

LAUREL ELIZABETH KLEIN SERIEYS

Department of Ecology & Evolutionary Biology, University of California, Los Angeles

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RESEARCH INTERESTS

Urban wildlife ecology; Conservation biology; Effects of anthropogenic disturbance on wildlife populations; Evolution as a result of anthropogenic pressures; Use of molecular and other laboratory techniques to enhance field-based research questions.

EDUCATION

- PhD Ecology and Evolutionary Biology, University of California, Los Angeles, California, 2014.
PhD Dissertation: Critical effects of urbanization on a charismatic carnivore: genetic change, disease and toxicant exposure, and disease susceptibility in bobcat populations in an urban, fragmented landscape. Co-advisors: Robert K. Wayne, PhD (UCLA) and Seth P.D. Riley, PhD (National Park Service)
- BS Bachelor of Science, Zoology, University of Texas, Austin, Texas, 2003

PROFESSIONAL EXPERIENCE

- Sept. 2014 – Postdoctoral researcher. Exploring the behavioral and genetic response of caracal (*Caracal caracal*) to urbanization. Collaboration between Wilmers lab– University of California, Santa Cruz, Cape Leopard Trust (South African nonprofit) and Bishop lab- University of Cape Town, Cape Town, South Africa
- 2007 – 2014 Teaching Assistant. University of California, Los Angeles. 4 Appointments. Courses: Ecology and Behavior Lab Component, Intro. Biology (for nonmajors), Vertebrate Biology, Intro. Biology (for Bio majors).
- 2011 Field Instructor. Opossum Genetics Project. Chamela Reserve, Mexico
- 2007 Field Assistant. National Park Service. Ecology of mountain lions in Grand Canyon NP, AZ.
- 2006 Field Assistant. National Park Service. Effects of urban development on native carnivores. Los Angeles, CA.
- 2004 – 2005 Research Assistant. Royal Botanical Gardens. Molecular phylogenetics of Mediterranean Malveae. Madrid, Spain
- 2003 – 2004 Research Assistant and Field Team Manager. Indiana University. Abiotic stress tolerance and anti-herbivore resistance in sunflower hybrids. Austin, TX & Bloomington, IN.
- 2004 Research Assistant. Universidad Autonoma de Mexico. Ecosystem process study of the impact of an invasive grass on nutrient cycling and resource availability in the Sonoran Desert. Hermosillo, Mexico

GRANTS AND AWARDS

- 2007–2010 National Science Foundation Graduate Student Fellowship, \$40,500/year
- 2007 EPA Star 3-Year Graduate Student Fellowship; Offer Declined, \$37,000/year
- 2008–2012 UCLA Research Awards, \$500–\$2,000 annually
- 2008–2013 Santa Monica Bay Audubon Society Student Research Grants, \$500 annually
- 2008 California Mediterranean Research Learning Center Fellowship, \$1,200
- 2010 Pfizer Dedicated Gift of Project Supplies, \$1,700
- 2010, 2012 Panthera Small Cat Research Awards, \$14,320

- 2010, 2012 Summerlee Foundation Research Grants, \$30,000
2011 Friends of Griffith Park Research Grant, \$2,100
2012, 2013 Gottlieb Scholarships, \$2,500
2012–2013 G2 Gallery Dedicated Gift, \$6,000
2013 Second Place– best student presentation. *TWS, The Western Section Conference*, Sacramento, California.
2012, 2013 UCLA Departmental Fellowship Awards
2011–2014 Santa Monica Bay Audubon Special Grants, \$1,500–\$2,500 annually

PUBLICATIONS (PEER REVIEWED)

- Serieys, L.E.K.**, Lea, A., Pollinger, J., Riley, S.P.D., and R.K. Wayne. *In revision (Accepted with minor revisions)*. Disease and freeways drive genetic change in urban bobcat populations. *Evolutionary Applications* (EVA-2014-076-OA)
- Riley, S.P.D., **Serieys, L.E.K.**, Pollinger, J.P., Sikich, J.A., Dalbeck, L., Wayne, R.K., and H.B. Ernest. 2014. Individual behavior dominates the dynamics of a mountain lion population in a highly fragmented urban landscape. *Current Biology (In press)*
- Lee, J.S., Bevins, S.N., **Serieys, L.E.K.**, Vickers, W., Logan, K.A., Aldredge, M., Boydston, E.E., Lyren, L.M., McBride, R., Roelke-Parker, M., Pecon-Slattey, J., Troyer, J.L., Riley, S.P.D., Boyce, W.M., Crooks, K.R. and S. VandeWoude. 2014. The evolution of puma lentivirus in bobcats (*Lynx rufus*) and mountain lions (*Puma concolor*) in North America. *Journal of Virology*, 88(14):7727-7737. doi:10.1128/JVI.00473-14
- Troyer, R.M, Beatty, J.A., Stutzman-Rodriguez, K.A., Carver, S., Lozano, C.C., Lee, J.S., Lappin, M.R., Riley, S.P.D., **Serieys, L.E.K.**, Logan, K.A., Sweanor, L.L., Boyce, W.M., Vickers, W., McBride, R., Crooks, K.R., Lewis, J.S., Cunningham, M.W., Rovnak, J., Quackenbush, S.L., and S. VandeWoude. 2014. Novel gammaherpesviruses in North American domestic cats, bobcats and pumas: identification, prevalence and risk factors. *Journal of Virology*, 88:3914-3924. doi:10.1128/JVI.03405-13
- Serieys, L.E.K.**, Foley, J., Owens, S., Woods, L., Boydston, E.E., Lyren, L.M., Poppenga, R.H., Clifford, D.L., Stephenson, N., Rudd, J. and S.P.D. Riley. 2013. Clinical chemistry abnormalities in bobcats (*Lynx rufus*) with notoedric mange and anticoagulant rodenticide exposure. *Journal of Parasitology* 99(6): 989-996. <http://dx.doi.org/10.1645/12-175.1>
- Stephenson, N., Clifford, D., Worth, J., **Serieys, L.E.K.**, Foley, J. 2013. Development and validation of a fecal PCR assay for *Notoedres cati* and assessment of a notoedric mange epizootic in bobcats (*Lynx rufus*) in northern California. *Journal of Wildlife Diseases*, 49(2): 303-311.
- Moriarty, J.G., Riley, S.P.D., **Serieys, L.E.K.** et al. 2012. Exposure of wildlife to anticoagulant rodenticides at Santa Monica Mountains National Recreation Area: from mountain lions to rodents. *Proceedings of the Vertebrate Pest Conference*, 25: 144-148.
- Schwochow, D., **Serieys, L.E.K.**, Thalmann, O., and R.K. Wayne. 2012. Efficient recovery of whole blood RNA – a comparison of commercial RNA extraction techniques. *BMC Biotechnology*, 12:33.

MANUSCRIPTS (IN REVIEW)

- Serieys, L.E.K.**, Tiffany, C.A., Moriarty, J., Boydston, E.E., Lyren, L., Poppenga, R.H., Wayne, R.K., Crooks, K.R., and S.P.D. Riley. *In review*: Anticoagulant rodenticides in urban bobcats: measuring exposure, risk factors, and consequences. *Ecotoxicology* (ECTX-D-14-00264)
- Foley, J., **Serieys, L.E.K.**, Stephenson, N., Riley, S.P.D., Foley, C. Woods, L., Jennings, M., Wengert, G., Vickers, W., Boydston, E.E., Lyren, L.M., Moriarty, J., Clifford, D. *In review*: The

ecology of notoedric mange. *Journal of Wildlife Diseases* (JWD 2013-12-337)

BOOK CHAPTER

Riley, S.P.D., **Serieys, L.E.K.**, Moriarty, J. 2014. Infectious disease and contaminants in urban wildlife: unforeseen and often overlooked threats. Pages (in press) in McCleery, R.A., Moorman, C. and Peterson, N. editors. *Urban Wildlife Science: Theory and Practice*. Springer, New York, NY.

PUBLICATIONS IN PREP

Serieys, L.E.K., Epelguidi, M., Armenta, T.C., Foley, J., VandeWoude, S., Schlottman, S., Riley, S.P.D., Wayne, R.K., and C. Uittenbogaart. A pro-inflammatory response to sublethal toxicant exposure: exploring the causal link between anticoagulant rodenticides and severe notoedric mange in urban bobcats.

Serieys, L.E.K., Riley, S.P.D., Foley, J. Pathogen exposure in bobcats and coyotes living on the urban edge. Prep for *Journal of Wildlife Diseases*

Carver, S., Bevins, S.N., Lappin, M.R., Boydston, E.E., Lyren, L.M., Alldredge, M., Logan, K.A., Sweanor, L.L., Riley, S.P.D., **Serieys, L.E.K.**, Fisher, R.N., Vickers, T.W., Boyce, W., McBride, R., Cunningham, M.C., Jennings, M., Lewis, J., Crooks, K.R., and S. VandeWoude. *In review*: Pathogen exposure varies widely among sympatric populations of wild and domestic felids across the United States. Prep for *Proceedings of the National Academy of Sciences*

PUBLICATIONS (NON-PEER REVIEWED)

Serieys, L.E.K. 2013. Anticoagulant rodenticides: a cryptic threat for wild felid populations. *Wild Felid Monitor*, 6(2): 13-15.

Serieys, L.E.K. 2012. Conference report: The Wildlife Society Meeting 2012. *Wild Felid Monitor*, 2(2): 10-11.

Klein, L.E. 2011. Rat poisons putting predators at risk. *Animal Welfare Institute Quarterly: Winter Issue*.

CONFERENCE PRESENTATIONS

Serieys, L.E.K., Lea, A., Pollinger, J., Riley, S.P.D., and R. Wayne. 2013. Disease and urbanization drive temporal and spatial genetic changes among bobcat populations in an urban, fragmented landscape. *The Annual Wildlife Society Meeting*, Milwaukee, Wisconsin. Talk.

Serieys, L.E.K., Lea, A., Pollinger, J., Riley, S.P.D., and R. Wayne. 2013. The genetic signature of a disease epizootic associated with poison exposure in bobcats in an urban landscape. *TWS, The Western Section Conference*, Sacramento, California. Talk. *Awarded second place for best student presentation*

Serieys, L.E.K., Boydston, E., Lyren, L.M., Poppenga, R.H., Wayne, R.K., and S.P.D. Riley 2012. Anticoagulant rodenticides: Is a rodent poison a big problem for bobcats in an urban, fragmented landscape? *The Annual Wildlife Society Meeting*, Portland, Oregon. Talk.

Serieys, L.E.K., Riley, S.P.D., Foley, J., Owens, S., Boydston, E.E., Lyren, L.M., Crooks, K., and R.K. Wayne. 2011. Blood chemistry values for bobcats with severe mange and anticoagulant rodenticide exposure in Southern California. *The Annual Wildlife Society Meeting*, Kona, Hawaii. Poster.

Klein, L.E., Riley, S.P.D., Foley, J., Owens, S., Boydston, E.E., Lyren, L.M., Crooks, K., and R.K. Wayne. 2011. Notoedric mange in bobcats in Southern California. *TWS, The Western Section Conference*, Irvine, California. **Invited Talk.**

- Klein, L.E., Riley, S.P.D., Foley, J., Owens, S., Boydston, E.E., Lyren, L.M., Crooks, K., and R.K. Wayne. 2010. Anticoagulant rodenticide exposure in bobcats in Southern California. *Pacificchem Conference*, Honolulu, HI. Poster.
- Klein, L.E. and S.P.D. Riley. 2009. Hematological characteristics of bobcats in an urban, fragmented landscape. *Urban Wildlife Conference*, Amherst, MA. Poster.

PROFESSIONAL SERVICE

- Journal referee: *Journal of Wildlife Diseases* (1), *Molecular Ecology* (1)
- Website Founder and Editor. UrbanCarnivores.com, facebook.com/UrbanCarnivores, UrbanWildlifeGroup.org
- Vice President and Newsletter Committee. Wild Felid Research and Management Association.
- Board Member & Communications Officer. TWS Urban Wildlife Working Group.
- Symposium organizer and mediator. “Urbanization as a driver of change in wildlife.” The Annual Wildlife Society Meeting. Milwaukee, Wisconsin. 2013.

COMMUNITY SERVICE

- 2011 – 2012 Mentor/Co-Instructor. Yeshiva University High School Science Club.
- 2012 G2 Photography Gallery Emerging Environmentalist Collaborator
- 2009 – 2014 Invited Instructor and Lecturer for General Public Audiences and Park Ranger Trainings (>40 lectures)
- 2007 – 2013 National Park Service/Local Community Biology Education Events
- 2009 – Interviews: Newspapers, magazines, websites, radio, and podcast. The Los Angeles Times, Ventura County Star, BBC, NPR, etc.

LANGUAGE SKILLS

- Spanish. Proficient and have effectively worked in both field and lab settings where Spanish was the only language spoken.
- French. Basic knowledge.