
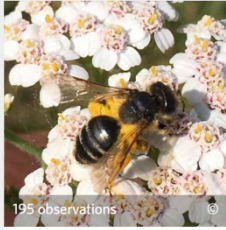






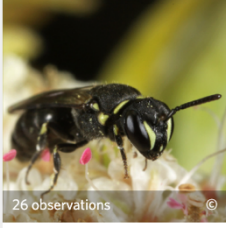

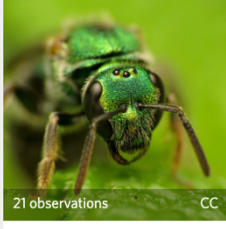


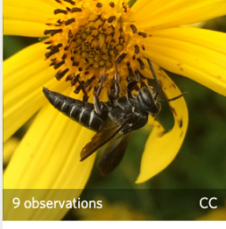

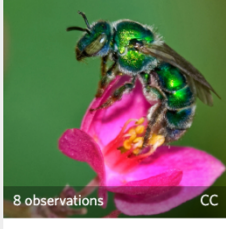
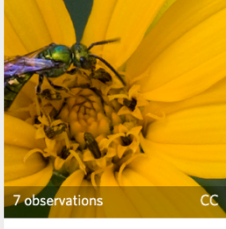






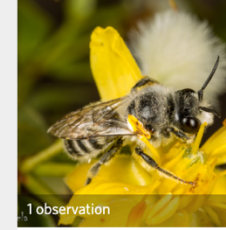


Common Bees in Ohio and Genera descriptions

 <p>243 observations CC</p> <p>Bumble Bees (Genus <i>Bombus</i>)</p>	 <p>195 observations CC</p> <p>Mining Bee (Genus <i>Andrena</i>)</p>	 <p>102 observations CC</p> <p>Leafcutter, Mortar, and... (Genus <i>Megachile</i>)</p>	 <p>64 observations CC</p> <p>Nomad Bees (Genus <i>Nomada</i>)</p>	 <p>59 observations CC</p> <p>Genus <i>Lasioglossum</i></p>
 <p>57 observations CC</p> <p>Mason Bees (Genus <i>Osmia</i>)</p>	 <p>36 observations CC</p> <p>Genus <i>Melissodes</i></p>	 <p>33 observations CC</p> <p>Striped Sweat Bees (Genus <i>Agapostemon</i>)</p>	 <p>26 observations CC</p> <p>Masked Bees (Genus <i>Hylaeus</i>)</p>	 <p>21 observations CC</p> <p>Furrow Bees (Genus <i>Halictus</i>)</p>
 <p>21 observations CC</p> <p>Genus <i>Augochlorella</i></p>	 <p>16 observations CC</p> <p>Cellophane Bees (Genus <i>Colletes</i>)</p>	 <p>11 observations CC</p> <p>Small Carpenter Bees (Genus <i>Ceratina</i>)</p>	 <p>9 observations CC</p> <p>Cuckoo Leaf-cutter Bees (Genus <i>Coelioxys</i>)</p>	 <p>8 observations CC</p> <p>Blood Bees (Genus <i>Sphex</i>)</p>
 <p>8 observations CC</p> <p>Genus <i>Augochloropsis</i></p>	 <p>7 observations CC</p> <p>Genus <i>Augochlora</i></p>	 <p>5 observations CC</p> <p>Large Carpenter Bees (Genus <i>Xylocopa</i>)</p>	 <p>4 observations CC</p> <p>Genus <i>Pseudopanurgus</i></p>	 <p>3 observations CC</p> <p>Carder Bees (Genus <i>Anthidium</i>)</p>
 <p>3 observations CC</p> <p>Common Digger Bees (Genus <i>Anthophora</i>)</p>	 <p>3 observations CC</p> <p>Genus <i>Triepeolus</i></p>	 <p>2 observations CC</p> <p>Resin Bees (Genus <i>Heriades</i>)</p>	 <p>1 observation CC</p> <p>Small Mason Bees (Genus <i>Hoplitis</i>)</p>	

H Agapostemon(4) N SpSUFL |NE|MAc|DS|MW|GL|OQ|AC 7-13mm Largest of the bright metallic green bees. Bright green; strongly arched basal vein; raised line (carina) completely encircling the rear face of the propodeum. Some species surprisingly difficult to separate without experience, particularly males. Augochlorella, Augochlora, Augochloropsis

An Andrena(120) N SPSUfl |NE|MAa|DS|MW|GL|OQ|AC 5-18mm Prominent facial fovea on females; most black, some males and a few females with yellow on clypeus. Several species are willow (*Salix* spp.) specialists and a few species have a reddish abdomen. Many subtle characters available to separate species, but when using guides score these very conservatively as there are more opportunities for error when the species number is high and the number of questions long; double check against species accounts and the complete scoring for the species. Melitta, Colletes

Mg Anthidium(4) N spSUfl |ne|MAu|DS|GL|MW|OQ|ac| 8-17mm Gardens and fields. Two introduced species are spreading throughout the region, both are common in gardens, the two native species are very uncommonly encountered, usually only in high-quality habitat. Moderate-sized, stocky bees, fast fliers with strong yellow markings, particularly noticeable on the abdomen. Females have multiple teeth on their mandibles. Trachusa, Stelis, Anthidium, Dianthidium, Pseudoanthidium 50

Ap Anthophora(6) N SPSUfl |ne|MAu|DS|GL|MW|oq|AC| 8-19mm The introduced *A. plumipes* is spreading rapidly out of the Washington, DC area and should be expected elsewhere soon. An early spring bee and occurs in woodlands as well as urban and field habitats. The other species are usually uncommon late spring to summer species that occur in mixed habitats. Some species look superficially like bumble bees by body shape, while others look like the eucerines. The hairless internal cells of the forewing narrow the possibilities down to Anthophora and the rarer Habropoda and Melecta genera. Habropoda, Melecta, Xeromelecta, Florilegus, Tetraloniella, Melissodes, Svastra, Peponapis, Melitoma, Eucera

Ap Apis mellifera(1) N SPSUFL |NE|MAa|DS|GL|MW|OQ|AC| 9-20mm Note that this species is relatively uncommon in pan traps. Long hair on eyes and the unique hind leg architecture is a giveaway. Colletes

H Augochlora pura(1) N SPSUFL |NE|MAc|DS|GL|MW|OQ|AC| 5-9mm Open habitats and wooded. Most often confused with Augochlorella spp. Told by minutely truncate tip of marginal cell, the female's large dark forked tip of the mandible, and the suture pattern of the clypeus. Also, female Augochlora have a keel or projection on the 1st sternum, which is not present in Augochlorella. Augochlorella, Augochloropsis, Agapostemon

H Augochlorella(3) N SPSUFL |NE|MAa|DS|GL|MW|OQ|AC| 3-10mm Fields and other open habitats. Most often confused with Augochlora pura. Told by the lack of a minutely truncate tip to the marginal cell. The female's mandible tip with a subapical tooth similar to most other halictids. Augochlora, Agapostemon, Augochloropsis

H Augochloropsis(3) N SPSUFL |ne|MAu|DS|GL|MW|oq|-| 6-12mm This bright green group regularly occurs in low numbers in most collections. The D-shaped, non-oval tegula is distinctive in both sexes. Agapostemon, Augochlorella, Augochlora

Ap Bombus(28) p SPSUFL |NE|MAc|DS|GL|MW|OQ|AC| 7-29mm Common throughout all environments. In non-parasitic females the flattened tibia with a shiny, hairless area on the outer tibia face, surrounded by long hairs is distinctive. Under the microscope the lack of a jugal lobe is definitive, but often difficult to determine. Ptilothrix, Xylocopa, Centris, Anthophora, Habropoda

An Calliopsis(3) N spSUfl |NE|MAc|DS|GL|MW|OQ|AC| 4-10mm Open fields. The very common *C. andreniformis* often inhabits heavily used playing fields and other human-impacted sites; other species extremely rare. The small size, two submarginal cells, the bright yellow legs of the male and the three vertical ivory-colored facial markings of the females are a distinctive combination. Perdita, Andrena

Ap Cemolobus ipomoeae(1) N SU |-|mar|DS|GL|MW|-|-| 10-17mm A large specialist on native morning glories (*Ipomoea* spp.), very rarely detected. The rim of the clypeus has two lateral projecting knobs and a central latitudinally-extended, projecting lobe. The other eucerines have uninterrupted clypeal rims. Melitoma, Anthophora, Eucera, Melissodes, Tetraloniella, Melecta, Xeromelecta, Peponapis, Svastra, Florilegus

Ap Ceratina(5) N SPSUFL |NE|MAc|DS|GL|MW|OQ|AC| 2-9mm Found in most habitats. Small metallic steel blue to dark green bees with white markings on their clypeus (one tiny species nearly jet black), that tend to keep their abdomens more upright than other species. Abdomen parallel-sided, shaped like a plastic “spring water” bottle. Abdomen of the females comes to a distinct point, and in the same region the males have a small projecting plate or flange.

Mg Chelostoma(3) N SPSU |ne|MAu|DS|GL|MW|oq|-| 4-9mm Small, exceedingly slender black bee. T1 does not have a carina and propodeum lacks pits beneath the metanotum. Ashmeadiella, Heriades, Osmia, Hoplitis

Mg Coelioxys(22) P SPSUFL |NE|MAc|DS|GL|MW|OQ|AC| 5-17mm Similar to appearance to *Megachile*, who they parasitize, but usually narrower. Most females with a clearly pointed and extended abdomen tip. The tip of most male abdomens with a unique set of spines or projections. The tips of the axillae extend out and back from the edge of the scutellum. *Megachile*, *Lithurgus*

C Colletes(35) N SPSUFL |NE|MAu|DS|GL|MW|OQ|AC| 6-15mm General body shape often similar to a honey bee. Face heart-shaped due to the angling inward of the compound eyes. Distinctive that lower portion of the second recurrent vein arches out toward wing tip. *Apis*

H Halictus(6) N SPSUFL |NE|MAc|DS|GL|MW|OQ|AC| 5-14mm Common field and urban species. Most often confused with *Lasioglossum*, particularly *H. confusus* specimens because of this species’ metallic body. This confusion will extend to *H. tectus* a new metallic invasive that has been detected in Philadelphia, PA and the Baltimore, MD/Washington, DC areas. The cross veins of the submarginal cells are all the same width, though this can take some time to be able to become familiar with; the hair bands on terga originate from the rim of the segment rather than from the base and are uniform and complete. Additionally the bottom of basal vein is usually more strongly arched than *Lasioglossum* and this group has a larger, more robust feel in direct comparison. *Dieunomia*, *Lasioglossum*, *Dufourea*

C Hylaeus(25) N SPSUFL |NE|MAc|DS|GL|MW|OQ|AC| 2-11mm Black, small, narrow, with relatively few hairs and no scopa as this genus carries pollen internally. Most females have elongate, thin, diamond-shaped 53 yellow or ivory markings between the eye and clypeus/antennae while the males usually have more extensive yellow markings, with yellow throughout the area below the antennae.

H Lasioglossum(126) p SPSUFL |NE|MAc|DS|GL|MW|OQ|AC| 2-12mm A diverse group of largely small bees. Species have one or two of the outer submarginal crossveins weakened. The weak veins are SLIGHTLY thinner and therefore appear a bit fainter; a subtle character that takes time to detect consistently. This character is most noticeable in females but less so in males where it can be difficult at times to detect and consequently males may key out to the genus Sphecodes or Halictus. Body type varies from all black to the common slightly metallic dark green and blue forms. The genus Halictus almost always has a hair fringe on the rims of the abdominal tergites that extends over the base of the next tergite. Lasioglossum, when a fringe or band of hair is present, has hair that is absent from the rim but is located at the very base of the segment and runs underneath the preceding segment. The effect is that in both groups the band of hairs appear in about the same location so an inspection under the microscope is necessary to determine where the band's true location lies. Lasioglossum specimens are, on average, a bit smaller and slighter in build than Halictus. Halictus, Dieunomia, Dufourea, Sphecodes

Mg Megachile(44) N SPSUFL |NE|MAc|DS|GL|MW|OQ|AC| 5-21mm Bees in this genus are generally larger than other species where the female has scopa under its abdomen. These are common wide-bodied bees, most with narrow white bands of hair on their abdomens. Has no arolia between the tarsal claws. Usually fly quickly between flowers, often producing an audible hum. Lithurgus, Coelioxys

Ap Melissodes(27) N SPSUFL |NE|MAc|DS|GL|MW|OQ|AC| 6-18mm Most common in summer and early fall. All very hairy, females with thick long scopa, fast fliers, robust, bumble bee-like bodies. Males have extremely long antennae. Females told from other eucerines by the shape of the front of the tegula, however, this is often hidden by dense hair and must be scraped off with a pin tip in order to see. Melecta, Xeromelecta, Anthophora, Xenoglossa, Peponapis, Florilegus, Melitoma, Eucera, Svastra, Tetraloniella, Cemolobus

Ap Nomada(70) P SPSUFL |NE|MAc|DS|GL|MW|OQ|AC| 2-17mm Wasp like, in their reduced body hair and thin legs. Both sexes usually with extensive yellow and red/orange markings, females more so. Abdomen usually held slightly above horizontal. Setae on the apical end of the hind tibia often very useful in 54 identification, more so in females than males. Sphecodes

Mg Osmia(29) N SPSU |NE|MAc|DS|GL|MW|OQ|AC| 5-17mm Stubby, most are dark metallic blue or green, a few of the larger species are brown. Has a nearly absent or limited parapsidial line on thorax that is either just an enlarged pit or travels in a few cases only a very short distance. Hoplitis, Ashmeadiella, Heriades, Chelostoma

Ap Peponapis pruinosa(1) N SPSUFL |NE|MAc|DS|GL|MW|OQ|AC| 9-16mm Often confused with Melissodes, but has rounded tegulae. The female's basitarsus is sparse compared to Eucera and Melissodes. Melecta, Xeromelecta, Anthophora, Xenoglossa, Florilegus, Melitoma, Eucera, Svastra, Tetraloniella, Cemolobus, Melissodes

Ap Ptilothrix bombiformis(1) N SUFL |M|Ac|DS|GL|MW|-|-| 10-20mm Bumble bee-like, longer than normal legs that have long hooked claws, hair short and tightly packed, rounded crown to the head and lack of arolium pad between tarsal claws. Bombus, Xylocopa

H Sphecodes(41) P SPSUFL |NE|M|Au|DS|GL|MW|OQ|AC| 2-13mm Many species have a bright red abdomen contrasting with dark black bodies, has a strongly bent base of the basal vein (note that males are often all black). Similar to Lasioglossum but females lack scopa, wings have no weak veins, most species have strongly sculptured propodeums. Nomada, Lasioglossum

Mg Stelis(12) P SPSUFL |NE|M|Au|DS|GL|MW|OQ|AC| 3-12mm Uncommon, small to medium-sized. Variable in look, varying from small and black to larger specimens with extensive yellow and sometimes red markings. Females lack scopa. Dianthidium, Anthidium, Anthidiellum, Paranthidium, Trachusa, Pseudoanthidium

Ap Svastra(5) N SPSUFL |M|Au|DS|GL|MW|OQ|-|-| 10-21mm Uncommon, large, eucerine group. Both males and females have distinct, but often difficult to find, flattened hairs with spoon-shaped tips interspersed between the scutum and scutellum and along the base of T2. Melecta, Xeromelecta, Anthophora, Xenoglossa, Peponapis, Florilegus, Melitoma, Eucera, Melissodes, Tetraloniella, Cemolobus

Ap Triepeolus(24) P SPSUFL |NE|M|Au|DS|GL|MW|OQ|AC| 6-18mm Like black-and-white oriental rug, swirling patterns on abdomen and thorax that under close inspection are made up of minute fat little hairs that are lying down across the surface. Told from the very similar Epeolus by features on the rear of the abdomen. Epeolus, Epeoloides, Ericrocis

Ap Xylocopa(2) N SPSUFL |NE|M|Ac|DS|GL|MW|OQ|-|-| 13-24mm Large, bumble bee-like, with flattened faces. Males have prominent white facial markings, both with a very long marginal cell, hind wing with a jugal lobe, black abdomen with few hairs and slightly iridescent surface readily visible. Bombus, Ptilothrix

Example Account Followed by an Explanation of Formatting:

Ap Triepeolus(24) P SPSUFL |NE|MAu|DS|GL|MW|OQ|AC| 6-18mm Like black and white oriental rug, swirling patterns on abdomen and thorax that under close inspection are made up of minute fat little hairs that are lying down across the surface. Told from the very similar Epeolus by features on the rear of the abdomen. Epeolus, Epeoloides, Ericrocis

Ap = Family of Bees Triepeolus = Genus (24) = Number of species east of the Mississippi P = Nest Parasitism SPSUFL = Seasonal Occurrence |NE|MAu|DS|GL|MW|OQ|AC| = Regional Occurrence 6-18mm = Size range Like ... = Genus notes Epeolus, Epeoloides, Ericrocis = Similar Genera

Explanation of Codes

Families of Bees: An Andrenidae, Ap Apidae, C Colletidae, H Halictidae, Mg Megachilidae, Mt Mellitidae

Nest Parasitism: N no species parasitic, P all species parasitic, p some species parasitic, most not

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Seasonal Occurrence: SP Spring, SU Summer, FL Fall. Lowercase indicates that group only uncommonly occurs during that season.

Regional Occurrence: NE New England, MA Middle Atlantic, DS Deep South, GL Great Lakes, MW MidWest, OQ Ontario and Quebec, AC Atlantic Canada. Lower case indicates that this genus only occurs rarely in the region. A hyphen indicates the genus is absent in that region. The third letter following the mid-Atlantic code indicates the commonness status of that group in the mid-Atlantic area.

From: The Very Handy Manual: How to Catch and Identify Bees and Manage a Collection

A Collective and Ongoing Effort by Those Who Love to Study Bees in North America Last

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