

# Growing the Buzz: Promoting Local Bee, Wasp, and Plant Knowledge Through Biodiversity Surveys and Environmental Education

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2023 Secret Arboretum Insect Sampling



## BACKGROUND

- Humans influence the natural landscape, which impacts organisms and ecosystems
- Bees and wasps are two vulnerable groups due to their complex and varied needs
- Urban greenspaces used by humans may be designed to support bee and wasp populations
- Environmental education allows scientific communication and connection to nature

## OBJECTIVES

- Document the bees and wasps found at Secret Arboretum in Wooster, Ohio
- Quantify differences in collection between different gardens and sites
- Reflect on the use of environmental education to teach about bees, wasps, and plants

## METHODS

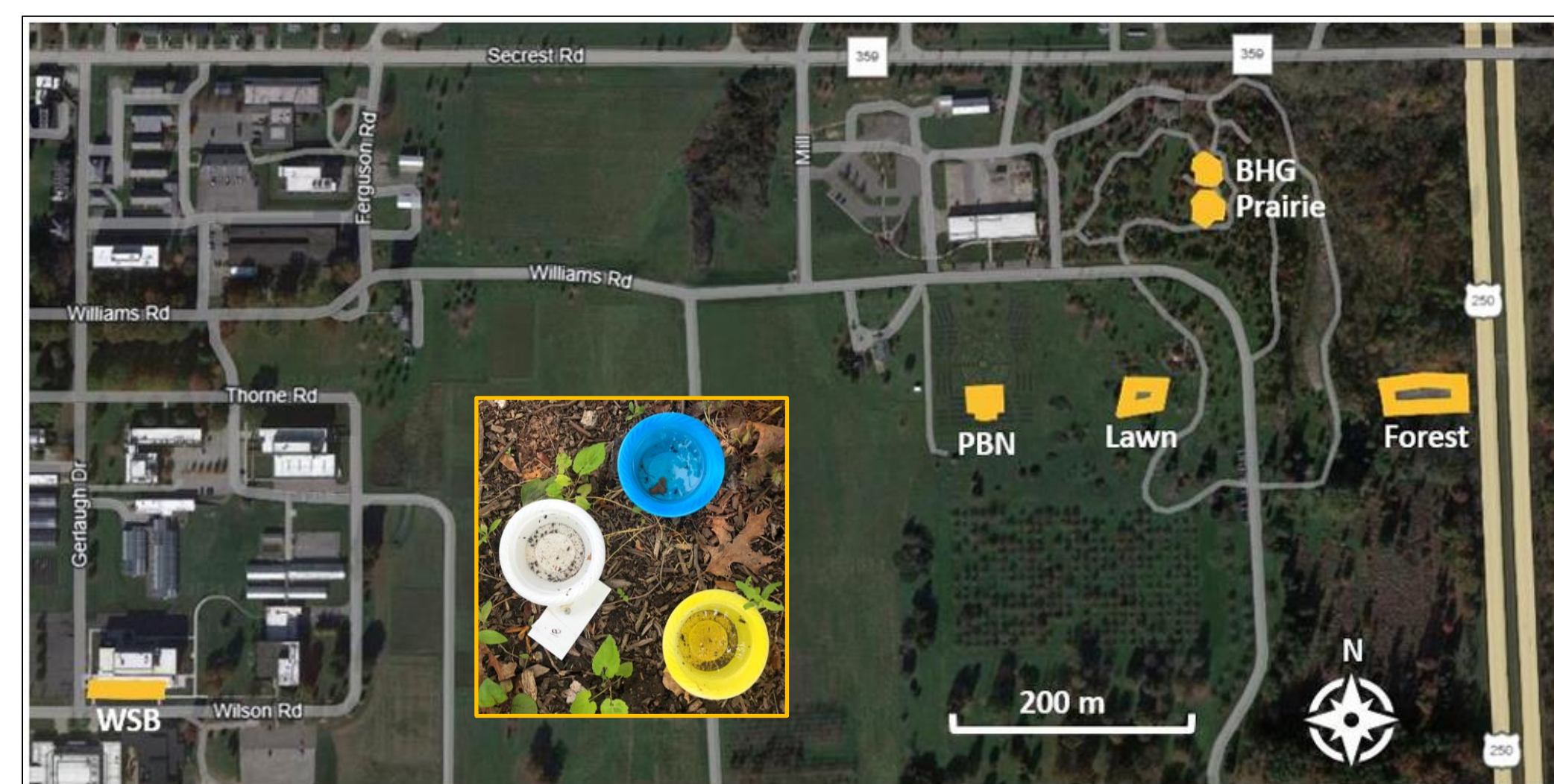


Figure 1: Map of all 6 sampling locations, including a set of the pan traps used at each site (3 sets at each location, 54 traps total). Sampling was conducted 5 times over Summer 2023.

## CONCLUSIONS

- Few differences in overall specimen collection
- Similar differences in sites for wasp superfamilies and bee families (from most to least diverse):
  - WSB, BHG, Forest, Prairie, Lawn, PBN
- Gardens with different resources support different taxa of bees and wasps

## NEXT STEPS

- Educate others about findings
- Further surveys at the Arboretum

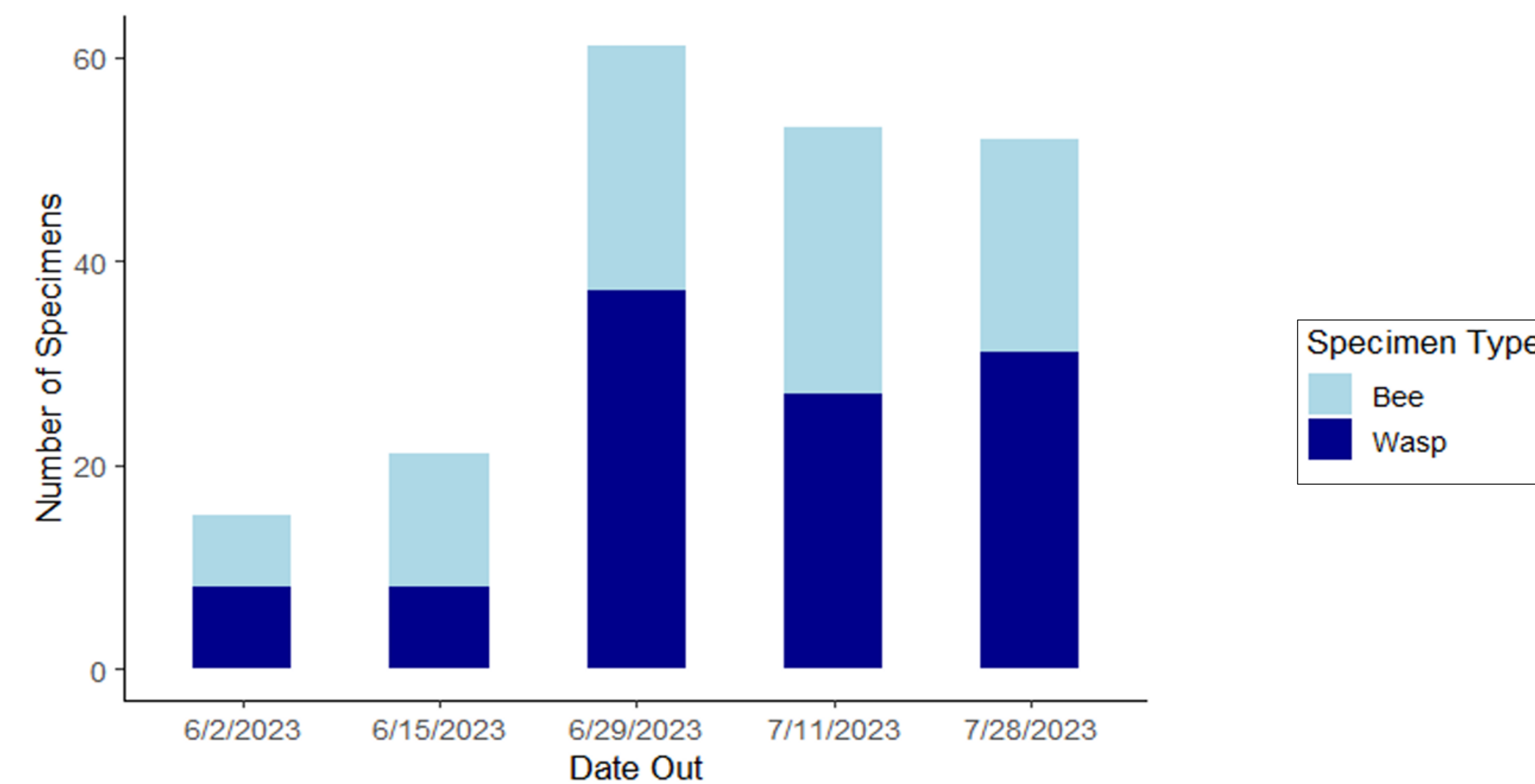
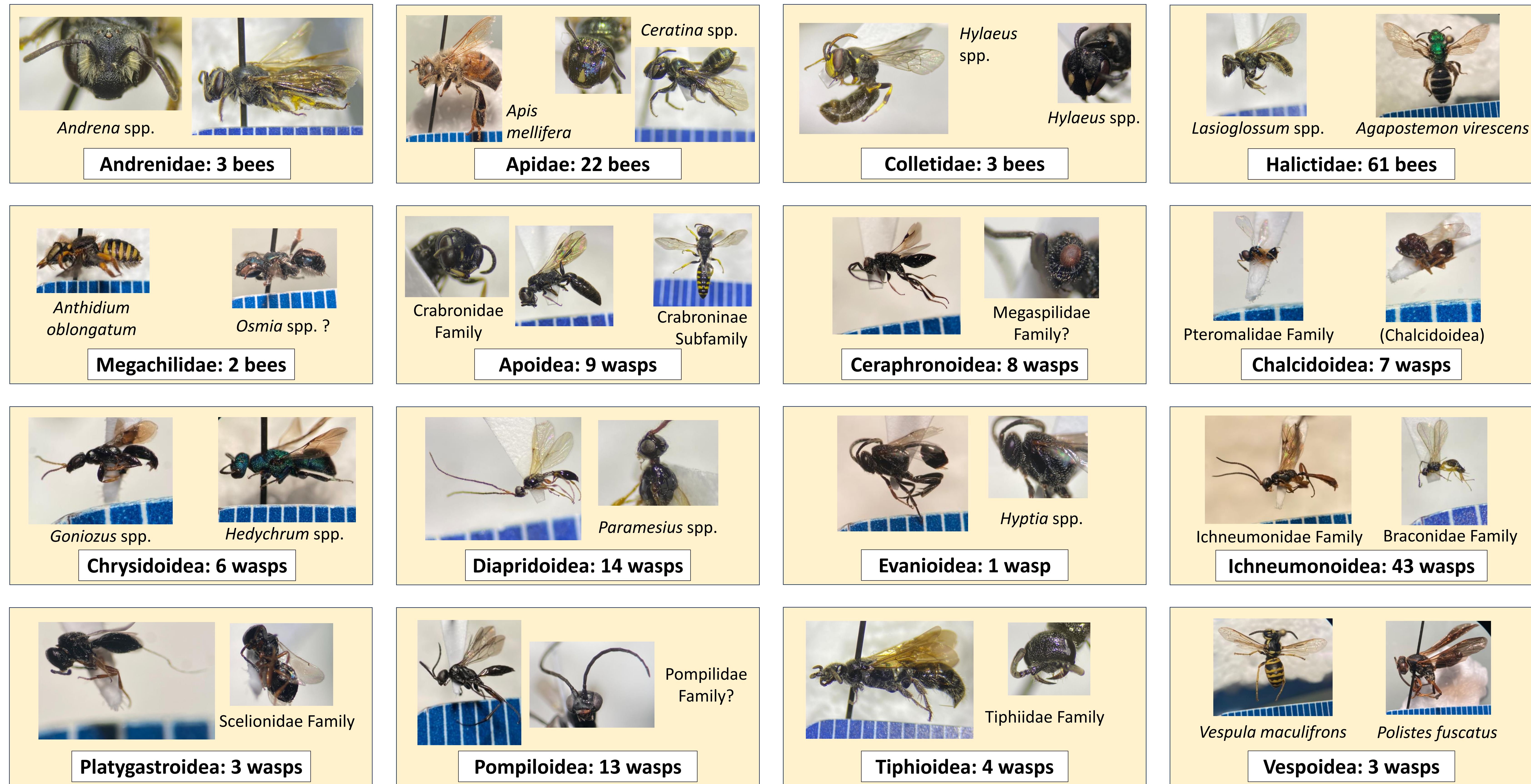


Figure 2: Total number of specimens collected across all sampling locations for each date that pan traps were taken out of the field (Date Out, n = 202). Date was a significant factor in predicting average specimen count.

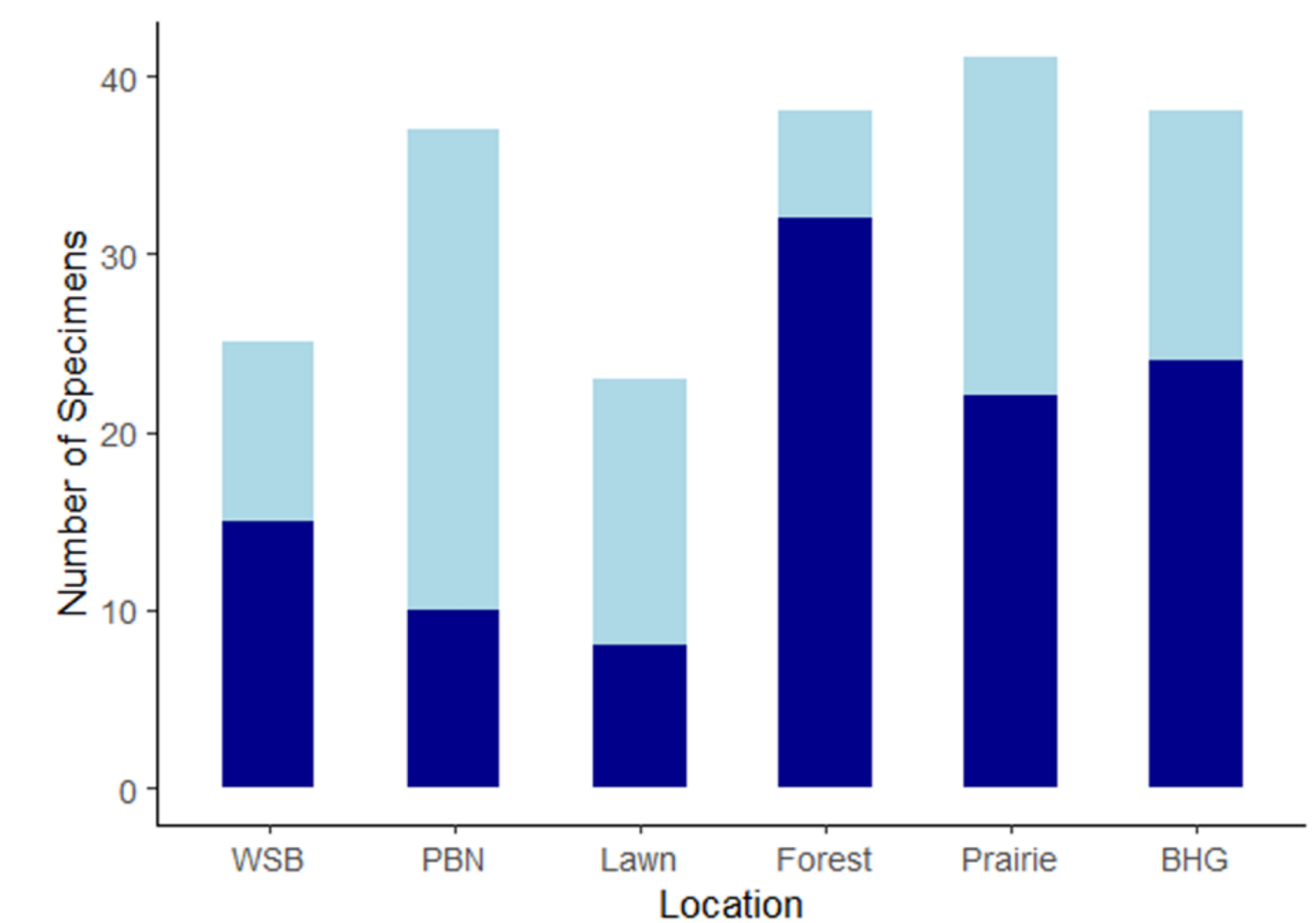


Figure 3: Total number of specimens collected across all sampling dates at each sampling location (n = 202). Location was a significant factor in predicting average specimen count.