

Terrestrial Connectivity Across the South Central United States

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Dr. Kristen Baum, Associate Professor at Oklahoma State University, and **Dr. Elena Lopez Zozaya**, Post-Doctoral Scholar, evaluated terrestrial connectivity across the South Central United States in order to predict patterns of connectivity necessary to sustain wildlife populations and communities. They evaluated species which vary in habitat preferences, scales of habitat selection and responses to the matrix (area between habitat patches). They also evaluated the implications of predicted land use change across the study area, including a focus on climate change and dominant land uses within the region.

Their specific objectives included:

- 1- Quantify terrestrial connectivity across the South Central United States.
- 2- Evaluate the effect of land use change (including climate change) to terrestrials' connectivity.
- 3- Develop a framework for applying terrestrial connectivity analyses to specific species given different levels of existing information.

The project provides a framework for conducting large-scale, cross-taxa assessments of connectivity for identifying factors that contribute to biodiversity loss within the region through the use of spatially explicit connectivity maps.