

KRISTIN BRUERE BYRD

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EDUCATION

- PhD **University of California, Berkeley**, 2005
Environmental Science, Policy, and Management (ESPM)
Temporal and Spatial Linkages Between Watershed Land Use and Wetland Vegetation Response in the Elkhorn Slough Watershed, Monterey County, California
N. Maggi Kelly (chair), Adina Merenlender, Alex Horne, dissertation committee
- MA **San Francisco State University**, 1998
Ecology and Systematics
*The Influence of Clear-cutting on Ectomycorrhizal Fungus Diversity in a Lodgepole Pine (*Pinus contorta*) Stand, Yellowstone National Park and Gallatin National Forest, Montana*
V. Thomas Parker, advisor
- BS **Cornell University, College of Agriculture and Life Sciences**, 1993
Environmental Science

POST-DOCTORAL EXPERIENCE

Post-Doctoral Researcher, ESPM Department, U.C. Berkeley *January 2006 –*
The role of conservation easements in protecting natural hydrologic regimes in the Lassen Foothills, California with P.I. Adina Merenlender in partnership with The Nature Conservancy

TEACHING AND OUTREACH

- Introduction to Environmental Science**, Graduate Student Instructor *Spring 2002, 2004*
Environmental Science Department, U.C. Berkeley
- Created and taught section lessons on Bay Area environmental topics
 - Wrote homework and exam questions, delivered lectures on wetlands and estuaries
- Urban Environmental Education**, Graduate Student Instructor *Spring 2003*
ESPM Department, U.C. Berkeley
- Taught environmental education outreach course serving urban high schools in Oakland
 - Course objective was to train college students to teach environmental science to high school students
 - Advised on lesson plan development and public speaking, led field trips to Arrowhead Marsh, Oakland
- Environmental Outreach Workshop Leader** *2003 – 2005*
Environmental Leadership Outreach Program, U.C. Berkeley
Created and led the following environmental science workshops for Bay Area 6 – 12 students:
- *Protecting the San Francisco Bay and Delta: from regional debates to local action*; EarthTeam Student Environmental Leadership Weekend
 - *WebGIS*; Pre-College Academy, U.C. Berkeley
 - *GPS and Wetlands workshop*; Girls, Incorporated, San Leandro, CA
 - *Kayak Tour of Elkhorn Slough*; Global Environment Theme House, U.C. Berkeley
- Introductory Botany**, Teaching Associate *Fall 1996, Spring 1997*
Biology Department, San Francisco State University
- Taught lab sections, led field trips to local parks, wrote and graded weekly quizzes

PUBLICATIONS AND WORK SUBMITTED

- Byrd, K. B., N. M. Kelly, and E. Van Dyke. 2004. Decadal changes in a Pacific estuary: a multi-source remote sensing approach for historical ecology. *GIScience and Remote Sensing* 41(4):347-370.
- Byrd, K. B., V. T. Parker, D. R. Vogler, and K. W. Cullings. 2000. The influence of clear-cutting on ectomycorrhizal fungus diversity in a lodgepole pine (*Pinus contorta*) stand, Yellowstone National Park, Wyoming, and Gallatin National Forest, Montana. *Canadian Journal of Botany* 78(2):149-156.

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- Byrd, K. B. and N. M. Kelly. Salt marsh vegetation response to edaphic and topographical changes from upland sedimentation in a Pacific estuary. In review in *Wetlands*.
- Byrd, K. B., N. M. Kelly and A. M. Merenlender. Temporal and spatial relationships between watershed land use and salt marsh disturbance in a Pacific estuary. In review in *Environmental Management*.
- Byrd, K. B. 2005. Temporal and Spatial Linkages Between Watershed Land Use and Wetland Vegetation Response in the Elkhorn Slough Watershed, Monterey, County, California. Ph.D. Dissertation, University of California, Berkeley. 173 pp.
- Byrd, K. B. 1998. The Influence of Clear-cutting on Ectomycorrhizal Fungus Diversity in a Lodgepole Pine (*Pinus contorta*) Stand, Yellowstone National Park, Wyoming, and Gallatin National Forest, Montana. M.A. Thesis. San Francisco State University. 103 pp.
- Byrd, K. B. 1996. Biodiversity of Natural Vegetation in Ethiopia: The Contribution of Non-Governmental Organizations to the Implementation of the U.N. Convention on Biological Diversity. ECA/ENV/NRD/BIODIV.MONOG/1996 August.

CONFERENCE PROCEEDINGS AND PRESENTATIONS

- Byrd, K. B. and N. M. Kelly. 2004. The relationship between watershed land use change, wetland soil physical properties and plant succession in a California coastal estuary. Proceedings of the 89th Annual Ecological Society of America Meeting, August 1 – 6, Portland, OR.
- Byrd, K. B. 2003. Linking watershed land-use change and wetland vegetation response in a coastal California watershed. Proceedings of the 88th Annual Ecological Society of America Meeting, August 3 – 8, Savannah, GA.
- Byrd, K. B. and N. M. Kelly. 2003. Development of a classification system for linking watershed land-use change and wetland vegetation response in the Elkhorn Slough Watershed, Monterey County, California. Proceedings of the NOAA Coastal GeoTools '03 Conference, January 6 – 9, Charleston, SC.
- Byrd, K. B. 2004. Connections between wetlands and land use in the Elkhorn Slough Watershed: A study of changes from 1971 – 2001. Presented to the Elkhorn Slough National Estuarine Research Reserve and Elkhorn Slough Foundation.

AWARDS, GRANTS AND FELLOWSHIPS

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| Estuarine Conservation Research Award
Elkhorn Slough National Estuarine Research Reserve and the Elkhorn Slough Foundation | 2004 |
| U.C. Center for Water Resources Grant, with P.I. N. Maggi Kelly
Linking upland landcover change with wetland structure in Elkhorn Slough, CA
\$56,000 | 2002 – 2004 |
| U.C. Marine Council Coastal Environmental Quality Graduate Fellowship
Agriculture in the watershed and its impact on the structure of salt marshes in Elkhorn Slough – use of remote sensing for historical change detection
\$25,000 | 2002 |
| U.C. Marine Council Coastal Environmental Quality Graduate Research Support
Agriculture in the watershed and its impact on the structure of salt marshes in Elkhorn Slough – use of remote sensing for historical change detection
\$17,500 | 2002 – 2003 |
| ESPM Departmental Fellowship, U.C. Berkeley | 2000 – 2001 |
| U.S. Dept. of Education Graduate Assistance in Areas of National Need Fellowship
Support for M.A. at San Francisco State University | 1995 – 1997 |
| Fellowship, International Foundation for Education and Self-Help, Phoenix AZ
Support for position at the United Nations Economic Commission for Africa, Addis Ababa, Ethiopia | 1994 |
| Yosemite Association Scholarship, Yosemite National Park, CA | 1994 |

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PROFESSIONAL EXPERIENCE

Wetlands Bio-Technician, Point Reyes National Seashore, CA *May 2001 – Sept. 2001*

- Worked on the Giacomini Ranch Project, a 500-acre wetland restoration project on Tomales Bay
- Surveyed rare plants, conducted GIS analyses, and began regulatory approval process

Senior Staff Biologist, URS Corporation, Oakland, CA *April 1998 – March 2001*

- Developed 5-year monitoring program for Heron's Head Park, a restored wetland in San Francisco; Collected, analyzed data, provided management recommendations in annual report
- GIS analyst on project to produce an interactive CD with profiles of 70 potential wetland restoration sites for SFO Runway Expansion EIR/EIS; profiles contained a database of site attributes, GIS maps, and aerial video
- Delineated vernal pools surrounding current U.C. Merced campus as part of Campus Parkway EIR
- Assessed biological impacts of proposed FEMA projects for environmental assessment reports; developed measures to minimize impacts to biological resources caused by project implementation

Fellow, United Nations Economic Commission for Africa (UNECA) *Oct. 1994 – July 1995*

Natural Resources Division, Addis Ababa, Ethiopia

- Designed research project to study the contribution of non-governmental organizations (NGOs) to the implementation of the U.N. Convention on Biological Diversity in Ethiopia
- Conducted research through interviews with members of government, NGOs, and the local community
- Examined land tenure policy, community-NGO-government relations, use of economic incentives in conservation
- Obtained funding from the UNECA to travel to NGO project sites; published research as a UNECA monograph

Natural Resources Interpretation Intern, Yosemite National Park, CA *June 1994 – Sept. 1994*

- Prepared evening campfire programs for a large audience; lectured on park conservation
- Led two-hour walks in giant sequoia grove; discussed forest ecology and fire management

Environmental Analyst, Energetics, Inc., Columbia, MD *June 1993 – June 1994*

- Researched economic impacts of wood energy in eleven northeast states; analyzed impact of Clean Air Act on Department of Energy (DOE) facilities; informed DOE of EPA compliance requirements

COMMITTEES AND AFFILIATIONS

- Co-President, Society for Conservation Biology, U.C. Berkeley Chapter *Sept. 2003 – Sept. 2004*
- Graduate Programs Committee and Admissions Committee, ESPM Dept. *Sept. 2002 – May 2003*
- Ecological Society of America *2003 – present*
- Association of American Geographers *2004 – present*
- Society for Conservation Biology *2005 – present*
- Elkhorn Slough Foundation *2003 – present*
- Randall Museum Friends *2003 – present*
- Golden Gate National Parks Conservancy *2002 – present*
- Vice-President, Cornell Class of 1993 *1998 – 2003*