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)

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FLAAR MESOAMÉRICA

Introduction

The most Beautiful Parasitic Plant at Yaxha Parque Nacional Yaxha, Nakum and Naranjo, RBM, Peten, Guatemala

Many species of Genus *Psittacanthus* are one of a dozen vines that likes to grow up and over the treetop canopy, but this one is a parasite. Orchids and bromeliads are not parasites. Since the vine is so high up in trees tops we have to use 600mm, 800mm, and 1000mm telephoto lenses, and even then we can't capture an individual bunch of flowers. Much to our surprise, the last week of November we found a *Psittacanthus* vine flowering down at eye-level, so we could do close-ups. As soon as we can find those photos we will add them.

In our final chapter on botanical aspects, we show that *Psittacanthus calyculatus, Psittacanthus mayanus* and *Psittacanthus rhynchanthus* are the most likely species to find in Peten. *Psittacanthus schiedeanus* is also a possibility. Each species is slightly different colors depending on whether in Oaxaca, or Belize or Peten, and how long the flower has been open (you see no yellow on the orange *Psittacanthus* at Yaxha). We will update this page as soon as a botanist with experience with plant Family Loranthaceae of Mesoamerica can communicate with us.

You can experience these flowers in many locations of the park, especially near Grupo Maler, starting with the Blom Sacbe that leads you to Maler Group.

The thousands of tall trees of the rain forest covering the ruins of Yaxha, Nakum, Naranjo and Topoxte Island are filled with orchids, bromeliads, arboreal cactus and more other epiphytes and parasitic vines than you can conceive of. Orchids, bromeliads, and arboreal cactus but I do not consider any of these as parasites; but in the rain forest treetops there are several remarkable species of parasitic vines with incredibly colorful and notable flowers. The parasitic mata palo tree embraces its host and gradually kills it. But *Psittacanthus* use the host tree for support.

Chapter 1

Psittacanthus at Yaxha, PNYNN, Peten

Once we began consistently looking up in the treetops for epiphytes, we began to notice large masses of flowering plants which are parasites. I estimate that every two months we will find other species of parasites in full bloom. Since these parasites are so photogenic we will add this kind of arboreal plant to our “to do” list in the park. We come to the park several days every month to photograph as many of the plants that are in flower in that particular month as is realistic.

In the present FLAAR report on flowering plants of Parque Nacional Yaxha Nakum Naranjo we would like to present the photogenic flowers of *Psittacanthus* species. We also estimate that a PhD student doing a dissertation on parasitic plants of Peten could find additional different species of *Psittacanthus* at PNYNN, PANAT, PNLT, PNSL or other areas of the Reserva de la Biosfera Maya (RBM). But as a starter we show all our initial photos for the Yaxha area of PNYNN.

Psittacanthus species, Oct. 8, 2018, Blom Sacbe towards Grupo Maler (northwest corner of Yaxha area of PNYNN).

Photos by Nicholas Hellmuth, Nikon D810 camera, Nikkor 600mm prime lens (we prefer to use prime and not zoom).

Psittacanthus species, Blom Sacbe towards Grupo Maler, northwest part of Yaxha, PNYNN, RBM, Peten.

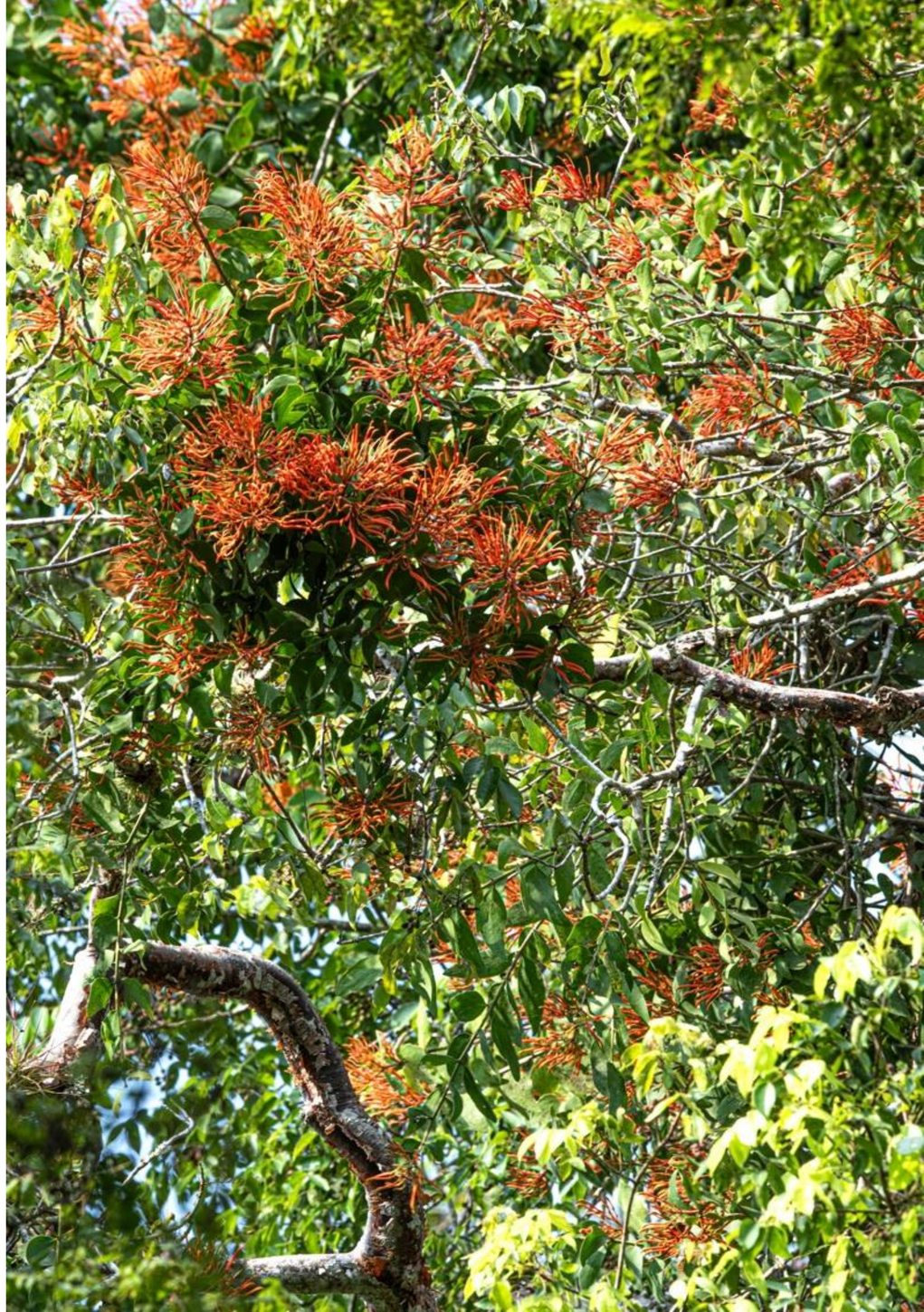
Photo by Nicholas Hellmuth with Nikon D810 and 600mm prime Nikkor telephoto lens, Oct. 8, 2019, afternoon.

Psittacanthus species, Blom Sacbe towards Grupo Maler, northwest part of Yaxha, PNYNN, RBM, Peten.

Photo by Nicholas Hellmuth with Nikon D810 and 600mm prime Nikkor telephoto lens, Oct. 8, 2019, afternoon.

Psittacanthus species, Blom Sacbe towards Grupo Maler, northwest part of Yaxha, PNYNN, RBM, Peten.

Photo by Nicholas Hellmuth with Nikon D810 and 600mm prime Nikkor telephoto lens, Oct. 8, 2019, afternoon.



Psittacanthus species, Blom Sacbe towards Grupo Maler, northwest part of Yaxha, PNYNN, RBM, Peten.

Photo by Nicholas Hellmuth with Nikon D810 and 600mm prime Nikkor telephoto lens, Oct. 8, 2019, afternoon.

These *Psittacanthus* flowers obviously seek full sun, so they grow on the “outside” of the host tree.

Blom Sacbe towards Grupo Maler, northwest part of Yaxha, PNYNN, RBM, Peten.

Photo by Nicholas Hellmuth with Nikon D810 and 600mm prime Nikkor telephoto lens, Oct. 28, 2019, 2:17pm.

Psittacanthus species, Blom Sacbe towards Grupo Maler, northwest part of Yaxha, PNYNN, RBM, Peten. Photo by Nicholas Hellmuth with Nikon D810 and 600mm prime Nikkor telephoto lens, Oct. 28, 2019, 2:17pm.

Blom Sacbe towards Grupo Maler, northwest part of Yaxha, PNYNN, RBM, Peten.

Photo by Nicholas Hellmuth with Nikon D810 and 600mm prime Nikkor telephoto lens, Oct. 28, 2019.

In this photo you can notice that these flowers are high up in the tree.

Psittacanthus species, Blom Sacbe towards Grupo Maler, northwest part of Yaxha, PNYNN, RBM, Peten.

Photo by Nicholas Hellmuth with Nikon D810 and 600mm prime Nikkor telephoto lens, Oct. 28, 2019, 2:17pm.

Yaxha, end of Blom Causeway into Grupo Maler. *Psittacanthus* species, Oct. 28, 2018, 1:39pm, with 600 mm prime telephoto lens on a Nikon D810 camera.

Photo by Nicholas Hellmuth, Nov. 25, 2018, with 800mm prime Nikkor lens. End of Calzada Blom towards Grupo Maler, northwest part of Yaxha, PNYNN, RBM, Peten.

Photo by Nicholas Hellmuth, Nov. 25, 2018, with 800mm prime Nikkor lens. End of Calzada Blom towards Grupo Maler, northwest part of Yaxha, PNYNN, RBM, Peten.

Photo by Nicholas Hellmuth, Nov. 25, 2018, with 800mm prime Nikkor lens. End of Calzada Blom towards Grupo Maler, northwest part of Yaxha, PNYNN, RBM, Peten.

This and all the following photos are by Nicholas Hellmuth, on the morning of Nov. 25, 2018, with 800 mm prime Nikkor lens on Nikon D810 camera.

End of Calzada Blom towards Grupo Maler, northwest part of Yaxha, PNYNN, RBM, Peten.

90% of these vines are high up in the trees, but fortunately facing the sun, so not hidden behind the limbs, branches and twigs. Since they are far away, I have not yet noticed any damage to the host trees.

Photo by Nicholas Hellmuth, Nov. 25, 2018, with 800mm prime Nikkor lens.

End of Calzada Blom towards Grupo Maler, northwest part of Yaxha, PNYNN, RBM, Peten.

Chapter 2

How many species in *Psittacanthus* Genus may be in Peten?

Psittacanthus is a genus of the Family Loranthaceae. The two species that are closest in appearance to the flowers that we saw are *Psittacanthus* macrantherus or *Psittacanthus* calyculatus.

Several days of doing research back in our research facilities resulted in a preliminary list of other parasitic species of the *Psittacanthus* genus that are in Guatemala. We hope to find several of these at Yaxha Nakum Naranjo, or Topoxte Island, Paxte Island, or Cante Island in the future:

·*Psittacanthus angustifolius* Kuijt, accepted name
·*Psittacanthus auriculatus* Eichl., accepted name
·*Psittacanthus mayanus* Standl. & Steyerm., accepted name
·*Psittacanthus pinicola* Kuijt, accepted name
·*Psittacanthus schiedeanus* (Schldl. & Cham.) G.Don, *Psittacanthus pinicola*

Psittacanthus palmeri (S. Watson) Barlow & Wiens
is frequently on Bursera trees, in Guatemala so far documented only for Nenton, Huehuetenango. So we do not expect to find this species in the Peten lowlands. (https://parasiticplants.siu.edu/Loranthaceae/) There are dozens of diverse eco-systems in Guatemala so not every species of *Psittacanthus* will be in Peten: but we estimate that more than one species is likely.

For this genus Lundell lists only *Psittacanthus calyculatus* in his book on *The Vegetation of Peten* (1937: 141, 166). He also lists other parasites *Oryctanthus cordifolius, Phoradendron gaumeri, Phoradendron liberdadanum, Struthanthus cassythoides,* and *Struthanthus orbicularis* (1937: 141 and 166). Plus*Phoradendron franciscanum, Phoradendron petenense* and *Phoradendron zacapanum* (p. 166 only).

Lundell did botanical and archaeological research in Peten and adjacent Campeche for many years, but he focused on the savanna area around La Libertad, to the immediate west of the Island of Flores (towards Sayaxche). Yaxha is itself not a savanna area (though there are savannas to the south, and to the west towards Lake Peten Itza; then a lot between there are La Libertad). The largest savanna in PNYNN is the Savanna East of Nakum.

There is also a helpful list of parasitic vines of Guatemala by Elfriede de Pöll (2008). Hopefully the Plan Maestro publications for future years of Yaxha, Tikal, Seibal, El Mirador, El Tigre and other areas of Peten will include lists of parasitic plants in those areas (but most plant lists are more complete for trees than for the less visible vines high up in treetops).

Peten (Guatemala) has Chiapas and Tabasco at the west; Campeche and Quintana Roo to the North; and Belize to the east. So I have put in bold font all the species of *Psittacanthus* that grow in Mexican estados alongside Peten—since if they grow around Peten, why are they not all present across the border in Peten?

Psittacanthus americanus (Jacq.) Mart. **CAM, CHIS**, GRO, MICH, NAY, OAX, **QROO**, VER, YUC
**Psittacanthus auriculatus*(Oliv.) Eichler OAX, PUE
**Psittacanthus breedlovei Kuijt* CHIS
Psittacanthus calyculatus (DC.) G. Don AGS, **CAM, CHIS**, COL, CDMX, DGO, GTO, GRO, HGO, JAL, MEX, MICH, MOR, NAY, OAX, PUE, QRO, **QROO**, SLP, SIN, SON, **TAB**, TAMS, TLAX, VER, YUC, ZAC
**Psittacanthus karwinskyanus*(Schult.) Eichl. GRO, MEX, MOR
**Psittacanthus macrantherus* Eichler DGO, JAL, MICH, OAX, SIN, ZAC
Psittacanthus mayanus Standl. & Steyerm. **CAM, CHIS, QROO, TAB, YUC**
**Psittacanthus palmeri* (S. Watson) Barlow & Wiens AGS, CHIH, COL, DGO, GTO, GRO, JAL, MEX, MICH, MOR, NAY, OAX, PUE, QRO, SIN, SON, ZAC
Psittacanthus ramiflorus (DC.) G. Don CHIS, COL, GRO, JAL, NAY, OAX, PUE, TAB, VER
Psittacanthus rhynchanthus (Benth.) Kuijt **CAM, CHIS**, COL, GRO, JAL, NAY, OAX, **QROO**, SIN, VER
Psittacanthus schiedeanus (Schltdl. & Cham.) Blume **CAM, CHIS**, COL, GTO, GRO, JAL, MEX, MICH, MOR, OAX, PUE, QRO, **QROO**, SLP, **TAB**, TAMS, TLAX, VER, YUC
**Psittacanthus sonorae* (S. Watson) Kuijt BCN, BCS, SIN, SON. (Villaseñor 2016: 786).

So, *Psittacanthus calyculatus, Psittacanthus mayanus, and Psittacanthus schiedeanus* are most likely to be in Peten.

Psittacanthus americanus is not listed for Peten in Portal de Biodiversidad de Guatemala, nor (yet) for Tabasco for Mexico.
Psittacanthus calyculatus is not listed for Peten by Portal... but is listed for Peten by S & S 1946: 78) but is NOT listed for Belize which is adjacent.
*Psittacanthus mayanus*is listed for Peten, for Tikal (PANAT)
Psittacanthus rhynchanthus is listed for Lake Macanche, Lake Peten Itza area, and for ORILLAS DEL LAGO YAXHA.
*Psittacanthus schiedeanus*is listed for Lake Peten Itza

Species in Guatemala	Portal de Biodiversidad de Guatemala	Flora of Guatemala Vol. 24, Part IV	Checklist, Belize Balick, Nee, Atha	Comments
Psittacanthus angustifolius				
Psittacanthus auriculatus				
Psittacanthus calyculatus	Guatemala, Escuintla, Solola, Baja Verapaz, Izabal,	Peten, Chiquimula, Escuintla, Guatemala, Huehuetenango, Jutiapa, Retalhuleu, Santa Rosa, Solola, Suchitepequez, Zacapa;	Not listed for Belize	
Psittacanthus mayanus	**Peten** (PANAT)	In 1940's documented only for Mexico, Belize, Honduras	***Psittacanthus mayanus*, medicine**	
Psittacanthus palmeri	Huehuetenango			
Psittacanthus pinicola			***Psittacanthus pinicola***	
Psittacanthus rhynchanthus	**Peten**, Zacapa, Izabal, Escuintla, Retalhuleu, Zacapa, Sacatepéquez, Guatemala, Santa Rosa, Baja Verapaz		***Psittacanthus rhynchanthus***	Photos on-line look very similar to what we found at Yaxha.
Psittacanthus schiedeanus	**Peten**, Solola, Escuintla, El Progreso, Chimaltenango, Guatemala	Chiquimula, Sacatepequez, Suchitepequez		Photos on-line look very similar to ones at Yaxha.

When we come to an impressive ancient Mayan city such as Palenque, Yaxchilan, Yaxha, Nakum, Naranjo, Caracol, Copan, etc, we look at the pyramids, temples, palaces, and ballcourts. But overhead, up in the tall trees, is a remarkable eco-system in all those archaeological parks: a diverse eco-system high up in the treetops. This is a good reason to preserve the trees around pyramids, temples, palaces and ballcourts.

Chichen Itza, Uxmal and comparable tourist-focused Mayan cities have decades ago lost most of their trees. So not many epiphytes; not many orchids or bromeliads; not many Pitaya; few gorgeous flowers of energetic parasitic vines.

Fortunately, the new trend is to preserve more trees at archaeological parks with as much emphasis as preserving the Mayan ruins. Tikal is so large that it still has many kilometers of tall trees. Yaxha ruins, Nakum ruins, Naranjo-Sa'al ruins and Topoxte Island ruins also have park administrators which recognize the value in not clear-cutting all the trees.

So we at FLAAR (USA) and FLAAR Mesoamerica (Guatemala) wish to share with you our experiences at Parque Nacional Yaxha, Nakum and Naranjo, between Tikal and the Belize border. We come to Yaxha every single month to find and photograph rare, endangered, and beautiful Neotropical flowering vines, bushes, and trees. However I must admit that I am particularly curious and thus intensely interested in all vines and all plants which grow high in the trees (in part because they are so secretive and thus missing from most botanical lists).

The last week of October in Grupo Maler area of Yaxha Mayan ruins, we found two arboreal plants in full bloom. One was a single flower higher than most, so it was hard to get the camera into a position where the flowers were not hidden by other tree branches. Plus I need the sun to shine on the flower to illuminate it (no flash will reach as high and far away as this flower was, though on our next field trip we will experiment with a broncolor siros L (which I saw while in the broncolor booth at Photokina 2018 digital photography trade show). This awesome "telescopic" lighting tube was available to us in November and was very helpful.

Because the park administrators have not chopped down the tall trees, you get lots of vines growing high towards the sky. You find lots of epiphytes utilizing the branches of the tall trees as a place to grow. Plus you get parasitic plants, here most of which are vine-like. These parasitic plants are all native; the trees and forest have co-evolved over millions of years (so there is no need to "get rid of the parasites").

Western part of Yaxha, flowering on Nov. 25, 2018. This was part of our 12-month project in coordination and cooperation with the IDAEH co-administrator of PNYNN.

So we have a lot more *Psittacanthus* species plus several more genera of parasitic vines to find at Parque Nacional Yaxha Nakum Naranjo in upcoming field trips. Our list of species is just a start. We will fill in the missing info in future updates, but we wanted to get our photos of the one species available to botanists, park administrators, and to people around the world so they can realize that the park here is a great place to visit to experience “rain forest flowers” in addition to Mayan pyramids, temples, palaces, ballcourts, and causeways.

The purpose of these lists is so that the park rangers can find these plants and learn when they are flowering so the FLAAR team can do high-resolution photography of the plants and flowers.

12:02, noon, Dec. 21, 2018 with Nikon D5, with 400mm prime telephoto lens. For telephoto on the Nikon we use only Nikkor (Nikon) lenses.

From top of a pyramid, looking down.

Flowering from October, November, December (21st), 2018.

Would help to check whether they start in September and whether they continue to flower into January.

Grupo Maler, northwest part of Yaxha, PNYNN, RBM, Peten, Guatemala.

Nov. 25, 2018, 10am, Blom Causeway ending at Grupo Maler.

Photos by Nicholas Hellmuth, Nikon D810 with prime telephoto Nikkor 800mm.

A work of art by
Mother Nature

Appendix A

Description of *Psittacanthus* calyculatus by Standley and Steyermark 1946 pp. 78-79

It is probable that the species at Yaxha is a different one. But in case it is *Psittacanthus calyculatus*, here is a description.

Psittacanthus calyculatus (DC.) G. Don, Gen. Syst. 3: 415. 1834. Loranthus calyculatus DC. Coll. Mem. pl. 10. 1830. Liga; Liga *dejocote; Anteojo; Gallito; Matapalo; Andilla* (Huehuetenango) .

On broad-leafed trees, usually on *Spondias* purpurea, 1,500 meters or less; Peten; Zacapa; Chiquimula; Jutiapa; Santa Rosa; Escuintla; Guatemala; Suchitepequez; Retalhuleu; Solola; Huehuetenango. Mexico; British Honduras to Salvador and Panama.

A small or rather large, parasitic shrub, usually erect, sparsely or much branched, the branches very stout, quadrangular or compressed, the oldest ones I subterete; leaves short-petiolate, coriaceous, short-petiolate, lanceolate and somewhat falcate to oblong or elliptic, 6-15 cm. long, attenuate to an acute apex or often rounded or very obtuse; flowers very showy, red or orange-red, very numerous, corymbose, long-pedicellate, the buds conspicuously out curved, thickened near the apex, acute; fruit black or purple-black, very juicy, oval, 1-1.5 cm. long.

Called "suelda con suelda" and "gallinago" in Honduras; "chacxiu" (Yucatan, Maya). The plants of this genus are well known in Central America because they produce the so-called flores de palo, or are probably the principal source of them. These are curious scars, somewhat resembling conventional rosettes of architectural decorations, left upon the woody host plant when the base of the mistletoe plant is pulled away from it. These "wood flowers" are often kept in houses for decorations, sometimes embellished with gold and silver paint(!), and they occasionally are sold in tourist shops. It is believed that some of them are produced by plants of other genera of Loranthaceae, and they are said to be found often on trees of Quercus, orange, Spondias, and other groups. In Guatemala P. calyculatus is often said to be confined to trees of Spondias purpurea, and this is the most common host but certainly not the only one. In British Honduras it is reported as occurring on Ficus. The plants are very showy when in flower, but they often grow high on the branches of tall trees, where they can be studied only from a distance. The name "liga" is given in central Guatemala to all plants of this family. The viscid fruits are employed as bird lime or liga for catching sensontles and other birds that are kept in cages. About Antigua it was stated that bird lime was prepared also from Grevillea and avocado branches, the young twigs being chewed thoroughly, buried in the ground for a few days, dug up and chewed again, then applied to the branches of bushes or trees on which small birds might alight. P. *calyculatus* has been confused in recent years with P. americanus (L.) Mart., a species probably confined to the Lesser Antilles and northern South America. The species of this group are closely related, and the differences between them none too well marked, or perhaps only misunderstood.

Local Names for *Psittacanthus* vines

Local names include: chack-xkiu, chak-k'euel, chak-xiu (Maya, Yucatán); chujquén, chucquén (Chiapas) (Martínez, 1979). Also spelled Chac-xciu,), depending on whether you are reading Standley and Steyermark (or their colleagues Williams, etc) or whether you have the spelling by a linguist or ethnobotanist (Roys or Martinez for Mexico).

Local names vary by country and by region within the country. And, if you ask a botanist you will get one set of local names; if you ask a local chiclero or xatero you will get other names. The names above are primarily for Mexico. We will update this report when we have found a good inventory of local names in Peten.

Appendix B

What camera equipment, what lenses are essential?

Any brand of camera is fine: Nikon, Canon, Sony or others. I prefer full-frame but Pentax, Olympus, Sigma and other brands are okay as long as you have adequate lenses. We avoid off-brand lenses, such as Tokina and Tamron. And, sorry, we avoid other off-brand lenses made elsewhere in Asia.

We have zoom lenses for the Canon and for our Nikon cameras. But these are only recommended when you are in a situation that you do not have time to switch from one prime lens to another. So the entire Oct 26-Oct 31, 2018 field trip I did not use any zoom lens at any time: I prefer higher resolution (less fuzziness, when possible).

But it takes sometimes up to six people to help carry the camera equipment: six helpful experienced individuals. Senaida has worked with FLAAR for several years. Norma has been a camera assistant before also. If you are a botanist, zoologist or ecologist coming to do research in Guatemala you will unlikely have six or even three people to carry your equipment, so obviously a zoom lens may be more realistic. Our prime telephoto lenses are so large that it takes one person just to carry a single lens! No wonder most botanists don't use lenses like this (we have 400, 600, and 800, so three people just for the lenses).

Since these vines are very high in tall trees, it takes telephoto lenses to capture a good image

We would also like to test and evaluate digiscoping equipment. Birdwatchers or plant enthusiasts who could make a tax-deductible donation to FLAAR so we can obtain the latest technology of Swarovski, Leica, or Zeiss. Having a digiscope would allow us to achieve better photographs of details of individual flowers. Even with an 800mm prime lens we record a larger view; often it would significantly help to have a "close up" of the flower by itself (without having to crop in Adobe Photoshop or Capture One software back in the office).

Donations can be by check to FLAAR, or via PayPal. Contact the FLAAR team: FrontDesk "symbol" FLAAR.org (so robots don't easily read our email address).

Naturally if you can donate a digiscoping system (or a Canon or Nikon mirrorless camera) this would really help. We have two to three photographers on each field trip and have telephoto lenses only for Nikon; so would help the university students who assist FLAAR so that they can learn more about wildlife photography, if telephoto lenses were available for the Canon camera.

A 35mm lens will generally show the entire tree and its surroundings. A 50mm lens will show more detail. We then use 60mm and 100mm macro lenses (Nikon is 105mm; 100mm for Canon). We have two brands of cameras since some of the student photographers prefer Canon; others prefer Nikon. Others prefer our Sony mirrorless cameras.

A 200mm tele-macro lens will then show where the parasite plant is happily growing up in the top of the tree. The equivalent tele-macro lens for Canon is 180mm.

A 400mm lens will allow you to capture an area of flowers so you can begin to see the detail. For the Canon we have a 300mm lens.

A 600mm lens will allow you to capture more detail on individual flowers.

For flowers that are small, and for even large flowers that are very high up in tall trees, an 800mm lens is essential. And the Nikon AF-S NIKKOR 800mm f/5.6E FL ED VR lens has a special AF-S teleconverter (TC800-1.25E ED). These are not generic: each teleconverter is made for one specific lens (the lens it comes with). This teleconverter gives you a 1000mm lens.

After decades of photographing plants I long ago realized that to do an even better job of photographing orchids, bromeliads, parasitic plants, and other epiphytes in the rain forests of Mexico and adjacent Central America that an 800mm lens was also needed: yes, you can crop from the larger view of a 600mm lens, but then you lose detail. I prefer to have high resolution, sharp focus, and a sturdy tripod both to have details for botanists and to show the natural beauty of little-known plants of Yaxha Nakum Naranjo national park to the entire world (so that you can come enjoy what's available for you to experience here in Guatemala).

After photographing plants up in high trees and photographing waterbirds that fly away long before you get close to them (because they see the boat you are in), we realize that in some cases a 1000mm telephoto lens would be useful). Thus an additional reason why we bought the Nikon 800mm lens is because it comes with a special AF-S teleconverter (TC800-1.25E ED), a 1.25x tele-extender which turns it into a 1000mm lens. The tele-extenders for this one 800mm lens is very very different than generic 1.4 or other tele-extenders for other prime lenses: this tele-extender is literally manufactured together with the lens that you purchase. We tested this system at Yaxha when we returned in late November.

However we do not use a tele-extender on our 400mm in order not to need a 600mm lens; and we do not use a tele-extender on our 600mm lens to pretend we have an 800mm lens. This is because tele-extenders are not always a good idea. The only reason we use one on the 800mm lens is because it is a special lens made just for this Nikon lens. Plus, we do not have funds for a thousand-millimeter lens.

Be sure to purchase a circular polarizing filter; these are essential.

Additional Tip: be wary of zoom lenses on point-and-shoot cameras

We tested a 60X zoom lens on a Nikon B700 point-and-shoot camera compared with a 400mm prime Nikkor lens on a Nikon D810 camera. The Nikon B700 could indeed zoom to about “2000mm equivalent lens” but the resulting image was literally fuzzy. I would not recommend any extreme zoom lens unless a fuzzy image is better than none at all. The cropped image from the Nikon D810 with 400mm was better than the point-and-shoot camera. That said, if you have a tripod, it is probable that your point-and-shoot zoom photos will be much better.

Additional Suggestions to improve your photos

I use mirror-lock up mode (so you press the release twice). This results in less camera shake (so your photos are not “shaken”). Of course no more mirrors on the newer mirror-less cameras.

I use an electronic cable release (so you remove your finger pressing the release button does not jiggle the entire camera).

I usually bracket (take several photos, at different exposures). Even though with Adobe Photoshop or Adobe Lightroom you can work on a RAW format, I prefer to have various exposures available to the graphic designers who create the PDFs on the FLAAR web sites.

Especially to handle high-resolution RAW photographic files, I would frankly recommend Capture One software from Phase One company in Denmark. Capture One is of impressive quality and beats Photoshop in many aspects. That said, Adobe Photoshop version 2025 is definitely advanced over versions of previous years.

And ALWAYS shoot RAW format. I always photograph with the camera set to produce one full strength RAW plus simultaneously one high-res JPEG. This is because it is quicker and easier to review the JPEG files to check on exposure, composition, etc.

Tips on what Tripods, Tripod Heads & Digital Imaging Software is best

Tripod: Sturdy, Easy to Use

FLAAR uses only Gitzo tripods because they last for decades. Some of our Gitzo tripods are over 40 years old. We look forward to having some of the newer Gitzo tripods to test, evaluate, and write reviews on. Plus we are curious about Novoflex tripods, as their equipment is all Made in Germany.

... and Appropriate Tripod Head

For tripod heads we use a Gimbal style head if using a lens of 200mm or larger/longer/heavier telephoto lens. The 200mm lens on any camera works fine on a solid 40+ year old Arca Swiss big ball head, but I usually put on a Wimberley WH-200 Gimbal head Version II if I estimate I will switch from 200mm to a 400mm, 600mm, or 800mm prime telephoto lens to photograph the same vine, orchid, bromeliad, or other epiphyte.

When selecting any telephoto lens be sure that it has a manner to allow you to turn the lens 90-degrees so you can easily and quickly take vertical photos. I like vertical photos since they can fill an entire page in a book or pdf. A horizontal photo can fill only half a page. All our Nikon lenses, from 200mm upwards, all have collars. But be sure to attach your Nikon 200mm f/4 ED-IF AF Micro-NIKKOR (or Canon EF 180mm f/3.5L USM Macro Lens) on its L-shaped support (so do not attach your camera to the tripod head when you have a telephoto lens; attach the lens to the tripod head so that the camera can be independently rotated).

I estimate that most professional photographers select and buy their tripod heads separate from their tripods. So you can have an Audi head on a Mercedes tripod so to speak. If you buy a low-end, budget, simple tripod, it will come with its own head permanently attached (and most will fall apart within months if not weeks).

What NOT to buy

Avoid Arca Swiss tripod heads. The only good one is their original model made 40 years ago. The next generation was over-designed, faulty, locks-up, and is a pain to deal with. They never offered to return my money that I wasted buying that next-generation head.

You can get easier to use tripod heads from Gitzo, Kirk, and Novoflex which are not as silly (over-engineered) as the Arca Swiss ones. We have two Kirk ball heads and look forward to reviewing Novoflex heads, especially their remarkable NOVOFLEX Double Gimbal Head FALCON, which would be great since we have two Nikons and multiple telephoto lenses.

Bibliography on *Psittacanthus* species of Mayan areas

AZPEITIA, F. and **Carlos LARA**
2006 Reproductive biology and pollination of the parasitic plant *Psittacanthus calyculatus* (Loranthaceae) in Central Mexico. *The Journal of the Torrey Botanical Society* 133(3): 429-438.

BALICK, Michael J.; NEE, Michael H. and **Daniel E. ATHA**
2000Checklist of the Vascular Plants of Belize with Common Names and Uses. *Memoirs of the New York. Botanical Garden 85*: 1–246.

DIAZ Infante, Sergio; LARA, Carlos; del Coro Arizmendi, Maria; EGUIARTE Luis E. and **Juan Francisco ORNELAS**
2016 Reproductive ecology and isolation of *Psittacanthus calyculatus* and *P. auriculatus* mistletoes (Loranthaceae). PeerJ 4:e2491.

Free download: https://peerj.com/articles/2491.pdf

GOVAERTS, R. et.al.
2018 *Psittacanthus*, Plants of the World online. Board of Trustees of the Royal Botanic Garden.

KUIJT, J.
1969 The Biology of Parasitic Flowering: The Mistletoes.

KUIJT, J.
1990 New Species

KUIJT, J.
2003 Monograph of Phoradendron (Viscaceae). Systematic Botany Monographs 66.

KUIJT, J.
2003. Monograph of *Phoradendron* (

HAWKSWORTH, F. G. and **D. WIENS**
1977 Arceuthobium

Martínez, M.
1979 Catálogo de nombres vulgares y científicos de plantas mexicanas. Fondo de Cultura Económica, México, D.F.

ORTIZ Rodriguez, Andres Ernesto; LICONA-Vera, Yuyini; VÁSQUEZ-Aguilar, Antonio A.; HERNÁNDEZ-Soto, Mariana; LÓPEZ-Huicochea, Ernesto A. and **Juan F. ORNELAS**
2020 Genetic differentiation among *Psittacanthus rhynchanthus* (Loranthaceae) populations. *Plant Systematics and Evolution,* Vol. 306, No. 1 (February 2020), pp. 1-20

PÖLL, Elfriede de
2008 Distribución y **plantas** hospederas de **Loranthaceae** s.l. (muérdagos) en Guatemala. Revista de la Universidad del Valle de Guatemala. 18: 101-118.

ROYS, Ralph L.
1931 The ethno-botany of the Maya. The Tulane University of Louisiana. Middle American Research Series. Publication No. 2. New Orleans.

STANDLEY, **Paul C.**
1920-1926 Trees and shrubs of Mexico. Contributions from the United States National Herbarium, Vol. 23. Government Printing Office, Washington, D.C.

Pages 234-235 but not much information other than names for the plant in many native languages of Mexico. But does list one use other than medicinal: A decoction of the leaves and flowers is said to be used for treating wounds, and the distilled water as a cosmetic.

STANDLEY, **Paul C.** and **J. A. STEYERMARK**
1946 Loranthaceae. In Standley, P. C. & Steyermark, J. A. (Eds), Flora of Guatemala, *Fieldiana, Botany* Volume 24, Part IV, pages 62–86. Chicago Natural History Museum.

Pages 78-80 cover three *Psittacanthus* species known at that time for Guatemala.

VÁZQUEZ Collazo, I. and **B. W. Geils**
2002 Psittacanthus in Mexico. Chapter 2 of *Mistletoes of North American Conifers*. United States Forest Service.

Available at no cost on-line: www.fs.fed.us/rm/pubs/rmrs_gtr098/rmrs_gtr098_009_017.pdf

VILLASEÑOR, José Luis
2016 Checklist of the native vascular plants of Mexico. *Revista Mexicana de Biodiversidad*, vol. 87, núm. 3, septiembre, 2016, pp. 559-902, UNAM, Mexico.

Bibliography on *Phoradendron* species of Mayan areas

We have not yet found any *Phoradendron* parasitic vines at Yaxha but will eventually locate them. Once we locate *Phoradendron* parasitic vines we will have a separate report on this genus and an expanded bibliography. But to start with, here are some suggested readings to get started.

KUIJT, J.
2003 Monograph of *Phoradendron* (Viscaceae). *Syst. Bot. Monographs* 66: 1–643.

PÖLL, Elfriede de
2008 Distribución y plantas hospederas de Loranthaceae s.l. (muérdagos) en Guatemala. *Revista de la Universidad del Valle de Guatemala*. 18: 101-118.

TRELEASE, W.
1916 The genus *Phoradendron*. University of Illinois Press, Urbana, 224 pages (with 245 plates).

WIENS, D. and **F. G. HAWKSWORTH**
2002 New species of *Phoradendron* (Viscaceae) from Mexico and Guatemala and a synopsis of species in section Pauciflorae. *Aliso 21*: 33–43.

WIENS, Delbert and **Clyde L. CALVIN**
2011 Two Epiparasitic Species of *Phoradendron* (Viscaceae) from Honduras: one New and for the Other a Range Extension and Host Determination. *Aliso: A Journal of Systematic and Evolutionary Botany*, Volume 29, Issue 2, Article 5.

Helpful free download: https://pdfs.semanticscholar.org/d5c9/69b780f0335c28cb6233cfb4da7f28563c00.pdf

Webpages with helpful info and photos on *Psittacanthus* species of Mayan areas

www.cicy.mx/sitios/flora%20digital/ficha_virtual.php?especie=1694
Psittacanthus mayanus Standl. & Steyerm.
Check this web site to see if they have photos on the other species of *Psittacanthus*.

www.conabio.gob.mx/malezasdemexico/loranthaceae/psittacanthus-calyculatus/fichas/ficha.htm
Loranthaceae *Psittacanthus calyculatus* (DC.) G. Don

Bibliography on *Oryctanthus cordifolius* of Mayan areas

https://biogeodb.stri.si.edu/bioinformatics/croat/specie/Oryctanthus%20cordifolius,e,n
Rather technical; and for Barro Colorado Island (so not Guatemala).

Bibliography on *Struthanthus* species of Mayan areas

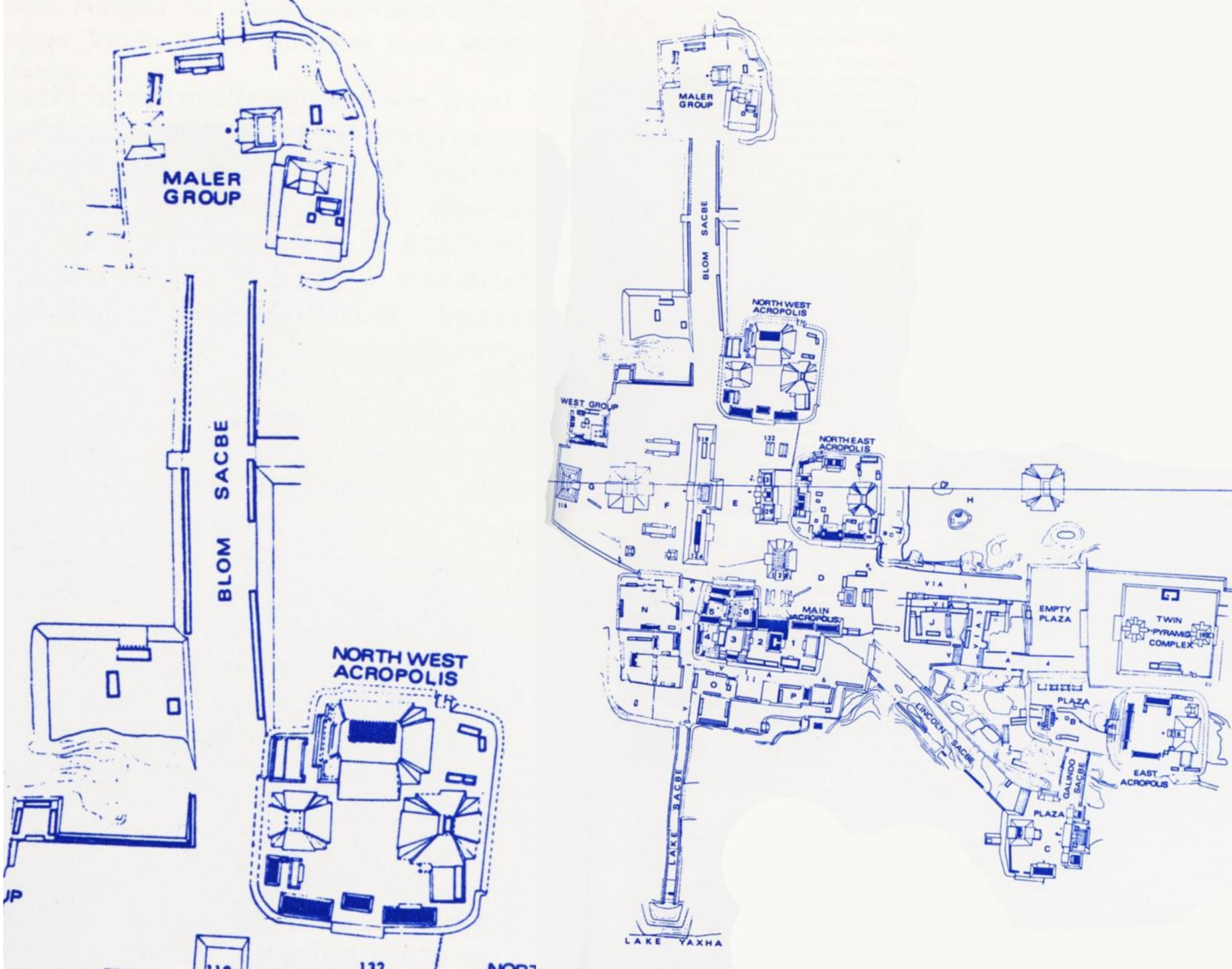
hwww.nybg.org/bsci/belize/Struthanthus_cassythoides.html

Has only two photos, but the photo on the right shows precisely what you see cascading over many trees at Yaxha, Topoxte Island and other parts of Parque Nacional Yaxha Nakum Naranjo.

Websites on parasitic plants in general
https://parasiticplants.siu.edu/Loranthaceae/

Map of Yaxha by Nicholas Hellmuth and Miguel Orrego, 1970-1974.

Published in Hellmuth 1978. “Maya Archaeology, Tikal, Copan Travel Guide, a complete guide to all the Maya ruins of Central America”.



Acknowledgements

We thank PNYNN IDAEH park Coordinador Administrativo Lic. Leonel Ziesse, and park botanist-ecologist Lic. Lorena Lobos for hospitality and assistance during 2018-2019. 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 CONAP. 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: for IDAEH and for CONAP.

Yaxha, Topoxte Island, Nakum and Naranjo-Sa'al areas of the park are each worth visiting—each has slightly different layout of the palaces, temples acropolises, ballcourts, causeways, etc.

You can hire a boat with lanchero to take you to see the Post Classic Maya temples of Isla Topoxte (either from the Visitor's Center or from hotel El Sombrero Ecolodge if you are having lunch or overnight there). Nakum has impressive temples and an amazing multi-storied acropolis or palaces and temples. Plus the two corozera palm ecosystems between Yaxha and Nakum are worth experiencing (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 archaeologist Vilma Fialko and her team.

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.

The two easiest to find parasitic plants in PNYNN are genus Ficus (Mata Palo) and Cassytha filiformis, dodder laurel. We already have one FLAAR photo album report on strangler figs that can be downloaded on-line. We will have additional FLAAR Reports on strangler fig trees during 2026. There are many different species within PNYNN, PANAT and the rest of the Reserva de la Biosfera Maya, RBM. Peten, Guatemala.

We studied parasitic Cuscuta vines in the Highlands of Guatemala and then found an identical vine along the south shore of Lake Yaxha and the banks of Rio Ixtinto that was Cassytha filiformis, an excellent example of convergent evolution.

We will have a FLAAR Reports on Cassytha filiformisfor our on-going series Flowers worth experiencing at Parque Nacional Yaxha, Nakum and Naranjo, PNYNN, Reserva de la Biosfera Maya, RBM, Peten, Guatemala.

Acknowledgements and Appreciation for Cooperation and Coordination for Field Work Research at PNYNN, RBM, Peten

FOR COOPERATION, HOSPITALITY, AND ASSISTANCE AT PARQUE NACIONAL YAXHA, NAKUM AND NARANJO PROJECT (August 2018 through July 2019)

Ing. Jorge Mario Vásquez Kilkán (CONAP, Santa Elena, Peten)
Arq. Jose Leonel Ziesse Altán (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 Alejandro Rolando 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.

ASSISTANCE FOR KNOWLEDGE OF PLANTS AND ANIMALS OF PNYNN

Teco, Moises Daniel Perez Diaz, park ranger, PNYNN

TARPS TO COVER AND PROTECT EQUIPMENT IN THE BACK OF OUR PICKUP TRUCK—AND TARPS TO COVER OUR TENT CAMPING AREA WHILE CAMPING IN REMOTE AREAS

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) during 1970-1974 and we worked with the 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 years, 2021-2025 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.

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 Ana Lorena Lobos Morales 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.

The design of this FLAAR Reports is horizontal for several reasons: so horizontal photos can be shown at larger size so you can see the detail; and so we can put two vertical photos on the same page. A horizontal format is easier to look at on a computer monitor. Plus this PDF can be presented in a classroom at this helpful horizontal format. This original design is by Nicholas Hellmuth, additional design concepts are by Valeria Aviles Diaz (FLAAR Mesoamerica) and Fernanda Ramos .

Ecolodge El Sombrero

I thank Gabriela 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

Donations make our Field Trips and Research and Publications Possible

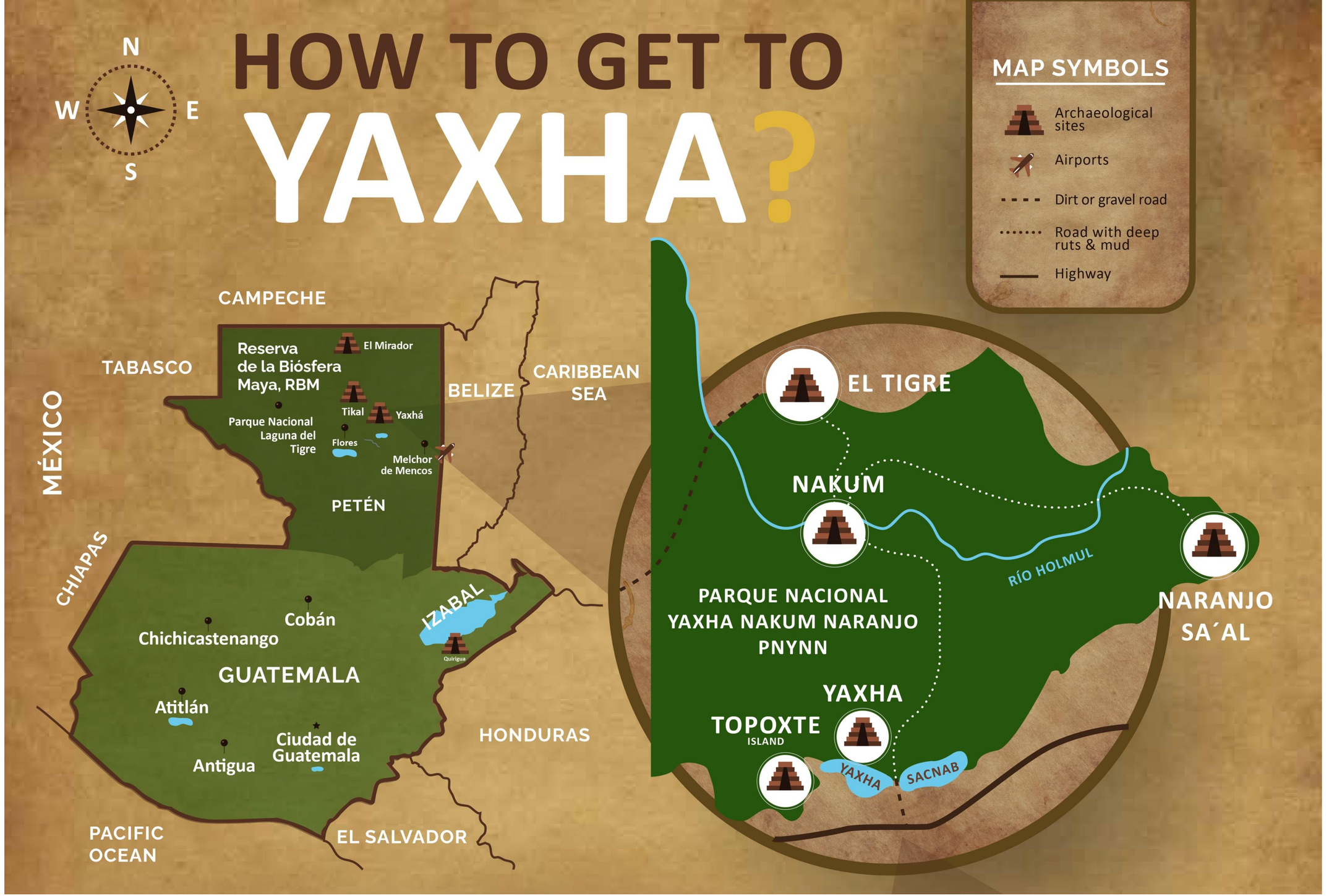
We appreciate a donation during November 2021 to help cover the costs of FLAAR research projects specifically to assist and support the current FLAAR project of flora and fauna in the Reserva de la Biosfera Maya (RBM). This donation also assisted the FLAAR (USA) and FLAAR Mesoamerica (Guatemala) research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


N
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HOW TO GET TO
YAXHA?
MAP SYMBOLS
Archaeological sites
Airports
Dirt or gravel road
Road with deep ruts & mud
Highway
CAMPECHE
TABASCO
MÉXICO
Reserva de la Biósfera Maya, RBM
El Mirador
Tikal
Yaxhá
Parque Nacional Laguna del Tigre
Flores
Melchor de Mencos
BELIZE
CARIBBEAN SEA
PETÉN
CHIAPAS
Cobán
Chichicastenango
IZABAL
Quirigua
GUATEMALA
Atitlán
Ciudad de Guatemala
Antigua
HONDURAS
PACIFIC OCEAN
EL SALVADOR
EL TIGRE
NAKUM
RÍO HOLMUL
NARANJO
SA´AL
PARQUE NACIONAL
YAXHA NAKUM NARANJO
PNYNN
YAXHA
TOPOXTE
ISLAND
YAXHA
SACNAB

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.

Acknowledgements and Appreciation

The design of this FLAAR Reports is horizontal for several reasons: so horizontal photos can be shown at larger size so you can see the detail; and so we can put two vertical photos on the same page. A horizontal format is easier to look at on a computer monitor. Plus this PDF can be presented in a classroom at this helpful horizontal format. This original design is by Nicholas Hellmuth, additional design concepts are by Valeria Aviles Diaz (FLAAR Mesoamerica). The pages were numbered by student intern Mariana Ramirez and the front covers of the thirteen publications of the series were organized by her and fellow student interns.

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 www.Maya-ethnobotany.org 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

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

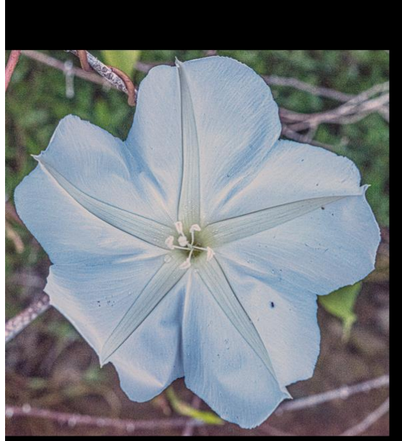
Nicholas Hellmuth, FLAAR Reports, FLAAR (USA) and FLAAR Mesoamerica (Guatemala), October 2025

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

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

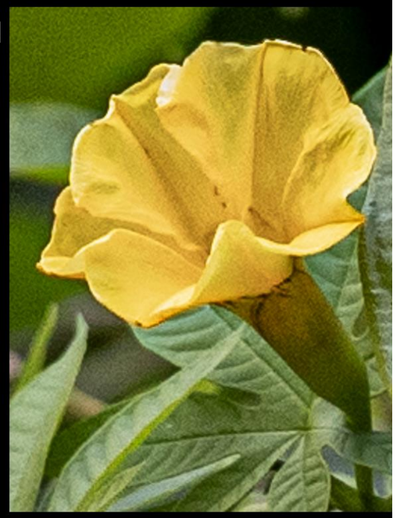


Volume 8 for Series:
Flowers worth experiencing at Parque Nacional Yaxha, Nakum and Naranjo, PNYNN
Reserva de la Biosfera Maya, RBM, Peten, Guatemala

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 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

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

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

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