December 2021

TERRESTRIAL ARTHROPOD MONITORING PROGRAM

METABARCODING REPORT – JACQUES-CARTIER 1

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

Results

A total of 3,503 different BINs (Barcode Index Numbers; a proxy for species) were encountered at Site 1 in Jacques-Cartier National 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).

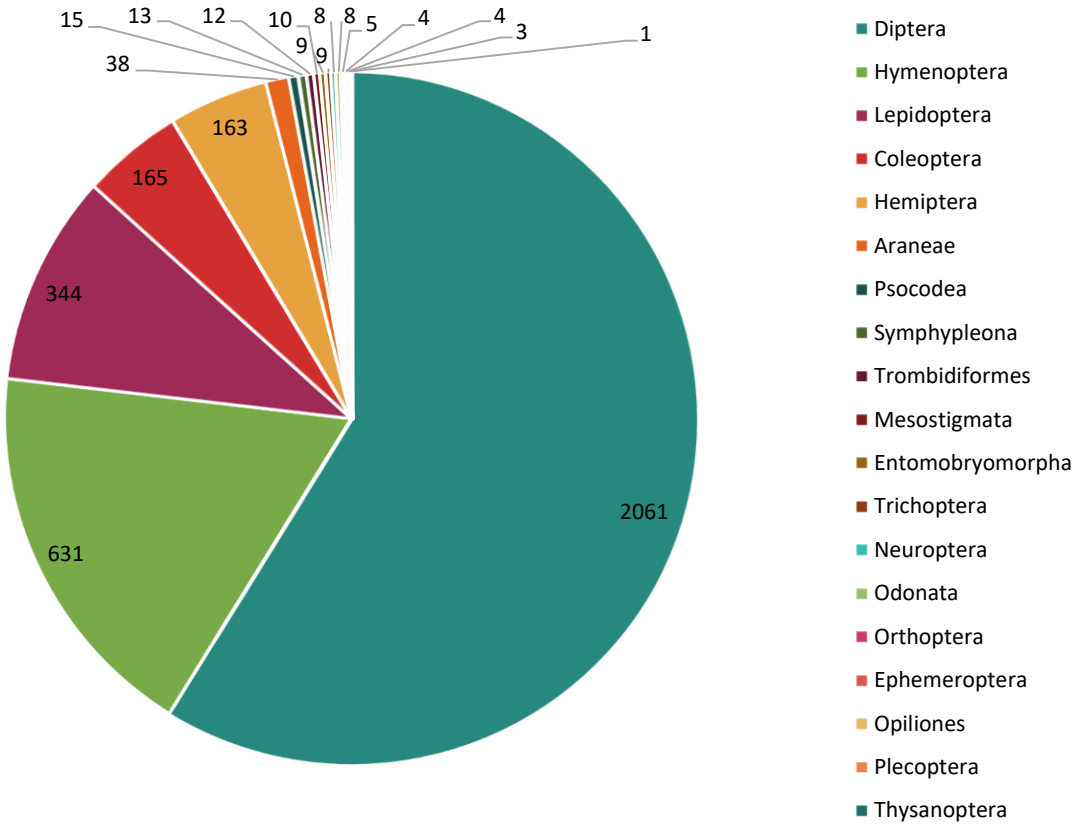

Figure 1. Taxonomic breakdown of BINs captured in the Malaise trap at Site 1 in Jacques-Cartier National Park.

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 middle of June.

In total, 1,798 species were named, representing 51% of the BINs. All but one of the BINs were assigned at least to family and 75% of the BINs were assigned to a genus. Specimens collected from this site represent 251 different families and 1,167 genera. A complete species list is attached separately.

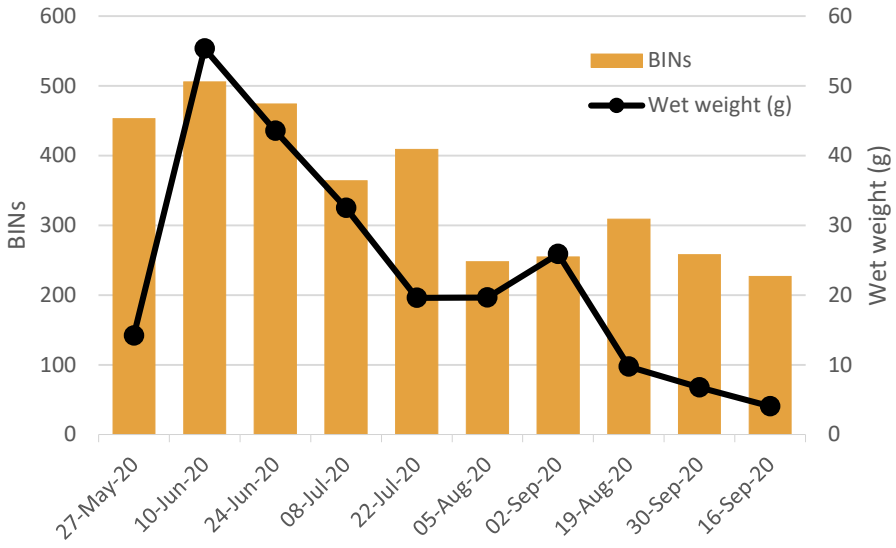

Figure 2. Species diversity (measured by BINs) and approximate insect abundance (measured by wet weight of sample) captured at the traps over the 2020 collecting period.

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