

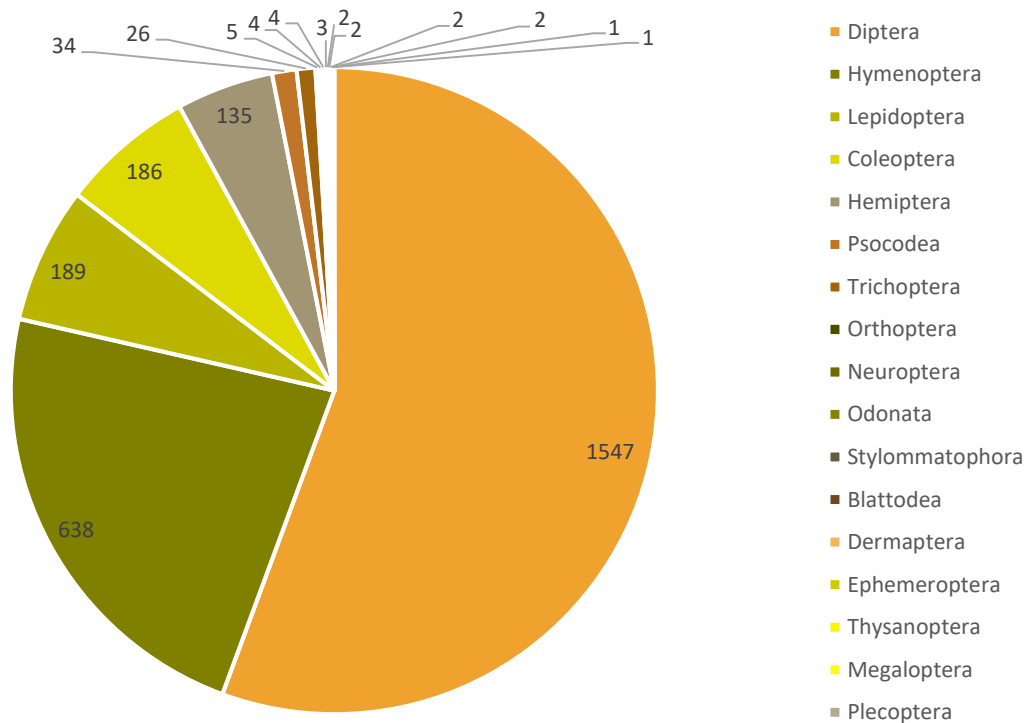
# TERRESTRIAL ARTHROPOD MONITORING PROGRAM

## METABARCODING REPORT – EMILY

Collections Unit, Centre for Biodiversity Genomics (CBG), University of Guelph

### Results

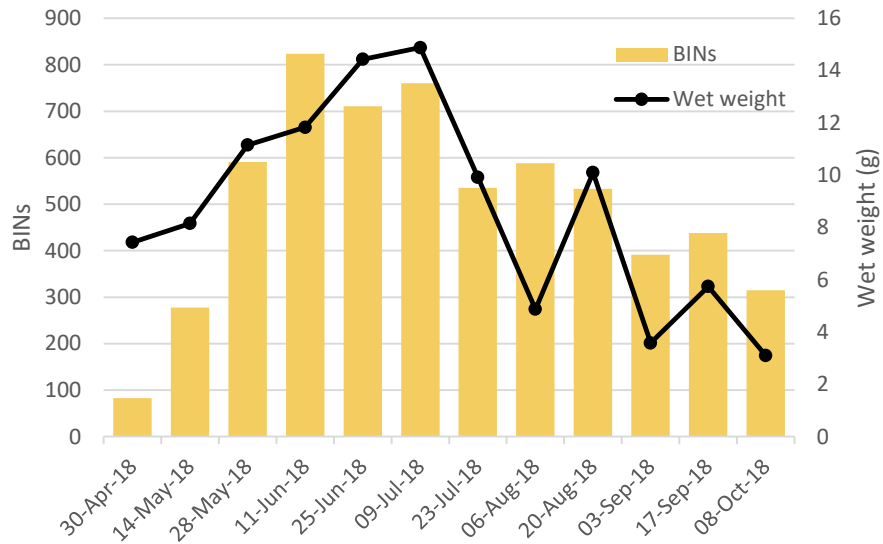
A total of 2,781 different BINs (Barcode Index Numbers; a proxy for species) were encountered at Emily Provincial Park. Over half the BINs captured were flies (Diptera), followed by bees, ants and wasps (Hymenoptera), moths and butterflies (Lepidoptera), and beetles (Coleoptera; Figure 1).



**Figure 1.** Taxonomic breakdown of BINs captured in the Malaise trap at Emily Provincial Park.

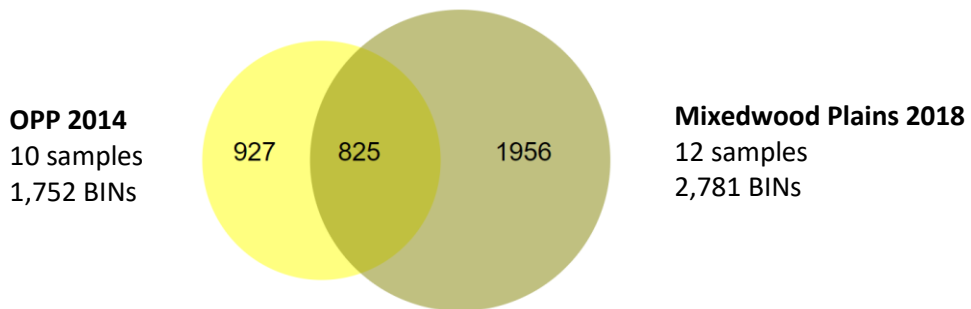
Species diversity and insect abundance varied throughout the collecting period; the period that captured the most BINs was not necessarily the largest sample collected (Figure 2). The peak of species diversity was obtained in early June.

In total, 743 species were named, representing 30% of the BINs. All but three of the BINs were assigned at least to family and 66% were assigned to a genus. Specimens collected from this site represent 216 different families and 830 genera. A complete species list is attached separately.



**Figure 2.** Species diversity (measured by BINs) and approximate insect abundance (measured by wet weight of the sample) captured at the trap over the 2018 collecting period.

In combination with the OPP Malaise Program run in 2014, a grand total of 3,708 BINs have been captured from Emily. There was an overlap of 825 BINs between both sampling years and the 2018 Mixedwood Plains trap added 1,956 BINs to the total species pool (Figure 3).



**Figure 3.** Venn diagram showing the species overlap between the 2014 and 2018 Malaise trapping projects.

## Contact Information

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