Specialist Bees in Minnesota

Dianthidium simile on *Heterotheca villosa.*

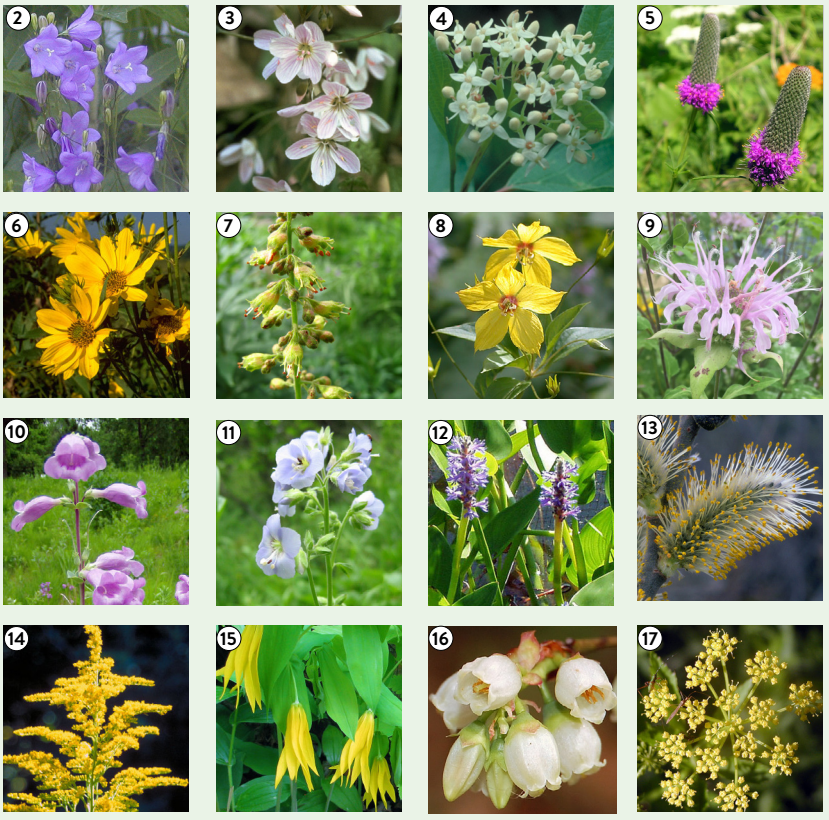
There are over 20,000 bee species worldwide and 4,000 are native to the United States. ***Minnesota is home to about 500 diverse species of native bees!*** They range in size, shape and color and perform a variety of important functions in our ecosystems. In Minnesota, our bees support native plant communities, pollinate food crops such as apples, blueberries, and cranberries, and pollinate flowers in your garden.

About 30% (147 species) of Minnesota bees are **oligolectic** (oh-LEE-goh-LECT-ic), or commonly referred to as specialists. Females specialize in collecting pollen for their offspring from a single plant genus or species (or from only a few genera or species). This means that they are physiologically, temporally, and/or environmentally constrained to a narrow resource. *Macropis* bees are unique in that they collect floral oil from their host plants in the native loosestrife genus (*Lysimachia*).

Andrena nubecula

Some of Minnesota's flowering plants that are used by oligolectic bees include:

① Leadplant (*Amorpha*)
② Bellflowers (*Campanula*)
③ Spring Beauty (*Claytonia*)
④ Dogwoods (*Cornus*)
⑤ Prairie Clovers (*Dalea*)
⑥ Sunflowers (*Helianthus*)
⑦ Prairie Alumroot (*Heuchera*)
⑧ Loosestrifes (*Lysimachia*)
⑨ Bee Balm (*Monarda*)
⑩ Beardtongue (*Penstemon*)
⑪ Jacob's Ladder (*Polemonium*)
⑫ Pickerelweed (*Pontederia*)
⑬ Willows (*Salix*)
⑭ Goldenrods (*Solidago*)
⑮ Bellworts (*Uvularia*)
⑯ Blueberry and cranberry (*Vaccinium*)
⑰ Alexanders (*Zizia*)



DEPARTMENT OF NATURAL RESOURCES

Andrena distans on *Geranium maculatum.*

Andrena ziziae on *Zizia*.

Andrena integra on *Cornus.*

Andrena helianthi on *Helianthus.*

Dufourea monardae on *Monarda fistulosa.*

Colletes latitarsis on *Physalis.*

Perdita perpallida on *Dalea.*

Colletes simulans on *Solidago rigida.*

Calliopsis nebraskensis on *Verbena.*

Melissodes druriellus–oligolectic on multiple genera in the Asteraceae family–on *Symphyotrichum.*

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Megachile pugnata–oligolectic on multiple genera in the Asteraceae family–on *Echinacea.*