
A conceptual framework for understanding movement decisions in dynamic landscapes

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Abstract

Animal movements are critical to provide landscape connectivity. Importantly animal movements depend on the navigation and search abilities of the animals themselves as well as the underlying landscape dynamics. I will provide a conceptual framework linking fundamental concepts of search and navigation behaviors of animals with underlying spatio-temporal landscape characteristics. I will then link animal movements to connectivity – either with regard to the species itself or with regard to movement as an ecosystem function providing connectivity for other species (e.g., animal mediated dispersal of plant seeds). Finally, I will provide case studies from tracking data of mammalian as well as bird movements as empirical examples how to measure and quantify connectivity from movement data

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