

Nicole Michel - Curriculum Vita

Department of Ecology and Evolutionary Biology
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EDUCATION

- Ph.D. Student**, Ecology and Evolutionary Biology, Tulane University 8/2005 - present
Directed by Thomas W. Sherry G.P.A.: 4.0
» Dissertation: Mechanisms and consequences of avian understory insectivore population decline in Central American tropical rainforest reserves.
- OTS Tropical Biology Course** 2006-03 Grade: 9.5/10 (A) 5-8/2006
- B.S. Biology**, Cum Laude, Willamette University, G.P.A.: 3.78 9/1991 - 5/1995
» Senior Thesis: "Habitat Associations and Nest Site Characteristics of the Chiricahua Fox Squirrel (*Sciurus nayaritensis*): Life as a Sky Island Endemic."

GRANTS AND FELLOWSHIPS

- Louisiana Board of Regents Fellowship** (\$20,000 annually) 2007 - 2009
Newcomb Fellows Grant, Tulane University (\$2500) 2008
Organization for Tropical Studies Research Fellowship (\$2120) 2007
Roger Thayer Stone Center for Latin American Studies
Summer Field Research Grant for Graduate Students \$1155 2006
Organization for Tropical Studies Post-Course Grant \$ 500 2006
NSF Graduate Research Fellowship Honorable Mention 2005
Carson Scholar research grant from Willamette University \$1500 1994
Elmer and Grace Goudy Scholarship 1991-1995

AWARDS

- Teaching Assistant Award**, Tulane University Department of Ecology and Evolutionary Biology 2006/2007
Departmental Honors, Willamette University Biology Department 1995

RESEARCH INTERESTS

Population ecology, community ecology, ornithology, trophic interactions, modeling, tropical ecology, avian life-histories, conservation biology, biogeography

TEACHING EXPERIENCE

- Teaching Assistant**, Tulane University 8/2005 - 5/2007
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- » Diversity of Life, lecture and lab (EBIO 101 & 111)
» Tropical Biology (EBIO 211)
» Processes of Evolution (EBIO 308)
» General Ecology (EBIO 404)
» Ornithology (EBIO 420)
» Prepared and delivered lectures for: Conservation Biology (EBIO 204; 2), General Ecology (EBIO 404; 2), Biostatistics and Experimental Design (EBIO 408; 1), Tropical Ecology (EBIO 411; 1), Ornithology (EBIO 420; 1)
- Teaching Assistant**, Willamette University 9/1992 – 5/1995
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- » Principles of Biology (BIOL 110)
» Organismal Biology (BIOL 140)
» General Ecology (BIOL 255)
» Introductory Chemistry I & II (CHEM 115 & 136)
» Environmental Systems Under Stress (ENVR 220)

RESEARCH AND PROFESSIONAL EXPERIENCE

MAPS Biologist and MAPSPROG Programmer 4/1999 – 8/2005 (Permanent),
Institute for Bird Populations 5-8/1997 & 4-8/1998 (Seasonal)
Pt. Reyes Stn., CA and Vancouver, WA

As a MAPS (Monitoring Avian Productivity and Survivorship) Biologist, my responsibilities included a wide range of office and field projects:

- » Assisted in large-scale analyses of MAPS regional banding and breeding status data. Developed dBase programs to compile and prepare verified data for use in analyses. Assisted in development and use of MatLab programs used to analyze banding, effort, breeding status, habitat data, and GIS-derived spatial statistics.
- » Used ArcView GIS to produce spatial statistics for a series of buffers surrounding MAPS stations in the Northwest and Southeast/South-Central US regions. Wrote scripts in Avenue to customize and automate the processing of GIS spatial statistics. Developed a Unique Combination Edge Model to model avian population data against spatial statistics for specific edge types.
- » Designed and programmed new modules and created updates for MAPSPROG, a stand-alone banding, effort, breeding status, and habitat data entry and verification application, developed in dBase, used by over 200 independent MAPS station operators. Prepared a user's guide and manual and provide phone- and email-based technical support.
- » Produced annual reports for grantors summarizing yearly and between-year population trends and results of productivity and survivorship analyses. Conducted statistical analyses.
- » Banded and processed thousands of birds of over two hundred species across the US and at Guantanamo Bay, Cuba.
- » Developed a dataflow system to track station and operator information and the receipt and processing of MoSI data.
- » Designed, coded, created, and deployed a dynamic ASP-based data-access website allowing the online query of MAPS productivity and survivorship indices, station info., and breeding status and habitat data. Updated and maintained IBP's website.
- » Prepared annual General Ledger financial statements; provided hardware, software, and network technical support.

Lead Bander, Tortuguero Integrated Bird Monitoring Program
Caribbean Conservation Corporation, USFS Redwood Sciences Laboratory, and 2/2005 – 4/2005
Klamath Bird Observatory Tortuguero, Costa Rica

Banded and processed over 600 birds of 70 species at a long-term monitoring site studying Neotropical migrant and resident landbird population dynamics. Conducted daily transect point counts and migration monitoring counts. Trained volunteers from the local community as well as from North America in bird identification and mist-netting and banding techniques.

Field Assistant 8/1998 – 11/1998
Idaho Bird Observatory Boise, ID

Researched the migration ecology of raptors and songbirds along the Boise Front. Investigated fat deposition rates and migration habitat preference in songbirds. Conducted songbird and owl mist-netting and banding, songbird transect counts, raptor banding, and raptor migration counts.

Seasonal Naturalist 10/1996 – 4/1997
National Audubon Society, Corkscrew Swamp Sanctuary Naples, FL

Responsible for a variety of research, interpretation, and maintenance duties.

AmeriCorps Volunteer 9/1995 – 8/1996
Northwest Service Academy Trout Lake, WA

Completed a variety of field research (mammalian carnivore, squirrel, and steelhead population surveys), environmental education, habitat restoration, resource management, trail-building, and community service projects

PRESENTATIONS

- Michel, N. 2006. "Biotic Resistance Hypothesis: Physiologically-mediated mechanisms for "slow" life-histories in tropical rainforest interior insectivores." North American Ornithological Conference.
- Michel, N. 2006. "An introduction to the use of molt limits and plumage criteria to age landbirds." Inland Bird Banding Association.

- Michel, N. 2006. "Comparative Foraging Success of Insectivorous Birds in Tropical Forests Along a Seasonality Gradient in Costa Rica." Roger Thayer Stone Center for Latin American Studies, Tulane University.
- Nott, P., D.F. DeSante, R.B. Siegel, P. Pyle, and N. Michel. 2004. "Climate and landscape influences on landbird populations of the Pacific Northwest Forests." Ecological Society of America.
- Michel, N. 2004. MAPSPROG Workshop. Western Bird Banding Association.
- Michel, N and M.C. Corse. 1995. "Rarity and Habitat Associations in the Chiricahua Fox Squirrel." National Conference on Undergraduate Research.

PUBLICATIONS AND REPORTS

- Michel, N., DeSante, D.F., Kaschube, D.R., and Nott, M.P. 2006. The Monitoring Avian Productivity and Survivorship (MAPS) Program Annual Reports, 1989-2003. NBII/MAPS Avian Demographics Query Interface. <http://www.birdpop.org/nbii/NBIHome.asp>.
- Froehlich, D., N. Michel, D.F. DeSante, and P. Velez. 2006. MAPSPROG Version 4.1: User's Guide and Manual. The Institute for Bird Populations, Pt. Reyes Station, CA.
- Nott, M. P., D. F. DeSante, P. Pyle, and N. Michel. 2005. Managing Landbird Populations in Forests of the Pacific Northwest Region. Publication No. 254 of The Institute for Bird Populations.
- Nott, M. P. and N. Michel. 2005. Management strategies for reversing declines in landbirds of conservation concern on military installations: Predictive modelling of landbird populations on military installations. The Institute for Bird Populations, Pt. Reyes Station, CA. *A report to the Legacy Resources Management Office, Washington, D.C.*
- Saracco, J.F., D.F. DeSante, C.R. de Vivar Alvarez, S. Morales, B. Mila, D.R. Kaschube, and N. Michel. 2004. Monitoring Overwintering Apparent Survival of Migratory Landbirds in the Neotropics. Unpubl. Report, The Institute for Bird Populations, Pt. Reyes Station, CA.
- DeSante, D.F., P. Pyle, N. Michel, and D. O'Grady. 2003. The 2002 Annual Report of the Monitoring Avian Productivity and Survivorship (MAPS) Program at the Nature Reserve of Orange County. Unpubl. Report, The Institute for Bird Populations, Pt. Reyes Station, CA.
- Nott, M.P., D.F. DeSante, and N. Michel. 2003. Monitoring Avian Productivity and Survivorship (MAPS) Habitat Structure Assessment (HSA) Protocol. The Institute for Bird Populations, Pt. Reyes Station, CA.
- Nott, M.P., N. Michel, and D.F. DeSante. 2003. Management Strategies for Reversing Declines in Landbirds of Conservation Concern on Military Installations. Executive Summary. The Institute for Bird Populations, Pt. Reyes Station, CA.
- DeSante, D.F., N. Michel, and D. O'Grady. 2002. The 2001 Annual Report of the Monitoring Avian Productivity and Survivorship (MAPS) Program at the Nature Reserve of Orange County. Unpubl. Report, The Institute for Bird Populations, Pt. Reyes Station, CA.
- DeSante, D.F., N. Michel, and D. O'Grady. 2001. The 2000 Annual Report of the Monitoring Avian Productivity and Survivorship (MAPS) Program in Cape Cod National Seashore. Unpubl. Report, The Institute for Bird Populations, Pt. Reyes Station, CA.
- Michel, N., D.F. DeSante, and P. Velez. 2001. The 2000 Annual Report of the Monitoring Avian Productivity and Survivorship (MAPS) Program in Shenandoah National Park. Unpubl. Report, The Institute for Bird Populations, Pt. Reyes Station, CA.
- Michel, N., D.F. DeSante, P. Velez, and D. O'Grady. 2001. The 2000 Annual Report of the Monitoring Avian Productivity and Survivorship (MAPS) Program at U.S. Army Fort Hood. Unpubl Report, The Institute for Bird Populations, Pt. Reyes Station, CA.

PROFESSIONAL SOCIETIES

American Ornithologists' Union; Association of Field Ornithologists; Cooper Ornithological Society; Ecological Society of America; Inland Bird Banding Association; Neotropical Ornithological Society; Western Bird Banding Association

PROFESSIONAL SERVICE

Reviewer for Journal of Field Ornithology

CERTIFICATIONS

Certified Bander and Trainer (bird banding), North American Banding Council