

DANIEL MAJKA

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digital portfolio: <http://dan.corridor-design.org/portfolio>

EDUCATION

Master of Science, Ecology & Evolution, May 2005

Purdue University, West Lafayette, IN; GPA: 3.96/4.0

Thesis: *GIS-based modeling of avian distributions in a montane tropical forest*

Bachelor of Science, Natural Resources & Environmental Science, Dec 2002

Purdue University, West Lafayette, IN; GPA: 3.44/4.0

Specializations: GIS & Water Resources; Minor: English

ESRI Virtual Campus Courses:

- Creating, editing, and managing geodatabases for ArcGIS 9, April 2006
- Geoprocessing with ArcGIS Desktop, June 2005

ECOLOGICAL SKILLS

I excel at analyzing ecological problems with technical methods. I am proficient with modeling techniques, including habitat modeling, land use modeling, and statistical analysis, and feel equally comfortable compiling data & conducting literature reviews.

COMMUNICATION SKILLS

Skilled at communicating complex ideas with technical and non-technical audiences via reports, maps, presentations, and personal communication; adept at hand-coding web pages using web standards techniques; good eye for graphic design & cartography.

COMPUTER SKILLS

Experienced in management of data-intensive projects and application of scripting techniques to optimize efficiency of large-scale analyses. I learn new software and technology quickly, and feel comfortable with the following:

<u>GIS</u>	<u>Programming</u>	<u>Web Design</u>	<u>Quantitative</u>
ArcGIS 9.x	Python	XHTML	R / S-PLUS
ArcView 3.3	AML	CSS	SAS
Imagine 8.6	Avenue	PHP	SPSS
Fragstats		Photoshop	JMP

EXPERIENCE

Aug 2006 –
present

GIS Programmer/Analyst, Web Designer, & Technical Writer

CorridorDesigner project, Northern Arizona University (NAU) Forestry Dept. – Paul Beier, Supervisor

- Created suite of ArcGIS tools ('CorridorDesigner') in Python programming language for conducting GIS-based wildlife corridor and habitat analyses.
- Designed 30-page website using XHTML and CSS to distribute CorridorDesigner and provide educational materials related to designing corridors (www.corridor-design.org; expected launch date: May 2007).
- Composed all webpage content, software tutorials, and workshop materials.
- Trained coworker to perform habitat and corridor modeling.

Jun 2005 –
Jul 2006

GIS Analyst & Technical Writer

Arizona Missing Linkages, NAU Forestry Dept. – Paul Beier, Supervisor

- Lead GIS Analyst on statewide wildlife corridor conservation planning project.

- Performed all GIS analyses, cartography, data creation, and management.
- Created ArcGIS programs in Python for performing batch corridor and habitat suitability analyses.
- Created MS Access database/ESRI geodatabase system for storing field data, GIS layers, and site photos.
- Wrote eight 70-150 page reports detailing wildlife corridor conservation plans.
- Co-wrote two grant proposals with PI to secure \$145,000 in funding.

Jul 2003 –
May 2005

MS Graduate Student & Teaching Assistant

Purdue University Biology Department – Kerry Rabenold, Major Professor

- Created GIS-based habitat distribution models for 41 bird species using 5 statistical classification techniques.
- Obtained and preprocessed SRTM elevation models (DEM) and LANDSAT imagery; created topographic indices using DEM.
- Optimized efficiency with Avenue, AML, and R scripts to automate tasks.
- Marked location of 89 point counts in Tilarán Mtns, Costa Rica using GPS.
- Teaching Assistant for 4 courses; introduced Field Ecology and Conservation Biology students to GIS principles using labs and presentations.

Spring 2003

Lab Instructor, Fundamentals of Field Surveying Course

Purdue University Agricultural & Biological Engineering Department

- Instructed 54 students in 3 lab sections on principles of surveying.
- Updated course content to contain GIS & GPS techniques for surveyors.

Jan 2002 –
Jul 2003

GIS Technician

Purdue University Agricultural & Biological Engineering Department

- Created, edited, maintained map layers; created maps.
- Created 92 volume GIS Atlas with 45 GIS layers.
- Created customized ArcView extension for Office of Indiana State Chemist.
- Performed complex analysis for DOT to determine road-sensitive water bodies.
- Assisted students in term projects for graduate-level GIS course.

GRANTS

2006 - 2007 \$75,000 (funded). Beier, P., and D.R. Majka. GIS tools for wildlife corridor design. State of Arizona: TRIF ERDENE.

2006 - 2007 \$62,699 (funded). Beier, P., and D.R. Majka. Designing corridors for Arizona's Missing Linkages. Arizona Game and Fish Department, Phoenix, AZ.

PUBLICATIONS

Majka, D.R. 2007. GIS for designing corridors. *Remotely Wild: Newsletter of the GIS, Remote Sensing, and Telemetry Working Group of the Wildlife Society*. Issue 23: Winter 2007.

Beier, P., and D.R. Majka. 2006. 8 Linkage Design Reports, submitted to Arizona Game & Fish Department, Phoenix, Arizona. *Under internal AZGFD review*.

Beier, P., D.R. Majka, and W.D. Spencer. Forks in the road: choices in GIS procedures for designing wildland linkages. In prep, to be submitted to *Conservation Biology*.

Newell, S., P. Beier, and D.R. Majka. Sensitivity analysis of a habitat permeability model for designing wildlife linkages. In prep, to be submitted to *Conservation Biology*.

Majka, D.R. Comparison of GIS-based modeling methods in predicting avian distributions in the montane Neotropics. In prep, to be submitted to *Journal of Applied Ecology*.

Majka, D.R., and K.R. Rabenold. Modeling bird distributions in relation to topography in the Tilarán

Mountains, Costa Rica. In prep, to be submitted to *Journal of Biogeography*.

PRESENTATIONS

- Majka, D.R., P. Beier, and J. Jenness (all presenters). 2007. Half-day workshop: Using CorridorDesigner to design and evaluate wildlife corridors. The Wildlife Society 14th Annual Conference, Tucson, AZ, Sept 22, 2007.
- Beier, P. (presenter), D.R. Majka, and W. Spencer. 2007. Eight reasons not to use GIS for corridor design. International Conference on Transportation and Ecology - North American Section of the Society for Conservation Biology joint meeting. Little Rock, AR, May 24, 2007.
- Majka, D.R. (presenter) 2007. A multi-species approach to designing corridors. Arizona Parks and Recreation Association 2007 Conference on Open Space, Tempe, AZ, May 9, 2007.
- Beier, P. (presenter) D.R. Majka, K. Penrod, C. Luke, W. Spencer, S. Newell, and C. Cabanero. 2006. How to design a wildlife corridor. Society for Conservation Biology 20th Annual Meeting, San Jose, CA, June 25, 2006.
- Majka, D.R. (presenter) 2005. Modeling the distribution of Neotropical birds using statistical classification techniques and GIS. Purdue Biology Graduate Student Retreat, West Lafayette, IN., March 2005.
- Nahar, N., L. Corson, D.R. Majka, and L. Theller. (presenter) 2003. Statewide environmental sensitivity analysis for INDOT facilities. 2003 Indiana GIS Conference, Indianapolis, IN.
- Theller, L. (presenter), and D.R. Majka. 2002. Combining GIS and GPS to create a responsive and practical data library for a statewide organization. 2002 Indiana GIS Conference, Indianapolis, IN.