

Bradley A. Pickens

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EXPERTISE AND INTERESTS

- Landscape ecology, species distribution modeling
 - Quantitative ecology, habitat selection, conservation planning
 - Satellite remote sensing, Geographic Information Systems (GIS)
 - Wetland and coastal ecology
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EDUCATION

Ph.D 2012 Louisiana State University, Baton Rouge, LA, Renewable Natural Resources
(concentration: Wildlife)

M.S. 2006 Bowling Green State University, Bowling Green, OH, Biological Sciences

B.S. 2000 Ashland University, Ashland, OH, Environmental Science & Biology

RESEARCH EXPERIENCE

Research Associate / Post-doc, 2013 (December-Current)

North Carolina State University / USGS North Carolina Cooperative Fish and Wildlife Research Unit / South Atlantic Landscape Conservation Cooperative

- Develop optimization models in GIS for conservation planning in the southeastern United States
- Prioritize conservation actions for the following ecosystems: beaches and dunes, estuarine marsh, wetland forest, maritime forest, upland forest, pine woodland/savanna/longleaf pine, freshwater marsh

Postdoctoral Researcher, 2013 (January-July 1)

University of North Carolina Coastal Studies Institute / East Carolina University

- Spatial and statistical analysis of barrier island erosion and shoreline modifications
- Created and managed GIS database of shoreline features
- Mentored and supervised graduate students

Graduate Research Assistant, 2008-2012

Louisiana State University, School of Renewable Natural Resources

- Developed predictive species distribution models in GIS, processed & analyzed Landsat satellite imagery, integrated spatial analyses and statistical models in GIS
- Conducted bird surveys, assessed habitat, and supervised field assistants. Designed broad-scale research on Louisiana and Texas coasts with coordination of federal and state agencies

Research Associate / GIS Analyst, 2007-2008

Louisiana State University, School of Renewable Natural Resources and USGS Louisiana Cooperative Fish and Wildlife Research Unit

- Developed GIS-based habitat suitability models for waterbirds and grassland birds based on expert opinion and literature review; designed waterbird surveys for statistical model of king rail
- Coordinated with The Nature Conservancy, U.S. Fish & Wildlife Service, USGS National Wetlands Research Center, and stakeholders for conservation planning in rice agricultural region

Graduate Research Assistant, 2004-2006

Bowling Green State University, Department of Biological Sciences,

- Designed research incorporating experimental management treatments, assessed habitat selection and behavior of an endangered butterfly, statistical analyses, wrote grants, supervised field assistants, and coordinated with The Nature Conservancy and Toledo Zoo

Field Research Assistant, 2004

Virginia Tech University, Long Island, NY

- Research on Piping Plover, Least Tern, and shorebird ecology on barrier islands; Monitored endangered species of waterbird, collected data on movement, nesting, and habitat selection

Karner Blue Butterfly Monitoring Assistant, 2003

The Nature Conservancy, Wilton, NY

- Monitored endangered Karner blue butterfly, coordinated activities with private landowners, statistical analyses of monitoring data

Field Research Assistant, 2001-2002

Virginia Tech, George Washington National Forest, VA

- Monitored Ruffed Grouse movement and survival as part of the Appalachian Cooperative Ruffed Grouse Research Project

GRANTS AND AWARDS

- 2013 M.C. Green, **B. Pickens**, and F. Weckerly. Fall 2013. Occupancy, distribution, and abundance of Black Rails (*Laterallus jamaicensis*) along the Texas Gulf Coast. Submitted to Texas Parks & Wildlife Department / U.S. Fish and Wildlife Service (In Review)
- 2012 NASA-MSU Professional Enhancement Award, International Association for Landscape Ecology (**\$600**)
- 2009-2011. Rockefeller State Wildlife Scholarship (**\$4,500**)
- 2009 Louisiana State University, Graduate School Travel Award (**\$500**)
- 2006 Bowling Green State University. Graduate Student Senate Travel Grant (**\$153**)
- 2005 & 2006 Ohio Department of Natural Resources- State Wildlife Grant. (CO-PI with Dr. Karen Root, BGSU). Consequences of a Management Strategy for the Endangered Karner Blue Butterfly (**\$26,309**)
- 2005 Ohio Biological Survey, Small Grants Program. (CO-PI with Dr. Karen Root). Support for research on the Karner blue butterfly (**\$500**)
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PEER-REVIEWED PUBLICATIONS

- Pickens, BA and SL King. Linking Multi-Temporal Satellite Imagery to Coastal Wetland Dynamics and Bird Distribution (In review)
- Pickens, BA and SL King. In press. Multiscale habitat selection of wetland birds in the northern Gulf Coast. *Estuaries and Coasts*. <http://dx.doi.org/10.1007/s12237-013-9757-2>
- Pickens, BA and SL King. 2013 Microhabitat selection, demography, and correlates with home range size for the king rail. *Waterbirds* 36: 319-329.
- Pickens, BA and SL King. 2012. Predicting the spatial distribution of king rails in an agricultural landscape. *Condor* 114:113-122.
- Pickens, BA and KV Root. 2009. Behavior as a tool for assessing a managed landscape: a case study of the Karner blue butterfly. *Landscape Ecology* 24: 243-251.
- Pickens, BA. 2009. The Karner blue butterfly, behavior, and the role of fire in managing a reintroduced population. *Endangered Species Update*. 26 (1): (Published Jan 2012)

Pickens, BA and KV Root. 2008. Factors affecting host-plant quality and nectar use for the Karner blue butterfly: implications for oak savanna restoration. *Natural Areas Journal* 28: 210-217.

Pickens, BA and KV Root. 2008. Oviposition strategy and behavior of the Karner blue butterfly, *Lycaeides melissa samuelis*. *Journal of the Lepidopterist's Society* 62: 13-132.

Pickens, BA. 2007. Understanding the population dynamics of a rare, polyvoltine butterfly. *Journal of Zoology (London)* 273:229-236 (cover photograph).

TECHNICAL REPORTS, THESES, & POPULAR MEDIA

Pickens, B. A. 2012. Modeling the spatial and temporal dynamics of coastal marsh birds. Ph.D. dissertation, Louisiana State University, Baton Rouge, LA.

Pickens, B.A., S. King, B. Vermillion, L. Smith, L. Allain. 2009. Conservation planning for the coastal prairie region of Louisiana. Report to the Louisiana Department of Wildlife and Fisheries and U.S. Fish and Wildlife Service.

Pickens, BA. 2008. Conservation planning for the coastal prairie region of Louisiana. Cajun Prairie Habitat Preservation Society (April).

Pickens, BA. and KV Root. 2007. An assessment of ant abundance in oak savanna, the evaluation of two butterfly reintroduction techniques, and recommendations for the Karner blue butterfly in Ohio. Final report to Ohio Division of Wildlife.

Pickens, BA and KV Root. 2006. Consequences of a management strategy for the Karner blue butterfly. Report to the Ohio Department of Natural Resources and The Nature Conservancy.

Pickens, BA. 2006. M.S. thesis. Consequences of a management strategy for the Karner blue butterfly. Dept. of Biological Sciences, Bowling Green State University.

Pickens, BA. 2003. Karner Blue Butterfly (*Lycaeides melissa samuelis*) Population Monitoring Results - 2003 for the Saratoga Sandplains Recovery Unit. Report to the NYS Department of Environmental Conservation- Endangered Species Unit.

SELECTED CONFERENCE PRESENTATIONS

Pickens, BA and SL King. 2012. A test of the spatio-temporal transferability of habitat models: the case of migratory and resident wetland birds. International Association for Landscape Ecology (U.S. Region). Newport, RI.

- Pickens, BA and SL King. 2012. Modeling coastal marsh birds with a multi-scale approach. Gulf Coast Joint Venture/U.S. Fish and Wildlife Service Waterbirds Working Group, San Marcos, TX.
- Pickens, BA and SL King. 2011. Home range, movements, and microhabitat selection of king rail in Gulf Coast marshes. Society of Wetland Scientists- South Central Chapter. Lafayette, LA.
- Pickens, BA and SL King. 2011. A remote sensing approach to assessing king rail habitat. American Ornithologist Union, Jacksonville, FL.
- Pickens, BA and SL King. 2010. A spatially explicit habitat model for the king rail, *Rallus elegans*, in agricultural wetlands. Ecological Society of America, Pittsburgh, PA.
- Pickens, BA and SL King. 2009. What factors affect the distribution of king rails in coastal marsh? (Poster) Society of Wetland Scientists, Madison, WI.
- Pickens BA, WG Vermillion, and SL King. 2008. Conservation planning for the rice region of southwestern Louisiana. The Waterbird Society, South Padre Island, TX.
- Pickens BA and KV Root. 2006. Using abundance and behavior as tools for assessing a management strategy for an endangered butterfly. The Society for Conservation Biology, San Jose, CA.
- Pickens BA and KV Root. 2006. The Karner blue butterfly: Where do we go from here? Oak Openings Research Forum- sponsored by the Metroparks of the Toledo Area. Toledo, OH.
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TEACHING EXPERIENCE & GUEST LECTURES

Guest Lectures, Wetland Plant Ecology & Wetland Ornithology, UNC Coastal Studies Institute (Summer 2013)

Invited Seminar, East Carolina University, Department of Biology. "Modeling coastal bird distribution at multiple scales" (Spring 2013)

Instructor, Louisiana State University, RNR 1002, Issues in Natural Resource Management (Fall 2010)

Guest Lecture, Louisiana State University, Wetlands Ecology and Management (Fall 2010)

Graduate Teaching Assistant, Bowling Green State University, Environment of Life, 6 lab sections (Fall & Spring 2004-2005)

Environmental Educator, Campbell Gard YMCA Outdoor Education Center, OH (Aug 2000-May 2001)

SERVICE

International Association for Landscape Ecology (member)
Coastal & Estuarine Research Federation (member)

Reviewer- *Biological Conservation* (3), *Estuaries and Coasts*, *Wetlands Ecology and Management*, *Animal Conservation*, *Wilson's Journal of Ornithology*, *Journal of Ethology*, *European Journal of Entomology*, *Southwestern Naturalist*, *Ecological Modelling*

Mentoring:

- 3 graduate students
- 12 undergraduate and post-baccalaureates
 - Emily Knurek: M.S. in Ecology & Evolution, University of Maine, 2010
 - Chelsey Faller: M.S. in Wildlife Ecology (in progress), University of Florida
 - Matthew Huber: Environmental contractor, Dade Mueller Inc. Environmental Services

Vice President, Society of Wetland Scientists: LSU Chapter

- Organized Graduate Student Symposium for wetland scientists in Louisiana
- Organized "Ocean Commotion" educational events for elementary students

Participation in Federal and State Recovery Meetings for the Karner blue butterfly (2005-2006)

Science Fair Judge, Wood County, Ohio (2004-2005)

The Nature Conservancy (Ohio: 2002-2006; North Carolina: 2013-current): Volunteer

Co-hosted graduate student-invited speaker, Dr. Erica Fleishman (2005)
