

CURRICULUM VITAE
OBED HERNÁNDEZ-GÓMEZ, PHD

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Department of Natural Sciences and Mathematics
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PROFESSIONAL PREPARATION

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

Department of Biological Sciences
Texas Tech University

GRANTS AND AWARDS

Awarded Grants

Midpeninsula Open Space District 2021 Grantmaking Program 2022. Evaluating the effects of wildfires on San Francisco Bay Area terrestrial salamanders, microbiomes and pathogens, amount \$25,0000

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

2022

Wuerthner, V.P., J. Hua, **O. Hernández-Gómez**. *In press*. Life stage and proximity to roads shape the skin microbiota of eastern newts (*Notophthalmus viridescens*). *Environmental Microbiology*.

2021

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.

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

²**Hernández-Gómez, O.** 2020. Climate change disturbs wildlife microbiomes. *Nature Climate Change*. DOI: 10.1038/s41558-020-00923-5

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.

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.

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.

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

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

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.

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

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.

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

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.

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

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)

2020-2022. 4 semesters, ~15-45 students per session

Spring 2021 Instructor Review Score: 4.67/5

Fall 2021 Instructor Review Score: 4.88/5

Advanced Genetics (BIO3200/3205 – lecture and laboratory)

2020-2021. 2 semesters, ~15 students per session

Spring 2021 Instructor Review Score: 4.90/5

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

2020-2021. 1 semester each, ~5 students per session

Spring 2021 Instructor Review Score: 5.00/5

Fall 2021 Instructor Review Score: 5.00/5

Herpetology 101 (BIO1500)

2020. 1 semester, 5 students per session – virtual lecture and labs

Summer 2020 Instructor Review Score: 5.00/5

General Microbiology (BIO3610/3615 – lecture and laboratory)

2020-2021. Instructor, ~15 students per session – virtual lecture and hybrid labs

Fall 2020 Instructor Review Score: 5.00/5

Fall 2021 Instructor Review Score: 4.71/5

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

2021. Co-instructor, ~10 students per session – in person lecture and labs

Fall 2021 Instructor Review Score: 5.00/5

Disease Ecology (ENSC3200 – Lecture)

2022. Being taught Spring 2022, ~20 students per session.

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

Dominican University of California

Xitlaly Santos, Microbiology Research Technician

Hailey Cambria, Microbiology Research Technician

Amber Del Rosario, Post-bac Student Researcher

Reuben Oumunov, Undergraduate Student Researcher

Natalie De la Cruz, Undergraduate Research Assistant, Research Methodology Series

Alison White, Undergraduate Research Assistant, Research Methodology Series

Elijah Costly-Tigueros, Undergraduate Research Assistant, Research Methodology Series

Tatiana Rodriguez, Undergraduate Research Assistant, Research Methodology Series

Madison Giannetto, Undergraduate Research Assistant, Research Methodology Series

Chelsea Martin, Undergraduate Research Intern

Lubna Mulla, Undergraduate Research Intern

Fernanda Galo, Undergraduate Student Researcher

Carl Hermes Castillo, Post-bac Student Researcher

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/Co-mentorship

Haeli Lomheim, Dominican University of California Master's student in the Department
of Natural Sciences and Mathematics

Bharati Gohker, Dominican University of California Master's 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-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 – 2020-2021. 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

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

Diversity Action Group Committee (*member*)
Institutional Biosafety Committee (*Biological Safety Officer*)
Campus Sustainability Committee (*member*)
Honors College Faculty Fellow
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 17 journals including: 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)*