

MONICA L. BOND
Curriculum Vitae 2019
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Education

- 2017-
Present **Ph.D. Candidate, Ecology, University of Zürich, Zürich, Switzerland**
Project: Demography of a socially and spatially structured giraffe population
Start Date: 1 January 2017 **PhD Advisor:** Dr. Prof. Barbara Koenig
Awards: Forschungskredit CanDoc 2017
- 1996-1998 **M.Sc. Wildlife Science, Oregon State University, Corvallis, OR, USA**
Project: Density, Sex Ratio, and Space Use in Gray-tailed Voles (*Microtus canicaudus*)
Awards: Northwest Scientific Association Scholarship
Gamma Sigma Delta (The Honor Society of Agriculture) Scholarship
- 1988-1992 **B.A. Biology, Duke University, Durham, NC, USA**
Senior Independent Study: The Heat is On: The Hawaiian Geothermal Controversy
Honors: Dean's List 1990-1991
Dean's List with Distinction 1991-1992

Employment History and Institutional Responsibilities

- Jan 2017-
Present **Ph.D. Candidate, Program Ecology, Dept. Evolutionary Biology and Environmental Studies, University of Zürich, Zürich, Switzerland.** Advisor: Dr. Prof. Barbara Koenig.
- Jan 2012-
Present **Principal Scientist, Wild Nature Institute, Tanzania and California, USA.**
Studying demography of Masai giraffe and distribution and density of hoofed mammals in the Tarangire Ecosystem of Tanzania, East Africa; investigating effects of forest fire on Spotted Owls in California, USA. **Raised funds (~\$100,000/yr) for research, education, and conservation.**
- Conducting distance sampling of 20 species of hoofed mammals.
 - Collecting photographic mark-recapture data from Masai giraffe.
 - Analyzing data on occupancy and habitat use of Spotted Owls in burned forests.
- Apr-Aug
2011 **Biologist, The Institute for Bird Populations, California, USA**
Studied foraging and nesting ecology of Black-backed Woodpeckers in burned forests.
- Trained and supervised field assistants; captured, banded, and radio-tagged woodpeckers; radio-tracked woodpeckers daily from April until July; measured vegetation; entered and analyzed data; and assisted with writing manuscripts.
- Dec-Mar
2004-2010 **Research Assistant, Point Blue Conservation Science, Farallon Island, California, USA**
Participated in long-term demography study of northern elephant seals for 6 winters.
- Tagged seals and resighted tags; conducted daily census surveys of adults and pups at breeding beaches; took weather and sea temperature readings; and wrote manuscripts.
 - Captured and radio-tracked Western Burrowing Owls for a site-fidelity study.
 - Conducted guided tours to visitors and maintained a Farallons weblog.

- Apr-Aug 2009 **Field Biologist, NMFS Pacific Islands Marine Science Center, Northwest Hawaiian 2008-Islands, Hawaii, USA**
Participated in long-term research on the critically endangered Hawaiian monk seal.
- Tagged and resighted tags of adults and pups; conducted census surveys on 11 islets; collected specimens and conducted necropsies; and identified individual seals.
- Jan 2006-Aug 2007 **Co-Principal Investigator, The Institute for Bird Populations, California, USA**
Planned and implemented all aspects of a study on post-fire use of forests by California Spotted Owls.
- **Raised all funds** (\$83,000); developed budgets; hired, trained, and supervised field assistants; captured, banded, and radio-tagged Spotted Owls; radio-tracked owls nightly May-Sept; measured vegetation; entered and analyzed data; and wrote manuscripts.
- Dec 1999-Dec 2001 **Research Fellow, U. Minn. Dept. Fisheries, Wildlife, & Cons Biol, California, USA**
Studied demography and ecology of California Spotted Owls in the Sierra Nevada.
- Field seasons (Apr-Aug) planned and participated in data collection on occupancy and reproductive status of owls; captured, measured, and banded adult and juvenile owls; trained and supervised field assistants; and measured vegetation.
 - Off-seasons (Sept-Mar) assisted in data management, analysis, and reporting of results; wrote manuscripts for scientific journals; interviewed and hired field assistants; and conducted analyses of owl habitat using GIS.
- Apr-Aug 1998 **Field Biologist, The Institute for Bird Populations, California, USA**
Participated in a demography and toxicology study of Western Burrowing Owls on Lemoore Naval Air Station.
- Captured, measured, banded, and radio-collared adult and juvenile owls; radio-tracked owls for 3 months to determine foraging ecology; and assisted in developing field sampling methods, telemetry techniques, and equipment design.
- Sept-Dec 1997 **Research Technician, OSU Dept. Fisheries & Wildlife, Oregon, USA**
Assisted with field research on the space-use and demographic responses of gray-tailed voles to the application of the insecticide Guthion.
- Trapped and fitted voles with radio-collars and conducted radio telemetry.
- Sept-Oct 1996 **Field Assistant, OSU College of Forestry, Oregon, USA**
Assisted with forestry research.
- Conducted field research for Vegetation Management Cooperative investigating regrowth of trees in response to herbicide and fertilizer on private timberlands; aided Nursery Cooperative with laboratory research on tree root growth potential and frost hardiness.
- Jun-Aug 1996 **Bioscience Technician, USDA Forest Service, Oregon, USA**
Worked on a river conservation project.
- Mapped vegetation and assessed the ecological condition of the campgrounds; identified and quantified plant species along transects; produced maps; and created educational displays for the public.

Active Membership in Scientific Societies

- The Wildlife Society (Certified Wildlife Biologist), member since 1999
- Ecological Society of America
- Society for Conservation Biology
- Wildlife Diseases Association

Certifications, Participation in Panels, Organization of Workshops

- Certified Wildlife Biologist, The Wildlife Society, received May 10, 2000.
- The Wildlife Society Western Section (California); Conservation Affairs Committee, 2001-2004.
- Northern Spotted Owl Recovery Plan; Dry Forest Landscapes Working Group; appointed by U.S. Fish and Wildlife Service, 2009-2011.
- Organized *Animal Social Network Analysis* Course (Instructor Dr. Damien Farine, University of Konstanz and Max Planck Institute of Ornithology); January 2018, Möggingen, Germany.

Peer-Reviewed Scientific Journal Articles

Bond ML, Lee DE, Ozgul A, König B. 2019. Fission-fusion dynamics of a megaherbivore are driven by ecological, anthropogenic, temporal, and social factors. *Oecologia*. <https://doi.org/10.1007/s00442-019-04485-y>

Bond ML, Lee DE. 2019. Simultaneous multiple-calf allonursing by a wild Masai giraffe. *African Journal of Ecology*. <https://doi.org/10.1111/aje.12673>

Knüsel MA, Lee DE, König B, Bond ML. 2019. Correlates of home-range sizes of giraffes *Giraffa camelopardalis*. *Animal Behaviour* 149:143-151. <https://doi.org/10.1016/j.anbehav.2019.01.017>

Lee DE, Cavener DR, Bond ML. 2018. Seeing spots: quantifying mother-offspring similarity and assessing fitness consequences of coat pattern traits in a wild population of giraffes (*Giraffa camelopardalis*). *PeerJ* <https://doi.org/10.7717/peerj.5690>

Lee DE, Bond ML. 2018. Quantifying the ecological success of a community-based wildlife conservation area in Tanzania. *Journal of Mammalogy* 99:459-464. <https://doi.org/10.1093/jmammal/gyy014>

Hanson CT, Bond ML, Lee DE. 2018. Effects of post-fire logging on California spotted owl occupancy. *Nature Conservation* 24:93-105. <https://doi.org/10.3897/natureconservation.24.20538>

DellaSala DD, Hutto RL, Hanson CT, Bond ML, Ingalsbee T, Odion D, Baker WL. 2017. Accommodating mixed-severity fire to restore and maintain ecosystem integrity with a focus on the Sierra Nevada of California, USA. *Fire Ecology* 13:148-171. <https://doi.org/10.4996/fireecology.130248173>

Bond ML, Bradley CM, Kiffner C, Morrison TA, Lee DE. 2017. A multi-method approach to delineate and validate migratory corridors. *Landscape Ecology* 32:1705-1721. <https://link.springer.com/article/10.1007/s10980-017-0537-4>

Lee DE, Bond ML, Bolger DT. 2017. Season of birth affects juvenile survival of giraffe. *Population Ecology* 59:45-54. <https://link.springer.com/article/10.1007/s10144-017-0571-8>

Lee DE, Bond ML, Kissui BM, Kiwango YA. 2016. Migratory herds of wildebeest and zebra affect juvenile survival of giraffes. *Ecology and Evolution* 6: 8402–8411. <http://onlinelibrary.wiley.com/doi/10.1002/ece3.2561/abstract>

Bond ML, Bradley C, Lee DE. 2016. Foraging habitat selection by California spotted owls after fire. *Journal of Wildlife Management* 80:1290-1300. <http://onlinelibrary.wiley.com/doi/10.1002/jwmg.21112/full>

Bond ML, Strauss, MKL, Lee DE. 2016. Soil correlates and mortality of Giraffe Skin Disease in Tanzania. *Journal of Wildlife Diseases* 52:953-958. <http://www.jwildlifedis.org/doi/abs/10.7589/2016-02-047>

Lee DE, Bond ML, Kissui BM, Kiwango YA, Bolger DT. 2016. Spatial variation in giraffe demography: a test of 2 paradigms. *Journal of Mammalogy* 97:1015-1025. <https://doi.org/10.1093/jmammal/gyw086>

Lee DE, Bond ML. 2016. Precision, accuracy, and costs of survey methods for giraffe *Giraffa camelopardalis*. *Journal of Mammalogy* 97:940-948. <https://doi.org/10.1093/jmammal/gyw025>

Lee DE, Bond ML. 2016. Occurrence and prevalence of Giraffe Skin Disease in protected areas of northern Tanzania. *Journal of Wildlife Diseases* 52:753-755. <http://www.jwildlifedis.org/doi/abs/10.7589/2015-09-247>

- Lee DE, Bond ML. 2015. Previous year's reproductive state affects Spotted Owl site occupancy and reproduction responses to natural and anthropogenic disturbances. *The Condor* 117:307-319. <https://doi.org/10.1650/CONDOR-14-197.1>
- Lee DE, Bond ML. 2015. Occupancy of California Spotted Owl sites following a large fire in the Sierra Nevada, California. *The Condor* 117:228-236. <https://doi.org/10.1650/CONDOR-14-155.1>
- Hagemeyer NDG, Bond ML. 2014. First observations of termite insectivory in the Bateleur (*Terathopius ecaudatus*). *The Wilson Journal of Ornithology* 126:611-613. <https://doi.org/10.1676/13-158.1>
- Odion, DC, Hanson CT, DellaSala DA, Baker WL, Bond ML. 2014. Effects of fire and commercial thinning on future habitat of the Northern Spotted Owl. *Open Journal of Ecology* 7:37-51. <https://benthamopen.com/ABSTRACT/TOECOLJ-7-1-37>
- DellaSala, DA, Bond ML, Hanson CT, Hutto RL, Odion DC. 2014. Complex early seral forests of the Sierra Nevada: What are they and how can they be managed for ecological integrity? *Natural Areas Journal* 34:310-324. <http://www.bioone.org/doi/pdf/10.3375/043.034.0317>
- Tingley MW, Wilkerson RL, Bond ML, Howell CA, Siegel RB. 2014. Variation in home-range size of Black-backed Woodpeckers. *The Condor* 116:325-340. <https://doi.org/10.1650/CONDOR-13-140.1>
- DellaSala, DA, Anthony RG, Bond ML, Fernandez ES, Frissell CA, Hanson CT, Spivak R. 2013. Alternative views of a restoration framework for federal forests in the Pacific Northwest. *Journal of Forestry* 111:420-429. <http://dx.doi.org/10.5849/jof.13-040>
- Bond ML, Lee DL, Siegel RB, Tingley MW. 2013. Diet and home-range size of California Spotted Owls in a burned forest. *Western Birds* 44:114-126. [https://www.westernfieldornithologists.org/archive/V44/WB-Bond-44\(2\).pdf](https://www.westernfieldornithologists.org/archive/V44/WB-Bond-44(2).pdf)
- Lee DE, Bond ML, Borchert MI, Tanner R. 2013. Influence of fire on site occupancy of spotted owls in the San Bernardino and San Jacinto Mountains of southern California. *Journal of Wildlife Management* 77:1327-1341. <http://onlinelibrary.wiley.com/doi/10.1002/jwmg.581/full>
- Lee DE, Bond ML, Siegel RB. 2012. Dynamics of California Spotted Owl breeding-season site occupancy in burned forests. *The Condor* 114:792-802. <http://www.bioone.org/doi/abs/10.1525/cond.2012.110147>
- Siegel RB, Bond ML, Wilkerson RL, Barr BC, Gardiner C, Kinsella JM. 2012. Lethal *Procyrcyria* nematode infection in a Black-backed Woodpecker (*Picoides arcticus*) in California. *Journal of Zoo and Wildlife Medicine* 43:421-424. <https://doi.org/10.1638/2011-0226.1>
- Lee DE, Bettaso J, Bond ML, Bradley R, Tietz J, Warzybok P. 2011. Growth, age at maturity, and age-specific survival of the Arboreal Salamander (*Aneides lugubris*) on Southeast Farallon Island, California. *Journal of Herpetology* 46:64-71. <https://doi.org/10.1670/10-282>
- Bond ML, Lee DE, Siegel RB. 2010. Winter movements by California Spotted Owls in a burned landscape. *Western Birds* 41:174-180. [https://www.westernfieldornithologists.org/archive/V41/WBirds-V41\(3\)-Bond.pdf](https://www.westernfieldornithologists.org/archive/V41/WBirds-V41(3)-Bond.pdf)
- Bond ML, Lee DE, Siegel RB, Ward, JP Jr. 2009. Habitat selection and use by California spotted owls in a post-fire landscape. *Journal of Wildlife Management* 73:1116-1124. <http://onlinelibrary.wiley.com/doi/10.2193/2008-248/full>
- Bond ML, Lee DE, Bradley CM, Hanson CT. 2009. Influence of pre-fire tree mortality on fire severity in conifer forests of the San Bernardino Mountains, California. *The Open Forest Science Journal* 2:41-47. <https://scholar.google.com/citations?user=5TpUzssAAAAJ&hl=en>
- Wolff JO, Bond ML. 2008. Gray-tailed voles prefer interior to edge habitats. *Acta Theriologica Sinica* 28:1-6. <http://www.mammal.cn/EN/abstract/abstract2162.shtml>

Bond ML, Gutiérrez RJ, Seamans ME. 2004. Modeling nesting habitat selection of California spotted owls (*Strix occidentalis occidentalis*) in the central Sierra Nevada using standard forest inventory metrics. *Forest Science* 50:773-780. <http://www.forest-science.org/>

Bond ML, Wolff JO, Krackow S. 2003. Recruitment sex ratios in gray-tailed voles (*Microtus canicaudus*) in response to density, sex ratio, and season. *Canadian Journal of Zoology*. 81:1306-1311. http://www.nrcresearchpress.com/doi/abs/10.1139/z03-116#.Wm3_djeYM2w

Bond ML, Gutiérrez RJ, Franklin AB, LaHaye WS, May CA, Seamans ME. 2002. Short-term effects of wildfires on spotted owl survival, site fidelity, mate fidelity, and reproduction. *Wildlife Society Bulletin* 30:1022-1028. <http://www.jstor.org/stable/3784267>

Hunter JE, Bond ML. 2001. Residual trees: wildlife associations and recommendations. *Wildlife Society Bulletin*. 29:995-999. <http://www.jstor.org/stable/3784428>

Bond ML, Wolff JO. 1999. Does access to females or competition among males limit home-range size of males in a promiscuous rodent? *Journal of Mammalogy* 80:1243-1250. <http://www.jstor.org/stable/1383174>

Peer-Reviewed Book Chapters

Bond ML. 2015. Mammals and mixed- and high-severity fire. Pages 55-88 in *The Ecological Importance of Mixed-Severity Fires: Nature's Phoenix*. Elsevier Press, Amsterdam, The Netherlands.

Hutto, RL, Bond ML, DellaSala, DA. 2015. Using bird ecology to learn about the benefits of severe fire. Pages 89-117 in *The Ecological Importance of Mixed-Severity Fires: Nature's Phoenix*. Elsevier Press, Amsterdam, The Netherlands.

Peer-Reviewed Reports

Bond ML. 2016. The Heat is On: Spotted Owls and Wildfire. *Online Reference Module in Earth Systems and Environmental Sciences*. Elsevier Press, Amsterdam, The Netherlands.

Bond ML, Siegel RB, Craig DL, editors. 2012. A Conservation Strategy for the Black-backed Woodpecker (*Picoides arcticus*) in California. Version 1.0. The Institute for Bird Populations and California Partners in Flight. Point Reyes Station, California.

Steel ZL, Bond ML, Siegel RB, Pyle P. 2012. Avifauna of Sierra Nevada Network parks: Assessing distribution, abundance, stressors, and conservation opportunities for 145 bird species. Natural Resource Report NPS/SIEN/NRR—2012/506. National Park Service, Fort Collins, CO.

Scientific Presentations

Demography of a Socially and Spatially Structured Giraffe Population (panel presentation). Society for Conservation Biology North American Congress, Toronto, Canada, July 2018.

Project GIRAFFE: GIRAffe Facing Fragmentation Effects (presentation). Giraffid 2016 Conference, Chicago, Illinois, USA, May 2016.

Occupancy of California Spotted Owls Sites after Large Fire (presentation). Wildlife Society Annual Conference, Winnipeg, Manitoba, Canada, October 2015.

Resource-based Scaling of Home-Range Size in Black-backed Woodpeckers (poster). Western Section Wildlife Society Annual Conference, Reno, Nevada, USA, February 2014.

Giraffe Skin Disease: Epidemiology of an Emerging Disease (poster). Association of Zoos and Aquariums Annual Conference, Phoenix, Arizona, USA, September 2012.

Post-fire Habitat Use by the Black-backed Woodpecker (presentation). Interior West Fire Ecology Conference, Salt Lake City, Utah, USA, November 2011.

- Dynamics of California Spotted Owl Breeding-season Site Occupancy in Burned Forests* (poster). Wildlife Society Annual Conference, Kona, Hawaii, USA, November 2011.
- Habitat Use and Selection by California Spotted Owls in a Postfire Landscape* (presentation). Wildlife Society Annual Conference, Monterey, California, USA, September 2009.
- Fire in the Sierra Nevada: Wildlife* (panel presentation). Sierra Nevada Alliance 15th Annual Conference, Lake Tahoe, California, USA, September 2008.
- Short-term Effects of Wildfires on Spotted Owl Survival, Site Fidelity, Mate Fidelity, and Reproduction* (poster). Fire 2002: Managing Fire and Fuels in the Remaining Wildlands and Open Spaces of the Southwestern United States, San Diego, California, USA, December 2002.
- Density of Old Growth Trees in the Central Sierra Nevada: Do Spotted Owl Nesting Areas Reflect Densities Found in Old Forest Areas?* (presentation). Carnivores 2002, Monterey, California, USA, November 2002.
- Density, Sex Ratio, and Space Use in Gray-tailed Voles* (presentation). Humboldt State University Department of Wildlife Seminar, Arcata, California, USA, November 1999.
- Sex Ratio, Space Use, and Edge Effects in the Gray-tailed Vole: Field Tests of Alternative Hypotheses* (presentation). University of Memphis Department of Biology Seminar, Memphis, Tennessee, USA, March 1999.
- Density, Sex Ratio, and Space Use of Male Gray-tailed Voles* (presentation). Northwest Scientific Association/Society for Northwestern Vertebrate Biology Annual Meeting, Portland, Oregon, USA, March 1998.