

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



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



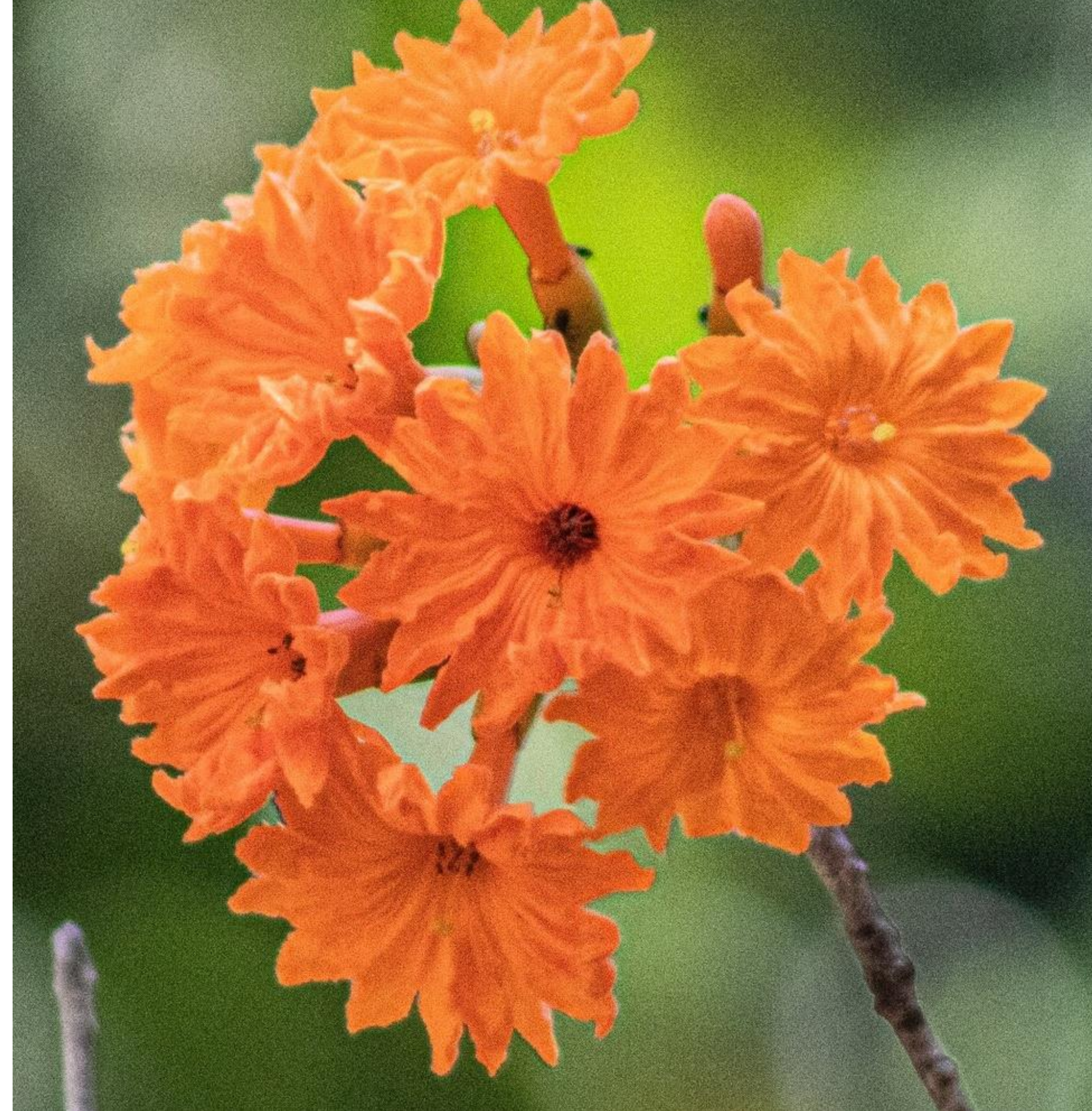
Chapter 1

Cordia dodecandra in the Nakum sector of PNYNN

Cordia dodecandra is one of my favorite tree flowers. These flowers are easy to see because during the month(s) of flowering, the tree has no leaves on the twigs from which the flowers sprout. And their bright orange color makes them super-easy to see. We found clusters of flowers during late March during both 2018 and 2019.

Although all the trees that we have photographed in the project of cooperation and coordination with the park administrators were in the Nakum area, surely this tree can be found around the Maya ruins of Yaxha and Naranjo-Sa'al.

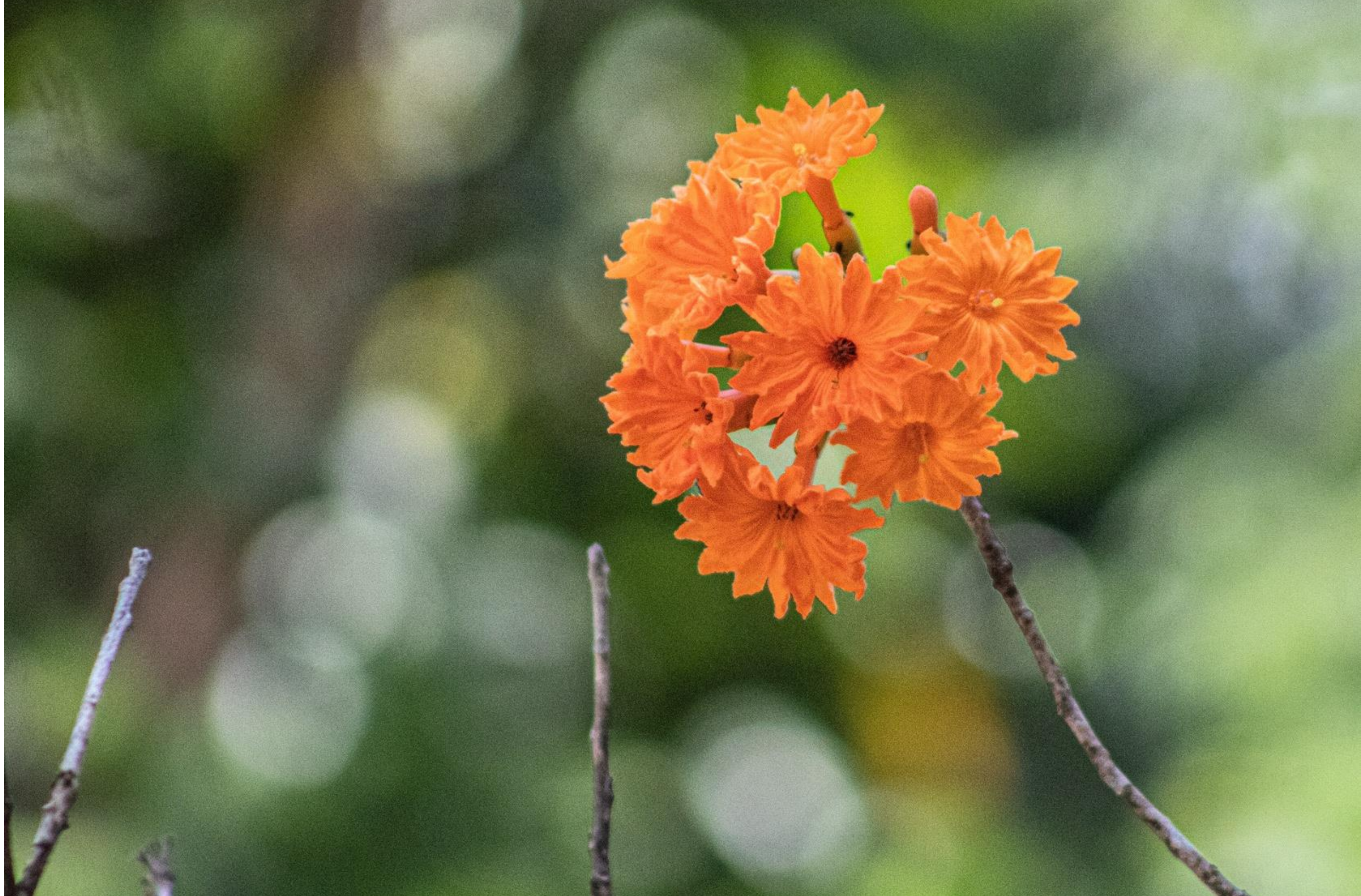
This tree is well known and already documented as having edible fruits and seeds. So far, we have photos only of the beautiful flowers.



Cordia dodecandra, Nakum, PNYNN, Canon, by Juan Pablo Fumagalli

*Cordia
dodecandra*
Seems to flower
on twigs with no
leaves present.

Nakum,
PNYNN, Canon
camera, by Juan
Pablo
Fumagalli,
FLAAR
Mesoamerica.



Another example of lots of flowers
but no leaves.

A pollinator is hiking on the petals.

Cordia dodecandra, Nakum,
PNYNN.



Cordia dodecandra DC. Kopte, siricote. An indigenous tree planted in villages for shade and fruit. The fruits are eaten raw or made into dulces (Lundell 1938).

The very sweet fruit is said to be highly esteemed for making preserves and other dulces. (Standley and Williams 1970: 126).

Cordia dodecandra A. DC. — **Loc Use:** PRD. — **Reg Use:** FOOD, PRD, CNST, MED. — **Nv:** chack opte, ciricote, siricote, zericote. (Balick, Nee and Atha 2000).

Cordia dodecandra DC. CAM, CHIS, COL, GRO, MICH, MOR, OAX, QROO, TAB, VER, YUC (Villaseñor 2016: 706).

In Portal de Biodiversidad de Guatemala, most of the examples are exclusively in Peten, but also in Alta Verapaz. It is rare that a tree is so limited to only one area of Guatemala.

We have also documented *Cordia dodecandra* for Uaxactun, but the present FLAAR Reports is for ciricote flowers at PNYNN. But for Belize and Mexico there are more different species of genus *Cordia* than I would have expected. Lundell found several species in Peten (1937: 74, 103, 1090).



Cordia dodecandra, Nakum area of, PNYNN, by Juan Pablo Fumagalli.

Cordia dodecandra flowers,
camping area of Nakum, PNYNN,
Canon camera, by Maria Alejandra
Gutierrez.



Not a single leaf
on any twig.

This helps to
attract
pollinators by
allowing the
orange flowers
to capture their
attention.



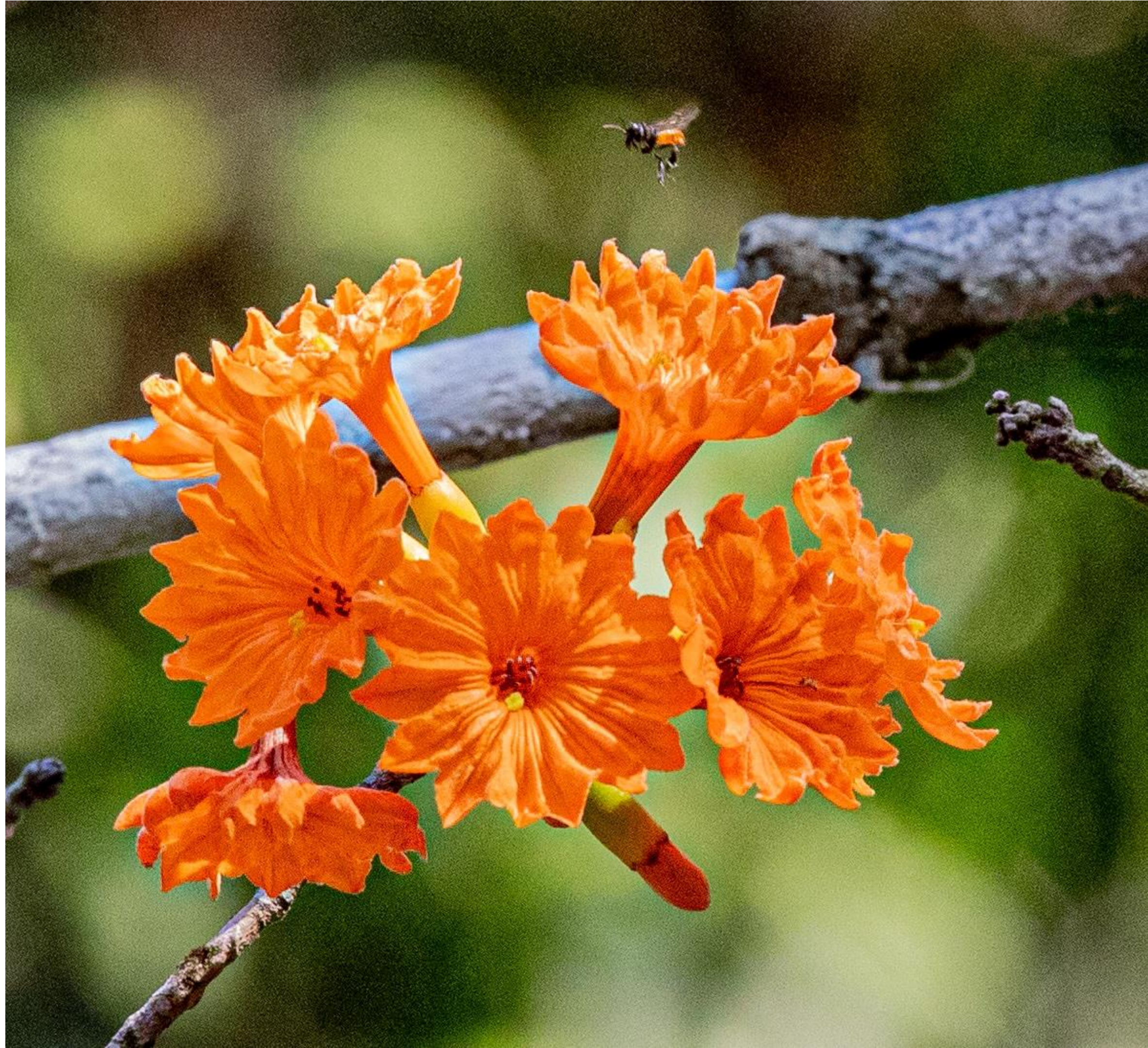
Not a single leaf
on any twig.



A bee or wasp pollinator is arriving.

Although we all know that bees, butterflies, hummingbirds, and bats are pollinators, there are lots of species of wasps in Guatemala that are not only helpful pollinators—these wasps produce edible honey. Without a close-up macro view of this insect, best to simply call it a pollinator.

The male mosquito is also a pollinator—we learned this by watching flowers in the FLAAR Ethnobotanical Research Garden that surrounds the residence-office building of FLAAR Mesoamerica. There are lots of other pollinators, depending on the species of flowers.



Cordia dodecandra flowers,
camping area of Nakum, PNYNN,
Canon camera, by Maria Alejandra
Gutierrez.



Cordia dodecandra flowers, camping area of Nakum,
PNYNN, Canon camera, by Maria Alejandra Gutierrez.



*Cordia
dodecandra*
flowers,
camping area of
Nakum,
PNYNN, Canon
camera, by
Maria Alejandra
Gutierrez.



*Cordia
dodecandra*
flowers, along
the road
between Yaxha
and Nakum,
PNYNN.

Again, no leaves
on the branches
or twigs when
the flowers are
opening.



Cropped by Hellmuth from the previous photo. *Cordia dodecandra* flowers, along the road between Yaxha and Nakum, PNYNN.

The very sweet fruit is said to be highly esteemed for making preserves and other dulces. (Standley and Williams 1970: 126).



As with all the other *Cordia dodecandra* trees in PNYNN during late March, no leaves anywhere.



We hope you have enjoyed seeing the high-resolution color photos of these gorgeous orange flowers. When the sunlight shines upon the flowers their shape also looks remarkable.

We highly recommend Parque Nacional Yaxha, Nakum and Naranjo as a place to add to your travels to explore the world. Also, Tikal, Uaxactun and dozens of other great Maya cities await you in Guatemala—all surrounded by Neotropical vegetation.

Cordia dodecandra flowers, along the road between Yaxha and Nakum, PNYNN. Photos by Nicholas Hellmuth with Nikon and telephoto lens.

Cropped by Hellmuth from the previous photo.



References Cited and additional Suggested Reading

Obviously you can find dozens of monographs and articles that include discussion of *Cordia dodecandra* simply by Googling the name of the tree. So we show below just the standard traditional references that we use for all the plants that we find in the Reserva de la Biosfera Maya, RBM, Peten, Guatemala.

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

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

LUNDELL, Cyrus Longworth

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

STANDLEY, Paul C. and Louis O. WILLIAMS

1970 Flora of Guatemala. Vol. 24, Part IX, Numbers 1 and 2. Field Museum of Natural History. 236 pages.

VILLASEÑOR, José Luis

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

Acknowledgements and Appreciation

FOR COOPERATION, HOSPITALITY, 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)

FLAAR was formed in 1969 to map Yaxha (and nearby Topoxte Island and Nakum) 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 more 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 (RBM), Peten, Guatemala..

FOR COOPERATION, HOSPITALITY,& 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

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 Mr. 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

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 Gabriella Moretti, owner of Ecolodge El Sombrero, for providing hotel room and meals while we have been doing field work at Parque Nacional Yaxha Nakum Naranjo. We also appreciate the hospitality of her sons Sebastian de la Hoz and Juan Carlo de la Hoz. Every workday is exhausting because we are carrying and then using very heavy cameras, super-telephoto lenses, sturdy tripods, large gimbals or ball tripod heads. Thus it is crucial for my health to be able to rest and totally recuperate every night in order to be ready for the following day of botanical and zoological adventures in Parque Nacional Yaxha, Nakum and Naranjo. Equally crucial is having a place to charge the batteries of the computers, or all the cameras, and of the cell phones. Solar power is great, but it lasts only an hour, or less, if you plug in multiple computers and cameras and flash batteries to charge. So a place with enough electricity to charge the entire mass of essential field work equipment is essential and thus very much appreciated.

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

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

www.elsombreroecolodge.com/en-us

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,
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

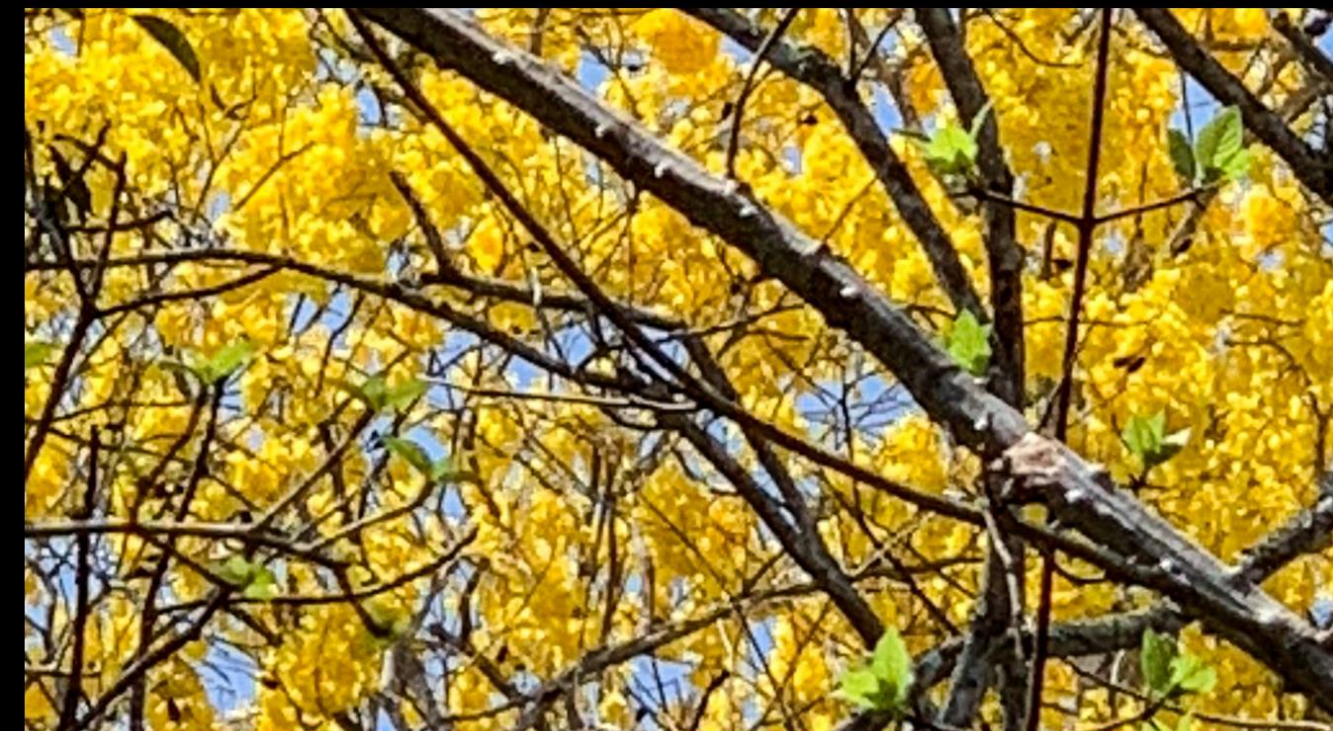


Volume 9 for Series:

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



FLAAR
MESOAMERICA

FLAAR





FLAAR
MESOAMÉRICA