

Butterflies of Southwest Florida



Kara Tyler-Julian

Riverdale Library

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Butterflies and moths

- Order Lepidoptera
- 2 pairs of wings, covered in scales
- Long retractable proboscis
- Around 13,000 species in NA (700 butterflies)
- Butterflies: wings above, day flight, bright colors, thin antennae
- Moths: wings like tent, night flight, dull colors, bushy antennae

Lepidoptera- Butterflies and moths

- Holometabolous-Metamorphosis- 4 stages



Egg



Larva=caterpillar



Pupa=Chrysalis



Adult=Butterfly

Caterpillars

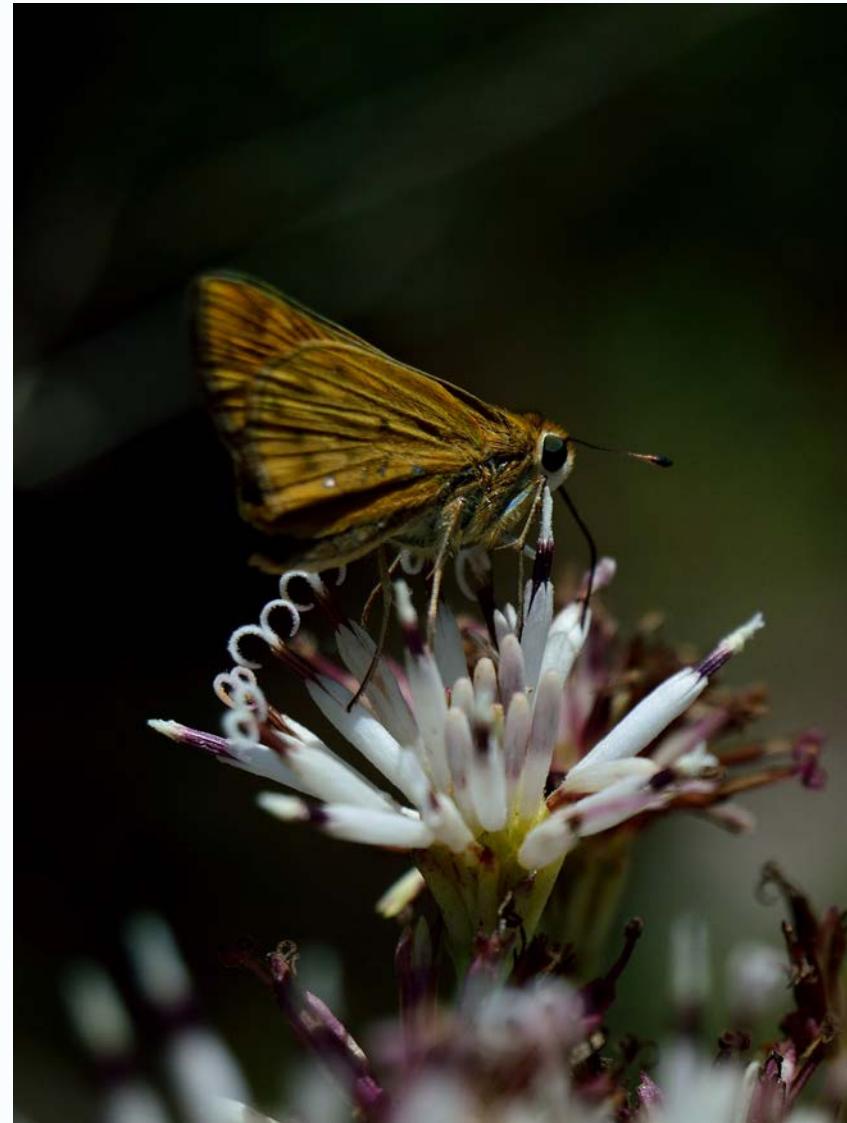


- Growing stage
- Eat a lot
- Molt to grow (5-7 times!)
- Different plants for different species
- Chewing mouthparts= plant damage



Pupa: Chrysalis/cocoon

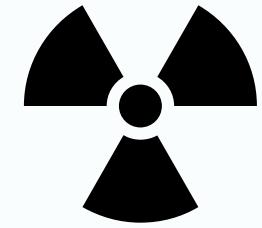
- Changing into butterfly/moth
- Cells are rearranging, body parts changing
- Few weeks-many months
- Vulnerable, accidents can happen



Adults: Butterflies

- Drink a lot of nectar
- Pollinators
- Reproduce
- Don't live very long
- Movement

DANGER-Natural threats



- Diseases: virus, bacteria, protozoans, fungi
- Predators-wasps, lizards, birds, etc.
- Parasitoids- tiny wasps, flies
- Poisons



Danger: Man-made

Climate
change

Plant loss

Habitat
loss

Pesticides

Pollution

Cars

How can you help?



- Plant host plants for caterpillars
- Plant nectar plants for butterflies
- Don't use pesticides
- Weeds are good!
- Help fight climate change
- Help preserve wild areas
- Butterfliesandmoths.org

Nymphalidae: *Danaus plexippus*- Monarch,
Danaus gilippus- Queen, *Danaus eresimus* -
Soldier



Photo:John Garbutt

Danaus
plexippus-
Monarch, Danaus
gilippus- Queen,
Danaus eresimus
- Soldier



Agraulis vanillae – Gulf Fritillary



Heliconius charithonia – Zebra Longwing



Dryas iulia –Julia Heliconian



Seth Patterson





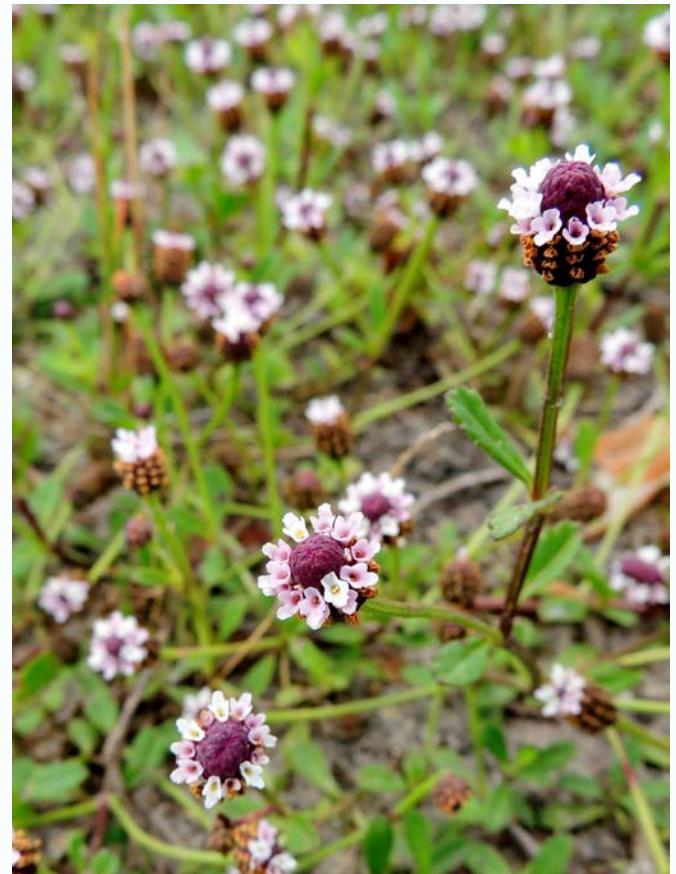
Bob OKennon



Steven Russell Smith

Junonia coenia - Common Buckeye

- *Agalinis spp.* (false foxgloves)
- Toadflax (*Linaria spp.*)
- Plantains (*Plantago spp.*)
- Fogfruit (*Phyla nodiflora*)
- *Seymeria spp.*





Anartia jatrophae - White Peacock

- *Bacopa monnieri*
- Fogfruit (*Phyla nodiflora*)
- *Ruellia spp*





Ascia monuste – Great Southern White

- Brassicas
 - *Lepidium virginicum*
- Capers
 - *Quadrella jamaicensis*





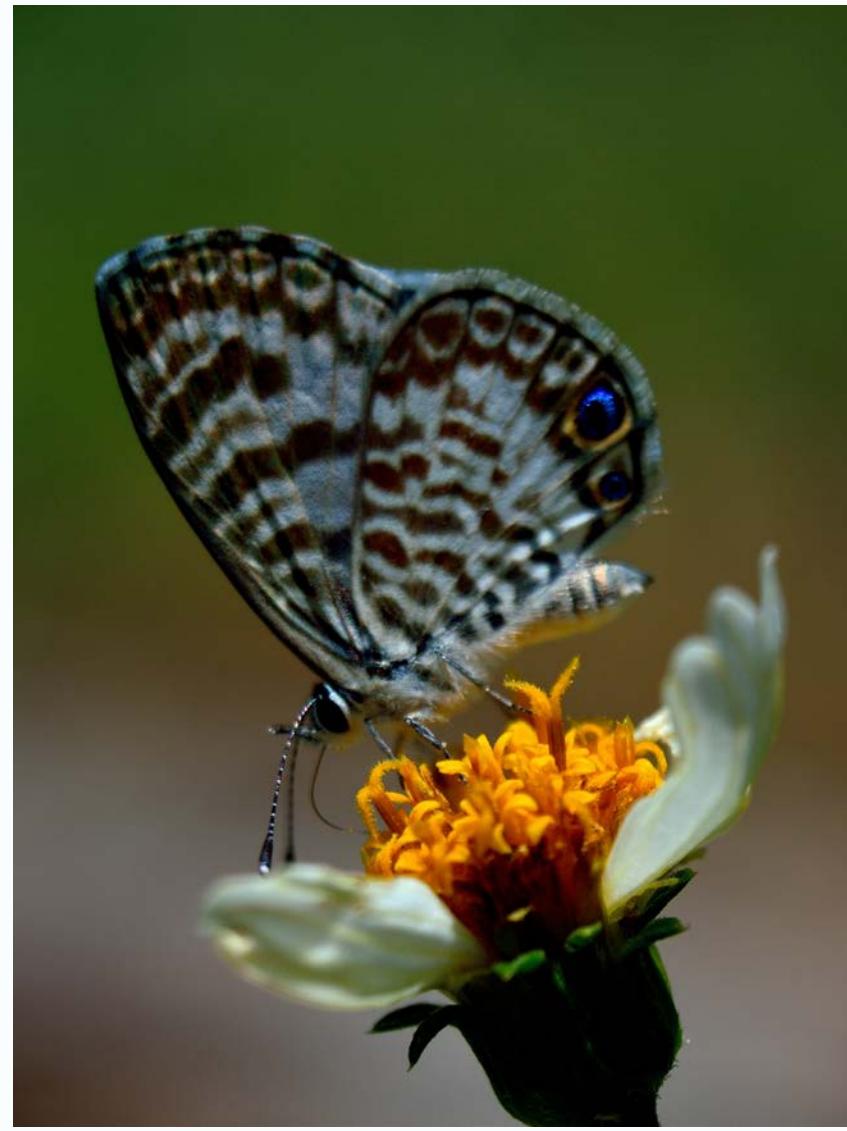
Sulphurs

- *Phoebis philea* - Orange-barred Sulphur
- *Phoebis sennae* - Cloudless Sulphur
- *Pyrisitia lisa* - Little Yellow





Strymon istapa - Mallow |
Scrub Hairstreak | Malvaceae



Leptotes cassius – Cassius Blue

- False tamarind (*Lysiloma latisiliquum*)
- Blackbead (*Pithecellobium spp.*)
- Native plumbago
- Various legumes





Phyciodes tharos – | “Asters”
Pearl Crescent



Nancy Kent

Papilio glaucus – Eastern Tiger Swallowtail

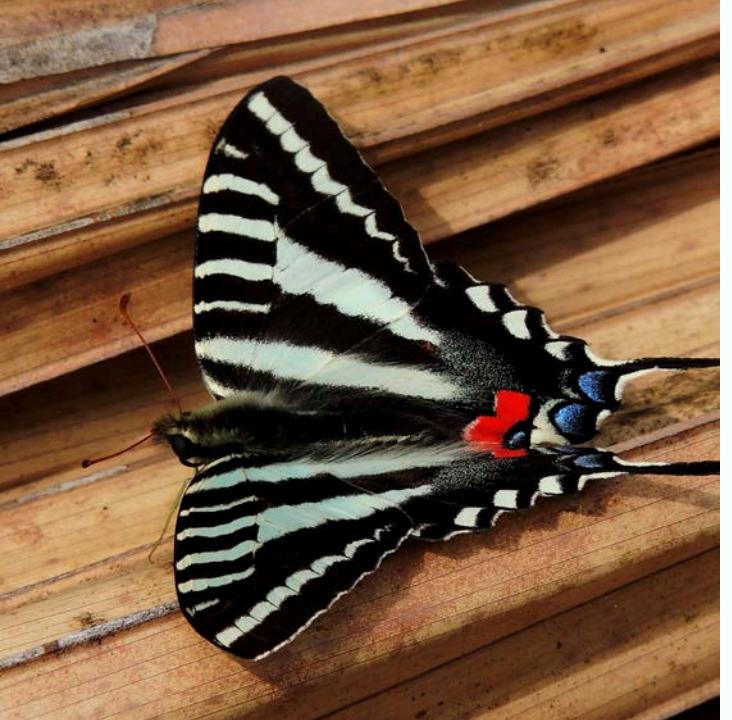
- Sweet Bay (*Magnolia virginiana*)
- Swamp Bay (*Persea palustris*)





Papilio polyxenes asterius - Black Swallowtail

- Carrot family (Apiaceae = Umbelliferae)
- *Tiedemannia filiformis* (water cowbane), *Cicuta maculata* (water hemlock) , *Ptilimnium capillaceum* (Mock bishopsweed)



Eurytides marcellus – Zebra Swallowtail pawpaw

- Pawpaws
- Osmeterium





Papilio palamedes – Palamedes Swallowtail

Red bay (*Persea borbonia*)

Swamp bay (*Persea palustris*)

Laurel wilt disease



Papilio cresphontes – Eastern Giant Swallowtail

- Rutaceae
- *Zanthoxylum clava-herculis* - Hercules-club
- *Zanthoxylum fagara* - Wild lime



Marpesia petreus – Ruddy Daggerwing

- *Ficus aurea*- strangler figs
- Other *Ficus* species



Hesperiidae: Skippers

- Look like a cross between a butterfly and a moth
- Half-folded wings
- Small
- Erratic flight



Urbanus proteus – Long-tailed Skipper

- Vining legumes
- *Desmodium spp.*



Desmodium floridanum
Photo by Roger Hammer



Phocides pigmalion – Mangrove Skipper

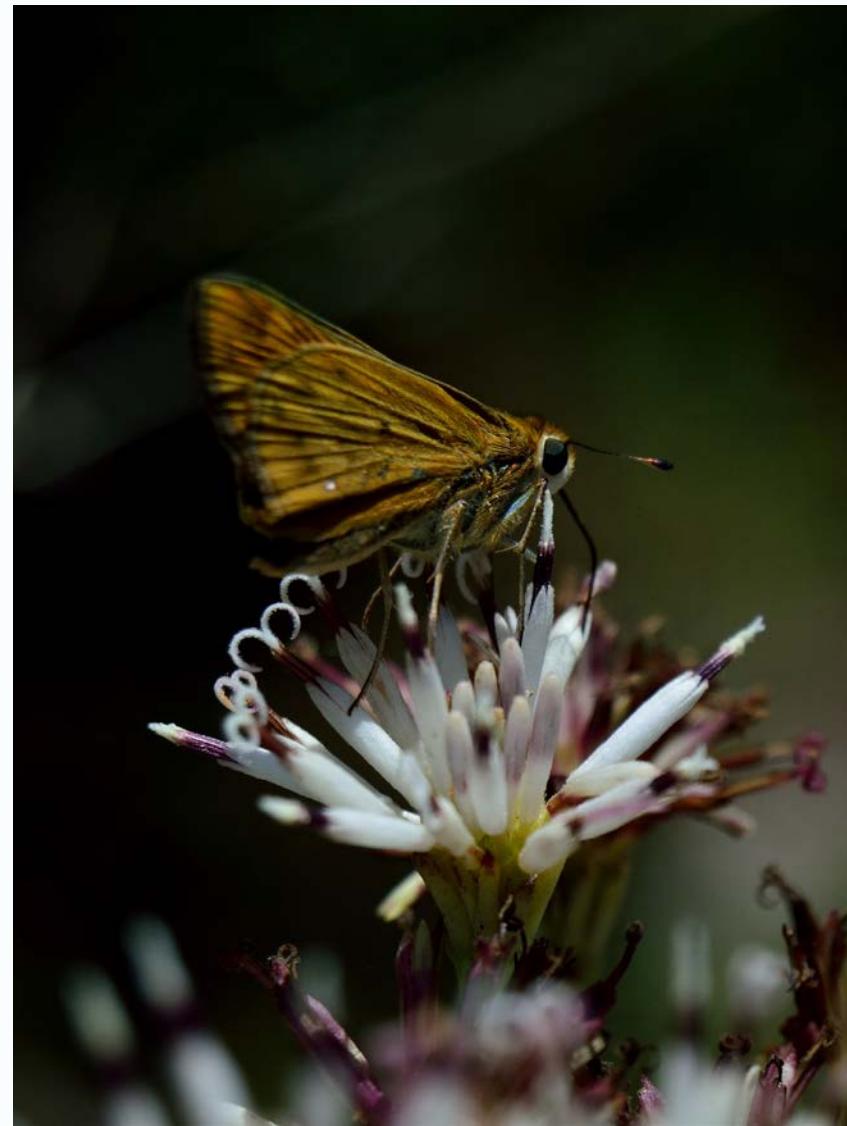
- *Rhizophora mangle*- Red mangrove
- Coastal species





Pyrgus communis – Common Checkered Skipper

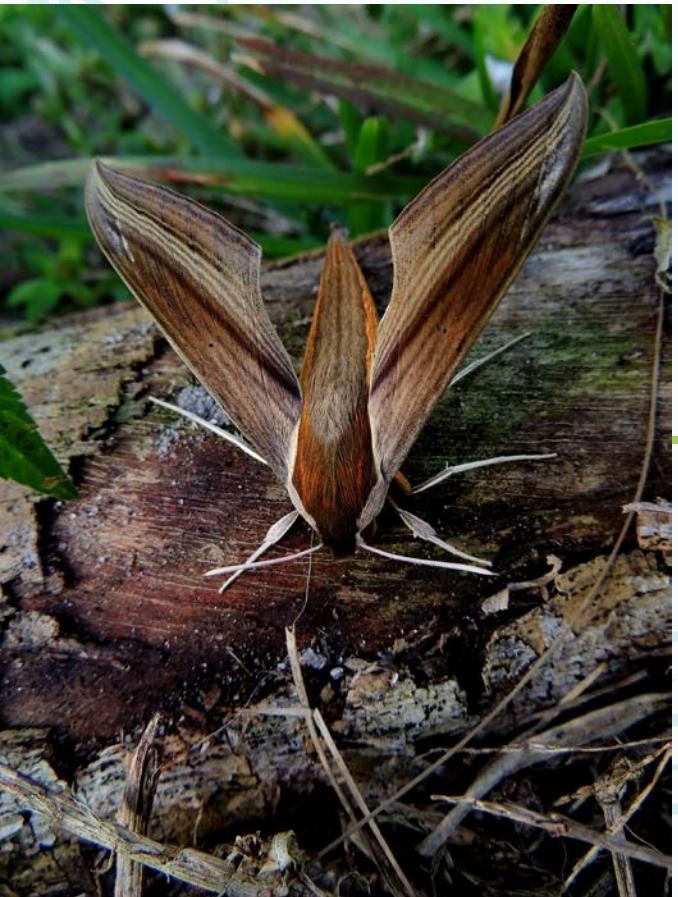
- Mallows
 - *Abutilon permolle*



Hesperiinae- Grass skippers

- Many many species
- Small, brown flying objects
- Grasses are hosts

Sphingidae- sphinx moths



Yurika Alexander





Schinia gaurae – Clouded Crimson

- Beeblossom- *Gaura spp.*



Gary Goss



Xanthopastis regnatrix – Spanish Moth

– Amaryllidaceae





Syngamia florella – Red-waisted Florella Moth

– *Spermacoce spp.*-buttonweed



Pyrausta tyralis – Coffee-loving Pyrausta





Utetheisa ornatrix – Ornate Bella Moth



Crotalaria rotundifolia

Photo by Betty Wargo





Syntomeida epilais – Oleander Moth



Echites umbellatus
Photo and © by Roger Hammer
Wildflowers of the Everglades



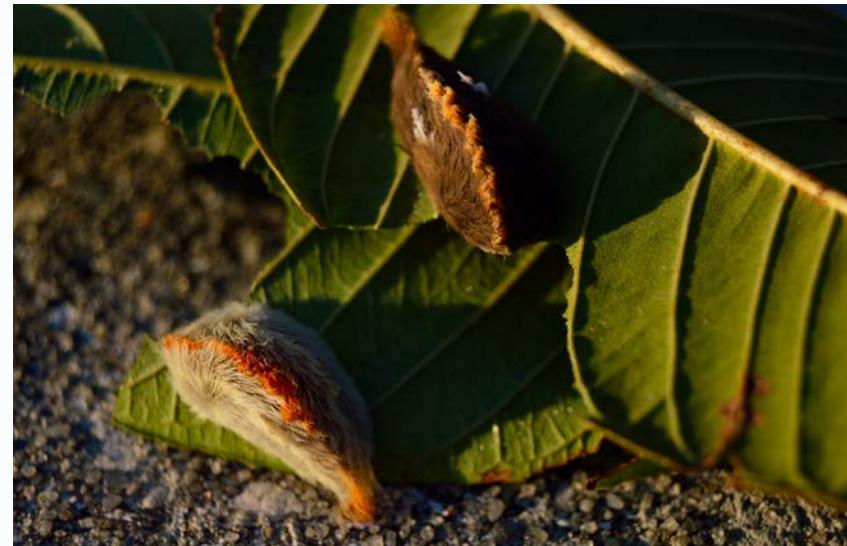
Edward Ruden



Seth Ausubel

Automeris io- Io moth

- Bayberries
- Red mangrove
- Polyphagous
- Venomous spines



Megalopyge oularis- Flannel moth

- Polyphagous
- Oaks
- Elms
- Guava

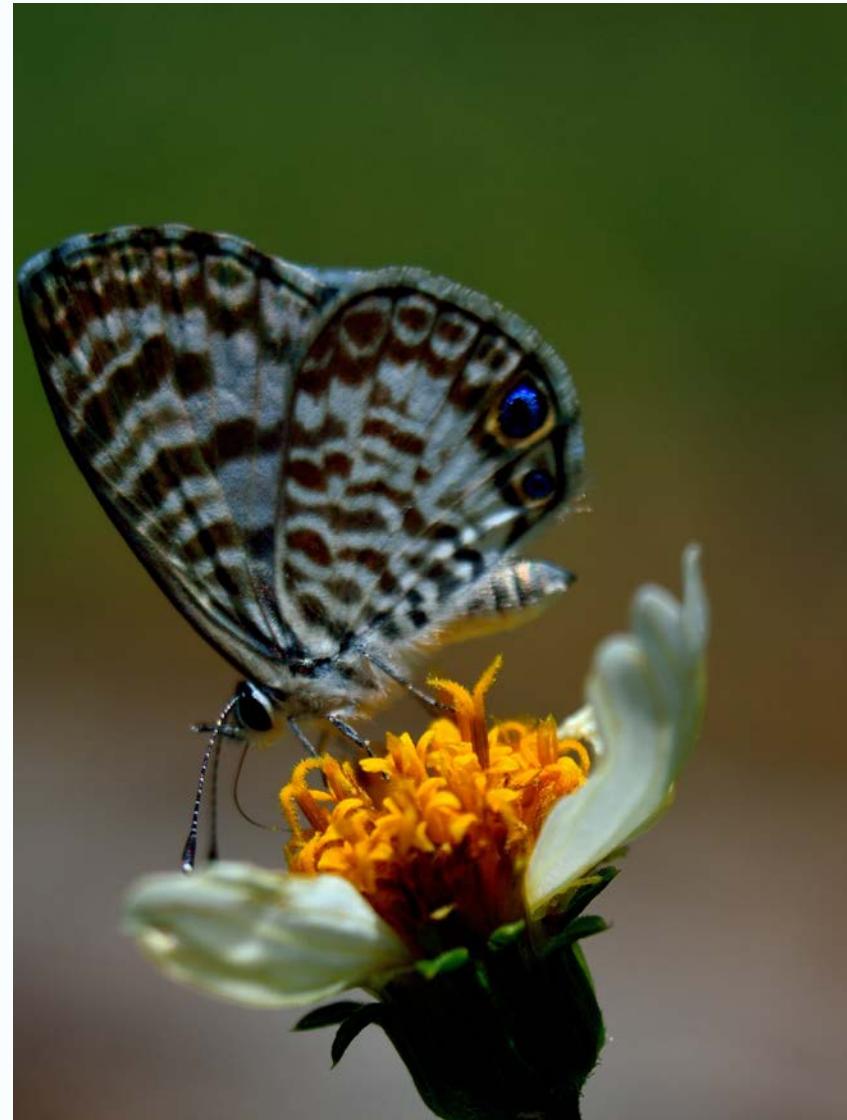


Barbara Thurlow



Acharia stimulea – Saddleback Caterpillar Moth

- Polyphagous
- Oaks
- Grapes
- Etc

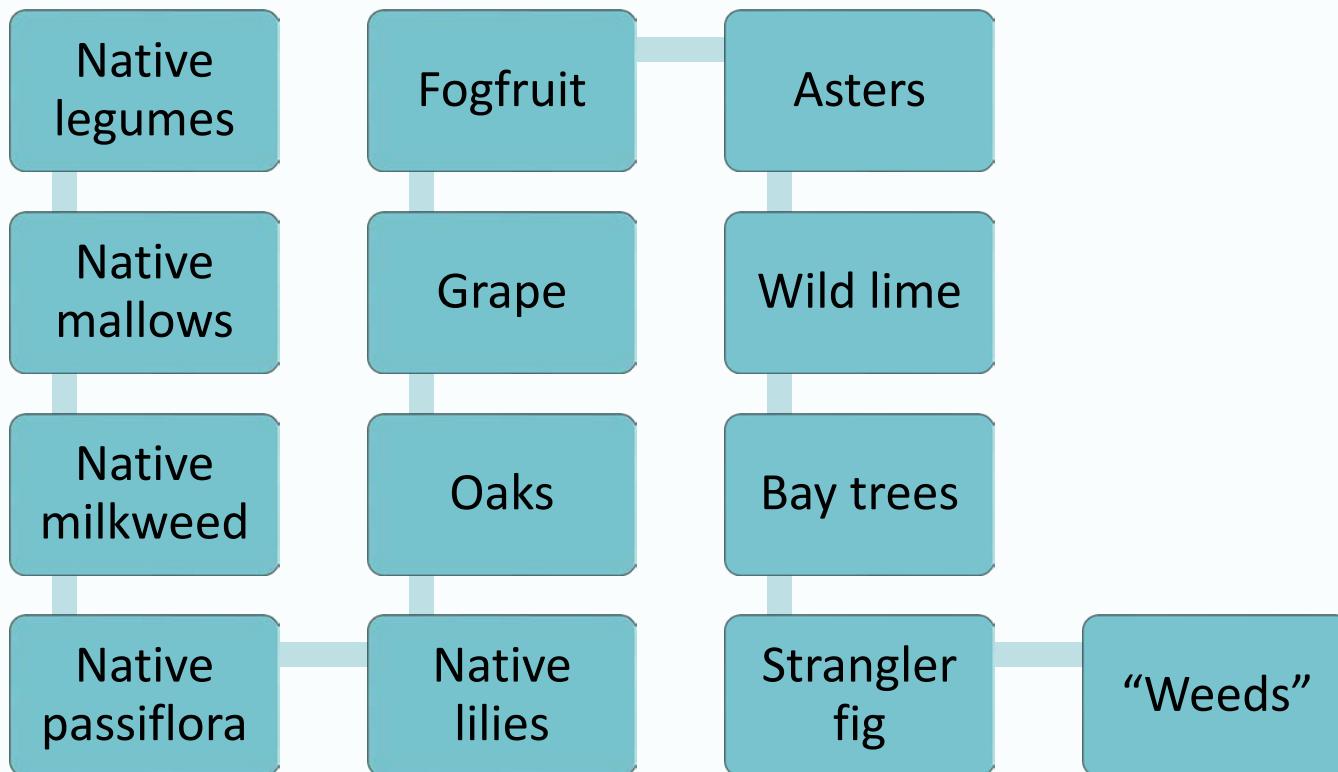


Nectar Plants

- *Bidens alba*
- Native porterweed
- Tropical sage
- Firebush
- Milkweed
- Hibiscus
- Thistle
- Mistflower
- Native wildflowers



Host plants



**Dr. Paul Julian presents ...
Water Quality in the
Everglades**



March 21, 2016 at 7 pm

**Holton Eco-Preserve at
Unitarian Universalist Church**
13411 Shire Lane
Fort Myers, FL 33912
(off Daniels between 6-mi Cypress and I-75)

We will hear about
Everglades Restoration,
including efforts revolving
around Lake Okeechobee,
Caloosahatchee River and
water quality. Dr Julian
explains where we were,
where we are and where we
are going.

* * *

Paul Julian has been with the
Florida Department of
Environmental Protection, Office of
Ecosystem Projects since 2011
where he manages the water
quality team providing technical
and policy support to permitting
and planning efforts surrounding
Everglades Restoration. Dr Julian is
a graduate of FGCU Marine and
Ecological Sciences program (MSc),
University of Florida Soil and Water
Sciences program (PhD) and a
professional wetland scientist with
15 years of experience related to
water quality, wetland and aquatic
ecosystem sciences.



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There will be a lively native plant auction afterward

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