

# Brian D. Gerber

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## Faculty Appointments

2017 - Current. Assistant Professor, Department of Natural Resources Science, University of Rhode Island, Kingston, Rhode Island. I am an animal ecologist focusing on population and community ecology, behavioral ecology, conservation decision making, and ecological modeling.

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## Postdoctoral Appointments

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*. 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*. National Science Foundation Fellow. Advised by Dr. Sarah M. Karpanty.

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.

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## Extramural Grants

- 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.
  - 2008 - 2010. **Gerber, BD & 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.
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## 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 Population Demography. World Wildlife Fund, Bogor, Indonesia. Since 2013
  - Avian Collision Risk. EDM International, Inc., Fort Collins, CO. Since 2012.
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## Refereed Publications

Click on published titles to link to article.

\* = undergraduate/graduate student/research associate

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

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

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

## In Press

- [41] Northrup, J, Anderson, C, **Gerber, BD**, and Wittemeyer, G. **In Press**. Behavioral and demographic responses of mule deer to energy development on winter range. *Wildlife Monograph*.
- [40] Baden, A, Oliveras, J, and **Gerber, BD**. **In Press**. Sex-segregated range use by black-and-white ruffed lemurs (*Varecia variegata*) in Ranomafana National Park, Madagascar. *Folia Primatologica*.

## 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*.
- [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*, 201918584; DOI: 10.1073/pnas.1918584117.
- [36] Farris ZJ<sup>1</sup>, **Gerber, BD**<sup>1</sup>, 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. <sup>1</sup>Authors 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*, 54:93109.

## 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. DOI: 10.1186/s40462-018-0129-1
- [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 24 news outlets, top 1<sup>st</sup> percentile 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*. doi:10.1111/acv.12420. [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(2):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*. doi: 10.1111/conl.12393. [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, Khairani, KO, Kurniawan, Y, Long, B, Lyet, A, Muhiban, M, Mahmud, R, Muhtarom,

- A, Purastuti, E, Ramono, WS, Subrata, D, Sunarto, S. 2017. Preventing global extinction of the Javan rhino: tsunami risk and future conservation direction. *Conservation Letters*, 11, e12366. [Altmetric \(link\): Highlighted by 12 news outlets, top 1<sup>st</sup> percentile 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. *Population Ecology*, 54, 43-54.

## 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.

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## Book Chapters

- [7] **Gerber, BD** and Hawkins, CE. **In Press**. *Cryptoprocta ferox, fosa*. In the Natural History of Madagascar, 2nd edition, ed. S. M. Goodman. Chicago: The University of Chicago Press.
- [6] Farris, ZJ, **Gerber, BD**, Murphy, A\*, and Wampole, E\*. **In Press**. *Camera Trapping Madagascar*. In the Natural History of Madagascar, 2nd edition, ed. S. M. Goodman. Chicago: The University of Chicago Press.
- [5] Rivera, K\*, **Gerber, BD**, and Farris, ZJ. **In Press**. *Eupleres goudotii, small-toothed civet, falanouc*. In the Natural History of Madagascar, 2nd edition, ed. S. M. Goodman. Chicago: The University of Chicago Press.
- [4] Farris, Z, **Gerber, BD**, Kelly, M, Karpanty, SM, Ratelolahy, F, and Andrianjakarivelo V. **In Press**. 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.
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## 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 Sept. 20, 2017. > [3K readers as of August 2018](#).
- [1] **Gerber, BD**. Saving Javan rhinos from extinction starts with counting them - and its not easy. *The Conversation*. Published online May 30, 2017. Bahasa translation published online October 6, 2017. > [7.5K readers as of August 2018](#).
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## Publications in Progress

- Wampole. E.\*, Farris, Z, and **Gerber, BD**. **In Revision**. *A synthesis of life-history, functional traits, and consequences of anthropogenic pressures on Madagascars threatened carnivorans, Eupleridae*. *Mammal Review*.
- Chanchani, P\*, Noon, B, Bista, A, Nair, S, Warriar, R, Sharma, R, **Gerber, BD**. **In Revision**. *Influence of resource gradients and habitat edges on density variation in tiger populations*. *Ecosphere*.



- Northrup, J., Vander Wal, E, Bonar, M, Laforge, MP, Leclerc, M, Prokopenko, C., and **Gerber, BD**. **In Revision**. *Conceptual and methodological advances in habitat selection modeling: guidelines for ecology and evolution*. Ecological Applications.
- Cove, M, ....., **Gerber, BD**, Burr, J\*, et al. **In Review**. *SNAPSHOT USA 2019: the first coordinated national camera trap survey of the United States*. Ecology.
- Mayer, AE\*, McGreevy, TJ, Sullivan, M, Brown, C, Husband, T, and **Gerber, BD**. **In Review**. *Spatial ecology of bobcats in a high human density landscape of New England*. Northeast Naturalist.
- Davy, CM, Von Zuben, V, Kukka, P, **Gerber, BD**, Slaughter, B, and Jung, T. **In Prep**. *Rapid declines in body size in a long-lived, mammalian aerial insectivore*. Journal of Mammalogy.
- Mahmud, R<sup>1</sup>, **Gerber, BD**<sup>1</sup>, Setiawan, R, Firdaus, AY, Lyet, A, Rahmat, UM, Anggodo, Khairani, KO, Long, B & Sunarto. **In Prep**. *Spatial demography of a critically endangered species to inform habitat and population management; a case study of the last population of Javan rhino*. Animal Conservation. <sup>1</sup> Authors contributed equally.

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## Technical Reports

- 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,

## Teaching

### University of Rhode Island

Spring 2020 - NRS520 - Quantitative Techniques in Natural Resource Research - 3 Credits. Population ecology, modeling, and estimation.

Fall 2019 - NRS330G - The Biodiversity Crisis - 3 Credits - Learning outcomes: A1 & C2 with grand challenge overlay (GC). A global perspective of biodiversity patterns and issues.

Spring 2019 - NRS402 - Quantitative Wildlife Ecology - 3 Credits - Capstone class to integrate ecological principles, science philosophy, statistical modeling, and coding.

Fall 2018 - NRS330G - The Biodiversity Crisis - 3 Credits - Learning outcomes: A1 & C2 with grand challenge overlay (GC). A global perspective of biodiversity patterns and issues.

Spring 2018 - NRS402 - Quantitative Wildlife Ecology - 3 Credits - Capstone class to integrate ecological principles, science philosophy, statistical modeling, and coding.

### 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 25<sup>th</sup> 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 Journalists Guide to Understanding and Explaining Probabilities. Metcalf Institute's 21<sup>st</sup> Annual Science Immersion Workshop for Journalists. Narragansett, RI. June.

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

2018 - The Journalists Guide to Understanding and Explaining Probabilities. Metcalf Institute's 20<sup>th</sup> 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*

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## 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/cppeck/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 ecologists and conservation 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

- 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](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/>
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## Advising

### Postdoctoral Researchers

- Dr. Christopher Field. Transparent Modeling of Collision Risk for Three Federally-listed bird species to Offshore Wind Development. Started Spring 2020.
- Dr. Wales Carter. New England Cottontail spatial ecology and translocation evaluation. Started Spring 2020.

### Graduate Students (URI) Graduated students are highlighted in [cyan](#).

- Laken Ganoe (Ph.D.). Fisher spatial and population ecology. Started Fall 2020.
- John Crockett (Ph.D.). Semi-aquatic mammal distribution in Rhode Island. Started Fall 2020.
- Juliana Masseloux (M.S. Student). Mesocarnivore ecology in southeast Asia. Started Fall 2018.
- Erin Wampole (M.S.). Madagascar carnivore ecology and conservation. Started Fall 2018.
- Dylan Ferreira (M.S.). Population Management of White-tailed Deer in Rhode Island. Started Fall 2018.
- Kimberly Rivera (M.S.). The benefits and costs of domestic dogs and cats living adjacent to high biodiversity areas. Started Fall 2019.
- [Nicole Keefner \(M.S. Student\)](#). [Coral reef ecology](#). [Co-advised with Dr. Graham Forrester](#). [Graduated Spring,2020](#).

### Committee Member

- Committee member of Dina Matyuhkina at SUNY ESF. Spring 2017 to Fall 2021.

- Committee member of Noah Hallisey at URI. Starting Spring 2020 .
- Committee member of Samantha Schofield at URI. Starting Fall 2020.

### Undergraduate Students (URI)

- Spring 2020: Kylie Rezendes, Jess Burr, Ruby Nguyen, Maegan Shanaghan, Jessie Adley, Emma Paton
- Fall 2019: Ruby Nguyen, Jess Burr, and Kylie Rzendes
- Summer 2019: Jess Burr
- Spring 2019: Ruby Nguyen, Jess Burr
- Fall 2018: Samira Lazar
- Summer 2018: Aimee Reynolds
- Spring 2018: Keelyn Kotecki

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## Fellowships, Certificates, and Awards

- Oscar and Isabel Anderson Graduate Fellowship. 2015. \$1,600.
- 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 20<sup>th</sup> 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. \$5,000.
- National Science Foundation Graduate Research Fellowship. 2008 - 2011. \$120,000.
- Outstanding Masters Student Award in the College of Natural Resources. Virginia Tech, Blacksburg, VA. April, 2010.
- Burd Sheldon McGinnes Graduate Fellowship. 2009. \$2,000.
- Sigma-Xi Award for Masters Degree Candidate. Blacksburg, VA. September, 2009.
- The Wildlife Society 16<sup>th</sup> Annual Conference Student Travel Award. Monterey, CA. September, 2009.
- Sigma-Xi Grants-in-Aid Research Program. 2008. \$600.
- 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.

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## Professional Activities

- **Contributing Reviewer (Verified at Publons ([link](#)))**
  - *Conservation*: Animal Conservation; Biodiversity and Conservation; Biological Conservation; Conservation Biology; Conservation Letters; 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; Journal of Applied Ecology; Population Ecology.
  - *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.
- USGS FSP Reviewer: June 2017, July 2017, October 2019.
- Hatch Review July, 2018
- 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)

## 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

- 2020      The Wildlife Society 26<sup>th</sup> 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 26<sup>th</sup> 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 26<sup>th</sup> 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 26<sup>th</sup> 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 26<sup>th</sup> 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 25<sup>th</sup> 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 25<sup>th</sup> 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 24<sup>th</sup> 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 23<sup>rd</sup> 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 23<sup>rd</sup> 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 23<sup>rd</sup> Annual Conference. Farris, ZJ, **Gerber, BD**, Karpany, 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 22<sup>nd</sup> 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 22<sup>nd</sup> 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 22<sup>nd</sup> 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 21<sup>st</sup> 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 21<sup>st</sup> 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 13<sup>th</sup> 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 13<sup>th</sup> 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 13<sup>th</sup> 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 20<sup>th</sup> 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 82<sup>nd</sup> 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 17<sup>th</sup> 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 95<sup>th</sup> 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 16<sup>th</sup> 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

- 2019\* Annual Association for Tropical Biology and Conservation. Rivea, 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 19<sup>th</sup> 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 71<sup>st</sup> 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 16<sup>th</sup> 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 predators perspective*; Columbus, OH; April.
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# Management and Outreach Presentations

## Oral Presentations

- 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 25<sup>th</sup> 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.

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## Professional Development

### Attended Workshops

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.

Fitting integrated models with BUGS: multiple datatype models, combination approaches, and integrated population models (IPMs); Instructors: Drs Marc Kery, Beth Gardner, Jamie Sanderlin, Nicola Strebler. 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 95<sup>th</sup> 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 17<sup>th</sup> 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.

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## Professional 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.

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