John D. Lloyd, Ph. D.

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# Academic background

Ph.D., Wildlife Biology, University of Montana, Missoula, MT 59812 (May 2003).

M.S., Wildlife Biology, University of Arizona, Tucson, AZ 85721 (April 1997).

B.S., Wildlife Biology, University of Vermont, Burlington, VT 05405 Magna cum Laude (May 1995).

#### Social media

ResearchGate: <a href="https://www.researchgate.net/profile/John\_Lloyd2">https://www.researchgate.net/profile/John\_Lloyd2</a>

Google Scholar: <a href="https://scholar.google.com/citations?user=pFD-t50AAAAJ&hl=en&oi=sra">https://scholar.google.com/citations?user=pFD-t50AAAAJ&hl=en&oi=sra</a>

LinkedIn: https://www.linkedin.com/in/john-lloyd-12069990

Twitter: @jdlvt

ORCID: orcid.org/0000-0002-9143-3789

#### About me

I am an experienced researcher, writer, and editor with a deep interest in catalyzing and promoting inclusive, collaborative, and science-based solutions that address complex issues in sustainability.

### **Current positions**

**Independent Consultant on Biodiversity and Conservation,** June 2021 – present.

I work on behalf of clients from civil society, industry, and government to develop and advance initiatives that address pressing problems in sustainable development and biodiversity conservation. To do so, I combine deep technical expertise gained as a practicing scientist, experience leading diverse teams of scientists and practitioners, outstanding skills as a science editor and writer, and a well-honed familiarity with the opportunities and challenges of working at the science-policy interface. Current projects include developing a monitoring program for Streaked Horned Lark in collaboration with USFWS Oregon Fish & Wildlife Office and its non-profit partners and conducting comprehensive analyses of bird and bat fatalities at land-based wind-energy facilities in the U.S.

Freelance Editor, PLOS Biology, Nov. 2014 – present.

Act as handling editor on manuscripts and pre-submission inquiries from across the life sciences, with a focus on ecology and evolution. Review author inquiries and manuscripts, summarize key findings, identify strengths and weaknesses, evaluate novelty and significance, and recommend primary disposition. For manuscripts sent to review, identify and engage potential Academic Editors and reviewers, evaluate peer reviews and, in consultation with Academic Editor, recommend a final decision.

# Academic appointments

**Adjunct Associate Professor,** Rubenstein School of Environment and Natural Resources, University of Vermont, Burlington, Vermont. September 2018 – present.

### Past employment

**Associate Director for Science and Evaluation,** American Wind Wildlife Institute, Washington, D.C. March 2019 – June 2021.

As the Associate Director for Science and Evaluation, I worked to identify, to catalyze, and to carry out research on high-priority questions that supported the timely and responsible development of wind energy while protecting wildlife and wildlife habitat. In particular, I:

- Led the organization's program on research and conservation of North American prairie grouse;
- Provided scientific oversight for a technology-development program and research programs focused on the assessment and mitigation of wind energy's risks to bats and eagles;
- Assisted the Director of Science in developing an effective and timely merit review process for the Wind Wildlife Research Fund, a multi-million-dollar, competitive program of research grant-making;
- Served as the scientific program officer and peer-review manager on the Wind Wildlife Research Fund, ensuring the quality of peer reviews and diversity and representation of reviewer pool; synthesizing reviewer comments for non-technical stakeholders; and providing support and technical expertise to funding committee.

Past employment, cont.

- Acted as the science lead on a portfolio of research projects funded through the Wind Wildlife Research Fund.
- Assisted the Director of Science in updating the National Wind Wildlife Research Plan.
- Provided outreach and communication efforts to a variety of stakeholders through annual updates to the 'Summary of Wind Power Interactions with Wildlife' factsheets, technical white papers, peer-reviewed publications, and presentations at scientific conferences.

**Associate Director (Science),** Vermont Center for Ecostudies, Norwich, VT. October 2014 – March 2019.

As the chief scientist, I identified organization-wide research priorities that met the goal of *uniting people and science for conservation*. I assisted senior scientists, program directors, and post-doctoral associates in developing projects that address these priorities and work with development staff to obtain funding. I ensured that our science was rigorous and mission-driven; that we were effectively communicating our science with the right people, in the right way, and at the right time; and that our engagement with citizen-scientists, decision-makers, and other stakeholders was positive, creative, and beneficial to all involved. Above all, I focused on creating approaches to research that bridged the science-policy divide and lead to the adoption of scientifically defensible conservation policy.

Adjunct Faculty (Conservation Biology), Environmental Studies Department, Antioch University New England, Keene, NH. September 2015 – December 2015 (fixed term).

Taught Conservation Biology to graduate students in the Conservation Biology program.

Independent Consultant, Linked Indicators of Vital Ecosystem Services (LIVES) Initiative. Luc Hoffman Institute/WWF International, Gland, Switzerland. December 2013 – October 2014.

Assisted in the development and management of an interdisciplinary team charged with creating an early-warning system to monitor ecosystem services and impact of infrastructure development on wildlife and plants in major river basins around the world. Served as point-of-contact for external partners, represented initiative at meetings and multi-lateral fora, and conducted outreach to potential partners.

**Affiliate Faculty (Biostatistics),** Environmental Studies Department, Antioch University New England, Keene, NH. July 2012 – December 2013.

Taught Biostatistics to graduate students in the Conservation Biology program and Research Strategy to students in the Environmental Studies Doctoral Program. Advised graduate students on experimental design and data analysis. Taught short courses in the use of R for data analysis.

**Visiting Assistant Professor (Conservation Biology),** Department of Biology, Middlebury College, Middlebury, VT. Winter 2013.

Taught undergraduate elective in food-web theory and its implications for conservation.

**Freelance Editor**, *Nature Education's Principles of Biology* Nov. 2012 – Dec. 2012

Revised the Conservation Biology module for the university-level textbook *Principles of Biology*.

Senior Research Ecologist, Ecostudies Institute, Mt. Vernon, WA. October 2005 – October 2014.

Managed and implemented a wildlife-research program with a particular focus on tropical and subtropical communities of Florida and the Caribbean. I developed and obtained funding for wildlife-research proposals, supervised field and office staff, analyzed data, prepared manuscripts and reports, presented research results at scientific meetings and to wildlife and resource managers, and worked with resource managers to translate findings into wildlife-management plans.

**Biologist and Project Manager,** Mason, Bruce & Girard, Inc., Portland, Oregon. June 2004 – October 2005.

Managed environmental compliance portion of large, multi-disciplinary transportation infrastructure projects. Supervised junior staff, edited and oversaw preparation of Endangered Species Act, Migratory Bird Treaty Act, and Clean Water Act compliance documents, assisted in preparation of National Environmental Policy Act (NEPA) documents, and developed and obtained funding for research projects in coordination with wildlife and resource managers at Oregon Department of

# Past employment, cont.

Transportation and Oregon Department of Fish and Wildlife. Supported marketing and business development activities, including proposal preparation and interview participation.

Writer/Editor, USDA Forest Service. May 2003 – May 2004.

Edited US Forest Service Publication #R1-04-81, "An assessment of wildlife and fish habitat linkages on Highway 93 – Western Montana" and produced presentations detailing implementation of an expert-system, GIS-based approach for identifying habitat linkages for fish and wildlife along highways.

### Graduate courses taught

**Conservation Biology** (Environmental Studies 563), Antioch University New England, Keene, NH. Fall 2016.

**Biostatistics** (Environmental Studies 519), Antioch University New England, Keene, NH. Fall 2012 & Fall 2013.

**Research Strategy, Method, and Design I** (Environmental Studies 727), Antioch University New England, Keene, NH. Fall 2013.

#### Peer-reviewed articles

- Lloyd, J.D., C. Aldridge, T. Allison, C. LeBeau, L. McNew, and V. Winder. In press. Prairie grouse and wind energy: the state of the science and implications for risk assessment. Wildlife Society Rulletin
- Lloyd, J.D., and Y. M. León. 2019. Forest change within and outside protected areas in the Dominican Republic, 2000-2016. BioRxiv. https://doi.org/10.1101/558346
- Hill, J, J.D. Lloyd, K. McFarland, and C. Rimmer. 2019. Apparent survival of a range-restricted montane forest bird species is influenced by weather throughout the annual cycle. Avian Conservation and Ecology 14: 16.
- Lloyd, J.D, C.C. Rimmer, and JA Salguero-Faria. 2019. Short-term effects of hurricanes Maria and Irma on forest birds of Puerto Rico. PLoS ONE 14:e0214432.
- Faccio, S.D., K.L. Buckman, J.D. Lloyd, A.N. Curtis, and V.F. Taylor. 2019. Bioaccumulation of methylmercury in wood frogs and spotted salamanders in Vermont vernal pools. Ecotoxicology 28:717-731. DOI: 10.1007/s10646-019-02068-4.
- Rimmer, C. C., J. D. Lloyd, K. P. McFarland, D. C. Evers, and O. Lane. 2019. Patterns of blood mercury variation in two long-distance migratory thrushes on Mount Mansfield, Vermont. Ecotoxicology 2019:1-9.
- Rimmer, C. C., J. D. Lloyd, and J. A. Salguero Faria. 2019. Overwintering Bicknell's Thrush (*Catharus bicknelli*) on Puerto Rico rare and local. Caribbean Journal of Ornithology 32:34-38.
- Lloyd, J.D. 2018. The recent expansion of Fox Sparrow (*Passerella iliaca iliaca*) breeding range into the northeastern United States. PeerJ 6: e6087.
- Dornelas, M., et al. 2018. BioTIME: a database of biodiversity time series for the Anthropocene. Global Ecology and Biogeography 27:760-786. DOI: 10.1111/geb.12729
- McFarland, K. P., J. D. Lloyd, S. J. K. Frey, P. L. Johnson, R. B. Chandler, and C. C. Rimmer. 2018.

  Modeling spatial variation in winter abundance to direct conservation actions for a vulnerable migratory songbird, Bicknell's Thrush (*Catharus bicknelli*). Condor 120:517-529.
- Lloyd, J. D., and C. C. Rimmer. 2017. Surveys of forest birds on Puerto Rico, 2015. Biodiversity Data Journal 5:e20745. https://doi.org/10.3897.BDJ.e20745
- Rimmer, C.C., P.L. Johnson, and J. D. Lloyd. 2017. Home range size and nocturnal roost locations of Western Chat-Tanagers (*Calyptophilus tertius*). Wilson Journal of Ornithology 129:611-615.
- Hill, J. M., and J. D. Lloyd. 2017. A fine-scale U.S. population estimate of a montane spruce-fir bird species of conservation concern. Ecosphere 8(8):e01921. 10.1002/ecs2.1921
- Lloyd, J.D, J. Scarl, J.C. Martínez-Sánchez, C.C. Rimmer, L. Prout, and S. Mathison. 2017. Bicknell's Thrush Mitigation Across Borders: A Strategy for Full Life-Cycle Conservation. https://doi.org/10.6084/m9.figshare.4775680.v1

### Peer-reviewed articles, cont.

- Lloyd, J. D. 2017. Movements and use of space by Mangrove Cuckoos (*Coccyzus minor*) in Florida, USA. PeerJ 5:e3534. <u>10.7717/peerj.3534</u>
- McFarland, K.P., J.D. Lloyd, and S.P. Hardy. 2017. Density and habitat relationships of the endemic White Mountain Fritillary (*Boloria chariclea montinus*)(Lepidoptera: Nymphalidae). Insects 8, 57. doi:10.3390/insects8020057
- Frieze, R.D., and J. D. Lloyd. 2017. Eye-ring coloration is not a reliable indicator for aging Mangrove Cuckoos (*Coccyzus minor*). Wilson Journal of Ornithology 129:163-165.
- Lloyd, J.D. 2016. Phenotypic variation in Mangrove Cuckoo (*Coccyzus minor*) across Its geographic range. PLoS ONE 11(3): e0152141. doi:10.1371/journal.pone.0152141.
- Lloyd, J. D., C. C. Rimmer, and K. P. McFarland. 2016. Assessing conservation status of resident and migrant birds on Hispaniola with mist-netting. *PeerJ* 3:e1541 https://doi.org/10.7717/peerj.1541
- Lloyd, J. D., and G. L. Slater. 2014. Abundance and distribution of mangrove landbirds in Florida. North American Fauna 80:1-45.
- Lloyd, J., and M. Trask. 2014. Interstate 84 Wildlife Crossing Study. Available at: https://doi.org/10.6084/m9.figshare.978988.v1
- Lloyd, J. D. 2013. Mangrove Cuckoo (*Coccyzus minor*), Neotropical Birds Online (T. S. Schulenberg, Editor). Ithaca: Cornell Lab of Ornithology; retrieved from Neotropical Birds Online: http://neotropical.birds.cornell.edu/portal/species/overview?p\_p\_spp=202776
- Slater, G. L., J. D. Lloyd, and R. W. Snow. 2013. Re-introduction of brown-headed nuthatch and eastern bluebird to South Florida pine rocklands, USA. Pages 63-67 in P. S. Soorae, ed. Global Reintroduction Perspectives 2013. IUCN/SSC, Gland, Switzerland.
- Slater, G. L., J. D. Lloyd, J. H. Withgott, and K. G. Smith. 2013. Brown-headed Nuthatch (*Sitta pusilla*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology. http://bna.birds.cornell.edu/bna/species/349
- Faccio, S. D., M. Amaral, C. J. Martin, A. Tur, and J. D. Lloyd. 2013. Movement patterns, natal dispersal, and survival of Peregrine Falcons banded in New England. Journal of Raptor Research 47:246-261.
- Lloyd, J. D., G. L. Slater, and J. R. Snyder. 2012. The role of fire-return interval and season of burn on snag dynamics in a south Florida slash-pine forest. Fire Ecology 8:18-31. doi: 10.4996/fireecology.0803018
- Lloyd, J. D., and G. L. Slater. 2012. Fire history and the structure of pine-rockland bird assemblages. Natural Areas Journal 32: 247-259.
- Lloyd, J. D. and G. L. Slater. 2011. Influence of fire and water regimes on pineland bird assemblages. Natural Areas Journal 31:270-282.
- Lloyd, J. D., and T. Doyle. 2011. Abundance and population trends of mangrove landbirds in southwest Florida. Journal of Field Ornithology 82:132-139.
- Lloyd, J. D., and G. L. Slater. 2011. Abundance and distribution of breeding birds in the pine forests of Grand Bahama, Bahamas. Journal of Caribbean Ornithology 24: 1-9.
- Lloyd, J.D., G. L. Slater, and S. Snow. 2009. Demography of reintroduced Eastern bluebirds and brown-headed nuthatches. Journal of Wildlife Management 73:955-964.
- Lloyd, J. D., and G. L. Slater. 2007. Environmental factors affecting productivity of brown-headed nuthatches. Journal of Wildlife Management 71:1968-1975.
- Lloyd, J. D. and J. J. Tewksbury. 2007. Analyzing avian nest survival in forests and grasslands: a comparison of the Mayfield and logistic-exposure methods. Studies in Avian Biology 34:96-104.
- Tewksbury, J. J., L. Garner, S. Garner, J. D. Lloyd, V. Saab, and T. E. Martin. 2006. Alternative hypotheses of landscape influence on nest predation and brood parasitism in fragmented ecosystems. Ecology 87:759-768.

### Peer-reviewed articles, cont.

- Lloyd, J. D., and T. E. Martin. 2005. Reproductive success of Chestnut-collared Longspurs in native and exotic grassland. Condor 107:365-376.
- Lloyd, J. D., and T. E. Martin. 2004. Nest-site preference and maternal effects on offspring growth. Behavioral Ecology 15:816-823.
- Lloyd, J. D., and T. E. Martin. 2003. Sibling competition and the evolution of developmental rates. Proceedings of the Royal Society of London, Series B 270:735-740. (cover article)
- Tewksbury, J. J., and J. D. Lloyd. 2001. Positive interactions under nurse plants: spatial scale, stress gradients, and benefactor quality. Oecologia 127:425-434.
- Lloyd, J.D., R.W. Mannan, S. DeStefano, and C. Kirkpatrick. 1998. The effects of mesquite invasion on a southeastern Arizona grassland bird community. Wilson Bulletin 110:403-408.

### Published data sets

- Lloyd, J.D. 2015. Mangrove Cuckoo measurements. figshare. https://doi.org/10.6084/m9.figshare.1328170.v3.
- Lloyd, J, and G. Slater. 2015. Mangrove Landbird Survey Data 2008-2011. figshare. https://doi.org/10.6084/m9.figshare.1142567.v2
- Rimmer, C., and J. Lloyd. 2015. Puerto Rico Bicknell's Thrush Surveys, 2014. KNB Data Repository. doi:10.5063/F1ST7MRT.
- Lloyd, J., K. McFarland, C. Rimmer, and Vermont Center for Ecostudies. 2015. Sierra de Bahoruco Constant-effort Mist Netting. KNB Data Repository. doi:10.5063/F1M906K7.

#### Selected honors and award

- 2017 Elective Member, American Ornithological Society
- 2007 Robertson Fellowship Award, Florida Ornithological Society.
- 2002 George Miksch Sutton Award in Conservation Research, Southwestern Association of Naturalists.

# Invited presentations

- 2017 Opportunities for conservation of Bicknell's Thrush in Maine's commercial forests. New England Society of Foresters/Maine Chapter of The Wildlife Society Annual Meeting, Bangor, Maine.
- 2013 *The structure, derivation, and origin of South Florida's mangrove avifauna,* St. George's University, Grenada.
- 2013 Abundance and distribution of mangrove landbirds. Biscayne Science Symposium, Miami, FL.
- 2009 Mountain Birdwatch: developing a coordinated monitoring program for high-elevation birds in the Atlantic Northern Forest. Ecology and Management of High-elevation Forests in the Central and Southern Appalachians. Snowshoe, West Virginia.
- 2005 Analyzing avian nest survival in forests and grasslands: a comparison of the Mayfield and logistic-exposure methods. Cooper Ornithological Society Symposium: Beyond Mayfield: measurements of nest survival data. Cooper Ornithological Society, Arcata, CA.

# **Conference presentations**

- 2019 Expanding availability of confidential data to evaluate bird and bat collision risk. Conference on Wind Energy and Wildlife Impacts. Stirling, Scotland, UK.
- 2018 Recent range expansion by Fox Sparrows in the northeastern United States. American Ornithological Society, Tucson, AZ.
- 2016 *Patterns of seasonal movements and space use among Mangrove Cuckoos*. North American Ornithological Conference, Washington, D.C.
- 2015 Constant-effort mist netting over 15 years in Dominican Republic cloud forest reveals apparently stable bird populations. BirdsCaribbean International Meeting, Kingston, Jamaica.
- 2011 *Structure and composition of a mangrove avifauna*. American Ornithologists' Union, Jacksonville, FL.
- 2010 Mitochondrial DNA variation in the Brown-headed Nuthatch (Sitta pusilla): evidence for a distinct evolutionary lineage (S.p. insularis) on Grand Bahama Island. Joint Meeting of the Cooper

# Conference presentations, cont.

Ornithological Society, American Ornithologists' Union, and the Society of Canadian Ornithologists. San Diego, California.

2008 Impacts of exotic plants on native fauna. Natural Areas Association, Nashville, Tennessee.

2007 *Landbird communities of Grand Bahama Island, revisited*. Society for the Conservation and Study of Caribbean Birds, San Juan, Puerto Rico.

2006 Environmental effects on fitness in a reintroduced population of Brown-headed Nuthatches. North American Ornithological Conference, Veracruz, Mexico.

2005 Effects of highways on birds: a North American review. International Conference of Ecology and Transportation, San Diego, CA.

2005 Wildlife hot spots along highways in northwestern Oregon. International Conference of Ecology and Transportation, San Diego, CA. (With Melinda Trask, ODOT).

2005 A rapid assessment process for determining potential linkages areas for fish and wildlife along highways. The Wildlife Society – Oregon Chapter Annual Meeting, Symposium on Transportation and Passage Issues, Corvallis, OR.

2003 A rapid assessment protocol for determining potential fish and wildlife habitat linkages along roads. International Conference of Ecology and Transportation, Lake Placid, NY.

### Professional service

Chair, International Bicknell's Thrush Conservation Group, Nov. 2014 - Mar. 2019

**Topic Editor** (Conservation Biology and Environmental and Natural Resources Management), *Encyclopedia of the Earth*.

Associate Editor, Natural Areas Journal, Nov. 2012 – Jan. 2015

Expert reviewer, Mangrove Cuckoo Climate Change Vulnerability Assessment

**Peer reviewer**, Biological Status Review of White-crowned Pigeon (Florida Fish and Wildlife Conservation Commission)

# Competitive grants awarded

- 2017 US Fish and Wildlife Service Neotropical Migratory Bird Conservation Act (\$79,530). Conservation planning for Sierra de Bahoruco National Park.
- National Fish and Wildlife Foundation (\$50,609). Use of Maine's commercial forestland as habitat for Bicknell's Thrush, an imperiled songbird.
- 2017 William P Wharton Trust (\$10,971). Long-term demographic changes in Bicknell's Thrush, a rare montane endemic.
- 2016 Blake-Nuttall Fund (\$4,500). Long-term demographic changes in Bicknell's Thrush, a rare montane endemic.
- National Fish and Wildlife Foundation (\$78,588). Mapping abundance and estimating population size of Bicknell's Thrush, a rare montane endemic.
- 2013 US Fish and Wildlife Service (\$120,000). Ecology and population monitoring of Mangrove Cuckoo and other mangrove landbirds in south Florida's National Wildlife Refuges.
- 2012 Disney Wildlife Conservation Fund (\$20,000). Ecology and seasonal movements of Mangrove Cuckoo.
- 2012 US Fish and Wildlife Service (\$58,000). Ecology and population monitoring of Mangrove Cuckoo and other mangrove landbirds in south Florida's National Wildlife Refuges.
- 2011 Disney Wildlife Conservation Fund (\$20,000). Ecology and seasonal movements of Mangrove Cuckoo.
- 2010 US Fish and Wildlife Service (\$97,000). Ecology and population monitoring of Mangrove Cuckoo and other mangrove landbirds in south Florida's National Wildlife Refuges.
- 2008 US Fish and Wildlife Service (\$250,000). Development and implementation of a mangrove forest bird monitoring program.

|                             | President (Past), Secretary Strafford Firemen's Association, Inc. |   |  |
|-----------------------------|---|---|--|
| Community service           | Firefighter/AEMT, Strafford Volunteer Fire/Rescue                 |   |  |
|                             | COVID-19 Vaccinator, Vermont Dept. of Health                      |   |  |
|                             | 2000  | U.S. Fish and Wildlife Service Challenge Cost Share Grant (\$10,000). Defining habitat quality for grassland birds in the northern Great Plains.  |  |
|                             | 2003  | U.S.D.A Forest Service ( $$10,500$ ). Development of a rapid assessment protocol for identifying critical habitat linkages.   |  |
|                             | 2005  | Joint Fire Sciences Program (\$261,315). Effects of fuel treatments and wildfire on the avifauna of the pine rockland ecosystem in southern Florida. Co-PI: Gary L. Slater, Ecostudies Institute. |  |
|                             | 2005  | Oregon Department of Transportation (\$42,000). An analysis of potential wildlife corridors.  |  |
|                             | 2006  | Oregon Department of Transportation (\$74,630). Developing methods for identifying wildlife crossing areas in long highway segments.  |  |
| cont.                       | 2006  | National Geographic Society, Committee for Research and Exploration (\$20,000). Taxonomy, population size, and conservation of Brown-headed Nuthatch.   |  |
| Competitive grants awarded, | 2007  | Florida Fish and Wildlife Conservation Commission (\$75,000). Abundance, distribution, and habitat requirements of mangrove landbirds.  |  |