

ROBERT L. WILKERSON

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EDUCATION

B.S. 1998 Ecology and Systematic Biology. California Polytechnic State University, San Luis Obispo, CA

EXPERIENCE

1998 – Present Staff Biologist, The Institute for Bird Populations

Specializing in Sierra Nevada Bird Monitoring and Research, Database Management, GIS, and Website Development and Management

Project and Species involvement includes (present and past):

- Spotted Owl Surveys
- Northern Goshawk Surveys
- Flammulated Owl Surveys
- Woodboring Beetle Response to Burn and Drought Killed Forest
- Black-backed Woodpecker Monitoring and Telemetry
- Montane Bird Community Response to Fire
- Sierra Nevada National Parks Landbird Monitoring
- Washington National Parks Landbird Monitoring
- California Statewide Burrowing Owl Survey
- Yosemite Willow Flycatcher Survey
- Sequoia/Kings Canyon Avian Inventory
- Olympic, Mount Rainier, and North Cascades National Parks Landbird Inventories
- Cuba Landbird Program
- Yosemite MAPS Project
- Sierra Meadows Project
- Yosemite Avian Inventory

AWARDS

Recipient of the 2014 Wings Across the Americas Research Partnership Award from the US Forest Service for work as Principal Investigator on the project “Monitoring and Conservation of Black-Backed Woodpecker in Burned Forests”.

PEER-REVIEWED JOURNAL ARTICLES

Stillman, A.N., **R.L. Wilkerson**, D.R. Kaschube, R.B. Siegel, S.C. Sawyer, and M.W. Tingley. 2023. Incorporating pyrodiversity into wildlife habitat assessments for rapid post-fire management: a woodpecker case study. *Ecological Applications* 2023:e2853.

- Tingley, M.W., G.A. Montgomery, **R.L. Wilkerson**, D.R. Cluck, S.C. Sawyer, and R.B. Siegel. 2023. Multi-trophic occupancy modeling connects temporal dynamics of woodpeckers and beetle sign following fire. *PLoS ONE* 18:e0281687.
- Ray, C., **R.L. Wilkerson**, R.B. Siegel, M.L. Holmgren, and S.A. Haultain. 2022. Landbird population trends in parks of the Sierra Nevada Network: 2011–2019 synthesis natural resource report NPS/SIEN/NRR—2022/2402.
- Siegel, R. and **R. Wilkerson**. 2022. A giant loss: losing sequoias could be a blow to Sierra Nevada Birds. *The Wildlife Professional* 16:54-55.
- Loverin, J.K., A.N. Stillman, R.B. Siegel, **R.L. Wilkerson**, M. Johnson, and M.W. Tingley. 2021. Nestling provisioning behavior of Black-backed Woodpeckers in post-fire forest. *The Journal of Field Ornithology* 92:273-283.
- Stillman, A.N., T.J. Lorenz, P.C. Fischer, R.B. Siegel, R.B., **R.L. Wilkerson**, M. Johnson, and M.W. Tingley. 2021. Juvenile survival of a burned forest specialist in response to variation in fire characteristics. *Journal of Animal Ecology* 90:1317-1327.
- Stillman, A.N., T.J. Lorenz, R.B. Siegel, **R.L. Wilkerson**, M. Johnson, and M.W. Tingley. 2021. Conditional natal dispersal provides a mechanism for populations tracking resource pulses after fire. *Behavioral Ecology* 2021:1-10.
- Ray, C., D.R. Cluck, **R.L. Wilkerson**, R.B. Siegel, A.M. White, G.L. Tarbill, S.C. Sawyer, and C.A. Howell. 2020. Chapter 9 - Woodboring beetle colonization of conifers killed by fire and bark beetles: implications for forest restoration and Black-backed Woodpecker conservation. Pages 179-186 in: K.M.Potter and B.L. Conkling, eds. *Forest health monitoring: national status, trends, and analysis 2019*. U.S.D.A. Forest Service General Technical Report SRS-250.
- Ray, C., R.M. Rochefort, J.I. Ransom, J.C.B. Nesmith, S.A. Haultain, T.D. Schaming, J.R. Boetsch, M.L. Holmgren, **R.L. Wilkerson**, and R.B. Siegel. 2020. Assessing trends and vulnerabilities in the mutualism between whitebark pine (*Pinus albicaulis*) and Clark's nutcracker (*Nucifraga columbiana*) in national parks of the Sierra-Cascade region. *PlosONE* 2020:1-25.
- Tingley, M.W., A.W. Stillman, **R.L. Wilkerson**, S.C. Sawyer, and R.B. Siegel. 2020. Black-backed woodpecker occupancy in burned and beetle-killed forests: disturbance agent matters. *Forest Ecology and Management* 455:117694.
- Ray, C., D.R. Cluck, **R.L. Wilkerson**, R.B. Siegel, A.M. White, G.L. Tarbill, S.C. Sawyer, and C.A. Howell. 2019. Patterns of woodboring beetle activity following fires and bark beetle outbreaks in montane forests of California, USA. *Fire Ecology* 15:21.
- Ray, C., M.L. Holmgren, **R.L. Wilkerson**, R.B. Siegel, and J.R. Boetsch, K.J. Jenkins, and J.I. Ransom. 2019. Trends in landbird density at two national parks in fragmented, mixed-use landscapes of the Pacific Northwest. *The Northwestern Naturalist* 100:1-25.
- Stillman, A.N., R.B. Siegel, **R.L. Wilkerson**, M. Johnson, and M.W. Tingley. 2019. Age-dependent habitat relationships of a burned forest specialist emphasise the role of pyrodiversity in fire management. *Journal of Applied Ecology* 56:880-890.

- Stillman, A.N., R.B. Siegel, **R.L. Wilkerson**, M. Johnson, C.A. Howell and M.W. Tingley. 2019. Nest site selection and nest survival of Black-backed Woodpeckers after wildfire. *The Condor: Ornithological Applications* 121(3).
- White, A.M., G.L. Tarbill, **R.L. Wilkerson**, and R. Siegel. 2019. Few detections of Black-backed Woodpeckers (*Picoides arcticus*) in extreme wildfires in the Sierra Nevada. *Avian Conservation and Ecology* 14:17.
- Ray, C., J.F. Saracco, M.L. Holmgren, **R.L. Wilkerson**, R.B. Siegel, K.J. Jenkins, J.I. Ransom, P.J. Happe, J.R. Boetsch, and M.H. Huff. 2018. Landbird population trends in mountain and historical parks of the North Coast and Cascades Network: 2005–2016 synthesis. Natural Resource Report NPS/NCCN/NRR—2018/1673. National Park Service, Fort Collins, CO.
- Tingley, M.W., A.N. Stillman, **R.L. Wilkerson**, C.A. Howell, S.C. Sawyer, and R.B. Siegel. 2018. Cross-scale occupancy dynamics of a postfire specialist in response to variation across a fire regime. *The Journal of Animal Ecology* 00:1–13.
- Ray, C., J.F. Saracco, M.L. Holmgren, **R.L. Wilkerson**, R.B. Siegel, K.J. Jenkins, J.I. Ransom, P.J. Happe, J.R. Boetsch, and M.H. Huff. 2017. Recent stability of resident and migratory landbird populations in National Parks of the Pacific Northwest. *Ecosphere* 8:e01902.
- Siegel, R.B., M.W. Tingley, **R.L. Wilkerson**, C.A. Howell, M. Johnson, and P. Pyle. 2016. Age structure of Black-backed Woodpecker populations in burned forests. *The Auk: Ornithological Advances* 133:69–78.
- Tingley, M.W., **R.L. Wilkerson**, C.A. Howell, and R.B. Siegel. 2016. An integrated occupancy and home-range model to predict abundance of a wide-ranging, territorial vertebrate. *Methods in Ecology and Evolution* 7:508–517.
- Tingley, M.W., V. Ruiz-Gutiérrez, **R.L. Wilkerson**, C.A. Howell, and R.B. Siegel. 2016. Pyrodiversity promotes avian diversity over the decade following forest fire. *Proceedings of the Royal Society B* 283:20161703 (published online).
- Siegel, R. B., **R. L. Wilkerson**, M. W. Tingley, and C. A. Howell. 2014. Roost sites of the Black-backed Woodpecker in burned forest. *Western Birds* 45:296-303.
- Tingley, M. W., **R. L. Wilkerson**, M. L. Bond, C. A. Howell, and R. B. Siegel. 2014. Variation in home range size of Black-backed Woodpeckers (*Picoides arcticus*). *The Condor: Ornithological Applications* 116:325–340. DOI: 10.1650/CONDOR-13-140.1
- Siegel, R. B., M. L. Bond, **R. L. Wilkerson**, B. C. Barr, C. Gardiner, and J. M. Kinsella. 2012. Lethal *Procyrnea* nematode infection in a Black-backed Woodpecker (*Picoides arcticus*) from California. *Journal of Zoo and Wildlife Medicine* 43:214-217.
- Siegel, R. B., **R. L. Wilkerson**, R. C. Kuntz II, J. F. Saracco, and A. L. Holmgren. 2012. Elevation ranges of birds at Mount Rainier National Park, North Cascades National Park Complex, and Olympic National Park. *Northwestern Naturalist* 93:23-39 doi: 10.1898/11-08.1
- Wilkerson, R. L.**, and R. B. Siegel. 2011. Distribution and abundance of Western Burrowing Owls (*Athene*

cunicularia hypugaea) in southeastern California. *The Southwestern Naturalist* 56:378-384.

Siegel, R. B., **R. L. Wilkerson**, J. F. Saracco, and Z. L. Steel. 2011. Elevation ranges of birds on the Sierra Nevada's west slope. *Western Birds* 42:2-26.

Saracco, J. F., R. B. Siegel, and **R. L. Wilkerson**. 2011. Occupancy modeling of Black-backed Woodpeckers on burned Sierra Nevada forests. *Ecosphere* 2:art31. [doi:10.1890/ES10-00132.1]

Wilkerson, R. L., and R. B. Siegel. 2010. Assessing changes in the distribution and abundance of Burrowing Owls in California, 1993-2007. *Bird Populations* 10:1-36.

Siegel, R. B., **R. L. Wilkerson**, and D. F. DeSante. 2008. Extirpation of the Willow Flycatcher from Yosemite National Park. *Western Birds* 39:8-21.

Pyle, P., A. McAndrews, P. Veléz, **R. L. Wilkerson**, R. B. Siegel, and D. F. DeSante. 2004. Molt patterns, and age and sex determination of selected southeastern Cuban landbirds. *Journal of Field Ornithology* 75:136 – 145.

Siegel, R. B., **R. L. Wilkerson**, and D. F. DeSante. 2003. A rapid, inexpensive field protocol for assessing the importance of montane meadows to breeding and post-breeding birds, and a test of the late season protocol. In *California Riparian Systems: Processes and Floodplains Management, Ecology, and Restoration* (P. M. Faber, ed.). 2001 Riparian Habitat and Floodplains Conference Proceedings, Riparian Habitat Joint Venture, Sacramento, CA.