

Wild Bee Surveys in Minnesota's Prairie-Forest Habitats

Our knowledge of wild bees

Wild bees are vital components of prairie and forest ecosystems. They help pollinate 78% of plants in temperate regions. Although our knowledge is improving about the diversity and distribution of Minnesota's bees, large gaps still exist. This project builds upon the initial ENRTF-funded grant (ML14-5(i) Wild Bee Pollinator Surveys in Prairie-Grassland Habitats). It will expand surveys into the Eastern Broadleaf Forest in central and southeastern Minnesota.

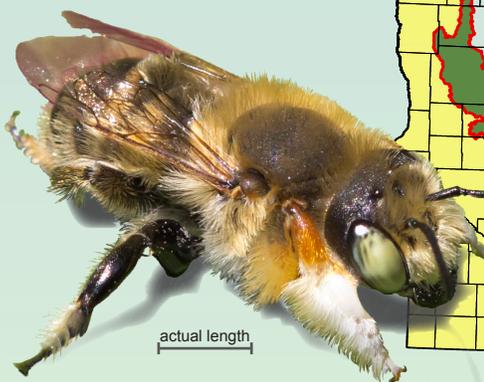
This project complements other pollinator proposals

Minnesota has an engaged and growing community of pollinator research. MNDNR surveys will provide baseline data about the diversity and distribution of Minnesota's bee species. Efforts will continue to coordinate site selection, survey protocols, data sharing, and outreach efforts among pollinator projects in the state.

This project will

- **Extend surveys of wild bees to forested and open habitats in central and southeastern Minnesota**
- **Continue to develop resources and educational opportunities that promote conservation and appreciation of Minnesota's wild bees**

The project will expand surveys in prairie-grasslands (yellow-shaded) to the Eastern Broadleaf Forest (green shaded).



Broad-handed leaf-cutter bee (*Megachile latimanus*), a native species of leaf-cutter bee, is associated with forest habitats. (photo courtesy of Joel Gardner).

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Extension of wild bee surveys from the prairies into the Eastern Broadleaf Forest



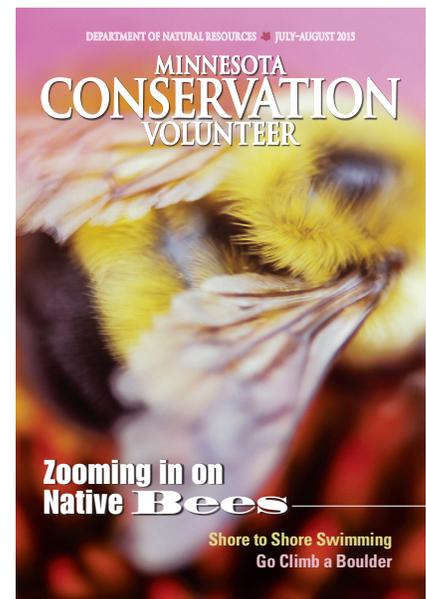
Water traps collect research specimens. Bees are attracted to the brightly-colored cups that are set in typical bee foraging areas. Specimens are collected and identified by species. Their data is recorded in a Minnesota native bee database.

Activity 1. Wild Bee Surveys in Minnesota's Prairie-Forest Border Region

- Continue surveys of wild bees on select high-quality native prairie sites
- Begin surveys in forested and open habitats in the Eastern Broadleaf Forest ecological province
- Incorporate data into the MNDNR Minnesota wild bee database; deposit voucher specimens into insect and plant repositories; and evaluate species diversity and habitat associations

Activity 2. Continuation of Pollinator Education & Outreach

- Continue development and delivery of publication and web-based products that interpret results of surveys
- Provide technical assistance to guide conservation and management actions
- Continue outreach and educational activities that inform a diverse audience about the importance of pollinators
- Lead collaborative workshops and meetings that enhance coordination among pollinator professionals and enthusiasts



The cover story from a recent *Minnesota Conservation Volunteer* issue features efforts to inventory Minnesota's native bee species.

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This project will provide foundational natural resource data to address the priorities of state agencies and other partners for conserving pollinators and native habitat in Minnesota.