

SEDRA S.L. SHAPIRO

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SUMMARY OF QUALIFICATIONS

- Over 15 years experience working in the sciences, environment, education and business fields; successfully linking components together for maximum impact
- A passion for conservation research and the facilitation of training of future leaders
- Proven track record in nonprofit leadership and management, integrating staff development and accountability with programmatic outcome measurement, evaluation and science-based decision-making
- Strong skills in managing complex relationships and encouraging innovative partnerships
- Outcomes oriented, able to complete complex projects through development of innovative strategies
- Experienced in leading teams and individuals to effect change
- A history of creating strategic partnerships and developing innovative solutions to benefit multiple constituencies
- Commitment to communication and understanding of the sciences and sustainability as evidenced from the completion of a Master's Degree in Business Administration, Bachelor's Degrees in Biology and Economics and current Ph.D. work in Resources and Environment.
- Extensive field work in the United States and abroad
- Proven success in fundraising, communications, and business planning

PROFESSIONAL Activities



The University of Wisconsin, Madison
Department of Zoology
Madison, Wisconsin

Teaching Assistant, Biology 152

Sept 2010-Dec 2010

- Second semester Biology course discussion and Independent Project Teaching Assistant
- Mentor for ~ 100 students ranging from sophomore to senior undergraduate
- Support of students to integrate foundational knowledge (plant anatomy and physiology, mammalian anatomy and physiology and ecology) with critical thinking and complex reasoning via Socratic method
- Independent project is either mentored research or a meta-analysis of a current scientifically controversial area of science (scientifically verses socially controversial area of science) culmination in a 20 – 30 page research paper.



The San Diego Foundation
San Diego, California

Program Director, Science and Technology

Feb 2006-May 2009

Acting Associate Vice President

Dec 2007-Dec 2008

Acting Program Director, Health and Human Services

Dec 2007-Dec 2008

- Acted as Associate Vice President, supervised personnel, budget, and operations for the largest department at The San Diego Foundation during economic hardship / contracted staff.
- As Program Director for Science and Technology and Health & Human Services, oversaw all grant making focus area functions and volunteer working groups, determined the distribution of funds and integrated programmatic evaluation and outcome measurement into the process.
- Oversaw the distribution of more than \$3 million in funds to the community in support of science education, science scholarships and scientific research. Fields included biology regenerative medicine, computational science, physics, engineering, chemistry and the health sciences.
- Acted as the primary liaison for affiliate grant making organizations, providing training, branding standards and organizational policy and procedure information. Served as representative and point of contact for external organizations working in aligned topic areas.
- Represent the organization on a variety of committees and meetings regarding community foundations and civic involvement. Serve on panels, external grant-making bodies and represent the Foundation at networking events.
- Support donor and philanthropic services related to science and technology fields of interest.
- Increased department and Foundation resources by over \$1.5 million, including a \$1 million scholarship *STEM* fund (Science, Technology, Engineering and Math) from QUALCOM.
- Created strategic plans and identified cutting edge research to guide new initiatives for a variety of science and technology working group programs.
- Continually enhance department efficiency through innovative process improvements.
- Reengineered working group strategy and structure to better support the community and Foundation goals of philanthropic impact.
- Organized forums with leading community experts to galvanize the community around science and technology grant making and community impact initiatives.
- Develop and enhance local, regional and national relationships with experts in the science and technology fields.
- Continually invited to speak at a variety of forums on topics ranging from innovations, technologies and public/private partnerships opportunities



San Diego State University
San Diego, California

Executive Director – Field Station Program

2000-2006

- Led a multi-million dollar network of field stations to a new level of professionalism; increased support by building community partnerships, developing and executing strategic plans, overseeing operations for a complex multi-site program and supervising varying professional levels of staff.
- Increased extramural support, including external funding exceeding \$1 million and program endowments of over \$3 million.

- Managed complex budgets, including state budgets, grants and contracts, philanthropic funds and endowment resources.
- Recruited, trained, supported and held accountable multiple executive staff members.
- Represented the organization at national and international meetings, function and workshops.
- Met with members of Congress regarding national programs, such as the congressionally funded National Environmental Observatory Network (NEON).
- Formed partnerships with organizations of shared interests, including: California Institute for Telecommunications and Information Technology, The Nature Conservancy, the Management Authority of the Tijuana Estuary National Estuarine Research Reserve, and Land Conservancies.
- Created long-term organizational strategic goals and implementation plans.
- Recruited funding as a Principle Investigator (PI) on multiple grants and formed collaborations with the investigators at the San Diego Super Computer Center, Scripps Research Institute, IGPP etc.
- Served as Principal Investigator in a multi-institution U.S. Department of Education Fund for the Improvement of a Postsecondary Education (FIPSE) project in a joint European Union (EU) international education program.
- Worked as a Science Fellow (sabbatical) at the University of Melbourne, Australia on a four-month exchange working on decision-making practices in conservation in the lab of Dr. Mark Bergman.
- Increased research activity and support of scientists, including implementation of the Graduate Student Research Award program.

Associate/Assistant Director – Field Station Programs

1996-2000

- Coordinated land acquisition process from land owner contact, recruitment of appraiser, environmental evaluations, legal oversight, document preparation and escrow.
- Positioned Field Stations to become a campus-wide and community resource, attracting international research and education users in Science, Geography, Engineering, Recreation, and the Arts.
- Managed partnerships with state and federal agencies on land acquisition and conservation initiatives.
- Developed job functions and identified required resources to match strategic goals.
- Created an advisory, 15-person strategic planning committee for the SDSU Field Stations
- Coordinated monthly meetings, scheduling expert speakers, creating informative handouts, preparing board briefings and facilitating the decision-making processes. Hosted a 40-person, three-day strategic planning retreat.
- Identified and developed funding sources for reserve management.
- Developed outreach and communications to increase field station use.

Manager – Santa Margarita Ecological Reserve

1995-1996

- Worked with Faculty Director in grant writing for land acquisition initiatives.
- Managed ecological site and prepare it for use by university biology courses.
- Implemented security measures to minimize trespassing incidents and ensure the security of the Reserve.

Assistant Area Field Ecologist

1993-1995

- Worked with agencies holding utility easements to build awareness of environmental impacts of their activities on conservation lands. Agencies included the Metropolitan Water District, Southern California Edison, San Diego Gas and Electric, and local water districts.
- Sought resource management funds for wildfire hazard reduction. Secured funding from the Federal Emergency Management Authority and the California Department of Forestry and Fire Protection for resource management program.
- Established parcel values to develop biological and land value overlays for potential wild land corridors.
- Evaluated land gift and land acquisition opportunities. In partnership, developed and implemented a habitat connectivity plan for the Santa Ana – Palomar Mountains Linkage Plan.
- Responsible for land owner contact and relations throughout projects involving private property.
- Supervised volunteers and seasonal technicians for monitoring surveys of vernal pools, native grasslands, small mammals, chaparral and coastal sage scrub.



Research and Teaching Projects Costa Rica

Teaching and Research Assistant – Evergreen State College

1993

- Supported Dr. Nalini Nadkarni in field instruction of Evergreen State College students and in tropical research.
- Coordinated supplies and equipment, organized experiments and mentored students.

Field Instructor – Joint Sciences Department, Claremont Colleges

1993

- Collaborated with Dr. Jim McFarlain to design a study abroad field course for the Joint Sciences Department of the Claremont Colleges.
- Conducted reconnaissance, identified and arranged guest lectures and program framework.
- Provided orientation to inaugural class. Led field experiments, provided field lectures and plant identification short course.

Lead Biologist – Los Jardins del Mariposa

1992-1993

- Developed scientifically accurate program talk for docents in a native butterfly garden in Monteverde Costa Rica.
- Worked with international scientists to ensure accuracy and novelty of information.
- Trained docent guides and volunteers from around the world.

Teaching Assistant – The Council of International Educational Exchange

1992

- Supported Dr. Linda Rayor in undergraduate study abroad program. The program encompassed four courses and included students from around the United States.
- Provided orientation to area. Supported field experiments, course work and independent studies of students; on-call at all times for students in the program.

Service Coordinator – The Monteverde Institute

1992

- In-country program coordinator for university level study abroad programs conducted in Monteverde Costa Rica. Study abroad programs included The School for Field Studies, The Council of International Educational Exchange and campuses of The University of California.
- Resource for faculty in logistics, housing, field equipment needs and student orientations.

EDUCATION

UNIVERSITY OF WISCONSIN - MADISON, Madison, Wisconsin

Doctorate of Philosophy, Environment and Resources Expected 2014

PhD Advisor: Dr. Paul Zedler

Committee Members: Dr. Paul Mitchell (Agriculture and Applied Economics); Dr. Randall Jackson, (Agronomy); Dr. Anna McAlister (Consumer Science); Fifth TBD

Selected Courses: Environment and Resources: Introduction to Geographic Information Systems (GIS), GIS Applications, Wetland Ecology, Soil Ecology, Sustainability, Marketing, Statistics, Seminar in Agriculture, Sociology of Agriculture

SAN DIEGO STATE UNIVERSITY, San Diego, California

Master's Degree in Business Administration, 2008

General MBA training: Accounting, Statistics, Human Resources, Marketing, Financial Management, Negotiations, Ethics, Operations, Cultural Communications, International Relations, Leadership

SCRIPPS COLLEGE, Claremont, California

Bachelor's Degree in Biology and Economics, 1993

Senior thesis: "Land Links: The Integration of Economic and Biological Factors in the Creation of Wildlife Corridors." (Advisors: Dr. Sherwyn Carlquist - Biology, Dr. Ron Teeple - Economics)

PUBLICATIONS

Shapiro S. (2008). Community Compass: Aligning Support to Improve K-12 Mathematics & Science Education for our Students. Community Report for the Science & Technology Working Group of The San Diego Foundation www.sdfoundation.org/stwg

Porter, J., Arzberger P., Braun H., Bryant P., Gage S., Hansen T., Hanson P., Lin F., Lin C., Kratz T., Michener W., **Shapiro S.** and Williams T. (2005). Wireless Sensor Networks in Ecology. BioScience.

Luke, C., K. Penrod, C.R. Cabanero, P. Beier, W. Spencer and **S. Shapiro**. (2004). A linkage design for the Santa-Ana – Palomar Mountains connection. Technical Report of San Diego State University Field Station Programs www.fs.sdsu.edu and the South Coast Wildlands www.scwildlands.org

Ebaugh J., Michener W., **Shapiro S.** and Stromberg M. (2001). An Operations Manual for Field Stations and Marine Laboratories. Section III - Program. (S. Lohr, ed.) Organization of Biological Field Stations. Funded by the National Science Foundation. Available at: <http://www.obfs.org/OpsMan/OpsIntro/OperationsManualIntro.html>.

Luke, C., Zedler P. and **Shapiro S.** (2001). Fire management along the wildland-urban interface in southern California: a case study for the Santa Margarita Ecological Reserve. In: Proceedings of the

Tall Timbers 22nd Fire Ecology Conference: Fire in Temperate, Boreal and Montane Ecosystems. 15-18 October Kananaskis, Alberta, Canada.

PROFESSIONAL AFFILIATIONS

President: Organization of Biological Field Stations, 2004-2007
Board Member: Mission Trails Citizen Advisory Committee, 2001-2006
Member: Organization of Biological Field Stations, 2000-2006
Member: Council for the Advancement and Support of Education (CASE), 1999- to 2006
Executive Board Member: Organization of Biological Field Stations, 2001- 2003
Auction Committee Member: Organization of Biological Field Stations (OBFS), 1995-2001
Financial Committee Member: (OBFS), 1995-2001
Legislative Relations Committee: (OBFS), 1995-2001
Political Outreach Committee (OBFS), 1995-2001
Member: Sigma Xi, 1993-2000

SELECTED PRESENTATIONS

Panelist: Building Biotech Bridges. Life Sciences and Philanthropy educators meeting. San Diego, CA. (2008).
Invited Speaker: Organizing Collaboratives in Education Funding. Grantmakers in Education. (2008)
Panelist: Greenovation Forum. UCSD. San Diego, CA. (2007).
Panelist: The Politics and Economics of Conservation Delivery. The University of Melbourne Faculty of Science. (2005).
Working Group Moderator: Informatics, Biological Resources, Monitoring Methods, and Field Stations. SDSU/USGS/MWWD Joint Workshop: Identification of Potential Cooperative Research Programs, San Diego State University, CA. (2002).
Presenter: Sensor networks and baseline monitoring at a HPWREN connected field station. LTER Database managers' annual meeting, San Diego, CA. (2002).
Presenter: Networking a Reserve: Developing an environmental observation laboratory for research, education, and outreach. Corporation for Education Network Initiatives in California (CENIC) annual meeting, San Diego, CA. (2001).
Presenter: Conservation Planning in the Santa Ana - Palomar Mountains Linkage. Presentation. Partners for Biodiversity, San Diego, CA. (2001).
Presenter: Collecting, Sharing , and Understanding Environmental Data. Presentation. Connectivity Planning Workshop: Santa Ana - Palomar Mountains Choke Point: Biological Perspectives. Santa Margarita Ecological Reserve, Temecula, CA. (2001).
Presenter: Reforming Science Education: A National Agenda. Presentation. Executive Board Meeting for the National Association for Marine Labs, Washington DC. (2000).
Invited Speaker: Education at Field Stations. Strategic Planning Workshop for the Woodlake Environmental and Bath Field Stations, Cleveland, Ohio. (2000).
Invited Representative: Natural Reserve System – University of California. CSU (1999).
Organizer: Biological Field Stations Annual Meetings. (1995-2005).

HOSTED WORKSHOPS AND EVENTS

2008 Community Compass Forum *Community Alignment & What's Working in K-12 Math & Science Education* Moderated by Gloria Penner / Discussion led by Drs. Irwin Jacobs & Randy Ward. Report Review. Biogen – Idec. ~ 55 attending

- 2005 Jordan Dale Covin Memorial Lecture*. *Successful Science, Failed Communication: The Challenge of Conservation*. Presented by Dr. Peter Kaereiva (The Nature Conservancy). San Diego State University. ~600 attending.
- 2004 Stakeholder Information Sharing. *Emerging Technologies Showcase*. The Visualization Center, SDSU. ~ 50 attending.
- 2003 Jordan Dale Covin Memorial Lecture*. *The Science and Politics of Global Warming*. Presented by Dr. Stephen Schneider (Stanford University). San Diego State University. ~600 attending.
- 2002 Spring Celebration. *Using Technology to Explore the Environment*. Santa Margarita Ecological Reserve. ~150 attending.
- 2002 Jordan Dale Covin Memorial Lecture*. *Teaming with Life: Biodiversity and Sustainability*. Presented by Dr. Tom Lovejoy. San Diego State University. ~500 attending.
- 2002 *Santa Margarita Ecological Reserve (SMER) Water and Wildlife Monitoring Workshop / Working Group*. Hosted by SDSU Field Station Programs, California Institute for Telecommunications and Information Technology, and UCSD San Diego Super Computer Center. Santa Margarita Ecological Reserve. 24 attending.
- 2001 Jordan Dale Covin Memorial Lecture*. *Protecting the World's Oceans: Status and Trends in the World's Fisheries*. Presented by Dr. Carl Safina. San Diego State University. ~500 attending.
- 2001 Spring Celebration. *Habitat Islands and Corridors: The Value of Environmental Research and Fragmenting Landscape*. Santa Margarita Ecological Reserve. ~400 attending.
- 2001 Connectivity Planning Workshop. *Santa Ana - Palomar Mountains Choke Point: Biological Perspectives*. Santa Margarita Ecological Reserve. ~50 attending.
- 2001 Connectivity Planning Workshop. *Santa Ana - Palomar Mountains Linkage Conservation Design: Merging Biological Needs with Economic and Social Realities*. Santa Margarita Ecological Reserve. ~50 attending.
- 2000 Jordan Dale Covin Memorial Lecture*. *The Living World: Key to Sustainability*. Presented by Dr. Peter Raven. San Diego State University. ~500 attending.
- 2000 Spring Celebration. *Spring Celebration at the Santa Margarita Ecological Reserve*. ~250 attending.

* Public lecture followed by a private dinner for special guests of the FSP.

ADDITIONAL TRAINING AND SKILLS

22 unit Certified Fund Raising Executive program coursework - University of California
 Leadership Enhancement and Development (LEAD) - SDSU management seminar
 Capital Campaigns: from Start to Finish - CASE seminar
 Planning and Managing Effective Meetings - Strategic Solutions seminar
 What Matters Most: Time Management Training - Franklin Covey seminar
 Business Planning and Financing Growth - UCSD Business Extension course
 Introductory Arcview (GIS) - ESRI seminar
 Fire Academy training - Wildland firefighting (Fire 231) & Operations (Fire 100) - Palomar College Fire Academy

SERVICE AND VOLUNTEER WORK

Reviewer: BioScience (Journal articles),

Representative: a joint Organization of Biological Field Stations (OBFS) / National Association of Marine Labs (NAML) congressional briefing on invasive species.

Mentor: American Association of University Women (AAUW), San Diego, CA.

Science Tutor: for physically challenged students, Claremont, CA.

AWARDS, GRANTS AND PROPOSALS

Awards (\$5,000 and above)

2008	Private Donation (\$50,000). Contribution for support of the Blasker Research Award Program
2008	Biogen-Idec Sponsorship (\$10,000). Contribution to the Community Compass Initiative: Research and Forum
2008	Gen-Probe Sponsorship (\$5,000). Contribution to the Community Compass Initiative: Research and Forum
2008	QUALCOMM Sponsorship (\$5,000). Contribution to the Community Compass Initiative: Research and Forum
2008	Private Donation (\$50,000). Contribution for support of the Tom Murphy Research Fellows Program
2008	Math for America (\$75,000). Matching gift to establish a local San Diego Math for America chapter
2008	The Hilton Foundation (\$250,000). After the Fire Fund contribution to Vulnerable Populations
2008	BIOCOM (\$5,000). The Math & Science Community College Transfer Scholarship fund at The San Diego Foundation
2007	QUALCOMM (\$1,000,000). The Science Technology Engineering and Math (STEM) Scholarship fund at The San Diego Foundation
2007	Private Donation (\$25,000). Contribution for support of the Tom Murphy Research Fellows Program
2000-2006	Covin Family Trust (\$8,000 annual gift until endowment complete). Endowment to establish the Jordan Dale Covin Memorial Lecture Series.
2005	Private Donation (\$25,000). Charitable Remainder Trust gift to endowment.
2004	The Nature Conservancy (\$100,000). Contribution for the Santa Margarita Ecological Reserve. Adjacent Private Land Acquisition.
2003-2004	The Resources Law Group (\$67,000).The Nature Conservancy (\$100,000). Contribution for the Santa Margarita Ecological Reserve. Adjacent Private Land Acquisition.
2001	The Shepherd Family Trust (\$140,000). In kind land Gift.
2000-2002	American Honda Foundation (\$50,000). Expanding Environmental Education. A K-12 education program to enhance student field station experiences.
1999-2002	AT&T Foundation (\$50,000). Expanding Environmental Education. A database development program to enhance student field station experiences.
1999	The Sky Oaks Family Trust (\$890,000). In kind land gift.

- 1998 The Nature Conservancy (\$270,000). Contribution to the Santa Margarita Ecological Reserve Private Inholding Acquisition.
- 1998 Private Donation (\$25,000). Charitable Remainder Trust gift to SDSU endowment.

Grants (current and previous)

- 2003-2006 National Science Foundation subgrant via UCSD-SIO (\$409,259). ITR: A Real-time Data Aware System for Earth, Oceanographic and Environmental Applications.
- 2003-2005 National Science Foundation - Improvements in Facilities, Communications, and Equipment at Biological Field Stations and Marine Laboratories (\$187,500). FSML: Using Technology to Integrate Environmental Observations: Wireless Communication Enhancement at San Diego State University Field Stations.
- 2002-2004 California Department of Fish and Game (\$158,574). Monitoring and Management Protocol Refinement for Herptofauna Monitoring Within the MSCP.
- 2001-2004 National Science Foundation subgrant via UCSD-SIO (\$335,730). Exploring the Environment in Time: Wireless Networks and Real-time Management. A project to install and test new remote sensor technology at field stations.
- 2001-2002 Conservation Biology Institute (\$15,000). Database Specification for MSCP Program Data.
- 2001-2002 DOD Army Corps of Engineers (\$100,000). Legacy: Partnership for managing Southern California's Water and Biological Resources.
- 1999-2003 U.S. Department of Education Fund for the Improvement of Postsecondary Education (FIPSE) subgrant via The University of Wisconsin-Madison. Dr. Al Johnson, Co-PI. (\$7,000 /US partner/year). Ecosystem Management in a Cultural Landscape: Training a New Generation of Environmental Professionals. An international exchange project with three European universities to evaluate ecosystem management issues.
- 1999-1999 California Department of Fish and Game (\$20,000). Dr. P. Zedler, Co-PI. Protection of Natural Areas at the Santa Margarita Ecological Reserve.
- 1998-1999 National Science Foundation Undergraduate Faculty Enhancement Program subgrant via The Oregon Institute of Marine Biology (\$17,400). Dr. A. Johnson, Co-PI. Faculty Institutes for Reforming Science Teaching through Field Stations (FIRST).
- 1998 Center for Natural Lands Management (\$5,629). Dr. A. Johnson, Co-PI. Soil Monitoring at March Air Force Base, Riverside County, CA.
- 1997-2003 California Office of Emergency Services (\$163,584). FEMA: A Resource Management Plan for Suburban / Wildland Boundaries in the Santa Margarita River Management Area.
- 1997-1999 California Department of Transportation (\$300,000). Dr. P. Zedler, Co-PI. Santa Margarita Ecological Reserve Private Inholding Acquisition, Riverside County, CA.
- 1997-1998 Federal Emergency Management Agency (FEMA) (\$161,355). Dr. P. Zedler, Co-PI. A Resource Management Program for Suburban / Wildlife Boundaries in the Santa Margarita River Management Area, Riverside, CA.
- 1997-1998 California Department of Fish and Game (\$300,000). Dr. P. Zedler, Co-PI. Santa Margarita Ecological Reserve Acquisition, Riverside, CA.

- 1997-1998 California Department of Forestry and Fire Protection (\$14,989). Dr. P. Zedler, Co-PI. A Resource Management Plan for Suburban / Wildlife Boundaries in the Upper Santa Margarita River, Riverside, CA.
- 1996-1998 California Transportation Commission (\$250,000). Dr. P. Zedler, Co-PI. Santa Margarita Ecological Reserve Inholding Acquisition, Riverside County, CA.