

STACY L. SMALL-LORENZ, Ph.D.

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PROFESSIONAL OBJECTIVE

Conservation leader, innovator, strategic thinker, and science communicator with 20+ years professional experience in wildlife conservation and habitat consultation, seeking to advance global biodiversity conservation and ecologically sound climate adaptation and resilience planning as a senior leader in a science-driven NGO.

SKILLS

- Research
- Science Communications
- Policy Analysis
- Habitat Restoration
- Climate Change Adaptation & Resilience
- Facilitation
- Public Speaking
- Conservation Planning
- Donor Relations
- Sustainable Design
- Expeditions
- Photography
- Adult Learning
- Advocacy

PROFESSIONAL EXPERIENCE

National Wildlife Federation, Washington DC

Senior Wildlife Ecologist

Climate Change Adaptation & Resilience Specialist

April 2015-present

Lead author, strategic thinker, blogger, and producer of engaging print and online publications highlighting ecological approaches to coastal community resilience that benefit fish & wildlife along with coastal economies. Technical advisor to NJ Department of Environmental Protection Office of Coastal and Land Use Planning and New Jersey coastal municipalities, on the topic of ecological solutions to coastal community hazards. Convener and presenter on topics of natural infrastructure and ecological resilience in high profile national forums. Instructor of *Climate Smart Conservation with Scenario Planning* at National Conservation Training Center and invited NGO participant in NCTC's one week intensive *Designing and Delivering a Training Course*. Contributor to NWF's recently released strategic plan, on habitat and coastal resilience topics. Invited work group member on topics of coastal resilience metrics and wetlands adaptation for the NJ/NY region.

Environmental Defense Fund, Washington, DC

Senior Scientist

August 2008-March 2015

Served as conservation science advisor on matters pertaining to biodiversity and wildlife conservation, with a focus on market-based conservation incentives for agricultural lands. Led climate change vulnerability assessment for vertebrates in Midwestern U.S. agricultural landscapes. Regularly communicated to broad public audiences through written communications, including EDF Voices and National Geographic Water Currents blog. Engaged in national science and policy dialogues on matters pertaining to wildlife habitat and climate change

adaptation, endangered species protection, renewable energy development, and habitat restoration on working lands. Managed and developed guidance on wildlife habitat projects across the US, including New England Cottontail, Bog Turtle, and grazed Sierra Nevada meadows in private ownership. Developed successful NRCS proposal for \$10+ million in support of agricultural water quality improvement in the San Joaquin Valley of California.

Smithsonian Migratory Bird Center

Research Associate

January 2012-present

Collaborated on climate change vulnerability assessments for migratory bird species, published widely cited commentary in Nature Climate Change suggesting improvements in climate vulnerability assessments for migratory species. This affiliation facilitates future potential research collaborations.

American Wind and Wildlife Institute (AWWI)

Board Member

2010-2012

Represented Environmental Defense Fund on the board of a national non-profit dedicated to responsible development of wind energy while protecting wildlife and habitat, followed by science committee service through 2015. Published widely read online article on scientific and technical approaches to minimizing wind energy and wildlife conflicts, picked up as lead article of North American Wind, an online trade magazine.

River Partners, Modesto, CA

Restoration Ecologist

May 2007-July 2008

Produced and implemented ecological restoration plans for a major San Joaquin River riparian habitat restoration program. Collaborated with US Fish and Wildlife Service and Endangered Species Recovery Program at California State University to implement recovery plan for the riparian brush rabbit on the San Joaquin River National Wildlife Refuge. Initiated Mokelumne River private lands habitat restoration program. Authored and reviewed conservation science articles for peer-reviewed journals and popular press. Appointed member of Central Valley Joint Venture Riparian Songbird Technical Committee.

Audubon Pennsylvania, Harrisburg, PA

Director of Bird Conservation

May 2005-May 2006

Reviewed and edited conservation plans for Pennsylvania Important Bird Areas. Developed statewide small grants program for local Audubon chapters. Served on state-level wildlife conservation panels. Authored and reviewed conservation science articles for peer-reviewed journals and popular press. Authored successful \$275+ K foundation proposal for western Pennsylvania bird population monitoring and conservation planning.

University of Missouri-Columbia, Columbia, MO

Division of Biological Sciences, Avian Ecology Lab

Research

2000-06

Ambitious and collaborative doctoral research investigated factors at multiple scales influencing population dynamics and nest mortality of songbirds breeding on riparian restoration and forest sites in the Central Valley of California, in collaboration with PRBO Conservation Science, The Nature Conservancy, and US Fish & Wildlife Service.

Undergraduate Ornithology and Ecology Lab Instructor: Taught writing and field intensive, research-oriented undergraduate lab courses that emphasized the development of ecological research questions, field techniques, data collection and analysis, manuscript preparation and knowledge of peer-reviewed scientific literature.

Research Assistant, Cocha Cashu, Peru 2004
Assisted colleague Dr. Susan Willson in field research studying foraging behavior of obligate army-ant-following birds in Amazonian Peru.

Research Assistant, Guánica, Puerto Rico 2003
Mist-netted passerines for a long-term study of avian survival patterns led by Dr. John Faaborg.

PRBO Conservation Science [now Point Blue Conservation Science], Petaluma, CA
Staff Biologist/Research Associate 1996-present

Featured recently in Point Blue Quarterly “Women In Conservation Science” issue as an early Point Blue innovator. Advised USFWS and NGO restoration organizations on Central Valley floodplain restoration and management for wildlife. Conducted field research and monitoring related to riparian bird population dynamics along the Sacramento River, California, with a focus on restoration of riparian systems. Co-authored peer-reviewed manuscripts and reports on bird conservation topics. Trained and supervised seasonal biologists in field techniques including nest monitoring, mist-netting, point counts, area searches and vegetation sampling. Conducted data analyses and presented results in annual progress reports and conference presentations. Authored and reviewed riparian conservation planning documents and conservation science articles.

Field Biologist, PRBO Latin America Program Winter 1996 and July 1997
On behalf of PRBO, worked closely with biologists from the Instituto Manantlán de Ecología y Conservación Biológica (IMECBIO) to mist-net and band Neotropical migrant and endemic passerines in cloud forest and pine-oak forest on the Sierra de Manantlán Biosphere Reserve, Mexico, for a study comparing bird communities among habitat types along an elevational gradient. Returned upon invitation by IMECBIO director to help establish a nest monitoring program. Located and monitored nests and documented nesting behaviors of *Catharus*, *Basileuterus*, and *Myioborus* species.

Field Intern, Pt. Reyes National Seashore Spring-Summer 1995
Located and monitored nests and spot-mapped color-banded passerines as part of a long-term life history study of passerines breeding in coastal scrub habitat at the PRBO Palomarin Field Station. Reported results in 1996 Breeding Bird Census supplement of the Journal of Field Ornithology.

SEASONAL FIELD BIOLOGY EXPERIENCE

Montana Cooperative Wildlife Unit, Missoula, MT
Field Biologist October 1998-January 1999
Located and monitored nests and documented nesting behaviors and life history traits of ground and shrub nesting passerine species in Yungas forest habitat in the Parque Nacional El Rey,

Argentina, for a comparative life history study of ecologically and phylogenetically matched species breeding in northern and southern hemispheres, led by Dr. Tom Martin.

Redwood Sciences Lab, USDA Forest Service, Arcata, CA

Field Biologist

Fall 1996

Mist-netted and banded over 500 passerines for fall migration monitoring program in the Klamath Region of Northern California, led by Dr. C. John Ralph.

Kern River Research Center, Weldon, CA

Field Biologist

Spring-Summer 1996

Located and monitored 230+ open-cup songbird nests in Point Reyes National Seashore for a study seeking to investigate the impact of Brown-headed Cowbirds on riparian bird populations in National Parks across the western United States. Conducted point count surveys along eight coastal streams.

University of California Cooperative Extension, San Luis Obispo, CA

Field Biologist

Winter 1996

Conducted winter bird transects and herpetofauna surveys for a long-term study evaluating ecosystem effects of prescribed fire in blue oak woodland of the California Coast Range.

US Forest Service, Mt. Baker-Snoqualmie National Forest

Biological Technician

Fall 1995

Planned and implemented habitat enhancement projects to create cavity-nesting bird habitat in second-growth coniferous forest.

Washington Department of Natural Resources, Sedro-Woolley, WA

Biological Technician

1994

Conducted cross-country surveys for Northern Spotted Owls in the Cascade Mountains.

EDUCATION

Ph.D. Biological Sciences, Avian Ecology

December 2006

University of Missouri-Columbia, Division of Biological Sciences

Dissertation: Conservation and Ecology of Breeding Landbirds in a Riparian Restoration Context

Dissertation Advisor: Dr. John Faaborg

B.A.S., Ecology

May 1994

The Evergreen State College, Olympia, WA

Yale University, 1986-87

Academic Coursework: Animal Population Dynamics, Avian Ecology, Community Ecology, Conservation Biology, Design of Ecological Experiments, Documentary Photography, Ecological Genetics, Evolutionary Ecology, Hydrology & Watershed Management, Landscape Ecology, Ornithology, Salmon Ecology, Statistics (ANOVA, linear regression, information-theoretic modeling approaches), Restoration Ecology, The Professoriate, Tropical Ecology.

HONORS AND AWARDS

- AFO Top Cited Publication Award, Journal of Field Ornithology, 2005-2009
- Board of Directors Award, Student Research Presentation, Cooper Ornithological Society 75th Annual Meeting, June 2005, Arcata, CA
- GAANN Doctoral Fellowship, Division of Biological Sciences, University of Missouri-Columbia, 2000-2005
- PRBO Conservation Science Special Services Award, 2000
- The Elizabethan Club, Yale University, Elected Member, 1987

PUBLICATIONS

Small-Lorenz, S.L., W.P. Shadel, and P. Glick. 2017 [*in press*]. Building Ecological Solutions to Coastal Community Hazards: A Guide for New Jersey Coastal Communities. The National Wildlife Federation. Washington, DC. 95 pp.

Small-Lorenz, S.L., B.A. Stein, K. Schrass, D.N. Holstein, and A.V. Mehta. 2016. Natural Defenses in Action: Harnessing Nature to Protect Our Communities. Washington, DC: National Wildlife Federation. Online at: www.nwf.org/nature-in-action.

Small-Lorenz, S.L., L.A. Culp, T. B. Ryder, T.C. Will, P.P. Marra. 2013. A blind spot in climate change vulnerability assessments. *Nature Climate Change* 3, 91-93.

Small, S.L. 2009. An Ecological Stimulus. *BioScience* 59:4.

Seavy, N.E., T. Gardali, G.H. Golet, F.T. Griggs, C.A. Howell, T.R. Kelsey, **S.L. Small**, J.H. Viers, J.F. Weigand. 2009. Why climate change makes riparian restoration more important than ever. *Ecological Restoration* 27:3.

Small, S.L., F.R. Thompson, III, G.R. Geupel, J.R. Faaborg. 2007. Nest predation risk factors for the Spotted Towhee (*Pipilo maculatus*) in a riparian restoration context. *The Condor* 109, 721-733.

Small, S.L., D. Galat, F.R. Thompson, III, G.R. Geupel, J.R. Faaborg. In Prep. Flood timing affects nest predation risk for a population of riparian-nesting Black-headed Grosbeaks (*Pheucticus melanocephalus*). *Targeted for Ecological Applications*.

Gardali, T., A.L. Holmes, **S.L. Small**, N. Nur, G.R. Geupel, G.H. Golet. 2006. Abundance patterns of landbirds in restored and remnant riparian forests in the Sacramento Valley, California, USA. *Restoration Ecology*, 14(3), 391-403.

Small, S.L. 2005. Mortality factors and predators of Spotted Towhee nests in the Sacramento Valley, California. *Journal of Field Ornithology* 76:252-258.

Golet, G., D. Brown, E. Crone, G. Geupel, S. Greco, K. Holl, D. Jukkola, G. Kondolf, E. Larsen, F. Ligon, R. Luster, M. Marchetti, N. Nur, B. Orr, D. Peterson, M. Power, W. Rainey, M.

Roberts, J. Silveira, **S. Small**, J. Vick, D. Wilson, and D. Wood. 2003. Using science to evaluate restoration efforts and ecosystem health on the Sacramento River Project, California. In P. Faber, editor. *California Riparian Systems: Processes and Floodplain Management, Ecology, and Restoration*. Riparian Habitat Joint Venture, Sacramento, CA.

Gardali, T., G.R. Geupel, A.L. Holmes, and **S.L. Small**. 2005. After the Vision fire: monitoring landbirds in the riparian zone. In *Vision Fire: Lessons Learned from the 1995 Fire*, Point Reyes National Seashore, California. Report of the U.S. Department of the Interior, Washington, D.C.

Small, S.L. 1998. Invited Book Review: A Guide to Nests, Eggs, and Nestlings of North American Birds, 2nd Edition, by P.J. Baicich and C.J.O. Harrison. *Western Birds* 29 (4).

SELECT PANELS AND PRESENTATIONS

Natural Defenses: Ecological Approaches to Hazard Mitigation. Convener/Panelist, Natural Hazards Workshop. Broomfield, CO. July 2017.

Natural Defenses In Action. Convener/Panelist, National Adaptation Forum, St. Paul, MN. May 2017.

Natural and Nature-based Features. Panelist, American Shore and Beach Preservation Association Coastal Summit. Washington, DC. February 2016.

Building Natural Defenses: Best Practices for Incorporating Resilient Ecosystems into Coastal Community Planning. Presenter, American Shore and Beach Preservation Association Annual Meeting. October 2016.

Building Ecological Solutions to Coastal Community Hazards. Convener/Presenter, Restore America's Estuaries Summit. New Orleans, LA. December 2016.

Getting Better Biodiversity Outcomes from Coordinated Environmental Markets. Convener/Moderator, ACES Conference. Washington, DC. December 2014.

Climate Change Adaptation Symposium. Invited Panelist, 73rd Midwestern Fish & Wildlife Conference. Wichita, KS. December 2012.

Climate Change Vulnerability Assessment of Vertebrates in Agricultural Landscapes. Panelist, Illinois State Bar Association Forum. Chicago, IL. October 2012.

Mortality Factors and Predators of Spotted Towhee Nests in the Sacramento Valley, California. Presenter, Top Cited Papers Symposium, Association of Field Ornithologists Annual Meeting. Weber State University, Ogden, UT. August 2010.

Why Climate Change Makes Riparian Restoration More Important Than Ever: Recommendations for Practice and Research. Panelist, Society for Ecological Restoration, Mid-Atlantic Conference. Rutgers University, Brunswick, NJ. February 2010.

Development and Implementation of Floodplain Restoration Projects Benefitting Salmonids and Terrestrial Wildlife Species. Presenter, Salmonid Restoration Federation 26th Annual Salmonid Restoration Conference. Lodi, CA. March 2008.

Design Considerations for Riparian Brush Rabbit Habitat Restoration. Presenter, Riparian Habitat Joint Venture Conference: Integrating Riparian Habitat Conservation & Flood Management in California. Sacramento, CA. December 2007.

Flood Timing Affects Nest Survival for a Breeding Riparian Songbird. Presenter, Riparian Habitat Joint Venture Conference: Integrating Riparian Habitat Conservation & Flood Management in California. Sacramento, CA. December 2007.

Conservation and Ecology of Breeding Landbirds in a Riparian Restoration Context. Presenter, Sacramento River Restoration Science Conference, hosted by The Nature Conservancy and the Sacramento River Area Forum, Chico, CA. April 2007.

Nest Survival of the Black-headed Grosbeak in a Riparian Restoration Context. Presenter, 123rd Stated Meeting of the American Ornithologists' Union. UC Santa Barbara, Santa Barbara, CA. August 2005.

Nest Predation Risk Factors for the Spotted Towhee in a Riparian Restoration Context. Presenter, Cooper Ornithological Society 75th Annual Meeting, Arcata, CA. June 2005.

Source-sink Status of the Black-headed Grosbeak in Three Regions of California.

Presenter, Riparian Habitat and Floodplains Conference, hosted by the Riparian Habitat Joint Venture and The Wildlife Society, Sacramento, California. March 2001.

SELECT CONSERVATION PLANNING DOCUMENTS

Small-Lorenz, S.L. and M. Scrafford. 2011. Restoration planning template for restoration of Sierra Nevada meadows in private ownership. Environmental Defense Fund, Washington, DC.

Small, S.L. and T. Griggs. 2008. Restoration and management plan for the Buffington Unit, San Joaquin River National Wildlife Refuge. Prepared for the US Fish and Wildlife Service. River Partners, Modesto, CA.

Small, S.L. and T. Griggs. 2008. Restoration and management plan for the Hagemann Unit, San Joaquin River National Wildlife Refuge. Prepared for the US Fish and Wildlife Service. River Partners, Modesto, CA.

Gilchrist, J., P. Pintz, and **S.L. Small**. 2002. Riparian bird communities in the Sacramento Valley: a report of the 2001 field season. A report to The Nature Conservancy, U.S. Fish and Wildlife Service, California Department of Parks and Recreation, and Sacramento River Partners.

Small, S.L. 2000. Swainson's Thrush species account. RHJV (Riparian Habitat Joint Venture). Version 1.0. The Riparian Bird Conservation Plan: A strategy for reversing the decline of riparian associated birds in California. California Partners in Flight.

<http://www.prbo.org/CPIF/Riparian/Riparian.html>. Riparian Habitat Joint Venture, California Partners in Flight

Small, S.L., N. Nur, A. Black, G.R. Geupel, D. Humple, and G. Ballard. 2000. Riparian bird populations of the Sacramento River System, results from 1993-1999 field seasons. PRBO Report to The Nature Conservancy and U.S. Fish & Wildlife Service.

Small, S.L. 1998. Management recommendations to TNC and USFWS Sacramento River Riparian Restoration Sites, PRBO. Appendix 2 in Landbird response to riparian restoration on the Sacramento River System. Small, S.L., J. DeStaebler, G. R. Geupel, and G. Ballard. PRBO Report to The Nature Conservancy and U.S. Fish & Wildlife Service.

ACTIVITIES AND INTERESTS

- Photography
- Cross-country skiing
- Flatwater kayaking
- Birding
- Old Time Fiddle

REFERENCES AVAILABLE UPON REQUEST