

CURRICULUM VITAE  
**OBED HERNÁNDEZ-GÓMEZ, PHD**

Assistant Professor  
Department of Natural Sciences and Mathematics  
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**PROFESSIONAL PREPARATION**

**Assistant Professor**

Dominican University of California  
Department of Natural Sciences and Mathematics

**Ford Foundation Postdoctoral Fellow**

University of California-Berkeley  
Department of Environmental Science, Policy, and Management  
Advisor: Erica Bree Rosenblum

**National Science Foundation Postdoctoral Research Fellow**

University of California-Berkeley  
Department of Environmental Science, Policy, and Management  
Advisor: Erica Bree Rosenblum

**Postdoctoral Research Assistant**

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**

Awarded Grants

**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.

### PUBLICATIONS

#### *In review*

17. <sup>1</sup>Mulla, 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. <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**

- 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. 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-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 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)*