

Curriculum Vitae

Sarah J. Corey-Rivas, Ph.D.

Associate Professor

Department of Biology

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Education

- 2004-2009 Ph.D., Department of Evolution, Ecology, & Organismal Biology, The Ohio State University (OSU), Columbus, Ohio (Mentors Dr. Tom Waite & Dr. Amanda Rodewald). Dissertation research: Understanding amphibian vulnerability to extinction: a phylogenetic and spatial approach.
- 1999-2003 B.Sc., Department of Evolution, Ecology, & Organismal Biology, The Ohio State University, Zoology & Honors with distinction in Zoology and Honors in the Liberal Arts, *Magna Cum Laude*

Professional History

- 2018-Present Associate Professor, Department of Biology & Chemistry, New Mexico Highlands University (NMHU), Las Vegas, NM.
- 2018 SECRI International Visiting Scholar, Universidade Federal De Mato Grosso, Brazil, Department of Graduate Studies in Ecology & Conservation of Biodiversity.
- 2014-2018 Assistant Professor, Department of Biology & Chemistry, New Mexico Highlands University (NMHU), Las Vegas, NM.
- 2013-2014 Honors Program Coordinator, NMHU, Las Vegas, NM.
- 2010-2014 Visiting Assistant Professor, Department of Biology & Chemistry, NMHU, Las Vegas, NM.
- 2009-2010 Visiting Instructor, Department of Biological Sciences, Eastern Kentucky University (EKU), Richmond, KY.
- 2008-2009 Mary S. Muellhaupt Presidential Fellow, Department of Evolution, Ecology, & Organismal Biology, The Ohio State University, Columbus, OH.
- 2005-2008 Graduate Teaching Assistantships, Department of Evolution, Ecology, & Organismal Biology, The Ohio State University, Columbus, OH.
- 2006 Graduate Research Assistantship, Department of Evolution, Ecology, & Organismal Biology, The Ohio State University, Columbus, OH.
- 2004-2005 OSU University Fellow, Department of Evolution, Ecology, & Organismal Biology, The Ohio State University, Columbus, OH.
- 2003-2004 Staff Research Assistant, Department of Evolution, Ecology, & Organismal Biology, The Ohio State University, Columbus, OH.

Research Grants

Grants Awarded

- 2020-2025 NSF HSI SomosSTEM Grant: An Early Community-Based Research Pathway for Improving Undergraduate Life Sciences Success at a Rural Hispanic Serving Institution. (\$1,870,658). Award # 1953487. Role: PI. Co-PIs: Joe Zebrowski (NMHU), Edward Martinez (NMHU), Elvira Abrica (University of Nebraska-Lincoln), Deryl Hatch-Tocaimaza (University of Nebraska-Lincoln).

- 2023-2024 Colorado Parks & Wildlife Species Conservation Trust Fund. Boreal toad transcriptomic immune response to Bd infection. (\$33,000). Role: **Lead Principal Investigator**. Harry Crockett (Colorado Parks & Wildlife, Aquatic species specialist) Co-PI.
- 2022-2023 NMHU Faculty Research Committee Research Grant. (\$4792) Role: PI. Northern Leopard Frog Threatened Population Status in Northern New Mexico. Funding to set up new qPCR Bd testing facilities in the Corey-Rivas Molecular Ecology Lab.
- 2023-2024 Save the Frogs Amphibian Conservation Grant. (\$520). Role: MS Thesis Advisor. Chytridiomycosis Prevalence In Northern New Mexican Anurans Following A Megafire. Anabella Miller (MS student, Biology program, NMHU).
- 2020 NSF HSI Conference: Building HSI Learning Resilience in the Face of Crisis. Award #2041515. (\$49,993). Role: *Session Planning & Development Organizing Committee*. Lead chairperson: Antonio Garcia, Associate Dean of Academics, New Mexico State University, Co-PIs M. Taylor and J. Parra.
- 2020-2023 Sherman Fairchild grant. (\$272,945) Role: proposal contributor, faculty personnel. Experiential and inquiry-based curriculum change in Biology, Geology, and Physics. Biology Department purchased equipment for intro labs and advanced cellular molecular research that is integrated into courses throughout the biology curriculum.
- 2019 NM-INBRE Alteration and Renovation at Primarily Undergraduate Institutions (\$32,018), "Development of Biology and Chemistry Imaging Lab for Biomedical Research at NMHU." **Role: Co-PI**, with Miki Ii (PI), Chris Stead (Co-PI), Jessica Snow (Co-PI), and Jiao Chen (Co-PI).
- 2019 NMHU Faculty Research Committee Grant Writing 25% Release Award. Role: **Lead Principal Investigator**. Grant writing Lead PI for NSF Improving Undergraduate STEM Education: Hispanic-Serving Institutions Proposal.
- 2014-2019 NIH/NIGMS NM-Idea Networks of Biomedical Research Excellence Grant (8 P20 GM 103451). Role: Subproject PI. (\$439,500). Deciphering immunogenomic responses to a fungal pathogen in toad populations. Students: Molly Enenbach, Estrella Gutierrez, Saul Ruiz, Cassius Simpson, Lisa McBride, Eric Brown, Casey Taylor.
- 2015-2017 National Center for Genome Resources Pilot Award. (\$36,755). Role: PI. MHC Class IIB allelic variation in populations of pathogen tolerant and susceptible Boreal Toads. Students: Breanna Gould, Estrella Gutierrez, Eric Brown.
- 2016-2020 T & E Inc. New Mexico Conservation Student Research Grant. (\$2,800) Role: Advisor. Assessing the Adaptive Immunity of the Climate-Sensitive Boreal Toad within a Southern Rocky Mountain Watershed. Eric Brown (MS student) PI.
- 2014-2015 T & E Inc. New Mexico Conservation Student Research Grant. (\$2,600) Role: Advisor. Metapopulation Structure of Sympatric Herpetofauna Species in the Mora River Watershed. Lisa McBride (MS student) PI.
- 2011-2012 New Mexico NSF EPSCoR Infrastructure Seed Grant. (\$50,000). Role: Co-PI. Synergistic effects of climate change and invasive species on native fauna in a highland aquatic ecosystem, with Jesus Rivas (PI) and Edward Martinez (Co-PI). Students: Saul Ruiz, Jose Griego, Lisa McBride.
- 2012 NMHU Faculty Research Seed Grant (FRC). Role: Co-PI (\$5,000). Chironomid Larvae as a Model Invertebrate for Detecting Copper Toxicity. With Edward Martinez (PI). Students: Sebastian Medina, Saul Ruiz.
- 2014 NMHU Faculty Research Council travel grant (\$800) for presenting at the National Joint Meeting of Ichthyologists and Herpetologists, July 30- August 3, 2014 Chattanooga, TN.

- 2013-2014 NMHU Faculty Research Council Research Grant. (\$2500). Role: Co-PI. Phylogeography of Anacondas study. With Jesus Rivas (PI). Student: Danny Cueva.
- 2013 NMHU Faculty Research Council travel grant (\$1200) for presenting research at Southwest PARC Annual meeting.
- 2011-2012 Two Grants from the Denver Zoo, in cooperation with Wind River Ranch. Role: PI. (\$6,000). Bison population genetics and assessment of potential cattle hybrids. Brian Miller Co-PI, Jesus Rivas Co-PI. Students: Wacey Cochise, Lisa McBride, Nick Lormand, Eliza Montoya, Fabian Pescador.
- 2010 NMHU Faculty Research Council Faculty Seed Grant. Role: Co-PI (\$5,000). Development of Anaconda Microsatellite Markers. Jesus Rivas Co-PI. Students: Penn Muluhngwi, Deisy Hernandez.
- 2003 OSU Biological Sciences Dean's Research Grant.

Grants Applied for but not Awarded

- 2019 Gordon and Betty Moore Foundation, Symbiosis in Aquatic Systems Initiative. Role: Co-PI. Pre-proposal: "Proposed model symbiont system: skin bacteria of boreal toads." Valerie McKenzie PI (CU-Boulder), Pieter Dorrestein CoPI (UC San Diego), Rob Knight CoPI (UC San Diego).

Awards & Academic Honors

- 2020 Recognition by the NMHU President's Council on Diversity, Equity and Inclusion for my efforts to support dialogue and reflection on racial justice issues both on and off campus in leading a Center for Teaching Excellence anti-racist reading group
- 2018 NMHU Professor of the Year Award
- 2018 SECRI International Visiting Scholar, Universidade Federal De Mato Grosso, Brazil, Department of Graduate Studies in Ecology & Conservation of Biodiversity, June-July, 2018
- 2008-2009 Mary S. Muellhaupt Presidential Fellowship
- 2004-2005 OSU University Fellowship
- 2004 Ohio Division of Wildlife Award for distinguished service in conservation of Ohio's wildlife resources
- 2003 The Arts and Sciences Award for Excellence in Scholarship
- 2002-2003 OSU Honors College of Arts and Sciences Scholarship for Research

Professional Certifications

- Data Carpentry Instructor Certification. June 23, 2021. Certified to teach coding and coordinate lessons with a commitment to teach in northern New Mexico with NM-EPSCoR. Mission of the Carpentries: The Carpentries builds global capacity in essential data and computational skills for conducting efficient, open, and reproducible research. We train and foster an active, inclusive, diverse community of learners and instructors that promotes and models the importance of software and data in research. We collaboratively develop openly-available lessons and deliver these lessons using evidence-based teaching practices. We focus on people conducting and supporting research. Utility: I have hosted and taught two workshops (2021 and 2022) at the NMHU campus in R coding.
- Facilitating Critical Cultural Dialogs at Hispanic Serving Institutions Certification, ESCALA in Education. May 17th, 2022. 9 hours of training in Culturally Responsive Facilitation for Hispanic Serving Institutions, a formal, Latinx-centered facilitation program developed by ESCALA Educational Services, Inc. Utility: training funded by NSF

SomosSTEM program to provide facilitation in STEM programming contexts to NMHU faculty, staff, students, and community partners.

Continuing Education

- On Course Engaging & Empowering Learners 3-Day Workshop, hosted by NSF SomosSTEM Program, NMHU December 11-13, 2023. Provides educators with 1) learner-centered structures for helping students learn more deeply and 2) innovative strategies for empowering students to become active, responsible learners who can thrive in a learner-centered environment.
- ESCALA Mini-Course: Culturally Responsive Teaching in STEM in HSIs. ESCALA in Education hosted by NSF SomosSTEM NMHU Program. 6 session mini series February – April, 2021.
- Course-Based Research Experiences (CUREs) Institute I (October-November, 2021) with Dr. Erin Dolan, University of Georgia. Hosted by NMHU NSF SomosSTEM Program.
- Course-Based Research Experiences (CUREs) Institute II (March-May 2023, and May 2021) with Dr. Erin Dolan, University of Georgia. Hosted by NMHU NSF SomosSTEM Program.
- Culturally Responsive Mentorship workshop, ESCALA in Education, hosted by NSF programs SomosSTEM & FORT-CREST. April 21, 2023, NMHU Las Vegas, NM, USA.
- Course Certificate, Introduction to Genomic Technologies, June 3, 2020. Johns Hopkins University offered through Coursera.

Society Memberships

- Society for Molecular Biology and Evolution
- Herpetologists' League
- Phi Kappa Phi National Honors Society
- Society for the Study of Evolution
- The New Mexico Academy of Science
- Partnership for Undergraduate Life Sciences Education (PULSE)
- Society for the Study of Amphibians and Reptiles
- Southwest Partners in Amphibian and Reptile Conservation (PARC)
- New Mexico Chapter of the Wildlife Society
- Sigma Xi, Scientific Research Society

Peer-Reviewed Publications (*student author)

- Rivas, J.A., De La Quintana, P., Mancuso, M., Pacheco, L.F., Rivas, G.A., Mariotto, S., Salazar-Valenzuela, D., Baihua, M.T., Baihua, P., Burghardt, G.M., et al. (2024). Disentangling the Anacondas: Revealing a New Green Species and Rethinking Yellows. *Diversity*, 16, 127. <https://doi.org/10.3390/d16020127>
- Trumbo, D. R., Hardy, B. M., Crockett, H. J., Muths, E., Forester, B. R., Cheek, R. G., Zimmerman, S. J., Corey-Rivas, S., Bailey, L. L., & Funk, W. C. (2023). Conservation genomics of an endangered montane amphibian reveals low population structure, low genomic diversity and selection pressure from disease. *Molecular Ecology*, 32, 6777–6795. <https://doi.org/10.1111/mec.17175>
- Rivas, J. A., Molina, C, Corey, S. J., and G. M. Burghardt (2016). Natural History of Neonatal Green Anacondas (*Eunectes murinus*): A Chip off the Old Block. *Copeia*: 104, 402-410.
- Corey, S. J. (2010). Phylogenetic Signal of Threatening Processes among Hylids: The Need for Clade-Level Conservation Planning. *Diversity*, 2, 142-162.
- Waite, T. A., Corey, S. J., Campbell, L. G., Chhangani, A. K., Rice, J. & Robbins, P. (2009). Satellite sleuthing: Does remotely sensed land-cover change signal ecological degradation in a protected area? *Diversity and Distributions*, 15, 299-309.

- Corey, S. J. and T. A. Waite. (2008). Phylogenetic autocorrelation of extinction threat in globally imperiled amphibians. *Diversity and Distributions*, 14, 614-629.
- Rivas, J. A. & Corey, S. J. (2008). Natural history note: *Eunectes murinus* (green anaconda). Longevity. *Herpetological Review*, 39, 469.
- H.L. Gibbs, S. Corey, G. Blouin-Demers, K. Prior, & P.J. Weatherhead. (2006). Hybridization between mtDNA-defined phylogeographic lineages of black ratsnakes (*Pantherophis* sp.). *Molecular Ecology*, 15, 3755-3767.

Peer-Reviewed Published Abstracts

- Brown*, E. and Corey-Rivas, S. J. (2017). Tracking an Emergent Pathogen in Boreal Toads across a Southern Rocky Mountain Watershed. Accepted for publication in *The New Mexico Journal of Science*, 2018.
- Corey-Rivas, S. J. (2017). Genetic and population-level influences on Boreal toad susceptibility to the fungal pathogen, *Batrachochytrium dendrobatidis*. Accepted for publication in *The New Mexico Journal of Science*, 2018.
- Griego*, J. and Corey-Rivas, S. (2013). Leopard Frog Population Structure in Dynamic Environmental Conditions. Climate Change and New Mexico's Water Resources, Special Issue in *The New Mexico Journal of Science*, 47, 12.
- Corey-Rivas, S., McBride*, L., Cochise*, W., Rivas, J., and Miller, B. (2013). Bison Conservation Genetics Study at the Rio Mora National Wildlife Refuge, New Mexico. Climate Change and New Mexico's Water Resources, Special Issue in *The New Mexico Journal of Science*, 47, 17.
- Medina*, S. Corey-Rivas, S., and Martinez, E. (2013). HSP70 Gene Expression and Morphological Abnormalities in Larval Chironomidae as Indicators of Stress Response to Chronic Sediment-Copper Exposure. Climate Change and New Mexico's Water Resources, Special Issue in *The New Mexico Journal of Science*, 47, 30-31.
- McBride*, L. and Corey-Rivas, S. (2013). Detection of Chytrid Fungus and Population Monitoring of the Northern Leopard Frog in Northern New Mexico. Climate Change and New Mexico's Water Resources, Special Issue in *The New Mexico Journal of Science*, 47, 12.
- Taylor*, C., Corey-Rivas, S., and Rivas, J. (2013). Characterization and Analysis of Urban Black Bear Populations in Northern New Mexico. Climate Change and New Mexico's Water Resources, Special Issue in *The New Mexico Journal of Science*, 47, 17-18.

In Preparation

*Student author

- Abrika, E. (UNL), Hatch-Tocaimaza, D. K. (UNL), Corey-Rivas, S., Garcia, J., Dixit, A. A Community-Based, Culturally Engaging STEM Learning Environment and Its Impact on Students' Psychosocial Attributes at a Rural Hispanic Serving Institution (HSI). Target Journal: *CBE-Life Sciences Education*
- Corey-Rivas, S., Calatayud, N., Taylor,* C, and W. Lorenz. Population level differences in transcriptomic immune response and disease tolerance in the endangered Boreal toad. Target Journal: *Frontiers in Ecology and Evolution*.
- Corey-Rivas, S., Griego*, J., Miller, A.* Hybridization and population structure of the Northern Leopard Frog in a New Mexican Ecotone. Target journal: *Journal of Herpetology*.
- Miller, J.* and Corey-Rivas, S. Post-megafire population decline and disease status of Northern Leopard Frogs in Northern New Mexico. Target journal: *Frontiers in Ecology and Evolution*.

Falkowski, Tomasz B., Law, E., Ashal,* S., Diemont, S., Corey-Rivas, S., Miller, A.*, Sloan, J.
Adapting field research in a time of climate crisis. Target journal: *Ecology*.

Unpublished Manuscripts

Corey, S. J. 2009. Understanding Amphibian Vulnerability to Extinction: A Phylogenetic and Spatial Approach. Ph.D. Dissertation. The Ohio State University, Columbus OH.

Corey, S. 2003. Phylogenetic analysis of the Eastern and Western Fox Snake using DNA sequences: Evolutionary and conservation implications. The Ohio State University, Columbus, OH. B.Sc. Honors Thesis, located in Main Library of the Ohio State University.

Reviewer for Grant Programs

2021, 2022 Panel Reviewer of grant proposals for the National Science Foundation (NSF) Improving Undergraduate STEM Education: Hispanic-Serving Institutions (HSI Program)

2020, 2019, 2018 Panel Reviewer of grant proposals for the New Mexico IDeA Networks of Biomedical Research Excellence (NM-INBRE) Program, part of the National Institutes of Health.

Reviewer for Professional Journals

Diversity & Distributions, Oikos, Science, Diversity, Evolutionary Ecology, Journal of Herpetology, Austral Ecology

Research Presentations & Meetings (*student presenter)

Miller, A., Corey-Rivas, S. Effects of wildfire on Anurans and its influence on chytridiomycosis prevalence in the Mora Watershed in Northern New Mexico. February 2, 2024. Joint Annual NM/AZ Chapter Meeting of the Wildlife Society, Flagstaff, AZ, USA.

Corey-Rivas, S. NSF HSI STEM Resource Hub Webinar speaker: Promoting Success in student transitions from lower to upper division coursework: the NMHU SomosSTEM NSF Program. February 2, 2024.

Abrica, E. (UNL), Hatch-Tocaimaza, D. K. (UNL), Corey-Rivas, S., Garcia, J., The Effects of Environments and Systems on STEM Students Fostering Sense of Belonging, Self-Efficacy, and Science Identity through Community-Based, Culturally Engaging STEM Learning Environments. November 18, 2023. Association for the Study of Higher Education (ASHE) Annual Conference, Minneapolis, MN, USA.

Falkowski, Tomasz B., Law, E., Ashal, S.*, Diemont, S., Corey-Rivas, S., Miller, A.*, Sloan, J. (2023) "Adapting field research in a time of climate crisis." Invited plenary presentation. Society for Ecological Restoration-Southwest Chapter Conference. Santa Fe, NM.

Corey-Rivas, Sarah, Elvira Abrica, Aalap Dixit, Justine Garcia, Fabianne Gondim, Deryl Hatch-Tocaimaza, Bethany Jorgensen, Crystal Medina, Shantini Ramakrishnan, Joe Zebrowski. Implementing Culturally Engaging Learning and Teaching Research for STEM Student Success through SomosSTEM. Poster presentation. May 22-24, 2023. Principal Investigator Meeting for the NSF Improving Undergraduate STEM Education: Hispanic Serving Institutions (HSI) program. Theme: "Building an HSI Grantee Community of Inclusive Excellence." University of Texas - San Antonio, USA.

S. Corey-Rivas. Boreal Toad Genetic associations with *Batrachochytrium dendrobatidis* tolerance and susceptibility. March 9, 2023. Boreal Toad Conservation Team Annual Meeting, Colorado Springs, USA.

S. Corey-Rivas, Casey Taylor, Eric Brown, Walt Lorenz. Boreal toad *Anaxyrus boreas boreas* population differences in transcriptome-level response to Bd fungus *Batrachochytrium dendrobatidis* indicate dysregulated immune response in susceptible populations. March 3,

2022. Colorado/Wyoming American Fisheries Society Annual Meeting - Fostering Aquatic Resiliency, in conjunction with the Boreal Toad Conservation Team Annual Meeting, Virtual meeting, Colorado, USA.
- S. Corey-Rivas, Casey Taylor, Eric Brown, Walt Lorenz. Dysregulation of immune gene expression explains tolerance vs susceptibility to Bd fungus in two boreal toad populations. February 28, 2019. Colorado/Wyoming Chapter of the American Fisheries Society Annual Meeting, Fort Collins, Colorado, USA.
- S. Corey-Rivas, Eric Brown. Population-Level Variation in Southern Rocky Mountain Boreal Toad Susceptibility to Bd. December 2, 2018. 2018 Annual Utah Division of Wildlife Resources Boreal Toad Recovery Meeting, Salt Lake City, UT, USA.
- Mudrek, J., Correia, L., Gomes da Silva, M., Da Silva Mülle, V. J., Corey-Rivas, S., Ferreira, D. C., Rivas, J., Venere, P. C. Amplificação de microssatélites de diferentes espécies de crocodilianos para populações de *Paleosuchus palpebrosus*. July 2019. Anais do IX Congresso Brasileiro de Herpetologia, Campinas, Brasil.
- S. Corey-Rivas, Casey Taylor, Walt Lorenz, Joann Mudge, Anitha Sundararajan. August 1, 2018. Deciphering immunogenomic responses to a fungal pathogen in toad populations: Host Transcriptomics. Annual NM-INBRE Symposium, Albuquerque, NM, USA.
- S. Corey-Rivas. July 16, 2017. Population-Level Variation in Southern Rocky Mountain Boreal Toad Susceptibility to *Batrachochytrium dendrobatidis*. Oral presentation at the Joint Meeting of Ichthyologists and Herpetologists, Austin, TX, USA.
- J. A. Rivas, J and S. Corey-Rivas. July 26, 2017 ¿Cuántas Anacondas hay? Oral presentation at the XI Congreso Latino Americano de Herpetología. Quito, Ecuador.
- S. Corey-Rivas. April 28, 2017. Population-level variation in host susceptibility to an emerging fungal pathogen. Oral presentation at Faculty Research Day, New Mexico Highlands University, NM, USA.
- B. Gould* & S. Corey-Rivas. April 21st, 2017. Candidate Immune Gene Toll-Like Receptor 2 and Amphibian Tolerance to Emerging Fungal Disease. Oral Presentation at NMHU Student Research Day, New Mexico Highlands University, Las Vegas, NM, USA.
- E. Brown*, S. Corey-Rivas. April 21st, 2017. Assessing Barriers to Dispersal of the Boreal Toad within a Southern Rocky Mountain Watershed. Oral Presentation at NMHU Student Research Day, New Mexico Highlands University, Las Vegas, NM, USA.
- S. Corey-Rivas. March 18th, 2017. Population-level variation in host susceptibility to an emerging fungal pathogen. Oral presentation at the NM-INBRE Annual Symposium, Santa Fe, NM, USA.
- S. Corey-Rivas. March 19th, 2016. MHC Variation and Susceptibility of Boreal Toads to an Emerging Fungal Pathogen. Oral presentation at the NM-INBRE Annual Symposium, Santa Fe, NM, USA.
- B. Gould*, S. Corey-Rivas. March 19th, 2016. Candidate Immune Gene Toll-Like Receptor-2 and Amphibian Tolerance to Emerging Fungal Disease. Poster presented at the NM-INBRE Annual Symposium, Santa Fe, NM, USA
- E. Gutierrez*, S. Corey-Rivas. March 19th, 2016. Finding Fungus Fighting Mutations in a MHC Antigen Binding Site of the Endangered Boreal Toad. Poster presented at the NM-INBRE Annual Symposium, Santa Fe, NM, USA.
- S. Corey-Rivas. November 1, 2015. Investigating Immunogenetics of Boreal Toad Susceptibility to Bd. Oral Presentation at the 2015 Amphibian Disease Meeting, Arizona State University, Tempe AZ, USA.
- S. Corey-Rivas. September 10, 2015. Searching for immunogenetic responses to Bd fungus in Boreal Toad populations. Guest Lecture at the New Mexico State University Biology Guest Lecture Series Fall 2015, Las Cruces, NM, USA.
- E. Gutierrez*, S. Corey-Rivas. August 5, 2105. Finding Fungus Fighting Mutations of the MHC Antigen Binding Site in the Endangered Boreal Toad. Poster presented at the NISE/ UNM

- Undergraduate Pipeline Network Poster Session, University of New Mexico, Albuquerque, NM, USA.
- S. Corey-Rivas. August 1, 2015. Resistance, or rather tolerance, is not futile: MHC immune gene variation in Bd infected boreal toads. Oral presentation at the Society for the Study of Amphibians and Reptiles Annual Meeting, Lawrence, KS, USA.
- Rivas, J. and S. Corey-Rivas. August 2, 2015. How many green anacondas are there? Evidence of multiple lineages of green anaconda. Oral presentation at the Society for the Study of Amphibians and Reptiles Annual Meeting, Lawrence, KS, USA.
- *McBride, L. and S. Corey-Rivas. July 31, 2015. Metapopulation structure of two sympatric garter snake species (*Thamnophis elegans* and *Thamnophis cyrtopsis*) in the Mora River watershed. Poster presentation at the Society for the Study of Amphibians and Reptiles Annual Meeting, Lawrence, KS, USA.
- S. Corey-Rivas. March 29, 2015. Deciphering Immunogenomic Responses to a Fungal Pathogen in Toad Populations. Oral presentation at the NM-INBRE Annual Symposium, Santa Fe, NM, USA.
- S. Corey-Rivas. February 24, 2015. Genetic basis for Bd resistance in Boreal Toads. Oral presentation at the Boreal Toad Recovery Team Annual Meeting, US Fish & Wildlife Service, Denver, CO, USA.
- *Griego, J, S. Corey-Rivas. July 31, 2014. Genetic Structure and Hybridization of the Northern Leopard Frog (*Lithobates pipiens*) in the Mora Watershed in Northern New Mexico. Oral presentation at the Joint Meeting of Ichthyologists and Herpetologists, Chattanooga, TN, USA
- S. Corey-Rivas, M. Shaw, and S. Brown. August 28-30, 2013. Student-Centered Introductory Biology and Forestry at a HIS. Abstract contributed to Chronicling the Changes Documents at the AAAS Vision and Change in Undergraduate Biology Education: Chronicling the Changes Meeting, Washington, D. C., USA.
- S. Corey-Rivas. August 7, 2013. Approaches to Conservation Research. Oral presentation at the Denver Zoo, Denver, CO.
- S. Corey-Rivas. July 12, 2013. Using Phylogenetic signal in Assessments of Amphibian Extinction Risk. Oral presentation at the Joint Meeting of Ichthyologists and Herpetologists, Albuquerque, NM, USA.
- *J. Griego, S. Corey-Rivas. July 14, 2013. Leopard Frog Population Structure in Dynamic Environmental Conditions. Poster presentation at the Joint Meeting of Ichthyologists and Herpetologists, Albuquerque, NM, USA.
- S. Corey-Rivas. August 13th, 2012. Threatened amphibian species in Venezuela's socioecological landscape: people, parks and indigenous lands. Oral presentation at 7th World Congress of Herpetology, University of British Columbia, Vancouver, BC Canada.
- S. Corey-Rivas. April 4th 2012. Thinking Evolutionarily: New Tools for Amphibian Conservation. Invited talk for New Mexico Highlands University Sigma Xi Chapter Lecture Series, NMHU main campus.
- S. J. Corey. September 22, 2008. Conservation in a New Era of Global Extinction Risks. Graduate student orientation at The Ohio State University, Independence Hall.
- S. J. Corey, T. A. Waite, A. K. Chhangani, J. Rice, and P. Robbins. July 2008. Does remotely sensed land-cover change signal latent impacts on tree species diversity within a protected area? Poster presentation at the Society for Conservation Annual Conference, Chattanooga, TN, July 13-17, 2008.
- L. G. Campbell, T. A. Waite, S. J. Corey, A. K. Chhangani, and P. Robbins. July 2008. Uphill battle: elevation impedes invasion and minimizes impacts of *Prosopis juliflora* in a protected area. Poster presentation at the Society for Conservation Annual Conference, Chattanooga, TN, July 13-17, 2008.

- Corey, S. March 2005. Challenges for neo-tropical conservation genetics. Invited guest lecture at the School for International Training, program of Comparative Ecology and Conservation. Quito, Ecuador, March 30, 2005.
- Corey, S. and H. L. Gibbs. September 2004. Phylogenetic analysis of the Eastern and Western fox snake using RAPDs and DNA sequences: Evolutionary and conservation implications. Poster presentation at the 50th Congresso Brasileiro de Genética, Florianopolis, Brazil, 7-10 September, 2004.
- Corey, S. and H. L. Gibbs. May 2004. Phylogenetic analysis of the Eastern and Western fox snake using RAPDs and DNA sequences: Evolutionary and conservation implications. Poster presentation at the Snake Ecology Conference, Carbondale, Illinois, May 23-25, 2004.

Courses Taught

New Mexico Highlands University – Undergraduate/Graduate

Biol 1110 Introductory Biology Lab
 Biol 2110 General Biology I for Majors
 Biol 2620 Ecology & Evolution General Biology
 Biol 3890 Ecology
 Biol 4910 Senior Capstone Project I
 Biol 4980 Senior Capstone Project II, Applied Biological Research
 Biol 4/5100 Herpetology
 Biol 4/5760 Evolution
 Biol 4/5890 Molecular Evolution & Ecology
 Biol 4/5770 Macroevolution
 Honr 100 Honors Freshman Forum
 Honr 250 Honors Seminar II
 Honr 450 Honors Thesis
 Indp 350 Research Skills Seminar

New Mexico Highlands University –Graduate

Biol 6000 Research Methods in Life Sciences
 Biol 6500 Seminar: Science Literacy for a Future Planet
 Biol 6500 Graduate Seminar in Professional Skill Building
 Biol 6890 Advanced Ecology
 Biol 6200 Ecological Genomics
 Indp 6920 Research Ethics & Integrity

Eastern Kentucky University - Undergraduate

Bio 121 Introductory Biology for majors
 Bio 100 Introductory Biology for non-majors
 Bio 171 Anatomy

Outreach and Service University Service

2016-present Chair, Institutional Animal Care and Use Committee (IACUC)
 2023-present Chapter President, NMHU Phi Kappa Phi Honors Society
 2017-present Member, Advisory Board, Center for Teaching Excellence
 2023-present Highlands Faculty Student Coordinator and member of the Student Research Committee for NM-INBRE (NIH award for the state of New Mexico).

- 2023 Session facilitator, Strategies to Improve Early Retention at NMHU in a Culturally Responsive Manner. Facilitated with Aalap Dixit & Leon Bustos. Fall Professional Development Days, Center for Teaching Excellence, August 11, 2023.
- 2023 Session facilitator, Connecting with Students through Course-based Undergraduate Research (CURES) – a Prescription for Increased Student Engagement and Career Preparation in STEM. Facilitated with Justine Garcia & Aalap Dixit. Fall Professional Development Days, Center for Teaching Excellence, August 11, 2023.
- 2020-2021 Fall semester Reading Circle leader for Ibram Kendi’s How to be an Anti-Racist. Spring semester support facilitator for Layla Saad’s Me and White Supremacy: Combat Racism, Change the World, and Become a Good Ancestor. NMHU Center for Teaching Excellence.
- 2020-2021 Graduate Program Coordinator of Biology Department
- 2014-2016 Member, IACUC Committee
- 2019-2020 Chair, Advisory Board, Center for Teaching Excellence
- 2019-2020 Chair, Ad Hoc Committee for the Center for Teaching Excellence
- 2017-2021 Member, University Outcomes Assessment Committee
- 2017-present Web Administrator, Biology Department, NMHU
- 2016-present Coordinator/member, Biology Outcomes Assessment Committee
- 2011-present Webmaster for Molecular Ecology Lab website (<http://nmhumolecularecology.weebly.com/>)
- 2013-present Chapter Treasurer, NMHU Chapter of Phi Kappa Phi Honors Society
- 2013-2020 Chapter Public Relations Officer, NMHU Chapter of Phi Kappa Phi Honors Society
- 2016-2017 Secretary, Faculty Research Committee (Faculty Senate committee)
- 2014-2017 Member of Faculty Research Council, New Mexico Highlands University.
- 2013-2016 Faculty Senate Ad-hoc Website Committee
- 2011-2016 Faculty Advisor to the Conservation Club at New Mexico Highlands University
- 2012-2016 Chapter Webmaster, NMHU Chapter of Sigma Xi Research Society
- 2015-2016 Member, Biology Faculty Hiring Committee
- 2013-2016 NMHU Honors Council Member
- 2013-2014 NMHU Honors Coordinator
- 2013-2014 Board Member/ NMHU Liaison, Friends of Las Vegas National Wildlife Refuge
- 2012-2014 Chapter Vice President, NMHU Chapter of Sigma Xi Research Society
- 2011 Instructor for USDA Supporting Agriculture in Science and Education (SASE) Summer program for high school and college students in biology (PI Edward Martinez). I taught a two-week Module entitled: Conservation Genetics from the Field to the Laboratory.
- 2011 Facilitated Laboratory alignment for Biol211 (NMHU) and Biol112 (Luna Community College) including a final summary report.

Professional Service

- 2021-2022 Panel Reviewer for NSF Hispanic Serving Institutions Program
- 2018-2020 Executive Council Member, Herpetologists’ League.
- 2018-2020 Diversity and Inclusiveness Committee Member, Herpetologists’ League.
- 2018-2020 Panel Reviewer for NM-INBRE NIH Program
- 2017 Expert Scientist for Boreal Toad Species Status Assessment, US Fish and Wildlife Service.
- 2017 Session Moderator, “Biogeography and Phylogeography of Herptiles,” Joint Meeting of Ichthyologist and Herpetologists, July 16, Austin, TX.
- 2017 Judge for the ASN Ruth Patrick Student Poster Competition, 2017 Evolution Meeting. June, Portland, OR

- 2017 Judge for Student Poster Competition at the 2017 New Mexico Academy of Science and NM EPSCoR Joint Meeting.
- 2015-2017 Judge at student research poster session of the NM-INBRE Annual Research Symposium March 19th, 2016, Santa Fe, NM.
- 2015-2016 Member of PARCAs group to designate herpetofaunal conservation areas in New Mexico with NM PARC.
- 2015 Session Moderator, “Amphibian Conservation” session, Joint Meeting of Ichthyologist and Herpetologists, July 12, Albuquerque, NM.
- 2013 Judge for the 2013 Sigma Xi Student Research Showcase. Online, International forum.
- 2012 Guest Lecture on Ecological Restoration at Wind River Ranch to Luna Community College students, Las Vegas, NM.
- 2012 Judge in the New Mexico Math, Engineering, Science Achievement Inc MESA, at NMHU main campus held for middle and high school students.

Community Service

- 2020-present Advisory Board Member, Hermit’s Peak Watershed Alliance.
- 2019 Presenter of educational booth about wildlife research methods at HU at the Zoo alumni event, Albuquerque Zoo, April 13, Albuquerque, NM.
- 2018 Presenter of activity about amphibian science to regional Girl Scouts of New Mexico Trails STEM day at NMHU, November 3, Las Vegas, NM.
- 2017 Donated endangered boreal toads to Staten Island Zoo, Denver Zoo, and Detroit Zoo for their education and exhibit projects.
- 2017 Hosted amphibian sound children’s booth with Conservation club students at Natural History Museum ‘wild music’ exhibit, November 3, Albuquerque, NM.
- 2017 Interviewed for NMHU news article: “Endangered Boreal Toads Donated to Zoos” May 17th.
- 2012-2016 Host a conservation science booth for NMHU at the Las Vegas NM Literacy Fair sponsored by the Literacy Council of Northeastern New Mexico.
- 2016 Scientist Presenter at AAUW Girls Can, May 4th, 2016 at the Don Cecilio Martinez Elementary School, Las Vegas NM, USA.
- 2015 Presenter/Ran a booth at SW PARC’s Save the Frogs Day, May 3rd, New Mexico Museum of Natural History and Science, Albuquerque, NM.
- 2014 Interviewed for NMHU news article: “Research Trip Inspires Graduate’s Interest in PhD” July 7.
- 2014 Radio Show guest interviewee about Anaconda Research Trip, with Jesus Rivas and with host Sharon Vander Meer, KFUN Radio Station, Las Vegas, NM, June 17.
- 2014 Interviewed for NMHU news article: “Students Join Professors on Research Expedition” April 30.
- 2013 Interviewed for NMHU news article: “Students have strong showing at science symposium,” November 21.
- 2013 Interviewed for NMHU news article: “Graduate Student Studies New Mexico Black Bears” October 31.
- 2013 Interviewed for NMHU news article: “HU Participates in Vision and Change Biology Conference” September, 11.
- 2013 Interviewed for NMHU news article: “Faculty, Student Research Showcased at Research Day 2014” April 7.
- 2013 Career Day presenter for Girls Can (American Association of University Women) promoting conservation biology as a future career choice for 5th graders.
- 2012 NMHU University news article: “Corey-Rivas gives conservation talk April 4th”
- 2008-2009 Consultant for National Geographic film on Anacondas

- 2008 Lecturer on water resources, pollution, and watersheds - 2nd graders at Eubank Elementary, KY.
- 2008 Rain garden project leader for the Day Treatment Center (8-12 grades), Somerset, KY.
- 2006-2008 Earth Day organizer at Somerset Community College, KY.
- 2007 Invited lecturer for Girls in Science program through University of Kentucky.
- 2007-2008 Organizer for "Green Month" - an environmental program in K-12 schools in Pulaski County, KY in partnership with Dr. Jesús Rivas at Somerset Community College.
- 2006, 2008 Regional Science Olympiad Judge/facilitator for the Food Chemistry, Five Star Science, and Science Word competitions (grades 6-12) at Somerset Community College, KY.
- 2010 Rain garden project leader with the Student Government Association, Corbin Campus, Eastern Kentucky University. Mentoring students on garden design, purpose, and grant writing with faculty/staff for state (PRIDE) funding.
- 2005 Women in Science Day (AWISCO) volunteer at OSU.