CURRICULUM VITAE

MARTHA MONICA MUÑOZ

Department of Ecology and Evolutionary Biology, Yale University
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EDUCATION

2014 Ph.D. Organismic and Evolutionary Biology, Harvard University
2007 B.A. Biology (with Distinction), *summa cum laude*, Boston University

APPOINTMENTS

2021- **Assistant Curator**, Division of Vertebrate Zoology, Yale Peabody Museum
2019- **Assistant Professor**, Department of Ecology and Evolutionary Biology, Yale University
Affiliate Faculty, Yale Institute for Biospheric Studies
2017-2019 **Assistant Professor**, Department of Biological Sciences, Virginia Tech
Affiliate Faculty, Global Change Center, Virginia Tech
2015-2017 **Post-doctoral Researcher**, Department of Biology, Duke University
2014-2015 **Post-doctoral Researcher**, Research School of Biology, The Australian National University
2007-2008 **Fulbright Research Scholar**, National Museum of Natural Sciences, Madrid, Spain

SELECTED HONORS AND AWARDS

2023 Marjorie Kettell Distinguished Alum Award, Boston University
2022 George Bartholomew Award, Society for Integrative and Comparative Biology
2021 Carl Gans Award, Society for Integrative and Comparative Biology
2019 'Scientist to Watch', *The Scientist* Magazine
2019 Distinguished Alumni 'Rising Star' Award, Boston University
2017 Young Investigator Award, American Society of Naturalists
2014 Raymond Huey Best Talk Award, Society for Integrative and Comparative Biology
2006 Phi Beta Kappa Honor Society, Boston University (early induction)
2006 College of Arts and Sciences Merit Award, Boston University
2006 Harold Case Award, Boston University
2003 National Hispanic Merit Scholar

FELLOWSHIPS AWARDED

2017 Foerster-Bernstein Postdoctoral Fellowship, Duke University (declined)
2014 National Science Foundation, Postdoctoral Research Fellowship (declined)
2013 John Parker Merit Fellowship, Harvard University
2012 Robert A. Chapman Memorial Fellowship, Harvard University
2008 National Science Foundation, Graduate Research Fellowship
2008 Herchel Smith Graduate Fellowship, Harvard University
2007 William J. Fulbright Research Fellowship (Spain)

FUNDED GRANTS:

2023 Ministerio de Ciencia e Innovación (Spain). Memoria Científico-Técnica de Proyectos Individuales: From the museum to the field: digitizing, modelling and 3D printing of artificial analogues to assess the ecophysiological vulnerability of Holarctic anurans to climate change. Co-PI. €175,000.

2023 Yale Planetary Solutions Project Seed Grant: Using thermal performance data to improve forecasts of extinction risk and global diversity under climate change. Co-PI. $25,000.

2021 National Science Foundation, DEB-2039476, Systematics and Biodiversity Science: Hidden dimensions of diversity in woodland salamanders: Investigating ecophysiological evolution in a classic non-adaptive radiation. Lead PI. Total Award: $976,607.

2021 National Science Foundation, DEB-2054569, Bridging Ecology and Evolution: Niche width evolution and the assembly of faunas. Co-PI. Total Award: $1,102,014.

2021 John Templeton Foundation: De-mystifying the tangled bank: integrating macroevolutionary and mechanistic landscape approaches across scales of organization. Lead PI. Total Award: $799,641.

2018 National Science Foundation, IOS-1839250, Rules of Life:FELS: Conference Grant: Evolutionary biomechanics and morphology in the era of big data, $21,868 (PI)

2018 Global Change Center Seed Grant, Virginia Tech, $19,810 (co-PI)

2012 National Science Foundation, Doctoral Dissertation Improvement Grant, $14,999

2012 Sigma Xi Grant-In-Aid, $500

2012 Ken B. Miyata Expedition Grant, Harvard University, $9,100

2012 David Rockefeller Center for Latin American Studies Grant, Harvard, $1,500

2010 George Putnam Expedition Grant, Harvard University, $9,700

2008 Ken B. Miyata Expedition Grant, Harvard University, $5,260

PUBLICATIONS:

[1]Undergraduate Mentee; [2]Graduate Student; [3]Postdoctoral Researcher; [4]High School Mentee

Metrics: 1,312 citations; H-index=20; i10-index=23

Submitted/In Review/In Revision:

49. Domínguez-Guerrero SF[3], Esquerré D, Burress ED[3], Maciel-Mata CA, Alencar LRV[3], **Muñoz MM**. Viviparity imparts a macroevolutionary signature of ecological opportunity in *Liolaemus* lizards. (submitted)

48. Alencar LRV[3], Schwery O, Gade MR[3], Domínguez-Guerrero SF[3], Tarimo E, Bodensteiner BL[2], Uyeda JC, **Muñoz MM**. Opportunity begets opportunity to drive macroevolutionary dynamics of a diverse lizard radiation (submitted)

47. Camarillo H[2], Burress ED[3], **Muñoz MM**. Highly conserved four-bar geometry during extensive ecological diversification. (in review)

46. Riddell EA, Burger IJ, Tyner-Swanson TL, Biggerstaff J, **Muñoz MM**, Levy O, Porter CK. The empirical basis for parameterizing mechanistic niche models in biophysical ecology. (in revision)

45. Burger IJ, Carter ET, Magner L, **Muñoz MM**, Sears MW, Fitzpatrick BM, Riddell EA. Assessing hybrid vigor using the thermal sensitivity of physiological trade-offs in tiger salamanders. (in revision)

44. Pintanel P, Tejedo M, Enriquez-Urzelai U, **Muñoz MM**. High thermal variation in maximum temperature inverts Brett's heat-invariant rule at fine spatial scales (in revision)

43. Burress ED[3], Gade MR[3], Riddell EA, **Muñoz MM**. Functional innovations and mountains act synergistically to drive the paradoxical evolution of lungless salamanders. (in revision)

42. Bodensteiner BL[2], **Muñoz MM**. Adaptive radiation without independent stages of trait evolution in a lineage of Caribbean anoles. (in revision)

In Press/Published

41. Burress ED[3], **Muñoz MM**. Phenotypic rate and state are decoupled in response to river-to-lake transitions in cichlid fishes. (in press, ***Evolution***)

40. **Muñoz MM**, Frishkoff LO, Pruett J, Mahler DL. 2023. Evolution of a model system: new insights from the study of *Anolis* lizards. ***Annual Review of Ecology, Evolution, and Systematics*** 54: 475—503.

39. Burress ED[3], **Muñoz MM**. 2023. Functional trade-offs asymmetrically promote phenotypic diversification. ***Systematic Biology*** 72: 150—160.

38. Dellinger SB, De Vita R, Vlachos PP, **Muñoz MM**, Socha JJ. 2023. Material properties of skin in the flying snake *Chrysopelea ornata*. ***Journal of Experimental Zoology A*** 339:269—283.

37. Friedman ST[3], **Muñoz MM**. 2023. A latitudinal gradient of deep-sea invasions for marine fishes. ***Nature Communications*** 14:773.

36. Friedman ST[3], **Muñoz MM**. 2022. The effect of thermally robust ballistic mechanisms on climatic niche in salamanders. ***Integrative Organismal Biology*** 4:obac020.

35. Domínguez-Guerrero SF[3], Méndez-de la Cruz FR, Manríquez-Morán NL, Olson ME, Galina-Tessaro P, Arenas-Moreno DM, Bautista-del Moral A, Benítez-Villaseñor A, Gadsden H, Lara-Reséndiz RA, Maciel-Mata CA, Muñoz-Nolasco FJ, Santos-Bibano R, Valdez-Villavicencio JH, Woolrich-Piña GA, **Muñoz MM**. 2022. Exceptional parallelisms characterize the evolutionary transition to live birth in phrynosomatid lizards. ***Nature Communications*** 13:2881.

34. Landis MJ, Quintero I, **Muñoz MM**, Zapata F, Donoghue MJ. 2022. Phylogenetic inference of where species spread or split across barriers. ***Proceedings of the National Academy of Sciences*** 119:e2116948119.

33. **Muñoz MM.** 2022. The Bogert effect, a factor in evolution. ***Evolution*** 76:49—66. *Cover image

32. **Muñoz MM**, Feeley KJ, Martin PM, Farallo VR[3]. 2022. The multidimensional (and contrasting) effects of environmental warming on a group of montane tropical lizards. ***Functional Ecology*** 35:419—431.

31. Burress ED[3], **Muñoz MM**. 2022. Ecological opportunity from innovation, not islands, drove the anole lizard adaptive radiation. ***Systematic Biology*** 71:93—104.

30. Bodensteiner BL[2], Gangloff EJ, Kouyoumdjian L, **Muñoz MM**, Aubret F. 2021. Thermal-metabolic phenotypes of the lizard *Podarcis muralis* differ across elevation, but converge in high elevation hypoxia. ***Journal of Experimental Biology*** 224:jeb243660.

29. Bajić D, Rebolleda-Gómez M, **Muñoz MM**, Sánchez Á. 2021. The macroevolutionary consequences of niche construction in microbial metabolism. ***Frontiers in Microbiology*** 12:718082.

28. Burress ED[3], **Muñoz MM**. 2021. Ecological limits on the decoupling of prey capture and processing in fishes. ***Integrative and Comparative Biology*** 61:773—782.

27. Bodensteiner BL[2], Agudelo-Cantero GA, Arietta AZA, Gunderson AR, **Muñoz MM**, Refsnider JF, Gangloff EJ. 2021. Thermal adaptation revisited: how conserved are thermal traits of reptiles of amphibians? ***Journal of Experimental Zoology A*** 335:173—194.

26. Domínguez-Guerrero SF[3], Bodensteiner BL[2], Pardo-Ramírez A[1], Aguillón-Gutierrez DR, Méndez-de la Cruz FR, **Muñoz MM**. 2021. Thermal physiology responds to interannual temperature shifts in a montane horned lizard, *Phrynosoma orbiculare*. ***Journal of Experimental Zoology A*** 335:136—145.

25. Camarillo H[2], **Muñoz MM**. 2020. Weak relationships between swimming morphology and water depth in wrasses and parrotfish belie multiple selective demands on form-function evolution. ***Integrative and Comparative Biology*** 60:1309—1319.

24. Farallo VR[3], **Muñoz MM**, Uyeda JC, Miles DB. 2020. Scaling between macro- to microscale climate data reveals strong phylogenetic inertia in niche evolution in plethodontid salamanders. ***Evolution*** 74:979—991. *Issue cover image

23. **Muñoz MM**, Price SA. 2019. The future is bright for evolutionary morphology and biomechanics in the era of big data. ***Integrative and Comparative Biology*** 59:599—603.

22. Muñoz MM. 2019. The evolutionary dynamics of mechanically complex systems. ***Integrative and Comparative Biology*** 59:705—715.

21. Salazar JC[1], Castañeda MR, Londoño GA, Bodensteiner BL[2], Muñoz MM. 2019. Physiological evolution during adaptive radiation: A test of the island effect in *Anolis* lizards. ***Evolution*** 73:1241—1252. *Issue cover image

20. Kuo C-Y, Muñoz MM, Irschick DJ. 2019. Lizard foraging: A perspective integrating sensory ecology and life history. Pp. 87—106 *in* Behavior of Lizards: Evolutionary and Mechanistic Perspectives (VL Bels & AP Russell, Eds.) Taylor and Francis Publishing; Abingdon, UK.

19. Muñoz MM, Bodensteiner BL[2]. 2019. Janzen's hypothesis meets the Bogert effect: Connecting climatic variation, thermoregulatory behavior, and rates of physiological evolution. ***Integrative Organismal Biology*** 1:oby002.

18. Domínguez-Guerrero S[3], Muñoz MM, Pasten-Téllez D[1], Arenas-Moreno D, Rodríguez-Miranda L, Manríquez-Morán N, Méndez de la Cruz F. 2019. Interactions between thermoregulatory behavior and physiological acclimatization in a wild lizard population. ***Journal of Thermal Biology*** 79:135—143.

17. Muñoz MM, Hu Y, Anderson PSL, Patek SN. 2018. Strong mechanical relationships bias the tempo and mode of morphological evolution. ***eLife*** 7:e37621.

16. Boronow KE, Shields IH[1], Muñoz MM. 2018. Parallel behavioral divergence with macrohabitat in *Anolis* (Squamata: Dactyloidae) lizards from the Dominican Republic. ***Breviora*** 561:1—17.

15. Muñoz MM, Losos JB. 2018. Thermoregulatory behavior simultaneously promotes and forestalls evolution in a tropical lizard. ***American Naturalist*** 191:E15—E26.

14. Muñoz MM, Anderson PSL, Patek SN. 2017. Mechanical sensitivity and the dynamics of evolutionary rate shifts in biomechanical systems. ***Proceedings of the Royal Society, B*** 284:20162325.

13. Muñoz MM, Langham GM, Brandley MC, Williams SE, Moritz C. 2016. Basking behavior predicts the evolution of heat tolerance in Australian rainforest lizards. ***Evolution*** 70:2537—2549.

12. Muñoz MM, Moritz C. 2016. Adaptation to a changing world: Evolutionary resilience to climate change. Pp. 238—252 *in* How Evolution Shapes Our Lives: Essays on Biology and Society. (JB Losos & RE Lenski, Eds.) Princeton University Press, Princeton, NJ.

11. Phillips BL, Muñoz MM, Hatcher A, Macdonald S, Llewelyn J, Lucy V, Moritz C. 2016. Heat hardening in a tropical lizard: geographic variation explained by the predictability and variance in environmental temperatures. ***Functional Ecology*** 30: 1161—1168.

10. Conover AE[4], Cook EG[1], Boronow KE, **Muñoz MM**. 2015. Effects of ectoparasitism on behavioral thermoregulation in the tropical lizards, *Anolis cybotes* (Squamata: Dactyloidae) and *A. armouri* (Squamata: Dactyloidae). ***Breviora*** 545:1—13.

9. **Muñoz MM**, Crandell KE, Campbell-Staton S, Fenstermacher K, Kim H, Van Middlesworth P, Sasa M, Losos JB, Herrel A. 2015. Multiple paths to aquatic specialization in four species of Central American aquatic *Anolis* lizards. ***Journal of Natural History*** 49:1717—1730.

8. **Muñoz MM**. 2015. The London Baedeker for the Darwin enthusiast. ***Evolution: Education and Outreach*** 8:1.

7. **Muñoz MM**, Wegener JE, Algar AC. 2014. Untangling intra- and interspecific effects on body size clines reveal divergent processes structuring convergent patterns in *Anolis* lizards. ***American Naturalist*** 184:636—646.

6. **Muñoz MM**, Stimola MA[1], Algar AC, Conover A[4], Rodriguez A[1], Landestoy MA, Bakken GS, Losos JB. 2014. Evolutionary stasis and lability in thermal physiology in a group of tropical lizards. ***Proceedings of the Royal Society, B*** 281:20132433.

5. **Muñoz MM**, Crawford NG, McGreevy TJ, Messana NJ, Tarvin RD, Revell LJ, Zandvliet RM, Hopwood JM[1], Mock E[1], Schneider AL, Schneider CJ. 2013. Divergence in coloration and ecological speciation in the *Anolis marmoratus* species complex. ***Molecular Ecology*** 22:2668—2682.

4. **Muñoz MM**, Hewlett J. 2011. Ecological consequences of continual volcanic activity on the lizard, *Anolis lividus*, from Montserrat. ***Herpetological Review*** 42:160—165.

3. Yamaguchi A, **Muñoz MM**, Bose TO, Oberlander JG, Smith S. 2010. Sexually distinct development of vocal pathways in *Xenopus laevis*. ***Developmental Neurobiology*** 70:862—874.

2. Crandall ED, Jones EM, **Muñoz MM**, Akinronbi B, Erdmann MV, Barber PH. 2008. Comparative phylogeography of two seastars and their ectosymbionts within the Coral Triangle. ***Molecular Ecology*** 17:5276—5290.

1. Reitzel AM, Sullivan JC, Brown BK, Chin, DW, Cira EK, Edquist SK, Genco BM, Joseph OC, Kaufman CA, Kovitvongsa K, **Muñoz MM**, Negri TL, Taffel JR, Zuehike RT, Finnerty JR. 2007. Ecological and developmental dynamics of a host-parasite system involving a sea anemone and two ctenophores. ***Journal of Parasitology*** 93:1392—1402.

EDITED BOOKS AND VOLUMES

2. *Physiology, Behavior, and Evolution: An Integration of Classic Ideas and New Perspectives*. **M.M. Muñoz** and M. Fuxjager, Eds. MIT Press (2024).

1. *De-mystifying the Tangled Bank: Motors and Brakes of Phenotypic Evolution*. **M.M. Muñoz**, Ed. *Current Zoology* Vol. 66, Issue 5 (2020).

KEYNOTES & PLENARIES:

[1]Denotes that talk was delivered in Spanish

2024 Maine Biological and Medical Sciences Symposium, Bar Harbor, **Keynote Address**
2023 Stony Brook University: **Darwin Day Living World Lecture**
Biogeography of Behavior Symposium, Norman, Oklahoma: **Keynote Speaker**
2022 Society for Integrative & Comparative Biology: **Bartholomew Award Plenary**
Wragg-Schmidt Zoology Spring Symposium, University of British Columbia: **Plenary Speaker**
[1]Asociación Colombiana de Herpetología, Cali, Colombia: **Keynote Speaker**
2021 Society for Integrative & Comparative Biology: **Gans Award Plenary**
Canadian Society of Zoologists annual meeting: **Plenary Speaker**
Ontario Ecology, Ethology, and Evolution Colloquium: **Plenary Speaker**
Gordon Research Conference, Ecol. & Evol. Genomics: **Session Keynote** (cancelled)
2020 Iowa State University, Ecology & Evolution Symposium: **Keynote Speaker**
2019 College of Charleston, School of Science and Mathematics: **Darwin Day Speaker**
2017 [1]Association for Amphibian and Reptile Research and Conservation, San Miguel de Allende, México: **Plenary Speaker**

INVITED SYMPOSIUM TALKS & PANELS:

[1]Denotes that talk was delivered in Spanish

2024 Agency, Directionality, and Function: Foundations for a Science of Purpose, Panelist, Georgia Tech, Atlanta, GA
2023 Herchel Smith Symposium, Alumni Panel, Harvard University, Cambridge, MA
2022 European Society for Evolutionary Biology, Prague, Czech Republic
2021 Society for the Study of Evolution, 75th Anniversary Symposium, Digital Meeting
Yale Climate Day 2021, Yale Institute for Biospheric Studies, Digital Meeting
Society for Integrative and Comparative Biology, Digital Panel
Intersections Science Fellows Symposium, Yale University, Digital Panel
2020 Society for Integrative and Comparative Biology, Austin, TX
Joint Meeting of Ichthyology and Herpetology, Norfolk, VA (meeting cancelled)
2019 International Congress of Vertebrate Morphology, Prague, Czech Republic
Joint Meeting of Ichthyology and Herpetology, Snowbird, UT
North American Paleontological Conference, Riverside, CA
2017 American Society of Naturalists Young Investigator Award, Portland, OR
[1]Latin American Herpetology, Quito, Ecuador
2013 Biological Impacts of Tropical Warming for Ectotherms, San Juan, Puerto Rico

CONFERENCES AND SYMPOSIA ORGANIZED:

2022 **European Society for Evolutionary Biology**: "Inferring macroevolutionary patterns from microevolutionary processes: methods and practices"; Prague, CZ (Co-organizers: Dr. Masahito Tsuboi, Dr. Lee Hsiang Liow)

2021 **Society for Integrative and Comparative Biology**: "Honoring the Life and Legacy of Dr. George Gilchrist"; Digital Meeting (Co-organizer: Dr. Cam Ghalambor)

2020 **ASN/SSB/SSE Evolution Meeting**: Spotlight Session: "The Role of Behavior in Evolution"; Cleveland, OH (meeting cancelled due to COVID-19)

2019 **Society for Integrative and Comparative Biology**: "Comparative Evolutionary Morphology and Biomechanics in the Era of Big Data"; Tampa, FL (Co-organizer: Dr. Sam Price)

2018 **ASN/SSB/SSE Evolution Meeting**: "The Macroevolutionary Dynamics of Form-Function Relationships"; Montpellier, France. (Co-organizers: Dr. Josef Uyeda, Dr. Christine Böhmer, Dr. Brandon Kilbourne, Dr. Alexandra Houssaye)

2017 **Society for Integrative and Comparative Biology Southeast Regional Meeting**: Virginia Tech; Blacksburg, VA. (Co-organizer: Dr. Hodjat Pendar)

INVITED SEMINARS:

[1]Denotes that talk was delivered in Spanish.

2024 Vanderbilt University, Evolutionary Studies Initiative

2023 Columbia University, Department of Biological Sciences, **Graduate Student Invited Speaker*
University of Arizona, Department of Ecology and Evolutionary Biology
American Museum of Natural History, New York City
Queens College, City University of New York, Department of Biology
Bryn Mawr College, Department of Biology
Princeton University, Department of Ecology and Evolutionary Biology
Colorado State University, Department of Biology
Ohio Wesleyan University, Department of Biological Sciences

2022 University of Cambridge, Behaviour, Ecology, and Evolution Series, Cambridge, UK
[1]Museo Nacional de Historia Natural, Santo Domingo, Dominican Republic
Wilhelminenberg Seminar, Konrad Lorenz Institute of Ethology, Vienna, Austria
University of Toronto, Department of Ecology and Evolutionary Biology
University of Connecticut, Department of Ecology and Evolutionary Biology
University of Massachusetts-Amherst, Organismic and Evolutionary Biology Program
University of Miami, Department of Biology
Boston University, Department of Biology
University of Colorado Denver, Department of Integrative Biology
UC Berkeley, Department of Integrative Biology
UC Berkeley, Museum of Vertebrate Zoology, **Graduate Student Invited Speaker*

2021 Princeton University, Ecology and Evolutionary Biology Colloquium Series
Musée National d'Histoire Naturelle; Paris, France
Max Planck Institute of Animal Behavior; Radolfzell, Germany
Universidad Rey Juan Carlos; Departamento de Biología y Geología, Madrid, Spain

University of Bath, Milner Centre for Evolution Seminar Series; Bath, UK
University of Bristol, School of Earth Sciences; Bristol, UK
University of Konstanz, Department of Biology, Konstanz, Germany
University of Melbourne/The Australian National University Joint Digital Seminar Series
UC Riverside, Department of Evolution, Ecology, and Organismal Biology
UCLA, Department of Ecology and Evolutionary Biology
McMaster University, Department of Biology, Hamilton, Ontario, Canada
Michigan State University, Department of Integrative Biology
Auburn University, Department of Biological Sciences
University of Massachusetts, Lowell, Department of Biological Sciences
Louisiana State University, Museum of Natural Sciences
University of Oregon, The Institute of Ecology and Evolution
Notre Dame of Maryland University, Biology Department
University of Texas, Arlington, Department of Biology

2020 Cornell University, Department of Ecology and Evolutionary Biology
Brown University, Department of Ecology and Evolutionary Biology
University of Georgia, Department of Genetics
University of Tennessee, Knoxville, Department of Ecology and Evolutionary Biology
Loyola University, Department of Biology
EvoEcoSeminars, Digital Seminar Series for Evolution and Ecology
Washington University in St. Louis, Tyson Research Center
Rockefeller University, Center for Physics and Biology
University of California, Irvine, EEB, **Graduate Student Invited Speaker*
University of Bern, Institute of Ecology and Evolution; Bern, Switzerland
Swiss Federal Institute of Aquatic Science and Technology; Lucerne, Switzerland
University of Massachusetts, Boston, Department of Biology

2019 Harvard University, Organismic & Evolutionary Biology, **Graduate Student Invited Speaker*
Yale University, Department of Biomedical Engineering
Yale University, Yale Institute for Biospheric Studies
University of Pittsburgh, Department of Biological Sciences
University of Chicago, Department of Ecology and Evolution
Yale University, Department of Ecology & Evolutionary Biology
University of Wisconsin-Madison, Department of Integrative Biology
Christopher Newport University, Department of Organismal and Environmental Biology

2018 Purdue University, Department of Biological Sciences
University of Florida, Department of Biology
Case Western Reserve University, Department of Biology
Mountain Lake Biological Station, University of Virginia
University of Idaho, Department of Biological Sciences
University of Chicago, Committee on Evolutionary Bio., Evolutionary Morphology Series

2017 Duke University, Department of Biology, Population Biology Seminar Series
University of Virginia, Department of Biology
Ohio University, Department of Biological Sciences
University of North Carolina, Chapel Hill, Biology Department

2016 Duke University, Department of Biology, University Program in Ecology Seminar Series
Virginia Tech, Department of Biological Sciences
University of North Carolina, Asheville, Department of Biology
East Carolina University, Department of Biology
2015 The Australian National University, Division of Ecology and Evolution
2014 James Cook University, Centre for Tropical Biodiversity and Climate Change
University of Arizona, Department of Ecology & Evolutionary Biology, Lunch Seminar
Union College, Department of Biology
2012 Indiana State University, Department of Biology
2010 Buffalo State College, Women in Science and Math Lecture Series

Other Invited Talks & Guest Lectures:

2023 Bulldog Days Master Class, Yale University
Whitney Center Lecture Series, Hamden, CT
2022 Earth Day Speaker, CUNY Hostos Community College, Bronx, NY
Macroevolution: Theory and Applications, Universidade de São Paolo, Brazil
Yale Center Beijing, Summer Lecture
2021 Science Talks @ Tilde Café, Public Lecture Series, Branford, CT
2016 Animal Biology, Meredith College, Department of Biological Sciences
Herpetology, Duke University, Department of Biology
2012 Harvard Museum of Natural History, 'Topics in Evolution' Public Lecture Series
Herpetology, Harvard University, Department of Organismic and Evolutionary Biology

Selected Media Coverage:

"Life can't get much hotter than this: The world's most heat-adapted creatures could be subverting their own evolution" by K. Wu, *The Atlantic*, Aug. 2023 [link]
"Meet the animals that can handle extreme heat" by C. Peterson, *National Geographic*, June 2023 [link]
"Animal species are evolving to adjust to climate change, but scientists say time is running out", by A. Daniel, The World Radio: The Big Fix, May 2023 [link]
"Study reveals biodiversity engine for fishes: shifting water depth", by M. Cummings, Yale News, Feb. 2023 [link]
"Latinx professors at Yale break barriers in STEM", by S. Wang & K. Yup, Yale Daily News, Oct. 2022 [link]
"Natural Inspiration", by E. Pennisi, *Science* 377:1372-1375, Sep. 2022 [link]
"In the field: an interview with Martha Muñoz", by K. Knight, *J. Exp. Biol.*, July 2022 [link]
"How staying cool blunts evolution", *Big Biology Podcast*, Episode 81, May 2022 [link]
"Lizard profiteers of climate change: ain't no mountain hot enough" by A. Breit, *Outside JEB*, Feb. 2022 [link]
"Reptiles and viruses: New E&EB faculty lead research", Yale Daily News, Feb. 2022 [link]
"A clean sweep for Martha Muñoz", Yale News, Dec. 2021 [link]
"Peabody curators stimulate wonder through science", Yale News, July 2021 [link]
"(Not) sticking to the science", *The Women in Ecology and Evolution Podcast*, Dec. 2020 [link]

"Martha Muñoz: Uncovering the mechanisms underlying uneven rates of evolution across organisms", *People Behind the Science Podcast*, June 2020 [link]
"Martha Muñoz uncovers the drivers and dampers of biodiversity" by N. Lanese, *The Scientist* Magazine, Nov. 2019. [link]
"Island lizards are expert sunbathers, and researchers find it's slowing their evolution" by B. Bodensteiner, *Virginia Tech News*, Apr. 2019. [link]
"Researchers examine how the laws of physics impact evolution" by K. Rose, *Virginia Tech News*, Sept. 2019 [link]
"Basking behavior reveals vulnerability to climate change" by J. Nowack, *Outside JEB*, Nov. 2017 [link]
"Researcher settles decades-old evolutionary biology question by examining Caribbean lizards" by L. Key, *Virginia Tech News*, Oct. 2017. [link]
"Lizards in the Caribbean: How geography influences animal evolution" by A. Algar, *University of Nottingham*, Oct. 2014. [link]

CONFERENCE PRESENTATIONS:

I. Contributed Talks (as Presenting Author)

2021 Max Planck-Yale Center for Biodiversity Digital Conference
2020 ASN/SSB/SSE Evolution Meeting, Cleveland, OH (cancelled)
2019 Society for Integrative and Comparative Biology, Tampa, FL (2 talks)
2018 Society for Integrative and Comparative Biology, San Francisco, CA
Society for Integrative and Comparative Biology, Regional Meeting, Clemson, SC
2017 Society for Integrative and Comparative Biology, Regional Meeting, Blacksburg, VA
Society for Integrative and Comparative Biology, New Orleans, LA
2016 Society for Integrative and Comparative Biology, Regional Meeting, Durham, NC
Society for Integrative and Comparative Biology, Portland, OR
2015 Australian Society of Herpetology, Eildon, Australia
2014 ASN/SSB/SSE Evolution Meeting, Raleigh, NC
Society for Integrative and Comparative Biology, Austin, TX
2013 ASN/SSB/SSE Evolution Meeting, Snowbird, UT
Society for Integrative and Comparative Biology, San Francisco, CA
2012 Society for Integrative and Comparative Biology, Charleston, SC
2009 Society for Integrative and Comparative Biology, Boston, MA
2008 Latin American Herpetology Conference, Varadero, Cuba
William J. Fulbright Research Conference, Valencia, Spain
2006 ASN/SSB/SSE Evolution Meeting, Stony Brook, NY
Boston University Undergraduate Research Symposium, Boston, MA
2005 Young Scientist Symposium, Woods Hole Oceanographic Institute, Woods Hole, MA

II. Contributed Talks/Posters with Student or Postdoc as Presenting Author

2024 Society for Integrative and Comparative Biology, Seattle, WA (6 talks, 5 posters)
2023 ASN/SSB/SSE Evolution Meeting, Albuquerque, NM (4 talks)
Joint Meeting of Ichthyologists and Herpetologists, Norfolk, VA (1 talk)
Conference on the Biology of Plethodontid Salamanders, Hammond, LA (1 talk)

Society for Integrative and Comparative Biology, Austin, TX (4 talks, 3 posters)
Northeast Regional SICB Meeting; Medford, MA (1 talk)
2022 Gordon Research Seminar: Unifying Ecology Across Scales (1 talk)
ASN/SSB/SSE Evolution Meeting, Cleveland, OH (1 talk, 2 posters)
Society for Integrative and Comparative Biology, Phoenix, AZ (3 talks)
2021 ASN/SSB/SSE Evolution Meeting, Digital Meeting (1 talk)
2020 World Congress of Herpetology, Dunedin, New Zealand (1 talk)
Society for Integrative and Comparative Biology, Austin, TX (2 talks; 1 poster)
2019 Society for Integrative and Comparative Biology, Tampa, FL (2 talks)
ASN/SSB/SSE Evolution Meeting, Providence, RI (2 talks)
2013 Society for Integrative and Comparative Biology, San Francisco (1 talk, 1 poster)
2012 Society for Integrative and Comparative Biology, Charleston, SC (1 talk)

TEACHING EXPERIENCE:

Department of Ecology & Evolutionary Biology, Yale University, Assistant Professor
2023 Responsible Conduct of Research (E&EB 545)
2022 Life in Motion: Ecological and Evolutionary Physiology (E&EB 295)
2022 Evolutionary Architects: Organisms as Targets and Agents of Natural Selection (E&EB 865)
2021 Adaptive Radiation (E&EB 834)
2020 Life in Motion: Ecological and Evolutionary Physiology (E&EB 295)
2020 Evolutionary Biology (E&EB 225)
2019 Life in the Anthropocene (E&EB 804)

Department of Biological Sciences, Virginia Tech, Assistant Professor
2019 Evolutionary Biology (BIOL 2704)
2018 Life in the Anthropocene (BIOL 5984)
2018 Evolutionary Biology (BIOL 2704)

Department of Organismic and Evolutionary Biology, Harvard University, Graduate TF
*Distinction in Teaching Award from the Derek Bok Center, Harvard University
2013 Adaptive Radiation
2011 Evolutionary Biology*
Animal Behavior*
2009 Evolutionary Biology*

STUDENTS ADVISED AND STUDENT COMMITTEES:

a. Graduate Students

2023- Isabela Hernández-Rodríguez (Ph.D. student)
2021- Nathalie Alomar (Ph.D. candidate), NSF GRFP Fellowship
2020- Júlia Laterza-Barbosa (Ph.D. candidate)
2018- Henry Camarillo (Ph.D. candidate), Ford Foundation Fellowship
2017- Brooke Bodensteiner (Ph.D. candidate)

b. Postdoctoral Researchers

2022- Dr. Sina Rometsch; Yale Donnelley Postdoctoral Fellow
2021- Dr. Laura Alencar
2021- Dr. Saúl Domínguez-Guerrero; Yale Endowed Postdoctoral Fellow
2020-2022 Dr. Edward Burress (Assistant Professor, University of Alabama, Tuscaloosa)
2021-2022 Dr. Meaghan Gade (Director of Wildlife Programs, Assoc. for Fish & Wildlife Agencies)
2020-2021 Dr. Sarah Friedman; Hutchinson Fellow (Research Fish Biologist, NOAA Fisheries)
2017-2020 Dr. Vincent Farallo (Assistant Professor, University of Scranton)

c. Visiting Students

2023-2024 Raíssa Rainha (Ph.D. candidate; Instituto Nacional de Pesquisas da Amazônia, Brazil) – visiting Fulbright graduate student
2018-2020 Saúl Domínguez (Ph.D. candidate; Universidad Nacional Autónoma de México)
2017 Jhan Carlos Salazar (Undergraduate; Universidad ICESI, Cali, Colombia)

d. Doctoral Student Committees

2022- Noah Houpt, Yale University, Ecology & Evolutionary Biology
2022- Julia Wood, Yale University, Ecology & Evolutionary Biology
2022- Alison Robey, Yale University, Ecology & Evolutionary Biology
2022- Shubhi Sharma, Yale University, Ecology & Evolutionary Biology
2022- Dalton Meyer, Yale University, Earth & Planetary Sciences
2021- Richard Li, Yale University, Ecology & Evolutionary Biology
2021- Logan Billet, Yale University, Yale School of the Environment
2021- Diego Ellis Soto, Yale University, Ecology & Evolutionary Biology
2020- Ava Ghezelayagh, Yale University, Ecology & Evolutionary Biology
2020- Yara Alshwairikh, Yale University, Yale School of the Environment
2019- Jasmine Mah, Yale University, Ecology & Evolutionary Biology
2019- Liam Taylor, Yale University, Ecology & Evolutionary Biology
2019- Kelsey Jenkins, Yale University, Earth & Planetary Sciences
2019-2022 Michael Hanson, Yale University, Earth & Planetary Sciences
2017-2019 Jack Whitehead, Virginia Tech, Department of Biological Sciences

e. Masters Student Committees

2020-2021 Dahn-Young Dong, Yale University, Yale School of the Environment
2018-2020 Sean Kelly, Virginia Tech, Department of Biological Sciences

f. Doctoral Student Committees – External Member

2022- Elizabeth Daniel Tarimo, Virginia Tech, Department of Biological Sciences
2021- Morgan Muell, Auburn University, Department of Biological Sciences
2019-2021 Jonathan Rader, UNC-Chapel Hill, Department of Biology

g. Undergraduate and High School Mentees

[1]Senior Thesis Mentee; [2]Publication co-author; [3]Student presented at a conference

2023 [3]Jane Chen (Yale University) Yale Peabody Museum Summer Intern
2023 [1]Lolyn Tejeda Lemus (Yale University)
2023 [3]Aida Mohd Khairi (University of New Haven) YIBS SURES Scholar
2023 [3]Raymond Frederick (Yale University)
2023 [3]Sarah Carnes (University of Georgia) NSF REU Scholar
2023 [3]Kyle Moxley (University of Texas at Austin) NSF REU Scholar
2023 [1]Erika Mendez (Yale University)
2022-2023 [1]Kiran Masroor (Yale University)
2022-2023 [1,3]Emmy James (Yale University), YPM Summer Intern, Liem Award Finalist (SICB)
2022 [3]Aha Anderson (Bryn Mawr College), NSF REU Scholar
2022 Jessica Coutee (University of Maryland, Baltimore County), Yale NSF REVU Scholar
2022 [3]Jesús Buenrostro (Heritage University), YIBS SURES Scholar
2021-2023 [1]Rosemary Lee (Yale University)
2021-2022 Alice Xu (Amity Regional High School, CT)
2021-2022 [1]Leo Roberts (Yale University)
2021-2022 Tasman Rosenfeld (Yale University)
2021-2022 Lauren Chong (Yale University)
2020-2022 [1,3]Christine Ho (Yale University)
2019-2021 [1]Christian Milian (Yale University)
2019-2020 [1]Marcus Lau (Bronx High School of Science, NYC)
2018-2019 Emma White (Virginia Tech)
2017-2019 Michelle Cox (Virginia Tech)
2016-2017 Riya Dange (Duke University)
2012-2014 [1,2]Ian Shields (Harvard University)
2012-2013 [2,3]Ellee Cook (Trinity University)
2012-2013 [2,3]Maureen Stimola (Columbia University)
2011-2013 [1,2,3]Asa Conover (Stuyvesant High School, NYC)
2011-2012 [2]Anthony Rodriguez (UC Davis)
2009-2011 [2]Juanita Madrid Hopwood (Harvard University)
2009 [2]Elbert Mock (UC Davis)

h. Yale E&EB Rotation Students Hosted

2022 Alison Robey; Vasseur Lab
2022 Julia Wood; Near Lab

i. External Dissertation Examiner or Qualifying Examiner

2023 Marvin Moosmann, University of Bern, Switzerland (Dissertation Examiner)
2022 Estefany Guevara Molina, Universidade de São Paulo, Brazil (Qualifying Examiner)
2022 Rodolfo Anderson, Monash University, Australia (Dissertation Examiner)

SCIENTIFIC AND SOCIETY SERVICE:

I. EDITORIAL SERVICE

2022-present *American Naturalist*: Associate Editor

2021-2022 *Integrative Organismal Biology*: Associate Editor
2020 *Current Zoology*: Guest Editor for Special Column: *De-Mystifying the Tangled Bank: Motors and Brakes of Phenotypic Evolution*

II. Professional Reviewing

Selected Journals: *American Naturalist*, *Biological Journal of the Linnean Society*, *Biology Letters*, *BMC Evolutionary Biology*, *Current Biology*, *Diversity and Distributions*, *Ecography*, *Ecology*, *Ecology Letters*, *Evolution*, *Evolutionary Biology*, *Functional Ecology*, *Global Ecology and Biogeography*, *Herpetologica*, *Integrative and Comparative Biology*, *Integrative Organismal Biology*, *Journal of Biogeography*, *Journal of Experimental Biology*, *Journal of Morphology*, *Journal of Thermal Biology*, *Molecular Ecology*, *Nature Communications*, *Nature Ecology and Evolution*, *Oecologia*, *PLOS Biology*, *Proceedings of the National Academy of Sciences*, *Proceedings of the Royal Society B, Science, Science Advances, Systematic Biology, Trends in Ecology and Evolution, Zoology*
Federal and Independent Agencies (ad hoc reviews): National Geographic Society, National Science Foundation DEB & IOS, National Environment Research Council (UK)
National Science Foundation Panels: DEB Dimensions of Biodiversity; DEB Evolutionary Processes; IOS Physiological Mechanisms and Biomechanics

III. University Service

Departmental Committees & Service, Yale University, Department of Ecology & Evolutionary Biology

2022-2023 Interim Director of Graduate Studies (spring 2023)
E&EB Diversity and Climate Committee
Review Committee: Promotion to Senior Lecturer II
E&EB Graduate Student Entry Committee
E&EB Graduate Student Admissions Committee
2021-2022 E&EB Faculty Search Committee (YCNCC Search)
Faculty Mentor for E&EB Sophomores
2020-2021 E&EB Faculty Search Committee (Ecology & Evolution Search)
E&EB Diversity and Climate Committee
First-Year Graduate Student Advisory Committee
Faculty Mentor for E&EB Sophomores
E&EB Seminar Series Organizer
2019-2020 Undergraduate Curriculum Committee

Inter-Departmental Committees, Yale University

2023 Review Committee; Seed Grants in Climate and Climate Change; YIBS
2020 Review Committee; Graduate Fellowships; Yale Institute for Biospheric Studies
Review Committee; Hutchinson Fellowship; Yale Institute for Biospheric Studies

Yale College, Yale University

2023 Reviewer; Dean's Fellowship
2022 Head of College Search Committee; Jonathan Edwards College
2021-present First-Year Advisor; Jonathan Edwards College

2021 Reviewer; Dean's Fellowship
2020 Reviewer; Henry Edwards Ellsworth Prize; Jonathan Edwards College
2020 Reviewer; Rosenfeld Science Scholars Program; Yale College
2019-present Resident Fellow, Jonathan Edwards College

Departmental Committees, Virginia Tech

2017-2019 Diversity Committee, Department of Biological Sciences

IV. Society Service

Society for Integrative and Comparative Biology

2022 Bartholomew Award Committee; Division of Comparative Physiology & Biochemistry
2022-2023 Program Officer, Division of Ecology and Evolution
2019-2020 Secretary, Division of Ecology and Evolution
2017-2021 Public Affairs Committee
2016-2017 Broadening Participation Committee – Mentor
2016-2018 Huey Award Committee, Division of Ecology and Evolution

American Society of Naturalists

2023 Early Career Investigator Award Committee

V. Professional Membership:

American Society of Naturalists; Society for the Study of Evolution; Society for Integrative and Comparative Biology; Sigma Xi

VI. Selected Media Commentary:

"How cold is it about to get? Iguanas may fall from trees in Florida" by K. Patel, *Washington Post*, 12/2022
"A frog so small, it could not frog" by K. Wu, *The Atlantic*, 6/2022
"Tiny differences in plumage and song have split two nearly identical birds into different species" by E. Pennisi, *Science*, 3/2021.
"Scientific journals commit to diversity, but lack the data" by K. Wu, *New York Times*, 10/2020.
"Meet Lizard Man, a reptile-loving biologist tackling some of the biggest questions in evolution" by E. Pennisi, *Science*, 7/2020.
"Evolutionary climate control" by M. Eisenstein, *Nature Middle East*, 10/2019.
"These albino lizards are the first gene-edited non-avian reptiles" by K. Wu, *PBS NOVA*, 9/2019.
"Predators drove a lizard population to extinction without eating them" by K. Wu, *PBS NOVA*, 6/2019.
"The wild experiment that showed evolution in real time" by E. Yong, *The Atlantic*, 1/2019.
"A single spine from this cactus can lift a half-pound slab of pork" by K. Wu, *PBS NOVA*, 11/2018.
"Hurricanes may have made these lizards better huggers" by K. Eschner, *Popular Science*, 7/ 2018.
"Lizards with Bigger Toes & Smaller Hind Legs Survive Hurricanes" by J. Learn, *Smithsonian*, 7/ 2018.
"Natural History Makes a Comeback on Campus" by D. Lyman, *Undark Magazine*, 11/2017.