

A close-up photograph of a butterfly with orange and black wings perched on a pink thistle flower. The butterfly's wings are spread, showing intricate patterns of black lines and spots on an orange background. The thistle flower is in sharp focus, with its numerous small pink florets clearly visible. The background is a soft, out-of-focus green, suggesting a natural outdoor setting.

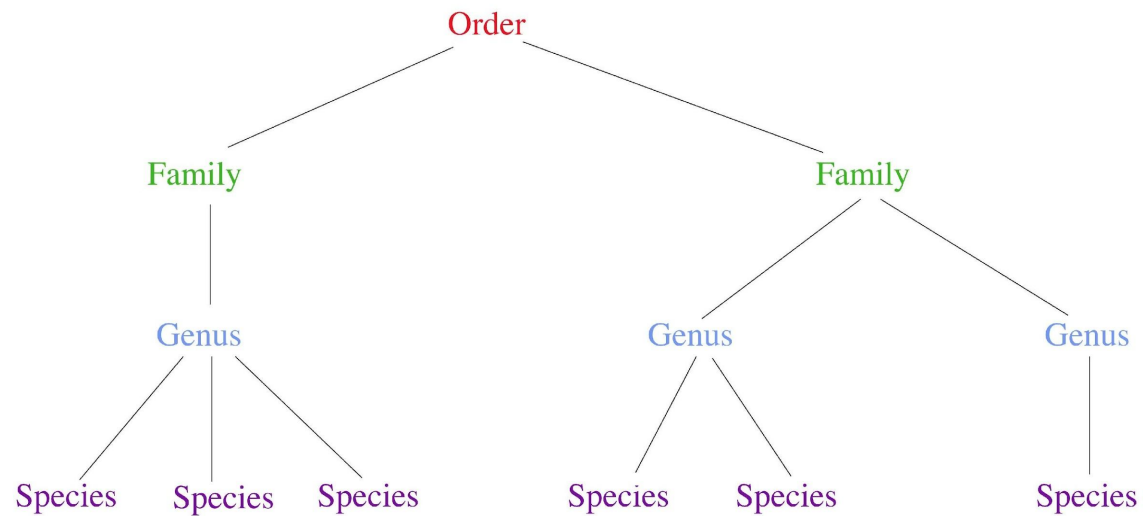
# Beyond the Beginner's Checklist

Now that you've learned the Top 25

# The Linnean hierarchy

- Kingdom
  - Phylum
  - Class
  - Order
  - Family
  - Genus
  - Species
- Ken
  - Put
  - Coffee
  - On
  - Fred's
  - Green
  - Suit

# How the classification works



# Higher order taxonomy of butterflies

Kingdom	Metazoa (animals)
Phylum	Arthropoda (jointed legs)
Class	Hexapoda (insects)
Order	Lepidoptera (butterflies & moths)

# Taxonomy of the Monarch

Family                      Danaidae (milkweed butterflies)

Genus                        Danaus

Species                     plexippus

# Taxonomy of the Monarch

Family	Nymphalidae (brush-footed)
Subfamily	Danainae (milkweed butterflies)
Genus	Danaus
Species	plexippus

# Why it's important

- Reflects the evolution of butterflies
- Proper identification essential for conservation
- Good working knowledge of butterfly families aids identification

We will concentrate on the families  
and certain subfamilies

# Butterfly Families

- Papilionidae  
(Swallowtails)
- Pieridae (Whites & Sulphurs)
- Lycaenidae  
(Gossamer-winged Butterflies)
  - Polyommatae (Blues)
  - Theclinae (Hairstreaks)
  - Lycaeninae (Coppers)
- Nymphalidae  
(Brush-footed Butterflies)
- Hesperiiidae (Skippers)
  - Pyrginae (Spread-winged Skippers)
  - Hesperinae (Grass Skippers)
  - Eudaminae (Dicot Skippers)



# Swallowtails - Papilionidae

- Medium to large butterflies
- Black, yellow or a combination
  - Though on close inspection, Giant Swallowtail is yellow and brown
  - Zebra Swallowtail sometimes looks white
- All species in Illinois and Indiana are tailed

# Swallowtails - Papilionidae

## Regular Members

- Tiger Swallowtail\*
- Black Swallowtail\*

## Migrants

- Giant Swallowtail

## Rare in area

- Pipevine Swallowtail

## Further south or east

- Spicebush Swallowtail\*\*
- Zebra Swallowtail

\*Top 25

\*\*Common in northwest Indiana

# Giant Swallowtail

## *Papilio cresphontes*



- Very Large
- Brown rather than black
- Prominent yellow band diagonally across forewing

# Giant Swallowtail

## *Papilio cresphontes*



- Very Large
- Brown rather than black
- Prominent yellow band diagonally across forewing
- Yellow below

# Pipevine Swallowtail

## *Battus philenor*

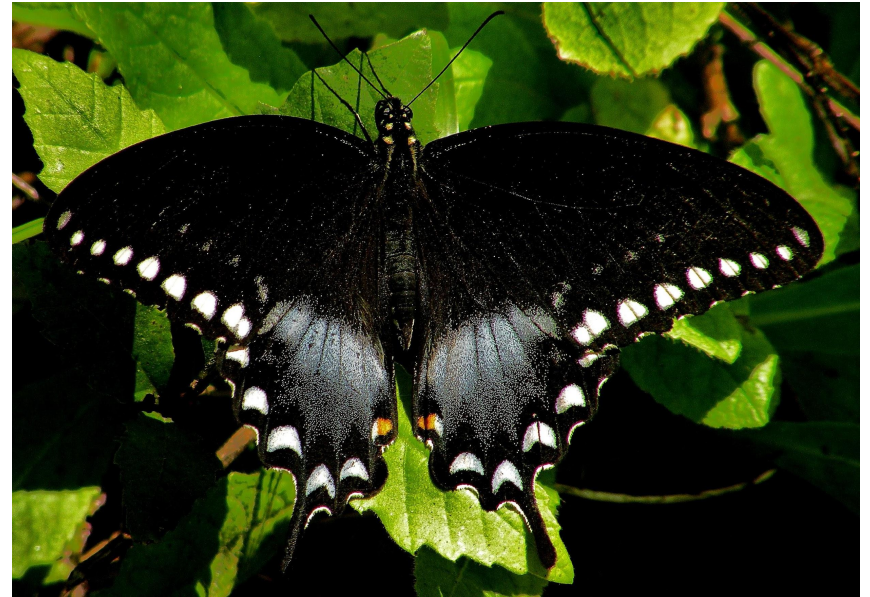


- Common further south
- A couple of savanna populations in Chicagoland
- Periodic irruptive events
- White spots on blue/black background diagnostic
- Blue extends to hindwing margin
- No orange above

# Spicebush Swallowtail

## *Papilio troilus*

- Common further south and in northwest Indiana
- Blue on hindwings less even than Pipevine
- Orange spots visible above



# Pipevine and Spicebush Swallowtails

## Underside differences



Pipevine Swallowtail

One row of orange spots on hind wing



Spicebush Swallowtail

Two rows of orange spots on hind wing

# Zebra Swallowtail

## *Eurytides marcellus*



- Usually further south
- Wing shape very different from Tiger Swallowtail
- Main color white, not yellow
- Spots of hindwing angle are red, not orange
- Tails long, swordlike



# Whites/Sulphurs - Pieridae

- Small to medium sized
- All species in this region are white or yellow
- Many species migrate

# Whites - Pierinae

Abundant

- Cabbage white\*

Uncommon – rare migrant

- Checkered White

Rare, highly

remnant-reliant

- Olympia Marble

Further south or east

- Falcate Orangetip

\*Top 25

# Olympia Marble

## *Euchloe olympia*

- Restricted to sandy habitats
- Flies very early spring
- Associated with dunes in both Illinois and Indiana



# Olympia Marble

## *Euchloe olympia*

- Restricted to sandy habitats
- Flies very early spring
- Associated with dunes in both Illinois and Indiana



# Falcate Orangetip

## *Anthocharis midea*

- Common further south
- Early spring species
- Flies in woodlands
- Orange wingtips unmistakable



# Falcate Orangetip

## *Anthocharis midea*

- Common further south
- Early spring species
- Flies in woodlands
- Orange wingtips unmistakable
- Females lack orange wingtips



# Checkered White

## *Pontia protodice*



- More common further south and west
- Similar to cabbage white

Do **NOT** identify an individual as this species without specifically ruling out Cabbage white and white female common/orange sulphur.

# Checkered White

## *Pontia protodice*



- More common further south and west
- Similar to cabbage white
- Females darker

Do **NOT** identify an individual as this species without specifically ruling out Cabbage white and albino female common/orange sulphur.



# Sulphurs - Coliadae

## Abundant

- Common/Orange Sulphur\*

## Migrants

- Little Yellow
- Dogface
- Cloudless Sulphur
- Dwarf Sulphur

\*Top 25

# Little Yellow

## *Eurema lisa*

- More frequent further south
- Host plant Partridge Pea
- Has boom years
- About half the size of a Common/Orange Sulphur



# Southern Dogface

## *Zerene cesonia*



- Annual numbers highly variable
- Host plant is leadplant
- May be increasing regionally

# Cloudless Sulphur

## *Phoebis sennae*



- Host plants sennas
- Largest local sulphur
- More common south of here
  - A “top 25” species from central IL southward
- Usually observed in flight

# Dainty Sulphur

## *Nathalis iole*



- Tiny – the size of a blue
- More common along Mississippi and Illinois Rivers

# Gossamer Winged Butterflies - Lycaenidae

- Small
- Three groups: hairstreaks, coppers, blues
- The Harvester is also in this group

# Harvester

## *Feniseca tarquinius*



- Uncommon
- Larvae carnivorous
  - Eats wooly aphids
  - Alder, ash, beech
- Adults feed on honeydew, dung, damp soil
- Seems to prefer areas near water
- Below reddish brown with lots of white circles
- Orange/black above

# Hairstreaks - Theclinae

## Woodland Species

- Banded Hairstreak
- Edward's Hairstreak
- Striped Hairstreak

## Wetland/Prairie Species

- Acadian Hairstreak
- Coral Hairstreak

## Migrants

- Gray Hairstreak

## Very rare species

- Hoary Elfin

## Just outside of our area

- Hickory Hairstreak
- Henry's Elfin
- Juniper Hairstreak
- White-M Hairstreak

\*Top 25



# Banded Hairstreak

## *Satyrium calanus*



- Commonest woodland hairstreak
- White band on ventral forewing is key
- Band may be a single dotted line or a series of rectangles

# Edward's Hairstreak

## *Satyrium edwardsii*



- Uncommon species
- White band on ventral forewing is key
- Band is a series of white-ringed ovals
- Specifically exclude Banded Hairstreak
- Ants!



Band



Ovals

# Striped Hairstreak

## *Satyrium edwardsii*



- Less common species
- Multiple parallel white lines on underside
- Host plants are hawthorns

# Acadian Hairstreak

## *Satyrium acadica*



- A species of wetlands
- Grayer than most other hairstreaks
- White-ringed black circles diagnostic
- Host plants are willows
- Can be found in drier settings with lots of Prairie Willow

# Coral Hairstreak

## *Satyrium titus*



- A prairie species
- Host plants include American Plum
- Tailless
- Row of coral-red spots on outer margin of hindwing

# Gray Hairstreak

## *Strymon melinus*



- More common later in the season
- Often found in disturbed areas
- Sometimes basks with wings open
- Black dot in red spot on hindwing

# Hoary Elfin

## *Callophrys polios*



- State Endangered
- Host plant bearberry
- Only at Illinois Beach
- Not present in apparently suitable habitat in Indiana
- Sight only records will not be accepted other than from IBSP



# Blues - Polyommatae

## Widespread Species

- Spring/Summer Azure\*
- Eastern Tailed Blue\*

## Very rare species

- Karner Blue
- Silvery Blue

## Rare Migrants

- Marine Blue
- Reakirt's Blue

\*Top 25

# Karner Blue

## *Lyciades melissa samuelis*



- Federally Endangered
- Host plant wild lupine
- Only in Northwest Indiana
- Exclude Eastern Tailed Blue
- Could appear at Illinois Beach
- Sight only records will not be accepted from Illinois

# Silvery Blue

## *Glaucopsyche lygdamus*

- May be extirpated from Illinois
- Last known from northern tier of counties
- Round white-rimmed black spots diagnostic
- A savanna species



# Marine Blue

## *Leptotes marina*

- Typically further south and west
- Infrequent small irruptions
- Exclude other blues before calling this species



# Marine Blue

## *Leptotes marina*



- Typically further south and west
- Infrequent small irruptions
- Exclude other blues before calling this species
- Red/metallic blue spot at edge of hindwing

# Reakirt's Blue

## *Glaucopsyche lygdamus*

- Very infrequent in Illinois
- Can turn up anywhere
- Combines metallic blue/red hindwing spot with round, black, white-rimmed spots.



# Coppers - Lycaeninae

## Widespread Species

- American Copper

## Rare Prairie Species

- Gray Copper

## Wetland species

- Bronze Copper
- Purplish Copper

# American Copper – *Lycaena phlaeas*



- Non-native
- Host plant sheep sorrel
- Orange-red with black above- two-toned
- Forewings below orange, sharp gray border
- Hindwings below gray





# Purplish Copper – *Lycaena helloides*

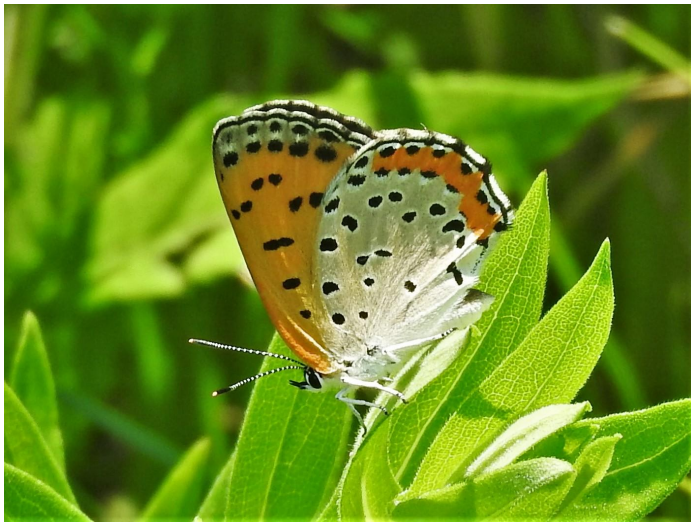


- Now rare
- Above not two toned
- Forewings below orange, diffuse gray border
- Hindwings below gray
- Eliminate American Copper for identification

# Bronze Copper – *Lycaena thoe*



- Wetlands
- Wide red marginal band on hindwings
- Hindwings below nearly white
- Larger than American and Purplish Coppers



# Gray Copper – *Lycaena dione*



- Rare prairie/wet prairie species
- Above gray
- Below grayish white
- Hindwings below gray
- Thin red postmarginal zigzag below, thicker above



# Brush-footed Butterflies - Nymphalidae

- Largest family
- Mostly medium sized
- Divide and Conquer- we use a number of informal groupings

# Nymphalidae

## Informal subdivisions

### Admirals

- Viceroy\*
- Red Spotted Purple\*

### Angle Wings

- Question Mark\*
- Comma\*
- Gray Comma

### Emperors

- Hackberry Emperor
- Tawny Emperor

### Checkerspots

- Baltimore Checkerspot
- Silvery Checkerspot
- Gorgon Checkerspot

### Crescents

- Pearl Crescent\*

### Ladies & Allies

- Painted Lady\*
- American Lady\*
- Red Admiral\*
- Mourning Cloak\*
- Milbert's Tortoiseshell

### Fritillaries

#### Greater Fritillaries

- Great Spangled Fritillary\*
- Aphrodite
- Regal Fritillary
- Variegated Fritillary

#### Lesser Fritillaries

- Silver Bordered Fritillary
- Meadow Fritillary

### Buckeyes

- Buckeye\*

\*Top 25

# Nymphalidae

## Informal subdivisions

### Satyrs

- Little Wood Satyr\*
- Eyed Brown\*
- Appalachian Brown
- Pearly Eye\*
- Wood Nymph\*

\*Top 25

# Appalachian Brown – *Satyrodes appalachia*

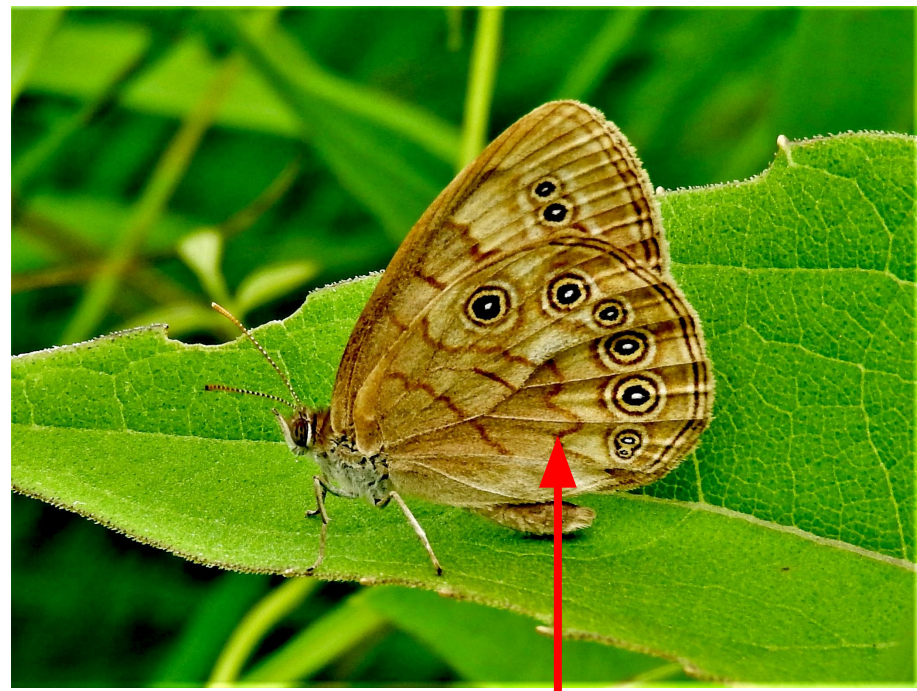


- Uncommon savanna species
- Closely resembles the Eyed Brown
- Line on hindwing is less jagged than Eyed Brown
- Best separated by habitat
- Unidentified Appalachian/Eyed Brown can be used

# Appalachian and Eyed Browns



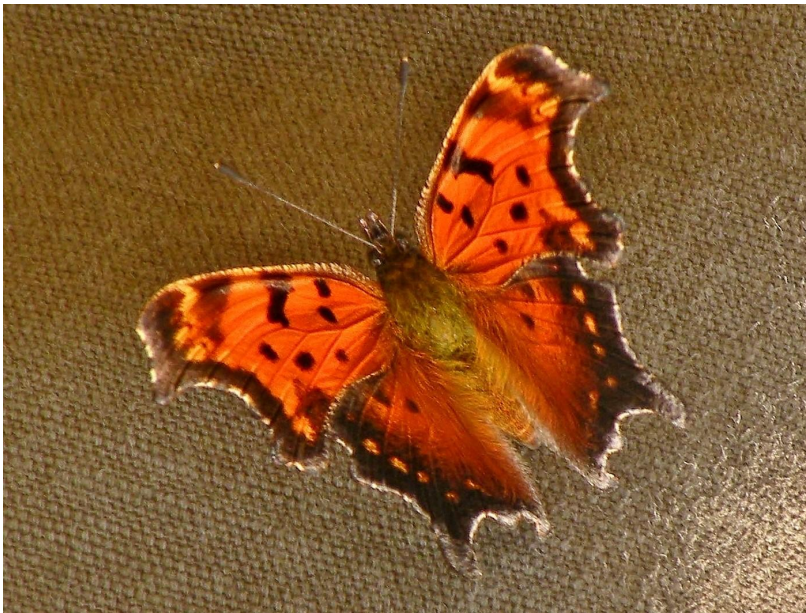
Gently sinuous line



Sharply wavy line



# Gray Comma – *Polygonia progne*



- Uncommon savanna species
- Wing margins more jagged than other local anglewings
- Only 2 spots on hindwing
- In our region, not terribly gray
- Silver marking tapered like a boomerang

# Gray Comma – *Polygonia progne*



- Uncommon savanna species
- Wing margins more jagged than other local anglewings
- Only 2 spots on hindwing
- In our region, not terribly gray
- Silver marking tapered like a boomerang

# Gray Comma/Eastern Comma



Two Spots



>2 Spots

# Angling “Punctuation Marks”



Question  
Mark

2 Pieces



Eastern  
Comma

Hooked Ends



Gray  
Comma

Tapered

# Emperors

- Medium Size
- Two Species:
  - Hackberry Emperor
  - Tawny Emperor

# Hackberry Emperor

## *Asterocampa celtis*

- Fairly common- almost a Top 25
- Brown with spots- like a satyr
- White apical spots, prominent submarginal FW spot diagnostic



# Hackberry Emperor

## *Asterocampa celtis*

- Fairly common- almost a Top 25
- Brown with spots- like a satyr
- White apical spots, prominent submarginal FW spot diagnostic
- Blue-pupiled eyespots below



# Tawny Emperor

## *Asterocampa celtis*

- Much less common than Hackberry Emperor
- Redder than Hackberry Emperor
- No white spots above





# Tawny Emperor

## *Asterocampa celtis*

- Much less common than Hackberry Emperor
- Redder than Hackberry Emperor
- No white spots above



# Checkerspots

- Medium Size
- Three Species:
  - Baltimore
  - Silvery
  - Gorgone

# Baltimore Checkerspot

## *Euphydryas phaeton*

- Uncommon fen species
- Unmistakable
- Requires turtlehead or mullein foxglove



# Silvery Checkerspot

## *Chlosyne phaeton*



- A species from moist woodlands
- Host plants composites
  - Wingstem
  - Golden Glow
- Can be confused with Pearl Crescent
  - Larger
  - Look for doughnuts

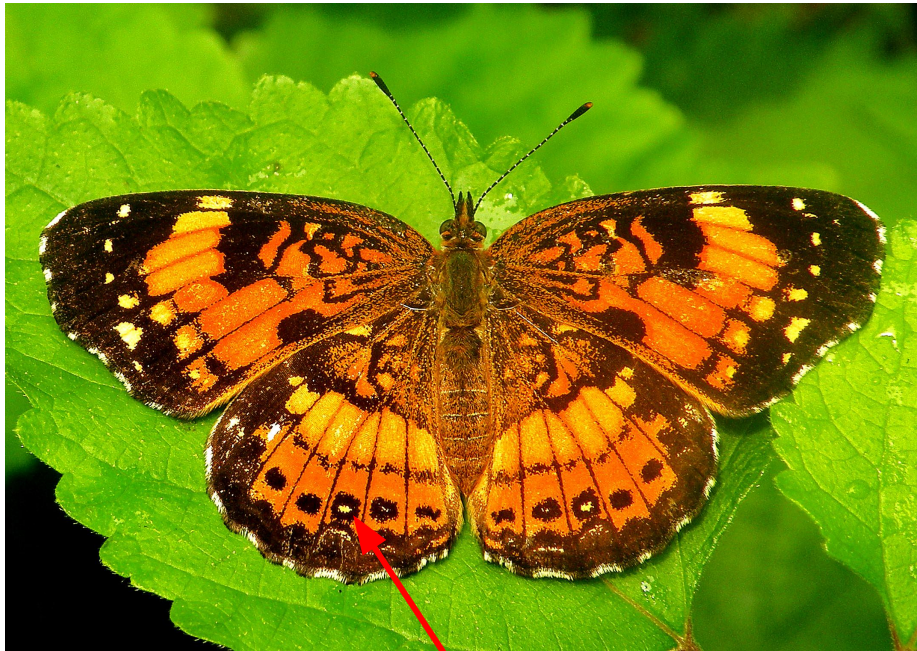
# Silvery Checkerspot

## *Chlosyne phaeton*



- A species from moist woodlands
- Host plants composites
  - Wingstem
  - Golden Glow
- Can be confused with Pearl Crescent
  - Larger
  - Look for doughnuts

# Silvery Checkerspot/Pearl Crescent



“Doughnuts”



Solid Spots

# Gorgone Checkerspot

## *Chlosyne gorgone*



- A species from dry prairies
- Host plants composites
  - Stiff Sunflower
  - Purple Coneflower
- Can be confused with Pearl Crescent
  - Larger
  - Checkered wing fringes

# Gorgone Checkerspot

## *Chlosyne gorgone*



- A species from dry prairies
- Host plants composites
  - Stiff Sunflower
  - Purple Coneflower
- Can be confused with Pearl Crescent
  - Larger
  - Arrowhead pattern ventrally



# Greater Fritillaries

- Large (Monarch Size)
- Host plants are violets
- Three Resident Species:
  - Great Spangled Fritillary\*
  - Aphrodite
  - Regal Fritillary
- One Migrant Species
  - Variegated Fritillary

\*Top 25

# Great Spangled Fritillary

## *Speyeria cybele*



- A widespread species
- Wings show prominent central dark
- Black markings thicker on upperside

# Great Spangled Fritillary

## *Speyeria cybele*



- A widespread species
- Wings show prominent central dark
- Black markings thicker on upperside

# Aphrodite

## *Speyeria aphrodite*



- A species from large mesic prairie remnants
- Wings show less prominent central dark area than Great Spangled
- Black markings on upper side thinner

# Aphrodite

## *Speyeria aphrodite*

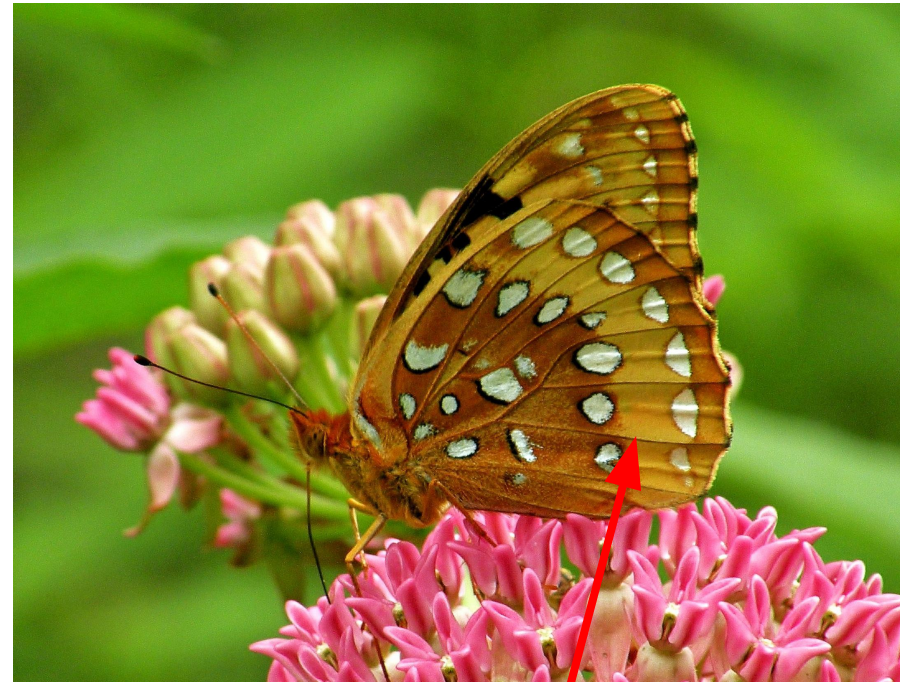


- A species from large mesic prairie remnants
- Wings show less prominent central dark area than Great Spangled
- Black markings on upper side thinner

# Aphrodite and Great Spangled



Narrower dark band



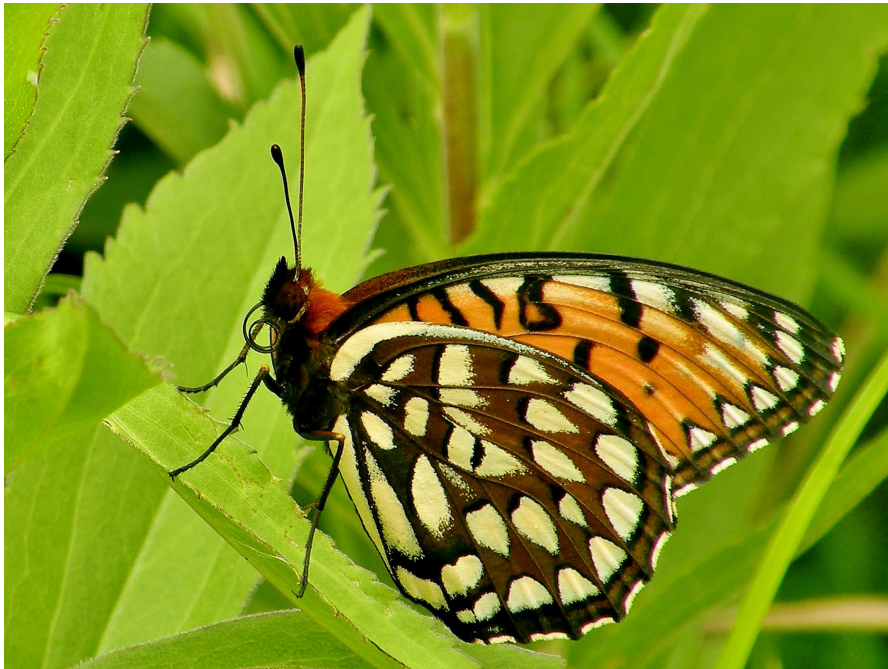
Wider light band

# Regal Fritillary – *Speyeria idalia*



- State threatened
- A species from large mesic to dry prairie remnants
- White spotting on both upper and under side

# Regal Fritillary – *Speyeria idalia*



- State threatened
- A species from large mesic to dry prairie remnants
- White spotting on both upper and under side
- Spots below white rather than silvery



# Lesser Fritillaries

- Medium sized (Buckeye Size)
- Host plants are violets
- Two Resident Species:
  - Silver-bordered Fritillary
  - Meadow Fritillary

# Silver-bordered Fritillary

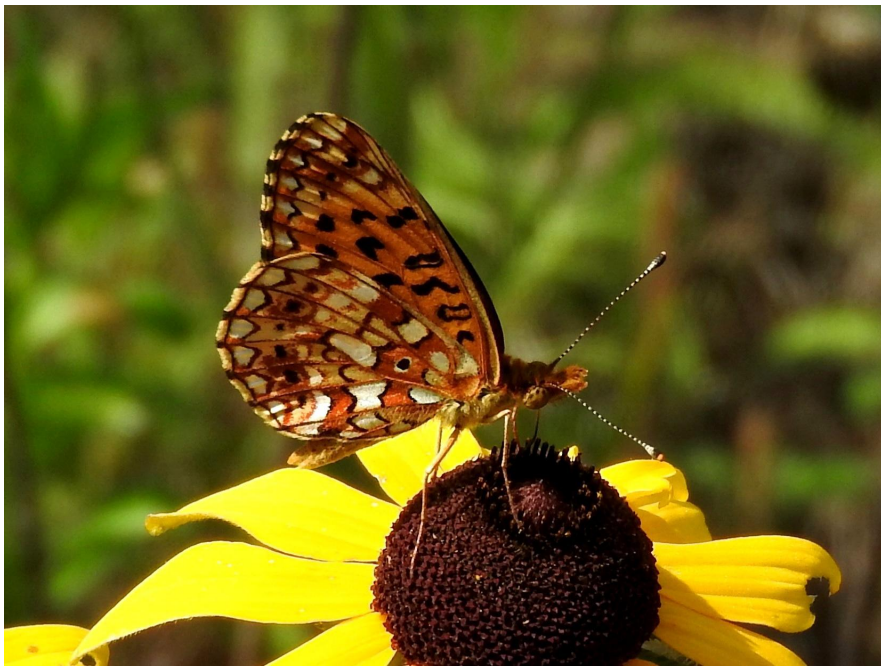
## *Boloria selene*



- A species from larger wet prairie remnants
- Several generations annually

# Silver-bordered Fritillary

## *Boloria selene*



- A species from larger wet prairie remnants
- Several generations annually
- Underside has silvery spots similar to the greater fritillaries

# Meadow Fritillary

## *Boloria bellona*



- A species from mesic prairies
- Can be found in some degraded areas
- Several generations annually
- Unusual shape at apex of the forewing

# Meadow Fritillary

## *Boloria bellona*



- A species from mesic prairies
- Can be found in some degraded areas
- Several generations annually
- Unusual shape at apex of the forewing
- Underside does not have silver spotting

# Variegated Fritillary

## *Euptoieta claudia*



- Migrates in form further south each year
- Can turn up just about anywhere
- Numbers vary annually
- Inner portions of wings darker than outer
- Prominent squarish yellow spot in orange area

# Snout Butterflies

- Medium sized (slightly smaller than red admiral)
- Host plants are hackberries
- Only about a dozen species worldwide

# Snout Butterfly

## *Libytheana carinenta*



- Migrates in form further south each year
- Can turn up just about anywhere
- Numbers vary annually
- Characteristic wing shape
- Long labial palps look like a long nose



# Snout Butterfly

## *Libytheana carinenta*



- Migrates in form further south each year
- Can turn up just about anywhere
- Numbers vary annually
- Characteristic wing shape
- Long labial palps look like a long nose