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Lecture Assignment 5

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1. Why do you think so many contemporary studies of wildlife habitat associations focus on habitat selection rather than habitat use? What, if anything, do we gain by understanding wildlife habitat selection above and beyond understanding wildlife habitat use?

Habitat selection has much greater consequences for an individual than use within that habitat, as further resource use is ultimately dependent on what resources, risks, and conditions are present in the area the individual chose to settle. Investigating habitat selection can provide vital information to conservation managers on what direct and indirect cues trigger a species settling response.

1. What are some advantages to the Design III proposed by Manly et al. (i.e., both habitat use and habitat availability data are collected for each individual)?

This design allows for the analysis of inter-individual resource use and unuse, directly observing variability across the population. This enables us to make inferences on demographics within the population (i.e. age or sex differences in selection), as well as estimate parameters for the population. Additionally, inferences are based on the random sampling of animals rather than relying on the assumed statistical model being correct, making type-I and type-II errors less likely.