# Documenting Bees

Documenting bees is an important part of the ongoing bee research. Researchers are looking at the types of flowers commonly visited and the types of bees found in different areas. You can document bees, too; all you need are good observational skills and a camera! By following the right steps, your documentation can help researchers in your area. If you want to document the bees you are seeing, here is a website detailing how to be sure your documentation is useful to researchers: **www.inaturalist.org**

**Sources:**
www.xerces.org/nrc-nas
www.xerces.org/fact-sheets

**A great guide to native bees throughout the United States:**
http://1.usa.gov/1Oy4uEp

**For care of bee nest boxes:**
http://bit.ly/Xw4emw
http://bit.ly/1XpWAFZ
http://bit.ly/1VZMQRO
http://bit.ly/1XpVM3X
http://1.usa.gov/1UVhjLI

**To learn more about neonicotinoids, European studies, and other studies:**
http://bit.ly/1U9YO6D
http://go.nature.com/1YsnLQ5

**Questions or comments can be directed to:**


**D. Bryan Bishop, PhD**
Associate Professor, Concordia College
bishop@cord.edu

**Peter Schultz, PhD**
Director, Longspur Prairie Fund
schultz@longspurprairie.org


**Pollinator Field Guide**

LONGSPUR PRAIRIE FUND

BEE HUNT

**www.longspurprairie.org**

# Attracting bees:

Bees emerge as early as April and will continue to be active until late September or first frost. Because of this, when choosing what to plant in your pollinator garden, make sure to use a variety of plants that will bloom throughout the season. The Xerces Society recommends having a minimum of three plant types blooming in the early, middle, and late season. Look for colorful blooms and plants that are native to your area. Some plants, such as peonies, zinnias, and marigolds, have been modified to produce larger blooms by increasing the rows of petals, which reduces their pollen production. For pollinator gardens these plants should be avoided. Here are some tips on how to create your own pollinator garden:

- Create a pollinator garden with native prairie plants (Xerces)
  - If looking for seeds to plant, make sure the seeds are not coated in any type of pesticide, especially neonicotinoids.
  - Greenhouse bought plants may be treated with neonicotinoids, be sure to ask your supplier before purchasing.
  - Blackberries and raspberries provide food as well as nesting sites
- Use clover or other inexpensive flowering plants.
- Provide wind breaks, especially by using flowering native trees (particularly in farming areas [Xerces])
- Crab apple and some maple trees can provide an early nectar/pollen source, while basswood trees can provide a mid-summer nectar/pollen source.

# Bees in the area:

There are many different types of bees native to the western MN/ND region (around 40-50 genera, and an estimated 400+ species in Minnesota) and research is ongoing. The Minnesota DNR started a project in 2014 aimed at identifying and cataloging native bees to begin determining the diversity and distribution of native bees in Minnesota. This study will create a better database of bee species in Minnesota, as well as assessing the health of native bee populations. At this point in time, some common bee genera found in western Minnesota/North Dakota include:

- Agapostemon spp (green sweat bees)
- Augochlorella spp (green sweat bees)
- Andrena spp (digger/miner bees)
- Apis mellifera (honeybee, one species)
- Lasioglossum spp (small sweat bees)
- Halictus spp (sweat bee)
- Osmia spp (blue orchard bees)
- Bombus spp (bumble bee)
- Melissodes spp (long-horned bees)
- Megachile spp (leaf cutter bees)

*This is not a complete list of bee genera for MN/ND. However, they are the most common.

# Providing Habitat:

Bee habitats are often thought of in the context of hives or hollow trees filled with honey. In reality, bees use a variety of nesting sites that can be hard to come by in our modern gardens. There are two main types of native bee nests: wood/stem and ground nests (Xerces). About 70% of native bee species create their nests in the ground. By implementing a few simple changes, you can make your garden friendly to nesting bees! Here's what you can do:

**Provide Habitats for Wood/Stem Nesting Bees**

- Nesting Blocks
  - Blocks of wood with holes of varied width
  - Old stumps with beetle holes
- Stem or bundles
  - 6" pieces of hollow bamboo or rolled paper in bundle
  - Leave raspberry canes until late spring to allow nesting bees to emerge
- Bumble Bee Box

**Provide Habitat for Ground Nesting Bees**

- Skip the mulch
  - Bees love bare ground for nests
- Sand Pits
- Provide bunch grasses for bumblebee nests
  - Prairie drop seed and little bluestem are two examples of native Minnesota bunch grasses

*There are sources for bees and nesting areas on the web, see back for more information.*

# Neonicotinoids:

Recently, these pesticides have been under scrutiny as possible contributors to the decline in pollinator numbers. The use of these chemicals is banned in Europe and studies are underway to determine their role in decline in pollinator health and populations.

*See upper-left regarding store bought plants.