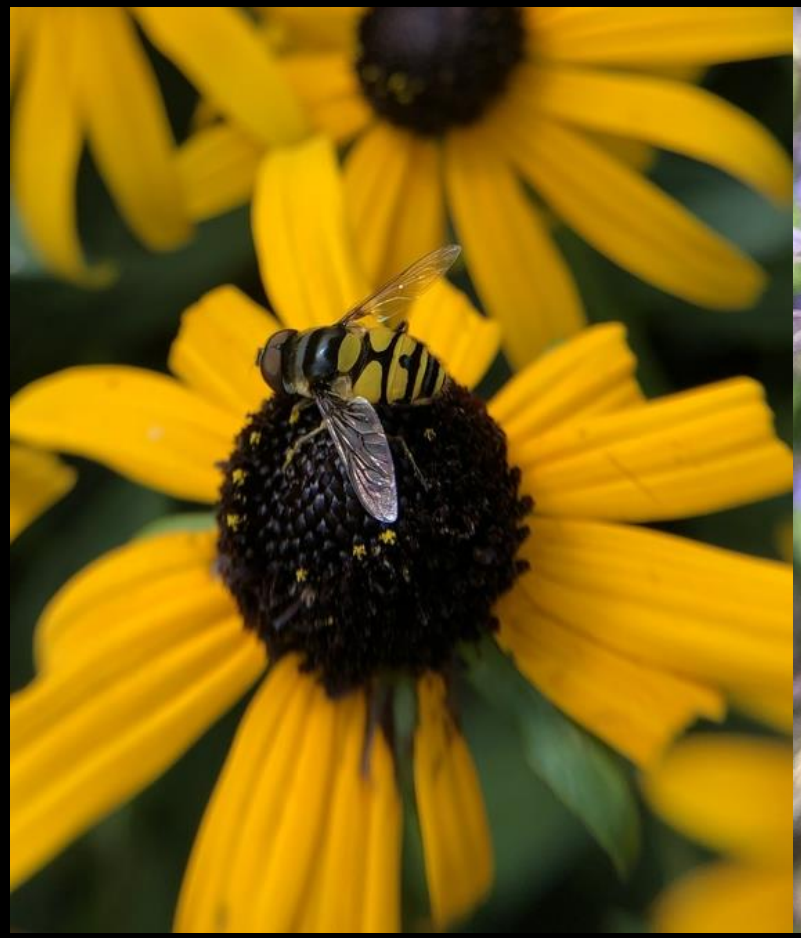
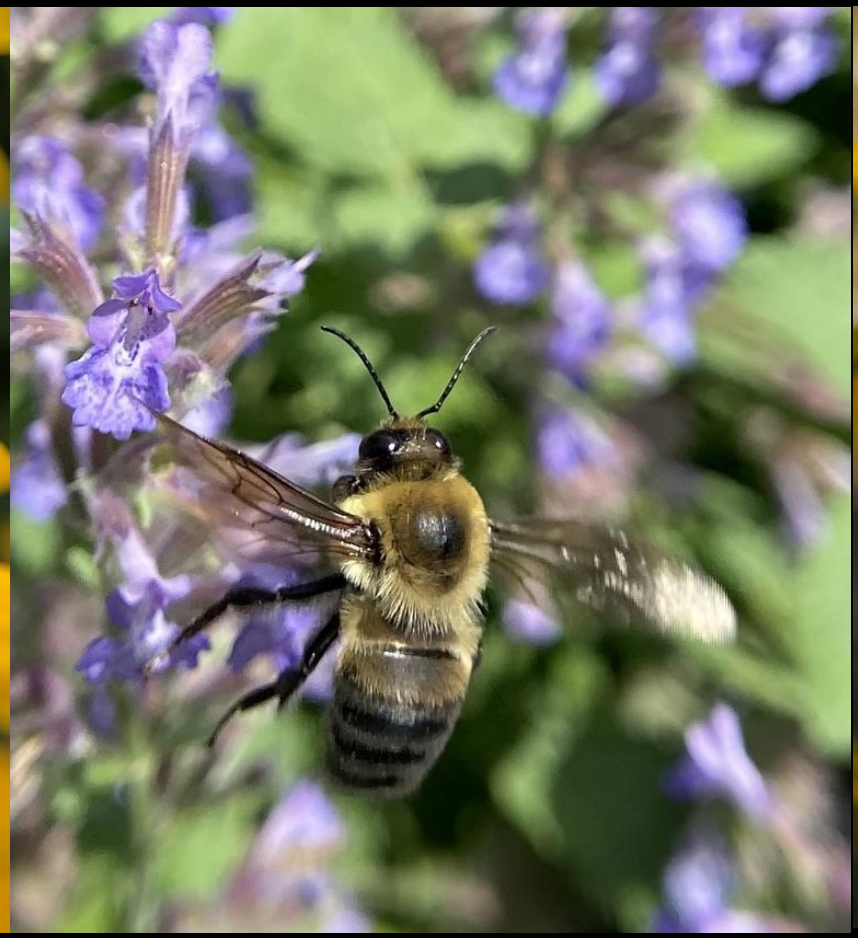
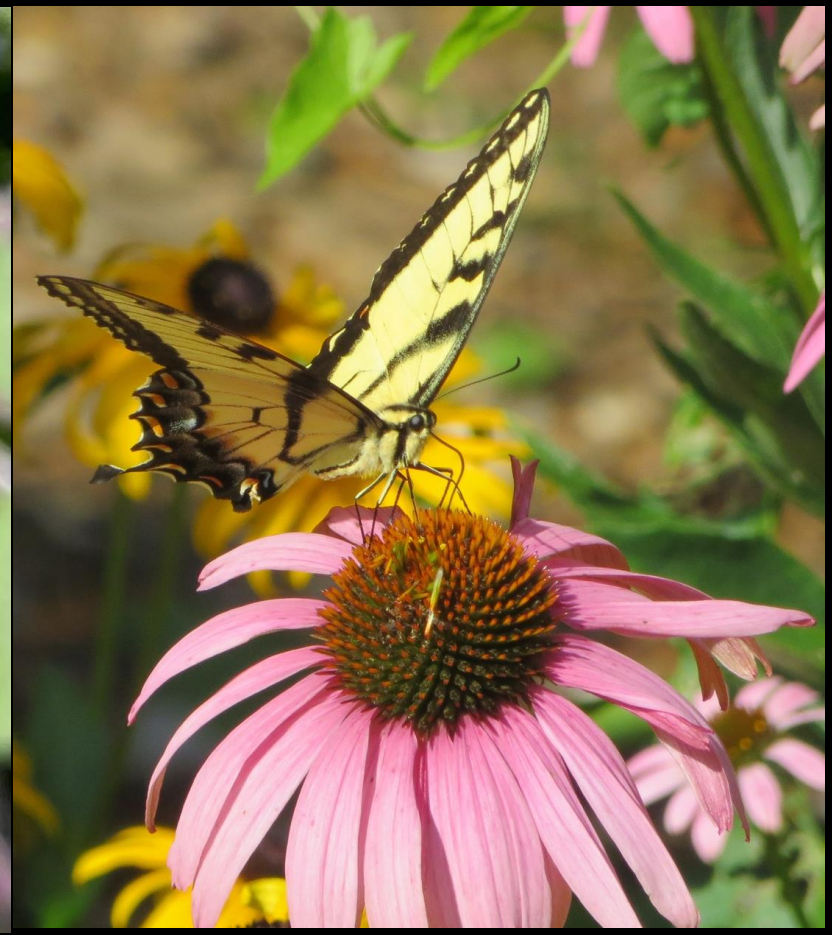
Meet Our Insect Pollinators







Introduction

Insect pollinators are vital animals that allow many types of flowering plants, including crops, to reproduce, producing fruit and seeds. Unfortunately, many are in decline.

The Town has planted multiple pollinator gardens in our parks and as you explore this slideshow of photos taken in these gardens you will see an amazing diversity of the pollinators found there. They include bees, butterflies, moths, wasps, flies and beetles.

At the end of the slideshow there are tips and resources to learn about how you can protect pollinators and learn more about them. We encourage everyone to visit a local park or your own yard to look for these important and beautiful creatures that live alongside us!

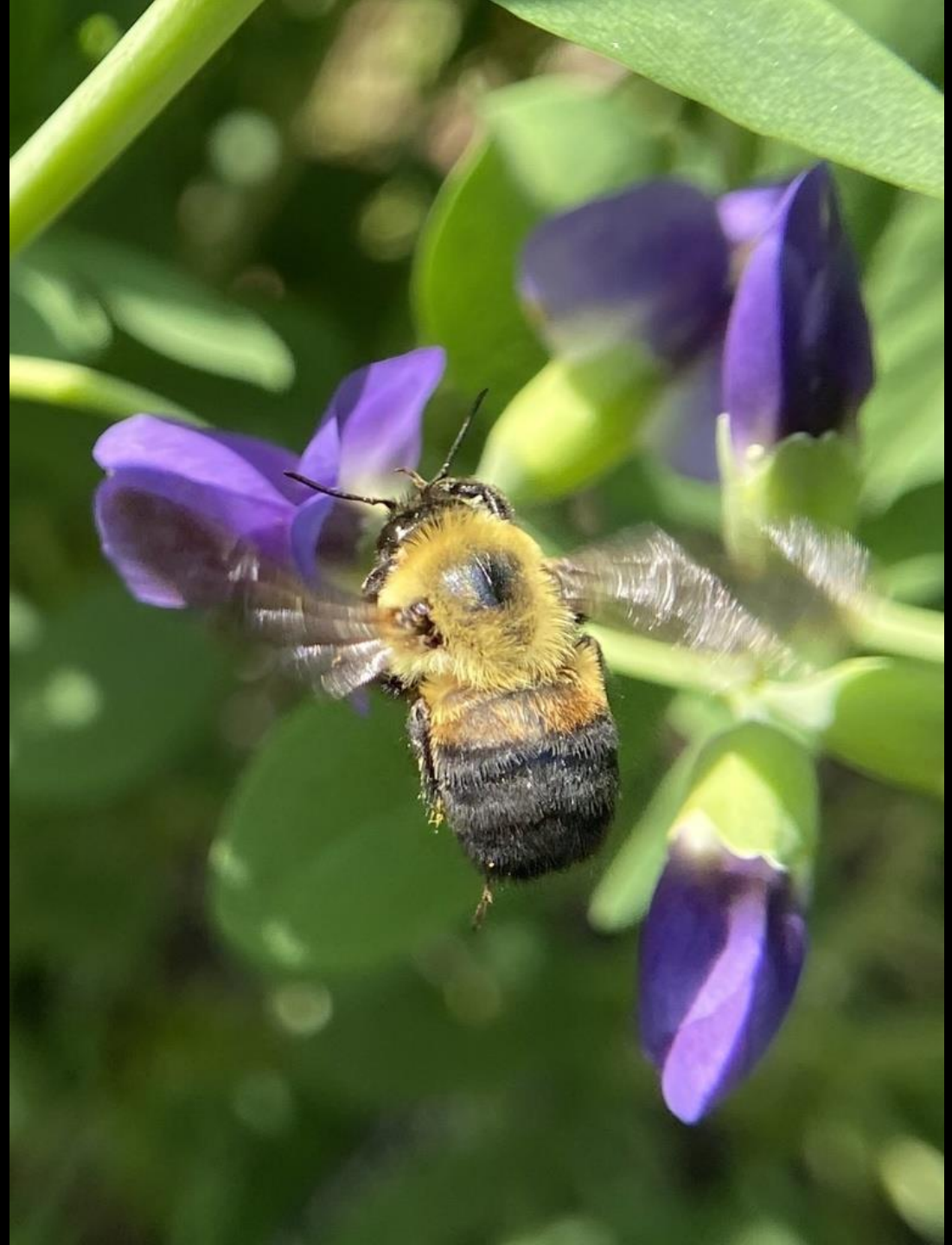
Bees and Wasps (Order Hymenoptera)

Bees are known as the most important pollinators since females actively collect pollen to feed their larvae. They have hairs or pollen collecting structures which make them very effective at transferring pollen from plant to plant. Bumble bees (and non-native European honeybees) live in communal nests, but more that 90% of all bee species in North America are solitary species where the female constructs and provisions her own nest without help.

Many adult wasps are also pollinators that mostly visit flowers for nectar. Wasps are wrongly criticized due to a reputation for being aggressive, but they are adept hunters that keep insect populations in check because they feed them to their larvae. Wasps are not hairy and do not actively collect pollen, like bees, so they are minor pollinators. However, there are some specialist wasps that pollinate plants like orchids and figs.

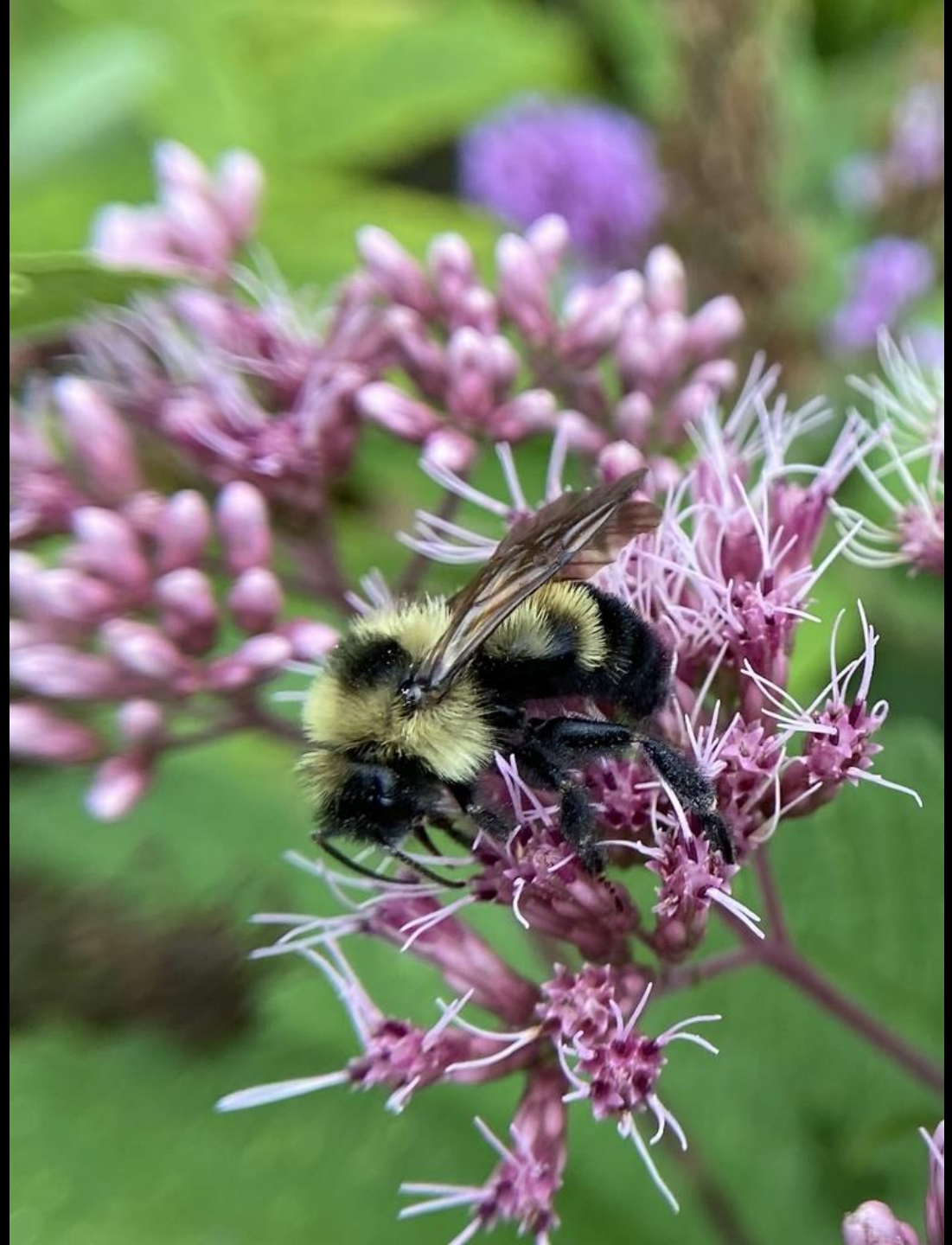
Common Eastern Bumble Bee (*Bombus impatiens*)

Brown Belted Bumble Bee
(*Bombus griseocollis*)



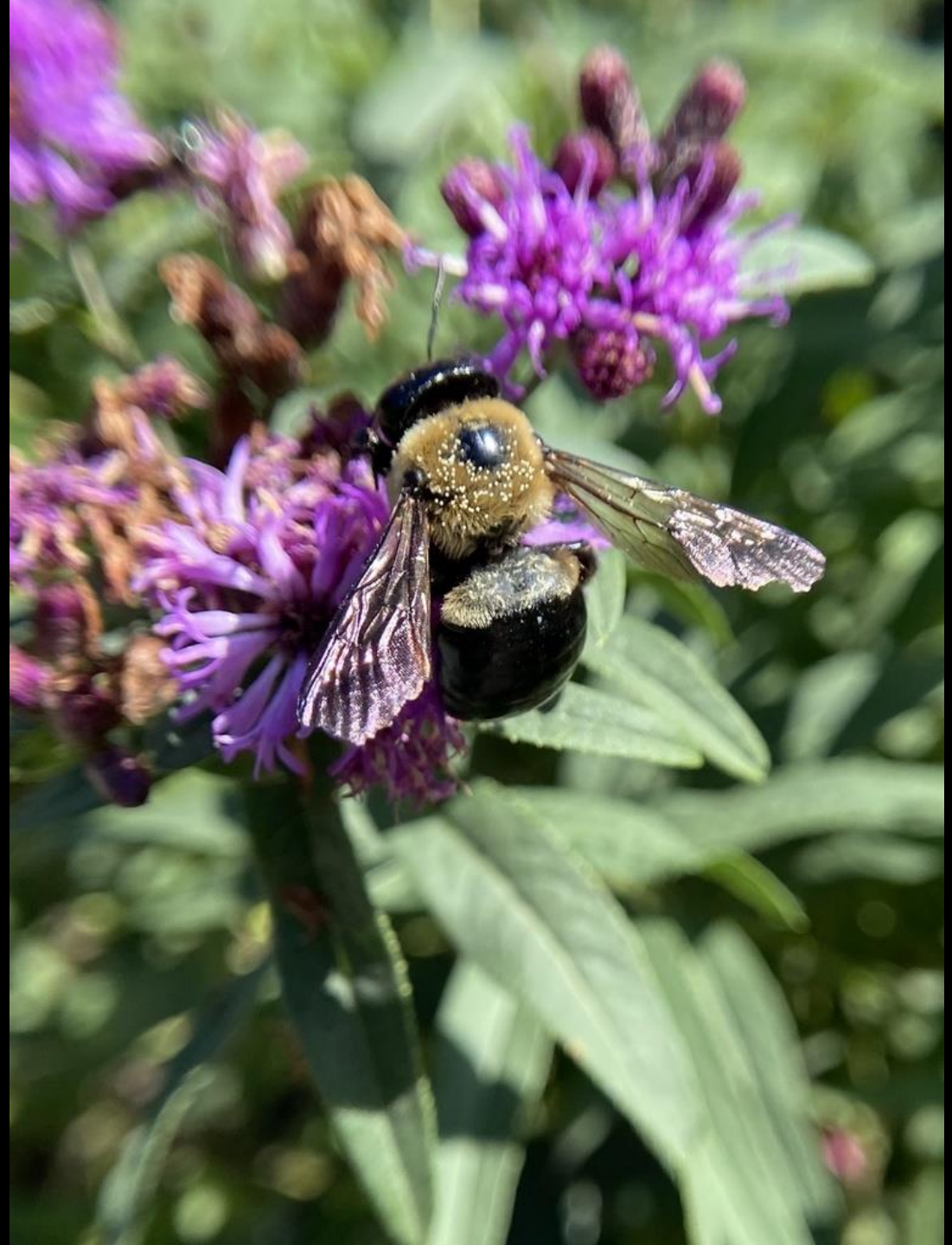
Perplexing Bumble Bee
(*Bombus perplexus*)

Lemon Cuckoo Bumble Bee (*Bombus citrinus*)

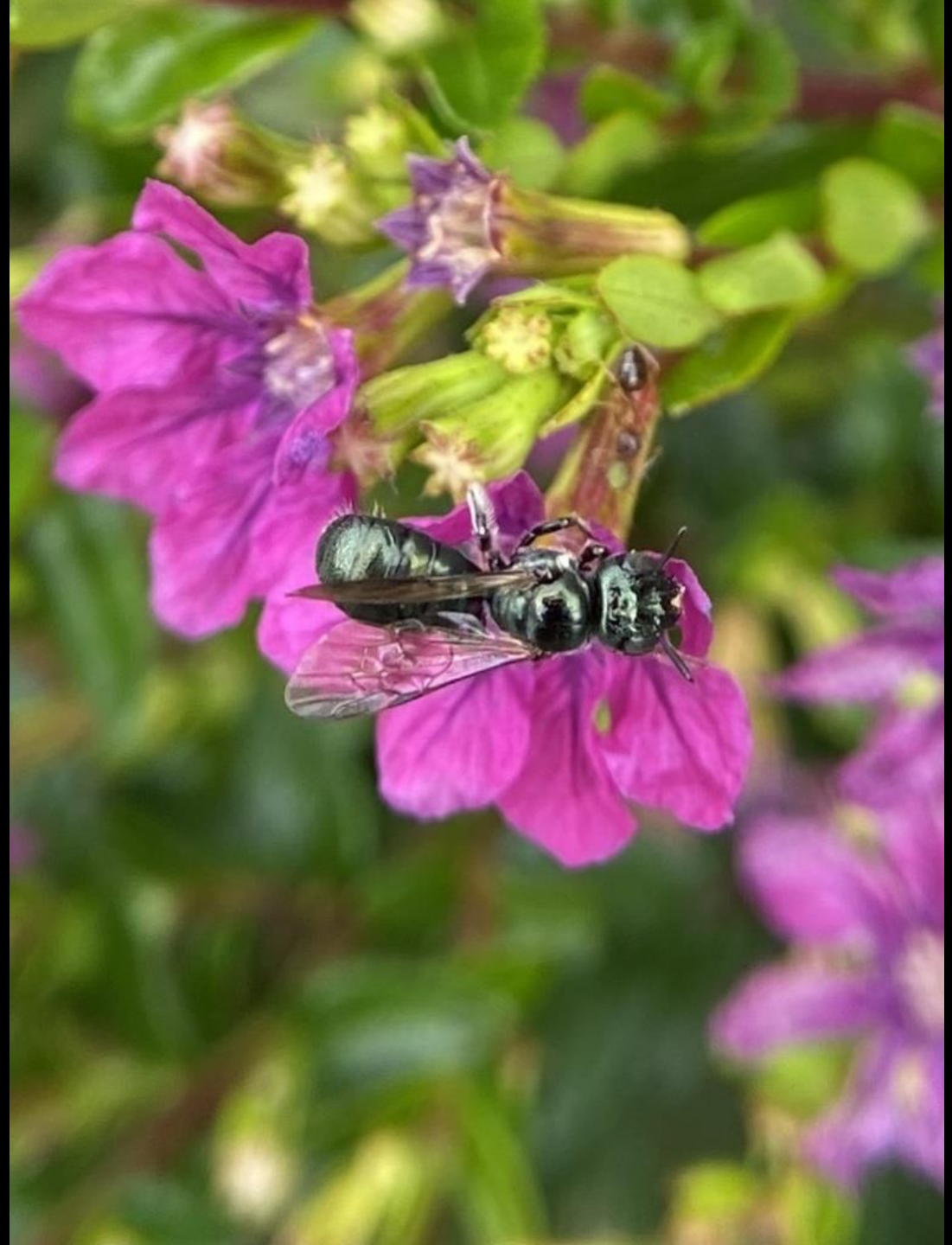


Two-Spotted Bumble Bee
(*Bombus bimaculatus*)

Eastern Carpenter Bee
(*Xylocopa virginica*)

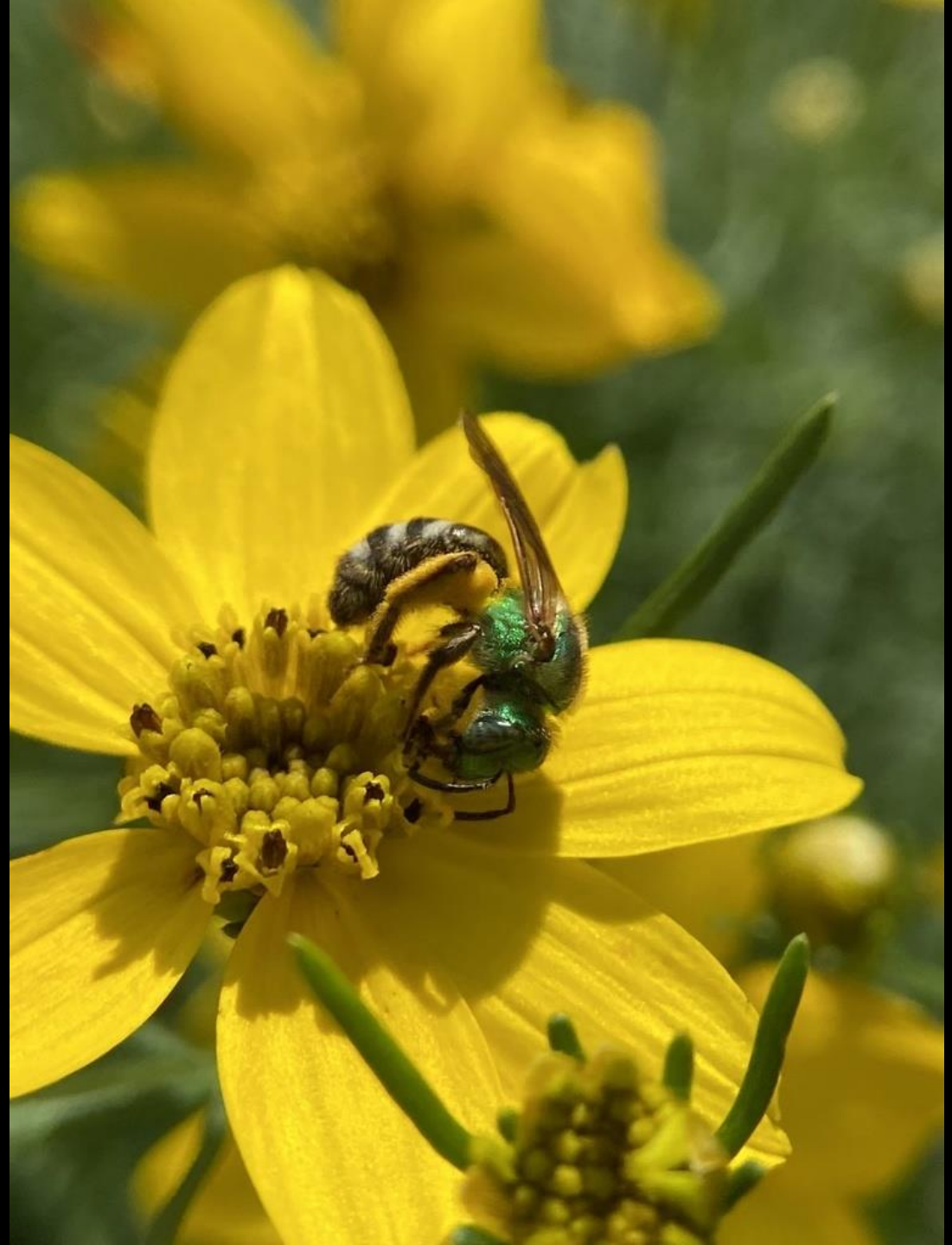


Small Carpenter Bee
(*Ceratina* sp.)

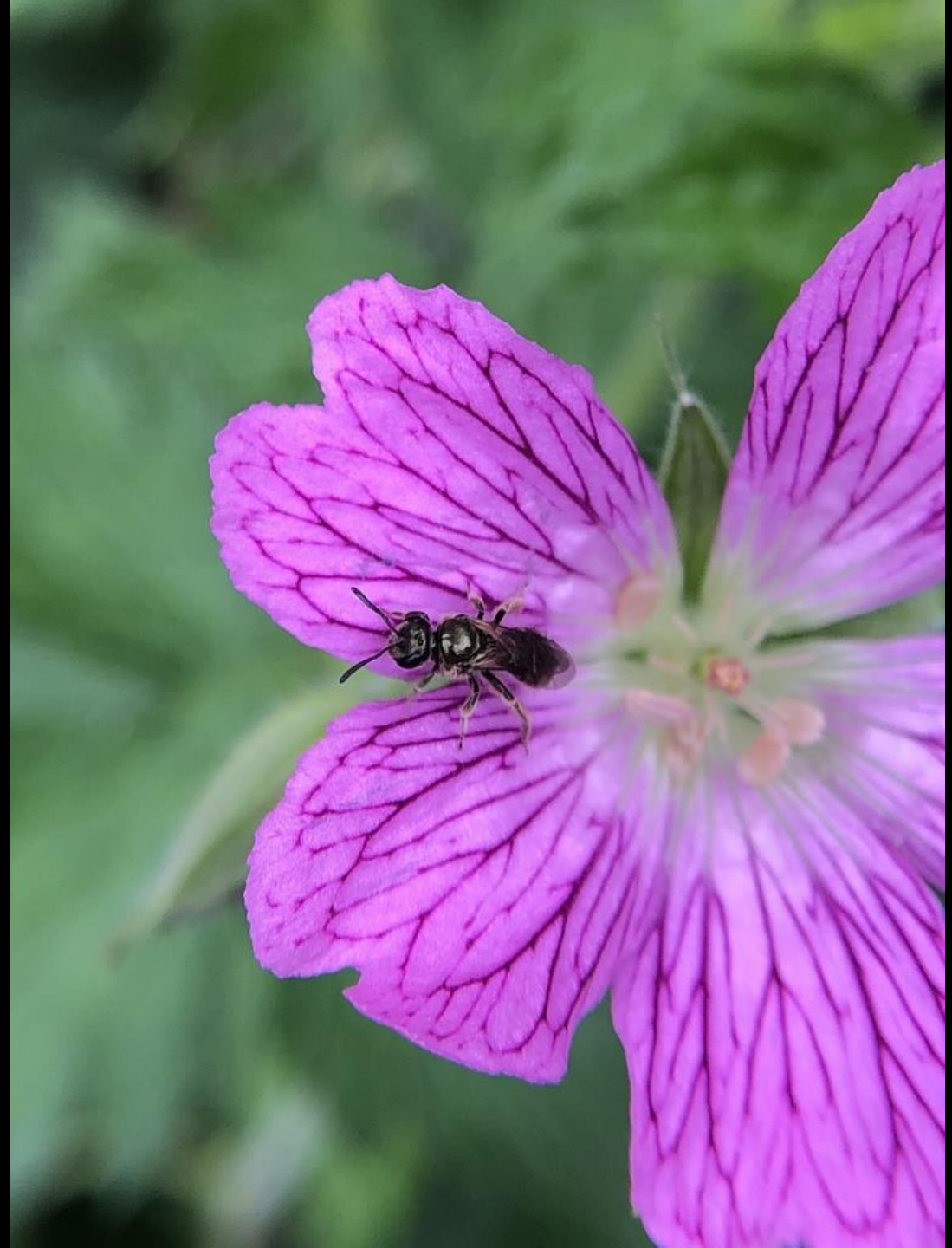


Small Carpenter Bee
(*Ceratina strenua*)

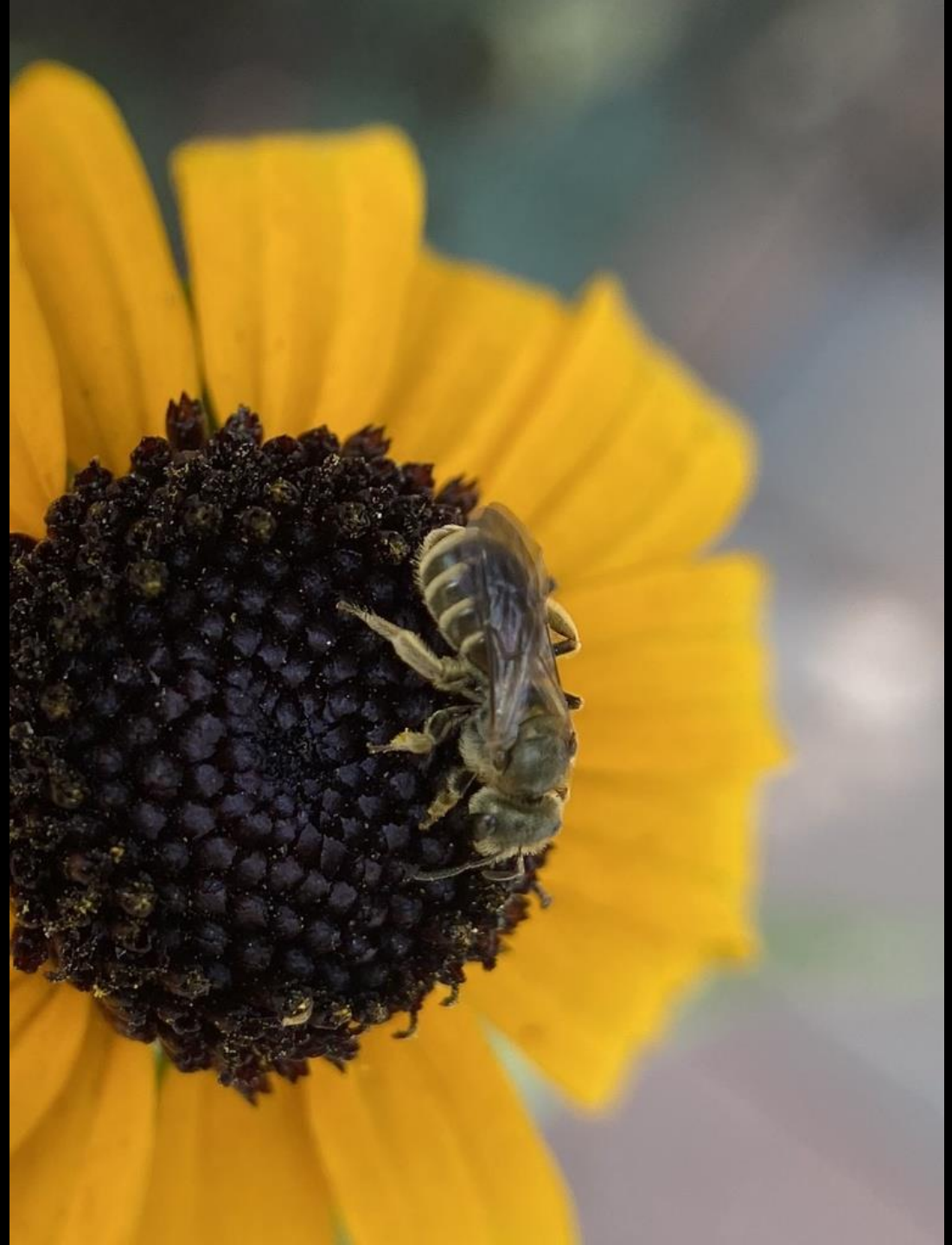
Bicolored Striped Sweat Bee
(*Agapostemon virescens*)



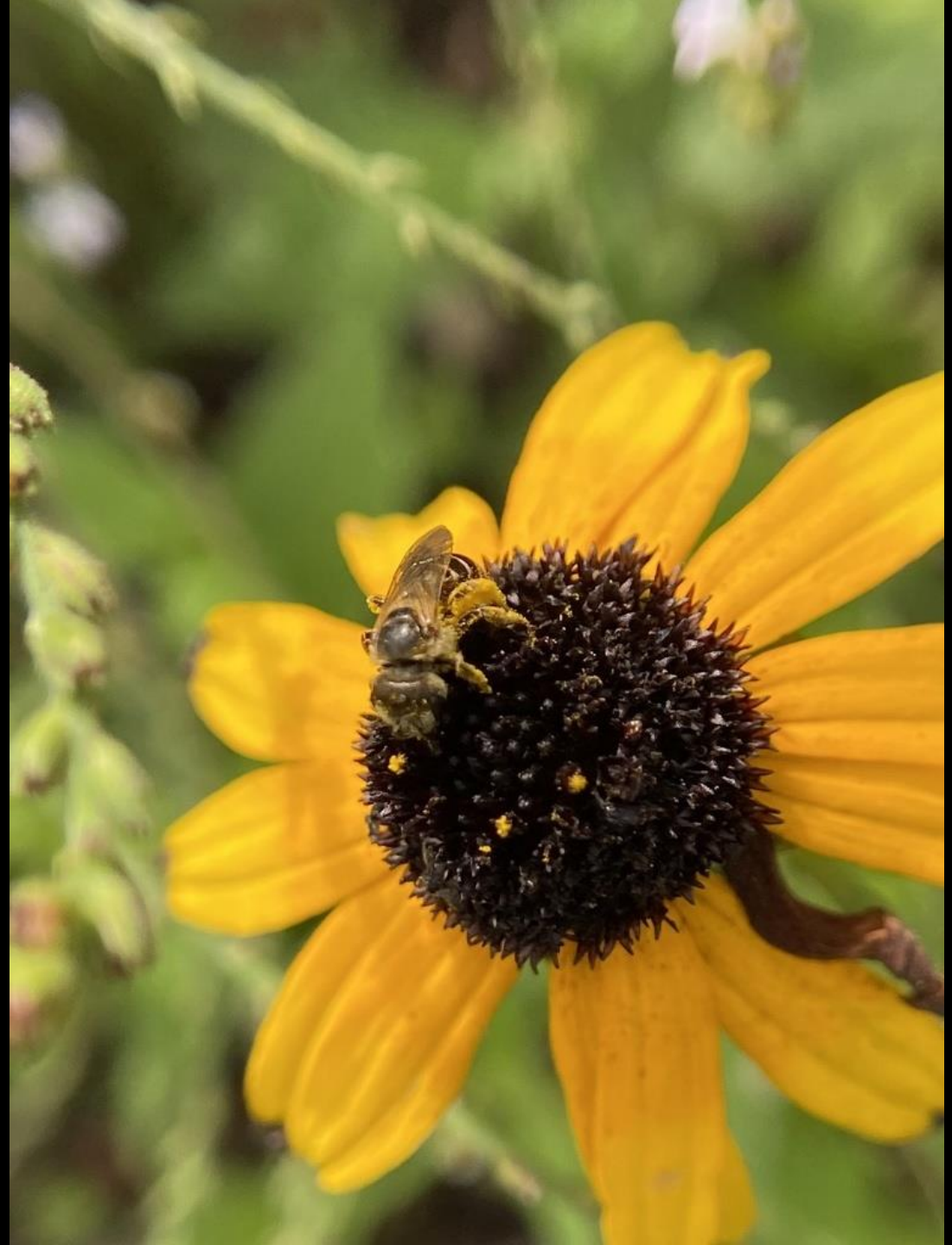
Metallic Sweat Bee
(*Agapostemon* sp.)



Confusing Furrow Bee
(*Halictus confusus*)



Ligated Furrow Bee
(*Halictus ligatus*)

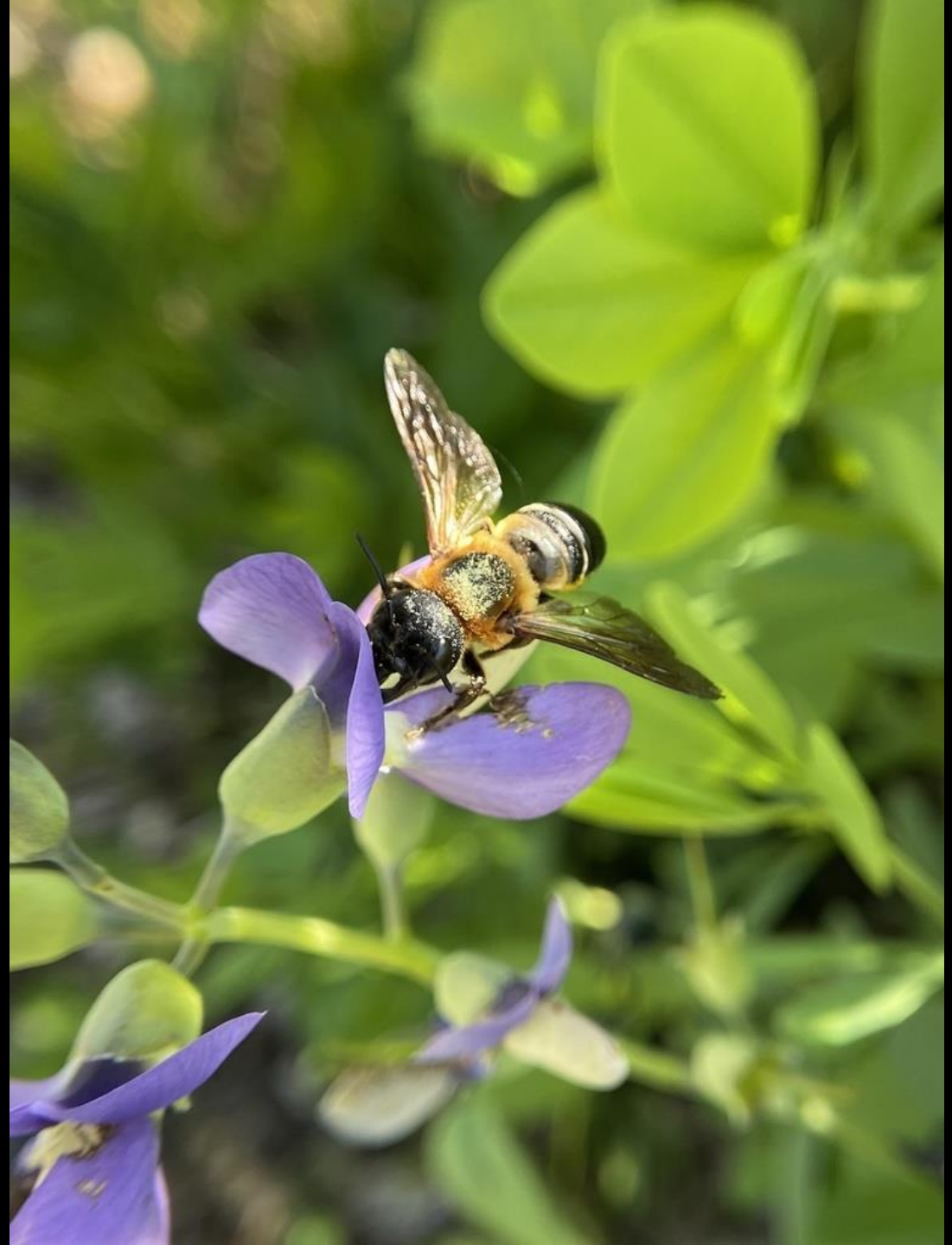


Rugose-chested Sweat Bee
(*Lasioglossum pectorale*)

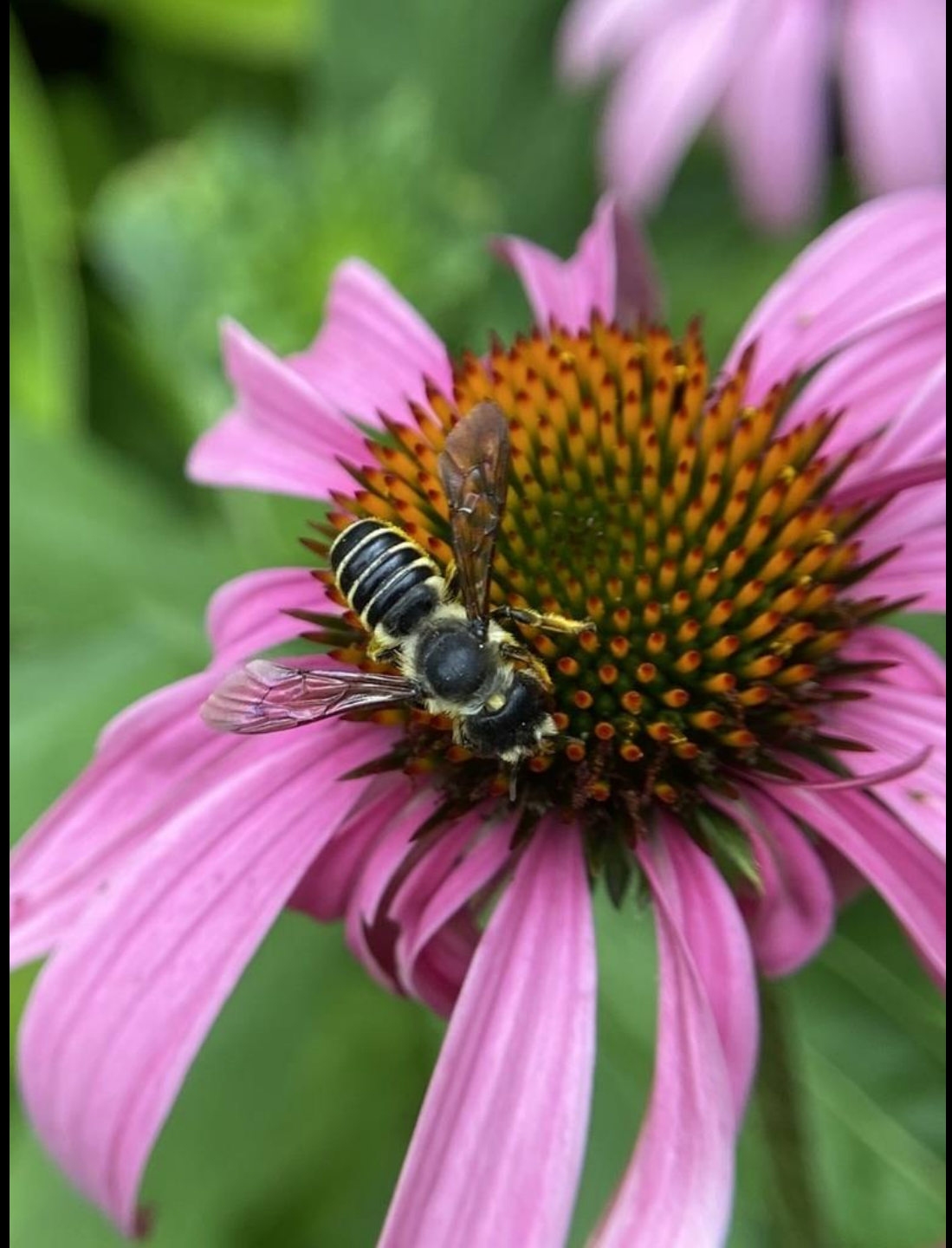
Pure Green-Sweat Bee
(*Augochlora pura*)

Flat-tailed Leaf-cutter Bee
(*Megachile mendica*)

Sculptured Resin Bee (*Megachile sculpturalis*)- not a native species



Pugnacious Leafcutter Bee (*Megachile pugnata ssp. pugnata*)



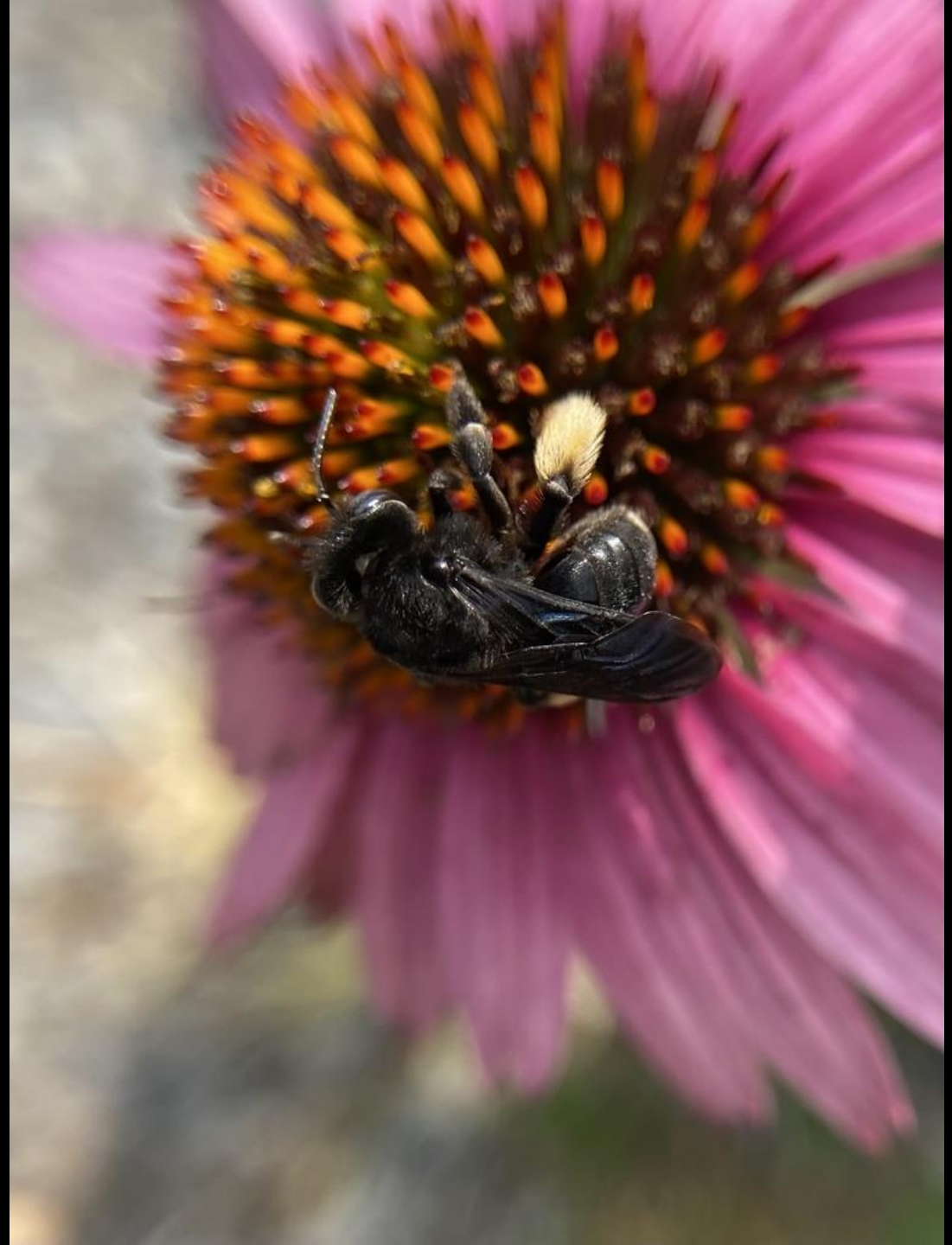
Leafcutter bee
(*Megachile mucida*)

Texas Leaf-cutter Bee
(*Megachile texana*)

Sharptail Bee (Genus *Coelioxys*)

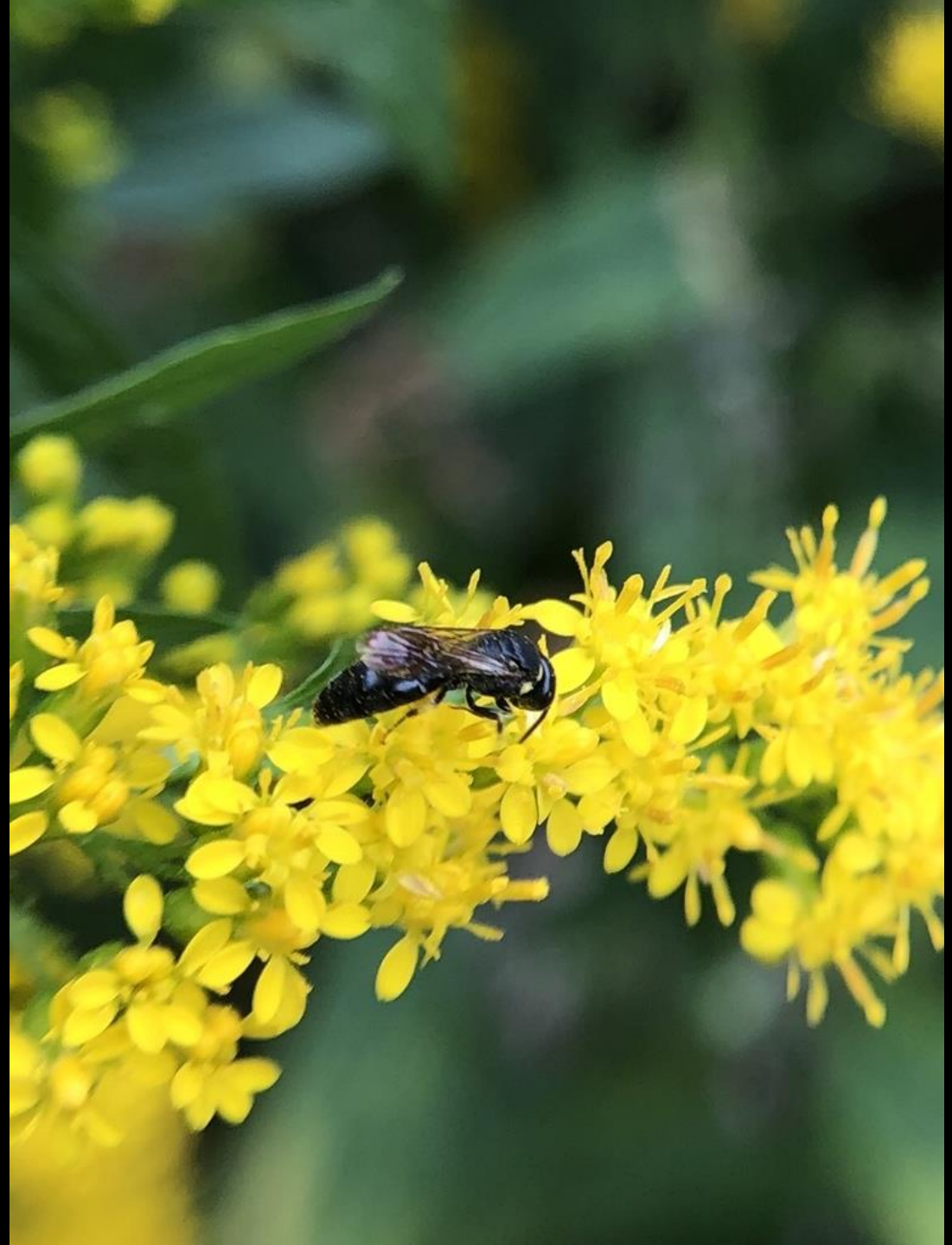
Dark-veined Longhorn Bee
(*Melissodes trinodis*)

Two-spotted Longhorn Bee
(*Melissodes bimaculatus*)



Longhorn Bee (*Melissodes sp.*)

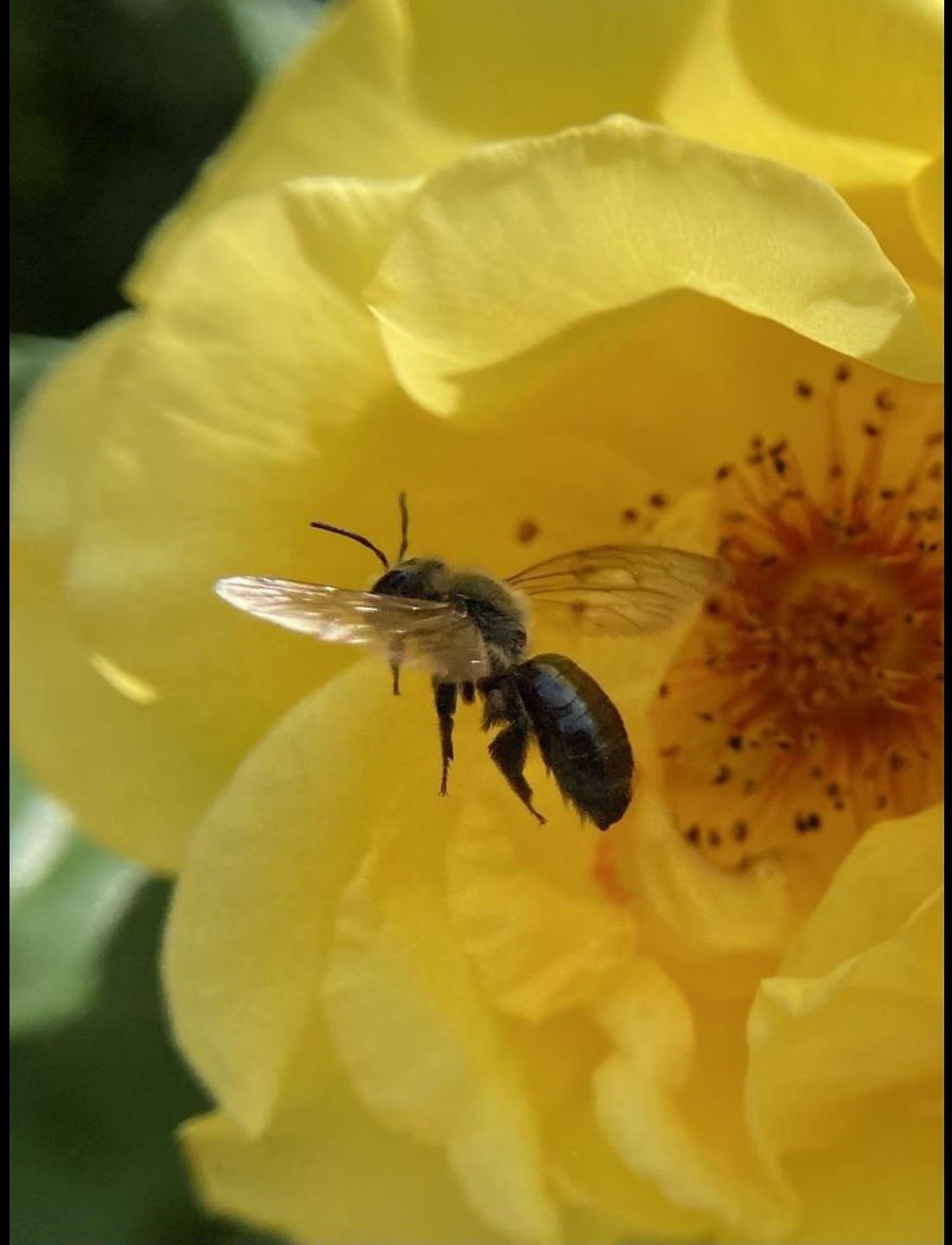
Masked Bee (*Hylaeus* sp.)



Orange-tipped Wood-Digger bee (*Anthophora terminalis*)

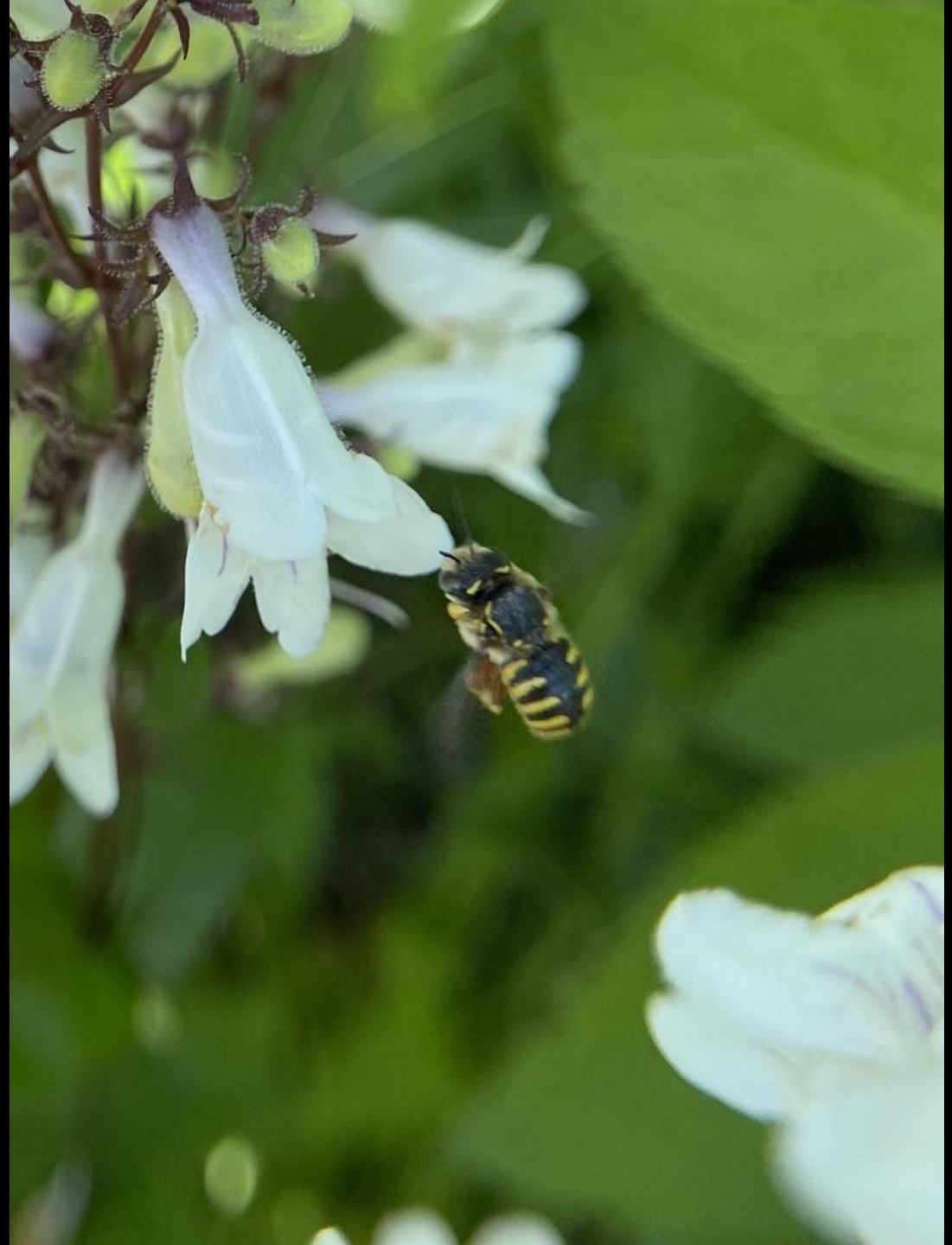
Wilke's Mining Bee (*Andrena wilkella*)- not a native species

Neighborly Mining Bee
(*Andrena vicina*)



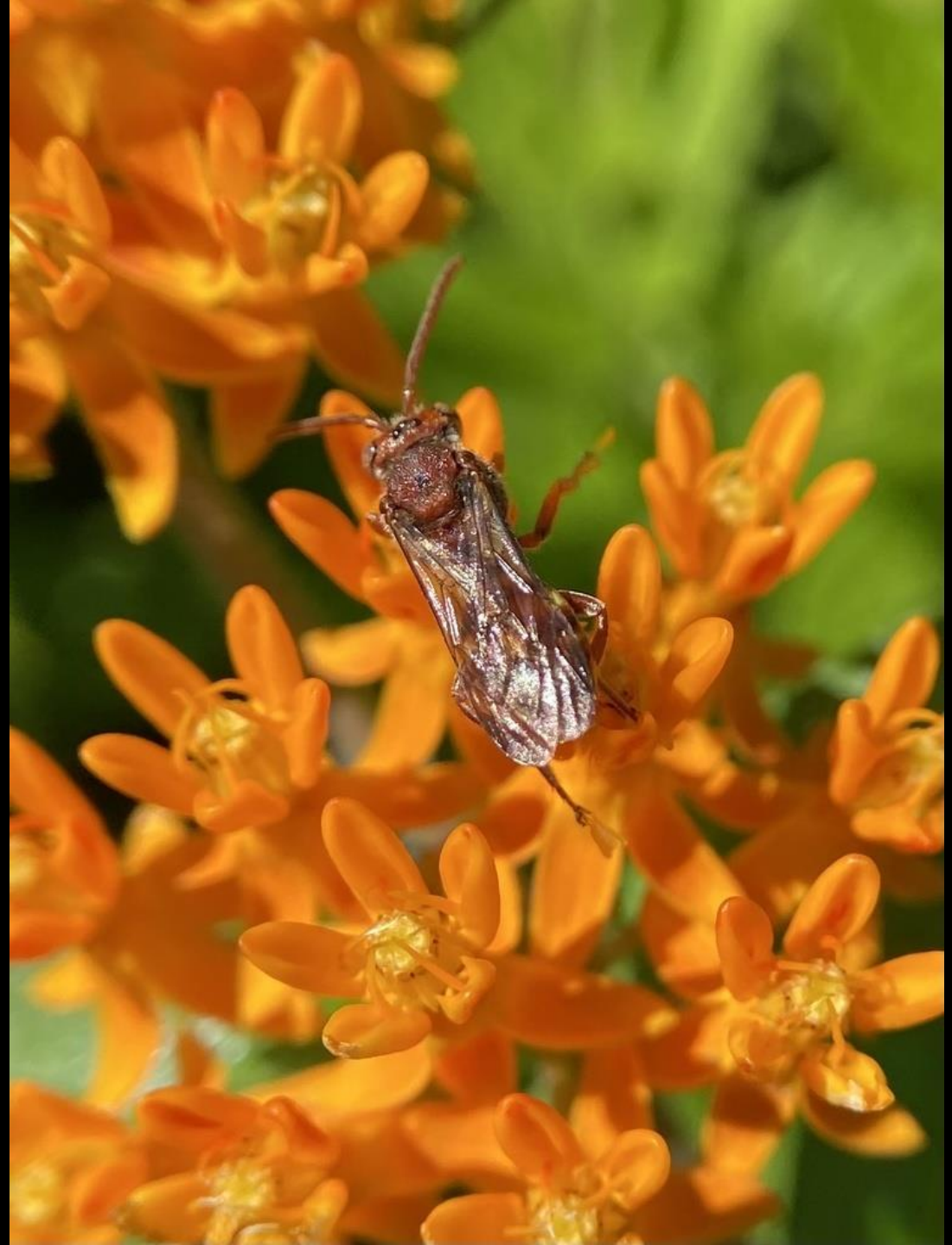
Hairy-banded Mining Bee (*Andrena hirticincta*)

European Woolcarder Bee (*Anthidium manicatum*)- not a native species



Nomad Bee
(*Nomada* sp.)

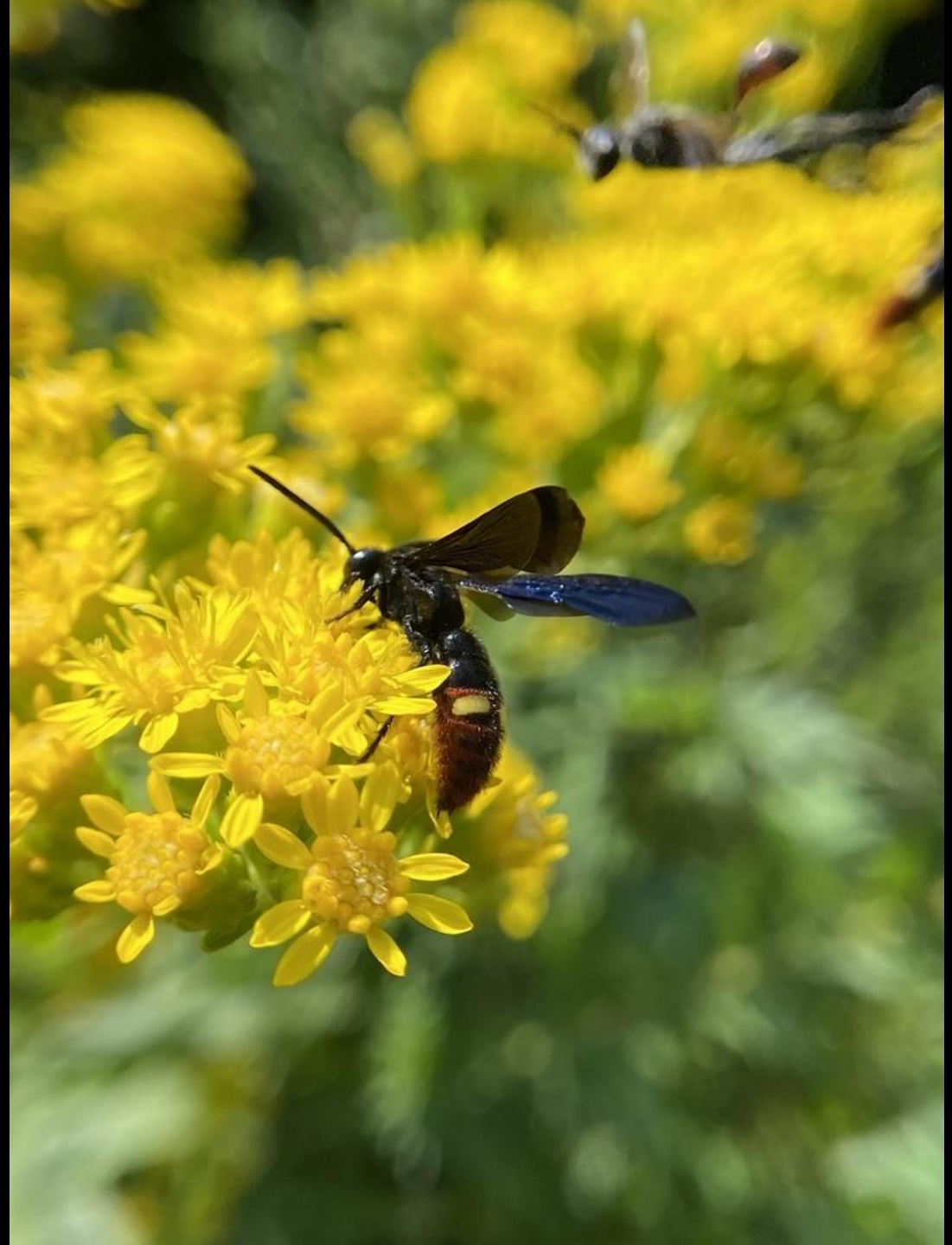
Nomad Bee
(*Nomada* sp.)



Nomad Bee
(*Nomada* sp.)

Blood Bee
(Genus
Sphecodes)

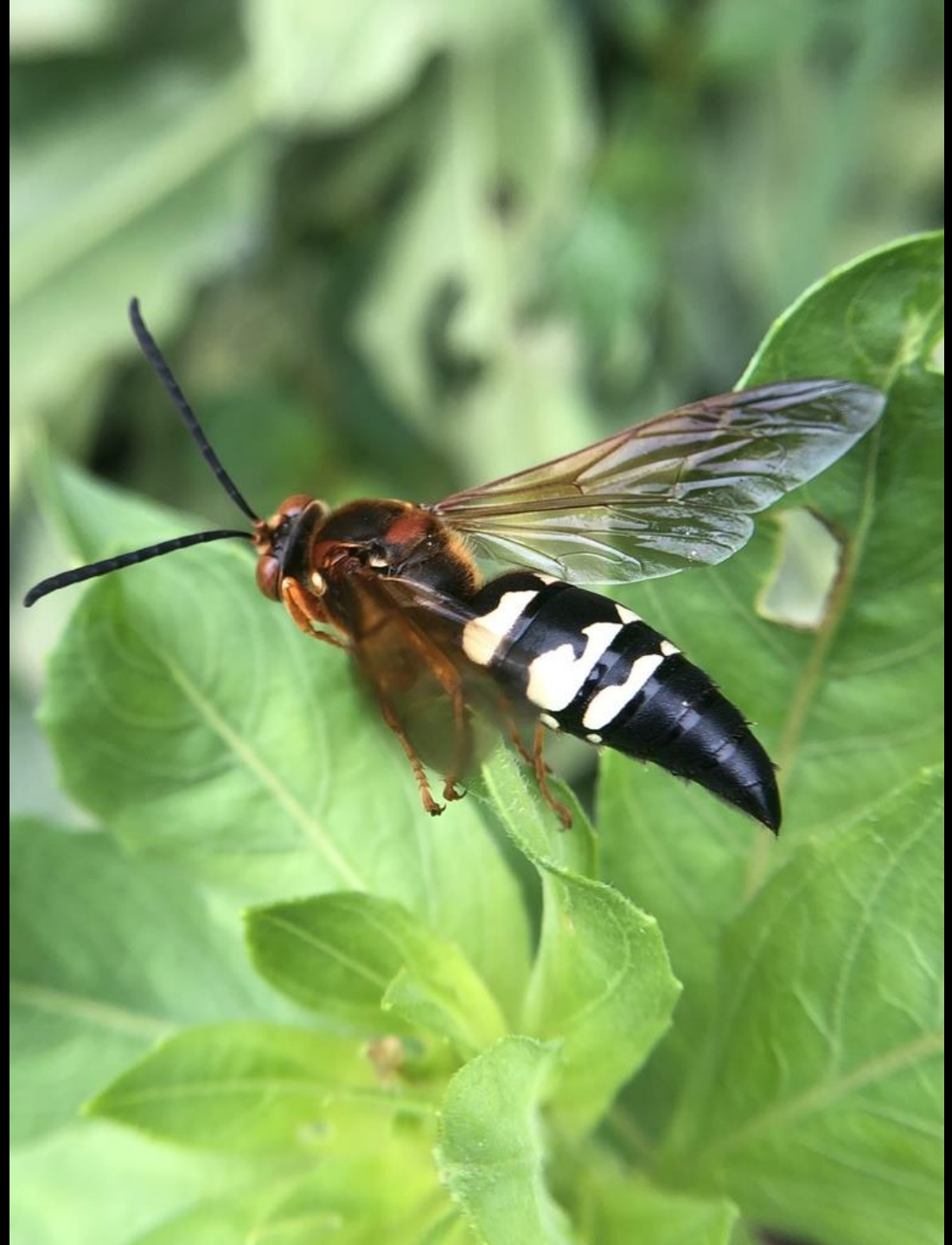
Blue-winged Scoliid Wasp
(*Scolia dubia*)



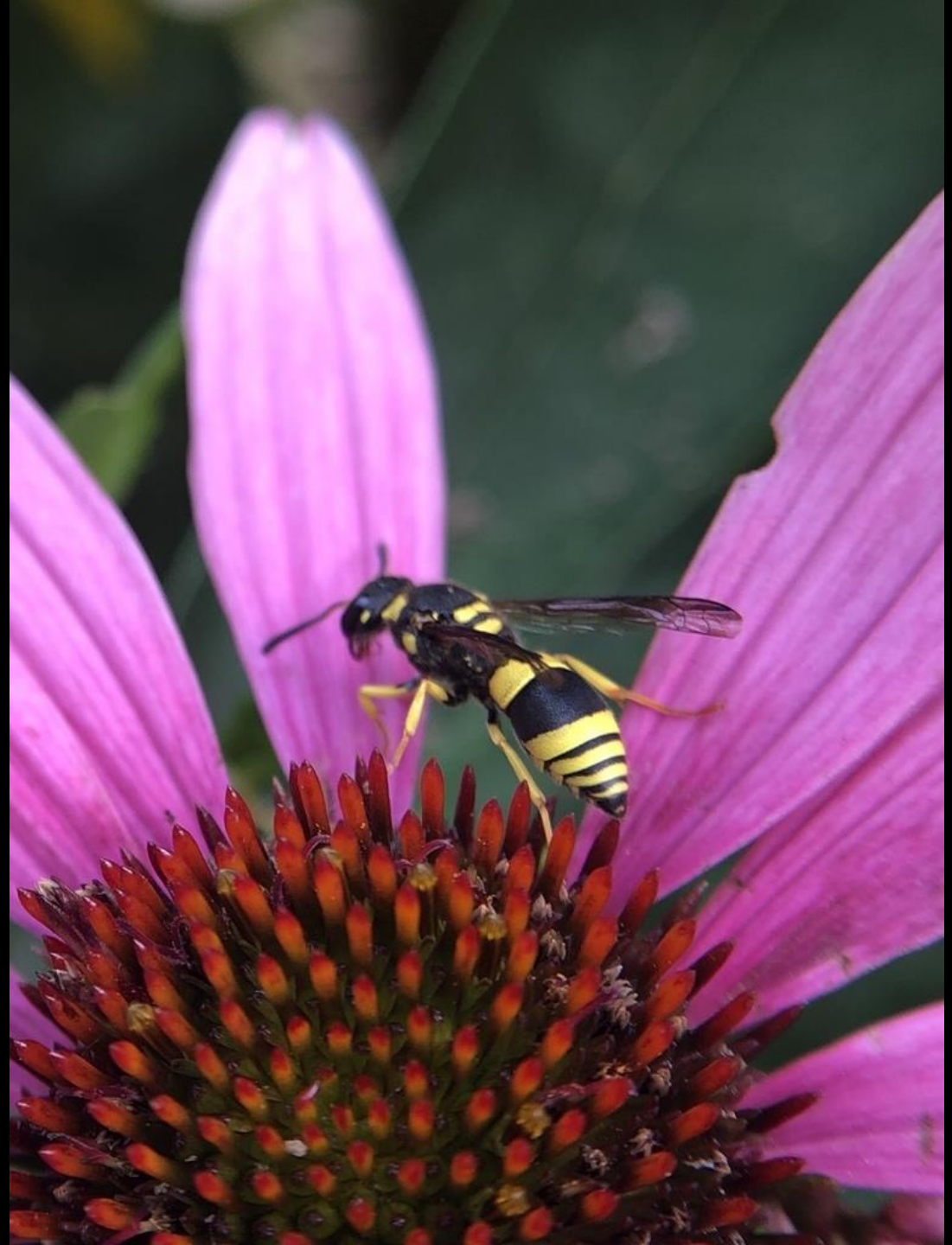
Weevil Wasp (*Cerceris arelate)*

Cuckoo wasp (Family Chrysididae)

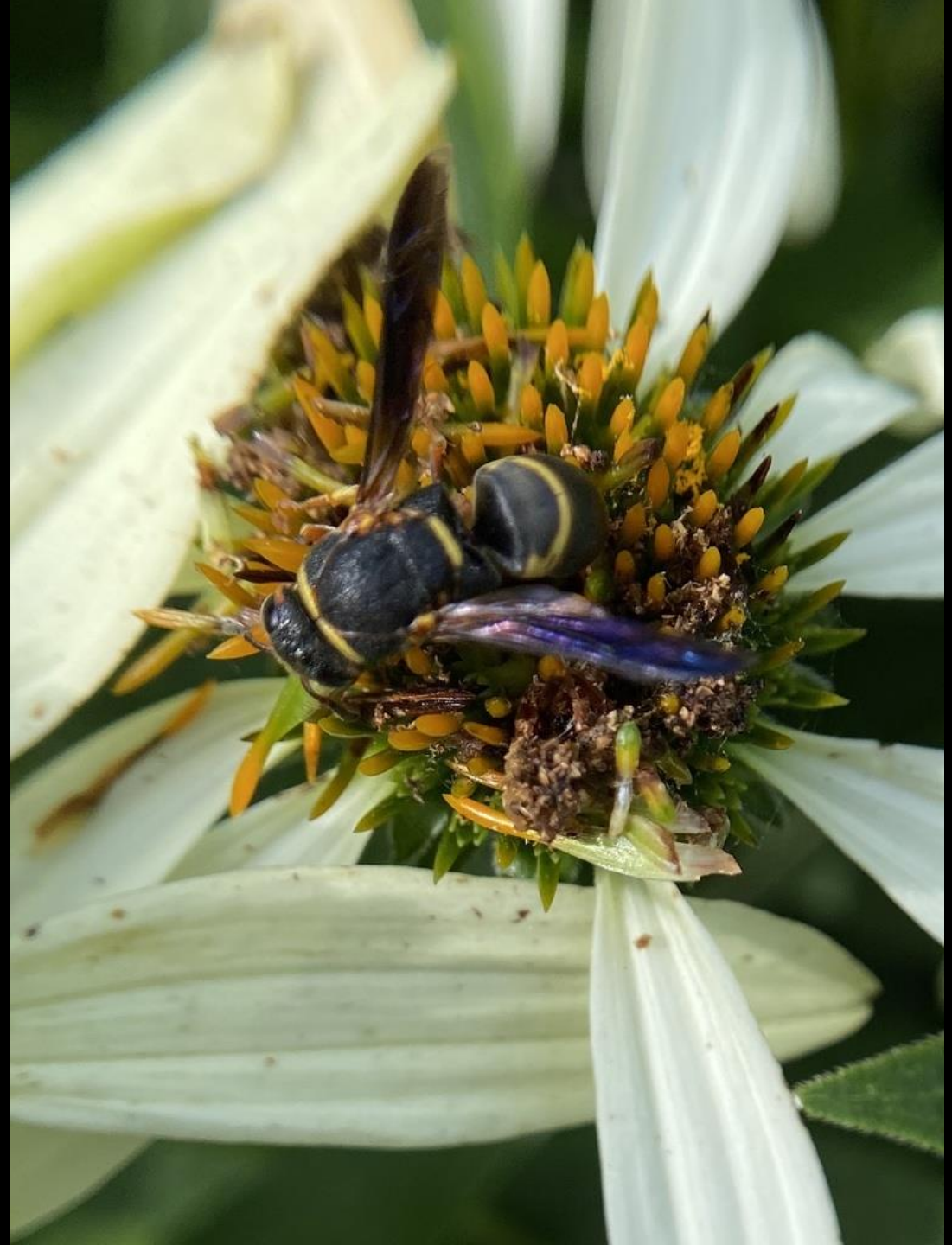
Eastern Cicada-Killer Wasp
(*Sphecius speciosus*)



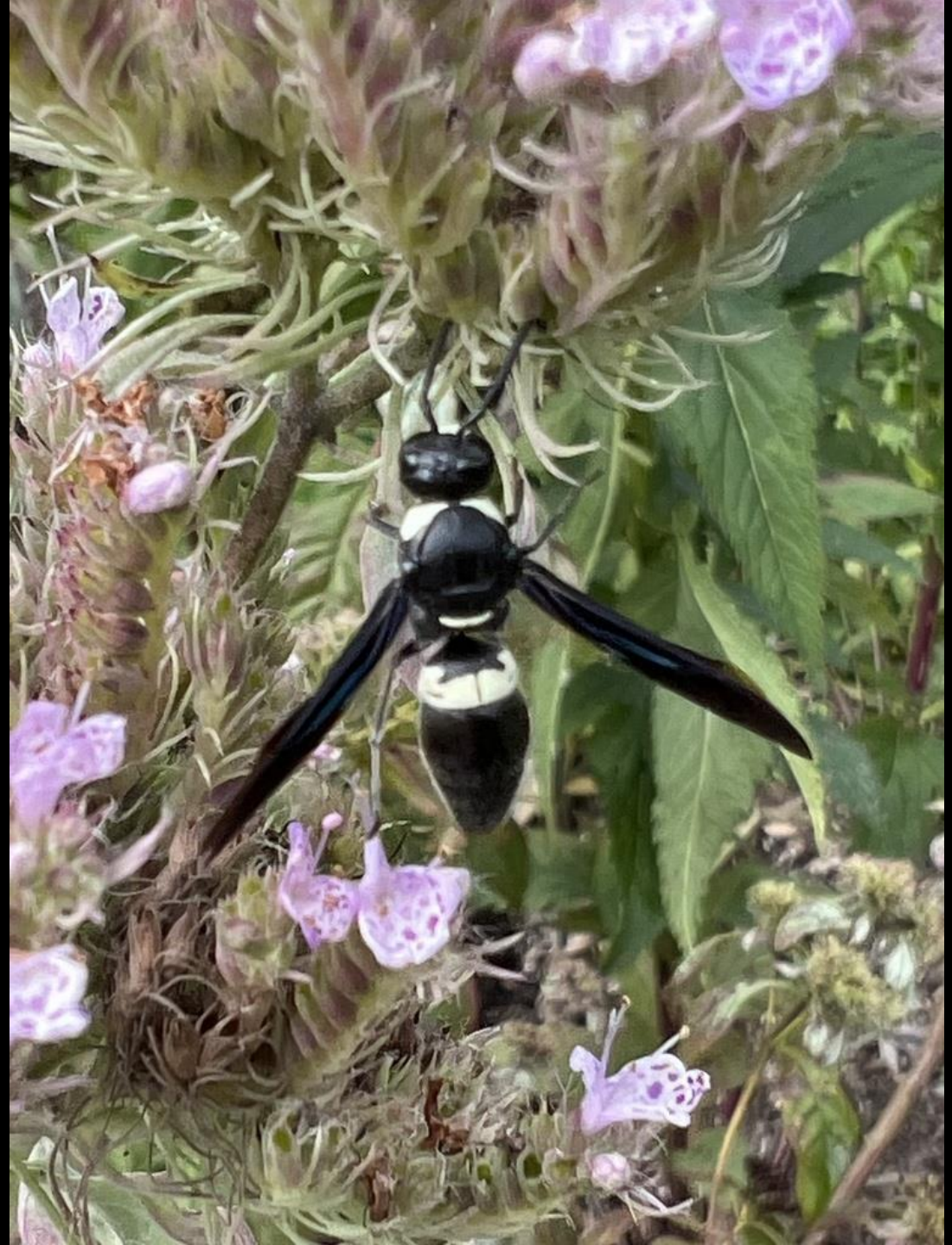
European Tube Wasp (*Ancistrocerus gazella*)- not a native species



Hidalgo Mason Wasp
(*Euodynerus hidalgo*)



Four-toothed Mason Wasp (*Monobia quadridens*)



Hump-backed Beewolf
(*Philanthus gibbosus*)

Four-banded Stink Bug Wasp (*Bicyrtes quadrifasciatus*)

Gold-marked Thread-waisted Wasp (*Eremnophila aureonotata*)

Bald-faced Hornet
(*Dolichovespula maculata*)

Northern Paper Wasp
(*Polistes fuscatus*)

Eastern Yellowjacket
(*Vespula maculifrons*)

Perennial Mason Wasp
(*Parancistrocerus perennis*)

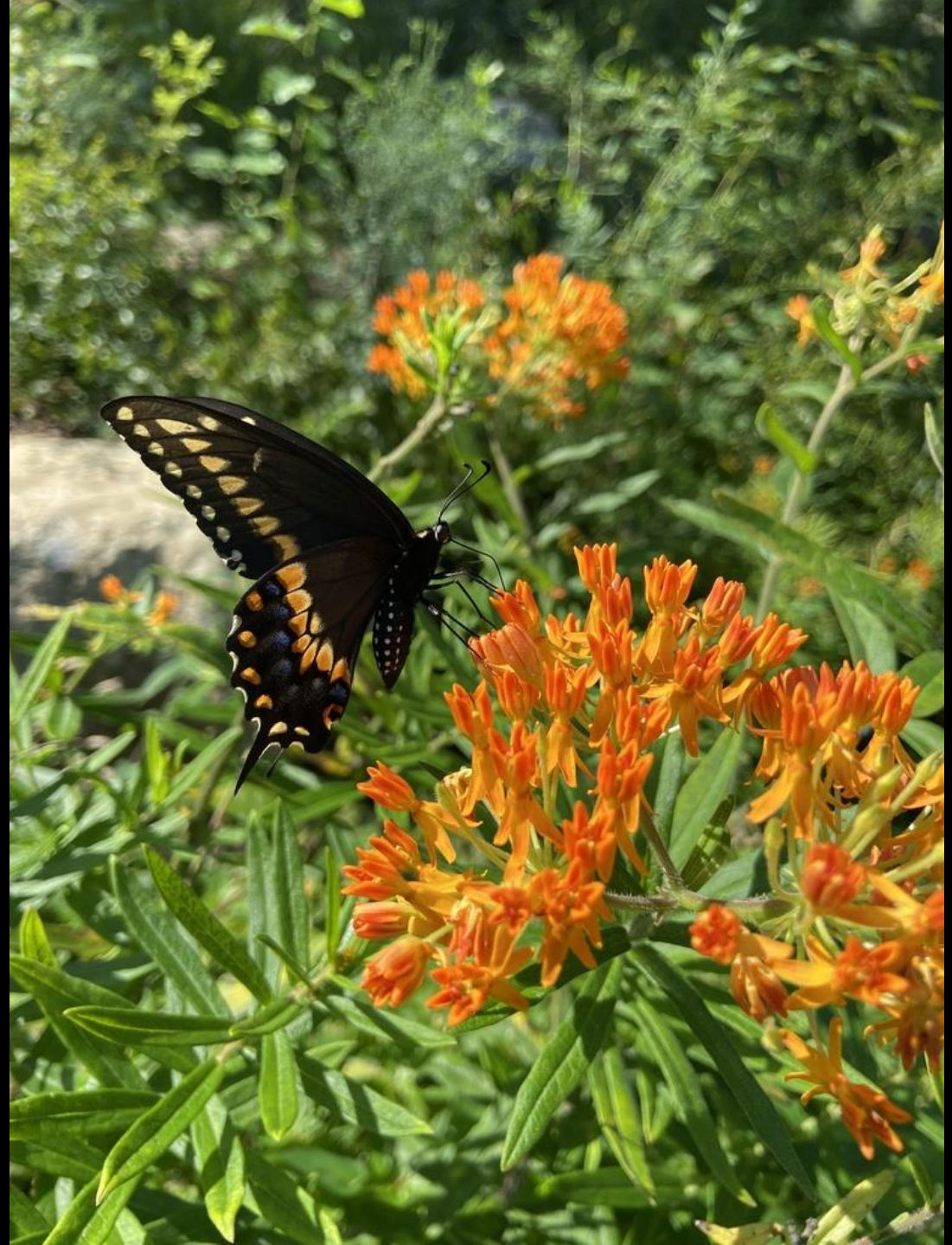
Brown-legged Grass-carrying Wasp (*Isodontia auripes*)

Yellow-legged Mud-dauber Wasp (*Sceliphron caementarium*)

Butterflies and Moths (Order Lepidoptera)

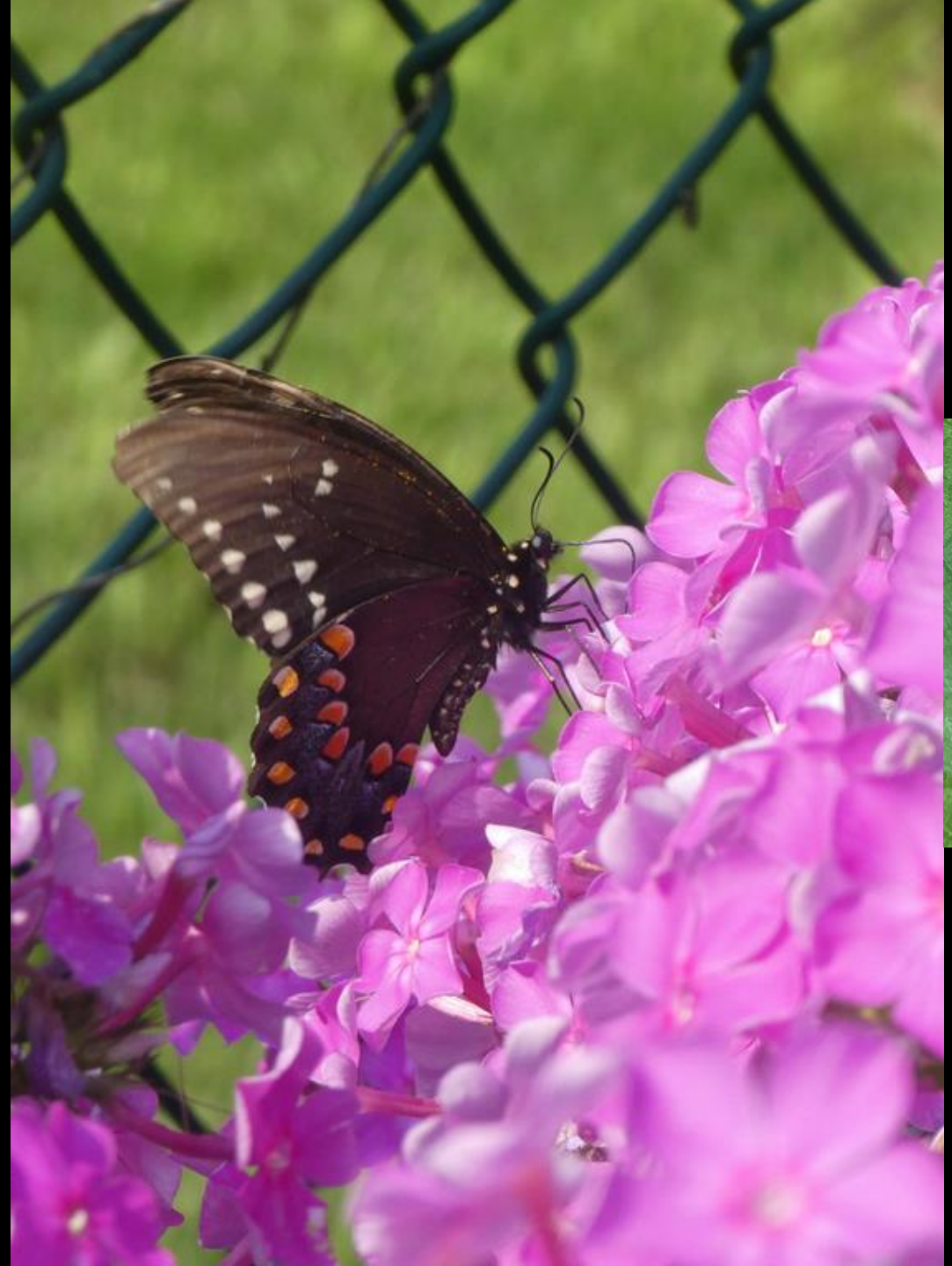
Butterflies and moths drink nectar from a variety of flowers and help spread pollen for flower reproduction. Butterflies are more well known, but moths are also pollinators. Butterflies fly during the day and there are both day flying moths and nocturnal moths that all play a role in pollination of flowers. The monarch butterfly has been proposed for listing as threatened under the Endangered Species Act and many other species are in decline.

Black swallowtail
(*Papilio polyxenes*)



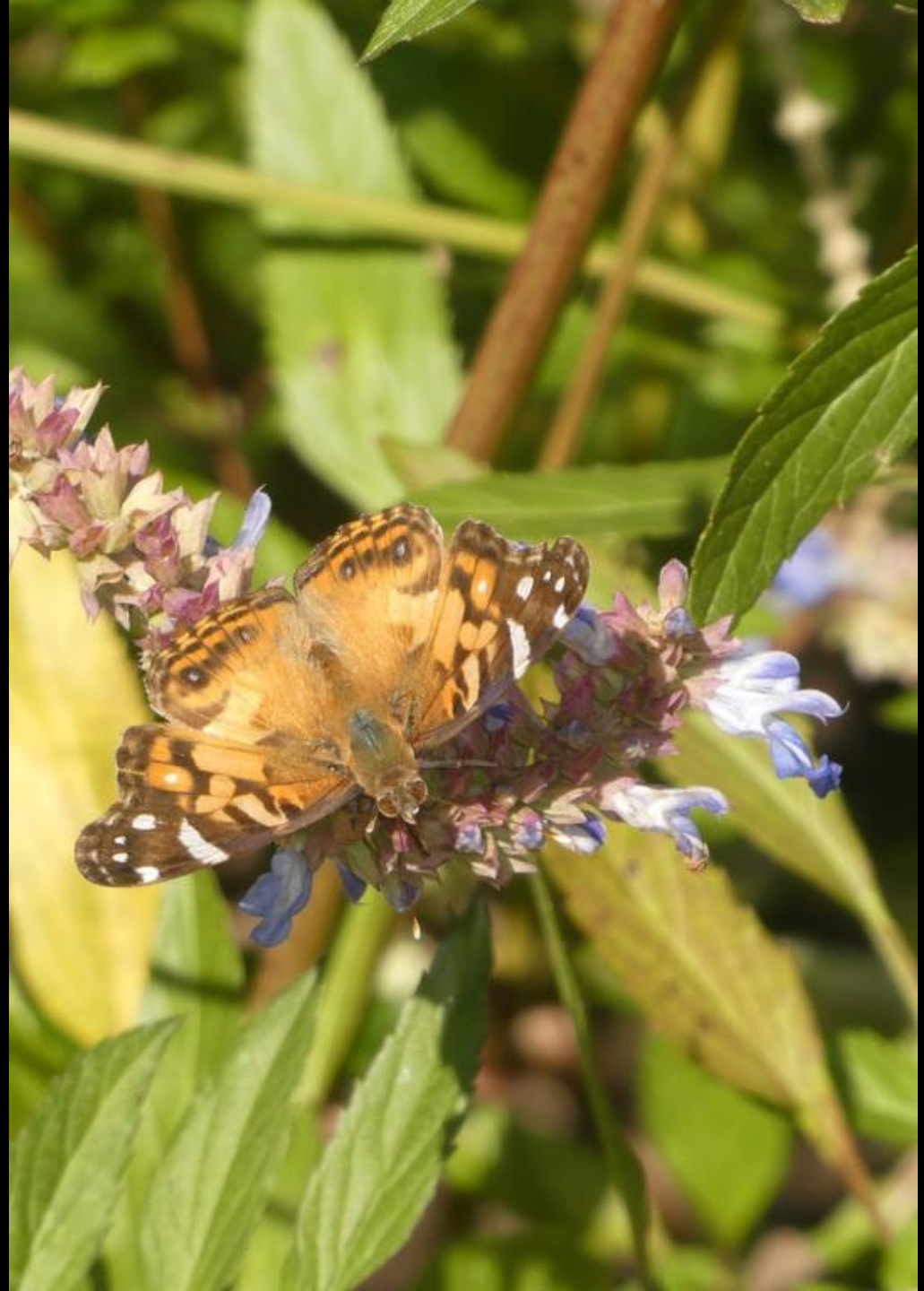
Eastern Tiger Swallowtail
(*Papilio glaucus*)

Spicebush Swallowtail
(*Papilio troilus*)



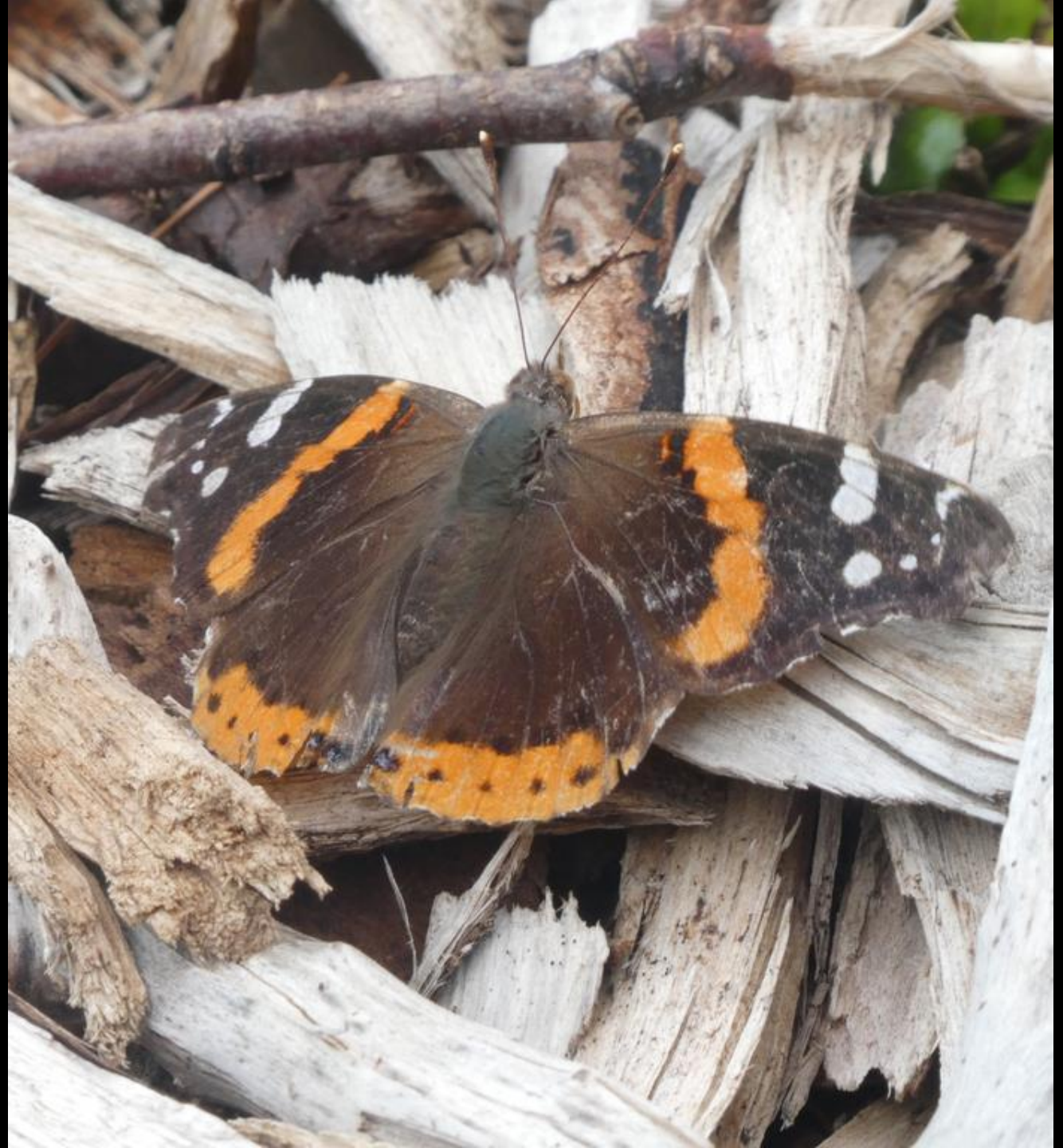
3rd instar larva

American Lady
(*Vanessa virginiensis*)



Painted Lady (*Vanessa cardui*)

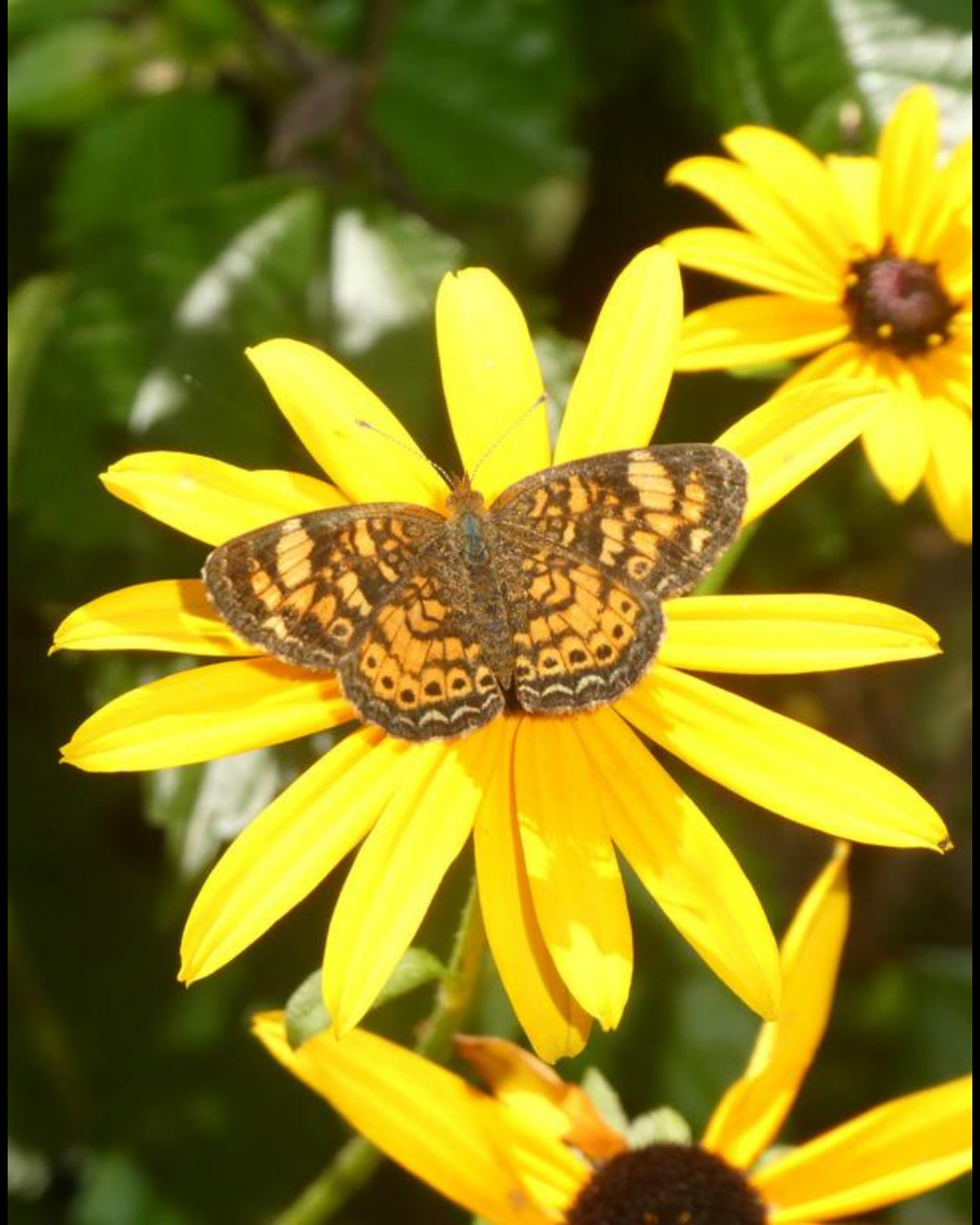
Red Admiral
(*Vanessa atalanta*)



Common Buckeye
(*Junonia coenia*)

Red-spotted Purple (*Limenitis arthemis ssp. astyanax*)

Pearl Crescent
(*Phyciodes tharos*)



Mourning Cloak
(*Nymphalis antiopa*)

Monarch (*Danaus plexippus*)

Gray Hairstreak
(*Strymon melinus*)

Red-banded Hairstreak
(*Calycopis cecrops*)

Eastern-tailed blue
(*Cupido comyntas*)

Summer Azure (*Celastrina ladon form neglecta*)

Orange Sulphur
(*Colias eurytheme*)

Cabbage White (*Pieris rapae*)- not a native species

Common Sootywing
(*Pholisora catullus*)

Horace's Duskywing
(*Erynnis horatius*)

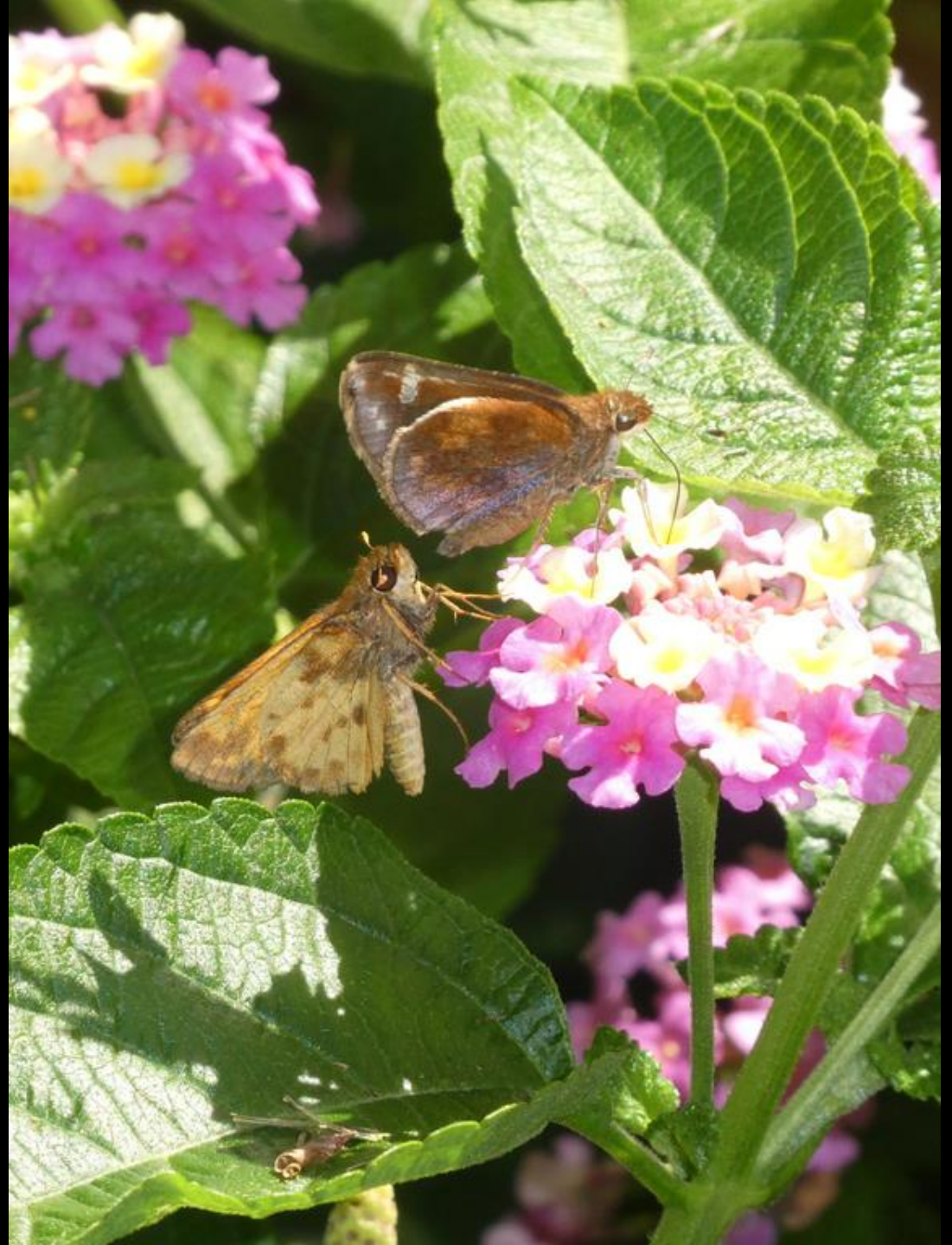
Wild Indigo Duskywing
(*Erynnis baptisiae*)

Silver Spotted Skipper
(*Epargyreus clarus*)

Peck's skipper
(*Polites peckius*)

Sachem (*Atalopedes huron*)

Zabulon Skipper (*Lon zabulon*)

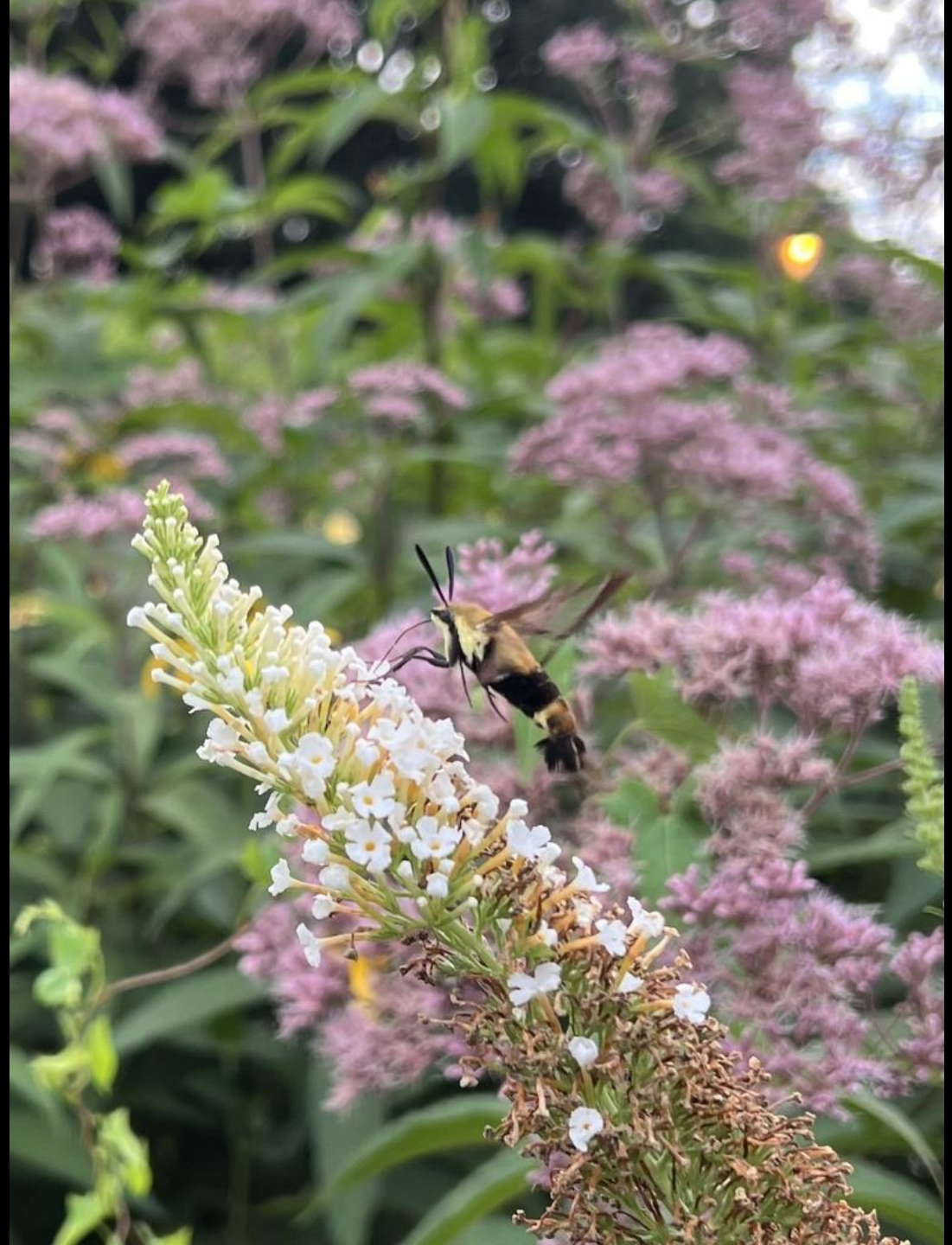


Dun Skipper (*Euphyes vestris*)

Least Skipper
(*Ancyloxypha numitor*)

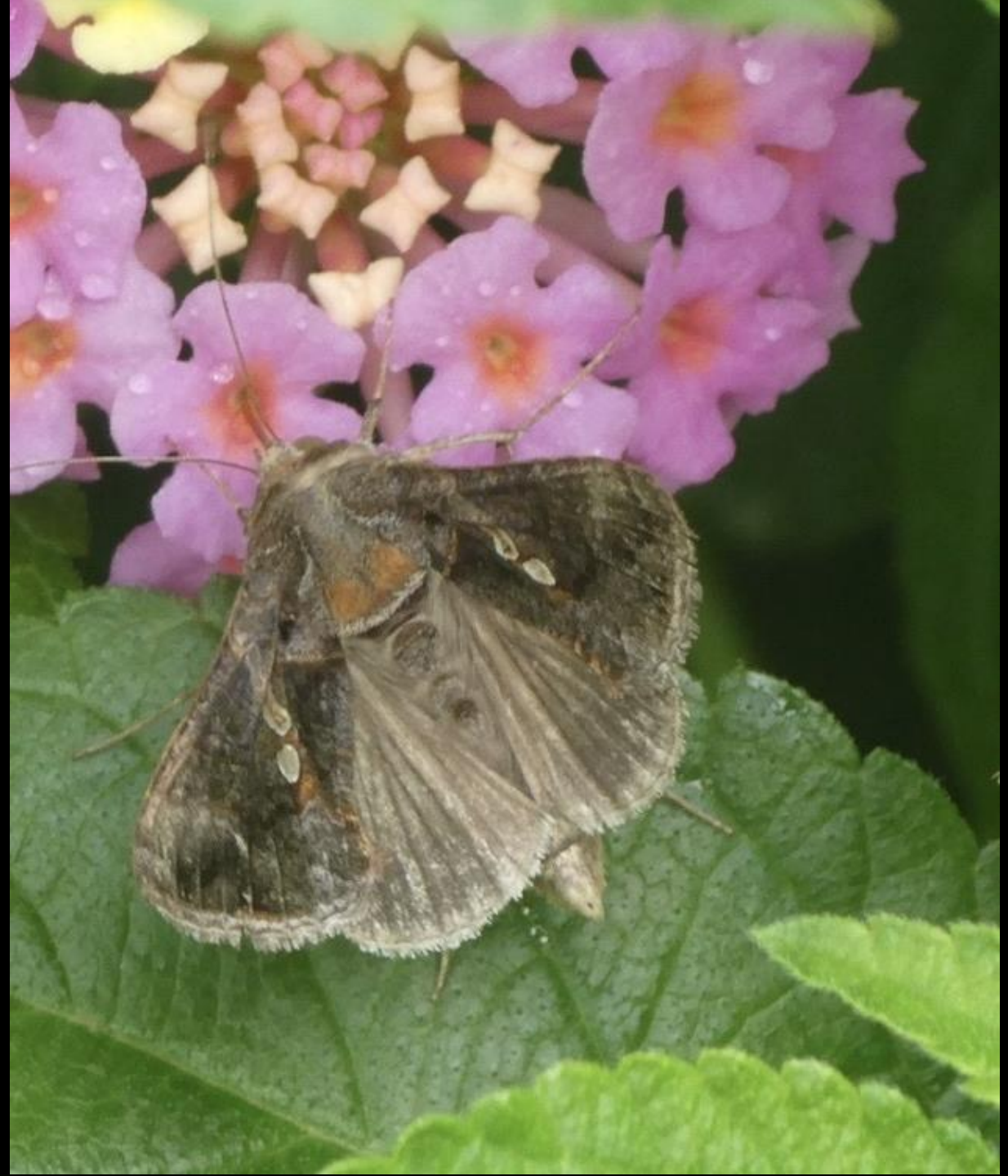
Nessus Sphinx Moth
(*Amphion floridensis*)

Snowberry Clearwing
(*Hemaris diffinis*)



Squash Vine Borer Moth
(*Melittia cucurbitae*)

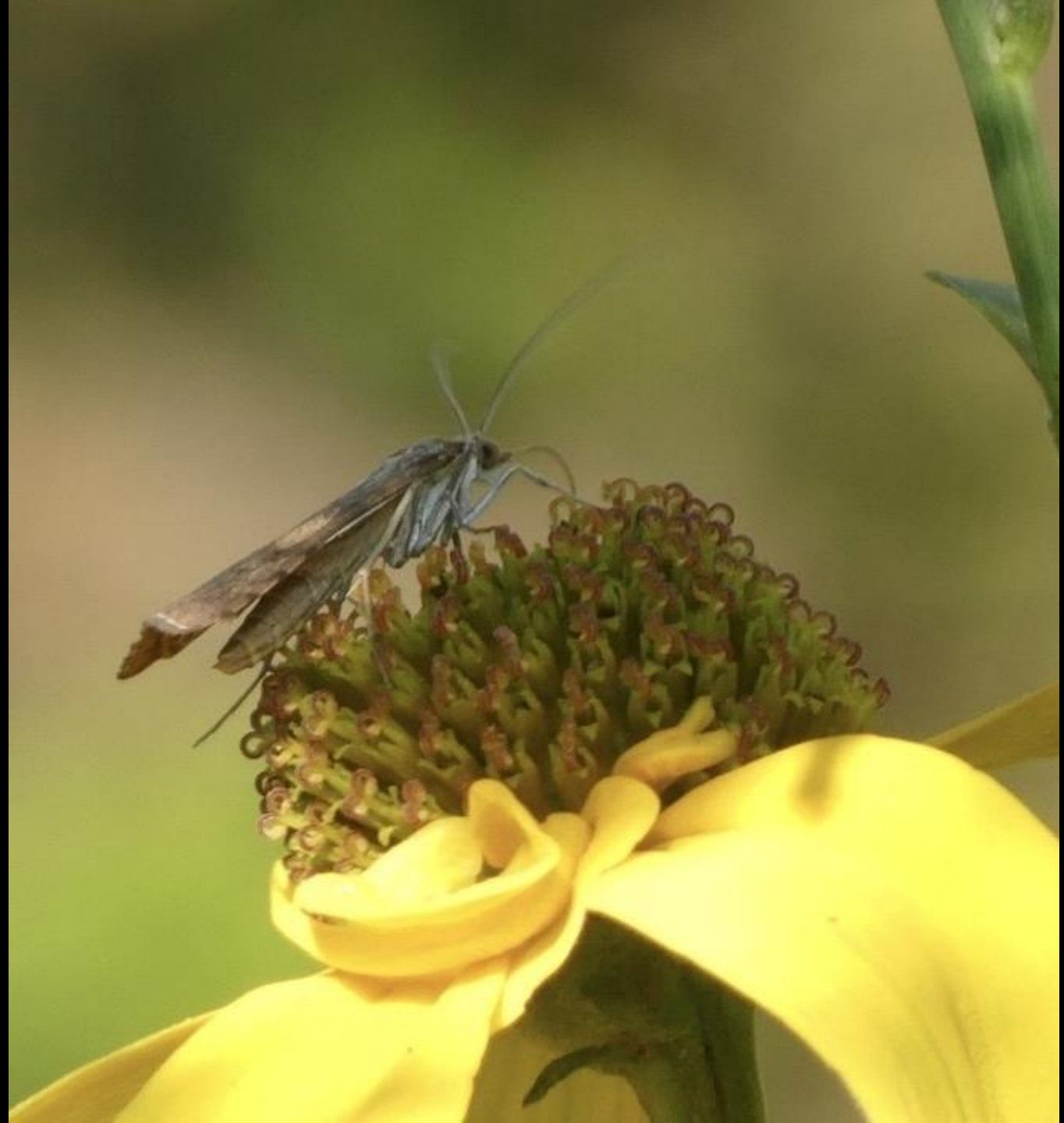
Soybean Looper Moth
(*Chrysodeixis includens*)



Hawaiian Beet Webworm Moth (*Spoladea recurvalis*)

Ailanthus Webworm Moth (*Atteva aurea*)

Lurcerne Moth
(*Nomophila nearctica*)



Flies (Order Diptera)

There are many species of fly pollinators. Because they are generalist foragers with sometimes sparsely haired bodies, they don’t get much credit as significant pollinators. However, they can be important for certain plants. Syrphid or hover flies and bee flies are the most conspicuous because they are mimics of bees and wasps so that predators fear being stung even though flies do not have this ability. Flies drink nectar and feed on pollen and therefore spread pollen grains between flowers. Syrphid flies are also beneficial because many have larvae that eat aphids, scales and other soft-bodied pests.

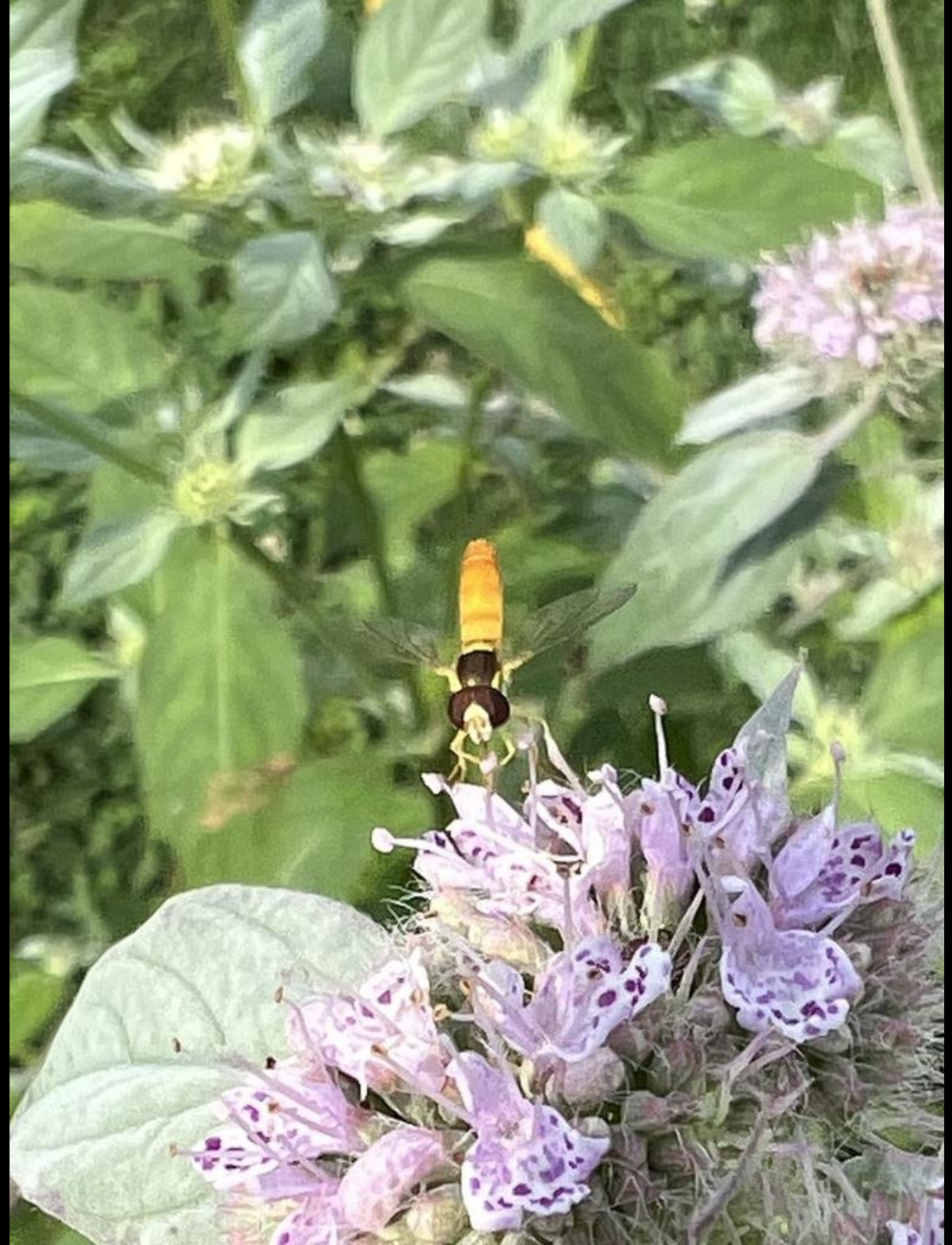
Eastern Calligrapher
(*Toxomerus geminatus*)

Margined Calligrapher
(*Toxomerus marginatus*)

Oblique Streaktail
(*Allograpta obliqua*)

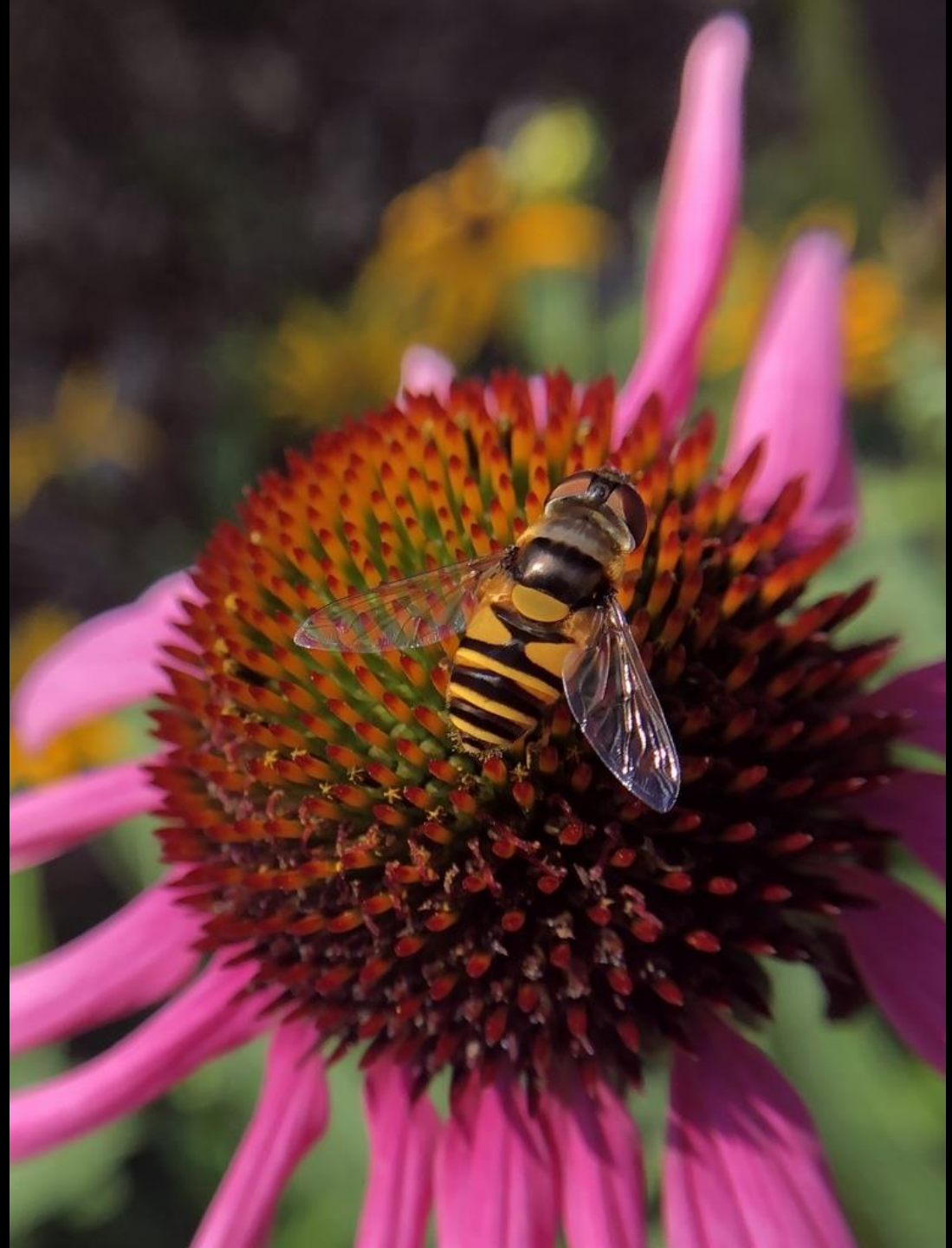
Globetails (Genus *Sphaerophoria*)

Tufted Globetail
(*Sphaerophoria contigua*)



Narcissus Bulb Fly
(*Merodon equestris*)

Transverse-banded Flower Fly
(*Eristalis transversa*)



Black-shouldered Drone Fly
(*Eristalis dimidiata*)

European drone fly (*Eristalis tenax*)- not a native species

American hoverfly
(*Eupeodes americanus*)

Large-tailed aphideater (*Eupeodes volucris*)

Short-tailed Aphideater (*Eupeodes pomus*)- larva feeding on aphids

Thick-legged Hover Fly
(*Syritta pipiens*)

Bog Fly (Genus *Parhelophilus*)

Broad-banded Hornet Fly
(*Spilomyia alcimus*)

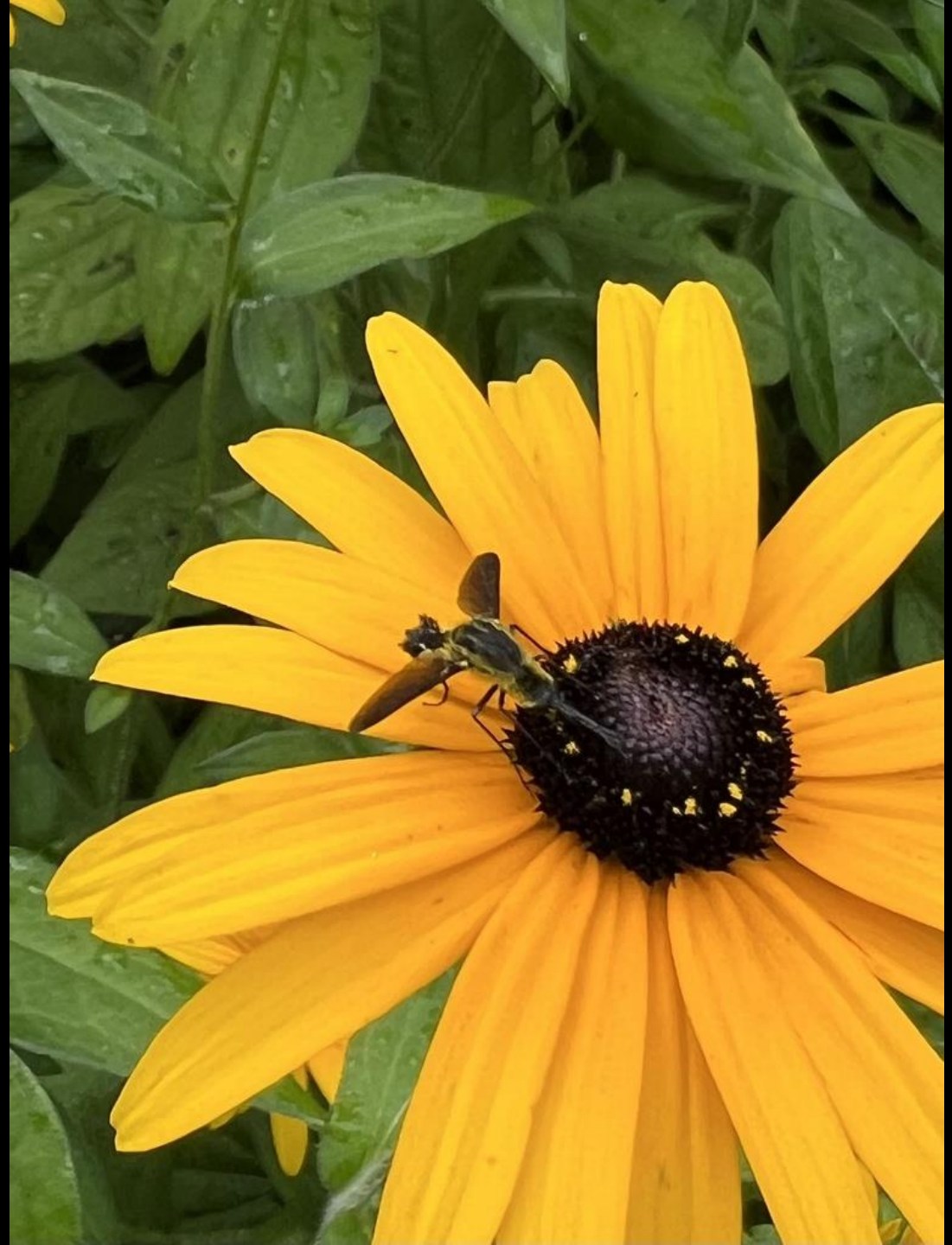
Eastern Hornet Fly
(*Spilomyia longicornis*)

Wavy Mucksucker
(*Orthonevra nitida*)

Thick headed fly
(*Physocephala tibialis*)

Elephant Mosquito
(*Toxorhynchites rutilus ssp. septentrionalis*)

Bee fly (Genus *Lepidophora*)



Banded Bee fly (Family Bombyliidae)

Beetles
(Order Coleoptera)

Beetles were among the earliest pollinators and were present before flowering plants and bees even existed. They visit flowers mostly to eat pollen and it sticks to their bodies as they forage allowing them to move it from flower to flower. Many plants actually depend on beetle pollination like magnolias, paw-paw, and tulip trees.

Locust Borer (*Megacyllene robiniae*)

Margined leatherwing beetle (*Chauliognathus marginatus*)

Red Milkweed Beetle
(*Tetraopes tetrophthalmus*)

You can help these important pollinators by:

- Planting native plants that provide pollen, nectar and are hosts to butterfy and moth larvae
- Reducing or eliminating pesticides including insecticides, herbicides and fungicides
- Providing nesting habitat for bees like plant stems and bare ground
- Providing a shallow water source
- Reducing outdoor lighting that can interfere with insect (as well as bird and other wildlife) behavior
- Visit the Town's pollinator gardens and see them for yourself! For more info visit **northhempsteadny.gov/nativeplants**

Take the Town's Pollinator Pledge at northhempsteadny.gov/pollinators

To Learn More About Pollinators Visit:

TONH Native Plant Page- information on planting native plants- https://www.northhempsteadny.gov/np

Xerces Society Pollinator Conservation: https://www.xerces.org/pollinator-conservation

Pollinator Partnership: https://www.pollinator.org/

National Wildlife Federation Pollinator Conservation: https://www.nwf.org/Our-Work/Wildlife-Conservation/Pollinators

ReWild Long Island: https://www.rewildlongisland.org/

TONH Monarch Conservation: https://northhempsteadny.gov/Monarchs