

Pollinator Steward Certification



A PROGRAM OF
POLLINATOR PARTNERSHIP

Module 3: Butterflies and Other Pollinators

Tuesday, February 20, 2024

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Land Acknowledgment

The land where I live and work is in Sò mba k'è, Denendeh (Yellowknife, Northwest Territories, Canada) located in Chief Drygeese territory, traditional land of the Yellowknives Dene First Nation.



Housekeeping:

- Recordings will be shared by the following week, and be available until December 31st, 2023
- Closed captioning is available – enable in your controls.
- Please put questions in the Q&A box; UPVOTE questions you like!
- Questions for panelists will be answered at the end of the session.
- Contact stewards@pollinator.org for registration issues, questions, etc.
- Engage in respect and kindness with each other in the chat.
- We suggest that you write down in point form or 1-2 sentences the key takeaways from each training while you are attending live.
- **Tonight – Award for favorite question!**



Course Information Page:

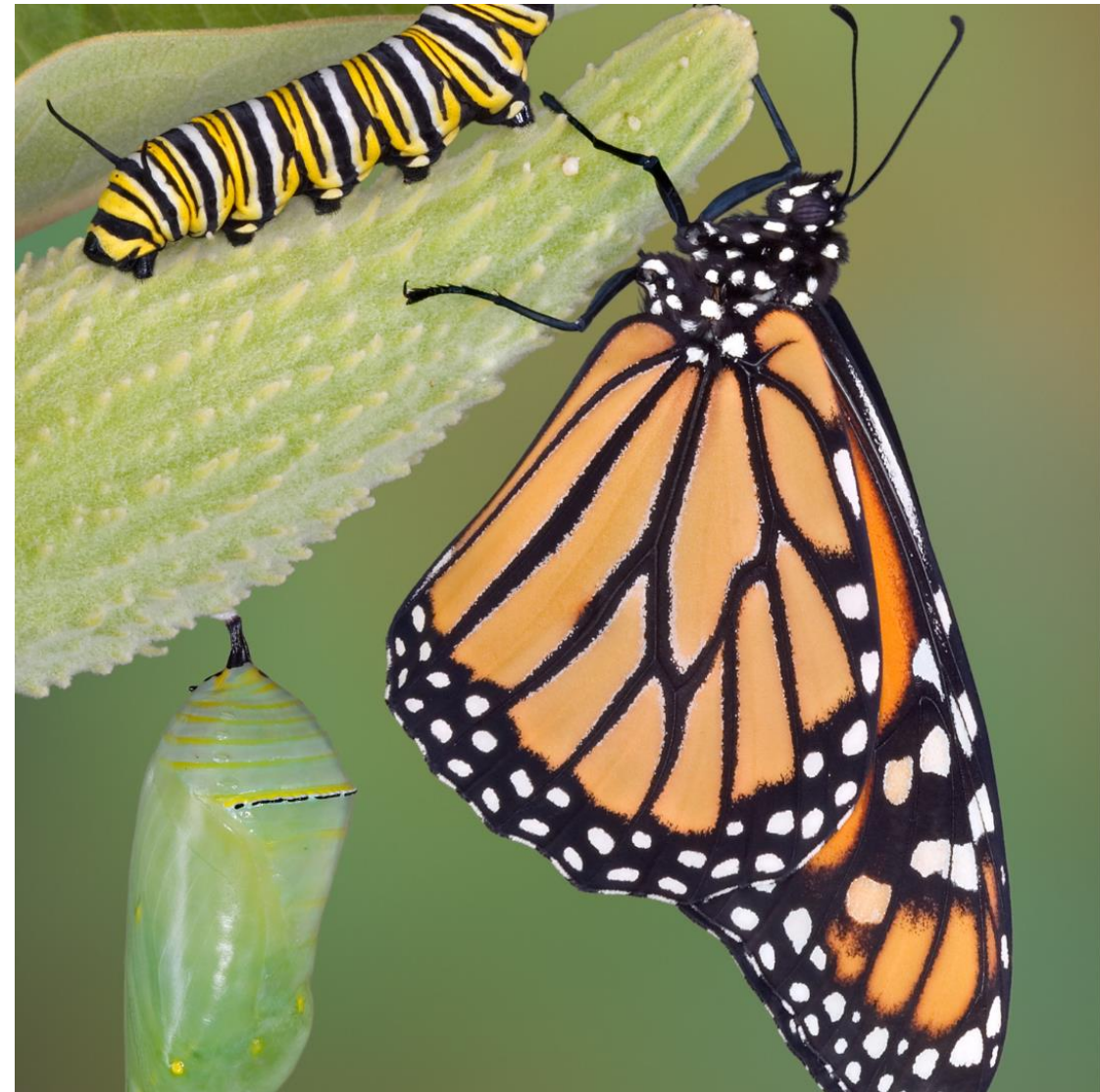
The Course Information page will be your homebase for module recordings, updates, and program resources. Login to the Course Information page using the following username and password:

website: <https://www.pollinator.org/psc/course-info>

username: PollinatorSteward

password: psc2024

Please do not share the username and password as this page is only for registered participants of the 2024 Pollinator Steward Certification program.



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Meet Your PSC Guest Speakers!



Steve Sass
Indiana Nature LLC



Amanda Smith
Indiana Nature LLC

Who are the Pollinators?

- Beetles
- Flies (syrphid flies, bee flies)
- Moths
- Butterflies
- Birds
- Ants
- Mammals
- Reptiles



Artwork by Fiorella Ikeue

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Coleoptera – Beetles

- Nearly 350,000 known species worldwide
- One of the first pollinators
- Over 9000 species in Canada; 30,000 in US
- The sub-family Dasytinae are commonly found on flowers
- Congregational feeding
- Economically important pollinated species include cultivars of *Frugaria* species and *Melilotus* species
- Suffer from bad press and lack of known relationships



Diptera – Flies

- 125,000 described species globally
- Two wings instead of four – a more evolved flight
- Not as temperature or distance sensitive as bees
- Often mimic bees and wasps in their coloration
- Bad smell on a flower? It's for the flies!



Photo by Anthony Colangelo

Aves – Birds

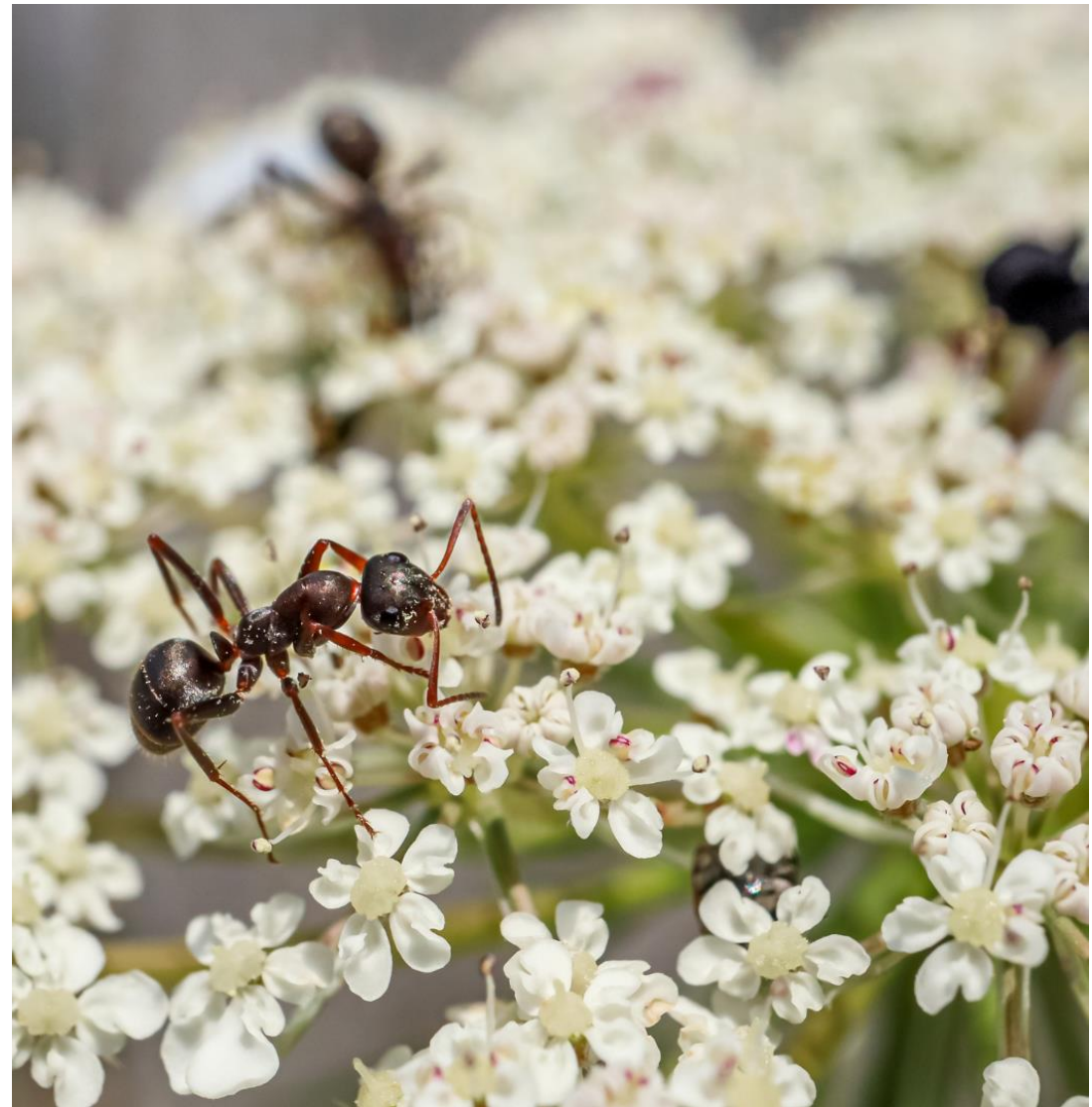
- Roughly 2,000 species of pollinating birds worldwide
- Bird pollination occurs in over 500 genera of plants
- Increased paternal diversity
- Select plants with tube/cup/funnel flower shapes native to your region.
- Red, yellow, orange, are extremely appealing colors.



Photo by Anthony Colangelo

Formicidae – Ants

- Only about 12,000 species known globally
- Help with pollination? Not really...
- Help with plant reproduction? Yes!
- They aren't built for pollination
- Soil tilling, seed transport, scarification



Mammalia – Bats

- Nectar-feeding bats
- 500 plants species benefit from bat pollination
- 48 species of bats are known pollinators
- 2 migratory species in US; none in Canada
- Choose native plants with large, pale/white, fragrant flowers, that open at night



Mammalia – Honey Possums and Lemurs!

Photo: Honey Possum by Bo Janmaat, courtesy of iNaturalist Australia (CC BY-NC 4.0)



Photo: Black-and-White Ruffed Lemur, ©Thierry Cordenos, courtesy of iNaturalist (CC BY-NC 4.0)



Squamata – Lizards?

- Primary pollinators on oceanic island
- Carry pollen on their snouts
- Research points to an underestimation of their pollinating benefits
- Also help in seed dispersal, much like ants
- None in North America



Blue-Tailed Day Gecko, by Klaus Bohn courtesy of iNaturalist (CC BY-NC 4.0)

To most people, the word "pollinator" suggests bees. And though most of the world's nearly 20,000 species of bees are champion pollinators, many other animals make the reproduction of flowering plants possible. The flower offers the animal a floral reward—usually nectar or pollen—and the animal inadvertently moves the pollen within a flower or from flower to flower. This often unseen and generally underappreciated ecosystem service is responsible for the reproduction of nearly 80% of all flowering plants and brings us an estimated 1 out of every 3 bites of food we consume. You live in A World of Pollinators. Conserve and celebrate them!



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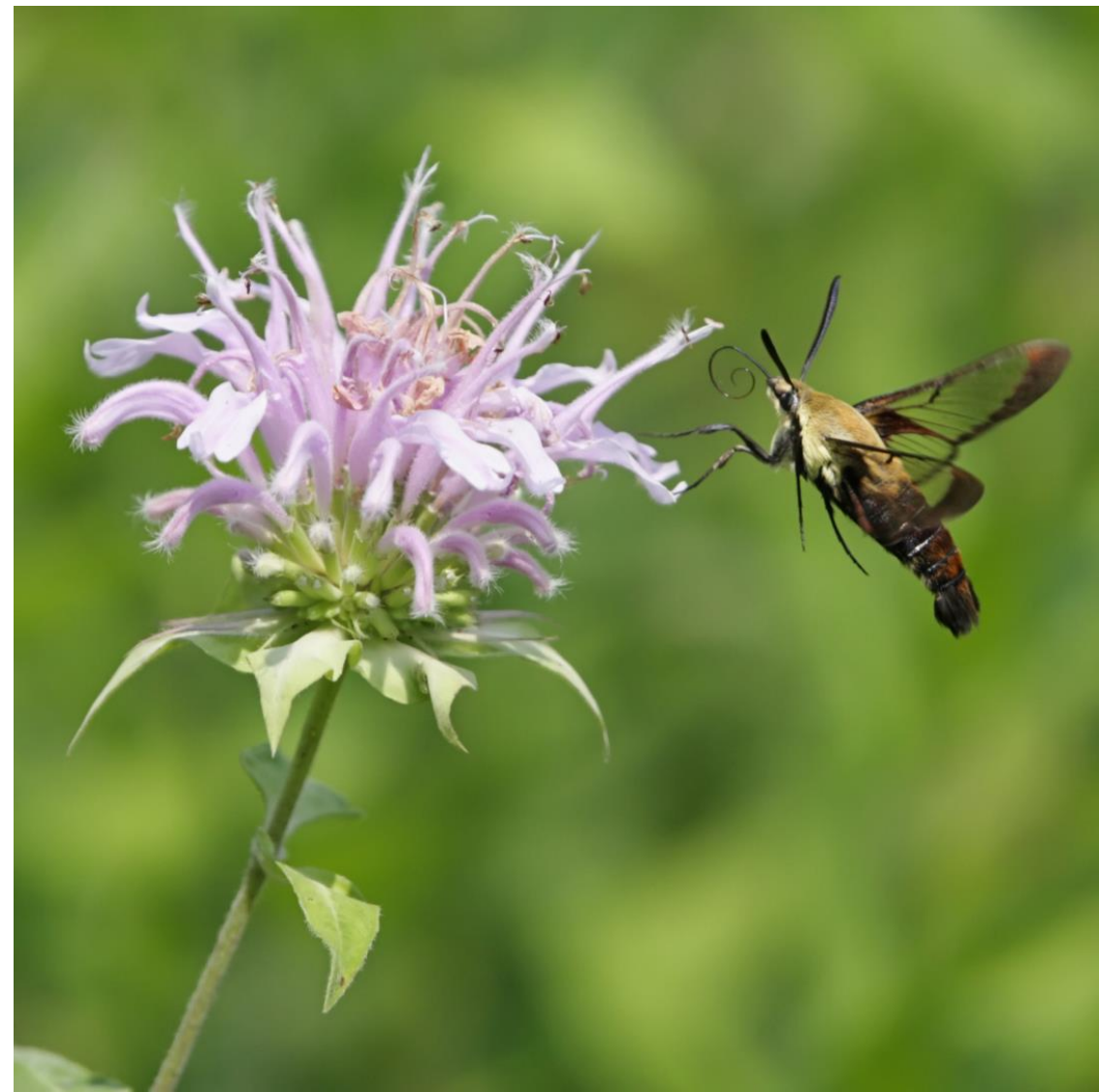


Lepidoptera – Moths and Butterflies



Wrap Up and Next Session:

- Recordings and resources will be shared on the Course Information page by next week.
- Tuesday, February 27th, 4 pm PST/7pm EST
 - Module 4: Creating Habitat for Pollinators Overview
 - Use the same Zoom link that you used today to join future modules. Zoom will also send a reminder email with the link one hour before each module.



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