

Sacha K. Heath, PhD  
Postdoctoral Fellow, Living Earth Collaborative

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### EDUCATION

- 2018 PhD Ecology. University of California, Davis. Davis, CA, USA.  
2011 MSc Natural Resources: Wildlife. Humboldt State University. Arcata, CA, USA.  
1992 BA Environmental Studies. University of California, Santa Cruz. Santa Cruz, CA, USA.

### APPOINTMENTS

- 2019-present Postdoctoral Fellow. Living Earth Collaborative, Washington University. St. Louis, MO.  
2018-2019 Independent Contractor. Wild Farm Alliance and Natural Resources Conservation Service.  
2018-2019 Independent Contractor. Wild Farm Alliance and California Pesticide Department of Regulation.  
2018-present Research Associate. Point Blue Conservation Science. Petaluma, CA.  
2017, 2014 Teaching Assistant. Department of Plant Sciences, University of California, Davis. Undergraduate course: Introduction to Sustainable Agriculture.  
2016 Independent Contractor. Audubon California and Almond Board of California.  
2016-2017 Graduate Student Researcher. Lab of Dr. Marcel Holyoak, Department of Environmental Science and Policy, University of California, Davis.  
2016 Statistical Consultant to Farm Advisor for Field Crops and Pest Management. University of California Cooperative Extension, Division of Agriculture and Natural Resources.  
2014, 2013 Teaching Assistant. Department of Environmental Science and Policy, University of California, Davis. Graduate course: Principles and Applications of Ecology.  
2013 Lab Technician. University of California Cooperative Extension, Division of Agriculture and Natural Resources.  
2000-2010 Program Director (2000-2008) and part time staff (2008-2010). Eastern Sierra Nevada Program, Terrestrial Ecology Division, Point Blue Conservation Science.  
1998-2000 Lead Project Biologist. Eastern Sierra Nevada projects, Terrestrial Ecology Division, Point Blue Conservation Science.  
1997-2000 Research Assistant. Adélie Penguin Project, Antarctica. H. T. Harvey and Associates.  
1997-1998 Field Research Supervisor and Field Station Manager. Palomarin landbird demography study, Point Blue Conservation Science.  
1995, 1996 Research Assistant. Steller's Eider survival study, Alaska. National Biological Service.  
1995 Research Assistant. California Condor Recovery Program. U.S. Fish & Wildlife Service.

### FELLOWSHIPS

- 2019-present Biodiversity Postdoctoral Fellowship, Living Earth Collaborative.  
2015-2016 Dissertation Year Fellowship, University of California, Davis.  
2014-2015 Graduate Research Fellowship, Graduate Group in Ecology, UC Davis.  
2013-2014 Graduate Research Fellowship, Graduate Group in Ecology, UC Davis.  
2010-2013 National Science Foundation Graduate Research Fellowship.

## AWARDS

Henry A. Jastro Research Scholarship, University of California, Davis (2013, 2014, 2015)  
Jeffery and Marsha Gibeling Fellowship, University of California, Davis, 2014  
Richard and Kate Faulkner Fellowship, University of California, Davis (2013, 2014)  
First Place, Student Poster Contest, The Wildlife Society Western Section, 2012  
Best Poster, Student Poster Contest, UC Davis Ecology Graduate Student Symposium, 2012  
Koplin Award for Outstanding Graduate Student, Humboldt State University, 2011  
Mewaldt-King Student Research Award, Cooper Ornithological Society, 2010  
Alexander Bergstrom Memorial Research Award, Assn. of Field Ornithologists, 2010  
College Honors, Merrill College, University of California, Santa Cruz, 1992  
Senior Thesis Honors in Environmental Studies, University of California, Santa Cruz, 1992

## PEER-REVIEWED RESEARCH PUBLICATIONS

**Heath, S. K.**, and R. F. Long. *In press*. Multiscale habitat mediates pest reduction by birds in an intensive agricultural region. *Ecosphere*.

Maas, B., **S. K. Heath**, I. Grass, C. Cassano, A. Classen, D. Faria, P. Gras, K. Williams-Guillén, M. Johnson, D. S. Karp, V. Linden, A. Martínez-Salinas, J. Schmack, and S. Kross. 2019. Experimental field enclosure of birds and bats in agricultural systems - methodological insights, potential improvements, and cost-benefit trade-offs. *Basic and Applied Ecology* 35:1-12.

**Heath, S. K.**, C. U. Soykan, K. L. Velas, R. Kelsey, and S. M. Kross. 2017. A bustle in the hedgerow: woody field margins boost on farm avian diversity and abundance in an intensive agricultural landscape. *Biological Conservation* 212:153-161. DOI: 10.1016/j.biocon.2017.05.031

Grof-Tisza, P., E. LoPresti, **S. K. Heath**, and R. Karban. 2017. Plant structural complexity and mechanical defenses mediate predator-prey interactions in an odonate-bird system. *Ecology and Evolution* 00:1-10. DOI: 10.1002/ece3.2705

Holyoak, M. and **S. K. Heath**. 2016. The integration of climate change, spatial dynamics, and habitat fragmentation: a conceptual overview. *Integrative Zoology*. 11: 40-59. DOI: 10.1111/1749-4877.12167

Shuford, W. D., G. W. Page, **S. K. Heath**, and K. Nelson. 2016. Factors influencing the abundance and distribution of the Snowy Plover at Mono Lake, California. *Western Birds* 47(1):38-49.

Latif, Q. S., **S. K. Heath**, and J. T. Rotenberry. 2012. How avian nest site selection responds to predation risk: testing an “adaptive peak hypothesis”. *Journal of Animal Ecology* 81(1):127-138. DOI: 10.1111/j.1365-2656.2011.01895.x

Latif, Q. S., **S. K. Heath**, and J. T. Rotenberry. 2012. Effects of parents and Brown-headed Cowbirds (*Molothrus ater*) on nest predation risk for a songbird. *Ecology and Evolution* 2(12):3079-97. DOI: 10.1002/ece3.411

Latif, Q. S., **S. K. Heath**, and G. Ballard. 2012. The nest predator assemblage for songbirds in Mono Lake Basin riparian habitats. *Western North American Naturalist* 72(3):276-287. DOI: 10.3398/064.072.0302

Croston, R., C. M. Tonra, **S. K. Heath**, and M. E. Hauber. 2012. Flange color differences of brood parasitic brown-headed cowbirds from nests of two host species. *Wilson Journal of Ornithology*

124(1):139-145. DOI: 10.1676/11-019.1

Latif, Q. S., **S. K. Heath**, and J. T. Rotenberry. 2011. An “ecological trap” for Yellow Warbler nest microhabitat selection. *Oikos* 120: 1139–1150. DOI: 10.1111/j.1600-0706.2010.18835.x

**Heath, S. K.**, L.A. Culp, and C. A. Howell. 2010. Brood parasitism and nest survival of Brown-headed Cowbird hosts at high elevation riparian sites in the eastern Sierra Nevada, California. *Western North American Naturalist* 70(3):364-376. DOI: 10.3398/064.070.0309

Tonra, C. M., M. D. Johnson, **S. K. Heath**, and M. E. Hauber. 2009. Does nesting habitat predict hatch synchrony between brood parasitic Brown-headed Cowbirds (*Molothrus ater*) and two hosts? *Ecography* 32: 497-503. DOI: 10.1111/j.1600-0587.2008.05736.x

**Heath, S. K.** 2008. Yellow Warbler (*Dendroica petechia*). In *California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California* (W. D. Shuford and T. Gardali, eds.), pp. 332-339. *Studies of Western Birds* 1.

**Heath, S. K.** 2008. Sonora Yellow Warbler (*Dendroica petechia sonorana*). In *California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California* (W. D. Shuford and T. Gardali, eds.), pp. 340-345. *Studies of Western Birds* 1.

Tonra, C. M., M. E. Hauber, **S. K. Heath**, and M. D. Johnson. 2008. Ecological correlates and sex differences in early development of a generalist brood parasite. *The Auk* 125(1):205-213. DOI: 10.1525/auk.2008.125.1.205

Latif, Q. S., J. L. Grenier, **S. K. Heath**, G. Ballard, and M. E. Hauber. 2006. First evidence of conspecific brood parasitism and egg ejection in Song Sparrows, with comments on methods sufficient to document these behaviors. *Condor* 108(2):452-458. DOI: 10.1650/0010-5422(2006)108[452:FEOCBP]2.0.CO;2

Ainley, D. G., C. A. Ribic, G. Ballard, **S. Heath**, I. Gaffney, B. J. Karl, K. R. Barton, P. R. Wilson, and S. Webb. 2004. Geographic structure of Adélie penguin populations: size, overlap and use of adjacent colony-specific foraging areas. *Ecological Monographs*: 74:159-178. DOI: 10.1890/02-4073

McCreehy, C. and **S. K. Heath**. 2004. Atypical Willow Flycatcher nesting sites in a recovering riparian corridor at Mono Lake, California. *Western Birds* 35(4):197–209.

Richardson, T. W. and **S. K. Heath**. 2004. Effects of conifers on aspen-breeding bird communities in the Sierra Nevada. *Transactions of the Western Section of the Wildlife Society* 40:686-81.

**Heath, S. K.** and G. Ballard. 2003. Patterns of breeding songbird diversity and occurrence in riparian habitats of the Eastern Sierra Nevada. In *California Riparian Systems: Processes and Floodplain Management, Ecology, and Restoration* (P.M. Faber, ed.). RHJV, Sacramento, CA.

**Heath, S. K.** and G. Ballard. 2003. Bird species composition, phenology, nesting substrate, and productivity for the Owens Valley alluvial fan, Eastern Sierra Nevada, California 1998-2002. *Great Basin Birds* 6:18-35.

*In preparation (complete first draft)*

**Heath, S. K.** The quality of augmented habitat along a connectivity gradient for overwintering migratory songbirds in an intensive agricultural landscape.

**Heath, S. K.** and M. D. Johnson. Indirect effects of avian insectivory on cottonwood herbivory and growth in a restoration setting.

**Heath, S. K.** and K. Strum. The ecology of birds in almonds: a review of birds as occupants, pests, natural enemies, and pathogen vectors in almond orchards of Mediterranean climates.

## **RESEARCH SKILLS AND EXPERIENCE**

Field Ecology Over 20 years of experience with an emphasis on avian community, habitat, and trophic ecology.

Highly proficient in landbird research techniques including identification of birds by sight, song, and call via time- and area-limited methods (e.g., point counts, area searches, line transects, distance estimation); mist netting, banding, and fecal, blood, and feather sampling; nest searching and monitoring, video recording of nest sites, macro- and micro-vegetation characterization; avian exclosure and sentinel prey experimentation; camera trapping, radio telemetry, and diet sampling.

Proficient in terrestrial invertebrate sampling and identification to order and family, especially as it pertains to agricultural pests and natural enemies and landbird diets in natural settings (destructive and non-destructive sampling methods, foliar and soil invertebrates).

Experience with bat echolocation recording equipment and SonoBat call analysis and identification software.

Quantitative Proficient in ecological modeling using Bayesian and maximum likelihood hierarchical modeling techniques, information-theoretic approaches to model selection and inference, and standard frequentist methods. Ability to learn new techniques quickly and the motivation to seek out appropriate methodologies and self-teach.

Proficient in R; capable in R interfaces to Stan and WinBUGS/JAGS, Stata, FoxPro, and Access. Proficient in QGIS and familiar with ArcGIS.

Proficient in managing and archiving large avian and vegetation datasets across multiple years and projects.

Committed to transparency and open source data sharing.

## Program

Management Proficient in overseeing multiple simultaneous monitoring and research projects throughout a large geographic region: conceive projects and raise funds; design studies; collect, manage, and analyze data; report, present, and published results.

Proficient in supervising full-time and seasonal staff, interns, and volunteers (up to 14 at any given time and over 60 in total).

Proficient in collaborating with multiple state, federal, NGO, academic, and community stakeholders.

Proficient in securing grants and managing budgets (mean annual \$169,000; over \$1.5

million total).

Committed to equity and diversity along multiple axes in the sciences and work place.

### **SELECTED RESEARCH GRANTS AND CONTRACTS**

- 2018-2010. (\$64,181) Wild Farm Alliance and Natural Resource Conservation Service Conservation Innovation Grant. “Key Learnings, Habitat Assessments and Conservation Opportunities for Using Beneficial Birds as Pest Control on Farms.”
- 2018-2010. (\$112,000) Wild Farm Alliance and California Pesticide Department of Regulation. “Adoption of Integrated Pest Management Practices that Use Beneficial Birds as Pest Control and Manage Pest Birds in Crop Production.”
2016. Audubon California. (\$7,500) “Literature and field research design to investigate interactions between birds and almond orchards.”
- Note: On the following grants or contracts, I was PI or Co-PI while employed by Point Blue (then PRBO Conservation Science).*
- 2007-2008. Bureau of Land Management. (\$75,000) “Off Highway Route Restoration Project: Avian Monitoring”
- 2006-2007. Bureau of Land Management. (\$10,000, \$7,270) “Bishop Resource Area Aspen Stewardship Project: Avian Monitoring”
- 2005-2007. Natural Resources Conservation Service Wetlands Reserve Program. (\$14,000, \$21,400, \$21,400) “The key to adaptive restoration and management: all-bird monitoring on Adobe Valley, LLC Properties in Adobe Valley and Environs”
- 2005-2007. Bureau of Land Management/United States Geological Survey/Joint Fire Science (\$10,000, \$10,000, \$10,000) “Evaluation of Pinyon Removal Effects Typical of a Wildland-Urban Interface Fuels Reduction Project, Mono County, California: Avian Monitoring Component”
- 2003-2006. National Park Service Sierra Nevada Inventory and Monitoring Network. (\$16,000, \$15,000, \$15,000, \$15,000) “Demographic bird monitoring in montane meadow and riparian habitats of Devils Postpile National Monument”
2006. National Forest Foundation and Friends of the Inyo (\$8,865) “Collaborative Jeffrey Pine Restoration Project”
2005. Yosemite National Park and Sierra Nevada Inventory and Monitoring Network. (\$65,000) “Non-Native Vascular Plant Inventory of Riparian Areas in Yosemite National Park, California”
2005. Bureau of Land Management. (\$35,000) “Eastern Sierra Riparian Songbird Conservation”
- 1998-2004. U.S. Forest Service Region 5 Partners in Flight Program. (\$40,000, \$30,000, \$30,000, \$30,000, \$21,700, \$21,687, \$24,000) “Eastern Sierra Riparian Songbird Monitoring”
2004. Adobe Valley, LLC and Greenbridges, LLC. (\$10,000) “Breeding bird assessment on Adobe Valley, LLC properties in Adobe Valley and environs”
2003. California Department of Fish and Game. (\$6,800) “Eastern Sierra Riparian Songbird Conservation”
2003. Department of Defense, Mountain Warfare Marine Weapons Training Facility. (\$12,000) “Riparian monitoring and habitat assessment in the West Walker River watershed”
2003. Neotropical Migratory Bird Conservation Act. (\$7,153) “Eastern Sierra Riparian Songbird Conservation”
- 1998-2002. National Fish and Wildlife Foundation, Bureau of Land Management. (\$50,000, \$39,400, \$39,400, \$26,000, \$30,000) “Eastern Sierra Riparian Songbird Conservation”
2002. National Park Service Small Parks Grants. (\$15,000) “Demographic Bird monitoring in montane meadow and riparian habitats of Devils Postpile National Monument”
2002. Los Angeles Department of Water and Power and Inyo County Water Department. (\$25,000) “Riparian bird monitoring and habitat assessment in riverine/riparian habitats of the Lower Owens

River Project”

2000-2001. Humboldt-Toiyabe National Forest. (\$23,000, \$23,879) “Riparian bird monitoring and habitat assessment in the East and West Walker River watershed”

**INVITED RESEARCH SYMPOSIA, SEMINARS, AND WORKSHOPS**

Heath, S. K. 2019. Avian ecology and pest reduction services in an intensive agricultural landscape: inferences for conservation and farming. Seminar Series of the Living Earth Collaborative and Ecology, Evolution and Population Biology Program, Washington University in Saint Louis. Saint Louis, MO.

Heath, S. K. 2019. A bustle in the hedgerow: exploring the dual effectiveness of farm scale biodiversity enhancement for avian conservation and pest control services in an intensive agricultural region. Inspire Session: Integrating ecosystem health and livelihoods: relationships between ecosystem management, ecology, and economic outcomes. Ecological Society of America. Louisville, KY.

Heath, S. K. 2019. Avian ecology and pest reduction services in an intensive agricultural landscape: inferences for conservation and farming. National Great Rivers Research & Education Center Seminar Series. East Alton, IL.

Kross, S. M. and S. K. Heath. 2018. Farm friends and foes: managing for pest control and damage from birds. 39<sup>th</sup> EcoFarm Conference. Asilomar, CA.

Heath, S. K. 2017. Avian ecology and pest reduction services in agroecosystems of the Sacramento Valley: inferences for conservation and farming. Sacramento State Departments of Geology, Biological Sciences, and Environmental Sciences and U.S. Geological Survey Colloquium Series. Sacramento, CA

Heath, S. K., R. F. Long, and M. Holyoak. 2015. Avian pest control in walnut orchards: does local scale biodiversity enhancement facilitate the provision of pest control services? Section Symposium: Integrating Ecological and Social Sciences to Support Synergies and Applied Solutions in Agroecosystems. Entomological Society of America. Minneapolis, MN

Heath, S. K. 2015. Codling moth removal services by birds in walnut orchards. California Walnut Board, Production Research Advisory Council, Entomology Working Group. Stockton, CA.

Heath, S. K., C. McCreedy, Q. S. Latif, and C. Tonra. 2014. Responses of riparian birds to (mostly) of passive restoration Mono Lake tributaries. Symposium: Successes and Challenges in Riparian Restoration - Birds as the Yardstick. Joint meeting of American Ornith. Union/Cooper Ornith. Soc./Soc. Canadian Ornith. Estes Park, CO.

Heath, S. K., L. A. Culp, and C. McCreedy. 2006. Restoration of the riparian breeding bird community at Mono Lake, California. Technical Session: Mono Basin Restoration Ten Years Later. 13th Annual California Society for Ecological Restoration Conference. Santa Barbara, CA.

Heath, S. K. 2006. Long term avian monitoring at Devils Postpile National Monument: opportunities for measurement of ecological change at multiple scales. 5<sup>th</sup> Annual Yosemite Hydro-Climate Workshop. Yosemite Valley, CA.

Heath, S. K. 2006. It's not just the water! Riparian bird habitat considerations in the context of watershed quality improvements. Rangeland Water Quality Conference. Sacramento, CA. (given by J. Furnish)

Heath, S. K. and G. Ballard. 2006. Breeding bird species richness and occurrence in riparian aspen habitat of the eastern Sierra Nevada: are all aspen groves the same? The Wildlife Society Western

Section, Aspen Symposium. Rohnert Park, CA. (poster)

### **CONTRIBUTED RESEARCH PRESENTATIONS, POSTERS, AND ABSTRACTS**

Heath, S. K. 2019. SeminatURAL landscape cover and crop characteristics mediate pest reduction by birds in an intensive agricultural region. Ecological Society of America. Louisville, KY.

Taylor, R. D., E. M. Wood, S. K. Heath, and D. House. 2018. Monitoring the response of riparian birds to restoration of the Lower Owens River, California. 136<sup>th</sup> Stated Meeting of the American Ornithological Society. Tucson, AZ. (R.D. Taylor delivered poster).

Heath, S. K. and K. Strum. 2017. Almond Ornithology: A review of bird and nut tree interactions in Mediterranean climates worldwide to inform sustainability. Growing Advantage: The Almond Conference. Sacramento, CA. (K. Strum delivered poster).

Kross, S., S. Heath, K. Velas, R. Kelsey, and C. Soykan. 2015. Links between on farm habitat, bird diversity, pest control and crop damage in California's Central Valley. 27<sup>th</sup> International Congress for Conservation Biology. Montpellier, France.

Heath, S. K., R. F. Long, and M. Holyoak. 2014. Avian pest control in walnut orchards: does local scale biodiversity enhancement facilitate the provision of pest control services? Ecological Society of America, Annual Meeting. Sacramento, CA. (poster)

Heath, S. K. and M. D. Johnson. 2012. No top-down effects of insectivorous birds and bats on arthropods and sapling black cottonwoods in the context of restoration. (First Place Poster, Student Poster Award). Wildlife Society Western Section, Annual Conference. Sacramento, CA.

Heath, S. K. and M. D. Johnson. 2012. No top-down effects of insectivorous birds and bats on arthropods and sapling black cottonwoods in the context of restoration. (Best Poster, Poster Contest). 5<sup>th</sup> Annual Ecology Graduate Student Symposium. Davis, CA.

Heath, S. K. 2006. Songbird use of habitats managed for Greater Sage-Grouse in eastern California. California Partners in Flight. Bishop, CA.

Heath, S. K. and A. Holmes. 2006. Bird responses to woodland removal projects on Steens Mountain, Oregon and Rancheria Gulch, California. California Partners in Flight. August 2006, Bishop, CA.

Heath, S. K., G. Ballard, and C. McCreedy. 2002. How viable are yellow warbler populations in eastern California and what habitat features affect their nesting success? 3<sup>rd</sup> International Partners in Flight Conference, Asilomar, CA. (poster).

Heath, S. K. and G. Ballard. 2002. Eastern Sierra Riparian Songbird Conservation Project: A case study in Partners in Flight Riparian Bird Conservation Plan implementation. 3<sup>rd</sup> International Partners in Flight Conference. Asilomar, CA.

Heath, S. K. and G. Ballard. 2001. *Vide supra*. California Partners in Flight meeting. California Partners in Flight. Lee Vining, CA.

Heath, S. K., G. Ballard, and G. Geupel. 2001. *Vide supra*. Annual Meeting of the Western Section of The Wildlife Society. Sacramento, CA.

Heath, S. K. and G. Ballard. 2001. Riparian songbird and habitat relationships in the eastern Sierra Nevada. Riparian Habitat and Floodplains Conference. Sacramento, CA.

Ballard, G., G. Geupel, N. Nur, T. Gardali, and S. K. Heath. 1999. Current breeding distribution of passerines in riparian habitat in California's Central Valley and Eastern Sierra: Range reduction and

predictive models of habitat features. 117<sup>th</sup> Stated Meeting of the American Ornithologists' Union. Ithaca, NY. (co-presenter of poster).

### **ACADEMIC AND PROFESSIONAL LEADERSHIP AND SERVICE**

Board Member. Mono Basin Science Council. 2003–present.

Co-Founder. Oikonos, a non-profit 501(c)(3) research, art, and conservation organization. 2002-present.

Co-Founder, Chair, Vice-chair. Diversity Committee, UC Davis Graduate Group in Ecology. 2013-2017.

Co-Chair. Ecology Student Symposium, UC Davis Graduate Group in Ecology. 2012.

Assistant. White Mountains Odyssey new student orientation, UC Davis. 2012

Representative (Alternate). Graduate Student Association, UC Davis. 2011 - 2012.

Committee Member. Ecology Student Symposium, UC Davis Graduate Group in Ecology. 2011.

Chair. Grant Selection Committee, Mono Basin Chautauqua Research Grant. 2002-2008.

Member. Sagebrush Bird Conservation Network. 2004–2007.

Co-Chair. Mono Basin Bird Chautauqua organizing committee. 2002–2007.

Member. Riparian Habitat Joint Venture. 1997 – 2007.

Founding Board Member. Oikonos. 2002-2006.

Member. Research and Monitoring Committee, California Partners in Flight. 2003–2006.

Meeting Coordinator. California Partners in Flight bi-annual meeting. Bishop, CA. Aug 2006.

Coordinator. Golondrinas de las Americas, Lee Vining Study Site. 2000–2006.

Co-Editor. Scientific Research Column, Mono Lake Committee Newsletter. 2004-2005.

Meeting Coordinator. California Partners in Flight bi-annual meeting. Lee Vining, CA. 2002.

### **SCIENTIFIC JOURNAL REVIEWS**

Landscape Research, Royal Society Open Science, PLOS ONE, Austral Ecology, Integrative Zoology, California Agriculture, Journal of Field Ornithology, Great Basin Birds

### **GRANT REVIEWS**

Mewaldt-King Student Research Award, Jeff Maurer Chautauqua Research Grant

### **SOCIETY MEMBERSHIP**

Ecological Society of America, Society for Conservation Biology, American Society of Ornithology

### **TEACHING**

Teaching Assistant. 2017. Introduction to Sustainable Agriculture (PLS 15). Department of Plant Sciences, University of California, Davis.

Guest Lecturer. 2017. Undergraduate course: Society and Conservation. Environmental Studies Program, California State University Sacramento.

Graduate Seminar Co-Instructor. 2015. Ecological Intensification in California Agriculture: from Science to Practice (ENT 290). Department of Entomology, University of California, Davis.

Teaching Assistant. 2014. Principles and Applications of Ecology (ECL 200A). Department of Environmental Sciences & Policy, University of California, Davis.

Teaching Assistant. 2014. Introduction to Sustainable Agriculture (PLS 15). Department of Plant Sciences, University of California, Davis.

Teaching Assistant. 2013. Principles and Applications of Ecology (ECL 200A). Department of Environmental Sciences & Policy, University of California, Davis.

Undergraduate Mentor. 2011. Pollination Biology (BOT 458). Department of Biological Sciences,



Humboldt State University

Lead Instructor. 1997-2007. Landbird Monitoring Training Courses. PRBO Conservation Science.

Teaching Assistant. 1994. Natural History Field Quarter (ENVS 107). Department of Environmental Studies, University of California, Santa Cruz.

Teaching Assistant. 1992. Environmental Ethics (ENVS 179). Department of Environmental Studies, University of California, Santa Cruz.

Teaching Assistant. 1992. Introduction to Contemporary Environmental Issues (ENVS 31). University of California Extension, Santa Cruz.

Teaching Assistant. 1992. Practicum: Environmental Field Study (ENVS 14). University of California Extension, Santa Cruz.

Teaching Assistant. 1992. Introduction to Cultural Geography (ENVS 21). University of California Extension, Santa Cruz.

**CONSERVATION PLANS & MANAGEMENT GUIDES**

Baumgartner, J. A., S. Kross, S., S. Heath. 2019. Supporting beneficial birds and managing pest birds. Wild Farm Alliance.

*I was a supporting author on the following:*

CalPIF (California Partners in Flight). 2005. Version 1.0. The sagebrush bird conservation plan: a strategy for protecting and managing sagebrush habitats and associated birds in California. PRBO Conservation Science, Stinson Beach, CA.

RHJV (Riparian Habitat Joint Venture). 2004. Version 2.0. The riparian bird conservation plan: a strategy for reversing the decline of riparian associated birds in California. Version 2.0. California Partners in Flight.

CalPIF (California Partners in Flight). 2002. Version 2.0. The oak woodland bird conservation plan: a strategy for protecting and managing oak woodland habitats and associated birds in California (S. Zack, lead author). Point Reyes Bird Observatory, Stinson Beach, CA.

CalPIF (California Partners in Flight). 2002. Version 1.1. The coniferous forest bird conservation plan: a strategy for protecting and managing coniferous forest habitats and associated birds in California (J. Robinson and J. Alexander, lead authors). PRBO Conservation Science, Petaluma, CA.

RHJV (Riparian Habitat Joint Venture). 2001. Version 1.0. The riparian bird conservation plan: a strategy for reversing the decline of riparian associated birds in California. Version 1.0. California Partners in Flight.

**OUTREACH: COMMUNITY RESEARCH PRESENTATIONS AND WORKSHOPS**

39<sup>th</sup> EcoFarm Conference. 2018. Asilomar, CA

Sacramento Science Distilled. 2016. Sacramento, CA.

California Walnut Board, Production Research Advisory Council. 2015. Stockton, CA.

Hedgerow Workshop. 2015. University of California Cooperative Extension. Esparto, CA.

Yolo County Audubon Society. 2015. Davis, CA

Cache Creek Conservancy Board Meeting. 2015. Woodland, CA.

(2) Hedgerow Workshops. 2014. University of California Cooperative Extension. Winters, CA.

9<sup>th</sup> Annual Mono Basin Bird Chautauqua. 2010. Lee Vining, CA.

Parsons Memorial Lodge Summer Series. 2007. Tuolumne Meadows, Yosemite National Park, CA.

6<sup>th</sup> Annual Mono Basin Bird Chautauqua. 2007. Lee Vining, CA.

Mono Basin Field Station Seminar. 2003. Lee Vining, CA.  
2<sup>nd</sup> Annual Mono Basin Bird Chautauqua. 2002. Lee Vining, CA.  
1<sup>st</sup> Annual Mono Basin Bird Chautauqua. 2001. Lee Vining, CA

### **OUTREACH: BLOG POSTS, POPULAR ARTICLES**

Heath, S. K. and R. F. Long. 2019. Birds are beneficial too! Green Blog: Green news from the UC Division of Agriculture and Natural Resources.  
<https://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=30027>

Heath, S. K. 2006. Fire: Evaluating New Tools for Habitat Management and Biodiversity. Observer: Quarterly Journal of PRBO Conservation Science. Number 144. Spring.

Heath, S. K. Measuring our restoration successes or shortfalls: why bird monitoring is important. The Rainshadow: Newsletter of the Owens Valley Committee. Vol. 2, No. 1.

Degenhardt, A. and S. K. Heath. 2004. Scientific research in the Mono Basin: news from the Mono Basin Field Station and beyond. Mono Lake Committee Newsletter. Fall. P. 10.

Heath, S. K. 2003. Mono's tributary streams as songbird habitat: what is the appropriate measure of restoration success? Mono Lake Committee Newsletter. Spring. Pp 12 - 13.

Heath, S. K. 2002. Eastside story: the current era of bird conservation in the Eastern Sierra Nevada. Flightlog: Newsletter of California Partners in Flight. Number 11. Pp 2 -3.

Heath, S. K. 2001. From the field: notes from the Riparian Songbird Conservation Project. Mono Lake Committee Newsletter. Summer. P. 7.

Heath, S. K. 2000. Eastern Sierra Riparian Songbird Conservation Project: using songbirds as a tool to assess the health of Mono Basin riparian systems. Mono Lake Committee Newsletter.

Heath, S. K. 2000. Great Basin Riparian: songbird enhancement east of the Sierra. Observer: Quarterly Journal of PRBO Conservation Science. Number 121. Summer.

### **OUTREACH: RESEARCH PROJECT MEDIA COVERAGE**

Forrester, N. (2019, July 12). St. Louis researchers receive funding for new biodiversity projects. *St. Louis Post-Dispatch*.

Interview on 90.3 KDVS, Local Dirt Radio. (2017, October 23). Davis, CA.

Case, E. (2014, May 8). Long time served: Farm adviser connects ag, research. p. A1. *Davis Enterprise*.

Christensen, R. and J. Matthewson (Directors). (2011). *The Mono Lake Story: Research and Restoration* [Motion picture extra feature]. Bristlecone Media Production.

Neely, N. (2010, August 20). Of insects and exclosures. *Mono-logue*.

Lindsay, M. (2010, Summer). Anticipated restoration offers hope for Mill Creek. *Mono Lake Newsletter*

Lindsay, M. (2010, Summer). Bugs, birds, and cottonwoods. *Mono Lake Newsletter*

Sahagun, L. (2008, July 30). Mono Lake making a slow slog to health. Yellow warblers back: But recovery is no sure thing, and water must rise 8 feet. *Los Angeles Times*.

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