

TERRESTRIAL ARTHROPOD MONITORING PROGRAM

METABARCODING REPORT – SUDBURY MINISTRY OF NATURAL RESOURCES

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

Results

A total of 3,009 different BINs (Barcode Index Numbers; a proxy for species) were encountered at the Sudbury Ministry of Natural Resources (MNR) office. Over half the BINs captured were flies (Diptera), followed by bees, ants and wasps (Hymenoptera), moths and butterflies (Lepidoptera), and beetles (Coleoptera; Figure 1).

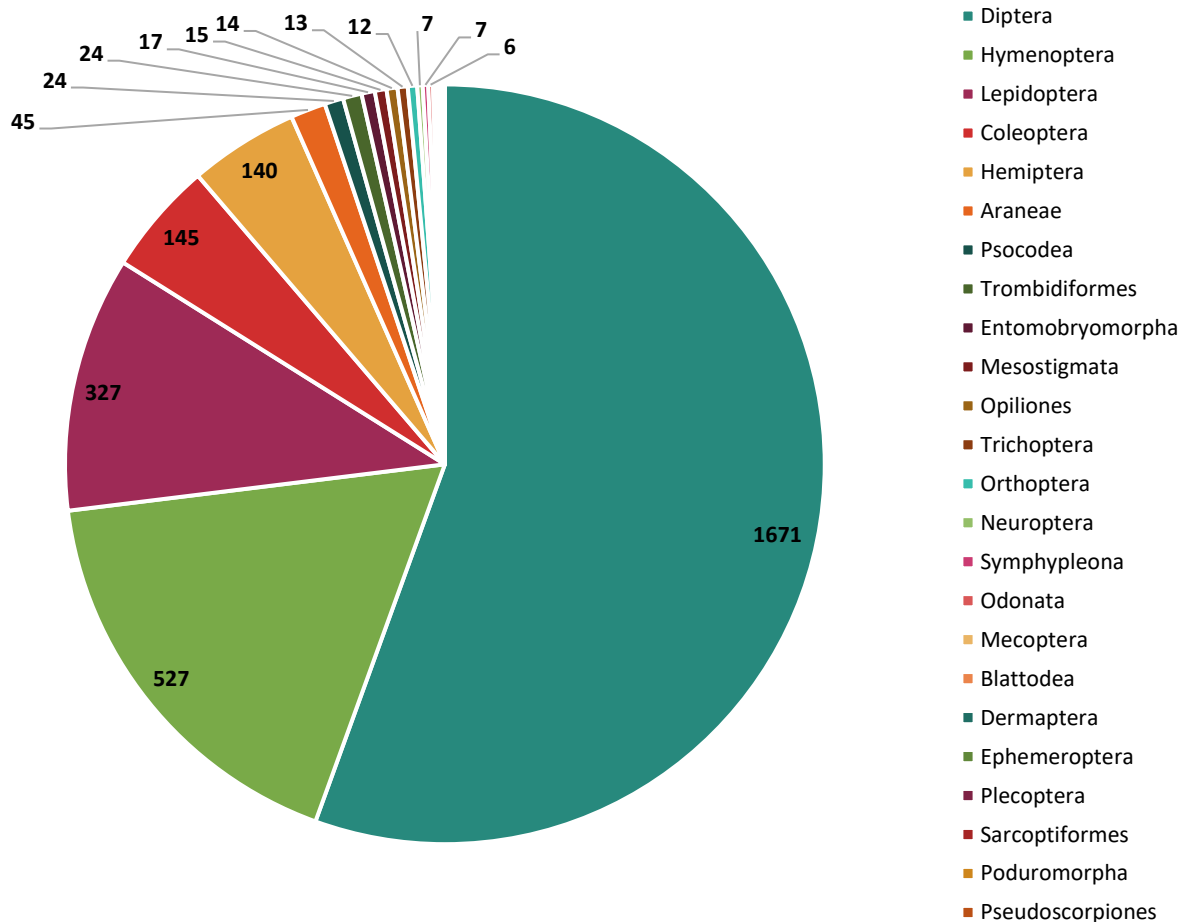


Figure 1. Taxonomic breakdown of BINs captured in the Malaise trap at the Sudbury MNR office.

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 towards the middle of August.

In total, 859 species were named, representing 31% of the BINs. All but three BINs were assigned at least to family and 71% of the BINs were assigned to a genus. Specimens collected from this site represent 255 different families and 971 genera. A complete species list is attached separately.

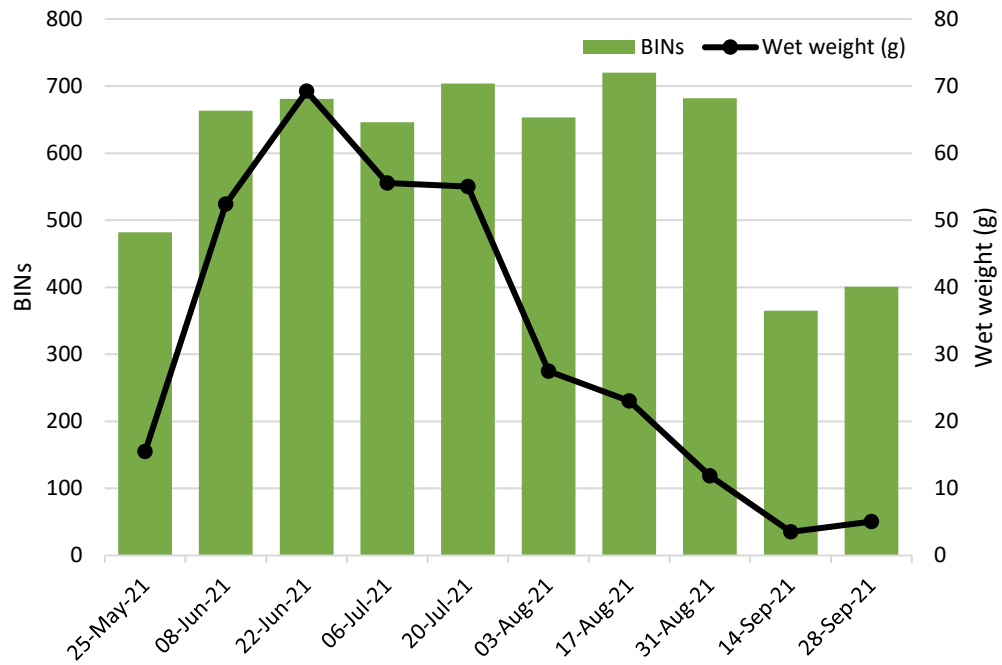


Figure 2. Species diversity (measured by BINs) and approximate insect abundance (measured by wet weight of sample) captured at the trap over the 2021 collecting period.