

TERRESTRIAL ARTHROPOD MONITORING PROGRAM

METABARCODING REPORT – OJIBWAY PRAIRIE

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

Results

A total of 2,266 different BINs (Barcode Index Numbers; a proxy for species) were encountered at Ojibway Prairie Provincial Nature Reserve (PNR). Half the BINs captured were flies (Diptera), followed by bees, ants and wasps (Hymenoptera), moths and butterflies (Lepidoptera), and true bugs (Hemiptera; Figure 1).

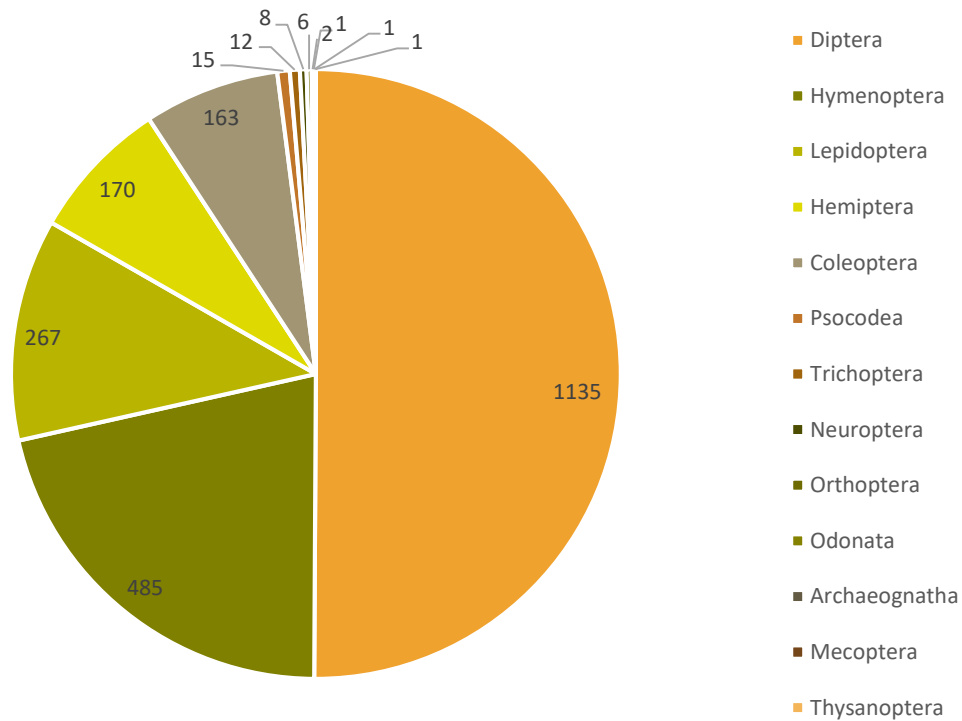


Figure 1. Taxonomic breakdown of BINs captured in the Malaise trap at Ojibway Prairie PNR.

Species diversity and insect abundance varied throughout the collecting period; the period that captured the most BINs was also the largest sample collected (Figure 2). The peak of species diversity was obtained in late June.

In total, 651 species were named, representing 31% of the BINs. All but four of the BINs were assigned at least to family and 66% were assigned to a genus. Specimens collected from this site represent 210 different families and 803 genera. A complete species list is attached separately.

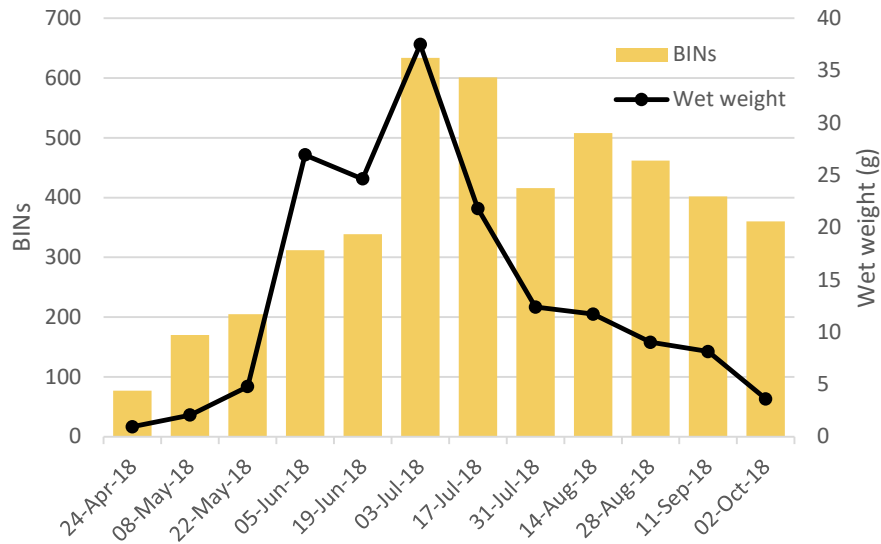


Figure 2. Species diversity (measured by BINs) and approximate insect abundance (measured by wet weight of the sample) captured at the trap over the 2018 collecting period.

In combination with the OPP Malaise Program run in 2014, a grand total of 4,451 BINs have been captured from Ojibway Prairie. There was an overlap of 1,050 BINs between both sampling years and the 2018 Mixedwood Plains trap added 1,216 BINs to the total species pool (Figure 3).

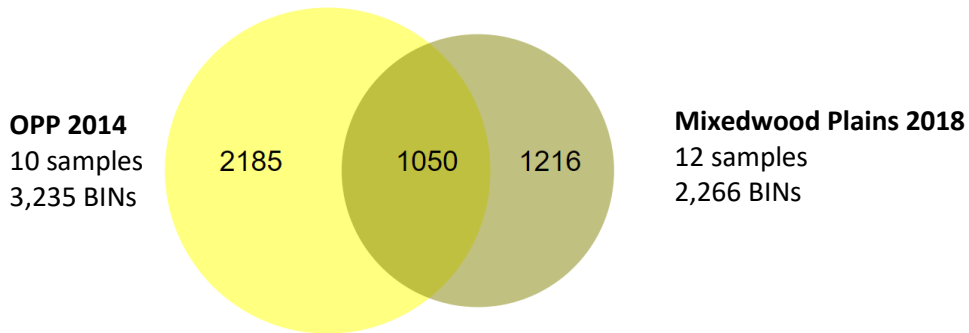


Figure 3. Venn diagram showing the species overlap between the 2014 and 2018 Malaise trapping projects.

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