

## Parasite survey of Atlantic Canadian bats

Olivia Galeuzzi, Will Robbins, Tessa McBurney, Gary Conboy, Melanie Buote, Megan Jones

Canadian Wildlife Health Cooperative, Atlantic Region (Galeuzzi, Jones, McBurney), Pathology and Microbiology (Galeuzzi, Conboy, Buote, Jones, McBurney), Biomedical Sciences (Robbins), Atlantic Veterinary College, University of Prince Edward Island, Charlottetown, PE, Canada

Atlantic Canada provides essential habitat for numerous bat species and populations. However, the culminating threat of various anthropogenic factors and infectious diseases has placed many of these species at risk. While surveillance and conservation efforts for North American bats have increased in recent years, the diversity and distribution of endoparasitic species have never been investigated within Atlantic Canadian bat populations. As the first endoparasite survey of bats ever completed in this region, this study aimed to determine the diversity and distribution of nematodes, trematodes, and cestodes within Atlantic Canadian bats. In order to identify and quantify helminth diversity within these bat populations, we performed necropsies on frozen bat carcasses collected between 2016 and 2022, as well as fresh specimens that became available throughout the summer of 2022 (n=19). Parasites were recovered using small-scale organ parasite recovery procedures, which included placing the organs in saline and teasing them apart under a stereomicroscope. Organs sampled included: lungs, heart, trachea, esophagus, nasal turbinates, gastrointestinal tract, liver, kidneys, and urinary bladder. Preliminary findings include gastrointestinal trematodes found in 16 of the 19 bats examined, a nematode found in the nasal turbinates of one Newfoundland Little Brown Bat (*Myotis lucifugus*), and a trematode of the urinary bladder found in one New Brunswick Big Brown Bat (*Eptesicus fuscus*). These specimens have been preserved and will be identified as precisely as possible through morphological identification and PCR.

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