

Katherine C. Prager, DVM, PhD

Department of Ecology and Evolutionary Biology
University of California, Los Angeles
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EDUCATION

Postdoctoral Research Fellow	UC Los Angeles	2010 – 2012
PhD, Ecology	UC Davis	2011
Doctor of Veterinary Medicine	UC Davis	2001
BA, Ecology and Evolutionary Biology	Princeton University	1996

APPOINTMENTS

Associate Researcher	UCLA	2019 – present
Assistant Researcher	UCLA	2012 – 2019

- Research on disease dynamics in populations and ecosystems
- Research on leptospirosis in California sea lions, Channel Island Fox and other mammalian hosts
- Research on disease in urban mammals of Los Angeles County
- Mentor to undergraduates, pre-veterinary students, graduate students and postdocs in the Lloyd-Smith laboratory

Adjunct Professor	UCLA	2018
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- Co-instructor of EEB186 course on ‘Evolutionary Medicine: Clinical Perspectives on Medical, Surgical, and Psychiatric Disorders’

RAPIDD Consultant	NIH Fogarty International Center	2011 – 2015
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- Consultant for the Research and Policy for Infectious Disease Dynamics Program
- Worked with other members of the Research and Policy for Infectious Disease Dynamics Program to understand and characterize host pathogen interactions on both the individual and population scale
- Used empirical data to inform and develop theoretical frameworks with which to explore broader concepts of pathogen dynamics, such as seasonality and persistence
- Participated in the Pathogen Invasion Dynamics Working Group

Morris Animal Foundation Fellow	UC Davis	2008 – 2009
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- Awarded support for doctoral research (stipend and fees)

VGAP Teaching Fellow	UC Davis	2005 – 2008
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- Veterinary Graduate Academic Position in Microbiology/Immunology

- Teaching Assistant for veterinary students in Immunology, Parasitology, Virology and Bacteriology

Associate Veterinarian

2001 – 2005

- Practicing veterinarian of small animal medicine and surgery

GRANTS, AWARDS AND FELLOWSHIPS

\$5,419,067 obtained in funding since 2013; **\$5,691,567 obtained** in funding since 1998; **\$99,564 pending**

FUNDED

USAID STOP Spillover (\$100M; UCLA Subaward \$516,700)

2020 – 2025

- Role: Lead PI for UCLA Subaward
- Strategies to prevent spillover of emerging zoonotic viruses from domestic and wild animals to humans

John H. Prescott Marine Mammal Rescue Assistance Grant Program (\$99,875)

2019 – 2021

- Role: Lead PI
- Investigating the role of northern elephant seals (*Mirounga angustirostris*) in *Leptospira* transmission dynamics in the marine ecosystem

Department of Defense SERDP CESU (\$361,933)

2019 – 2022

- Role: Co-I
- Unforeseen impacts of a severe oceanographic anomaly on pathogen transmission in marine mammals

UCLA Sustainable LA Grand Challenge Research Grants (\$225,000)

2017 – 2019

- Role: Co-I
- Urban Ecology of Los Angeles Mammals: Biodiversity, Pathogen Risks, and Public Perceptions

NSF Division of Environmental Biology Proposal 1557022 (\$370,822)

2017 – 2020

- Role: Co-I
- Pathogen invasion and persistence in an establishing host population: Leptospirosis in the endangered island fox

Department of Defense SERDP Project Number RC-2635 (\$2,444,737)

2016 – 2020

- Role: Co-I
- Leptospirosis in endangered island foxes and California sea lions: outbreak prediction and prevention in a changing world

NSF Biological Oceanography OCE-1335657 (\$1,400,000)

2013 – 2019

- Role: Co-I
- Leptospirosis in California sea lions: Population impacts and persistence in a long-term study of infectious disease in marine mammals

UC Davis Block Grant (\$10,800)

2010

- Graduate school stipend and registration fees

UC Davis Graduate Student Association Travel Award (\$300)	2009
▪ Funding to travel to the European Wildlife Disease Association Workshop	
NSF Doctoral Dissertation Improvement Grant DEB-0807875 (\$12,000)	2008 – 2009
▪ Dissertation research funding	
Morris Animal Foundation Grant D07ZO-402 (\$75,600)	2008 – 2009
▪ Graduate school stipend and registration fees	
NSF Biological Invasions IGERT Short Term Fellowship (\$1,000)	2007
▪ Dissertation research funding	
Graduate Student Support Program Grant, School of Veterinary Medicine (\$30,000)	2007 – 2009
▪ Graduate school stipend and registration fees	
Wildlife Health Center Fellowship Grant, UC Davis (\$5,000)	2007 – 2008
▪ Dissertation research funding	
Jastro-Shields Fellowship, UC Davis (\$5,800)	2006 – 2008
▪ Dissertation research funding	
African Studies Committee Graduate Summer Research Grant, UC Davis (\$2,000)	2006
▪ Dissertation research funding	
VGAP Teaching Fellowship (\$120,000)	2005 - 2008
▪ Graduate support awarded annually to 2-3 veterinarians returning to UC Davis for a PhD	
Deans Endowed Scholarship Award, UC Davis	2000
▪ To offset room and board during fourth year veterinary school externship at The Marine Mammal Center in Sausalito and California Fish and Game in Santa Cruz, CA	
Geraldine R. Dodge Foundation Research Grant (\$5,000)	1999
▪ To fund my research on disease in lions in Uganda	
Frontiers in Veterinary Medicine Grant (\$2,500)	1998
▪ To fund my research on disease in lions in Uganda	
Dr. Viki Krade Memorial Feline Research Fellowship, UC Davis (\$2,500)	1998
▪ To fund my research on disease in lions in Uganda	
Elected to Science Honor Society Sigma Xi	1996

SUBMITTED

John H. Prescott Marine Mammal Rescue Assistance Grant Program (\$99,564)	2021 – 2022
▪ Role: PI	
▪ Detecting anti- <i>Leptospira</i> antibodies in carcasses: The effect of different storage conditions and sample types on microscopic agglutination test results	

PUBLICATIONS

Google scholar page: <https://scholar.google.com/citations?user=mZHtRjAAAAAJ&hl=en>

Citation Statistics: Citations 904; h-index 11; i10-index 11

^F denotes first author. ^C denotes corresponding author. * denotes equal contribution.

1. E. R. Whitmer, B. Borremans, P.J. Duignan, S.P. Johnson, J.O. Lloyd-Smith, A. M. McClain, **K.C. Prager**, “Classification and regression tree (CART) analysis for predicting prognosis in wildlife rehabilitation: A case study of leptospirosis in California sea lions (*Zalophus californianus*)”, *Journal of Zoo and Wildlife Medicine*. (IN PRESS).
2. R. Vega Thurber, L.D. Mydlarz, M. Brandt, D. Harvell, E. Weil, L. Raymundo, B.L. Willis, S. Langevin, A. M. Tracy, R. Littman, K. M. Kemp, P. Dawkins, **K.C. Prager**, M. Garren, J. Lamb, “Deciphering Coral Disease Dynamics: Integrating Host, Microbiome, and the Changing Environment. *Frontiers in Ecology and Evolution*, (2020).
3. B. Borremans, A. Gamble, **K. C. Prager**, S. K. Helman, A. M. McClain, C. Cox, V. Savage, and J. O. Lloyd-Smith. “Quantifying antibody kinetics and RNA shedding during early-phase SARS-CoV-2 infection by time since symptom onset”. *Elife*. (2020). Doi: 10.7554/eLife.60122.
4. S. Helman, R. Mummah, K. Gostic, M. Buhnerkempe, **K.C. Prager**, and J. Lloyd-Smith. Estimating prevalence and test accuracy in disease ecology: how Bayesian latent class analysis can boost or bias imperfect test results. *Ecology and Evolution*. (2020). Doi: 10.1002/ece3.6448
5. **K.C. Prager**^{F,C}, M. G. Buhnerkempe, D. J. Greig, A. J. Orr, E. D. Jensen, F. Gomez, R. L. Galloway, Q. Wu, F. M. D. Gulland, and J. O. Lloyd-Smith. “Mapping the Host-Pathogen Space to Link Longitudinal and Cross-sectional Biomarker Data: *Leptospira* Infection in California Sea Lions (*Zalophus californianus*) as a Case Study”. *PLoS Neglected Tropical Diseases*. (2020). Doi: 10.1371/journal.pntd.0008407
6. E. DeRango, **K.C. Prager**, D. Greig, A. Hooper, and D. Crocker, “Climate variability and life history impact stress responses thyroid hormones and immune markers in California sea lions (*Zalophus californianus*) during El Niño conditions”, *Conservation Physiology* (2019) DOI 10.1093/conphys/coz010
7. B.A. Neely*, **K.C. Prager***, A.M. Bland, C. Fontaine, F.M. Gulland and M.G. Janech, "Proteomic Analysis of Urine from California Sea Lions (*Zalophus californianus*): A Resource for Urinary Biomarker Discovery", *Journal of Proteome Research* (2018), DOI 10.1021/acs.jproteome.8b00416.
8. D. Whitaker, S. Reichly, M. Griffin, **K. Prager**, C. Richey, K. Kenelty, B. Stevens, J.O. Lloyd-Smith, C. Kreuder Johnson, P. Duignan, S. Johnson, C. Rios, R. DeLong, B. Halaska, L. Rust, B. Byrne, C. Struve, S. Mapes, E. Soto, “Hypermucoviscous *Klebsiella pneumoniae* Isolates from Stranded and Wild-Caught Marine Mammals of the United States Pacific Coast: Prevalence, Phenotype and Genotype”, *Journal of Wildlife Diseases* (2018), DOI 10.7589/2017-07-178.
9. M.G. Buhnerkempe, **K.C. Prager**, C.C. Strelhoff, D.J. Greig, J.L. Laake, S.R. Melin, R.L. DeLong, F.M.D. Gulland and J.O. Lloyd-Smith, "Detecting signals of chronic shedding to explain pathogen persistence: *Leptospira interrogans* in California sea lions", *Journal of Animal Ecology*, (2017), pp. 460-472.

10. A.L. Graham, D.H. Nussey, J.O. Lloyd-Smith, D. Longbottom, M. Maley, J.M. Pemberton, J.G. Pilkington, **K.C. Prager**, L. Smith, K.A. Watt, K. Wilson, N.T. Mc and F. Brulisauer, "Exposure to viral and bacterial pathogens among Soay sheep (*Ovis aries*) of the St Kilda archipelago", *Epidemiology & Infection*, (2016), pp. 1-10, DOI 10.1017/S0950268816000017.
11. C.A. Burge, C.S. Friedman, R. Getchell, M. House, K.D. Lafferty, L.D. Mydlarz, **K.C. Prager**, K.P. Sutherland, T. Renault, I. Kiryu and R. Vega-Thurber, "Complementary approaches to diagnosing marine diseases: a union of the modern and the classic", *Philosophical Transactions of the Royal Society of London B: Biological Sciences*, (2016), <http://dx.doi.org/10.1098/rstb.2015.0207>.
12. **K.C. Prager**^{F,C}, D.P. Alt, M.G. Buhnerkempe, D.J. Greig, R.L. Galloway, Q. Wu, F.M.D. Gulland and J.O. Lloyd-Smith, "Antibiotic efficacy in eliminating leptospirosis in California sea lions (*Zalophus californianus*) stranding with leptospirosis: 14 cases (2010-2011)", *Aquatic Mammals*, (2015) 41(2): 203-212. DOI 10.1578/AM.41.2.2015.203
13. Q. Wu, **K.C. Prager**, T. Goldstein, D.P. Alt, R.L. Galloway, R.L. Zuerner, J.O. Lloyd-Smith and L. Schwacke, "Development of a real-time PCR for the detection of pathogenic *Leptospira* spp. in California sea lions", *Diseases of Aquatic Organisms*, (2014) 110(3): 165-172. DOI: 10.3354/dao02752
14. **K.C. Prager**^{F,C}, J.A.K. Mazet, E.J. Dubovi, L. Frank, L. Munson, A.P. Wagner and R. Woodroffe, "Rabies virus and canine distemper virus in wild and domestic carnivores in Northern Kenya: Are domestic dogs the reservoir?", *EcoHealth*, (2013), pp. 483-498.
15. **K.C. Prager**^{F,C}, D.J. Greig, D.P. Alt, R.L. Galloway, R.L. Hornsby, L.J. Palmer, J. Soper, Q. Wu, R.L. Zuerner, F.M.D. Gulland and J.O. Lloyd-Smith, "Asymptomatic and chronic carriage of *Leptospira interrogans* serovar Pomona in California sea lions (*Zalophus californianus*)", *Veterinary Microbiology*, (2013), pp. 177-183.
16. C.A. Burge, C.M. Eakin, C.S. Friedman, B. Froelich, P.K. Hershberger, E.E. Hofmann, L.E. Petes, **K.C. Prager**, E. Weil, B.L. Willis, S.E. Ford and C.D. Harvell, "Climate change influences on marine infectious diseases: implications for management and society", *Annual Review of Marine Science*, (2013), pp. 249-277.
17. R. Woodroffe, **K.C. Prager**, L. Munson, P.A. Conrad, E.J. Dubovi and J.A. Mazet, "Contact with domestic dogs increases pathogen exposure in endangered African wild dogs (*Lycaon pictus*)", *PloS One*, (2012), 9 pages.
18. **K.C. Prager**^{F,C}, J.A.K. Mazet, L. Munson, E.J. Dubovi, M. Szykman Gunther, H.T. Davies-Mostert, J.W. McNutt, G. Rasmussen, K. Terio, S. Cleaveland, G. Mills, C.A. Donnelly and R. Woodroffe, "The effect of protected areas on pathogen exposure in endangered African wild dog (*Lycaon pictus*) populations", *Biological Conservation*, (2012), pp. 15-22.
19. S.E. Bellan, C.A. Cizauskas, J. Miyen, K. Ebersohn, M. Kusters, **K.C. Prager**, M. Van Vuuren, C. Sabeta and W.M. Getz, "Black-backed jackal exposure to rabies virus, canine distemper virus, and *Bacillus anthracis* in Etosha National Park, Namibia", *Journal of Wildlife Diseases*, (2012), pp. 371-381.

20. **K.C. Prager**^{F,C}, R. Woodroffe, A. Cameron and D.T. Haydon, "Vaccination strategies to conserve the endangered African wild dog (*Lycaon pictus*)", *Biological Conservation*, (2011), pp. 1940-1948.
21. Antunes, J.L. Troyer, M.E. Roelke, J. Pecon-Slattey, C. Packer, C. Winterbach, H. Winterbach, G. Hemson, L. Frank, P. Stander, L. Siefert, M. Driciru, P.J. Funston, K.A. Alexander, **K.C. Prager**, G. Mills, D. Wildt, M. Bush, S.J. O'Brien and W.E. Johnson, "The evolutionary dynamics of the lion *Panthera leo* revealed by host and viral population genomics", *PLoS Genetics*, (2008), 11 pages.
22. M. Driciru, L. Siefert, **K.C. Prager**, E. Dubovi, R. Sande, F. Princee, T. Friday and L. Munson, "A serosurvey of viral enfections in lions (*Panthera leo*), from Queen Elizabeth National Park, Uganda", *Journal of Wildlife Diseases*, (2006), pp. 667-671.

TECHNICAL MEMOS AND PROCEEDINGS

1. Island Spotted Skunk Working Group, "Island Spotted Skunk Conservation Plan", (2020), www.CaliforniaIslands.net.
2. **K.C. Prager**, J. Barnes, K. Crooks, A. Guglielmino, L. Shaskey, "Disease" in "Island Spotted Skunk Conservation Plan", (2020), www.CaliforniaIslands.net.
3. J.L. Laake, S.R. Melin, A.J. Orr, D.J. Greig, **K.C. Prager**, R.L. DeLong and J.D. Harris, "California sea lion sex- and age-specific morphometry", U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-312, (2016), 21 pages, <http://dx.doi.org/10.7289/V5/TM-AFSC-312>.
4. **K.C. Prager**, "Saving wild dogs in Africa: veterinary responsibilities", Proceedings of the 2014 North American Veterinary Conference, Orlando, Florida, (2014)
5. **K.C. Prager**, "The role of veterinarians in Channel Island fox conservation", Proceedings of the 2014 North American Veterinary Conference, Orlando, Florida, (2014)
6. D. Clifford, J. Barnes, K. Blumenshine, C. Boser, P. Gaffney, D. Garcelon, M. Greene, A. Guglielmino, A. Hill, B. Hudgens, J.O. Lloyd-Smith, **K.C. Prager**, J. Sanchez, M. Willett and L. Woods, "Channel Island Fox Recovery Team: Fox Health Group Meeting Report", (2012)
7. D. Clifford, A. Guglielmino, A. Hill, **K.C. Prager**, J.O. Lloyd-Smith, J. Sanchez, M. Willett, C. Duncan, J. King, J. Barnes, S. Klien, P. Gaffney, M. Greene, C. Boser, B. Hudgens, S. Visman, M. Booker and W. Vickers, "Channel Island Fox Recovery Team: Fox Health Group Meeting Report", (2011)

POPULAR PRESS COVERAGE

Homeland Preparedness News Oct 5, 2020

- "USAID outlines zoonotic viral disease initiative"
- <https://homelandprepnews.com/stories/56330-usaid-outlines-zoonotic-viral-disease-initiative/>

Kaiser Family Foundation (KFF) Daily Global Health Policy Report Oct 1, 2020

- "USAID Launches \$100M Project To Anticipate, Address Threats Posed By Emerging Zoonotic Diseases"
- <https://www.kff.org/news-summary/usaid-launches-100m-project-to-anticipate-address-threats-posed-by-emerging-zoonotic-diseases/>

The New York Times Aug 30, 2020

- “U.S. Will Revive Global Virus-Hunting Effort Ended Last Year””
 - <https://www.nytimes.com/2020/08/30/health/predict-pandemic-usaid.html>
- Smithsonian Magazine** Nov 8, 2018
- “Major disease outbreak strikes California sea lions”
 - <https://www.smithsonianmag.com/science-nature/major-disease-outbreak-strikes-california-sea-lions-180970755/>
- The Monterey Herald** Nov 7, 2018
- “Contagious bacteria found in Monterey County sea lions” By Carly Mayberry
 - <https://www.montereyherald.com/2017/11/07/contagious-bacteria-found-in-monterey-county-sea-lions/>
- East Bay Times** Oct 26, 2018
- “Northern California sea lions battle return of deadly disease” by Monterey Herald Staff
 - <https://www.eastbaytimes.com/2018/10/26/northern-california-sea-lions-battle-return-of-deadly-disease/>
- The Mercury News** Oct 26, 2018
- “Northern California sea lions battle return of deadly disease” by Monterey Herald Staff
 - <https://www.mercurynews.com/2018/10/26/northern-california-sea-lions-battle-return-of-deadly-disease/>
- Monterey Herald** Oct 25, 2018
- “Sea lions in Monterey Bay battle return of deadly disease” by Hannah Hagemann
 - <https://www.montereyherald.com/2018/10/25/2695163/>
- San Francisco Chronicle** Oct 17, 2018
- “Sea lions off Northern California battling deadly disease” by Peter Fimrite
 - <https://www.sfchronicle.com/news/article/Sea-lions-off-Northern-California-battling-deadly-13313266.php>
- KQED Science** Oct 16, 2018
- “California sea lion population hit hard by bacterial outbreak” by Lesly McClurg and Amel Ahmend
 - <https://www.kqed.org/science/1932993/california-sea-lion-population-hit-hard-by-bacterial-outbreak>
- The Marine Mammal Center Website** Oct 16, 2018
- “The Marine Mammal Center Responds to Second Largest Leptospirosis Outbreak on Record – More than 220 Sea Lions Impacted” by TMMC staff
 - <http://www.marinemammalcenter.org/about-us/News-Room/2018-news-archives/leptospirosis.html>

TEACHING EXPERIENCE

- UCLA EEB 186 – Co-Instructor (50%)** 2018
- Course: Evolutionary Medicine: Clinical Perspectives on Medical, Surgical, and Psychiatric Disorders

UCLA EEB 250 – Guest Lecture “Alternative Career Paths”	2018
▪ Course: Professional Skills for Biological Research	
UCLA EEB 191 – Guest Lecture “Emerging Infectious Disease”	2018
▪ Course: Ecology, Evolution, and Social Justice	
Teaching Undergraduate Independent Research (UCLA)	2017 – present
▪ Research on zoonotic pathogens in LA County small mammals	
▪ Trained undergraduates in small mammal necropsy techniques	
▪ Trained undergraduates on risks associated with working with zoonotic pathogens	
USDA AgDiscovery, Fort Valley State University – Guest Lecture	2014
▪ Invited lecture on “The decline of the endangered Channel Island Fox”	
▪ Presented to 8 th -12 th grade students participating in the program	
Training field veterinarians, veterinary technicians and biologists	2010 – present
▪ Field capture, anesthesia and sampling techniques	
▪ Field sample processing and lab safety techniques	
UC Davis SAS 098 – Guest Lecture	2009
▪ Course: Positioning yourself for success at UC Davis and beyond: Animal Science/Wildlife Group	
UC Davis VMD 451 – Guest Lecture “<i>Brucella spp.</i>”	2006
▪ Course: Veterinary Bacteriology and Mycology	
UC Davis VMD 405 – Teaching Assistant	2005 – 2008
▪ Course: Veterinary Parasitology	
UC Davis VMD 419 – Teaching Assistant	2005 – 2008
▪ Course: Veterinary Virology	
UC Davis VMD 420 – Teaching Assistant	2005 – 2008
▪ Course: Veterinary Immunology	
UC Davis VMD 451 – Teaching Assistant	2005 – 2008
▪ Course: Veterinary Bacteriology and Mycology	
WORK AND RESEARCH EXPERIENCE	
Field biologist/veterinarian (California and Oregon)	2010 – present
▪ Investigate pathogen exposure in urban mammals of Los Angeles County (necropsies and sample collection skunks, foxes, coyotes, squirrels, racoons and rats)	
▪ Captured California sea lions from multiple field sites across California and Oregon (including remote sites such as San Miguel, San Nicolas and Año Nuevo Islands), and performed field anesthesia and sample collection to examine pathogen exposure and assess health measures	

- Worked with collaborators at The Marine Mammal Center, Sausalito, CA to sample marine mammals (e.g. California sea lions, northern elephant seals, northern fur seals, pacific harbor seals) for *Leptospira* infection and exposure, and to assess health
- On US Fish and Wildlife Service Permit for the National Park Service (NPS)/Channel Islands National Park as a veterinarian allowed to handle, sample from and provide medical care to Channel Island Foxes on Santa Rosa Island, Santa Cruz Island and San Miguel Island.
- Trained NPS fox biologists in specialized sampling techniques (cystocentesis)
- Assisted NPS biologist in trapping and sample collection from island foxes and spotted skunks.

Field biologist/veterinarian in Kenya and USA (California)

2006 – 2011

- Trapped, chemically immobilized and collected samples from African carnivores (black-backed jackals, spotted hyenas and striped hyenas) for dissertation research
- Handled and sampled African wild dogs
- Performed indirect immunofluorescent antibody tests for antibodies against *Toxoplasma gondii*, *Neospora caninum* and *Ehrlichia canis* on carnivore sera collected in Africa

Veterinary Extern, The Marine Mammal Center, Sausalito, CA

2001

Veterinary Extern, CA Department of Fish and Game, Santa Cruz, CA

2001

Researcher, Uganda (Summer)

1998 & 1999

- Resulted in published work on disease seroprevalence of the lions of QENP, Uganda

SELECTED INVITED TALKS

Job talk at Western University College of Veterinary Medicine (November 20)

2019

“Infectious Disease in Wildlife”

Seminar for the Keck Science Department of Claremont Colleges (November 22)

2019

“*Leptospira* ecology in mammals of the California coastal ecosystem”

California Marine Mammal Stranding Network Monthly Conference Call

2017

“Update on *Leptospira* infection in California sea lions and northern elephant seals: implications of pathogen fade-out and re-emergence in a naïve sea lion population”

Center for Disease Control’s Selected Zoonotic Diseases Conference Call

2015

“Leptospirosis in California sea lions”

Wildlife Conservation Society Tiger Conservation Meeting, Bronx Zoo, NY

2015

“Using principles of disease ecology to guide vaccination strategies”

RCN Meeting on Ecology of Infectious Marine Diseases, Friday Harbor, WA

2014

RCN is ‘Research Coordination Network’

“Leptospirosis in California sea lions”

North American Veterinary Conference, Orlando, FL

2014

“The role of veterinarians in Channel Island fox conservation”	
North American Veterinary Conference, Orlando, FL	2014
“Saving wild dogs in Africa: veterinary responsibilities”	
Año Nuevo State Reserve, California	2013
“Leptospirosis in Californian sea lions”	
NIH/Fogarty RAPIDD Morbillivirus workshop, Penn State U., State College, PA	2013
“Canine distemper virus in Channel Island foxes”	
National Oceanic and Atmospheric Administration (NOAA) Webinar	2013
“Clinical presentation, treatment and pathology of leptospirosis in California sea lions”	
UCLA Department of Ecology and Evolutionary Biology, Los Angeles, CA	2010
“Infectious disease in endangered African wild dog populations and other African carnivores”	
Boyd Orr Centre Seminar, University of Glasgow, Glasgow, UK	2009
“Infectious disease in endangered African wild dog populations and other African carnivores”	

SELECTED CONFERENCE PRESENTATIONS

DoD SERDP and ESTCP Symposium, Washington DC (poster)	2019
“Leptospirosis in the California coastal ecosystem”	
Wildlife Disease Association Annual Conference, Tahoe, California (poster)	2019
“Proteomic Analysis of Urine from California Sea Lions (<i>Zalophus californianus</i>) with and without Leptospirosis”	
11th Meeting of the International Leptospirosis Society, Vancouver, Canada (talk)	2019
“Fade-out and re-emergence of <i>Leptospira interrogans</i> serovar Pomona in a wildlife reservoir host – California sea lion (<i>Zalophus californianus</i>)”	
Ecology and Evolution of Infectious Diseases Conference, Princeton University (poster)	2019
“Fade-out and re-emergence of <i>Leptospira interrogans</i> serovar Pomona in a wildlife reservoir host – California sea lion (<i>Zalophus californianus</i>)”	
International Association of Aquatic Animal Medicine Conference, San Diego, CA (talk)	2018
“Fade-out of an endemic pathogen in a wildlife host: did environmental stress cause <i>Leptospira</i> to disappear from the California sea lion population (<i>Zalophus californianus</i>)”	
International Association of Aquatic Animal Medicine Conference, San Diego, CA (poster)	2018
“Proteomic Analysis of Urine from California Sea Lions (<i>Zalophus californianus</i>) with and without Leptospirosis”	
Wildlife Disease Association Annual Conference, Saint Augustine, Florida (talk)	2018

	“Fade-out of an endemic pathogen in a wildlife host: did environmental stress cause <i>Leptospira</i> to disappear from the California sea lion (<i>Zalophus californianus</i>) population”	
Ecology and Evolution of Infectious Diseases Conference, University of Glasgow (poster)		2018
	“Fade-out of an endemic pathogen in a wildlife host: did environmental stress cause <i>Leptospira</i> to disappear from the California sea lion (<i>Zalophus californianus</i>) population”	
Strategic Environmental Research and Development Program (SERDP) Symposium (poster)		2017
	“Leptospirosis in the California coastal ecosystem”	
Ecology and Evolution of Infectious Diseases Conference, University of California SB (poster)		2017
	“Fade-out of an endemic pathogen in a wildlife host – has <i>Leptospira</i> disappeared from the California sea lion population?”	
Wildlife Disease Association Annual Conference, Cornell University (talk)		2016
	“Beyond the tip of the iceberg – integrating multiple disease measures to understand population-level disease dynamics”	
Ecology and Evolution of Infectious Diseases Conference, Cornell University, Ithaca, NY (poster)		2016
	“Beyond the tip of the iceberg – Integrating multiple disease measures to understand population-level disease dynamics”	
Gordon Research Conference on the Biology of Spirochetes, Ventura, CA (poster)		2016
	“ <i>Leptospira interrogans</i> serovar Pomona in California sea lions – a model system for understanding and characterizing <i>Leptospira</i> reservoirs”	
IXth Meeting of the International Leptospirosis Society, Semarang, Indonesia (talk)		2015
	“ <i>Leptospira interrogans</i> serovar Pomona in California sea lions – an unlikely case study for examining pathogen dynamics in a reservoir”	
Wildlife Disease Association Annual Conference, Albuquerque, NM (talk)		2014
	“Leptospirosis in California sea lions (<i>Zalophus californianus</i>): Do data from stranded animals accurately reflect trends in the wild population?”	
California Regional Stranding Network Conference, SWFSC, La Jolla, CA (talk)		2014
	“Leptospirosis in California sea lions (<i>Zalophus californianus</i>): Do data from stranded animals accurately reflect trends in the wild population?”	
Ecology and Evolution of Infectious Diseases Conference, Penn State, State College, PA (poster)		2013
	“ <i>Leptospira</i> dynamics in California sea lions: quantifying trends within individual sea lions to better understand population level dynamics”	
International Association of Aquatic Animal Medicine Conference, Sausalito, CA (talk)		2013
	“Antibiotic treatment of leptospirosis in California sea lions (<i>Zalophus californianus</i>)”	
Channel Island Fox Recovery Group Meeting, Ventura, CA (talk)		2012
	“Leptospirosis in California sea lions”	

Ecology and Evolution of Infectious Diseases Conference, University of Michigan (poster)	2012
“California sea lions – both an accidental and a reservoir host for <i>Leptospira interrogans</i> serovar Pomona?”	
International Association of Aquatic Animal Medicine Conference, Atlanta, Georgia (poster)	2012
“California sea lions – both an accidental and a reservoir host for <i>Leptospira interrogans</i> serovar Pomona?”	
Gordon Research Conference on the Biology of Spirochetes, Ventura, CA (poster)	2012
“California sea lions – both an accidental and a reservoir host for <i>Leptospira interrogans</i> serovar Pomona?”	
Beyond the Golden Gate Symposium, San Francisco, CA (talk)	2011
“Leptospirosis in California sea lions – outbreaks and persistence”	
VIIth Meeting of the International Leptospirosis Society, Merida, Mexico (talk)	2011
“ <i>Leptospira interrogans</i> serovar Pomona in a small island ecosystem: Leptospirosis in the Santa Rosa Island fox (<i>Urocyon littoralis</i>) and spotted skunk (<i>Spilogale gracilis amphiala</i>)”	
Ecology and Evolution of Infectious Disease Conference, UCSB (poster)	2011
“Rabies virus and canine distemper virus in wild and domestic carnivores in Northern Kenya: Are domestic dogs the reservoir?”	
Exit Seminar for completion of PhD, UC Davis (talk)	2011
“An investigation of disease dynamics in African carnivores: Identifying reservoirs and risk factors and investigating control strategies”	
Ecology and Evolution of Infectious Disease Conference, Cornell University (poster)	2010
“Vaccination strategies to conserve the endangered African wild dog (<i>Lycaon pictus</i>)”	
Ecology and Evolution of Infectious Disease Conference, University of Georgia (poster)	2009
“Ecology of Infectious Pathogens in Wild and Domestic African Carnivores”	
European Wildlife Disease Association Workshop, Veyrier-du-Lac, France (poster)	2009
“Ecology of Infectious Pathogens in Wild and Domestic African Carnivores”	
Ecology Graduate Student Symposium, UC Davis (talk)	2008
“Ecology of Infectious Pathogens in Wild African Carnivores”	
UC Davis Qualifying exam, UC Davis (talk)	2007
“Investigating disease ecology in African carnivores: a broad scale and a small scale approach”	
Presentation on UC Davis AAAS funded summer research, UC Davis (talk)	2007
“Canine distemper virus and rabies virus in endangered and common African carnivores”	
Frontiers in Veterinary Medicine Conf. sponsored by the Geraldine R. Dodge Foundation (talk)	1999

“The General Health of Two Lion Populations in Uganda”
 Frontiers in Veterinary Medicine Conf. sponsored by the Geraldine R. Dodge Foundation (talk) 1998
 “The General Health of the Lion Population in QENP, Uganda”

WORKSHOPS AND MEETINGS ORGANIZED

Workshop on Leptospirosis in California sea lions, The Marine Mammal Center (co-organizer) 2017
 Presented three talks:
 “Individual level *Leptospira* dynamics”
 “Fade-out – evidence and possible mechanisms”
 “Re-emergence (why so wimpy, from where?)”
 NOAA Workshop on Leptospirosis in California sea lions, UCLA (co-organizer) 2011
 Presented talk on “Leptospirosis in California sea lions (*Zalophus californianus*)”

SERVICE

Member of the Island Spotted Skunk Recovery Working Group 2020–present
Reviewer for NOAA Prescott Grant FY19 & FY21 2019–present

- Lead reviewer for 2 proposals, secondary reviewer for 7 proposals

Reviewer for Promotion 2018

- Dossier of UCSB Assistant Researcher to Associate Researcher

Advisor to US Navy Marine Mammal Program 2013 – 2016
Member of the NSF Ecology of Infectious Marine Diseases Research Coordination Network 2012 – present
Member of the NIH/RAPIDD Pathogen Invasion Dynamics Working Group 2011 – 2016
Member of the Channel Island Fox Health Working Group 2011 – present
Advisor and consulting expert on leptospirosis to The Marine Mammal Center, Sausalito 2010 – present
Reviewer for Journals 2010 – present
 Acta Tropica, African Journal of Ecology, American Naturalist, BioScience, Ecology Letters, Epidemiology and Infection, FEMS Microbiology Letters, Frontiers, International Journal of Biodiversity, International Journal of Medical Microbiology, Journal of Animal Ecology, Journal of Applied Ecology, Journal of the South African Veterinary Association, Journal of Wildlife Diseases, Latin American Journal of Aquatic Mammals, Molecular Ecology, Nature Communications, Naturwissenschaften, Oecologia, PLOS One, Polar Research, Preventive Veterinary Medicine, Proceedings B of the Royal Society, Scientific Reports, Veterinary Microbiology, Veterinary Record, Western North American Naturalist, and Zoonoses and Public Health

PUBLIC OUTREACH ACTIVITIES

The Marine Mammal Center, Sausalito, CA 2017

- “Leptospirosis in California sea lions: current findings and ongoing projects” (talk)

- Presented to the staff, volunteers, docents and donors
- UCLA Career Center Jumpstart Series** 2017
- “How to prepare for, and what to expect of, a career integrating ecology and veterinary medicine”
 - Speaker and panelist for Veterinary Jumpstart
- UCLA Career Center Jumpstart Series** 2015
- “How to prepare for, and what to expect of, a career integrating ecology and veterinary medicine”
 - Speaker and panelist for Veterinary Jumpstart
- The Marine Mammal Center, Sausalito, CA** 2013
- “Leptospirosis in California sea lions: current findings and ongoing projects” (talk)
 - Presented to the staff, volunteers, docents and donors
- UCLA EEB 96** 2013
- Was interviewed by students from EEB 96, an NSF Transforming Undergraduate Education in Stem funded program designed to connect underrepresented students interested in life sciences with the latest research at UCLA through the collaborative production of short documentary videos
- The Marine Mammal Center, Sausalito, CA** 2010
- “Leptospirosis in California sea lions” (informal talk and question and answer session)
 - Presented to each animal care crew (one per day of the week)
- Conservation Club, Laikipia District, Kenya** 2008
- Presentation of my dissertation research activities to local primary school children
- Dinner with a Scientist** 2008
- Informal presentation of research activities to high school students
 - Event organized to increase interaction between high school students and teachers with local scientists

PROFESSIONAL AFFILIATIONS

The Wildlife Disease Association (WDA)

The Ecological Society of America (ESA)

The International Association of Aquatic Animal Medicine (IAAAM)

The International Leptospirosis Society (ILS)