

Melanie Allen Truan

Wildlife, Fish & Conservation Biology
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EDUCATION

University of California, Davis, 1996-2004

Ph.D. in Ecology, 2004.

Dissertation: Spatiotemporal Gradient Analysis in Shredded Ecosystems: The Effects of Linear Fragmentation on Biodiversity.

University of California, Santa Cruz, Santa Cruz, California, 1993-1996.

B.A. in Biological Sciences, *Summa cum laude*, 1996.

Grossmont Community College, El Cajon, California, 1997-1980.

A.S. in Computer Science and Systems, with honors, 1980.

HONORS AND AWARDS

- Graduate STAR Fellowship (U.S. Environmental Protection Agency), 2000-2003.
- UC Davis Graduate Group in Ecology Research Block Grants (1996, 1998, 2000).
- UC Davis Putah-Cache Bioregion Research Grant. 1998.
- Jastro-Shields Graduate Research Award, 1998.
- Campus Merit Undergraduate Scholarship, 1995.
- Wheeler Wilson Undergraduate Merit Scholarship, 1994.
- Marilyn C. Davis Memorial Undergraduate Scholarship, 1994.
- Caldwell Undergraduate Merit Scholarship, 1993.
- Mary Louise Jannoch Memorial Undergraduate Scholarship, 1992.

TEACHING EXPERIENCE

Instructor, Political Ecology, University of Miami, Miami, Florida, 2004. Co-instructors: Dr. Sarah Keene Meltzoff, Marine Department, University of Miami and Dr. Diego Quiroga, Galapagos Institute of Arts and Sciences, Universidad de San Francisco de Quito, Ecuador.

Co-organized and led a university-sponsored field course for graduates and undergraduates focusing on anthropological interactions and natural resource management of marine and terrestrial resources in the Galapagos archipelago.

Instructor, Tropical Zoology, Arizona State University, Phoenix, Arizona. 2002. Co-instructor Dr. Paul Hamilton, Department of Biology, Arizona State University.

Co-organized and led a university-sponsored field course for graduates and undergraduates in field survey methods for Amazonian birds and herpetofauna. Taught course content in ornithology, including field exploration and demonstration of survey techniques such as mist netting and banding in tropical locales. Jatun Sacha Ecological Reserve, Ecuador.

Teaching Assistant, Field Methods in Wildlife Biology (WFC 100), University of California Davis, 1998-2000. Dr. Deborah L. Elliott-Fisk, professor.

Served as lead teaching assistant for three years for this core course in the Wildlife, Fish and Conservation Biology major. Taught laboratory and field exercises on plant and wildlife field methods, including field notes, plant and habitat analysis, survey techniques for vertebrates, and use of global positioning systems, GIS and radiotelemetry. Gave classroom lectures on wildlife survey techniques and avian ecology.

Guest Lecturer, UC Davis Arboretum Seminar Series, 2001 and 2002. Kathleen Sokolofsky, Executive Director.

Wildlife of the UC Davis Arboretum.

Guest Lecturer, University of California Davis, 2000.

Wildlife Food and Habitat Relationships in Temperate and Tropical Ecosystems. UC Davis Botany Club.

Guest Lecturer, Principles of Landscape Ecology (LDA 153), UC Davis, 1998. Dr. Sharon Collinge, professor.

The influence of landscape mosaics in exotic species invasions.

Guest Lecturer, Proseminar in Wildlife and Fisheries Biology (WFC 190), 1998. Dr. Dirk Van Vuren, professor.

Counting Critters: Biological Survey Techniques.

Interpretive Specialist, California State Parks, Santa Cruz, CA, 1994-1996. Steve Radosovich, Interpretive Programs Supervisor, California Department of Parks and Recreation.

Led interpretive programs, staffed interpretive centers, and trained and supervised volunteer docents at Natural Bridges, Seacliff, and Wilder Ranch State Parks.

Personal Tutor, Disability Resource Center, UC Santa Cruz, 1993-1995. Sharyn Martin, Director.

Tutored learning disabled students in physics, chemistry, biology and communication and writing skills.

RESEARCH EXPERIENCE

Postdoctoral Research: Department of Fish, Wildlife and Conservation Biology and Museum of Fish and Wildlife, University of California, Davis, 2004 to present. Research advisors: Dr. Deborah L. Elliott-Fisk and Andrew Engilis, Jr.

- Ornithology, landscape ecology, biodiversity, habitat restoration

Postdoctoral Research: Conducted through the University of Miami and sponsored by a pilot grant through Carnegie-Mellon University, 2004-present (summer). Research advisor: Dr. Sarah Keene Meltzoff, Marine Department, University of Miami, Florida.

Participated in developing ecological gap analysis in preparation for NSF grant application comparing local environmental knowledge, decision-making and stewardship of environmental resources in an ethnographic context in the Galapagos archipelago, Ecuador.

Doctoral Research: Department of Wildlife, Fish and Conservation Biology, University of California, Davis, 1996-2003. Research advisors: Dr. Deborah L. Elliott-Fisk, Dr. Peter B. Moyle, Dr. Douglas A. Kelt, and Dr. John M. Eadie.

- Theoretical development of the concept of habitat shredding
- Multivariate analysis of community, population and demographic dynamics and local and regional environmental controls on biodiversity of birds, small mammals, and plants along two shredded riparian ecosystems.
- Analysis of how ecological communities reflect longitudinal variation at different scales.
- Analysis of landscape and community ecology of cavity nesting birds, including spatial and temporal analysis of their distribution, habitat associations, resource use, and reproductive success in riparian areas of California's Central Valley.

Graduate Research: Department of Wildlife, Fish and Conservation Biology, University of California, Davis, 2002-2004. Research advisors: Dr. Deborah L. Elliott-Fisk and Andrew Engilis Jr.

Development and analysis of multitaxonomic, multimetric bioindicators to assess baseline and post-restoration riparian ecosystem functioning condition.

Graduate Research: Department of Wildlife, Fish and Conservation Biology, University of California Davis, 2000. Research advisor: Andrew Engilis Jr., Curator, Museum of Fish and Wildlife.

Developed a Geographic Information System for the UC Davis Experimental Ecosystem, using ArcINFO and ArcView to convert AutoCAD engineering datafiles into topological shapefiles and create new land use data layers for management and restoration planning.

Undergraduate Research: Point Reyes Bird Observatory, Stinson Beach, CA, 1995. Research advisor: Gary Page, Director of Wetlands Research.

Performed nest searches and monitoring for the Snowy Plover Protection Project, Santa Cruz County.

OTHER PROFESSIONAL EXPERIENCE

Consulting Ecologist

Yolo County Planning and Public Works. 2004. Woodland, CA. Project supervisor: Linda Fiack, Parks and Resources Manager.

- Biological assessments and habitat enhancement and restoration planning for proposed Capay Open Space Park, Capay CA.
- NEPA/CEQA mitigation surveys for sensitive avian species in compliance with Final MND/MFONSI for Yolo County Juvenile Detention Facility construction project. Mr. Terry Vernon, Projects Manager.

American Land Conservancy, San Francisco, CA, 2002-present. Project supervisor: Craig Thomsen.

Regional site assessments, avian surveys, and cavity nesting bird habitat enhancement measures for the Bear Creek Watershed Habitat Enhancement and Restoration Project of the California Wildlife Conservation Board.

Cache Creek Conservancy, Woodland, CA, 2001-present. Project supervisor: Mr. Jan Lowrey, Cache Creek Nature Preserve Manager.

- Biological Assessments and Endangered Species Mitigation Compliance Monitoring in collaboration with US Fish & Wildlife Service, County of Yolo, Yolo Flood Control District and the Cache Creek Conservancy.
- Baseline and post-project Mitigation Compliance Monitoring, including avian surveys and floristic analysis, for Arundo Eradication and Habitat Enhancement Project at the Cache Creek Nature Preserve.

Jones & Stokes Associates, Sacramento, CA, 1999. Project Supervisor: Ron Unger (currently Senior Ecologist at EDAW, Sacramento, California).

Surveys and analysis in compliance with Initial Study/Negative Declaration under California Environmental Quality Act (CEQA) regulations and Biological Assessment and Mitigation Compliance Monitoring in the Montezuma Hills, Potrero Hills, Suisun Marsh, and Denverton Slough Area of Solano County, CA. Found previously unrecorded populations of sensitive plant and wildlife populations, including Suisun Song Sparrow, Soft Bird's-Beak, Carquinez Golden Bush, Delta Tule Pea, Delta Mudwort, Mason's Lilaeopsis, Suisun Marsh Aster, Contra Costa Goldfields, and others.

SELECTED PUBLICATIONS

- Truan, M. Habitat Shredding Revisited. *Ecology*. Submitted 2007.
- Truan, M. and D.L Elliott-Fisk. Biodiversity in shredded ecosystems: Longitudinal variation and wildlife-habitat relationships in plant, small mammal, and bird communities along two California Central Valley streams. *Ecological Applications*. In preparation.
- Truan, M. Avian biodiversity in shredded ecosystems: spatiotemporal variation in riparian bird species and functional groups at multiple scales. *Ecology*. In preparation.
- Truan, M. Does nest box subsidy affect avian community composition? *Biol. Cons.* In preparation.
- Truan, M.A. 2004. Biological assessment for the Capay Open Space Park. Yolo County Department of Planning and Public Works, Woodland, CA.
- Truan, M.A. 2003. Western Bluebird as host for Brown-headed Cowbird: A new record from California. *Western Birds* 34(2).
- Truan, M.A. 2003. The Putah Creek Biomonitoring Plan. Prepared for the Lower Putah Creek Coordinating Committee, Solano County Water Agency, Vacaville, CA.
- Truan, M.A. 2002. The Putah Creek Nestbox Trail. Internet outreach publication.
<http://www.putahcreek.org/Nestbox.pdf>
- Truan, M.A. and J. Kampbell. 1998. Spatial analysis (Arc/INFO) of the effects of habitat heterogeneity on avian biodiversity in a riparian corridor, Internet publication of Department of Applied Biological Systems Technology, UC Davis.
- Truan, M.A. 1996. Nonpoint source pollution and wetlands: Impacts of urban and agricultural nonpoint source pollution on sediments, groundwater and biota, 70 pp. *in* Nonpoint Source Pollution in Coastal Harbors & Sloughs of the Monterey Bay Region: Problem Assessment & Best Management Practices, Association of Monterey Bay Area Governments, Marina, CA.
- Truan, M.A. 1994, Habitat Requirements of Wintering Monarch Butterflies. UC Santa Cruz Arboretum, Santa Cruz, CA.
- Truan, M.A. 1994. Poem: "Sonnet to Shakespeare's Sister", *Chinquapin: Journal of Literature and Arts*, University of California, Santa Cruz.

AFFILIATIONS

Phi Sigma National Biological Honor Society, Gamma Delta Chapter, 1998-present
American Bird Conservancy
American Institute of Biological Sciences
Audubon Society
California Bluebird Recovery Program
Cornell Laboratory of Ornithology
Point Reyes Bird Observatory
Rainforest Action Network
The Nature Conservancy
World Wildlife Fund