MS Thesis
Department of Environmental Science and Policy
College of Science
George Mason University

Candidate: Kate Ritzel
Defense Date and Time: July 13, 2021, 9:00-11:00am
Defense Location: Virtual, RSVP here for link: https://forms.office.com/r/2JaihY3UVh (managed by Dr. Gallo)
Title: Urban mammal behavior adaptation

Thesis Director: Dr. H. Travis Gallo
Committee: Dr. Cynthia Smith, Dr. Megan Draheim

ABSTRACT

As humans continue to engineer and expand urban ecosystems, extant wildlife is increasingly exposed to novel pressures that drive changes in their spatial and temporal patterns, foraging tactics, anti-predator strategies, and other behaviors. Such behavior shifts can increase the potential for conflict with humans and present other challenges to the survival of urban species. Though behavior change in some urban taxa are widely studied, research on changing behavior in urban mammals is limited. Mammals are highly sensitive to urbanization and those residing in urban areas have demonstrated behavior change at the population and individual level. Through systematic literature review, chapter one reveals how wild urban mammals are adjusting their behavior and explores the implications of urban-induced behavior adaptation. Chapter two seeks to address the knowledge gap on behavior change in the common raccoon (Procyon lotor), one of the most abundant and widespread of all urban carnivores in North America. A comparative behavior analysis of raccoon populations in urban Washington D.C. and rural northern Virginia indicates differing behavioral response to novel stimuli. Results highlight the need for long-term wildlife behavior studies across a variety of urban settings to promote successful urban wildlife management and conservation.