

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



Introduction to the Unexpected Flowers of *Costus pictus* D. Don

Costus pictus D. Don — **Syn:** *Costus congestus* Rowlee
— **Habit:** Herb. (Balick, Nee and Atha 2000).

Costus pictus D. Don is found in all the following states of Mexico: CHIS, COL, GRO, HGO, JAL, MICH, NAY, OAX, PUE, SLP, SIN, TAB, TAMS, VER (Villaseñor 2016: 707).

If you Google “*Costus pictus*” uses you learn it is a very helpful medicinal plant. So, it’s edible, but primarily as a medicine.

Portal de Biodiversidad de Guatemala lists *Costus pictus* as having been collected in Peten, Alta Verapaz, Escuintla, Huehuetenango, Solola, Suchitepéquez, and in the hills around Guatemala City. This means that the medicinal aspects of this flower and plant were available both to the Highland Maya and to the Lowland Maya.

Costus pictus is in the plant family Costaceae, spiral ginger family. *Costus* species were not adequately documented in the 1950’s, so not enough documentation to cite Standley and Steyermark for *Costus pictus*.



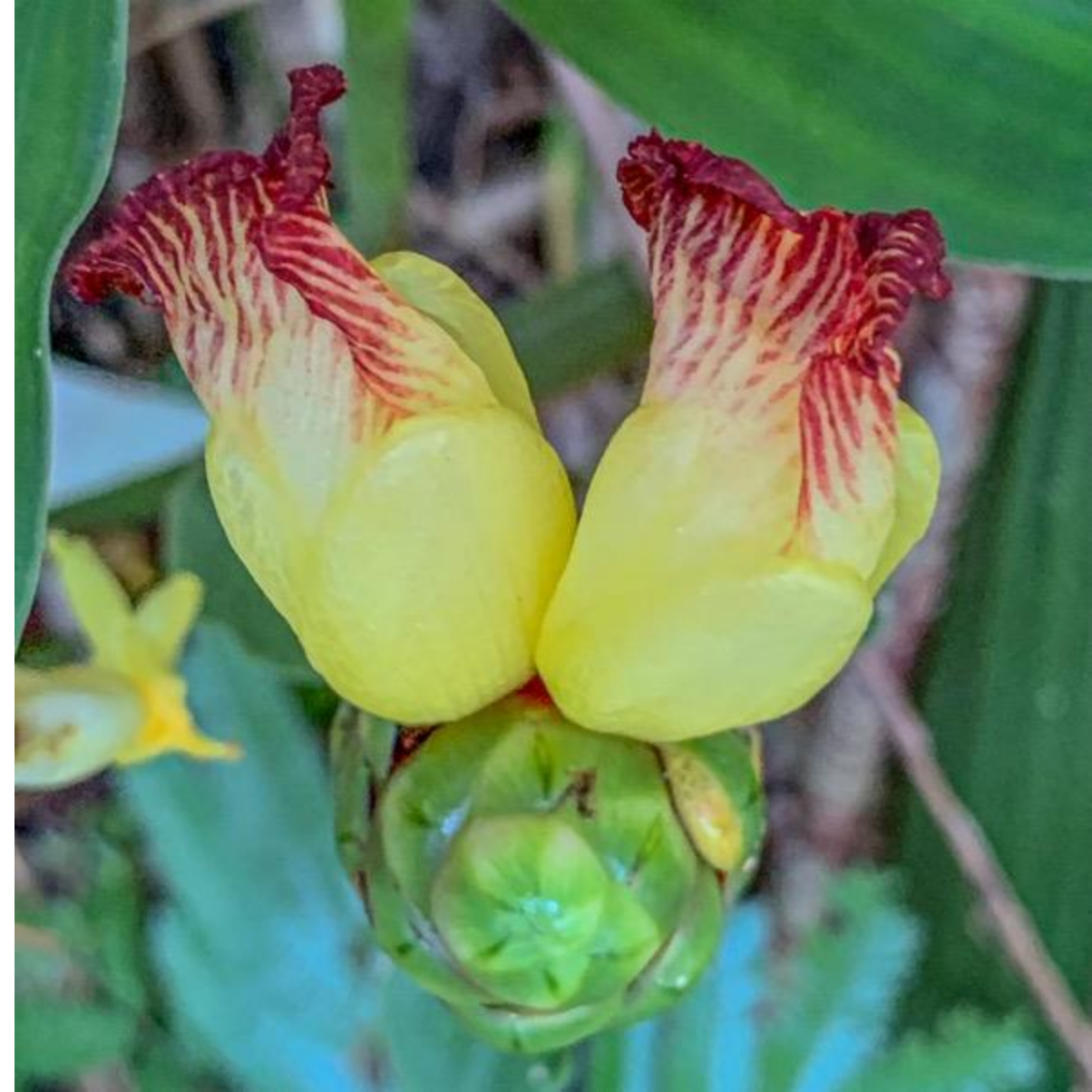
Flowers of *Costus pictus* in Naranjo part of PNYNN.
Photo by Marial Alejandra Gutierrez, July 9, 2019.



Costus pictus
in one of the
corozera palm
areas
surrounding
the Naranjo-
Sa'al part of
PNYNN.

Photos by
Nicholas
Hellmuth with
iPhone Xs,
July 9, 2019.



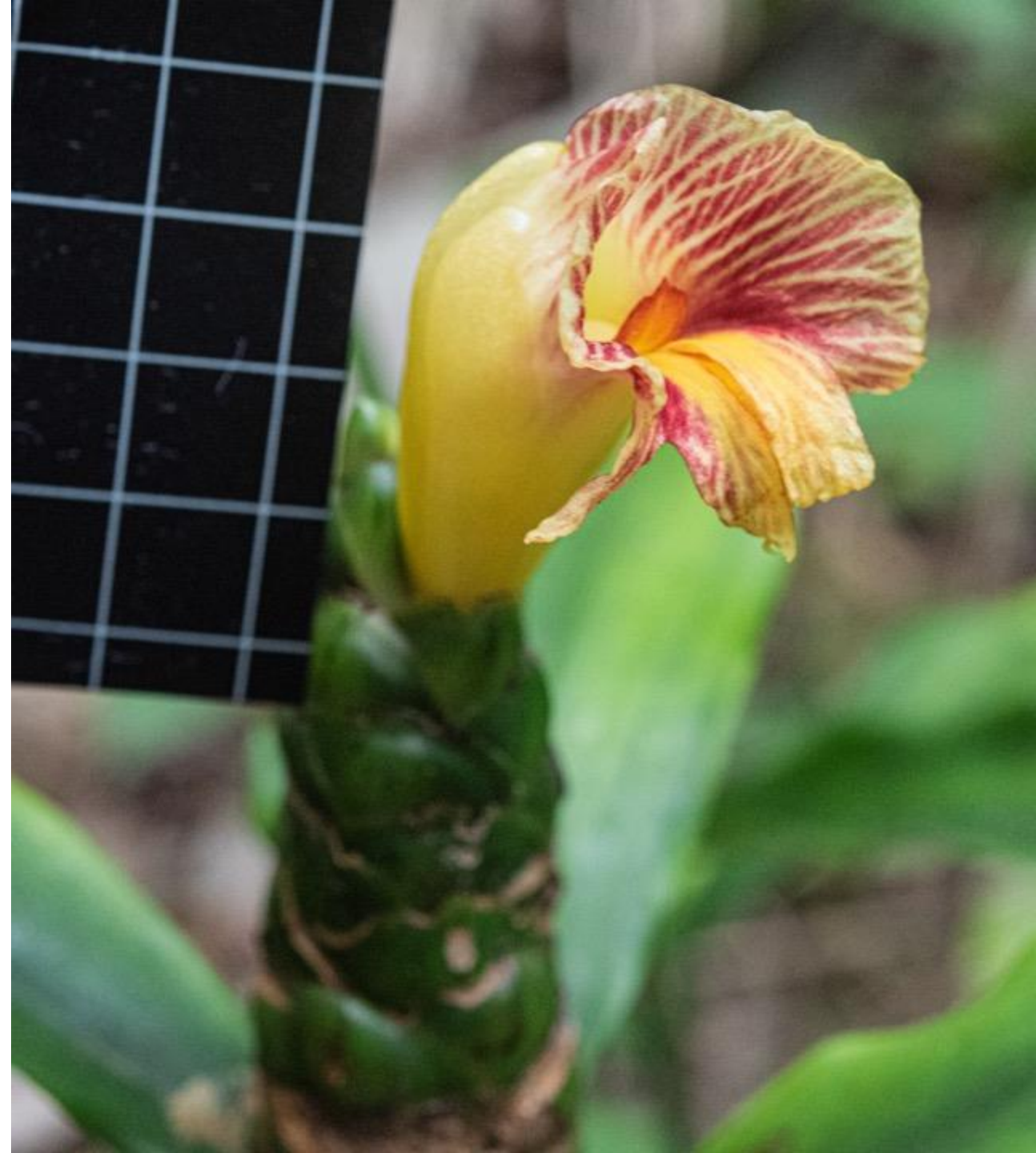


Costus pictus in one of the corozera palm areas surrounding Naranjo-Sa'al part of PNYNN. Photo by Nicholas Hellmuth with iPhone Xs, July 9, 2019.

Costus pictus
alongside
Brecha
Anabelle
(Ford), Yaxha.

Photo by
Nicholas
Hellmuth, Oct
8, 2018, with a
Nikon D810,
60mm lens.





Costus pictus is a very common plant in Peten, we have also found it in the Bio Itza area (Hellmuth 2021: 7). There is a related species in Peten, *Costus pulverulentus*, whose flowers are bright red (ibid.).

This *Costus pictus* plant with its emerging flowers was found by Senaida Ba while hiking from Rio Holmul back to Naranjo-Sa'al area of PNYNN. Since I hiked several of these kilometers I carried an iPhone Xs, which was available in 2018 onwards. While walking I could see more flowering plants on the ground than if riding in the 4x4 pickup truck.

Every year we update our iPhone and also Google Pixel camera, since there are several photographers on each field trip. For winter 2025 onward we will have Google Pixel 10XL and iPhone 17 Pro Max, since our goal is to provide CONAP and the park administrators with FLAAR Reports with photos at full page height so that students, botanists, and ecologists can see what is available to study in the RBM.



References Cited on *Costus pictus*

There are dozens of articles on *Costus pictus* and it is in many botanical monographs. You can find plenty on-line. We show below the two botanical reports that we use for all our research in the RBM, plus a photo album by Nicholas.

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.

HELLMUTH, Nicholas

2021 Introduction to Flora and Fauna of Bio Itza, Reserva Natural Bio Itza, Reserva de la Biosfera Maya (RBM), Peten, Guatemala. FLAAR (USA) and FLAAR Mesoamerica (Guatemala).

STANDLEY, Paul C. and Julian A. STEYERMARK

1952 Flora of Guatemala. Fieldiana: Botany, Vol. 24, Part III. The species name *pictus* was not yet used in the previous century.

VILLASEÑOR, José Luis

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

Acknowledgements and Appreciation

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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

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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.

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.



HOW TO GET TO YAXHA?

MAP SYMBOLS



Archaeological sites



Airports



Dirt or gravel road



Road with deep ruts & mud



Highway





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 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,
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Reserva de la Biosfera Maya, RBM, Peten,
Guatemala

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



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Volume 5 for Series:
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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,
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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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