

CURRICULUM VITAE
OBED HERNÁNDEZ-GÓMEZ, PHD

Assistant Professor of Wildlife Disease Ecology
Department of Fish, Wildlife, and Conservation Ecology
College of Agricultural, Consumer, and Environmental Sciences
New Mexico State University
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PROFESSIONAL PREPARATION

Assistant Professor, 2024 - Current
New Mexico State University
Department of Fish, Wildlife, and Conservation Ecology

Assistant Professor, 2020-2023
Dominican University of California
Department of Natural Sciences and Mathematics

Ford Foundation Postdoctoral Fellow, 2019
University of California-Berkeley
Department of Environmental Science, Policy, and Management
Advisor: Erica Bree Rosenblum

National Science Foundation Postdoctoral Research Fellow, 2017-2019
University of California-Berkeley
Department of Environmental Science, Policy, and Management
Advisor: Erica Bree Rosenblum

Postdoctoral Research Assistant, 2017
Purdue University
Department of Forestry and Natural Resources
Advisor: Rod Nelson Williams

Doctor of Philosophy, Conferred May 2017
Purdue University
Department of Forestry and Natural Resources
Advisor: Rod Nelson Williams

Bachelor of Science with Honors, Conferred December 2010
Texas Tech University
Department of Biological Sciences

GRANTS AND AWARDS

Submitted Grants

Department of Defense – Strategic Environmental Research and Development Program 2024.
Interacting Stressors and the Eco-immunology of Imperiled Western Pond Turtles,
amount: \$2,306,317 – Full Proposal *In-Review*, expected project dates 5/2024-2/2027.

Awarded Grants

- Washington Department of Fish and Wildlife** 2023. Comparing Immunogenetic Diversity of Captive and Wild Western Pond Turtles Using a Custom Exome Capture DNA Sequencing Assay, amount \$15,000
- Midpenninsula Open Space District 2021 Grantmaking Program** 2022. Evaluating the effects of wildfires on San Francisco Bay Area terrestrial salamanders, microbiomes and pathogens, amount \$25,000
- Western Pond Turtle Range-wide Conservation Coalition** 2021. Assessing the role of an invasive turtle, anthropogenic stress and fungi disease on the assembly of western pond turtle microbiomes, amount: \$5,000
- Dominican University of California, School of Health and Natural Sciences** 2021. Competitive Research Grant, amount: \$3,006
- Dominican University of California, School of Health and Natural Sciences** 2020. Competitive Research Grant, amount: \$3,000
- The National Academies of Sciences, Engineering, and Medicine** 2019. Ford Foundation Postdoctoral Fellowship, amount: \$45,000
- Indiana Department of Natural Resources** 2017. Endangered Species Grant, co-PI, amount: \$92,845
- National Science Foundation** 2017. Postdoctoral Research Fellowship in Biology, amount: \$138,000
- Cryptobranchid Interest Group** 2016. Investigating hellbender immunity and advantages of environmental microbe exposure prior to re-introduction, co-PI, amount: \$948
- Indiana Academy of Sciences** 2016. Investigating hellbender immunity and advantages of environmental microbe exposure prior to re-introduction, co-PI, amount: \$3,000
- Purdue University-Department of Forestry and Natural Resources Investments in Excellence Small Grants Program** 2014. Landscape genetics of wood frogs (*Lithobates sylvaticus*) in a complex world: pesticides, viruses, and parasites, co-PI, amount: \$15,000
- Purdue University-Office of Engagement Community Service/Service Learning Grant Program** 2013. Bridging the gap between community colleges and four-year institutions: a collaboration between Purdue University's Latinx Graduate Student Organization and Ivy Tech Community College, amount: \$500

Awards

- Purdue University – Department of Forestry and Natural Resources Outstanding Young Alumni Award** 2021. Recognizes the accomplishments of individuals who have excelled in professional and civic accomplishments and have graduated from Purdue within the last 15 years.

PUBLICATIONSIn review

18. ¹Giannetto M., A. White, L. Mulla, A. Del Rosario, T. Lim, E. Culver, M. Timmer, J. Bushell, M. R. Lambert, **O. Hernández-Gómez**. Microbiomes of a native threatened turtle and an invasive turtle are impacted by land use. *FEMS Microbiology Ecology*.
17. ¹Mulla, L., **O. Hernández-Gómez**. Wildfires disturb the natural skin microbiota of terrestrial salamanders. *Environmental Microbiology*.

2023

16. **Hernández-Gómez, O.**, J. Hua. 2023. From the organismal to biosphere levels: environmental impacts on the amphibian microbiota. *FEMS Microbiology Reviews*. DOI: 10.1093/femsre/fuad002.

2022

15. Wuerthner, V.P., J. Hua, **O. Hernández-Gómez**. 2022. Life stage and proximity to roads shape the skin microbiota of eastern newts (*Notophthalmus viridescens*). *Environmental Microbiology*. 24 (9):3954-3965.

2021

14. ¹Buttimer, S.M., **O. Hernández-Gómez**, E.B. Rosenblum. 2021. Skin bacterial metacommunities of San Francisco Bay Area salamanders are structured by host genus and habitat quality. *FEMS Microbiology Ecology*. 97 (12):fiab162.
13. Lambert, M., **O. Hernández-Gómez**, A. Krohn, A. Mallow, L. Patterson, E.B. Rosenblum, M. Timmer, J. Willis, J. Bushell. 2021. Turtle shell disease fungus (*Emydomyces testavorans*): first documented occurrence in California and prevalence in free-living turtles. *Ichthyology and Herpetology*. 109: 958-962.

2020

12. ²**Hernández-Gómez, O.** 2020. Climate change disturbs wildlife microbiomes. *Nature Climate Change*. DOI: 10.1038/s41558-020-00923-5
11. Diaz, L., **O. Hernández-Gómez**, S.D. Unger, L.A. Williams, C.M.B. Jachowski. 2020. Prevalence of *Batrachochytrium dendrobatidis* in immature eastern hellbenders *Cryptobranchus alleganiensis* from North Carolina, USA. *Diseases of Aquatic Organisms*. 140:73-18.
10. Kenison, E.K., **O. Hernández-Gómez**, R.N. Williams. 2020. A novel bioaugmentation technique effectively increases the skin-associated microbial diversity of captive eastern hellbenders. *Conservation Physiology*. 8:coaa040.
9. Lambert, M.R., M.C. Womack, A.Q. Byrne, **O. Hernández-Gómez**, C.F. Noss, A.P. Rothstein, D.C. Blackburn, J.P. Collins, M.L. Crump, M.S. Koo, L. Rollins-Smith, V.T. Vredenburg, E.B. Rosenblum. 2020. Comment on “Amphibian fungal panzootic causes catastrophic and ongoing loss of biodiversity.” *Science*. 367:aay1838.
8. **Hernández-Gómez, O.**, A.Q. Byrne, A. Gunderson, T.S. Jenkinson, C.F. Noss, A.P. Rothstein, M.C. Womack, E.B. Rosenblum. 2020. Invasive vegetation affects amphibian skin microbiota and body condition. *PeerJ*. 8:e8549. DOI: 10.7717/peerj.8549
7. **Hernández-Gómez, O.**, V.P. Wuerthner, J. Hua. 2020. Amphibian host and skin microbiota response to a common agricultural antimicrobial and internal parasite. *Microbial Ecology*. 79:175-191.

2019

6. Wuerthner, V.P., **O. Hernández-Gómez**, J. Hua. 2019. Amphibian skin microbiota response to variable housing conditions and experimental treatment across space and time. *Journal of Herpetology*. 53:324-335.
5. **Hernández-Gómez, O.**, S.J.A. Kimble, J. Hua, V.P. Wuerthner, D.K. Jones, B.M. Mattes, R.D. Cothran, R.A. Relyea, J.T. Hoverman. 2019. Local adaptation of the MHC class IIB gene in populations of wood frogs (*Lithobates sylvaticus*) correlates with proximity to agriculture. *Infectious Diseases, Genetics, and Evolution*. 73:197-204.

2018

4. **Hernández-Gómez, O.**, J.T. Briggler, R.N. Williams. 2018. Captivity-induced changes in the skin microbial communities of hellbenders (*Cryptobranchus alleganiensis*). *Microbial Ecology*. 77:782-793.
3. **Hernández-Gómez, O.**, J.T. Briggler, R.N. Williams. 2018. Influence of immunogenetics, sex, and body condition on the cutaneous microbial communities of two giant salamanders. *Molecular Ecology*. 27:1915-1929.

2017

2. **Hernández-Gómez, O.**, S.J.A. Kimble, J.T. Briggler, R.N. Williams. 2017. Characterization of the cutaneous bacterial communities of two giant salamander subspecies. *Microbial Ecology*. 73:445-454.
1. **Hernández-Gómez, O.**, J.T. Hoverman, R.N. Williams. 2017. Cutaneous microbial community variation across populations of eastern hellbenders (*Cryptobranchus alleganiensis alleganiensis*). *Frontiers in Microbiology*. 8:1379 DOI: 10.3389/fmicb.2017.01379

¹undergraduate mentorship project

²not peer reviewed

SELECTED PRESENTATIONS

Bay Area Ecology and Evolution of Infectious Diseases, San Francisco, CA – 2023.

Commonalities in the response of North American salamander skin microbiotas to wildfires and roads.

Society for Integrative and Comparative Biology, Austin, TX – 2023. Commonalities in the response of North American salamander skin microbiotas to wildfires and roads.

Society for Integrative and Comparative Biology, Austin, TX – 2023. Host vs. environmental factors: which more strongly associates with wood frog microbiota diversity?

Society for Integrative and Comparative Biology, Austin, TX – 2023. Evolutionary responses of bacteria to antibiotics affect their ability to inhibit a fungal pathogen.

Microbiome Centers Consortium Seminar Series, Online – 2022. From the organism to biosphere levels: Environmental impacts on the amphibian microbiota. (*invited*)

World Microbe Forum, Online – 2021. From the organismal to biosphere levels: Environmental impacts on the amphibian microbiota. (*invited*)

San Diego Zoo Global Beckman Center for Conservation Research Seminar Series, San Diego, CA – 2020. Eco-evolutionary processes linking amphibian hosts, microbial symbionts, and pathogens. (*invited*)

Washington State University – Vancouver Science Seminar Series, Vancouver, WA – 2020. Eco-evolutionary processes linking amphibian hosts, microbial symbionts, and pathogens. (*invited*)

The Wildlife Society, Reno, NV – 2019. Captivity-induced changes in the skin microbial communities of hellbenders.

Joint Meeting of Ichthyologists and Herpetologists, Snowbird, UT – 2019. Captivity-induced changes in the skin microbial communities of hellbenders.

Evolution, Providence, RI – 2019. Distribution of antifungal bacteria in the cutaneous microbiomes of San Francisco Bay Area salamanders.

9th Biennial Hellbender Symposium, Blacksburg, VA – 2019. Captivity-induced changes in the skin microbial communities of hellbenders.

Museum of Vertebrate Zoology, UC Berkeley – 2018. Microbial ecology of the amphibian skin: investigations of local and regional factors shaping the skin microbiota of amphibians.

Ecological Society of America, New Orleans, LA – 2018. Influence of immunogenetics, sex, and body condition on the cutaneous microbial communities of two giant salamanders.

Joint Meeting of Ichthyologists and Herpetologists, Rochester, NY – 2018. Local adaptation in an agricultural habitat gradient influences the MHC IIB of wood frogs and immunity to a common amphibian parasite.

TEACHING

Dominican University of California – Department of Natural Sciences and Mathematics

Cellular and Developmental Biology (BIO1100 – lecture)

2020-2023. 7 semesters, ~15-45 students per session

Fall 2022 Instructor Review Score: 4.60/5

Spring 2022 Instructor Review Score: 4.47/5

Fall 2021 Instructor Review Score: 4.67/5

Advanced Genetics (BIO3200/3205 – lecture and laboratory)

2020-2023. 3 semesters, ~15 students per session

Spring 2021 Instructor Review Score: 4.90/5

Spring 2020 Instructor Review Score: 4.70/5

Research Methodology Series I, II, III, and IV (BIO2990, BIO4990, BIO4991, BIO4993 – laboratories)

2020-2023. ~2 semester each, 5-7 students per session

Fall 2022 Instructor Review Score: 4.83/5

Spring 2022 Instructor Review Score: 4.81/5

Fall 2021 Instructor Review Score: 5.00/5

Herpetology 101 (BIO1500)

2020. 1 semester, 5 students per session

Summer 2020 Instructor Review Score: 5.00/5

General Microbiology (BIO3610/3615 – lecture and laboratory)

2020-2022. 3 semesters, ~15 students per session

Fall 2022 Instructor Review Score: 5.00/5

Fall 2021 Instructor Review Score: 4.71/5

Fall 2020 Instructor Review Score: 5.00/5

Computational Biology and Chemistry (BIO4900/4905 – lecture and laboratory)

2021. 1 semester, 10 students per session

Fall 2021 Instructor Review Score: 5.00/5

Disease Ecology (ENSC3200 – Lecture)

2022. 1 semester, 20 students per session

Spring 2022 Instructor Review Score: 4.87/5

Purdue University – Departments of Forestry and Natural Resources/ Biological Sciences

Laboratory in Ecology and Systematics of Fish, Amphibians, and Reptiles (FNR 242)

2013-2014, 2016. Teaching assistant, 2 sections with ~12-20 students per section

Disease Ecology (FNR 598/BIOL 595)

2016. Co-instructor, 33 undergraduate and 5 graduate students

Natural Resources Practicum (FNR 373)

2014. Teaching assistant, field course with ~20 students

Guest lectures in **Herpetology, Wildlife in America, Disease Ecology**

STUDENT MENTORSHIP**Undergraduate Student Mentorship – Undergraduate Research Mentor**

Dominican University of California

Xitlaly Santos, Independent Study, Microbiology Research Technician
Hailey Cambria, Independent Study, Microbiology Research Technician
Amber Del Rosario, Post-bac Independent Study
Reuben Oumunov, Independent Study
Natalie De la Cruz, Research Methodology Series
Alison White, Research Methodology Series, Research Intern, Independent Study
Elijah Costly-Tigueros, Research Methodology Series, Teaching Intern, Independent Study
Tatiana Rodriguez, Research Methodology Series, Teaching Intern, Independent Study
Madison Giannetto, Research Methodology Series, Independent Study, Teaching Assistant
Chelsea Martin, Research Intern
Lubna Mulla, Research Intern, Independent Study, Teaching Assistant
Fernanda Galo, Independent Study
Carl Hermes Castillo, Post-bac Independent Study
Katya Morales, Research Methodology Series
Emily Vu, Research Methodology Series, Independent Study, Teaching Assistant
Jamiee Nguyen, Research Methodology Series
Micuel Madison, Research Methodology Series
Azan Yousaf, Research Methodology Series
Jadyn Jamora, Research Methodology Series
Ryan Sunga, Independent Study

University of California, Berkeley

Shannon Buttimer, Undergraduate Research Assistant, College of Natural Resources
 Sponsored Projects for Undergraduate Research
Ricardo Moctezuma, Undergraduate Research Assistant
Albert Tang, Undergraduate Research Assistant
Carissa Tinoco, Undergraduate Research Assistant

Purdue University

Dr. Ardith Wang DMV, Undergraduate Research Assistant, National Science Foundation
 Louis Stokes Alliances for Minority Participation Fellow
Dr. Montana Campbell DMV, Undergraduate Research Assistant

Graduate Student Mentorship – Committee Member

Reuben Oumunov, Dominican University of California MS student in the Department of
 Natural Sciences and Mathematics
Isabella Velasquez Gutierrez, University of Wisconsin – Madison PhD student in the
 Department of Forest and Wildlife Ecology
Haeli Lomheim, Dominican University of California MS student in the Department of
 Natural Sciences and Mathematics
Bharati Gohker, Dominican University of California MS student in the Department of
 Natural Sciences and Mathematics
Shannon Buttimer, University of Alabama PhD student in the Department of Biological
 Sciences

Vanessa Wuerthner, Binghamton University PhD student in the Department of Biological Sciences

CONTRIBUTIONS TO DIVERSITY, EQUITY, AND INCLUSION

- Dominican University of California - TORCH Student Success Program**, San Rafael, CA – 2021-2022. Contributed to their annual summer immersion program by delivering mock lectures and presentations on college class expectations to incoming freshmen.
- Dominican University of California - Diversity Action Group**, San Rafael, CA – 2020-2021. Member of the subcommittee for campus outreach which hosts DEI-related events for faculty, staff, and students.
- Dominican University of California - Department of Natural Science and Mathematics Diversity, Equity and Inclusion Committee**, San Rafael, CA – 2020-2022. Member of the departmental committee for DEI policy review and implementation.
- Community Resources for Science**, Berkeley, CA – 2017-2020. Participated in the Bay Area Scientists in Schools and Be a Scientist programs as a Spanish-speaking mentor.
- Excelling in Science as an ESL Student**, Lafayette, IN – 2015-2016. Developed a science motivational outreach program for elementary and middle school English as a second language students.
- Louis Stokes Alliances for Minority Participation**, Lafayette, IN – 2014-2015. Mentored undergraduate students from underrepresented communities through the development, execution, and publication of research projects.
- Purdue U. Latinx Graduate Student Research Symposium**, Lafayette, IN – 2015. Co-chaired the organization of a campus-wide research symposium featuring Latinx graduate students.
- Bridge Program – Ivy Tech Community College**, Lafayette, IN – 2013. Organized a two-day workshop focused on helping community college students plan their transfer into a four-year secondary education institution.

SELECTED ENGAGEMENT ACTIVITIES

- The Atlantic**, Washington, D.C. – 2022. Interviewed for article: *We're giving up on the (frog) pandemic*.
- Help the Hellbender Video Series**, Purdue University, West Lafayette, IN – 2022. *Hellbender Conservation Genetics* – Part of a video series describing hellbender conservation research. Featured my dissertation work, and some of the work that I am currently performing using San Francisco Bay Area salamanders.
- Santa Cruz Sentinel**, Santa Cruz, CA – 2021. *Turtle science: Scotts Valley pond hosts hungry fungal mystery* – Feature on the cover of the newspaper covering the OHG Lab's turtle shell rot disease work in the Bay Area.
- NBC Bay Area**, San Francisco, CA – 2021. *Local Salamander Study Could Shed Life on Life in Fire Zones* – A five-minute segment on the OHG Lab's terrestrial salamander research was featured as part of the television station's climate change series.
- Laurel Dell Elementary**, San Rafael, CA – 2020. Collaborated with the afterschool program to deliver herpetology show and tell lesson with K-1st graders.
- #ProjectPhenomena**, San Diego County Office of Education Science Resource Center, San Diego, CA – 2019. Collaborated with K-12 teachers to develop Next Generation Science Standards lesson plans based on amphibian microbiome research.

Save the Frogs Day, Museum of Vertebrate Zoology, Berkeley, CA – 2018-2019. Participated in the delivery of conservation outreach activities to 1st and 5th grade classes.

Wednesdays in the Wild-Lily Nature Center, West Lafayette, IN – 2016. Delivered a public science outreach presentation on amphibian microbiome research.

HerpinTime Radio – 2015. Invited guest on a podcast episode on hellbender conservation.

Columbia Park Zoo, Lafayette, IN – 2014. Participated in the delivery of amphibian conservation activities to attendees of a zoo summer camp.

Help the Hellbender Day, Lafayette, Corydon, and Evansville, IN – 2013-2017. Aided in the generation of outreach materials and organization of outreach events focused on hellbender conservation.

4-H National Wildlife Habitat Evaluation Program, Trafalgar, IN – 2013. Participated in planning, overseeing, and judging competition events for the national contest.

SYNERGISTIC ACTIVITIES

Affiliations

The Wildlife Society
 Society for the Study of Evolution
 American Society for Microbiology
 Society for the Study of Amphibians and Reptiles
 Ecological Society of America

Organizational Leadership

Dominican University of California – Campus Wide Leadership
 Institutional Review Board (*member*)
 Diversity Action Group Committee (*member*)
 Institutional Biosafety Committee (*Biological Safety Officer*)
 Campus Sustainability Subcommittee (*volunteer*)
 Honors College Faculty Fellow (2020-2022)
Dominican University of California - Dept. of Natural Sciences and Mathematics
 Diversity, Equity, and Inclusion Committee (*member*)
 Research Committee (*member*)
 Curriculum Committee (*member*)
 Assistant Professor of Chemistry Search Committee (*member*)
Purdue University
 Latinx Graduate Student Organization (*president*)
 Department of Forestry and Natural Resources-Graduate Student Council (*treasurer*)

Professional Development

JMIH Comparative Phylogenetics Workshop
 Beyond Academia Conference
 Bay Area Postdoc Symposium: How Postdocs Can Change the World
 SciPhD Bootcamp: Preparing Scientists for Professional Careers
 UC Berkeley Computational Genomics Resource Laboratory Workshop Series
 Purdue U. Center for Instructional Excellence: Tier 2 Graduate Teaching Certification
 Max McGraw Wildlife Foundation: Conservation Leaders for Tomorrow
 Organization for Tropical Studies: Microbial Ecology of Amphibian Decline

Professional Service

Co-chair, Utility of Microbiomes for Population Management Symposium, The Wildlife Society Meeting 2019

Reviewer for: *Microbial Ecology, Animals, Scientific Reports, Molecular Ecology, Ichthyology and Herpetology, Immunogenetics, Journal of Herpetology, Ecology and Evolution, FEMS Microbiology Ecology, PeerJ, Nature Climate Change, MicrobiologyOpen, Archives of Environmental Contamination and Toxicology, Diversity, Journal of Applied Microbiology, International Microbiology, Diseases of Aquatic Organisms, Proceedings B, Environmental Science and Pollution Research*

Ecological Society of America Student Poster Judge

Purdue U. Department of Forestry and Natural Resources *Compass Magazine (associate editor)*