T\* 2/100 ZF.2 lens.





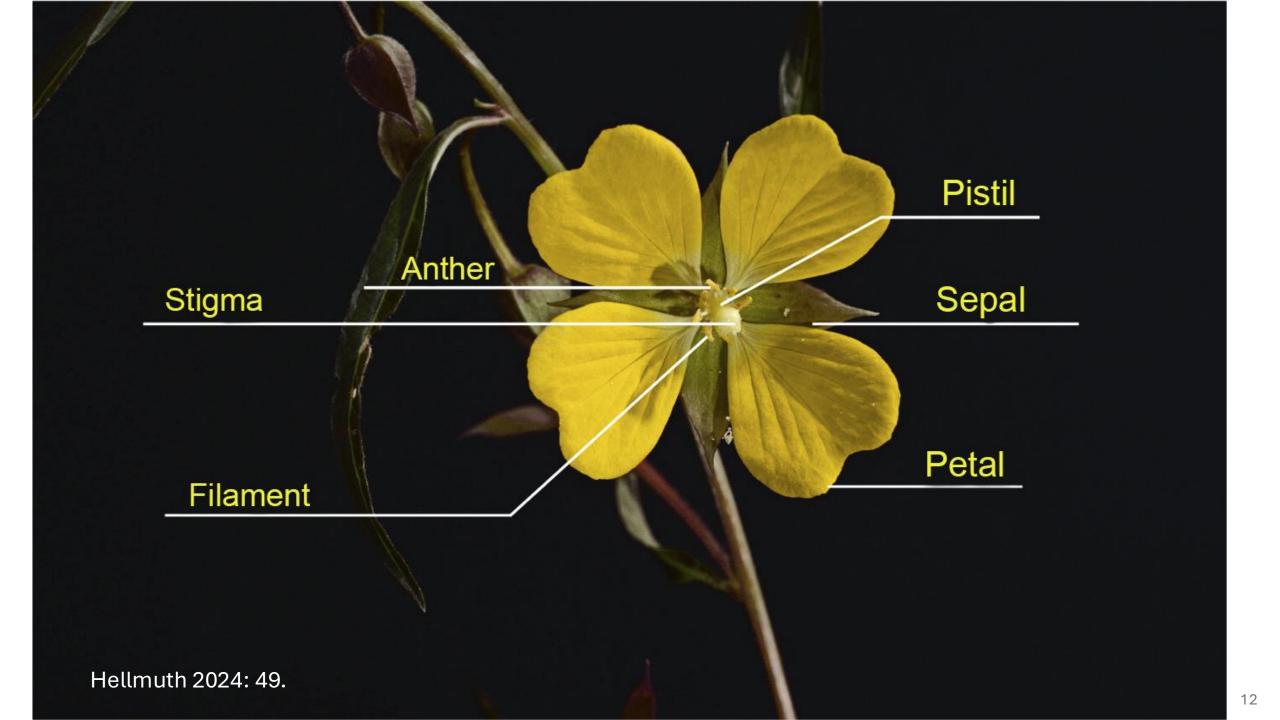
I estimate that this photo shows the sepals wilting.



What is interesting to me as an iconographer of Maya symbolism is the design in the middle, which is found in Sky Bands and Maya hieroglyphic texts. Ludwigia octovalvis along the shore of Lake Yaxha, PNYNN/

Photo by Nicholas Hellmuth with Nikon D5, 200mm tele-macro Nikkor lens.





North shore of Lake Yaxha, below IDAEH camp area.

Photo by Nicholas Hellmuth, Nov. 26, 2018, with Nikon D5 and 105mm Nikkor macro lens.

Most *Ludwigia* species flower most of the year, so you can experience these when you visit Parque Nacional Yaxha, Nakum and Naranjo (PNYNN).



Yaxha lake east end, bajo between Laguna Sacnab and Lake Yaxha.

Close-up macro photo by Nicholas Hellmuth, Aug. 23, 2018, with Nikon D5 and 200mm Nikkor tele-macro lens.





North shore of Lake Yaxha, below IDAEH camp area, Nov. 26, 2018.



Between Yaxha and Sacnab, Aug. 23, 2018.

Are these simply variations of the same species, or are these different species? The following chapter shows obvious different species.

# Where Ludwigia octovalis is found and other Species of Genus Ludwigia

Genus *Ludwigia* is in plant family Onagraceae. But in the previous century, most plants were in Genus *Jussiaea* such as in Standley and Williams 1963: 543ff.

**Ludwigia octovalvis** (Jacq.) P.H. Raven — Syn: *Jussiaea suffruticosa* L.; *Jussiaea ligustrifolia* H.B.K.; *Jussiaea pubescens* L. — Loc Use: MED, ORN. — Reg Use: MED. — Nv: clavito, clavo, ka'laush-pim, wild clove. — Habit: Herb. (Balick, Nee and Atha 2000: 99).

Ludwigia decurrens Walter CAM, CHIS, COL, JAL, MICH, NAY, TAB. This flower is almost identical to that of Ludwigia octovalus. Campeche, Chiapas and Tabasco are all part of the Maya areas that surround Peten, Guatemala—missing is Quintana Roo (northeast of Peten and north of Belize).

Ludwigia nervosa (Poir.) H. Hara CHIS, TAB. This flower is almost identical to that of Ludwigia octovalus.

Ludwigia octovalvis (Jacq.) P.H. Raven AGS, BCN, BCS, CAM, CHIS, CHIH, COAH, COL, DGO, GTO, GRO, HGO, JAL, MEX, MICH, MOR, NAY, NLE, OAX, PUE, QRO, QROO, SLP, SIN, SON, TAB, TAMS, VER, YUC, ZAC (Villaseñor 2016: 809-810).

So, just as *Ludwigia octovalis* is found in most departamentos of Guatemala, this same species is found in most estados of Mexico. Curiously, Lundell in his "Vegetation of Peten" does not list any species of genus *Ludwigia*.

# Where Ludwigia octovalis is found and other Species of Genus Ludwigia

Portal de Biodiversidad de Guatemala lists *Ludwigia octovali*s for: Alta Verapaz, Baja Verapaz, Chimaltenango, Escuintla, Huehuetenango, Izabal, Jalapa, Jutiapa, Quetzaltenango, Retalhuleu, Sacatepequez, Santa Rosa, Suchitepéquez, Zacapa. And for Peten listed for Bio Itza; Ixobel, Cantulu, Poptun; Cerro Cahui; Tikal; Tikal Aguada Tikal, Santa Elena and more.

Ludwigia adscendens for: San Marcos.

Ludwigia affinis for: Izabal, also in Belize.

Ludwigia decurrens for: Izabal, Peten. THIS IS A LUDWIGIA FLOWER MOST SIMILAR TO L. OCTOVALIS

Ludwigia erecta for: Alta Verapaz, Izabal, Jutiapa, San Marcos, also in Belize. Both petals and sepals are nearly identical to 4-petalled flowers in Late Classic Maya vases, bowls, plates.

Ludwigia grandiflora for: Lake Amatitlan

Ludwigia hyssopifolia for: Baja Verapaz, Guatemala, Huehuetenango, Izabal, Jutiapa, Sacatepequez, Santa Rosa, Suchitepéquez

Ludwigia inclinata for: Izabal

Ludwigia leptocarpa for: El Quiche, Escuintla, Izabal, Lake Amatitlan, Retalhuleu. Santa Rosa, Peten: La Libertad.

Ludwigia natans for: Escuintla, Izabal

Ludwigiw nervosa for: Alta Verapaz, El Quiche, Izabal, Sacatepequez, Santa Rosa, Zacapa, and Peten, km 68, along highway El Remote-Tikal. THIS IS A LUDWIGIA FLOWER VERY SIMILAR TO L. OCTOVALIS

Ludwigia palustris for: Alta Verapaz, Baja Verapaz, El Quiche

Ludwigia peploides for: Alta Verapaz, Huehuetenango, Izabal, Santa Rosa, Solola, Zacapa and Peten: Biotopo El Zotz, cibal El Palmar, also in Belize.

Ludwigia peruviana for: Alta Verapaz, Baja Verapaz, Chimaltenango, Chiquimula, El Progreso, El Quiche, Guatemala, Sacatepéquez, San Marcos, Santa Rosa, Solola, Zacapa, Belize

Ludwigia sedoides for: Santa Rosa

Ludwigia suffruticosa for: El Progreso, Izabal, Santa Rosa

Ludwigia torulosa for: Peten, white flowers with 5 petals. Also in Belize

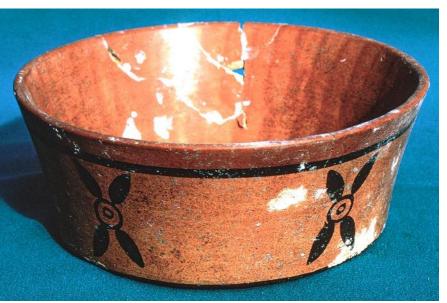
4-Petalled Flowers In Classic Maya Art



The present FLAAR Reports is on *Ludwigia octovalis* at PNYNN. But there are other species, and I would not be surprised if some *Ludwigia octovalis* are slightly different shape of petals as regional variants. But this photo shows what other 4-petalled yellow flowers the team of FLAAR Mesoamerica has photographed in recent decades (Hellmuth 2024: 48).



Two ceramic bowls from Tikal Burial 196.



The sepals of Ludwigia octovalis were a possible inspiration for the black flowers on the bowl at the lower left. I discovered these two bowls in 1965, in the royal burial under Tikal Str. 5D-73.

The petals
AND sepals
of Ludwigia
erecta are
very similar
to the black
4-petalled
flower on the
bowl.



Here are examples of the 4-petalled flowers of plants of Guatemala that we have found during field work in many areas of Guatemala (Hellmuth 2024: 82). So obviously the Classic Maya had many other flowers besides just *Ludwigia octovalis* as inspiration for the 4-petalled designs on the two ceramic bowls of Tikal Burial 196. One of these has been on exhibit at MUNAE.

In addition to 4-petals, the Maya also had access to 4-sepal designs, such as the water lily flower (upper row, second from left).

Plus the Maya tended to elaborate a design—so not all are direct representations of all the details of a flower.



All the archaeological parks in Guatemala, especially those in the Reserva de la Biosfera Maya, RBM, Departamento de Peten, are filled with beautiful plants.

Since Yaxha has Rio Ixtinto (adjacent to Isla Topoxte) and since there is the large Lake Yaxha, you can find lots of water-related plants in PNYNN.

Since most of these plants grow on the shore of the lake, the fact that the water level has risen several meters over recent years, has resulted in all the lake shore areas that we studied in 2018-2019 now being under water for several years.

But there are still lots of orchids, bromeliads and other beautiful epiphytes growing in the trees that surround the temples, palaces acropolises, and ballcourts of Yaxha, Topoxte Island, Nakum and Naranjo-Sa'al.

Plus there are more different species of palms in PNYNN than have been listed by all previous botanists. So together with park ranger Teco, Moises Daniel Perez Diaz, we will be accomplishing field trips to Yaxha during late 2025 and early 2026 to photograph each species of palm and improve the list of genera and species to provide this information for the Plan Maestro of CONAP and to provide this documentation for botanists, ecologists, archaeologists, students and for people around the world who would like to experience the Palm Paradise between Yaxha and Nakum.

In the meantime, the present FLAAR Reports shows our style of photography to document wetlands plants of PNYNN.



# **Aknowledgements for Field Work at PNYNN**

We thank PNYNN IDAEH park Coordinador Administrativo Lic. Leonel Ziesse, and park botanist-ecologist Lic. Lorena Lobos for hospitality and assistance during 2018-2019. PNYNN kindly provided space for the FLAAR Mesoamerica research team to overnight and a kitchen. We at FLAAR provided repair or upgrade to the stove when it needed that. During these years and subsequently we appreciate the assistance of helpful park ranger Teco (Moises Daniel Perez Diaz).

We appreciate the 5-year (2022-2026) project of coordination and cooperation with CONAP for the Reserva de la Biosfera Maya, coordinated by Ing. Jorge Mario Vásquez Kilkán of COPAN. We also appreciate the hospitality at Yaxha provided by Lic. Lester Ely García Gonzales, the new Coordinador Administrativo de Yaxhá para el Ministerio de Cultura y Deportes. Since Yaxha, Nakum, Naranjo-Sa'al, Topoxte and other islands all have archaeological heritage, and since there is incredible flora and fauna surrounding each site, PNYNN has two capable individuals coordinating the managing of this large area.

It helps to have capable photographers to document flora and fauna of PNYNN: David Arrivillaga, Edwin Solares and Maria Alejandra Gutierrez have accomplished photography of flora and fauna of PNYNN for many years.

We thank Gabriella Moretti and her sons Sebastian de la Hoz and Juan Carlo de la Hoz for hospitality at their nice hotel El Sombrero Ecolodge. And we appreciate the capable cooking experience of Betty, in the hotel kitchen.

Yaxha is worth visiting and you can hire a boat with lanchero to take you to see the Post Classic Maya temples of Isla Topoxte. Nakum has impressive temples and an amazing multi-storied acropolis of palaces and temples. Plus the two corozera palm ecosystems between Yaxha and Nakum are worth experiencing Palm Paradise PNYNN (there are FLAAR Reports on both these corozera corozo palm jungles). Naranjo-Sa'al has lots of palaces and is surrounded by original rain forest vegetation, plus has a botanical garden created by Vilma Fialko and her team. To reach Nakum requires a 4x4 that is lifted; same to reach Naranjo-Sa'al.4x4 SUV will have their bottoms scraped off. To reach Yaxha any vehicle can get there—no 4x4 required.



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Licda. Merle Fernandez, CONAP

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Ing. Sergio Balan, Director Regional, CONAP, Peten

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#### 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.

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

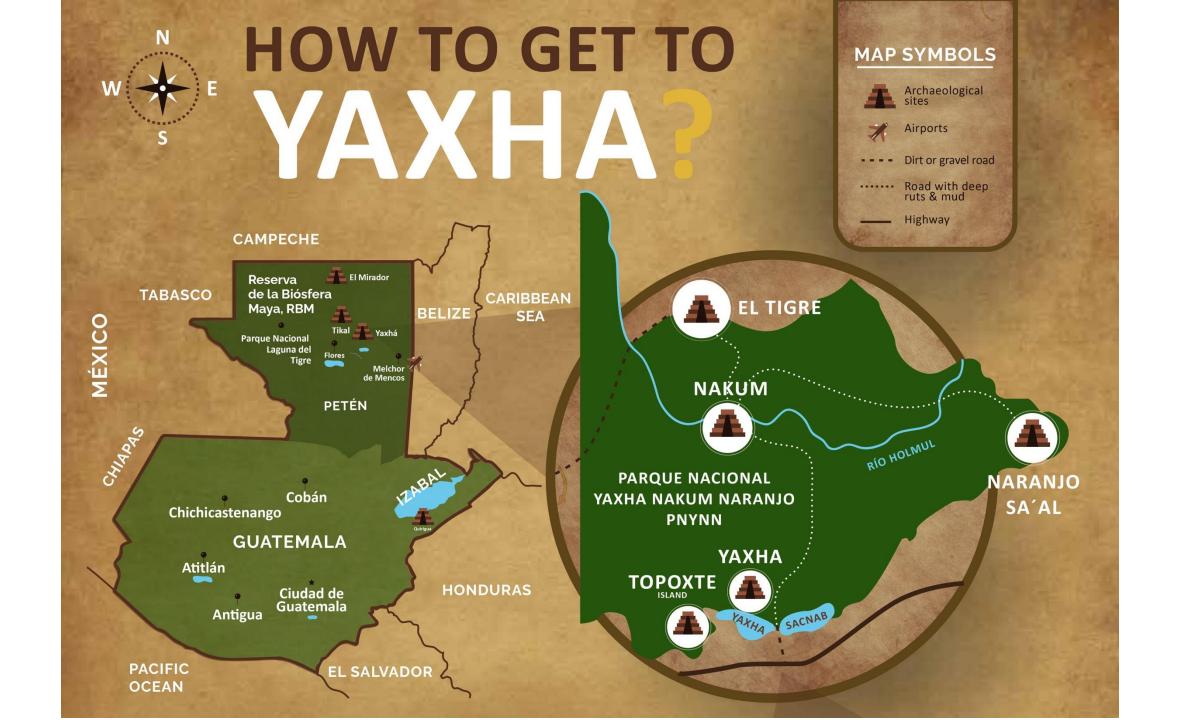
We appreciate a donation during November 2021 to help cover the costs of FLAAR research projects specifically to assist and support the current FLAAR project of flora and fauna in the Reserva de la Biosfera Maya (RBM). This donation also assisted the FLAAR (USA) and FLAAR Mesoamerica (Guatemala) research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

# 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

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

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),



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



Nakum and Yaxha areas of PNYNN





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



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Gorgeous Yellow Masses of Flowers of

Haematoxylum campechianum

at Parque Nacional Yaxha, Nakum and Naranjo

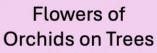
Volume 14 for Series: Flowers worth experiencing at Parque Nacional Yaxha, Nakum and Naranjo, PNYNN Reserva de la Biosfera Maya, RBM, Peten, Guatemala

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October 2025





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





