SUPPORTING SOUTHEAST MICHIGAN POLLINATORS

How you can help pollinators

Reduce or eliminate pesticide use. Purchase untreated, organic, and/or non-GMO seeds and plants.

Provide nesting habitat. Bare ground, old tree stumps, woody plant stems, and fallen leaves support nesting bees & butterflies.

Plant a garden with native species that flower from May-Oct. Buy plants locally and use Michigan genotypes when possible.

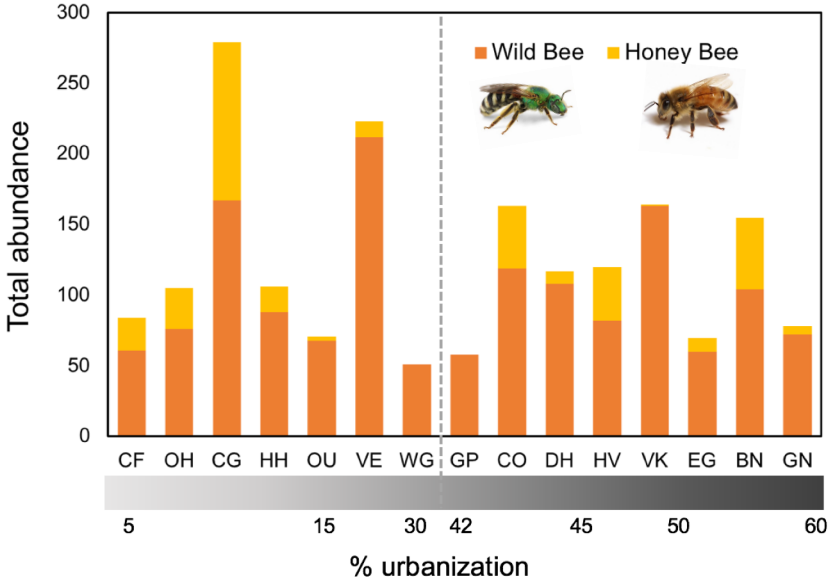
For more information about ways to support Southeast Michigan pollinators, check out www.instagram.com/plantsforpollinators.
Information provided by the Jamieson Lab at Oakland University.

THE PROBLEM: Pollinators face many threats, including habitat loss from increased agricultural intensification and urbanization. Across the globe, many species of bees, butterflies, and other beneficial insects are in decline.

Why should we care about pollinators?

HOW INSECTS HELP US: Pollinators and other beneficial insects provide important ecosystem services. In addition to supporting the production of nutritious fruits and vegetables, beneficial insects regulate insect pest populations and provide food for other animals. Insects are a major source of protein for birds!

How does urbanization affect bees in Southeast Michigan?



JAMIESON LAB URBAN POLLINATOR STUDY

We found 110 bee species across 15 farms and gardens in the tri-county region, including two new species records for Michigan. The figure above shows how the number of wild bees and honey bees vary across study sites, arranged by increasing urbanization.

Detroit study sites supported more wild bees than suburban and rural sites. Urbanization, however, benefited some species more than others, namely exotic and cavity nesting bees. Bumble bees and other social bees were negatively affected by urbanization.

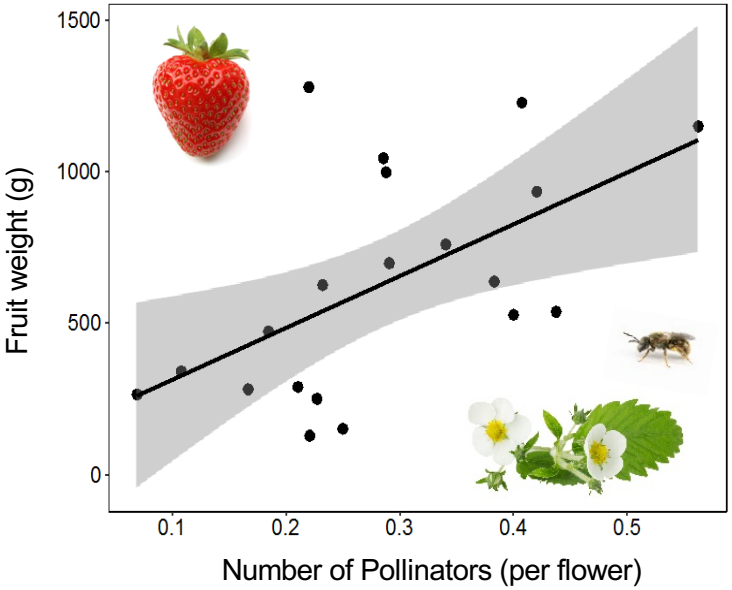
GOOD NEWS: You can help by planting more flowers!

We found that both the amount of bloom cover and flower diversity positively influenced wild bee abundance and diversity.

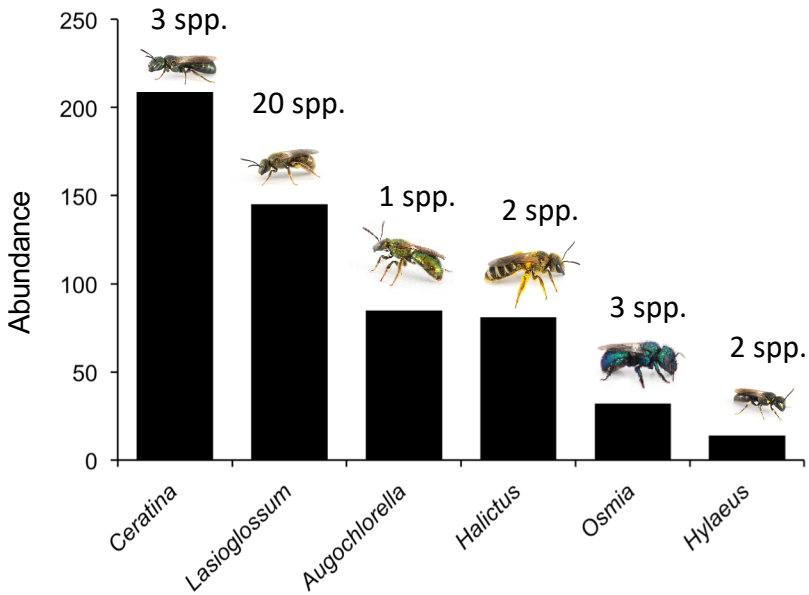
Native plant species are best for pollinators. In addition to providing nectar and pollen resources, many native species also serve as host plants for butterfly and moth caterpillars.

To learn more, follow us on Instagram @PlantsForPollinators.

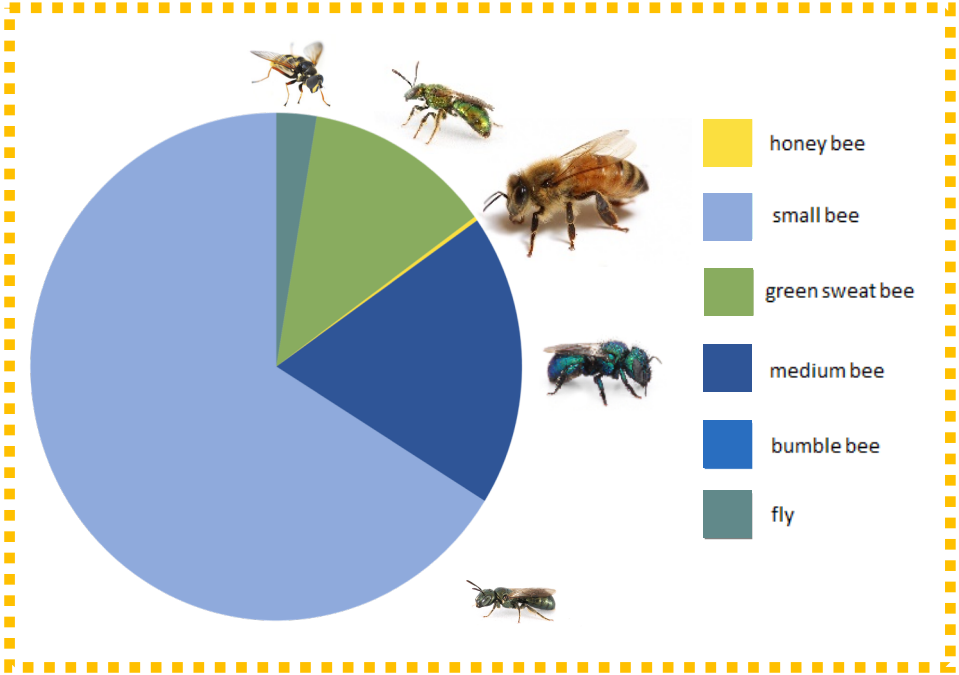
Pollinators enhanced strawberry production.



Although strawberries can self-pollinate, more bee visits to flowers resulted in greater fruit weight and more marketable strawberries. Urbanization had no effect on productivity.



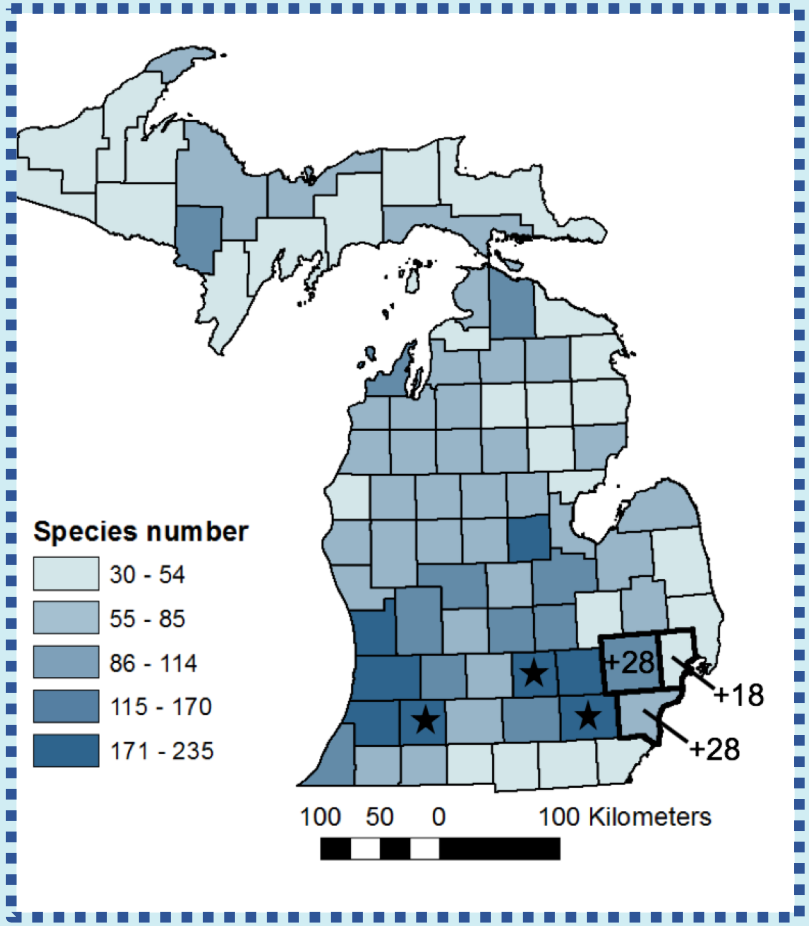
Wild bees were the major pollinators of strawberries across our ten study sites. The pie chart below shows the relative abundance of flower visitors by course categories.



The most common pollinators were small bees, such as small sweat bee species in the genera *Ceratina, Lasioglossum, and Hylaeus*. Other frequent pollinators included the green sweat bees *Augochlorella and Augochlora* and medium bees such as *Halictus & Osmia species.*

We observed 42 bee species visiting strawberry flowers. The graph to the left shows the most frequent bee genera (groups). The number above each bar shows how many species we observed visiting flowers in each bee genus (group).

The Jamieson Lab
Ecology of Plant-Insect Interactions



In our one year survey, we found bee species that had not been previously recorded in the tri-county region.

The map above shows the number of species known for each county, indicated by color from a recent study*. Our survey added 28 species in Oakland and Wayne counties, respectively and 18 species in Macomb.

*Gibbs et al. 2017, Zootaxa

Thanks to the farms and gardens participating in our research!