

TERRESTRIAL ARTHROPOD MONITORING PROGRAM

METABARCODING REPORT – ESKER LAKES PROVINCIAL PARK

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Results

A total of 2,586 different BINs (Barcode Index Numbers; a proxy for species) were encountered at Esker Lakes Provincial Park. Over half the BINs captured were flies (Diptera), followed by bees, ants and wasps (Hymenoptera), moths and butterflies (Lepidoptera), and true bugs (Hemiptera; Figure 1).

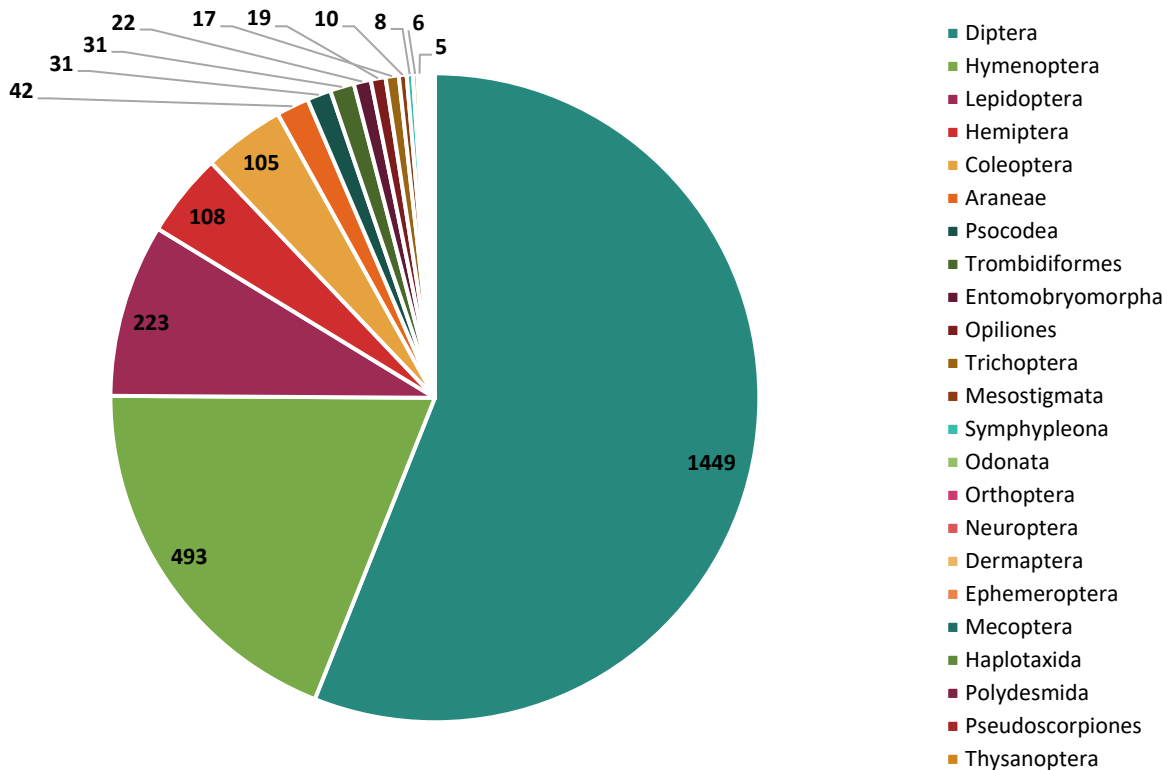


Figure 1. Taxonomic breakdown of BINs captured in the Malaise trap at Esker Lakes Provincial Park.

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 at the beginning of August.

In total, 643 species were named, representing 27% of the BINs. All BINs were assigned at least to family and 73% of the BINs were assigned to a genus. Specimens collected from this site represent 241 different families and 830 genera. A complete species list is attached separately.

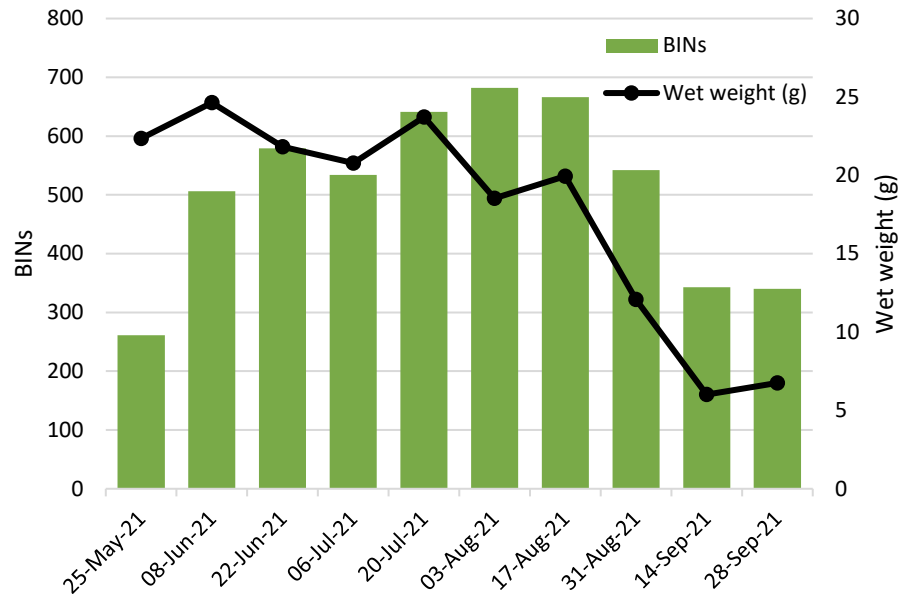


Figure 2. Species diversity (measured by BINs) and approximate insect abundance (measured by wet weight of sample) captured at the trap over the 2021 collecting period.