

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

- Dominican University of California, School of Health and Natural Sciences** 2023. Competitive Research Grant, amount: \$2,500
- 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. <sup>1</sup>Giannetto 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*.

**2023**

17. <sup>1</sup>Mulla, L., **O. Hernández-Gómez**. (Accepted) Wildfires disturb the natural skin microbiota of terrestrial salamanders. *Environmental Microbiology*.
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. <sup>1</sup>Buttimer, 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. <sup>2</sup>**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

<sup>1</sup>undergraduate mentorship project

<sup>2</sup>not 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.

**9<sup>th</sup> 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. 8 semesters, ~15-45 students per session

Spring 2023 Instructor Review Score: 4.91/5

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 2023 Instructor Review Score: 4.83/5

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 semesters 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)

2022-2023. 2 semesters, 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/BIO 595)

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

##### **Natural Resources Practicum** (FNR 373)

2014. Teaching assistant, field course with ~20 students

**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 Int., Independent Study  
**Tatiana Rodriguez**, Research Methodology Series, Teaching Intern, Independent Study  
**Madison Giannetto**, Research Methodology Series, Independent Study, Teaching Asst.  
**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 Buttmer**, 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 Buttmer**, 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-1<sup>st</sup> 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 1<sup>st</sup> and 5<sup>th</sup> 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 Institutional Review Board (2022-2023)  
 Campus Diversity Action Group Committee (2020-2023)  
 Campus Institutional Biosafety Committee (2020-2023)  
 Campus Honors College Faculty Fellow (2020-2022)  
 Departmental Diversity, Equity, and Inclusion Committee (2020-2023)  
 Departmental Research Committee (2020-2023)  
 Departmental Curriculum Committee (2021-2023)  
 Departmental Assistant Professor of Chemistry Search Committee (2022)  
 Departmental Assistant Professor of Quantitative Science Search Committee (2023)  
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)*