



## **Benefits of No Mow Areas at Winslow Sports Complex for Insect Diversity**

City of Bloomington Parks and Recreation Department has been working hard to restore the natural habitat in and around Winslow Sports Complex. As part of this goal, they have reduced or stopped mowing in several areas. In July 2023, Indiana University Entomology students conducted an insect inventory to examine how insect diversity varies between the no mow area and those areas that are still mowed regularly.

We found that the No Mow Areas have more insect diversity, as well as higher abundance of insects, compared to the mowed areas of the park. The groups that are found in No Mow Areas include beneficial pollinators and predatory insects. This highlights the health of these habitat patches and the benefits that they provide for all of the area in and around Winslow Sports Complex. Our data supports the restoration of No Mow Zones and shows that they are making a difference here in Bloomington!

**Compared to the mowed areas at Winslow Sports Complex, the No Mow Areas showed higher insect diversity and higher insect abundance. This demonstrates the benefits of No Mow zones for biodiversity overall.**

## Importance of Groups Found in No Mow Areas

### Pollinators

Pollinators are critical for the functioning of an ecosystem, as they are necessary for the reproduction of many plants. One important group of pollinators, the Lepidopterans (butterflies and moths) was only observed in the No Mow Areas. Hymenopterans (bees, wasps, and ants) were found in No Mow Areas, as well as the mowed grass. Honeybees were the most common group of pollinators, which were found in both areas, though they were substantially more abundant in the No Mow Areas.

### Predatory Insects

Predatory insects are commonly considered beneficial to humans, as they help to reduce the numbers of pests, including insects like mosquitoes and those that damage plants. Most predatory insects require a diverse habitat, with a variety of food sources available to them.



While there are some predatory Coleopterans, Hymenopterans, and Hemipterans (which were found in both areas), the major groups of predatory insects were only found in the No Mow Areas. These predatory insects include Odonates (dragonflies and damselflies), Neuropterans (lacewings), and Mantids (praying mantises). These predatory insects are a great indicator that the No Mow Areas represent healthy, diverse habitats!

## Insect Orders Found in Each Area

No Mow	Mow
Orthopterans (Grasshoppers, crickets, katydids): Very abundant	Orthopterans (Grasshoppers, crickets, katydids): Very abundant
Diptera (Flies, particularly house flies and mosquitoes): Very abundant	Diptera (Flies, particularly house flies and mosquitoes): Very abundant
Hymenopterans (Bees, wasps, ants): Abundant	Hymenopterans (Bees, wasps, ants): Somewhat abundant
Hemipterans (True bugs, planthoppers): Somewhat abundant	Hemipterans (True bugs, planthoppers): Semi-rare
Lepidopterans (Butterflies, moths): Abundant	Coleopterans (Beetles): Somewhat abundant
Odonates (Dragonflies, damselflies): Semi-rare	
Neuropterans (Lacewings): Semi-rare	
Trichoptera (Caddisflies): Semi-rare	
Mantids (Praying mantises): Very rare	

Data Collected by: Paul Ginella, Bianca VanHooks, Fran Velez-Heredia, Matthew Deering during Indiana University Bloomington Entomology Summer 2023. Data Summary and landscape photo by Dr. Megan Murphy, Indiana University Department of Biology.

