

Luz A. de Wit, Ph.D.

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Postdoctoral Associate, Gund Institute for Environment, Rubenstein School for the Environment and Natural Resources, University of Vermont

Areas of expertise:

- **Health Sciences:** veterinary medicine, epidemiology, public health, pathology
 - **Biological Sciences:** disease ecology, conservation biology, invasion biology, ecology, evolution, physiology
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Education

- **University of California, Santa Cruz.**
Ph.D. in Ecology and Evolutionary Biology, August 2019.
Dissertation Committee: Don Croll, Marm Kilpatrick, Karen Shapiro, Dolores Correa Beltran
 - **Tufts University.**
MSc. in Conservation Medicine. August 2012.
 - **Universidad Nacional Autónoma de México.**
BS in Veterinary Medicine and Animal Husbandry. June 2010.
Residency in Systemic Pathology.
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Peer Reviewed Publications

- **de Wit L. A.,** D. Croll, B. Tershy, K. Newton, D. Spatz, N. Holmes, and A. M. Kilpatrick. Estimating burdens of neglected tropical zoonotic diseases on islands with introduced mammals to guide control and eradication assessments. *Am. J. Trop. Med. and Hyg.* 96(3), 2017, pp. 749-757.
<https://doi.org/10.4269/ajtmh.16-0573>
- S. G. Crandall, J. L. Ohayon, **L.A. de Wit**, J.E. Hammond, K.L. Melanson, M.M. Moritsch, R. Davenport, D. Ruiz, B. Keitt, N.D. Holmes, H. G. Packard, J. Bury, G. S. Gilbert & I. M. Parker (2018) Best practices: social research methods to inform biological conservation. *Australasian Journal of Environmental Management.* 25:1, 6-23, <https://doi.org/10.1080/14486563.2017.1420499>
- **de Wit L. A.,** D. Croll, B. Tershy, D. Correa, H. Luna-Pasten, P. Quadri, and A. M. Kilpatrick. (2019) Potential public health benefits from cat eradications on islands. *PLoS Negl Trop Dis.* 13(2): e0007040.
<https://doi.org/10.1371/journal.pntd.0007040>
- K. Shapiro, L. Bahia-Oliveira, B. Dixon, A. Dumètre, **L.A. de Wit**, E. VanWormer & I. Villena. Environmental transmission of *Toxoplasma gondii*: Oocysts in water, soil and food. *Food and Waterborne Parasitology* 12: e00049. <https://doi.org/10.1016/j.fawpar.2019.e00049>
- **de Wit, LA,** Kilpatrick, AM, VanWormer, E, Croll, DA, Tershy, B, Kim, M, Shapiro, K. Seasonal and spatial variation in *Toxoplasma gondii* contamination in soil in urban public spaces in California, United States. *Zoonoses Public Health.* 2019; 00: 1– 9. <https://doi.org/10.1111/zph.12656>

Research Submitted or in Preparation for Publication

- Fisher, B., **L.A. de Wit**, T. Ricketts. Natural Capital and Human Health. *In review*, Environmental Economics and Policy. December 2019.
- **de Wit, L.A.,** Zilliacus, K., Quadri, P., Will, D., Grima, N., Spatz, D., Holmes, N., Tershy, B., Howald, G., Croll, D. Invasive vertebrate eradications on islands as a tool for implementing global sustainable goals. *In preparation.*

- Vickery A. G., L. A. de Wit, A. M. Kilpatrick. Trophic transmission of plague bacteria, *Yersinia pestis*, to mammalian predators. *In preparation*.
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Research in Progress

- **Linking public health to invasive species and environmental degradation using Rat lungworm disease (*Angiostrongylus cantonensis*) as a case study.**
Co-PI: Dr. Taylor Ricketts. Gund Institute for the Environment. University of Vermont
 - **Land use change and climate as drivers of West Nile Virus incidence in the United States with projections into 2100.**
Co-PIs: Dr. Marm Kilpatrick and Dr. Taylor Ricketts. Gund Institute for the Environment. University of Vermont.
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Presentations

- Potential public health benefits from cat eradication on islands. International Congress on Conservation Biology. Cartagena, Colombia. August 2017
- Invasive Vertebrate Species and Neglected Zoonotic Diseases of Islands. Third International Conference in Disease Ecology. Mérida, Yucatán. November, 2013
- Brain and Optic Nerve Astrocitoma in an English Bulldog. XX National Congress of Veterinary Pathology, Puerto Vallarta, Jalisco, Mexico. June, 2011

Honors and Awards

- Gund Institute Fellow, 2019-2021
- Gund Institute Research and Travel Grant (\$10,000)
- Beca Complemento, Secretaría de Educación Pública (Mexico) 2013-2016 (\$14,500)
- CONACYT-UCMEXUS Fellow, 2013-2018
- UC MEXUS Small Research Grant, 2014-2015 (\$1,500)
- Rufford Foundation Small Grant, 2015-2016 (\$7,564)
- UC MEXUS Dissertation Fellowship Grant, 2017-2018 (\$11,800)
- Koret Fellowship for Research Mentors, 2017 (\$2,000)

Teaching Experience

Lecturer:

Disease Ecology (BIOE 149, UC Santa Cruz).

Guest Lecturer:

Conservation Biology (ENVS 120, UC Santa Cruz).

Human Functional Anatomy (BIO 135, UC Santa Cruz).

Teaching Assistant:

- Systemic Pathology and Necropsy Lab (UNAM). Fall 2009 - Spring 2010
- Human Functional Anatomy and Lab (BIO 135/135L). Spring 2014
- Physiology and Development (BIOE 20B). Spring 2015, Winter 2017 (Active Learning), Fall 2018, Winter 2019
- Microbiology (METX 119). Fall 2015, Summer 2016 and Fall 2016
- Ecology and Conservation in Practice (BIOE 151). Spring 2016, 2017 and 2019

- Conservation Biology (ENVS 120). Fall 2017
- Disease Ecology (BIOE 149). Spring 2018
- Ecology (BIOE 107). Summer 2018
- Evolution (BIOE 109). Summer 2018

Mentoring Experience

- Small Mammal Undergraduate Research in the Forest (SMURF) program, UCSC, Research Mentor for undergraduate students, Fall 2016, Winter and Spring 2017
- Science Internship Program (SIP), Research Mentor for high school students, Summer 2017
- UCSC Doris Duke Conservation Scholars Program, Graduate Research Mentor for undergraduate students, Summer 2018

Work Experience

- **Research consultant**, Science for Nature and People Partnership (SNAPP), Ecological Levers for Health, Santa Barbara, California. *September 2019*
- **Research consultant**, Island Conservation, Santa Cruz, California. *January-November 2014; April-August 2019*
- **Veterinary Resident**, Marine Wildlife Veterinary Care and Research Center, California Department of Fish and Wildlife, Santa Cruz, California. *July 2012 – June 2013*
- **Veterinary Intern**, Department of Veterinary Diagnostic Pathology, National Autonomous University of Mexico (UNAM). Mexico City, Mexico. *August 2009- June 2010*
- **Research Assistant**, Physiology and Anatomy Department, School of Veterinary Medicine and Animal Husbandry, Mexico City, Mexico. *June 2007- August 2008*

Service to the Academic Community

Reviewer:

- The American Journal of Tropical Medicine and Hygiene
- Revista do Instituto de Medicina Tropical de São Paulo

Languages

- Spanish: native speaker
- English: advanced (written and spoken)
- German: A1 level

Relevant Skills and Interests

- Molecular biology techniques (DNA extraction, PCR, genetic sequencing)
- Necropsies (gross pathology and histopathology)
- R programming
- Hobbies: Outdoors activities and sports, natural history, literature and languages.