Butterflies & Pollinators: Master Gardeners Can Make a Difference

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Insects and other arthropods represent the most diverse components of terrestrial ecosystems.

> 1 million species accounting for over 80% of all animal life on earth
Pollination Services
Bees are particularly important pollinators

- Collect and transport pollen
- Actively forage in neighboring area around nests
- Exhibit flower constancy
Pollination Services

- Non-bees performed 25–50% of the total number of flower visits.

- Although non-bees were less effective pollinators than bees per flower visit, they made more visits; thus these two factors compensated for each other, resulting in pollination services rendered by non-bees that were similar to those provided by bees.

- These results strongly suggest that non-bee insect pollinators play a significant role in global crop production and respond differently than bees to landscape structure, probably making their crop pollination services more robust to changes in land use.

- Non-bee insects provide a valuable service and provide potential insurance against bee population declines.

Rader et al., 2016. Non-bee insects are important contributors to global crop pollination. PNAS 113: 146-151
Mounting evidence points to substantial losses of pollinators in many regions of the globe, with the strongest evidence coming from Europe and North America.
Florida’s Native Bees

4000 Native bees in North America

Florida is home to roughly 316 species of native bees; about 29 are endemic.
Native Bees

- Most native bees are solitary
- ~70% nest in the ground
- Bumble bees best known eusocial species.
Native Bees

~ 30% nest in hollow plant stems or holes in wood
Brush piles, snags, or artificial nesting materials
Requirements

- Floral resources
- Nesting resources
- Limited pesticides
Provide a mix of flower shapes
Provide a mix of flower colors
Include both larval host plants and adult nectar sources
Provide flowers throughout the growing season
Create horizontal & vertical diversity
Plant in groupings
Include native plants
Chose the right plant for each location
Great Florida Birding and Wildlife Trail

http://floridabirdingtrail.com/
Wings Over Florida
Butterfly Viewing
20 Species

COMMON BUCKEYE (JUNONIA COENIA)

Douglas S. Jones, Director
Florida Museum of Natural History

Nick Willey, Executive Director
Florida Fish and Wildlife Conservation Commission
Wings Over Florida Butterfly Viewing
10 Species - Junior Certificate

Zebra Longwing (Euphyes editha)

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Nick Witting

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Wings Over Florida Butterfly Viewing
20 Species

Butterfly (Eratosthenes claudia)

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40 Species

Cuban Swallowtail (Papilio polyxenes)

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80 Species

Viceroy (Limenitis archippus)

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120 Species

Common Buckeye (Junonia coenia)

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150 Species

Cabbage White (Pieris rapae)

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WINGS OVER FLORIDA - BUTTERFLIES

APPLICATION FORM

RULES

CHECKLIST OF FLORIDA BUTTERFLIES
The critically endangered *Schaus’ Swallowtail* (Heraclides aristodemus ponceanus) is a large, iconic butterfly found in South Florida. Historically, the butterfly inhabited dense upland forests called tropical hardwood hammocks from the greater Miami area south through the Florida Keys. Habitat loss and fragmentation over the past century have led to severe population declines and range reductions.

Today, Schaus’ Swallowtail is restricted to only a few remaining sites in the northern Florida Keys, making it one of the rarest butterflies in the U.S. and our only federally listed swallowtail. Although small numbers occur on Key Largo, the main population resides on islands in Biscayne National Park. Because recent surveys indicate extremely small numbers of butterflies throughout its range, the risk of extinction is thought to be very high. Collaborative conservation and recovery efforts are underway for the Schaus’ Swallowtail. They include regular population monitoring, captive breeding, organism reintroduction, and habitat restoration.

- Download the Libraries of Life app from the iTunes or Android store and install it on your device.
- Launch the app.
- Hold your mobile device camera about 6 inches away from the card image.
- View specimen and click buttons to view content.

The Florida Museum of Natural History is a leading authority in biodiversity and cultural heritage, using its expertise to advance knowledge and solve real-world problems. The Florida Museum inspires people to value the biological richness and cultural heritage of our diverse world and make a positive difference in its future.
# Flowering Plants & Butterflies: Southeast

This publication highlights a selection of native flowering plants that attract butterflies and hummingbirds in the Southeast region of the United States. These plants support a healthy environment and help promote biodiversity and garden health. Below is a guide to some of the plants featured in this section:

## Native Plants

- **Butterfly Silverspot**
- **Orange Sulphur**
- **Vanilla Beeswing**
- **Blue Helenium**
- **Blue Salvia**
- **Flame Pocketbook**
- **Sagebrush Checkerspot**
- **Prairie Birdwing**
- **Alexandria Longwing**
- **Chestnut Tiger**
- **Silver Spotted Skipper**

### Designing Your Garden

To create a butterfly garden:
- Select plants that attract butterflies and other pollinators.
- Choose native plants to support local wildlife.
- Incorporate a variety of flowering times to extend the season.
- Add water sources to provide a habitat for all stages of butterflies.

## Benefits of Native Plants

- **Pollinator Support**: Native plants provide food and habitat for butterflies and other pollinators.
- **Drought Tolerance**: Many native plants are adapted to the local climate and require less water.
- **Attracts Wildlife**: Native plants support a diverse range of wildlife, including butterflies and birds.
- **Enhanced Beauty**: Native plants are naturally adapted to the region and add aesthetic value to the landscape.

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