

Brian D. Gerber

Department of Natural Resources Science
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Professional Experience

- 2023 - Current. Research Ecologist and Assistant Unit Leader, U.S. Geological Survey, Colorado Cooperative Fish and Wildlife Research Unit and Associate Professor in the Department of Fish, Wildlife, and Conservation Biology, Colorado State University, Fort Collins, Colorado 80523-1484 USA.
- 2022 - 2023. Associate Professor, Department of Natural Resources Science, University of Rhode Island. *Quantitative wildlife ecology research focused on population, community, and behavioral ecology, conservation decision making, and ecological statistics.*
- 2017 - 2022. Assistant Professor, Department of Natural Resources Science, University of Rhode Island.
- 2016 - 2017. Postdoctoral Researcher, Department of Fish, Wildlife and Conservation Biology, Colorado State University, Fort Collins, Colorado. Supervisor: Dr. Mevin Hooten.
- 2015 - 2016. Postdoctoral Researcher, Department of Fish, Wildlife and Conservation Biology, Colorado State University, Fort Collins, Colorado. Supervisors: Dr. Larissa Bailey and Dr. Sarah Converse (USGS).

Education

- 2011 - 2015. **Ph.D.**, Fish, Wildlife and Conservation Biology, Colorado State University. Dissertation: *Sandhill crane population monitoring, modeling, and harvest decision making*. Student of the Colorado Cooperative Fish and Wildlife Research Unit; Advised by Dr. William L. Kendall.
- 2007 - 2010. **M.S.**, Fisheries and Wildlife Sciences, Virginia Tech. Thesis: *Comparing density analyses and carnivore ecology in Madagascar's southeastern rainforest*. Advised by Dr. Sarah M. Karpanty. **National Science Foundation Graduate Research Fellow**.
- 2000 - 2003. **B.S.**, Cum Laude, Wildlife and Fisheries Conservation, University of Massachusetts, Amherst, Massachusetts. **Study Abroad**: EcoLife Wildlife Conservation Expedition, Pretoria University, South Africa.

Extramural Grants

Awarded

- 2023. **Gerber, BD**. *White-tailed deer population estimation in Rhode Island via aerial infrared sensors*. Awarded by the Rhode Island Department of Environmental Management. \$123,251.62
- 2022. **Gerber, BD**. *Odor Misinformation Tactics as a Predator Management Strategy for Atlantic Coast Beach-Nesting Birds*. Awarded by the Rhode Island Department of Environmental Management. \$73,498.74
- 2021. McGreevy, TJ and **Gerber, BD**. *Population Estimation of New England Cottontail to Restore Mainland Populations*. Awarded by the Rhode Island Department of Environmental Management. \$1,197,249.
- 2020. **Gerber, BD**. *Transparent Modeling of Collision Risk for Three Federally listed Bird Species to Offshore Wind Development*. Awarded by the Bureau of Ocean Energy Management and the US Fish and Wildlife Service. \$221,778.
- 2020. **Gerber, BD**. *Spatial and Population Ecology of Fisher in Rhode Island*. Awarded by the Rhode Island Department of Environmental Management. \$675,591.00.
- 2020. **Gerber, BD**. *Semi-Aquatic Mammal Distribution in Rhode Island*. Awarded by the Rhode Island Department of Environmental Management. \$464,223.00
- 2019. McGreevy, TJ and **Gerber, BD**. *Applied Ecology and Conservation Genetics in Support of the Management of Bobcat (*Lynx rufus*) and American Black Bear (*Ursus americanus*) in Rhode Island*. Awarded by the Rhode Island Department of Environmental Management. \$197,908.
- 2019. McGreevy, TJ and **Gerber, BD**. *Conservation Genetics and Applied Ecology to Support Wildlife Management of New England Cottontail*. Awarded by the Rhode Island Department of Environmental Management. \$248,746.00.
- 2018. **Gerber, BD**. *Population Monitoring of White-tailed Deer in Rhode Island*. Awarded by the Rhode Island Department of Environmental Management. \$188,198.
- 2009. **Gerber, BD** and Karpanty, SM. *Using Camera-Traps and Surveys of Traditional Knowledge to Estimate Population Abundance, Density, and Occupancy of Carnivores in Southeastern Madagascar to Best Design Landscape-level Conservation Strategies*. National Geographic Committee for Research and Exploration Grant. \$19,366.

Pending

- 2022. US Fish & Wildlife Service. \$365,183

Not Awarded

- 2021. CO-PI Proposal to National Estuarine Research Reserve System Science Collaborative 2021. \$112,340.
- 2021. CO-PI Proposal to NSF Cyberinfrastructure (sub-award). \$24,265.1

- 2019. PI Proposal to U.S. Committee of the North American Bird Conservation Initiative: RFP State of the Birds. \$149,212.
- 2019. CO-PI Proposal to Google AI Impact Challenge. \$1,674,596.
- 2018. CO-PI Pre-Proposal to U.S. Department of Defense. \$222,000.
- 2018. CO-PI Proposal to National Geographic. \$20,000.
- 2017. CO-PI Proposal to Canadian Infectious Diseases and Climate Change Fund. \$2,222,024.

Mentoring

Name	Position	Role	Status
Dr. Edwige Bellier	Postdoc	Supervisor	2021-Current
Dr. Kadambari Devarajan	Postdoc	Supervisor	2021-2023
Dr. Christopher Field	Postdoc	Supervisor	2020-2021
Dr. Wales Carter	Postdoc	Co-Supervisor	2020-2021
Laken Ganoë	Ph.D.	Supervisor	2020-Current
John Crockett	Ph.D.	Supervisor	2020-Current
Nicole Defelice	M.S.	Co-Supervisor	2022-Current
Le Tan Quy	M.S. (Vietnam)	Co-Supervisor	2021-Current
Dylan Ferreira	M.S.	Supervisor	2018-2022
Kimberly Rivera	M.S.	Supervisor	2019-2021
Juliana Massseloux	M.S.	Supervisor	2018-2021
Erin Wampole	M.S.	Supervisor	2018-2021
Nicole Keefner	M.S.	Co-Supervisor	2018-2020
Marissa Ardovino	M.S.	Committee Member	2023-Current
Kylie Rezendes	Ph.D. (UT El Paso)	Committee Member	2022-Current
Colby Kresge	M.S.	Committee Member	2022-Current
Liam Corcoran	M.S.	Committee Member	2022-Current
Samantha Schofield	Ph.D.	Committee Member	2021-Current
Tori Mezebish	Ph.D.	Committee Member	2021-Current
Ryan Healey	M.S.	Committee Member	2021-2022
Noah Hallisey	M.S.	Committee Member	2020-2021
Dina Matyuhkina	M.S. (SUNY-ESF)	Committee Member	2017-2021
Kayla Kleinbauer	B.S.	Research Adviser	2022
Paige Letzelter	B.S.	Research Adviser	2022
Alexandra Piedoux	B.S.	Research Adviser	2022
Kylie Rezendes	B.S.	Research Adviser	2019-2022
Jessie Adley	B.S.	Research Adviser	2020-2022
Ruby Nguyen	B.S.	Thesis/Research Adviser	2019-2021
Emma Paton	B.S.	Research Adviser	2020
Julie Muller	B.S.	Research Adviser	2020
Antonio Callejas	B.S.	Research Adviser	2020

Maegan Shanaghan	B.S.	Research Adviser	2020
Jessica Burr	B.S.	Research Adviser	2019-2020
Aimee Reynolds	B.S.	Research Adviser	2018
Samira Lazar	B.S.	Research Adviser	2018
Keelyn Kotecki	B.S.	Research Adviser	2018

Scientific Advising (Current)

- Wildlife Population Modeling and Estimation. Ontario Ministry of Natural Resources, Canada. Since 2017.
- Amur Tiger and Leopard Population Demography. Wildlife Conservation Society, Terney, Russia. Since 2016.
- Javan Rhino Demography. World Wildlife Fund, Bogor, Indonesia. Since 2013
- Avian Collision Risk. EDM International, Inc., Fort Collins, CO. Since 2012.

Refereed Publications

Click on published titles to link to article.

* = undergraduate/graduate student/research associate/postdoc

Notable press and online research attention via [Altmetric \(link\)](#) is highlighted in cyan.

[ResearchGate Profile \(link\)](#)

[Google Scholar Profile \(link\)](#)

In Press

- [60] Wampole, E*, Farris, ZJ, Razafy, P*, and **Gerber, BD**. **In Press**. Forest carnivores living on the edge with invasive predators. *Animal Conservation*.

2023

- [59] Mayer, AE*, Ganoë, LS*, Brown, C, and **Gerber, BD**. Diel activity structures occurrence of mammal community in human dominated landscape. *In Press*. *Ecology and Evolution*, Special Issue.
- [58] Ivan, JS, Newkirk, ES, and **Gerber, BD**. 2023. Differential impacts of spruce beetle outbreaks on snowshoe hares and red squirrels in the southern Rocky Mountains. *Forest Ecology & Management*, 544, 121147.
- [57] **Gerber, BD**, Mosher, B, Bailey, L, Muths, E, Crockett, H, and Converse, SJ. 2023. Optimal management decisions are robust to unknown dynamics in an amphibian metapopulation plagued by disease. *Animal Conservation*.

2022

- [56] Carter, W*, McGreevy TJ, Mayer, AE*, Sullivan, ME, Tefft, BC, **Gerber, BD**, and Husband, TP. **2022**. High similarity in diet between imperiled New England cottontail and invasive eastern cottontail. *Journal of Fish and Wildlife Management*. <https://doi.org/10.3996/JFWM-22-05>.
- [55] Masseloux, J*, Tan Le, Q*, Burr, J*, and **Gerber, BD**. 2022. Estimating arboreality and the effects of forest structure on tropical tree-dwelling mesomammals using arboreal camera traps. *Animal Conservation*. <https://doi.org/10.1111/acv.12822>
- [54] Rivera, K*, Fidino, M, Farris, ZJ, Murphy, A, Magle, S, and **Gerber, BD**. 2022. Rethinking habitat occupancy modeling and the role of diel activity in an anthropogenic world. *American Naturalist*, 200, 4, 556-570. Github repository.
- [53] Kays, R,, **Gerber, BD**, Rezendes, K*, Adley, J* et al. 2022. SNAPSHOT USA 2020: A second coordinated national camera trap survey of the United States during the COVID-19 Pandemic. *Ecology*, 103:e3775.
- [52] Hallisey, N*, Buchanan, SW, **Gerber, BD**, Corcoran, LS*, and Karraker, NE. 2022. Addressing Imperfect Detection in Road Mortality Hotspot Models: A Case Study with Amphibians and Reptiles. *Land*, 11, 739.
- [51] Betts, BG, Yang, Z, Hadley, AS, Rousseau, JS, Northrup, JM, Nocera, JJ, Taylor, PD, Gorelick, N, and **Gerber, BD**. 2022. Forest degradation, not loss, drives widespread avian population declines in eastern Canada. *Nature Ecology & Evolution*, 6, 709-719. [Editorial: Old forests are not replaceable \(link\)](#).
- [50] Davy, CM, Von Zuben, V, Kukka, P, **Gerber, BD**, Slaughter, B, and Jung, T. 2022. Rapidly declining body size in an insectivorous bat is associated with increased precipitation and decreased survival. *Ecological Applications*, 32: e2639.
- [49] Gallo, T, Fidino, M, **Gerber, BD**, Ahlers, AA, Angstmann, JA, et al. 2022. Mammals adjust diel activity across gradients of urbanization. *eLife*, 11:e74756.
- [48] Masseloux, J*, Tan Le*, Q, Burr, J*, and **Gerber, BD**. 2022. Forest structure shapes tropical mammal communities in a historically disturbed protected area. *Ecosphere*, 13:e3999.
- [47] Mayer, A*, McGreevy, TJ, Brown, C, Ganoë, L*, and **Gerber, BD**. 2022. Transient persistence of bobcat (*Lynx rufus*) occurrence throughout a human-dominated landscape. *Population Ecology*, 64, 323-335.
- [46] Wampole, EM*, **Gerber, BD**, Farris, ZJ, Razafimahaimodison, JC, Andrianarisoa, MH, Ralazampirenena, CJ, Wright, PC, et al. 2022. Madagascar Terrestrial Camera Survey Database 2021: A collation of protected forest camera surveys from 2007-2021. *Ecology*, 103:e3687.

2021

- [45] Mayer, AE*, McGreevy, TJ, Sullivan, M, Brown, C, Husband, T, and **Gerber, BD**. 2021. Population genetics and ecology of bobcats (*Lynx rufus*) in a high human

- density landscape of New England. *Northeast Naturalist*, 28, 408-429.
- [44] Northrup, J., Vander Wal, E, Bonar, M, Fieberg, J, Laforge, MP, Leclerc, M, Prokopenko, C., and **Gerber, BD**. 2021. Conceptual and methodological advances in habitat selection modeling: guidelines for ecology and evolution. *Ecological Applications*, 32:e02470.
- [43] Cove, M,, **Gerber, BD**, Burr, J*, et al. 2021. SNAPSHOT USA 2019: the first coordinated national camera trap survey of the United States. *Ecology*, 102:e03353
- [42] Northrup, J, Anderson, C, **Gerber, BD**, and Wittemeyer, G. 2021. Behavioral and demographic responses of mule deer to energy development on winter range. *Wildlife Monograph*, 208, 1-37.
- [41] Wampole, E.* , Farris, Z, and **Gerber, BD**. 2021. A synthesis of life-history, functional traits, and consequences of anthropogenic pressures on Madagascar’s threatened carnivorans, Eupleridae. *Mammal Review*, 51, 402-419.
- [40] Baden, A, Oliveras, J, and **Gerber, BD**. 2021. Sex-segregated range use by black-and-white ruffed lemurs (*Varecia variegata*) in Ranomafana National Park, Madagascar. *Folia Primatologica*, 92, 12-34.

2020

- [39] Betts, MG, Northrup, JM, Bailey Guerrero, JA, Adrean, LJ, Nelson, SK, Fisher, JL, **Gerber, BD**, Garcia-Heras, MS, Yang, Z, Roby, DD, and Rivers, J. 2020. Squeezed by a habitat split: warm ocean conditions and old-forest loss interact to reduce long-term occupancy of a threatened seabird. *Conservation Letters*, 13:e12745.
- [38] Ross, P*, Patel, E, Ferguson, B, Ravelijaona, R, Raoloniana, G, Wampole, E*, **Gerber, BD**, and Farris, Z. 2020. Assessment of the threatened carnivore community in the recently expanded rainforest protected area Anjanaharibe-Sud Special Reserve, Madagascar. *Endangered Species Research*. DOI: <https://doi.org/10.3354/esr01055>.
- [37] Cordes, L, Blumstein, DT, Armitage, KB, CaraDonna, PJ, Childs, DZ, **Gerber, BD**, Martin, JGA, Oli, MK, and Ozgul, A. 2020. Contrasting effects of climate change on seasonal survival of a seasonally active mammal. *Proceedings of the National Academy of Science*, 117, 18119-18126.
- [36] Farris ZJ¹, **Gerber, BD**¹, Karpanty, S, Murphy, A*, Wampole, E*, Ratelolahy, F, and Kelly, M. 2020. Exploring and interpreting spatiotemporal interactions among native-invasive carnivores across a gradient of rainforest degradation. *Biological Invasions*, 22, 2033-2047. ¹Authors contributed equally.
- [35] **Gerber, BD** and Northrup, JM. 2020. Improving spatial predictions of animal resource selection to guide conservation decision making. *Ecology*, 101:e02953.
- [34] Dwyer, JF, **Gerber, BD**, Petersen, P, Armstrong, WE, and Harness, R. 2020. Power pole density and avian electrocution risk throughout the western United States. *Journal of Raptor Research*, 54:93–109.

2019

- [33] **Gerber, BD**, Hooten, MB, Peck, CP, Rice, MB, Gammonley, JH, Apa, AD, and Davis, AJ. 2019. Spatial structuring by extreme site fidelity as an optimal strategy in an unpredictable and homogeneous environment. *Functional Ecology*, 33, 1695-1707. [Plain Language Summary \(link\)](#). [Blog Post \(link\)](#).

2018

- [32] Chanchani, P*, **Gerber, BD**, Noon, B. 2018. Elevated potential for intraspecific competition in small tiger populations occupying fragmented landscapes. *Biological Conservation*, 227, 275-283.
- [31] **Gerber, BD**, Hooten, MB, Peck, CP, Rice, MB, Gammonley, JH, Apa, AD, and Davis, AJ. 2018. Accounting for location uncertainty in azimuthal telemetry data improves ecological inference. *Movement Ecology*, 6, 14
- [30] Vitkalova, AV, Feng, L, Rybin, AN, **Gerber, BD**, Wang, T, Yang, H, Miquelle, DG, Shevtsova, EI, Aramilev, VV, Ge, J. 2018. Transboundary cooperation improves endangered species monitoring and conservation actions: a case study of the global population of Amur leopards. *Conservation Letters*, 11:e12574. DOI: 10.1111/conl.12574. [Altmetric \(link\): Highlighted by 25 news outlets, top 5% of research ever tracked](#).
- [29] **Gerber, BD** and Kendall, WL. 2018. Adaptive management of animal populations with significant unknowns and uncertainties: a case study. *Ecological Applications*, 28, 1325-1341.
- [28] Murphy, A*, **Gerber, BD**, Kelly, MJ, Karpanty, S, Ratelohy, F, and Farris, ZJ. 2018. Making the most of sparse data to estimate density of a rare and threatened species: a case study with the fosa, a little-studied Malagasy carnivore. *Animal Conservation*, 21, 496-504. [Altmetric \(link\): In the top 5% of all research outputs scored by Altmetric](#).
- [27] Northrup, J and **Gerber, BD**. 2018. A comment on Bayesian occupancy priors. *Plos One*, 13:e0192819.

2017

- [26] **Gerber, BD**, Converse, SJ, Crockett, H, Muths, E, Mosher, B*, and Bailey, L. 2017. Identifying amphibian conservation strategies to reduce disease-associated declines. *Conservation Letters*, 11:e12393. [Altmetric \(link\): In the top 5% of all research outputs scored by Altmetric](#).
- [25] Setash, C*, Zohdy, S, **Gerber, BD**, and Karanewsky, C. 2017. A biogeographical perspective on the variation in mouse lemur density across Madagascar. *Mammal Review*, 47, 212-229.
- [24] Setiawan, R, **Gerber, BD**, Rahmat, UM, Daryan, D, Firdaus, AY, Haryono, M, et al. 2017. Preventing global extinction of the Javan rhino: tsunami risk and future con-

servation direction. *Conservation Letters*, 11:e12366. [Altmetric \(link\): Highlighted by 16 news outlets, top 5% of research ever tracked.](#)

- [23] Seymour, AS, Tarrant, MR, **Gerber, BD**, Sharp, A, Woollam J, and Cox, R. 2017. Effects of El Niño on the population dynamics of the Malay civet east of the Wallace line. *Journal of Zoology*, 303, 120-128.
- [22] Farris, ZJ, **Gerber, BD**, Valenta, K, Rafaliarison, R, Razafimahaimodison, JC, Larney, E, Hariniaina, T, Randriana, Z, Wright, PC, and Chapman, CA. 2017. Threats to a rainforest carnivore community: a multi-year assessment of occupancy and co-occurrence in Madagascar. *Biological Conservation*, 210, 116-124. [Altmetric \(link\): In the top 5% of all research ever tracked.](#)
- [21] **Gerber, BD** and Kendall, WL. 2017. Evaluating and improving count-based population inference: A case study from 31 years of monitoring sandhill cranes. *Condor: Ornithological Applications*, 119, 191-206.
- [20] Converse, SJ, Bailey, LL, Mosher*, B, Funk, C, **Gerber, BD**, and Muths, E. 2017. A model to inform management actions as a response to Chytridiomycosis-Associated Decline. *EcoHealth*, 14, S144-S155.

2016

- [19] Brown, KA, Farris, ZJ, Yesuf, G, **Gerber, BD**, Rasambainarivo, D, Karpanty, S, Kelly, MJ, Razafimahaimodison, JC, Larney, E, Wright, P, and Johnson, SE. 2016. Modeling co-occurrence between toxic prey and naïve predators in an incipient invasion. *Biodiversity and Conservation*, 25, 2723-2741.
- [18] **Gerber, BD** and Kendall, WC. 2016. Considering transient population dynamics in the conservation of slow life-history species: an application to the sandhill crane. *Biological Conservation*, 200, 228-239.
- [17] Dwyer, JF, Harness, RE, **Gerber, BD**, Landon, MA, Petersen, P, Austin, D, and Eccleston, D. 2016. Power pole density informs spatial prioritization for mitigating avian electrocution. *Journal of Wildlife Management*, 80, 634:642.

2015

- [16] **Gerber, BD**, Kendall, WL, Hooten, MB, Dubovsky, JA, and Drewien, RC. 2015. Optimal population prediction of sandhill crane recruitment based on climate-mediated habitat limitations. *Journal of Animal Ecology*, 84, 1299-1310.
- [15] Farris, Z, **Gerber, BD**, Karpanty, SM, Murphy, A*, Andrianjakarivelo V, Ratelolahy, F, and Kelly, M. 2015. When the carnivores roam: temporal partitioning among Madagascar's native and exotic carnivores. *Journal of Zoology*, 296, 45-57.
- [14] **Gerber, BD** and Parmenter, RR. 2015. Spatial capture-recapture model performance with known small-mammal densities. *Ecological Applications*, 25, 695-705.
- [13] Kotschwar-Logan, M, **Gerber, BD**, Karpanty, SM, Justin, S, and Rabenahy, F. 2015.

Assessing carnivore distribution from local knowledge across a human-dominated landscape in central-southeastern Madagascar. *Animal Conservation*, 18, 82-91.

2014

- [12] Zohdy, S, **Gerber, BD**, Tecot, S, Blanco, MB, Wright, PC, and Jernvall, J. 2014. Teeth, sex, and testosterone: Aging in the world's smallest primate. *PLOS ONE*, e109528.
- [11] Shannon, G, Lewis, J, and **Gerber, BD**. 2014. Recommended survey designs for occupancy modeling using motion-activated cameras: insights from empirical wildlife data. *PeerJ*, 2:e532.
- [10] **Gerber, BD**, Williams, PJ, and Bailey, LL. 2014. Primates and Cameras. *International Journal of Primatology*, 35, 841-858. **Invited.**
- [9] **Gerber, BD**, Ivan, JS, and Burnham, KP. 2014. Estimating the abundance of rare and elusive carnivores from photographic-sampling data when the population size is very small. *Population Ecology*, 56, 463-470. **Editors Choice.**

2013

- [8] Sporer,, MK, Dwyer, JF, **Gerber, BD**, Harness, RE, and Pandey, AK. 2013. Marking power lines reduces avian collisions near the Audubon National Wildlife Refuge, North Dakota. *Wildlife Society Bulletin*, 37, 796-804.
- [7] Tecot, S, **Gerber, BD**, King, SJ, Verdolin, JL, and Wright, PC. 2013. Risky business: Sex differences in mortality and dispersal in a polygynous, monomorphic lemur, Milne-Edwards' sifaka (*Propithecus edwardsi*). *Behavioral Ecology*, 24, 987-996.

2012

- [6] **Gerber, BD**, Karpanty, SM, and Randrianantenaina, J. 2012. The impact of forest logging and fragmentation on carnivore species composition, density, and occupancy in Madagascar's southeastern rainforests. *Oryx*, 46, 414-422.
- [5] **Gerber, BD**, Karpanty, SM, and Randrianantenaina, J. 2012. Activity patterns of carnivores in the rain forests of Madagascar: implications for species coexistence. *Journal of Mammalogy*, 93, 667-676.
- [4] **Gerber, BD**, Arrigo-Nelson, S, Karpanty, S, Kotschwar, M, and Wright, PC. 2012. Spatial ecology of the endangered Milne-Edwards' sifaka (*Propithecus edwardsi*): Do logging and season affect home range and daily ranging patterns? *International Journal of Primatology*, 33, 305-321.
- [3] **Gerber, BD**, Karpanty, SM, and Kelly, MJ. 2012. Evaluating the potential biases in carnivore capture-recapture studies associated with the use of lure and varying density estimation techniques using photographic-sampling data of the Malagasy civet.

2011

- [2] Cohen, JB, **Gerber, BD**, Karpanty, SM, Fraser, JD, and Truitt, BR. 2011. Day and night foraging of Red knots (*Calidris canutus*) during spring stopover in Virginia, USA. *Waterbirds*, 34, 352-356.

2010

- [1] **Gerber, BD**, Karpanty, SM, Crawford, C, Kotschwar, M, and Randrianantenaina, J. 2010. An assessment of carnivore relative abundance and density in the eastern rainforests of Madagascar using remotely-triggered camera traps. *Oryx*, 44, 219-222.

Book Chapters

- [7] **Gerber, BD** and Hawkins, CE. 2022. *Cryptoprocta ferox, fosa*. In The new natural history of Madagascar. ed. S. M. Goodman. Princeton, Princeton University Press.
- [6] Farris, ZJ, **Gerber, BD**, Murphy, A*, and Wampole, E*. 2022. *Camera Trapping Madagascar*. In The new natural history of Madagascar. ed. S. M. Goodman. Princeton, Princeton University Press.
- [5] Rivera, K*, **Gerber, BD**, and Farris, ZJ. 2022. *Eupleres goudotii, small-toothed civet, falanouc*. In The new natural history of Madagascar. ed. S. M. Goodman. Princeton, Princeton University Press.
- [4] Farris, Z, **Gerber, BD**, Kelly, M, Karpanty, SM, Ratelolahy, F, and Andrianjakarivelo V. 2022. Spatio-temporal overlap between a native and exotic carnivore in Madagascar: evidence of competitive exclusion. In *Small Carnivores: Evolution, Ecology, Behaviour & Conservation*. E. Do Linh San, JL. Sato, JL. Belant, & MJ Somers, Eds. Oxford, Wiley-Blackwell.
- [3] **Gerber, BD** and Williams, PJ. 2020. Decision making and monitoring strategies in natural resource management and conservation. In *Terrestrial Ecosystems and Biodiversity, The Handbook of Natural Resources, Second Edition*. Yeqiao Wang, Eds. CRC Press.
- [2] **Gerber, BD**, Mosher, BA, Martin, D, Chambert, T, Bailey, LL. 2018. Occupancy Models. In *Program MARK - A Gentle Introduction* E. Cooch, Ed. Published online: <http://www.phidot.org/software/mark/docs/book/pdf/chap21.pdf>
- [1] **Gerber, BD**, Dwyer, JD, Nesbitt, SA, Drewien, RC, Littlefield CD, Tacha, TC, and Vohs, PA. 2014. Sandhill Crane (*Grus canadensis*). In *The Birds of North America*

Online. A. Poole, Ed. Ithaca: Cornell Lab of Ornithology; Birds of North America Online.

Science Outreach/Communication

Click on title to link to article.

- [6] Ganoë, L*, Brown, C, and **Gerber, BD**. Spatial and Population Ecology of Fisher in Rhode Island Martes Working Group Newsletter. Published online September 1, 2020.
 - [5] Harrington, ER* and **Gerber, BD**. The Mysterious Case of the Disappearing Javan Rhino. *Frontiers for Young Minds*. Published online September 19, 2019.
 - [4] **Gerber, BD**. Sage grouse and site-fidelity: moving beyond the win-stay:lose-switch rule. *Insights: Functional Ecology Blog*. Published online June 24, 2019.
 - [3] **Gerber, BD**. The grouse that stays put because leaving is worse. *Functional Ecology*. Published online June 22, 2019.
 - [2] Mosher, BM, **Gerber, BD**, Bailey LL. Saving amphibians from a deadly fungus means acting without knowing all the answers. *The Conversation*. Published online September 20, 2017. > [3K readers as of August 2018](#).
 - [1] **Gerber, BD**. Saving Javan rhinos from extinction starts with counting them - and it's not easy. *The Conversation*. Published online May 30, 2017. Bahasa translation published online October 6, 2017. > [7.5K readers as of August 2018](#).
-

Publications in Progress

- Matiukhina, DS, Miquelle, DG, Hebblewhite, M, **Gerber, BD**, Storozhuka, VB, Titova, AS, Sedasha, GA, Sonina, PL, and Frair, J. In Prep. Does recovering Amur tiger limit Amur leopard distribution and reproduction in the Russian Far East?
- Barton, O, **Gerber, BD.**, Cordes, L, Healey, J, and Shannon, G. In review. Covariates increase the efficiency of estimating species occupancy from camera-trap surveys. *Remote Sensing in Ecology and Conservation*
- Twining, JP, ... **Gerber, BD**, McGreevy, TJ, Ganoë, L*, Masseloux, J, Mayer, A* et al. In review. Sociality in unexpected places: Using global remote camera data to evaluate the drivers of social complexity. *Ecology*.
- Chanchani, P, Noon, BR, Bista, A, Warriar, RA, Nair, S, Sharma, R, Gupta, M, **Gerber, BD**. In review. Rethinking conservation zonation: influence of resource gradients and habitat edges on density variation in tiger populations. *Ecosphere*.

- Shamon, H,, Adley, J*, **Gerber, BD**, Rezendes, K* et al. In review. SNAPSHOT USA 2021: A third coordinated national camera trap survey of the United States – initial trends. Ecology.
- Rivera, K*, Garcia-Quijano, C, Sonnet, V*, and **Gerber, BD. In Review.** Fear and animal ownership drive human’s valuation of and interactions with coyote. Urban Ecosystems.
- Carter, W*, McGreevy TJ, Buffum, B, Duhaime, R, Ernst, NT, Ferreira, D*, Husband, TP, Tefft, BC, **Gerber, BD. In Review.** High individual variability in space use by translocated, imperiled New England cottontail in southern New England. Conservation Science and Practice.
- Chanchani, P*, Noon, B, Bista, A, Nair, S, Warriar, R, Sharma, R, and **Gerber, BD. In Review.** Spotlighting conservation zonation: influence of resource gradients and habitat edges on density variation in tiger populations. Frontiers in Ecology and Evolution.
- Farris, ZJ, Villeda, EJ*, Boone, HM*, Porton, I, Freeman, J, Rasambainarivo, F, and **Gerber, BD. In Review.** Seasonal density estimates for threatened and critically endangered lemurs of Betampona Strict Reserve, Madagascar. Primates.
- Burton, C,, **Gerber, BD** et al. In review. Mammal responses to global changes in human activity vary by trophic group and landscape. Nature Ecology & Evolution.

Technical Reports

- Betts, MG, Yang, Z, **Gerber, BD**, and Nocera, J. 2022. *Evaluating Habitat Configuration and Climate Effects on Maintenance of Bird Populations in New Brunswick..* Final Report submitted to the New Brunswick Department of Natural Resources and Energy Development.
- Betts, MG, Yang, Z, Hadley, AS, Rousseau, J, Northrup, J, Nocera, J, Taylor, P, Gorelick, N, and **Gerber, BD.** 2021. *Quantifying long-term bird habitat and population changes in the Maritime Provinces, Canada.* Final Report submitted to the New Brunswick Department of Natural Resources and Energy Development.
- Dwyer, JF, **Gerber, BD**, Petersen, P, Armstrong, W, and Harness RE. 2018. *Power Pole Density and Avian Electrocution Risk in the Northwest Glaciated and Great Plains, the High Plains and Southwest Table Lands, and the Arizona, New Mexico, and Colorado Plateaus.* Final Report submitted to the U.S. Fish and Wildlife Service Western Golden Eagle Team, Lakewood, Colorado, U.S.A.
- Dwyer, JF, **Gerber, BD**, Petersen, P, and Harness RE. 2017. *Power pole density and avian electrocution risk in the Great Basin, the Columbia Plateau, and Montana.* Final Report submitted to the U.S. Fish and Wildlife Service Western Golden Eagle Team, Lakewood, Colorado, U.S.A.

- Gerber, BD** and Kendall, WL. 2013. *Evaluation of decision structures and monitoring programs for managing sandhill cranes*. The Migratory Bird Program - Webless Game Birds - Progress Report.
- Sporer, MK, Dwyer, JF, **Gerber, BD**, Harness, RE, and Pandey, AK. 2012. *Marking Power Lines Reduces Avian Collisions: DE-WA0000266*. EDM International, Inc. Fort Collins, CO.
- Gerber, BD** and Marine, BD. 2006. *Non-invasive carnivore survey at Klong Kruai Wai Wildlife Sanctuary*. Thai Society for the Conservation of Wild Animals. Bangkok, Thailand.
- Gerber, BD** and Marine, BD. 2004. *Orme Breeding Area Report (Granite Reef / Rodeo)*. Arizona Bald Eagle Nestwatch Program Report. Arizona Game and Fish Department, Phoenix, AZ.
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Teaching

University of Rhode Island

- Spring 2018-2021 - NRS402 - Quantitative Wildlife Ecology - 3 Credits - Undergraduate/Graduate class that integrate ecological principles, science philosophy, statistical modeling, and coding.
- Fall 2018-2021 - NRS330G - The Biodiversity Crisis - 3 Credits. A global perspective of biodiversity patterns and issues, connections to human health, and social justice.
- Spring 2020 & Fall 2022 - NRS520 - Quantitative Techniques in Natural Resource Research - 3 Credits. Statistical modeling, linear models, hierarchical Bayesian models, coding, and population ecology.

Workshops (Instructor)

- 2018 - Applied Hierarchical Modeling and Site-Occupancy Workshop. Oregon State University. Corvallis, OR.
- 2018 - Quantitative Teachers: Teaching Strategies for Undergraduate Statistics in the Wildlife Sciences. The Wildlife Society 25th Annual Conference. Cleveland, Ohio.
- 2018 - Population Monitoring Workshop: Design and analysis of ecological data. World Wildlife Fund - India. Goa, India.
- 2018 - Introduction to R and spatial capture-recapture modeling. Joint meeting of World Wildlife Fund and Indonesian Ministry of Environment, Bogor, Indonesia.
- 2016 - Demographic Parameter Estimation of Amur Tiger and Leopard Workshop. Wildlife Conservation Society, Russia Program, Terney, Primorsky Krai, Russia.

2016 - Boreal Toad Recovery Team Structured Decision Making Workshop: Expert Elicitation. USGS Fort Collins Science Center, Fort Collins, CO.

2015 - Analysis of Camera Trap Data Using the Software Program MARK. Colorado State University, Fort Collins, CO.

2014 - Data Analysis Workshop: Javan and Sumatran Rhino Occupancy and Capture-Mark-Recapture. Joint meeting of World Wildlife Fund and Indonesian Ministry of Environment, Bogor, Indonesia.

2014 - Introduction to R Statistical Computing Environment. Joint meeting of the American Ornithologists Union, Cooper Ornithological Society, and the Society of Canadian Ornithologists, Estes Park, CO.

2013 - Introduction to R Statistical Computing Environment. Department of Fish, Wildlife, and Conservation Biology, Colorado State University, Fort Collins, CO.

2013 - Structured Decision Making. U.S. Fish & Wildlife Service, National Conference Training Center, Shepherdstown, WV.

2013 - Intermediate Program MARK. Department of Natural Resource Management, South Dakota State University, Brookings, SD.

2012 - Intermediate Program MARK. Department of Fish, Wildlife, and Conservation Biology, Colorado State University, Fort Collins, CO.

2011 - Introduction to R Statistical Computing Environment, Teaching Assistant. Department of Fish, Wildlife, and Conservation Biology, Colorado State University, Fort Collins, CO.

2008 - Camera Trapping: Theory and Practice. Centre Valbio, Ranomafana, Madagascar.

Guest Lectures

2019 - Invited Panelist to The URI Marine Science Society, Society for Women in Marine Sciences and Student Action for Sustainability for a discussion on the Conservation and Endangered Species. Kingston, RI. April.

2019 - The Journalist's Guide to Understanding and Explaining Probabilities. Metcalf Institute's 21st Annual Science Immersion Workshop for Journalists. Narragansett, RI. June.

2018 - Fundamentals of Probability and Statistics. NRS 568. Kingston, RI. September.

2018 - The Journalist's Guide to Understanding and Explaining Probabilities. Metcalf Institute's 20th Annual Science Immersion Workshop for Journalists. Narragansett, RI. June.

2018 - Quantitative Wildlife Ecology Research. NRS 101. Kingston, RI. February.

2017 - Rare, Elusive, and Challenging (Tropical Mammal Ecology and Conservation). NRS 223. Kingston, RI. September.

2017 - Fish and Wildlife FW475 - Conservation Decision Making. Colorado State University, Fort Collins, CO Lecture: Determining Objectives.

2017 - Fish and Wildlife FW475 - Adaptive Fish and Wildlife Management. Colorado State University, Fort Collins, CO. Lecture: Expert elicitation and accounting for uncertainty.

2016 - Fish and Wildlife FW663 - Sampling and Analysis of Vertebrate Populations. Colorado State University, Fort Collins, CO. Lecture 1: *Abundance estimation with capture recapture models*. Lecture 2: *Goodness of fit testing*.

2015 - Fish and Wildlife 580A3 - Adaptive Management. Colorado State University, Fort Collins, CO. Lecture: *Linked decisions and adaptive management*

2013 - Fish and Wildlife 475 - Conservation Decision Analysis Class. Colorado State University, Fort Collins, CO. Lecture: *Adaptive management in natural resources*

2012 - Anthropology 7020 - Madagascar: Natural History, Biology and Culture. Department of Anthropology, University of Colorado, Boulder, CO. Lecture: *Ecology and conservation of Madagascar's rainforest carnivores*

2010 - Fish and Wildlife 4314 - Conservation Biology. Virginia Tech, Blacksburg, VA. Lecture: *Ecology and conservation of Madagascar's biodiversity*

Software Development

R Packages

- Azimuthal Telemetry Model (ATM) to estimate animal locations using radio-telemetry. The current R package can be found on GitHub and the manuscript at Movement Ecology (link): <https://github.com/bgerber123/razimuth>

Shiny Apps

My research includes developing graphical web applications, 1) to increase the transparency of research findings, 2) for use in training workshops about sampling and modeling wildlife-habitat relationships, and 3) to provide practitioners with tools to investigate conservation decisions on wild animal populations and their distribution. For example (all links are live),

Species Occupancy Modeling

- Bayesian Occupancy Priors: How to choose a prior based on non-invariant parameter link functions: <https://briangerber.shinyapps.io/OccupancyPrior/>
- Investigating how sampling effort affects species occurrence bias and precision: <https://briangerber.shinyapps.io/App-Occupancy1/>

Population Sampling

- Investigating empirical distributions of estimating population size from heterogeneous closed capture recapture data: <https://briangerber.shinyapps.io/App-ClosedCR/>

Population Estimation

- Estimating abundance from capture-recapture data (Bayesian and Likelihood Models) (Indonesian): <https://briangerber.shinyapps.io/App-ClosedCR-Analyses2/>

Conservation Decision Support Tool

- CollideR: simulating collision risk for planning and evaluating offshore wind development. <https://bgerberuri.shinyapps.io/collideR/>
- Boreal toad decision support tool: investigating the spatial dynamics of boreal toads and the chytrid fungus, including the effects of potential management actions, and genetic rescue: https://borealtoad.shinyapps.io/Converse_et_al_EcoHealth
- Boreal toad decision support tool to evaluate conservation decision making: <https://borealtoad.shinyapps.io/SRM-BT-MODEL-Public/>

Fellowships, Certificates, and Awards

Professional

- The College of the Environment and Life Sciences Teaching Award (University of Rhode Island). 2022.

Student

- Oscar and Isabel Anderson Graduate Fellowship. 2015.
- The Biometrics Working Group of The Wildlife Society Student Travel Award. Pittsburgh, PA. October, 2014.
- North American Crane Working Group Travel Award. Lafayette, LA. April, 2014.
- Best Student Paper at the 20th annual Wildlife Society Conference. “*Integrated Population Modeling and Harvest Decisions of Sandhill Cranes*”. Milwaukee, WI. October, 2013.
- Certificate of Appreciation from the National Conservation Training Center. Shepherdstown, WV. August, 2013.
- Eugene Decker Fellowship. 2011 - 2012.
- National Science Foundation Graduate Research Fellowship. 2008 - 2011.
- Outstanding Master’s Student Award in the College of Natural Resources. Virginia Tech, Blacksburg, VA. April, 2010.
- Burd Sheldon McGinnes Graduate Fellowship. 2009.
- Sigma-Xi Award for Master’s Degree Candidate. Blacksburg, VA. September, 2009.
- The Wildlife Society 16th Annual Conference Student Travel Award. Monterey, CA. September, 2009.
- Sigma-Xi Grants-in-Aid Research Program. 2008.

- Virginia Tech Graduate Research Development Program Award. Blacksburg, VA. April 2008.
- The John Neal Memorial M.S. Research Award. Virginia Tech, Blacksburg, VA. April, 2009.
- Certificate of Appreciation from the U. S. Forest Service, Department of Agriculture. October, 2004.
- Outstanding Undergraduate Senior Award in Wildlife. University of Massachusetts, Amherst, MA. September, 2003.
- Hokkaido Scholarship. University of Massachusetts, Amherst, MA. Spring, 2003.
- Outstanding Undergraduate Junior Award in Wildlife. University of Massachusetts, Amherst, MA. September, 2002.
- Charles Mason Powell Scholarship/Wildlife. University of Massachusetts, Amherst, MA. January, 2002.

Professional Activities

- **Panel/Grant/Fellowship Reviewer**
 - NSF Ecology Panel 2020-2021, 2021-2022, 2022-2023.
 - USGS FSP Reviewer: June 2017, July 2017, October 2019.
 - Hatch Reviewer: July, 2018.
 - Annual Reviewer of Wildlife Society Conference Abstracts (2018-Current).
 - Annual Reviewer of Conservation Biology Conference Abstracts (2018-Current).
- **Contributing Journal Reviewer (Verified at Publons (link))**
 - *Conservation*: Animal Conservation; Biodiversity and Conservation; Biological Conservation; Conservation Biology; Conservation Letters; Conservation Science and Practice; Global Ecology and Conservation; International Journal of Biodiversity and Conservation; IUCN Otter Specialist Group Bulletin; Oryx.
 - *Ecology*: Biotropica; Diversity and Distributions, Ecological Applications, Ecological Monograph; Ecology; Ecology and Evolution; Ecosphere; Functional Ecology; Global Change Biology; Journal of Applied Ecology; Journal of Animal Ecology; Population Ecology.
 - *Statistical/Methodological*: Annals of Applied Statistics; Journal of Agricultural, Biological, and Environmental Statistics; Methods in Ecology and Evolution; The Condor: Ornithological Applications.
 - *Taxa-Specific*: Amphibia-Reptilia, Avian Conservation and Ecology, Copeia; Hystrix (Italian Journal of Mammalogy); International Journal of Primatology; IUCN Otter

Specialist Group Bulletin; Journal of Avian Biology; Journal of Mammalogy; Journal of Zoology, Raptor Research.

- *Wildlife*: Wildlife Research; Journal of Wildlife Management; Wildlife Society Bulletin.
- *Naturalist*: American Midland Naturalist; Western North American Naturalist.
- *Science*: PLoS One; Scientific Reports.
- **Society Member**
 - Society of Conservation Biology (since 2016)
 - Ecological Society of America Member (since 2013)
 - International Primate Society Member (since 2011)
 - The Wildlife Society Member (since 2008)
 - The Wildlife Society Biometrics Working Group Board Member (2019-2020, 2022-2023)
 - Sigma-Xi Member (2007-2012)
- **Other**
 - Wildlife Society Annual Conference 2013, Milwaukee, Volunteer

Scientific Advising (Former)

- 2017, Biometrician and Software Consultant. *Conservation International's Tropical Ecology Assessment and Monitoring Network*. Focus: Developing a graphical web app ('shiny app') that uses basic and advanced ecological modeling and mapping to interpret camera trap data that is useful for the research community and conservation practitioners.
- 2015, Ecological Advisor. *WWF Forest Stewardship Certificate Biodiversity Impacts, World Wildlife Fund, Peru, Lima*. Focus: Developing a research framework to understand biodiversity variation across different forest practices.
- 2011 - 2012, Spatial Analyst. *California University of Pennsylvania, California, PA*. Focus: Assessing the impacts of invasive species on native biodiversity in Madagascar rainforests.

Research Presentations

Click on presentation title to download; select talks.

* = lead presenter is undergraduate/graduate student

Oral Presentations

2022

(Invited) The Wildlife Society 29th Annual Conference. Northrup, JM, Vander Wal, E, Bonar, M, Fieberg, J, Laforge, MP, Leclerc, M, Prokopenko, CM, and **Gerber, BD** (presenter). *Conceptual and Methodological Advances in Habitat Selection Modeling*; November.

2022*

The Wildlife Society 29th Annual Conference. Crockett, J, Brown, C, and **Gerber, BD**. *Quantifying muskrat habitat use in Rhode Island wetlands*; November.

2022*

The Wildlife Society 29th Annual Conference. Ganoë, L, Mayer, A, Brown, C, and **Gerber, BD**. *Impacts of urbanization and large-scale natural disturbances on fisher habitat selection in Rhode Island*; November.

2022*

The Wildlife Society 29th Annual Conference. Bellier, E, Ferreira, D, Kalb, D, and **Gerber, BD**. *A Bayesian hierarchical approach for statistical population reconstruction of harvested wildlife*; November.

2022*

The Wildlife Society 29th Annual Conference. Rivera, K, and **Gerber, BD**. *Fear and Animal Ownership Drive Human's Valuation of and Interactions with Coyote*; November.

2021

The Wildlife Society 28th Annual Conference. Fidino, M, Rivera, K, and **Gerber, BD**. *Rethinking mammal habitat occupancy modeling and the role of diel activity in an anthropogenic world*; October.

2021*

International Congress for Conservation Biology. Bakhshi, R, Chanchani, P, Poulsen, J, and **Gerber, BD**. *Investigating Human-Carnivore Conflict Dynamics and Compensation Payment Processes in a Landscape of Coexistence*; December.

2021

Ecological Society of America. Betts, BG, Yang, Z, Hadley, AS, Rousseau, JS, Northrup, JM, Nocera, JJ, Taylor, PD, Gorelick, N, and **Gerber, BD**. *Forest degradation, not loss, drives widespread avian population declines in eastern Canada*. August.

2021

International Urban Wildlife Conference. Fidino, M, Rivera, K, and **Gerber, BD**. *Rethinking mammal habitat occupancy modeling and the role of diel activity in an anthropogenic world*; April.

- 2020 New York State Environmental Technical Working Group: State of the Science Workshop on Wildlife and Offshore Wind Energy 2020: Cumulative Impacts. Field, C, Loring, P, and **Gerber, BD**. *Updating Collision Risk Models to Quantify Cumulative Impacts for Endangered Birds*.
- 2020 National Wind Coordinating Collaborative. Field, C, Loring, P, and **Gerber, BD**. *Collision risk modeling and decision support for endangered birds in the western Atlantic*.
- 2020
(Invited) University of Maine - Department of Wildlife, Fisheries, and Conservation Biology Fall 2020 Seminar Series. **Gerber, BD**. *Considering chronoecology in the study of habitat use and conservation of mammals*; November.
- 2020
(Invited) Michigan State University - Ecology, Evolution, and Behavior Graduate Program Fall 2020 Seminar Series. **Gerber, BD**. *Nighttime Ecology and its application in behavioral ecology and conservation studies*; October.
- 2020 The Wildlife Society 27th Annual Conference. Mayer, AE, McGreevy, TJ, Brown, C, and **Gerber, BD**. *Spatial ecology of bobcats in a high human density landscape of southern New England*; Remote Conference; October.
- 2020* The Wildlife Society 27th Annual Conference. Wampole, E, Farris, Z, Razafy, P, and **Gerber, BD**. *Anthropogenic Toll: Relative effects of forest edge and free-roaming dogs & cats on threatened carnivores*; Remote Conference; October.
- 2020* The Wildlife Society 27th Annual Conference. Masseloux, J, Le, QV, Burr, J, **Gerber, BD**. *Community occupancy of tropical arboreal mammals and small carnivores in Cat Tien National Park, Vietnam*; Remote Conference; October.
- 2020* Annual Student Research and Creative Endeavors. Villeda, E, Farris, Z, and **Gerber, BD**. *The most threatened primates in the world - Population Estimates for Madagascar's lemurs*; Boone, North Carolina; May.
- 2020 Yukon Biodiversity Forum. Davy, CM, Von Zuben, V, Kukka, P, **Gerber, BD**, Slaughter, B, and Jung, T. *Rapid declines in body size in a long-lived, mammalian aerial insectivore*; Whitehorse, Yukon; February.
- 2019 The Wildlife Society 26th Annual Conference. Farris, ZJ, Murphy, A, Zohdy, S, Anderson, C, Chalkowski, K, Ross, P, Semel, B, and **Gerber, BD**. *Madagascar's Missing Carnivores: New Surveys and Estimates for Rainforest Protected Areas*; Reno, Nevada; October.

- 2019 The Wildlife Society 26th Annual Conference. **Gerber, BD** and Northrup, JM. *Improving Spatial Predictions of Animal Resource Selection to Guide Conservation Decision Making*; Reno, Nevada; October.
- 2018
(Invited) The Wildlife Society 25th Annual Conference. **Gerber, BD**, Converse, S, Muths, E, Crockett, H, Mosher, BA, and Bailey, LL. *Decision Science Says “Just Do It”: Translocation of Toads in the Rockies*; Cleveland, Ohio; October.
- 2018 The Wildlife Society 25th Annual Conference. **Gerber, BD**, Hooten, M, Peck, C, Rice, M, Gammonly, J, Apa, A, Davis, A. *Location uncertainty in azimuthal telemetry data and the spatial ecology of the threatened Gunnison sage-grouse*. Cleveland, Ohio; October.
- 2018 North American Congress for Conservation Biology. **Gerber, BD**, Hooten, M, Peck, C, Rice, M, Gammonly, J, Apa, A, Davis, A. *Location uncertainty in azimuthal telemetry data and the spatial ecology of the threatened Gunnison sage-grouse*. Toronto, Ontario; July.
- 2018 Conservation Asia 2018. Miquelle, DG, Vitkalova, AV, Feng, L, Rybin, AN, **Gerber, BD**, Wang, T, Yang, H, Shevtsova, EI, Aramilev, VV, Ge. *Transboundary survey of the global population of Amur leopards*. Kyrgystan; August.
- 2017 The Wildlife Society 24th Annual Conference. Murphy, A, **Gerber, BD**, Kelly, MJ, Karpanty, S, Ratelohy, F, and Farris, ZJ. *A dollar out of fifteen cents*; Albuquerque, New Mexico; September.
- 2017
(Invited) EURING Analytical Meeting and Workshop. **Gerber, BD**, Hooten, M, Peck, C, Rice, M, Gammonly, J, Apa, A, Davis, A. *Location uncertainty in azimuthal telemetry data and the spatial ecology of the threatened Gunnison sage-grouse*; Barcelona, Spain; July.
- 2017 Colorado Cooperative Fish & Wildlife Research Unit, Coordinating Committee Meeting. **Gerber, BD**, Hooten, M, Peck, C, Rice, M, Gammonly, J, Apa, A, Davis, A. *Location uncertainty in azimuthal telemetry data and the spatial ecology of the threatened Gunnison sage-grouse*; Fort Collins, CO; March.

- 2017 The Joint Colorado-Wyoming American Fisheries Society and Annual Boreal Toad Conservation Team Meeting. **Gerber, BD**, Converse, S, Muths, E, Crockett H, Mosher, BA, and Bailey, LL. *Determining optimal management strategies for amphibian populations challenged by disease*; Grand Junction, Colorado; February.
- 2016
(Invited) University of Northern Colorado, Biology Department. **Gerber, BD**. *Conservation decision making for boreal toads facing chytrid-related declines*; Greeley, Colorado; November.
- 2016
(Invited) The Wildlife Society 23rd Annual Conference. **Gerber, BD**, Converse, S, Crockett, H, Mosher, BA, Muths, E, and Bailey, LL. *Conservation decision making within an amphibian-pathogen system (via a spatially-explicit meta-population model)*; Raleigh, North Carolina; October.
- 2016
(Invited) The Wildlife Society 23rd Annual Conference. Northrup, J, Anderson C, **Gerber, BD**, Wittemeyer, G. *Behavioral plasticity without demographic consequences revealed through integrating resource selection and demographic modeling*; Raleigh, North Carolina; October.
- 2016
(Invited) The Wildlife Society 23rd Annual Conference. Farris, ZJ, **Gerber, BD**, Karpanty, S, Kelly, M. *Using camera-trap data to investigate space-time species interactions*; Raleigh, North Carolina; October.
- 2016
(Invited) Stanford University Hopkins Marine Station. **Gerber, BD**. *Metapopulation dynamics and conservation decision making*; Monterey, California; April.
- 2016* The Virginia Chapter of the Wildlife Society, Annual Conference. Boone, H., **Gerber, BD**, Karpanty, S, Murphy, A, Larney, E, Kelly, M, and Farris ZJ. *The Occupancy Dynamics of Ground-Dwelling Forest Birds in Ranomafana National Park, Southeastern Madagascar*, Fredericksburg, VA; February.
- 2015 The Wildlife Society 22nd Annual Conference. Farris, Z, **Gerber, BD**, Kelly, M, Murphy, A, and Karpanty, S. *The Space-time Continuum: A spatio-temporal approach to estimate native-exotic carnivore overlap*, Winnipeg, Manitoba; October.

- 2015* The Wildlife Society 22nd Annual Conference. Boone, H, **Gerber, BD**, Kelly, M, Murphy, A, Karpanty, S, and Farris, Z. *The occupancy dynamics of ground-dwelling forest birds in Ranomafana National Park, SE Madagascar*, Winnipeg, Manitoba; October.
- 2015
(Invited) The Wildlife Society 22nd Annual Conference. **Gerber, BD**, and Parmenter, RR. *Spatial capture-recapture model performance with known small-mammal densities*; Winnipeg, Manitoba; October.
- 2015 GIS in the Rockies, 2015. Petersen, P, Dwyer, JF, Harness, RE, Landon, MA, **Gerber, BD**, Austin, DD, Eccleston, D. *Spatial prioritization for mitigating avian electrocution*; Denver, CO; September.
- 2015 Department of Fish, Wildlife, and Conservation Biology Graduate-Faculty Seminar Series. **Gerber, BD**. *The sandhill crane: population monitoring, modeling, and harvest decision making*; Fort Collins, CO; March.
- 2014 The Wildlife Society 21st Annual Conference. **Gerber, BD**, Kendall, WL, Hooten, MB, Dubovsky, JA, and Drewien, RC. *Predicting juvenile sandhill crane production from ecologically-driven hypotheses using statistical regularization*; Pittsburgh, PA; October.
- 2014 The Wildlife Society 21st Annual Conference. Kendall, WL, Drewien, RC, Brown, W, and **Gerber, BD**. *Pre- and post-harvest mortality sources and survival of the Rocky Mountain sandhill crane*; Pittsburgh, PA; October.
- 2014
(Invited) Wildlife Conservation Society. Farris, ZJ, Kelly, M, Karpanty, SM, Murphy, A, **Gerber, BD**, Ratelolahy, F, Andrianjakarivelo, V, Holmes, C, Golden, C. *Fragmentation, Hunting, & Exotic Species: The fate of Madagascar's carnivores across the MaMaBay landscape, Madagascar*; Bronx, NY; October.
- 2014
(Invited) Adaptive Management Conference Series. **Gerber, BD**, Kendall, WL, and Hooten, MB. *Sandhill crane modeling, monitoring, and decision making*; Fort Collins, CO; May.
- 2014 The 13th North American Crane Workshop. **Gerber, BD** and Dwyer, JF. *The role of populations and subspecies in sandhill crane conservation and management*; Lafayette, LA; April.

- 2014 The 13th North American Crane Workshop. **Gerber, BD**, Kendall, WL, Dubovsky, JA, Drewien, WC, and Hooten MB. *Annual variation of young of the year in the Rocky Mountain population of Sandhill Crane*; Lafayette, LA; April.
- 2014 The 13th North American Crane Workshop. Kendall, WL, Drewien, WC, Brown, W, and **Gerber, BD**. *Survival of the Rocky Mountain sandhill crane*; Lafayette, LA; April.
- 2014 Colorado Chapter of The Wildlife Society Annual Meeting. Kendall, WL, Drewien, WC, Brown, W, and **Gerber, BD**. *Survival of the Rocky Mountain sandhill crane*; Fort Collins, CO; February.
- 2013 The Wildlife Society 20th Annual Conference. **Gerber, BD**, Kendall, WL, and Hooten, MB. *Integrated population modeling and harvest decisions of Sandhill Cranes*; Milwaukee, WI; October. *Best Student Paper*
- 2013 The American Association of Physical Anthropologists 82nd Annual Conference. Farris, ZJ, **Gerber, BD**, Patel, E, Karpanty, S, and Kelly, M. *Carnivore-primate interactions across fragmented and contiguous forests in N.E. Madagascar*; Knoxville, TN; April.
- 2013 Colorado Cooperative Fish & Wildlife Research Unit, Coordinating Committee Meeting. **Gerber, BD**, Kendall, WL *Evaluation of decision structures and monitoring programs for managing sandhill cranes*; Fort Collins, CO; April.
- 2012
(Invited) XXIV Congress of the International Primate Society. **Gerber, BD**, Bailey, LL, Larney, E, and Wright, PC. *Occupancy modeling: using camera-trapping to make population-level inferences while accounting for imperfect detection*; Cancun, Mexico; August.
- 2012
(Invited) XXIV Congress of the International Primate Society. Farris, ZJ, **Gerber, BD**, Karpanty, SM, and Kelly, M. *Investigating carnivore-primate population dynamics: using camera-trapping and line transects to estimate carnivore and lemur population parameters across fragmented and contiguous rainforests in Madagascar*; Cancun, Mexico; August.
- 2012 XXIV Congress of the International Primate Society. **Gerber, BD.**, Arrigo-Nelson, S, Karpanty, SM, Kotschwar, M and Wright, PC. *Spatial ecology of the endangered Milne-Edwards' Sifaka (*Propithecus edwardsi*): do logging and season affect home range and daily ranging patterns?*; Cancun, Mexico; August.

- 2010 The Wildlife Society 17th Annual Conference. **Gerber, BD**, Karpanty, S, and Randrianantenaina, J. *Temporal activity patterns of Malagasy rainforest carnivores in a gradient of rainforest sites of increasing levels of fragmentation and human disturbance*; Snowbird, UT; October.
- 2010 Student Conference on Conservation Science at the American Museum of Natural History. **Gerber, BD**, Karpanty, SM, Kotschwar, M, Randrianantenaina, J, Justin, S, Rabenahy, FN. *Conserving Madagascar's Rainforest Carnivores*. New York, NY; November. *Speed Talk*.
- 2010 The Ecological Society of America 95th Annual Conference. **Gerber, BD**, Karpanty, SM, and Randrianantenaina, J. *The impact of forest logging and fragmentation on the species richness and density of Malagasy rainforest carnivores*; Pittsburgh, PA; August.
- 2009 The Wildlife Society 16th Annual Conference. **Gerber, BD**, Karpanty, SM, Crawford, C, Kotschwar, M, and Randrianantenaina, J. *An assessment of carnivore relative abundance and density in the eastern rainforests of Madagascar using remotely-triggered camera traps*; Monterey, CA; September.

Poster Presentations

- 2023 * Martes Symposium 2023 Ganoë, L, Mayer, AE, Lucot, M, and **Gerber, BD**. *Fragmented fishers – impacts of roads and tree mortality on occupancy dynamics of a native carnivore*. Aviemore, Scotland; September.
- 2023 * Piping Plover Conference. DeFelice, N, Paton, P, **Gerber, BD**, Durkin, M, and Mayer, A. *Using bird odor as a way to deter mammalian predators from disturbing shorebird nests*.
- 2022* Midwest Primate Interest Group. Villeda, E, **Gerber, B**, and Farris, Z. *Seasonal density estimates for threatened and critically endangered lemurs of Betampona Strict Nature Reserve, Madagascar*; Michigan, USA; October.
- 2019* Annual Association for Tropical Biology and Conservation. Rivera, K, Farris, Z, and **Gerber, B**. *Understanding the costs and benefits of non-native carnivores in rural and biodiverse landscapes*; Antananarivo, Madagascar; July.
- 2019* Annual Association for Tropical Biology and Conservation. Wampole, E, Farris, Z, and **Gerber, B**. *Carnivores at risk: Spatio-temporal patterns across a gradient of rainforest degradation in Madagascar*; Antananarivo, Madagascar; July.

- 2019* International Congress for Conservation Biology. Masseloux, J, Burr, J, and **Gerber, B.** *Community occupancy of tropical arboreal mammals and small carnivores in Cat Tien National Park, Vietnam*; Kuala Lumpur, Malaysia; July.
- 2019* Northeast Association of Fish and Wildlife Agencies. Keefner, N, Forrester, G, and **Gerber, B.** *Temporal Effectiveness of Biodiversity Surrogates in Coral Reefs in the British Virgin Islands*; Groton, CT; April.
- 2013 Association for Tropical Biology and Conservation & Organization for Tropical Studies. Arrigo-Nelson, SJ, Tebbitt, MC, Enck, KE, Drescher, D, and **Gerber, BD.** *Documenting invasive flora and fauna in Ranomafana National Park, Madagascar*; San Jose, Costa Rica; June.
- 2012 The Wildlife Society 19th Annual Conference. **Gerber, BD**, Ivan, JS, and Burnham, KP. *Estimating the abundance of rare or elusive species using closed capture-recapture estimators with small sample size and heterogeneous detection*; Portland, OR; October.
- 2011 The Society of Vertebrate Paleontology 71st Annual Meeting. Muldoon, K, Karpanty, SM, and **Gerber, BD.** *Taphonomic analysis of small mammal prey assemblages derived from avian predators in southeastern Madagascar*; Las Vegas, NV; November.
- 2009 American Association of Physical Anthropology. Morris, DH, Arrigo-Nelson, SJ, Karpanty, SM, **Gerber, BD**, and Wright, PC. *Ranging behavior flexibility in response to habitat disturbance by Milne-Edwards' Sifakas in Ranomafana National Park, Madagascar*; Chicago, IL; April.
- 2009 The Wildlife Society 16th Annual Conference. Kotschwar, M, Karpanty, SM, **Gerber, BD**, and Latimer, C. *Assessing variation in anti-predator behavior of Milne-Edwards' sifakas at fragmented and continuous rainforest sites in Madagascar*; Monterey, CA; September.
- 2008 American Association of Physical Anthropology. Karpanty, SM, **Gerber, BD**, Crawford, C, Kotschwar, M. *Using camera-traps and traditional knowledge to estimate population parameters and movements of carnivores in southeastern Madagascar: tools towards better understanding lemur predation risk from a predator's perspective*; Columbus, OH; April.

Management and Outreach Presentations

Oral Presentations

- 2021 Rhode Island Departmental of Environmental Management Meeting. Mayer, AE*, McGreevy, TJ, Brown, C, and **Gerber, BD**. *Spatial ecology of bobcats in Rhode Island (plus bears)*; Exeter, RI; October.
- 2021 Rhode Island Departmental of Environmental Management Meeting. Crockett, J*, Brown, C, and **Gerber, BD**. *Distribution and habitat use of semi-aquatic mammals in Rhode Island*; Exeter, RI; October.
- 2021 Rhode Island Departmental of Environmental Management Meeting. Gano, L.* , Brown, C, and **Gerber, BD**. *Rhode Island Fisher Study*; Exeter, RI; October.
- 2021 Rhode Island Departmental of Environmental Management Meeting. Ferreira, D.* , and **Gerber, BD**. *Population monitoring and structured decision making of white-tailed deer*; Exeter, RI; October.
- 2021 Rhode Island Departmental of Environmental Management Meeting. Carter, Wm McGreevy, TJ Jr., **Gerber, BD**, Buffum, B., Duhaime, RJ, Ernst, NT, McGourty, E, Ferreira, D, Tefft, B, and Husband TP. *High individual variability in space use by translocated, imperiled New England Cottontail*; Kingston, RI; January.
- 2018 URI-DEM Collaborative Meeting. **Gerber, BD**. *Quantitative Ecology at the University of Rhode Island*; Kingston, RI; February.
- 2016 Annual Boreal Toad Recovery Meeting. **Gerber, BD** and Crockett, H. *Boreal toad metapopulation modeling and online decision support tool*; Fort Collins, CO; February.
- 2015 Colorado Parks and Wildlife Senior Aquatic Staff Meeting. Bailey, LB, **Gerber, BD** and Crockett, H. *Boreal toad studies and conservation status*; Fort Collins, CO; December.
- 2015 Central Flyway Webless Technical Committee. **Gerber, BD**. *Evaluating decision structures and monitoring programs for managing Sandhill Cranes*; Denver, CO; October.
- 2015 Pacific Flyway Webless Technical Committee. **Gerber, BD**. *Evaluating decision structures and monitoring programs for managing Sandhill Cranes*; San Diego, CA; March.
- 2014 Sandhill Crane Priority Information Needs Workshop. **Gerber, BD** and Kendall, WL. *Sandhill Crane Rocky Mountain population update*; Lafayette, LA; April.

- 2013 Society of Conservation Biology, Student Chapter at Colorado State University. **Gerber, BD.** *Madagascar's carnivores and other amazing species*; Fort Collins, CO; November.
- 2013 Central Flyway Webless Technical Committee. **Gerber, BD.** *Update: Evaluating decision structures and monitoring programs for managing Sandhill Cranes*; Albuquerque, NM; March.
- 2009 Centre Valbio Research Station. **Gerber, BD,** Karpanty S, and Randrianantenaina, J. *Malagasy carnivore density across a gradient of disturbed rainforest sites. Ranomafana, Madagascar*; December.
- 2009 The 25th Annual Virginia Tech Graduate Student Research Symposium. **Gerber, BD.** *Carnivore relative abundance and density in the eastern rainforests of Madagascar using remotely-triggered camera traps*; Blacksburg, VA; March.
- 2008 ICTE Annual Consortium Meeting. **Gerber, BD.** *Malagasy carnivore camera trapping throughout southeastern Madagascar*; Ranomafana, Madagascar; November.
- 2008 National Geographic Expedition (led by Dr. Patricia Wright). **Gerber, BD.** *Introduction to Malagasy carnivores, camera trapping, and preliminary research results*; Ranomafana, Madagascar; June.
- 2008 Earthwatch Institute Expedition (led by Dr. Summer-Arrigo-Nelson). **Gerber, BD.** *Introduction to Malagasy carnivores, camera trapping, and preliminary research results*; Ranomafana, Madagascar; July.
- 2008 Duke Primate Research Center Tour (led by Dr. Charlie Welch). **Gerber, BD.** *Introduction to Malagasy carnivores, camera trapping, and preliminary research results*; Ranomafana, Madagascar; August.
- 2008 Stony Brook Study Abroad (led by Eileen Larney). **Gerber, BD.** *Camera trapping Malagasy rainforest carnivores*; Ranomafana, Madagascar; September.
- 2008 Virginia Tech Wildlife Society Chapter. Invited Discussion Panelist: *How to search and secure Wildlife/Fisheries research technician employment*; VA, April.

Poster Presentations

- 2014 Colorado Cooperative Fish & Wildlife Reserach Unit, Coordinating Committee Meeting. **Gerber, BD.** *Evaluating decision structures and monitoring programs for managing sandhill cranes*; Fort Collins, CO; September.

Professional Development

Training Workshops

The Inclusive STEM Teaching Project: a journey of self-reflection to discover, reflect, apply, and implement aspects of inclusive and equitable teaching in educational contexts. edX Course. Fall 2022.

Safe Zone training to build a visible support network of LGBTQ allies on URI's campus from the Gender and Sexuality Center at the University of Rhode Island. Fall 2021.

Social Justice and Inclusion Microcredential from the office of Community & Organizational Development at the University of Rhode Island. Spring 2021.

URI's Advancement in Teaching and Learning Book Club, "Race Equity and the Learning Environment. October 2019.

Inclusive Teaching in the Environmental and Life Sciences Workshop and Discussion. Instructors: Dr. Stacey Lawrence. November 2018

Deep Teaching URI - A workshop series on inclusive approaches to serving students; Instructors: Drs Bryan Drewsbury, Michelle Fontes-Barros, and AnneMarie Vaccaro. October 2017 to May 2018.

Strategies and Tools for Teaching at URI. Instructors from the URI Faculty Development. Kingston, Rhode Island. 2018.

Technical Workshops Attended

Spatial Occupancy Models and the spOccupancy R package; Instructor: Jeff Doser & Dr. Andrew Finley. 2022

Movement Ecology; Instructor: Dr. Théo Michelot. Ecological Forecasting Initiative. 2022.

Integrated Step-Selection Analysis; Instructor: Brian Smith and Dr. Tal Avgar. Ecological Forecasting Initiative. 2022.

Generalized Additive Models (GAMs); Instructor: Dr. Simon Wood. Ecological Forecasting Initiative. 2022.

Mixed Effects Models; Instructor: Dr. Ben Bolker. Ecological Forecasting Initiative. 2021.

Fitting integrated models with BUGS: multiple data-type models, combination approaches, and integrated population models (IPMs); Instructors: Drs Marc Kery, Beth Gardner, Jamie Sanderlin, Nicola Strebil. Barcelona, Spain. 2017.

Hierarchical random effects models using Markov chain Monte Carlo: Analysis of spatio-temporal data; Instructors: Drs. Andrew Finley and Alan Gelfand. Fort Collins, CO. 2014.

Communicating environmental science to the public and policy-makers; The Biodiversity Working Group of the School of Global & Environmental Sustainability (SoGES). Instructors: Drs. Barry Noon, Chris Funk, and Courtney Schultz. Fort Collins, CO. 2014.

Unmarked: An R package for fitting hierarchical models of species abundance and occurrence. Instructors: Drs. Andy Royle and Richard Chandler. Webinar. 2012.

Information-Theoretic approaches to formal inference. Instructor: Dr. David Anderson. Blacksburg, VA. 2010. Fort Collins, CO. 2011.

Intermediate MARK workshop. Instructors: Drs. Gary White, Paul Doherty, Larissa Bailey, and Bill Kendall. Fort Collins, CO. 2011.

A brief Introduction to Bayesian and Hierarchical Bayesian modeling in ecology. Instructor: Dr. Kiona Ogle. The 95th Ecological Society of American Conference, Pittsburgh, PA. 2010.

Advances in monitoring and quantitative ecology in conservation science. Instructors: Drs. Benjamin Zuckerberg, James Gibbs, and Wesley Hochacka. Student Conference on Conservation Science, New York, NY. 2010.

Home range estimation. Instructors: Drs. Arthur Rodgers and John Kie. The 17th Annual Wildlife Society Conference, Snowbird, UT. 2010.

Modeling patterns and dynamics of species occurrence. Instructors: Drs. Jim Nichols, Larissa Baily, and Jim Hines. Front Royal, VA. 2007.

Field Research Experience

Shorebird Researcher, Virginia Tech, Wachapreague, VA. 2007, 2009, 2010.

Snowshoe Hare Field Crew Leader, Colorado Division of Parks and Wildlife, Gunnison, CO. 2006 - 2007

Wildlife Researcher, Thai Society for the Conservation of Wild Animals, Thailand. 2005 - 2006.

Wind Power Avian/Bat Migration Researcher, Woodlot Alternatives, Inc., Topsham, ME. 2005.

Canid Ecology Researcher, Yellowstone Ecological Research Center, Cooke City, MT. 2004 - 2005.

USFS Biological Technician (Wildlife), USDA Forest Service, Shaver Lake, CA. 2004.

Bald Eagle Nestwatch Contractor, Arizona Bald Eagle Nestwatch Program, Phoenix, AZ. 2004.

Timbavati Bateleur Wilderness Safari Internship, Timbavati Nature Reserve, South Africa. 2003.

Quissama National Park Internship, Quissama National Park, Angola. 2002.
