

TERRESTRIAL ARTHROPOD MONITORING PROGRAM

METABARCODING REPORT – NEW LISKEARD RESEARCH FARM

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

Results

A total of 3,033 different BINs (Barcode Index Numbers; a proxy for species) were encountered at the New Liskeard Research Farm. 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).

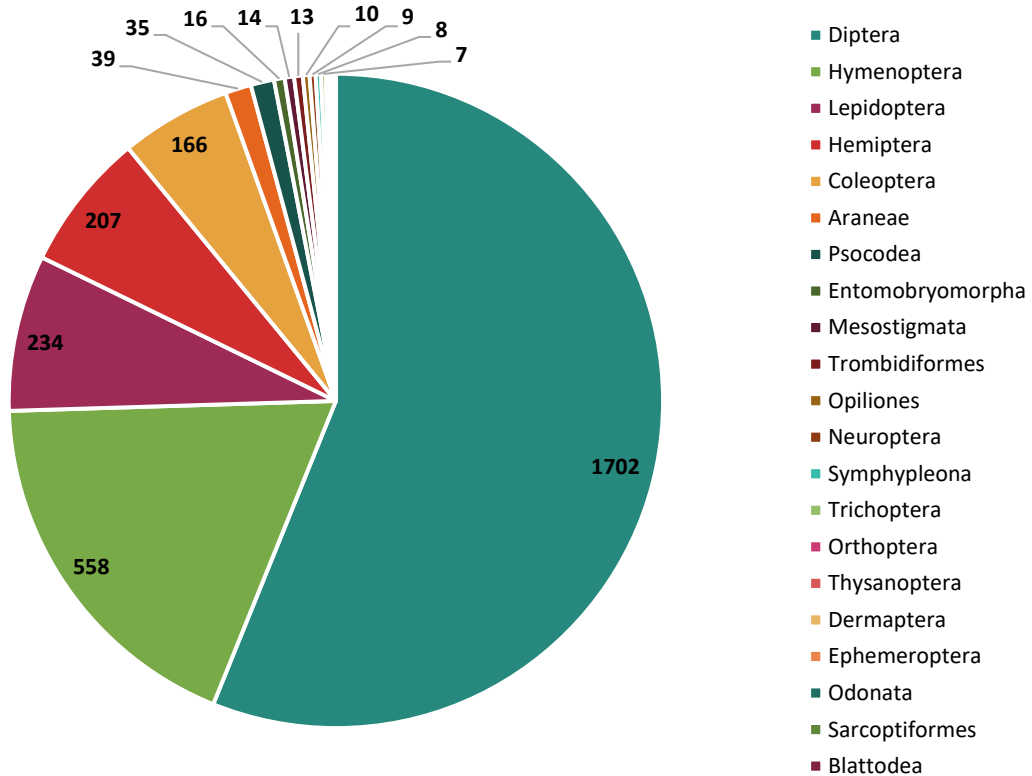


Figure 1. Taxonomic breakdown of BINs captured in the Malaise trap at the New Liskeard Research Farm.

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 towards the end of June.

In total, 880 species were named, representing 31% of the BINs. All but two BINs were assigned at least to family and 73% of the BINs were assigned to a genus. Specimens collected from this site represent 247 different families and 1,016 genera. A complete species list is attached separately.

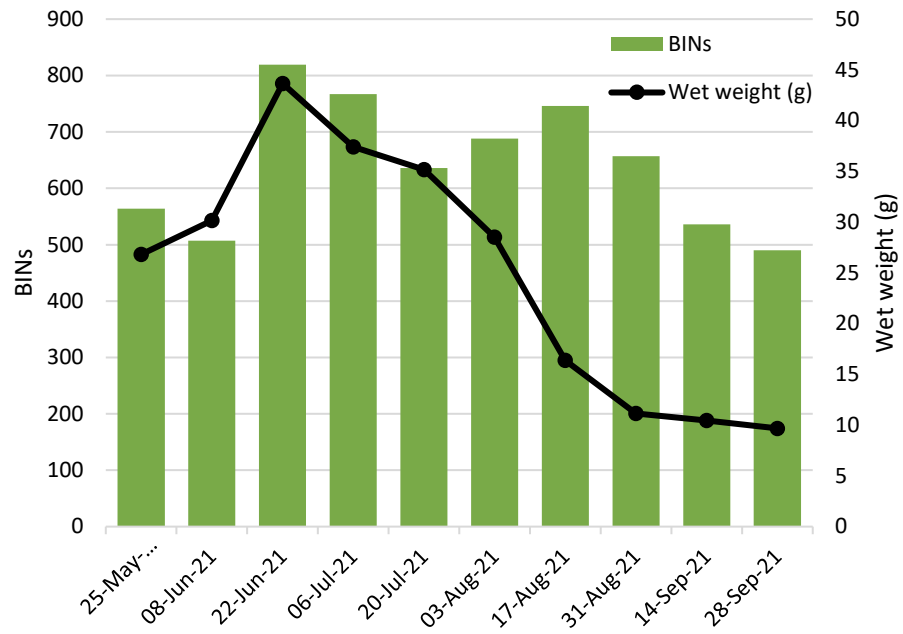


Figure 2. Species diversity (measured by BINs) and approximate insect abundance (measured by wet weight of sample) captured at the trap over the 2021 collecting period.