



"Our environment is our future"

RESEARCH COLLOQUIUM SERIES

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THE RELATIONSHIP BETWEEN POPULATION DYNAMICS AND HABITAT USE OF TERRESTRIAL CARNIVORES

Most jurisdictions use population size as the most common metric to assess wildlife health while considerable research, many conservation decisions, and much on the ground effort is focused on habitat used by individuals in those populations. While the connection between animal populations and the place they live—habitat—is obvious at the coarsest view, there are few documented functional connections between animal population size and the habitat they chose.

Remote methods of sampling animals, especially those involving genetic identification of individuals, have allowed researchers to sample carnivores at much larger scales than previously. The focus of sampling is hence turned away from individuals, as in radiotelemetry based studies, and towards populations such that increasing the sample size means sampling more individuals. At these scales, choice is no longer simply a measure of behaviour but is also influenced by differences in population density among ecosystems.

I will demonstrate that habitat selection is not necessarily functionally connected to population density, or population change, at the scales we often study them. Typically, descriptive habitat use studies measure some combination of both behavioural choice of individuals and ecological differences in population density. The thesis of my argument is that habitat studies must be specifically linked to population dynamics of the study species via the testing of hypotheses that describe known links between resources or, other limiting factors and population dynamics. Simple descriptive studies of use rarely add general knowledge about the species which can be used to make deductive decisions in other times and places.

Friday

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3:30 - 4:30

LECTURE THEATRE

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