Vita

Candidate's name: Jesse Elizabeth Bellamy

Universities Attended:

University of New Brunswick (2022)
Bachelors of Science

University of New Brunswick (2025)
Masters of Science
Biology

Publications / Conference Presentations:

Bellamy, J., Mullin, D., Nakamoto, B., Hayden, B., & Edge, C. 2023. A test of intersexual trophic niche partitioning within a population of wood turtles (*Glyptemys insculpta*). *Journal of Herpetology*, 47(4): 428-436.

Bellamy, J. (2024). A test of intersexual trophic niche partitioning within a population of wood turtles (*Glyptemys insculpta*). Oral presentation at the Society of Canadian Aquatic Sciences (SCAS) Annual Meeting, [Fredericton, New Brunswick].

Feeding habits of wild and domestic felids in New Brunswick, Canada

UNIVERSITY OF NEW BRUNSWICK

THESIS DEFENCE AND EXAMINATION

in Partial Fulfillment

of the Requirement for the Degree of
Master of Science

by

Jesse E. Bellamy

in the Department of Biology

U.N.B., Fredericton, N.B.

Friday, August 22nd, 2025
1:00 p.m.

Via MS TEAMs

Examining Committee

Dr. Brian Hayden	co-Supervisor
Dr. Joe Nocera	co-Supervisor
Dr. Charles Sacobie	Internal Examiner
Dr. Kurt Samways	External Examiner
Dr. Shawn MacLellan	Chair of Oral Examination

Abstract

Domestic cats (*Felis catus*) are major predators of wildlife and are linked to high mortalities of wildlife species. Despite known conservation risks, feeding habits of free-ranging cats in Canada are understudied. This study used stable isotope analyses to compare the diets of four cat types in New Brunswick, Canada: 1) free-ranging cats, 2) house cats, 3) Canada Lynx (*Lynx canadensis*) and 4) Bobcats (*L. rufus*). To quantify diet and trophic niche, the stable isotopes of carbon (^{13}C) and nitrogen (^{15}N) were measured in fur samples of cats and putative prey, including small mammals, birds, and commercial pet foods. There were distinct differences in diet and trophic niche between domestic and wild cats. House and free-ranging cats predominantly consumed artificial foods (>90% of diet), while bobcats and lynx consumed wild prey. There were no credible differences in diet or trophic niche observed between house and free-ranging cats, suggesting high levels of supplemental feeding and human-subsidization of free-ranging cat populations in New Brunswick.