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Educating Ecologists on Practical Spatial Modeling

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Abstract

Researchers in the Department of Biological Sciences, University of Alberta, rely on the principles and tools of GIS to help them better understand many of their ecological questions. Just as one would not apply other analytical methods (e.g. statistical modeling) without prior education on the subject, neither should one haphazardly use spatial modeling techniques. An intermediate-level, hands-on tutorial on some of the common spatial modeling applications of GIS in ecology was developed to address this need and is described and presented here. The how-to guide is meant to be a handy reference for ecologists interested in the practical aspects of applying ArcGIS 9.x in vegetation and landcover mapping, landscape metric calculation, watershed and wetland modeling, movement and dispersal (e.g. home range and distance analyses), and habitat selection and scenario modeling.

Web Access

The guide is an ongoing project with various components already completed or still in the development stage. Please visit the following website for updates:

<http://www.biology.ualberta.ca/facilities/gis> (Instructions)

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