

Harrison H. Jones, PhD

Southwestern Avian Ecologist
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Purpose statement

I am an applied field ecologist working at the intersection of community ecology, landscape ecology, population ecology, and conservation biology. I have a deep passion for bird conservation, and my research projects have addressed changes to bird communities, populations, and behavior in response to anthropogenic stressors. I am also interested in avian natural history, including foraging, nesting, social behavior, and habitat associations of understudied species as a way of improving management. I strive to foster collaborations with conservation professionals to translate my research to management outcomes, and to mentor future conservation professionals through career advising and capacity building of field skills.

Education

- 2020. PhD, Zoology, University of Florida, Gainesville, FL
- 2016. M.S., Wildlife Ecology and Conservation, University of Florida, Gainesville, FL
- 2012. B.S., Biology and French Literature, Haverford College, Haverford, PA

Professional and Research Experience

- 2021-Pres. Southwest Avian Ecologist, The Institute for Bird Populations, Flagstaff, AZ
Population trend analyses and habitat associations for bird communities on National Park Service lands on the southern Colorado Plateau.
- 2020-2021. Researcher, Huron Mountain Wildlife Foundation, Big Bay, MI
Long-term changes to boreal bird occupancy over 30 years, habitat associations of boreal birds in hemlock-hardwood forest.
- 2016-2020. Doctoral Research, University of Florida, Valle del Cauca, Colombia
Effects of forest fragmentation and selective logging practices on avian communities and mixed-species flocking behavior in subtropical cloud forest of the Western Andes.
- 2018-2019. Doctoral Research, University of Florida, Gainesville, FL
Structuring effects of foraging ecology and temperature on non-breeding mixed-species flocks in Florida hammock forest.
- 2014-2016. Masters Research, University of Florida, Gainesville, FL
Interspecific communication (alarm call networks) in a non-breeding bird community in North-central Florida.

- 2014-2016. Research Assistant, University of Florida, Gainesville, FL
Roles of predation pressure, habitat complexity, and social complexity in the evolution of the complex chickadee call of these species in the family Paridae.
2015. Bachman's Sparrow Biologist, University of Florida, Tallahassee, FL
Field work studying the effect of hardwood removal on the nest success and survival of Northern Bobwhite (*Colinus virginianus*) and Bachman's Sparrow (*Peucaea aestivalis*).
2014. Research Technician, University of Wisconsin-Madison, Boulder Creek, CA
Testing a taste aversion method for preventing predation on state-endangered Marbled Murrelet (*Brachyramphus marmoratus*) eggs by Steller's Jay (*Cyanocitta stelleri*) in the Coast Range.
2013. Research Technician, McMaster University, Cabo Rojo, Puerto Rico
Communal breeding biology and alarm vocalizations of the Smooth-billed Ani (*Crotophaga ani*) in Cabo Rojo NWR.
2013. Research Technician, University of Wisconsin, Boulder Creek, CA
Movement and forging ecology of Steller's Jay in old growth Coast Redwood forests and campgrounds of the Santa Cruz Mountains.
2012. Research Technician, Manu Bird Project, Cuzco province, Peru
Elevational distribution, nesting behavior, and metabolic adaptations of high-Andean cloud forest birds whilst living in rustic field conditions.
2011. Research Intern, Eagle Creek Park, Indianapolis, IN
Breeding biology and habitat selection of the state-endangered Henslow's Sparrow (*Centronyx henslowii*) in an urban park.

Peer-reviewed Publications

- Jones, H.**, Ray, C., Johnson, J.M., and Siegel, R. (2024). Breeding birds of high-elevation mixed-conifer forests have declined in national parks of the southwestern U.S. while lower-elevation species have increased, with responses to drought varying by habitat. *Ornithological Applications* 126.
- Jones, H.**, Bedoya-Durán, M. J., Colorado Z., G., Londoño, G., and Robinson, S. (2023). Dietary and habitat specialization, eye size, and clutch size predict avian fragment area sensitivity in the Tropical Andes biodiversity hotspot. *Biodiversity and Conservation*.
- Montaño-Centellas, F., Muñoz, J., Mangini, G., Ausprey, I., Newell, F., **Jones, H.**, Fanjul, M. E., Tinoco, B., Colorado, G., Cahill, J., Arbeláez-Cortés, E., Marin-Gómez, O., Astudillo, P., Guevara, E., Ippi, S., McDermott, M., Rodewald, A., Matthysen, E., and Robinson, S. (2023). Network structure of avian mixed-species flocks decays with elevation and latitude across the Andes. *Philosophical Transactions of the Royal Society B* 378 (1878).

- Bedoya-Durán, M. J., **Jones, H.**, Malone, K., and Branch, L. (2023). Continuous forest at higher elevation plays a key role in maintaining bird and mammal diversity across an Andean coffee-growing landscape. *Animal Conservation*.
- West, E. and **Jones, H.** (2022). Human food subsidies drive individual specialization and intrapopulation dietary differences in a generalist predator. *Ecosphere* 13 (9).
- Jones, H.**, Colorado Z., G., and Robinson, S. (2022) Widespread bird species show idiosyncratic declines in residual body mass to selective logging and edge effects in the Colombian Western Andes. *Ornithological Applications* 124.
- Jones, H.**, Barreto, E., Murillo, O., and Robinson, S. (2021) Turnover-driven loss of forest-dependent species changes avian species richness, functional diversity, and community composition in Andean forest fragments. *Global Ecology and Conservation* 32.
- Montaño-Centellas F. and **Jones, H.** (2021). Temperature and habitat complexity drive mixed-species flock diversity and composition across an elevational gradient in the Bolivian Andes. *Ornithology* 138.
- Jones, H.**, Walters, M., and Robinson, S. (2021). Effect of temperature on flocking propensity and species interactions in a subtropical mixed-species flocking system. *Wilson Journal of Ornithology* 132 (3).
- Jones, H.** and Robinson, S. (2021). Vegetation structure drives mixed-flock interaction strength and nuclear species roles. *Behavioral Ecology* 32 (1).
- Goodale, E., Sridhar, H., Sieving, K., Bangal, P., Colorado, G., Farine, D., Heymann, E., **Jones, H.**, Krams, I., Martínez, A., Montaño-Centellas, F., Muñoz, J., Srinivasan, U., Theo, A., and Shanker, K. (2020). Mixed company: A framework for understanding the composition and organization of mixed-species animal groups, after a century of empirical research across taxa and habitats. *Biological Reviews* 95 (4).
- Jones, H.** and Robinson, S. (2020). Patch size and vegetation structure drive changes to mixed-species flock diversity and composition across a gradient of fragment sizes in the Western Andes of Colombia. *The Condor: Ornithological Applications* 122.
- Jones, H.**, Walters, M., and Robinson, S. (2020). Do similar foragers flock together? Non-breeding foraging behavior and its impact on mixed-species flocking associations in a subtropical region. *The Auk: Ornithological Advances* 137.
- Jones, H.** and Sieving, K. (2019). Foraging ecology drives social information reliance in an avian eavesdropping community. *Ecology and Evolution* 9 (20).
- Malone, K., **Jones, H.**, Betancourt, A., Sieving, K., and Terhune II, T. (2019). Video-documentation of predators and nest defense at Bachman's Sparrow nests. *Avian Conservation and Ecology* 14 (2).

Zou, F., **Jones, H.**, Jiang, D., Lee, T., Sieving, K., Zhang, M., Zhang, Q., and Goodale, E. (2018) The conservation implications of mixed-species flocking in terrestrial birds, a globally-distributed species interaction network. *Biological Conservation* 224.

Gil, M., Emberts, Z., **Jones, H.**, and St. Mary, C. (2016) Social information on fear and food drives animal grouping and fitness. *American Naturalist* 189 (3).

Government Reports

Jones, H., Walter, C., Cox, E., Schofield, L., and M. Johnson. (2024) Breeding bird inventory of Petroglyph National Monument, with special emphasis on species associated with rocky escarpment habitat. Natural Resource Report NPS/SCPN/NRR—2024/2624. National Park Service, Fort Collins, Colorado.

Submitted Manuscripts

Jones, H., Merriell, B., Swan, M., Johnson, M., and Siegel, R. “Using structural and floristic microhabitat associations in Southwestern pinyon-juniper woodlands to understand effects of thinning and tree mortality on bird habitat suitability” (In review at *Avian Conservation and Ecology*, April 2024).

Benedict, L., McEntee, J., **Jones, H.**, and Robinson, S. “Testing the function of flash plumage signals in North American Passerine birds using phylogenetic comparative methods” (In review at *Ornithology*, April 2024).

Manuscripts in Preparation

Jones, H., Buron, R., Merriell, B., and Robinson, S. “Vegetation structure or floristic composition? Microhabitat associations of a hemiboreal hardwood-hemlock bird community” (In preparation for *Avian Conservation and Ecology*, July 2022).

Buron, R., Merriell, B., **Jones, H.**, and Robinson, S. “Changes to a hemiboreal bird community across two decades in an intact forested landscape of Michigan’s Upper Peninsula”

Languages

French Written, aural, and verbal fluency
Spanish Fluency in verbal and written

Avian Techniques and Service

Fifteen years of international and domestic birding (<https://ebird.org/profile/NTk5MDE3>); good knowledge of North American, Andean, and European bird identification by sight and sound; 1900+ mist netting hours (passive and active), including feather, ectoparasite, and blood sampling; placement of color bands and short-range radio transmitters; resight surveys; nest searching (behavioral observation, rope dragging); territory mapping; point counts; transect surveys for mixed-species flocks; owl playback surveys; foraging observations.

Professional memberships: American Ornithological Society, Association of Field Ornithologists, Association for Tropical Biology and Conservation

Professional service: Manuscript review for *Ornithology*, *Ecology and Evolution*, *Behavioral Ecology and Sociobiology*, *Behavior*, *Acto Lilloana*, *Neotropical Biodiversity*, *Biotropica*, *Global Ecology and Biogeography*, and *Proceedings of the Royal Society B*.

Teaching Experience

2020. Co-instructor, Writing Science, University of Florida, Gainesville, FL
Co-taught a semester-long graduate course on scientific writing focused on crafting a story and effectively communicating ideas in academic publications.
- 2015, 2016, 2019. Teaching Assistant, Avian Biology, University of Florida, Gainesville, FL
Assisted with mist netting skills, including net placement, bird extraction, and ageing and sexing of passerines in the hand in the course of a one-week, intensive course.
- 2015, 2017. Teaching Assistant, Field Ornithology, University of Florida, Gainesville, FL
Taught classroom lectures on avian anatomy and taxonomy as well as field components involving field trips and outdoor laboratories.
- 2016, 2017, 2019. Teaching Assistant, Introductory Biology 2, University of Florida, Gainesville, FL
Taught the second semester of introductory biology, including plant evolution and taxonomy, mammalian anatomy and physiology, and basic principles of ecology.
2018. Teaching Assistant, Introductory Biology (online course), University of Florida, Gainesville, FL
Worked as a teaching assistant for an online course presenting an introduction to the biological sciences, grading online essay assignments (~70 students) and responding to student questions submitted electronically.