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HELEN BOMBAY LOFFLAND

EDUCATION

Bachelor of Science 1991, *Wildlife Biology*
University of California, Davis

Masters of Science 1999, Bi*ological Conservation*
California State University, Sacramento

EMPLOYMENT

Meadows Species Specialist – The Institute for Bird Populations (2010-present)
Independent Consultant - Pioneer, California (1999–2011)
Wildlife Biologist, KDH Environmental Services - West Point, California (2000-2007)
Research Assistant, California State University Foundation - Sacramento, California (1997-2001)
Research Assistant, San Francisco State Univ., Sierra Nevada Field Campus (1995-1999)
Wildlife Biologist (GS-486-5/7/9), Eldorado National Forest - Placerville, CA (1991-1996)
Research Assistant (botany), University of California - Davis, CA (1989-1990)
Biological Technician (fisheries), Eldorado National Forest - Georgetown CA (1989)
Research Assistant (entomology), University of California - Davis, CA (1987-1989))

RELEVANT EXPERIENCE

Sierra Nevada Meadow Restoration & Avian Monitoring * Jan 2010 – present
Project Leader. *Developed and currently implementing an avian monitoring protocol for meadow restoration projects throughout the Sierra Nevada. Completed an updated status report and peer reviewed paper for Willow Flycatcher occupancy patterns in the Sierra Nevada.* The Institute for Bird Populations, Petaluma, CA

Bumble Bee Surveys for Montane Meadow and Fire Restoration Projects * 2015-present
Developed and currently implementing a bumble bee survey protocol and floral resource use assessment for meadows in the Sierra Nevada. The Institute for Bird Populations, Petaluma, CA

Willow Flycatcher Conservation Strategy * 2016 - 2019
Co-Author. *Co-Authoring a conservation strategy identifying conservation actions for Willow Flycatchers in California.* Institute for Bird Populations, Petaluma, CA for the California Department of Fish and Wildlife

Willow Flycatcher response to conspecific attraction methods and survey of information gap areas. * 2015-2018. Project Leader. *Developed and implemented an experimental design to determine the value of conspecific attraction as a restoration tool for willow flycatchers in the Sierra Nevada.* The Institute for Bird Populations, Petaluma, CA

Sierra Nevada Willow Flycatcher Demography Study * 1997 - 2011
Project Coordinator (1997 - 2003); Data Manager (2004 - 2011)
Designed and implemented long-term demography study of the Willow Flycatcher in the central Sierra Nevada. Conducting targeted surveys for Willow Flycatchers, monitoring nest success, recruitment and survival. Conducted detailed habitat use analyses and completed master's thesis entitled "Scale perspectives in habitat selection and reproductive success for Willow Flycatchers (Empidonax traillii) in the central Sierra Nevada, California". California State University Foundation, Sacramento;

Sierra Nevada Conservation Framework * 2000 - 2001
Ornithologist. *Co-authored environmental consequences and effects analysis for bioregional management decisions for Willow Flycatchers in the Sierra Nevada, and provided expert input on Willow Flycatcher ecology and distribution.* Independent Consultant to U.S.D.A. Forest Service, Region 5.

RELEVANT EXPERIENCE (Continued)

Montane Meadow Songbird Monitoring * 1995 - 1999

Project Leader. *Developed and supervised two mist net stations monitoring avian productivity and survivorship for passerine bird species using M.A.P.S protocol.* San Francisco State Univ., Sierra Nevada Field Campus

U.S. Forest Service - Wildlife Surveys/ N.E.P.A Documentation * 1991 - 1996

Wildlife Biologist. *Designed, supervised, and conducted surveys for a variety of wildlife species (California Spotted Owl, Northern Goshawk, American Marten, Willow Flycatcher) and prepared N.E.P.A. documentation for a variety of recreation and grazing related projects.* Eldorado National Forest.

PUBLICATIONS

Bombay, H.L., T.M. Benson, B.E. Valentine, and R.A. Stefani. 2003. A Willow Flycatcher protocol for California. USDA Forest Service, Region 5. Vallejo, California, USA.

Bombay, H.L., M.L. Morrison, and L.S. Hall. 2003. Scale perspectives in habitat selection and reproductive success for Willow Flycatchers (*Empidonax traillii*) in the central Sierra Nevada, California. Studies in Avian Biology 26:60-72

Cain, J.W., K. S. Smallwood, M.L. Morrison, and **H.L. Loffland**. 2006. Influence of mammal activity on nesting success of passerines. Journal of Wildlife Management 70:522-531.

Cain, J.W., M.L. Morrison, and **H.L. Bombay**. 2003. Predator activity and nest success of Willow Flycatchers and Yellow Warblers. Journal of Wildlife Management 67:600-610.

Campos, B.R., Burnett, R.D., **Loffland, H.L.** and Siegel, R.B., 2020. Bird response to hydrologic restoration of montane riparian meadows. Restoration Ecology, 28:1262-1272.

Cole, J.S., Siegel, R.B., **Loffland, H.L.**, Tingley, M.W., Elsey, E.A. and Johnson, M., 2019. Explaining the birds and the bees: deriving habitat restoration targets from multi-species occupancy models. *Ecosphere*, *10*(4)

Cole, J.S., Siegel, R.B., **Loffland, H.L.**, Elsey, E.A., Tingley, M.B. and Johnson, M., 2020. Plant Selection by Bumble Bees (Hymenoptera: Apidae) in Montane Riparian Habitat of California. Environmental Entomology.

Graves, T.A., Janousek, W.M., Gaulke, S.M., Nicholas, A.C., Keinath, D.A., Bell, C.M., Cannings, S., Hatfield, R.G., Heron, J.M., Koch, J.B. and **Loffland, H.L.**, 2020. Western bumble bee: declines in the continental United States and range-wide information gaps. *Ecosphere*, *11*(6), p.e03141.

Loffland, H.L., Polasik, J.S., Tingley, M.W., Elsey, E.A., Loffland, C., Lebuhn, G. and Siegel, R.B., 2017. Bumble bee use of post-fire chaparral in the central Sierra Nevada. The Journal of Wildlife Management, 81:.1084-1097.

Loffland, H. L, L. N. Schofield, R. B. Siegel, and B Christman. 2022. Sierra Nevada Willow Flycatcher decline continues but losses abate at two restored meadows. Western Birds 53:52-69.

Mathewson H. A, M. L. Morrison, **H. L. Loffland**, P. Brussard. 2012. Ecology of Willow Flycatchers (*Empidonax traillii*) in the Sierra Nevada, California: effects of meadow characteristics and weather on demographics. Ornithological Monographs. Vol 75:1-32.

Schofield, L., **Loffland, H.**, Siegel, R., Stermer, C. and Mathewson, H., 2018. Using conspecific broadcast for Willow Flycatcher restoration. Avian Conservation and Ecology, *13*(1).

Schofield, L.N., Siegel, R.B. and **Loffland, H.L.**, 2023. Modeling climate-driven range shifts in populations of two bird species limited by habitat independent of climate. *Ecosphere*, *14*(2), p.e4408.

Wu, J.X., Siegel, R. B., **Loffland, H. L.**, Tingley, M. W., Stock, S. L., Roberts, K. N., Keane, J. J., Medley, J. R., Bridgman, R. and Stermer, C. 2015. Diversity of nest sites and nesting habitats used by Great Gray Owls in California. The Journal of Wildlife Management 79:937-947.

PROFESSIONAL AFFILIATIONS

The Wildlife Society
The Cooper Ornithological Society
Western Field Ornithologists