

## Curriculum Vitae

Arthur Dehon Middleton

Assistant professor of wildlife management and policy

**WORK ADDRESS** Department of Environmental Science, Policy, and Management  
130 Mulford Hall #3114  
Berkeley, CA 94720  
Phone: (510) 664-7730  
E-mail: [amiddleton@berkeley.edu](mailto:amiddleton@berkeley.edu)  
URL: <https://nature.berkeley.edu/middletonlab/>

### EDUCATION

University of Wyoming	Ecology	Ph.D., 2012
Yale University	Environmental management	M.E.M., 2007
Bowdoin College	English, government	A.B., 2003

### PROFESSIONAL POSITIONS

2016- Assistant professor, University of California, Berkeley, Department of Environmental Science, Policy, and Management  
2015-2016 Associate research scientist, Yale School of Forestry and Environmental Studies  
2014-2015 Postdoctoral fellow, Yale University, Institute for Biospheric Studies  
2012-2014 Donnelley Postdoctoral Fellow, Yale University, Institute for Biospheric Studies

### FELLOWSHIPS, HONORS, AND AWARDS

2017-2020 Fellow, National Geographic Society  
2019 Nominee, Pritzker Emerging Environmental Genius Award, UC Los Angeles  
2018-2020 Hellman Fellow, UC Berkeley  
2013 Camp Monaco Prize, Buffalo Bill Center of the West  
2012-2014 Donnelley Postdoctoral Fellowship, Yale Institute for Biospheric Studies  
2005-2007 Doris Duke Conservation Fellow, Yale School of Forestry and Environmental Studies

### PUBLICATIONS AND CREATIVE PRODUCTS

*Journal articles (in review, in revision or in press)*

Monk, J. D., J. A. Smith, E. Donadio, P. Perrig, J. N. Pauli, O. Bidder, M. Fileni, P. Gregorio, O. J. Schmitz, and **A. D. Middleton**. In review. Disease outbreak alters the nature of a trophic cascade.

Bidder, O., J. Morales, G. Rickbeil, J. Merkle; R. Fuda, J. Rogerson, B. Scurlock, W. Edwards, E. Cole, D. McWhirter, A. Courtemanch, S. Dewey, M. Kauffman, D. MacNulty, J. du Toit, Johan, D. Stahler, **A. D. Middleton**. In review. Forage senescence and disease status influence elk pregnancy across the Greater Yellowstone Ecosystem.

Rodriguez Curras, M., E. Donadio, **A.D. Middleton**, and J.N. Pauli. In revision. Humans affect every major niche axis in a community of carnivores.

Perrig, P., S. Lambertucci, P. Alarcón, **A. D. Middleton**, J. Padró, P. Plaza, G. Blanco. J. A. Sánchez-Zapata, J. Donazar; J. N. Pauli. In review. Fine-scale sexual segregation in foraging sites, yet large dietary overlap, in a dimorphic avian scavenger. *Journal of Animal Ecology*.

Kurz, D., **A. D. Middleton**, M. Chapman, K. S. Van Houtan, C. Wilkinson, L. S. Withey, and J. S. Brashares. In revision. Building bridges in the post-Trump era: can conservation scientists help recover bipartisan support for U.S. environmental protection?

- Xu, W., D. Nandintsetseg, V. Hermann, H. Sawyer, and **A. D. Middleton**. In revision. Barrier Behavior Analysis (BaBA) reveals extensive effects of fencing on wide-ranging animals. *Journal of Applied Ecology*.
- Barker, K. J., W. Xu, A. Van Scoyoc, M. Serota, J. Moravek, A. Shawler, R. Ryan, and **A. D. Middleton**. In revision. Can lost migrations be restored? Evaluating the re-establishment of long-distance animal movements.
- Stoellinger, T. H.J Albers, **A.D. Middleton**, and J.F. Shogren. In revision. Where the deer and the antelope play: conserving the big game migrations of the West. *Duke Environmental Law and Policy Forum*.
- Morrison, T., J. Merkle, J. G. C. Hopcraft, E. O. Aikens, J. Beck, R. Boone, A. Courtemanch, S. Dwinell, S. Fairbanks, B Griffith, **A . D. Middleton**, K. Monteith, B. Oates, H. Sawyer, K. Smith, J. Stabach, K. Taylor, and M. J. Kauffman. In revision. Cross-species comparison of drivers of site fidelity in ungulates. *Journal of Animal Ecology*.
- Xu, W., K. Barker, A. Shawler, A. Van Scoyoc, H. Sawyer, T. Mueller, C. Andreozzi, O. Bidder, H. Karandikar, S. Mumme, J. Smith, E. Templin, and **A.D. Middleton**. In press. The plasticity of ungulate migrations in a changing world. *Ecology*.
- Middleton, A.D.**, T. Stoellinger, H. Karandikar, B. Leonard, H. Doremus, and C. Kremen. In press. Harnessing visitors' enthusiasm for national parks to advance cooperative landscape conservation. *Conservation Science and Practice*.
- Smith, J.A., E. Donadio, O.R. Bidder, J.N. Pauli, M.J. Sheriff, and **A.D. Middleton**. In press. Where and when to hunt? Decomposing predation success of an ambush carnivore. *Ecology*.

*Journal articles (published)*

- Aikens, E.O., A. Myserud, J.A. Merkle, F. Cagnacci, I.M. Rivrud, M. Hebblewhite, M.A. Hurley, W. Peters, S. Bergen, J. De Groeve, S.P.H. Dwinell, B. Gehr, M. Heurich, A.J.M. Hewison, A. Jarnemo, P. Kjellander, M. Kröschel, A. Licoppe, J.D.C. Linnell, E.H. Merrill, **A.D. Middleton**, N. Morellet, L. Neufeld, A.C. Ortega, K.L. Parker, L. Pedrotti, K.M. Proffitt, S. Said, H. Sawyer, B.M. Scurlock, J. Signer, P. Stent, P. Šustr, T. Szkorupa, K.L. Monteith, and M.J. Kauffman. 2020. Wave-like patterns of plant phenology determine ungulate movement tactics. *Current Biology* 30: 1-6.
- Perrig, P.L., S.A. Lambertucci, J. Cruz Bernal, P.A.E. Alarcón, P. Plaza, **A.D. Middleton**, G. Blanco, J.A. Sánchez, Zapata, J.A. Donazar, and J.N. Pauli. 2020. A regional analysis of habitat selection identifies conservation priority areas for the Andean condor. *Biological Conservation* 243: 108494.
- Middleton, A.D.**, H. Sawyer, J.A. Merkle, M.J. Kauffman, E.K. Cole, S.R. Dewey, J.A. Gude, D.D. Gustine, D.E. McWhirter, K.M. Proffitt, and P.J. White. 2020. Conserving ungulate migrations across the Greater Yellowstone Ecosystem requires transboundary science, policy, and management. *Frontiers in Ecology and the Environment* 18: 83-91.
- Sawyer, H., C. W. Lebeau, T. L. MacDonald, W. Xu, and **A.D. Middleton**. 2019. All routes are not created equal: An ungulate's choice of migration route can influence its survival. *Journal of Applied Ecology* 56: 1860-69.
- Smith, J.A., E. Donadio, J.N. Pauli, M.J. Sheriff, and **A.D. Middleton**. 2019. Habitat complexity mediates the predator-prey space race. *Ecology* 100: e02724.
- Rickbeil, G.J.M, J.A. Merkle, G. Anderson, M.P. Atwood, J.P. Beckmann, E.K. Cole, A.B. Courtemanch, S. Dewey, D.D. Gustine, M.J. Kauffman, D.E. McWhirter, T. Mong, K. Proffitt, D.R. Stahler, P.J. White, and **A.D. Middleton**. 2019. Plasticity in elk migration timing is a response to changing environmental conditions. *Global Change Biology* 25: 2368-2381.

- Smith, J.A., E. Donadio, J.N. Pauli, M.J. Sheriff, and **A.D. Middleton**. 2019. Integrating temporal refugia into landscapes of fear: Prey exploit predator downtimes to forage in risky places. *Oecologia* 189: 883-890.
- Gaynor, K.M. J.S. Brown, **A.D. Middleton**, M.E. Power, and J.S. Brashares. 2019. Landscapes of fear: spatial patterns of risk perception and response. *Trends in Ecology and Evolution*.
- Sawyer, H., J.A. Merkle, A.D. Middleton, S.P.H. Dwinell, and K. Monteith. 2019. Migratory plasticity is not ubiquitous in large herbivores. *Journal of Animal Ecology* 88: 450-460.
- van Eeden, L. M., A. Eklund, J. R. B. Miller, J. V. López-Bao, G. Chapron, M. R. Cejtin, M. S. Crowther, C. R. Dickman, J. Frank, M. Krofel, D. W. Macdonald, J. McManus, T. K. Meyer, **A. D. Middleton**, T. M. Newsome, W. J. Ripple, E. G. Ritchie, O. J. Schmitz, K. J. Stoner, M. Tourani, A. Treves. 2018. Carnivore conservation needs evidence-based livestock protection. *PLoS Biology* 16: e2005577.
- Cotterill, G.G., P.C. Cross, A.D. Middleton, J.D. Rogerson, B.M Scurlock, J.T. Toit, JT. 2018. Hidden cost of disease in a free-ranging ungulate: brucellosis reduces mid-winter pregnancy in elk. *Ecology and Evolution* 8: 10733-10742.
- Middleton, A.D.**, J.A. Merkle, D.E. McWhirter, J.G. Cook, R.C. Cook, P.J. White, and M.J. Kauffman. 2018. Green-wave surfing increases fat gain in a migratory ungulate. *Oikos* 127: 1060-1068.
- Lukacs, P., M. Hebblewhite, B. Johnson, H. Johnson, M. Kauffman, M. Mitchell, K. Proffitt, P. Zager, J. Brodie, K. Hersey, A. Holland, M. Hurley, S. McCorquodale, **A.D. Middleton**, M. Nordhagen, J. Nowak, D. Walsh, P.J. White. 2018. Factors influencing elk recruitment across three ecotypes in the western USA. *Journal of Wildlife Management* 82: 698-710.
- Perrig, P., E. Donadio, **A.D. Middleton**, and J.N. Pauli. 2017. Puma predation subsidizes an obligate scavenger in the high Andes. *Journal of Applied Ecology* 54: 846-853.
- Miller, J.R.B., K.J. Stoner, M.R. Cejtin, T.K. Meyer, **A.D. Middleton**, and O.J. Schmitz. 2016. Tools for human-carnivore coexistence: A quantitative assessment of techniques for reducing large carnivore depredation of livestock. *Wildlife Society Bulletin* 40: 806-815.
- Sawyer, H., **A.D. Middleton**, K. Monteith, M. Hayes, and M.J. Kauffman. 2016. The extra mile: Ungulate migration distance alters use of seasonal range and exposure to anthropogenic risk. *Ecosphere* 7: e01534.
- Merkle, J.A., K.L. Monteith, E.O. Aikens, M.M. Hayes, K.R. Hersey, **A.D. Middleton**, B.A. Oates, H. Sawyer, B.M. Scurlock, and M.J. Kauffman. 2016. Large herbivores surf waves of green-up in spring. *Proceedings of the Royal Society of London B* 283: 20160456.
- Nelson, A.A., M.J. Kauffman, **A.D. Middleton**, M.D. Jimenez, D.E. McWhirter, and K. Gerow. 2016. Native prey distribution and migration mediates wolf predation on domestic livestock in the Greater Yellowstone Ecosystem. *Canadian Journal of Zoology* 94: 291-299.
- Middleton, A.D.**, M.J. Kauffman, D.E. McWhirter, R.C. Cook, J.G. Cook, M.D. Jimenez, S.E. Albeke, H. Sawyer, and P.J. White. 2013. Linking antipredator behavior to prey demography reveals the limited risk effects of an actively hunting large carnivore. *Ecology Letters* 16: 1023-1030.
- Hand, B.K., S. Chen, N. Anderson, A. Beja-Pereira, P.C. Cross, M. Ebinger, H. Edwards, R.A. Garrott, M.D. Kardos, M. Kauffman, E.L. Landguth, **A.D. Middleton**, M. Schwartz, B. Scurlock, P.J. White, P. Zager, and G. Luikart. 2014. Limited maternal gene flow among elk populations in the Greater Yellowstone Ecosystem revealed by mitochondrial DNA. *Journal of Fish and Wildlife Management* 5: 124-132.
- Middleton, A.D.**, T.A. Morrison, J.K. Fortin, M.J. Kauffman, C.T. Robbins, K.M. Proffitt, P.J. White, D.E. McWhirter, T.M. Koel, D. Brimeyer, and W.S. Fairbanks. 2013. Grizzly bear predation links the loss of native trout to the demography of migratory elk in Yellowstone. *Proceedings of the Royal Society B – Biological Sciences* 280: 20130870.

- Middleton, A.D.**, M.J. Kauffman, D.E. McWhirter, J.G. Cook, R.C. Cook, A.A. Nelson, M.D. Jimenez, and R.W. Klaver. 2013. Rejoinder: challenge and opportunity in the study of ungulate migration amid environmental change. *Ecology* 94: 1280-86.
- Middleton, A.D.**, M.J. Kauffman, D.E. McWhirter, J.G. Cook, R.C. Cook, A.A. Nelson, M.D. Jimenez, and R.W. Klaver. 2013. Animal migration amid shifting patterns of predation and phenology: Lessons from a Yellowstone elk herd. *Ecology* 94: 1245-56.
- Sawyer, H. M.J. Kauffman, **A.D. Middleton**, T.A. Morrison, R.M. Nielson, and T.B. Wyckoff. 2013. A framework for understanding barrier effects on migratory ungulates. *Journal of Applied Ecology* 50: 68-78.
- Christianson, D., R.W. Klaver, **A.D. Middleton**, and M.J. Kauffman. 2013. Confounded winter and spring conditions on temperate herbivore ranges. *Landscape Ecology* 28: 427-437.
- Nelson, A.A., M.J. Kauffman, **A.D. Middleton**, M.D. Jimenez, D.E. McWhirter, J.J. Barber, and K. Gerow. 2012. Elk migration patterns and human activity influence wolf habitat selection in the Greater Yellowstone Ecosystem. *Ecological Applications* 22: 2293-2307.
- Cross, P.C., E.K. Cole, A.P. Dobson, W.H. Edwards, K.L. Hamlin, G. Luikart, **A.D. Middleton**, B.M. Scurlock, and P.J. White. 2010. Probable causes of increasing elk brucellosis in the Greater Yellowstone Ecosystem. *Ecological Applications* 20: 278-288.
- Pauli, J.N., J.P. Whiteman, M. Riley, and **A.D. Middleton**. 2009. Defining "noninvasive" for sampling of vertebrates. *Conservation Biology* 24: 349-352.

*Book chapters, essays, and reports*

- Kauffman, M., H. Copeland, J. Berg, S. Bergen, E. K. Cole, M. Cuzzocreo, S. Dewey, J. Fattebert, J. Gagnon, E. Gelzer, C. Geremia, T. Graves, K. Hersey, M. Hurley, R. Kaiser, J. Meacham, J. Merkle, **A. D. Middleton**, T. Nunez, B. Oates, D. Olson L. Olson, H. Sawyer, C. Schroeder, S. Sprague, A. Steingisser, M. Thonhoff. 2020. Ungulate migrations of the western United States, Volume 1. U.S. Geological Survey Scientific Investigations Report 2020-5101, 119 p., <https://doi.org/10.3133/sir20205101>.
- Middleton, A.D.** 2019. Tracking Wolves. pp. 178-187 in "Matthew Barney, Redoubt" by Yale University Art Gallery, Yale University Press, New Haven, CT. 368 pp.
- Middleton, A.D.** 2017. Sustaining migrations in the modern West. pp. 119-124 in "Yellowstone Migrations by J. Riis. 176 pp.
- Middleton, A.D.** 2016. Seeing Yellowstone: Science at its limits in a conservation crucible. pp. 36-51 in "Invisible Boundaries: Exploring Yellowstone's Great Animal Migrations" ed. Karen B. McWhorter. Buffalo Bill Center of the West, Cody, WY. 80 pp.
- Middleton, A.D.** and L. Allison. 2016. Beyond boundaries in the Greater Yellowstone Ecosystem: scientists and ranchers exploring solutions for the future. Western Landowners Alliance. 28 pp.
- Middleton, A.D.** 2014. "Changes in habitat quality and predation shape a Yellowstone elk migration" and "Cascading consequences of the lake trout invasion on Yellowstone's migratory elk?" [Yellowstone Science 22:36-37](https://doi.org/10.1007/s12237-014-9237-2).
- Hohl, A., C. Picard, S.G. Clark, and **A.D. Middleton**. 2010. Approaches to large-scale conservation: a survey. *In Large Scale Conservation in the Common Interest*, eds. S.G. Clark, A. Hohl, C. Picard, and D. Newsome. Springer. 191 pp.

*Book reviews*

- Middleton, A.D.** 2016. Putting the prey back in predator-prey interactions. *Quarterly Review of Biology* 91: 366.
- Middleton, A.D.** 2015. Living with large carnivores: do ecology and conservation biology have the answers? *Ecology* 96: 880-81.
- Martínez del Río, C. and **A.D. Middleton**. 2010. Laws for ecology? *Ecology* 91:1244-1245.

*Popular articles*

**Middleton, A.D.** 2018. Protecting America's last great animal migrations. [The New York Times \(op-ed\)](#).

**Middleton, A.D.** 2014. Is the wolf a real American hero? [The New York Times \(op-ed\)](#).

**Middleton, A.D.** 2012. As wolves return to the West, greens go to court. [The Wall Street Journal \(op-ed\)](#).

**Middleton, A.D.** 2014. San Guillermo Expedition 2014. National Geographic Explorer's Journal (series from the field on puma-vicuna interactions).

*Exhibition*

**Middleton, A.D.**, C.R. Preston and K. McWhorter (co-curators). 2016. "Invisible Boundaries: Exploring Yellowstone's Great Animal Migrations." (Museum exhibit.) Buffalo Bill Center of the West, National Geographic Society, Peabody Museum of Natural History, National Museum of Wildlife Art, Utah Museum of Natural History.

*Film*

**Middleton, A.D.**, J. Riis, and J. Nichols (co-producers). 2016. Elk River. (Documentary film.) [National Geographic Short Film Showcase](#), [YouTube](#). 28 mins.

**INVITED PRESENTATIONS**

Middleton, A.D. Current wildlife research in northwest Wyoming. Wyoming Game and Fish Department supervisory meeting. Virtual visit, August 2020.

Middleton, A.D. The Greater Yellowstone Ecosystem through the eyes of its migratory wildlife. Meetteetse Museums speaker series. Virtual visit, June 2020.

Middleton, A.D. Large herbivore migrations in a changing world. UC Davis Ecology and Evolution Seminar Series. Virtual visit, May 2020.

Middleton, A.D. and H. Sawyer. The big picture: science and tools of wildlife migration. Pew Charitable Trusts and California Department of Fish and Wildlife Conservation, Northeastern California Wildlife Connectivity Symposium. Sacramento, CA, January 2020.

Middleton, A.D. The ecology and conservation of ungulate migrations in the American West. California Department of Fish and Wildlife Conservation Lecture Series. Sacramento, CA, October 2019.

Middleton, A.D. Conserving ecological and social connections in the West. Western Landowners Alliance Board Meeting, TomKat Ranch, Pescadero, CA, August 2019.

Middleton, A.D. Tracking wolves. Yale University Art Gallery, New Haven, CT, May 2019.

Middleton, A.D. The science and conservation of wildlife migrations. Property and Environment Research Center, Bozeman, MT, November 2018.

Middleton, A.D. Wildlife migrations of the Greater Yellowstone Ecosystem. National Geographic Society Educator Summer Institute, Jackson, WY, July 2018.

Middleton, A.D. Yellowstone's Migrations: A new path for conservation in the wild heart of America. The Nature Conservancy – Wyoming, Jackson, WY, July 2018.

Middleton, A.D. Reflections on natural and social connectivity in the Greater Yellowstone Ecosystem. National Parks Conservation Association Board of Trustees, Island Park, ID, June 2018.

Middleton, A.D. A new vision for Yellowstone through the eyes of its migratory wildlife. Department of Ecology, Evolution, and Marine Biology, U.C. Santa Barbara, May 2018.

Middleton, A.D. The ecology and conservation of Yellowstone's Migrations. Department of Environmental Studies, U.C. Santa Cruz, April 2017.

Middleton, A.D. Yellowstone Migrations. Wyoming Game and Fish Department, Cody Region annual meeting, August 2017.

- Middleton, A.D. Yellowstone Migrations. US Forest Service Region 2 leadership team retreat. Cody, Wyoming, July 2017.
- Middleton, A.D. Yellowstone Migrations. Greater Yellowstone Coordinating Committee, wildlife subcommittee. Cody, Wyoming, July 2017.
- Middleton, A.D. Yellowstone Elk Migrations. Rocky Mountain Elk Foundation, Annual Convention. Nashville, TN, March 2017.
- Middleton, A.D. and J. Riis. Yellowstone Migrations. Western Association of Fish and Wildlife Agencies, Cody, WY, July 2016.
- Middleton, A.D. and J. Riis. Yellowstone Migrations. National Geographic Live! National Geographic Society, Washington, DC, April 2016.
- Middleton, A.D. and J. Riis. The Greater Yellowstone Migrations. Wallace Stegner Lecture, University of Utah, S.J. Quinney School of Law, Salt Lake City, UT, April 2016.
- Middleton, A.D. and J. Riis. The elk migrations of the Greater Yellowstone Ecosystem: Their importance to landscapes and people. Wyoming Outfitters and Guides Annual Convention, Cody, WY, March 2016.
- Middleton, A.D. The elk migrations of the Greater Yellowstone Ecosystem: implications for coordinated management and conservation. Greater Yellowstone Coordinating Committee (supervising federal land and wildlife managers of the Greater Yellowstone Ecosystem). Invited presentation, Cody, Wyoming, April 2015.
- Middleton, A.D. Ecology and conservation of wildlife migrations in the Greater Yellowstone Ecosystem. University of Massachusetts-Amherst Department of Environmental Conservation, ECo Seminar Series, Amherst, MA, April 2014.
- Middleton, A.D. Large carnivores and their prey in the Greater Yellowstone Ecosystem: ecology in a conservation crucible. Vargsymposiet (The Wolf Symposium). Invited foreign speaker, Vålådalen, Sweden, March 2015.
- Middleton, A.D. Bringing Yellowstone's changing ecological interactions to the public. Vargsymposiet (The Wolf Symposium). Invited foreign speaker, Vålådalen, Sweden, March 2015.
- Middleton, A.D. Ecology and conservation of animal migration in the Greater Yellowstone Ecosystem. Department of Biology, Queens College at the City College of New York. Invited presentation, New York, New York, November 2014.
- Middleton, A.D. Imagining and re-imagining mountain ecosystems through linked science and storytelling. National Geographic Society, Washington, DC, October 2014.
- Middleton, A.D. Re-discovering the elk migrations of the Greater Yellowstone Ecosystem: linking science and outreach. 12<sup>th</sup> Yellowstone Science Conference. Mammoth, WY, October 2014.
- Middleton, A.D. Animal migration as a basis for understanding and conserving western landscapes. U.S. Fish and Wildlife Service Director's Office. Washington, DC, September 2014.
- Middleton, A.D. The migration of the Cody elk herd. Upper South Fork Landowners' Association Annual Meeting. Invited presentation, Cody, WY, August 2014.
- Middleton, A.D. Leaps and bounds: a new era of research and conservation for migratory wildlife in the West Wildlife Heritage and Hunting Conservation Council (convened by the U.S. Fish and Wildlife Service). Invited presentation, Cody, WY, June 2014.
- Middleton, A.D. The changing ecology of elk migration in the Greater Yellowstone Ecosystem. Universite de Sherbrooke, Sherbrooke, Quebec. April 2014.
- Middleton, A.D. Large carnivores, drought, and the changing ecology of elk migration in Yellowstone. Conservation Ecology series, University of Michigan School of Environment and Natural Resources, Ann Arbor, MI, January 2014.
- Middleton, A.D. A tale of two predators. Invited public lecture, Real Artways, Science on Screen series, Hartford, CT. September 2013.

- Middleton, A.D., C. Martinez del Rio, and M.J. Kauffman. Prey body condition: a common influence on antipredator behavior and the “ecology of fear?” Annual Meeting of the Ecological Society of America, Minneapolis, MN, August 2013.
- Middleton, A.D. The changing ecology of elk migration in the Greater Yellowstone Ecosystem. Invited public lecture, University of Wyoming – National Park Service Research Station, Grand Teton National Park, WY, June 2013.
- Middleton, A.D. Can wolves influence elk and plants via fear alone? Wolf-elk interactions in Wyoming’s Absaroka Mountains. Invited public lecture (co-sponsored by Wyoming Wildlife Federation and Wyoming Game and Fish Department), Teton County Library, Jackson, WY, June 2013.
- Middleton, A.D. Large mammals in landscapes of fear. Yale Institute for Biospheric Studies Seminar Series, New Haven, CT, February 2013.

## **GRANTS**

- 2020 Prince Albert II of Monaco Foundation. \$295,000. “Conserving puma-camelid-scavenger interactions and their ecosystem effects in the Patagonian and Andean steppe.” 3 years.
- 2020 Rocky Mountain Elk Foundation. \$15,000. “Why are elk becoming increasingly habituated to human-dominated areas?” With Kristin Barker.
- 2020 Rocky Mountain Elk Foundation. \$20,000. “Understanding the spatial ecology of calving in the Cody elk herd.”
- 2020 George B. Storer Foundation. \$40,000. “Living with Wildlife: Science and outreach to support ecological connectivity in northwest Wyoming.”
- 2020 Knobloch Family Foundation. \$200,000. “Beyond Yellowstone: wildlife ecology to support working-lands conservation.”
- 2020 Wyoming Animal Damage Management Board. Absaroka carnivore-livestock interaction project. \$40,000.
- 2019 Multiple foundations and individuals. “The Beyond Yellowstone Program.” With Buffalo Bill Center of the West. ~\$900,000. 3 years.
- 2019 Wyoming Game and Fish Department. Large carnivore research in northwest Wyoming. \$100,000.
- 2019 Wyoming Animal Damage Management Board. Absaroka carnivore-livestock interaction project. \$60,000.
- 2019 Greater Yellowstone Coordinating Committee. “Understanding the consequences of conserving migratory ungulates: wolf-elk-livestock interactions in the Absaroka Range.” \$20,000.
- 2019 Knobloch Family Foundation. \$200,000. “Beyond Yellowstone: wildlife ecology to support working-lands conservation.”
- 2019 George B. Storer Foundation. \$65,000. “Living with Wildlife: Science and outreach to support ecological connectivity in northwest Wyoming.”
- 2019 William and Flora Hewlett Foundation. \$200,000. “Beyond Yellowstone: wildlife ecology to support working-lands conservation.” 2 years.
- 2018 Wyoming Game and Fish Department. Large carnivore research in northwest Wyoming. \$56,000.
- 2018 Hellman Fellowship. \$41,675. Evaluating patterns of puma predation to reduce human-wildlife conflict in Patagonia.
- 2018 National Park Service. \$193,774. Ecology of wolves and their prey in the southern Greater Yellowstone Ecosystem. 5 years.
- 2018 George B. Storer Foundation. \$65,000. “Living with Wildlife: Science and outreach to support ecological connectivity in northwest Wyoming.”
- 2018 Knobloch Family Foundation. \$36,000. “Beyond Yellowstone: wildlife ecology to support ecosystem-scale conservation.”

- 2017 George B. Storer Foundation. \$65,000. "Living with Wildlife: Science and outreach to support ecological connectivity in northwest Wyoming."
- 2017 National Geographic Society. \$1,336,474. "Beyond Yellowstone: wildlife ecology to support ecosystem-scale conservation." 3 years.
- 2016 U.S. Forest Service, Shoshone National Forest. Eastern GYE deer migration study. \$11,000.
- 2016 George B. Storer Foundation. Re-discovering the elk migrations of the Greater Yellowstone Ecosystem: a project of trans-boundary science and outreach. With J. Riis. \$60,000.
- 2016 Devonwood Foundation. A landscape of fear in the high Andes: Evaluating puma-vicuna interactions at San Guillermo National Park, Argentina. \$20,000.
- 2016 Knobloch Family Foundation. Re-discovering the Greater Yellowstone Ecosystem through its animal migrations. \$60,000.
- 2015 Multiple foundations and individuals. "Invisible Boundaries: Exploring Yellowstone's Great Animal Migrations" (Museum exhibition). With Buffalo Bill Center of the West. ~\$750,000.
- 2015 Bole and Klingenstein Foundation. "Elk River" (Film). \$95,200. Co-produced with J. Riis, J. Nichols.
- 2015 Duncan Fund. Re-discovering the elk migrations of the Greater Yellowstone Ecosystem: a project of trans-boundary science and outreach. With J. Riis. \$15,000.
- 2015 Mary Anne and Bill Dingus. Re-discovering the elk migrations of the Greater Yellowstone Ecosystem: a project of trans-boundary science and outreach. With J. Riis. \$15,000.
- 2015 Wyoming Outfitters and Guides Association. Wiggins Fork elk migration project. \$3,000.
- 2015 Cody Country Outfitters and Guides Association. Wiggins Fork elk migration project. \$3,000.
- 2015 U.S. Forest Service, Shoshone National Forest. Wiggins Fork elk migration project. \$15,000.
- 2015 George B. Storer Foundation. Re-discovering the elk migrations of the Greater Yellowstone Ecosystem: a project of trans-boundary science and outreach. With J. Riis. \$60,000.
- 2015 Betts Family Foundation. Wiggins Fork elk migration project. \$5,000.
- 2015 Knobloch Family Foundation. Re-discovering the Greater Yellowstone Ecosystem through its animal migrations. \$60,000.
- 2014 Wyoming Outfitters and Guides Association. Wiggins Fork elk migration project. \$3,000.
- 2014 Cody Country Outfitters and Guides Association. Wiggins Fork elk migration project. \$3,000.
- 2014 Devonwood Foundation. A landscape of fear in the high Andes: Evaluating puma-vicuna interactions at San Guillermo National Park, Argentina. \$20,000.
- 2014 Knobloch Family Foundation. Re-discovering the Greater Yellowstone Ecosystem through its animal migrations. \$60,000.
- 2014 George B. Storer Foundation. Re-discovering the elk migrations of the Greater Yellowstone Ecosystem: a project of trans-boundary science and outreach. With J. Riis. \$60,000.
- 2014 Fran and Lenox Baker Foundation. Re-discovering the elk migrations of the Greater Yellowstone Ecosystem: a project of trans-boundary science and outreach. With J. Riis. \$25,000.
- 2013 National Geographic Society, Expeditions Council. Re-discovering the elk migrations of the Greater Yellowstone Ecosystem. \$22,000. Expedition participant with J. Riis.
- 2013 Knobloch Family Foundation. Re-discovering the elk migrations of the Greater Yellowstone Ecosystem: a project of trans-boundary science and outreach. With J. Riis. \$40,000.
- 2013 George B. Storer Foundation. Re-discovering the elk migrations of the Greater Yellowstone Ecosystem: a project of trans-boundary science and outreach. With J. Riis. \$40,000.



- 2013 Camp Monaco Prize (Buffalo Bill Historical Center and University of Wyoming Biodiversity Institute). Re-discovering the elk migrations of the Greater Yellowstone Ecosystem: a project of trans-boundary science and outreach. With J. Riis. \$100,000.
- 2013 Association of Zoos and Aquariums, Conservation Endowment Fund. Evaluating the importance of native prey species to the diet of Andean condors in the high Andes of northwestern Argentina. \$19,400. With J. Pauli, P. Perrig, E. Donadio.
- 2013 National Geographic Society, Committee for Research and Exploration. A landscape of fear in the high Andes: Evaluating puma-vicuna interactions at San Guillermo National Park, Argentina. \$25,400.
- 2013 Devonwood Foundation. A landscape of fear in the high Andes: Evaluating puma-vicuna interactions at San Guillermo National Park, Argentina. \$20,000.
- 2012 George B. Storer Foundation. Evaluating impacts of disturbance on wildlife. \$20,000.
- 2012 Rocky Mountain Elk Foundation. What drives variation in elk pregnancy rates? With J. Rodgerson, B. Scurlock, M. Kauffman. \$10,000.
- 2012 Wyoming Governor's Big Game License Coalition. What drives variation in elk pregnancy rates? With J. Rodgerson, B. Scurlock, M. Kauffman. \$5,000.

## **TEACHING**

- ESPM 290: Working lands, the biodiversity crisis, and protected-areas movements (Fall '20)
- ESPM 106: American wildlife: management and policy for the 21<sup>st</sup> Century (Springs '18, '20)
- ESPM 290/IB 250: Community ecology: species interactions in an era of global change (Fall '17)
- ESPM 290: Human influences on predator-prey interactions (Fall '18)

## **SERVICE**

### *To UC Berkeley*

- 2017-present Executive committee, UC Berkeley Rausser College of Natural Science Institute for Parks, People, and Biodiversity
- 2020 UC Berkeley Environmental Science, Policy, and Management Target of Excellence Ad Hoc committee
- 2019 Member, UC Berkeley Environmental Science undergraduate major review committee
- 2017 UC Berkeley Environmental Science, Policy, and Management Admissions Committee
- 2016 UC Berkeley Environmental Science, Policy, and Management Admissions Committee

### *To external organizations*

- 2020- Northwest Wyoming advisory board member, Nature Conservancy of Wyoming
- 2020- Member of Natural Landmarks Committee of US National Park System Advisory Board
- 2019- Advisory board member, Draper Museum of Natural History
- 2017- Trustee, Buffalo Bill Center of the West
- 2017- Science advisor, Rocky Mountain Elk Foundation
- 2016 Science advisor, National Geographic Magazine, Yellowstone Issue

### *To journals via peer review*

American Naturalist, Behavioral Ecology and Sociobiology, Biological Conservation, Canadian Journal of Zoology, Conservation Letters, Ecology, Ecology Letters, Ecological Applications, Ecosphere, Journal of Animal Ecology, Journal of Wildlife Management, Oikos, Oecologia, PLoS ONE, Proceedings of the National Academy of Sciences, Proceedings of the Royal Society B, Rangeland Ecology and Management, Science Advances, Western North American Naturalist,

Wildlife Biology, University of Chicago Press, National Geographic Committee for Research and Exploration

**AFFILIATIONS**

Ecological Society of America, Society for Conservation Biology, The Wildlife Society