

ERIK D. LINDQUIST

Curriculum Vitae

CONTACT INFORMATION

Personal

Postal: 602 Wingert Drive
Mechanicsburg, PA 17055

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Professional

Messiah University
Campus Center
One University Avenue
Mechanicsburg, PA 17055
(717) 766-2511 ext. 2044 *office*; ext. 2148 *lab*
elindquist@messiah.edu

PERSONAL INFORMATION

Citizenship: United States of America
Languages: English (native); Spanish (proficient); Swedish (basic)

ONLINE PROFILE HYPERLINKS



Google Scholar



EDUCATIONAL BACKGROUND

- 1997 Ph.D. – Zoology The Ohio State University, Columbus
- 1995 M.S. – Zoology The Ohio State University, Columbus
- 1991 B.S. – Zoology Southern Illinois University, Carbondale

DISSERTATION TITLE

Behavioral, neurophysiological, and biomechanical studies on communication in “earless” frogs.

DISCIPLINES OF INTEREST

Conservation Biology, Vertebrate Biology, Tropical Biology, Sustainable Development, Reconciliation Ecology, Climate Change, Population and Community Ecology, Animal Behavior, and Cultural Intelligence.

PERSONAL INTERESTS

Hiking, Birding, Cycling, Culture-learning, Humanitarian Service, Genealogy, Camping, Reading, Tree-planting, Sustainable and Contemplative Travel, Social Justice, and Swedish Glögg Crafting.

CURRENT POSITIONS

- 2021–... Distinguished Professor – Biology and Environmental Science, Messiah University
Teach biological and environmental disciplinary and cross-cultural coursework at all levels of instruction, lead and mentor teams of students and colleagues in research and scholarship, and nurture students in humanitarian and ecological service in domestic and international contexts.
- 2017–... Department Chair – Biological Sciences, Messiah University
Provide university leadership to 10 full-time faculty, 7-8 part-time instructors, 2 support staff and 150 students annually; draft, execute, and balance the departmental budget; recruit, hire and advocate for students, staff, and faculty within the biological sciences; fundraise and advertise for academic and research programs; plan, assess, and modify programs; engage in drafting and revising university policies; and equip students, staff, and faculty to develop professionally.

OTHER POSITIONS HELD

- 2024– Faculty Fellow – Off-Campus Programs, Messiah University (also 2014-2017)
- 2024– Faculty Liaison – Cross-Cultural Courses, Messiah University (also 2008–2017)
- 2012–2021 Full Professor – Biology and Environmental Science, Messiah University
- 2010 Biology and Natural Sciences Instructor – Carachipampa Christian School, Bolivia
- 2009–2010 Administrative Field Director (WASH) – Food for the Hungry – Bolivia
- 2009 Latin America Regional Director – Academic Initiatives, Food for the Hungry – Global
- 2006–2012 Associate Professor of Biology and Environmental Science – Messiah College
- 2006–2009 Ecological Consultant – The Nature Conservancy (Pennsylvania Chapter)
- 2003–2017 Curator of Herpetology – Oakes Museum of Natural History
- 2003–2006 Assistant Professor of Biology and Environmental Science – Messiah College
- 2000–2003 Director of Environmental Stewardship Program – Lee University
- 1998–2003 Assistant Professor of Zoology – Lee University
- 1997 Cofounder and Field Director of Project Golden Frog (Proyecto Rana Dorada)

ADVISORY POSITIONS

- 2009-2018 Transformational Initiatives/GO ED. Semester Study Abroad: Advisory Board
- 2014 Christians for Environmental Stewardship: Board of Directors

SUPPLEMENTARY EDUCATION AND CERTIFICATIONS

- 2022 Compassionate Listener Training, Someone To Tell It To, Harrisburg, PA, USA
- 2021 Remote Pilot Certificate – Small Unmanned Aircraft Systems: FAA 14 CFR Part 107
- 2002 Tropical Forest Ecology, Chautauqua Program, Organization for Tropical Studies
- 2001 Conservation Biology, Chautauqua Program, Harvard University
- 1997 Post-doctoral Fellowship (Teaching and Research) Indiana University, Bloomington
- 1994 & 1996 Short-term Graduate Fellowship, Smithsonian Tropical Research Institute. Panama

PROFESSIONAL MEMBERSHIPS

- Association for Tropical Biology and Conservation
- Sigma Xi - The Scientific Research Society
- Beta Beta Beta - Biological Honors Society
- Project Golden Frog/Proyecto Rana Dorada
- Atelopus Species Initiative

PERSONAL PROFESSIONAL ASSESSMENT TOOL RESULTS

- **CLIFTONSTRENGTHS® ASSESSMENT** – Analytical | Connectedness | Individualization | Learner | Input
- **MYERS BRIGGS TYPE INDICATOR® | THE NERIS TYPE EXPLORER®** – Assertive Architect: INTJ-A
- **WORKING GENIUS®** – The Careful Implementer: Wonder | Tenacity

REFEREED PUBLICATIONS*

- S Lötters, A Plewnia, A Catenazzi, K Neam, A Acosta-Galvis, J Allen, J Alfaro Segundo, A Almendáriz Cabezas, G Alvarado Barboza, K Alves-Silva, M Anganoy-Criollo, E Arbeláez Ortiz, J Arpi, A Arteaga, O Ballestas, D Barrera Moscoso, J Barros-Castañeda,...E Lindquist... E LaMarca. 2023. The Amphibian Extinction Crisis is Still an Emergency. *Commun. Earth Environ.* 4, 412.
- JP Ramírez, CA Jaramillo, ED Lindquist, AJ Crawford, R Ibáñez. 2020. Recent and Rapid Radiation of the Highly Endangered Harlequin Frogs (*Atelopus*) into Central America Inferred from Mitochondrial DNA Sequences. *In* Special Issue on Systematics and Conservation of Neotropical Amphibians and Reptiles. *Diversity* 12(9): 360.

- A Cathro, E Lindquist. 2016. *Diadophis punctatus edwardsii* (Northern Ring-necked Snake): Dietary Analysis. *Herpetol. Rev.* 47(4): 681.
- ED Lindquist, J Cossel Jr, KL Córdoba, J Salamanca Arévalo, I Zambrana, HR McFarland, K Luthman. 2016. First record of the pathogenic fungus *Batrachochytrium dendrobatidis* in *Hypsiboas riojanus* and *H. callipleura* from central Bolivia (Anura: Hylidae). *Herpetol. Rev.* 47(3): 400-402.
- TM Swartz, E Stuart, DK Foster, ED Lindquist. 2016. Testing Rapid Assessment Models for the Conservation of Woodland Vernal Pools in South-central Pennsylvania. *NE Naturalist* 23(3): 339-351.
- KJ Todd, MM Gardiner, ED Lindquist. 2016. Mass flowering crops as a conservation resource for wild pollinators (Hymenoptera: Apoidea). *J. Kansas Entomol. Soc.* 89(2): 158-167.
- KS Coury, BA Neal, MJ Shin, ED Lindquist. 2016. Presence and prevalence of *Bd* (*Batrachochytrium dendrobatidis*) in central Pennsylvanian woodland vernal pools. *J. N. Amer. Herpet.* 2016: 11-14.
- CM George, J Perin, KL Neiswender de Calani, WR Norman, H Perry, TP Davis, ED Lindquist. 2014. Risk Factors for Diarrhea in Children under Five Years of Age Residing in Peri-urban Communities in Cochabamba, Bolivia. *Am. J Trop. Med. Hyg.* 91:1190-1196.
- J Cossel Jr, E Lindquist, H Craig, K Luthman 2014. Pathogenic fungus *Batrachochytrium dendrobatidis* in the Marbled Water Frog *Telmatobius marmoratus*: first record from Lake Titicaca, Bolivia. *Dis. Aq. Org.* 112:83-87.
- ED Lindquist, CM George, J Perin, KL Neiswender de Calani, WR Norman, H Perry, TP Davis. 2014. A Cluster Randomized Controlled Trial to Reduce Childhood Diarrhea Using Hollow Fiber Water Filter and/or Hygiene-Sanitation Educational Interventions. *Am. J Trop. Med. Hyg.* 91(1):190-197.
- ED Lindquist, DK Foster, S Wilcock, J Erikson. 2013. Rapid Assessment Tools for Conserving Woodland Vernal Pools in the Northern Blue Ridge Mountains. *NE Naturalist* 20(3):397-418.
- E Lindquist, M Redmer, E Brantner. 2012. Annular bone growth in phalanges of five Neotropical Harlequin Frogs (Anura: Bufonidae: *Atelopus*). *Phyllomedusa* 11(2):117-124.
- ED Lindquist, MJ Shin, JO Cossel, AMM Stuckert, MC Bletz, NC Trimmer. 2011. Chytrid in a Canopy Amphibian: Picado's Bromeliad Treefrog, *Isthmohyla picadoi* (Hylidae) Persists at a Site Affected by *Batrachochytrium dendrobatidis*. *Herpetol. Rev.* 42(2):205-208.
- AMM Stuckert, JP Stone, JR Asper, MG Rinker, CL Rutt, NC Trimmer, ED Lindquist. 2009. Microhabitat Use and Spatial Distribution in Picado's Bromeliad Treefrog, *Isthmohyla picadoi* (Hylidae). *Phyllomedusa* 8(2):125-134.
- JO Cossel, ED Lindquist. 2009. *Batrachochytrium dendrobatidis* in Arboreal and Lotic Water Sources in Panama. *Herpetol. Rev.* 40(1):45-47.
- MJ Freake, ED Lindquist. 2008. Geographic Pattern Analysis of Pesticide Exposure in Salamander Populations in the Great Smoky Mountains National Park. *Herpetol. Cons. Biol.* 3:231-238.
- ED Lindquist, JO Cossel. 2007. *Hyla picadoi* (NCN). Vocalizations. *Herpetol. Rev.* 38(4):438-440.
- ED Lindquist, SA Sapoznick, EJ Griffith R, PB Johantgen, JM Criswell. 2007. Nocturnal Position in the Panamanian Golden Frog, *Atelopus zeteki* (Bufonidae), with Notes on Fluorescent Pigment Tracking. *Phyllomedusa* 6(1):37-44.
- K Zippel, R Ibáñez, ED Lindquist, CR Richards, C Jaramillo. 2006. Implicaciones en la conservación de las ranas doradas de Panamá, asociadas a su revisión taxonómica. *Herpetotrópicos* 3(1): 29-39.
- JD Lindquist, ED Lindquist. 2006. *Storeria occipitomaculata* (Redbelly Snake). Geographic range extension. *Herpetol. Rev.* 37(3): 364.
- SN Stuart, GW Archibald, J Ball, RJ Berry, SD Emmerich, DM Evans, JR Flenley, DR Given, KJ Gaston, AG Gosler, P Harris, J Houghton, ED Lindquist, DC Mahan, MD Morecroft, DC Moyer, D Murdiyarsa, B Won Wa Musiti, C Nicolson, A Oteng-Yeboah, AJ Plumtre, G Prance, V Ramachandra, JB Sale, JK Sheldon, S Simiyu, R Storey, LG Underhill, J Vickery, T Whitten. 2005. Conservation Theology for Conservation Biologists: An Open Letter to David Orr. *Cons. Biol.* 19(6):1689-1692.
- MK Belk, SA Sapoznick, JL Davis, LE Hansen, ED Lindquist, DB Conn. 2004. Collaborative herpetological surveying as a pedagogical tool. *SE Biology* 51 (2): 210.
- K Zippel, A Wisnieski, ED Lindquist, R Ibáñez. 2002. Conserving the golden frog: Proyecto Rana Dorada. *Herpetol. Rev.* 33(1):11-12. Erratum: *Herpetol. Rev.* 33(3): 169.

- ED Lindquist, TE Hetherington, DD Badgley. 1999. *Atelopus zeteki* (Panamanian Golden Frog). Attempted predation. *Herpetol. Rev.* 30:36.
- TE Hetherington, ED Lindquist. 1999. Lung-based hearing in an "earless" anuran amphibian. *J. Comp. Phys. A* 184: 395-401.
- ED Lindquist, TE Hetherington. 1998. Semaphoring in an earless frog: the origin of a novel visual signal. *Anim. Cogn.* 1:83-87.
- ED Lindquist, TE Hetherington, S Volman. 1998. Biomechanical and neurophysiological studies on audition in the Neotropical anuran genus *Atelopus*. *J. Comp. Phys. A.* 183:265-271.
- ED Lindquist, TE Hetherington. 1998. Tadpoles and juveniles of the Panamanian golden frog, *Atelopus zeteki* (Bufonidae), with information on development of coloration and patterning. *Herpetologica* 54:370-376.
- ED Lindquist, DW Swihart. 1997. *Atelopus chiriquiensis* (Chiriquí Harlequin Frog). Mating behavior and egg-laying. *Herpetol. Rev.* 28(3):145-146.
- ED Lindquist, TE Hetherington. 1996. Field studies on visual and acoustic signaling in the "earless" Panamanian golden frog, *Atelopus zeteki*. *J. Herpetol.* 30: 347-354.
- ED Lindquist. 1995. *Atelopus zeteki* (Panamanian Golden Frog). Pure tonal vocalization. *Herpetol. Rev.* 26(4):200-201.

*undergraduate student authors

NON-REFEREED PUBLICATIONS/PRODUCTIONS/INTERVIEWS

- Ding E. The Age of Extinction: Animals we've lost: the vivid 'waving' frog that vanished suddenly. *The Guardian*. [5 October 2022].
- J Jensen, A Maskiewicz Cordero, L Meadows, A Oni, E Lindquist. 2022. Reconciling Evolution: Part One. Episode 102 [20 January 2022]. Language of God Podcast with Jim Stump and Colin Hoogerwerf. BioLogos[®]. <https://biologos.org/podcast-episodes/reconciling-evolution-part-one/>
- J Jensen, E Lindquist, L Meadows, J Strahan, J Lewis, JP Conway, M Choi, B Smith, S Tolsma. 2022. Reconciling Evolution: Part Two. Episode 103 [27 January 2022]. Language of God Podcast with Jim Stump and Colin Hoogerwerf. BioLogos[®]. <https://biologos.org/podcast-episodes/reconciling-evolution-part-two/>
- B Smith, E Lindquist, D Nelson. 2021. Reconciling Evolution and Religion: Anabaptist/Interdenominational Christian Perspectives. Recorded interview as a contribution to the Reconciling Evolution and Religion Conference, Brigham Young University. Posted November 2021. <https://biology.byu.edu/reconciling-evolution/evangelical-christian-messiah-university>
- ED Lindquist, WR Norman, T Soerens. 2015 A review of: Fouling in hollow fiber membrane microfilters used for household water treatment (2015) Murray, A., Goeb, M., Stewart, B., Hopper, C., Peck, J., Meub, C., Asatekin, A. and Lantagne, D. *J. WASHDev* 5 (2): 229-231.
- ED Lindquist. 2009. Encountering a garden in the Austral wilderness. *Eagles Vant. Pt.* 2009: 9-11.
- F Solís, R Ibáñez, K Lips, G Chaves, JM Savage, C Jaramillo, Q Fuenmayor, F Bolaños, ED Lindquist. 2008. *Isthmohyla picadoi*. In: IUCN 2008. Red List of Threatened Species. <www.iucnredlist.org>.
- ED Lindquist, DK Foster, MT Currie, JM Derr. 2008. Woodland Vernal Pools. Booklet for conservation outreach. Two versions: Public and Technical. For statewide distribution in Pennsylvania.
- ED Lindquist, DK Foster, MT Currie, JM Derr. 2008. Woodland Vernal Pools. Poster for conservation outreach. For statewide distribution in Pennsylvania.
- ED Lindquist. 2001. Conserving the Golden Frog. *EarthCare Times*. February 2001: p. 2.
- ED Lindquist. 1998. Mesoamerican decline symposium. *Froglog*. January 1998 25: p. 1.
- ED Lindquist. 1997. Resultados del simposio sobre las declinaciones de las poblaciones de anfibios mesoamericanos. *Mesoamericana* 2(2):20-21.
- ED Lindquist. 1997. La declinación y la preocupación de la rana dorada de Panamá. *Mesoamericana* 2(2):22.
- ED Lindquist. 1996. Comportamiento comunicativo de la rana dorada de Panamá. *Mesoamericana* 1(2-3):7.
- ED Lindquist. 1996. La rana dorada de Campana y El Copé. *Sec. Ecológ., La Prensa*. p.6C, 18 de julio.

FINANCIAL SUPPORT, HONORS, AND AWARDS RECEIVED

- 2023 ▪ Fulbright Specialist Award – Malaysia [Biodiversity and Environment]. June-July 2023. The Fulbright Foreign Scholarship Board and The Bureau of Educational and Cultural Affairs of the United States Department of State.
- 2022 ▪ Sabbatical Leave Award: Species Assessment in Harlequin Frogs (*Ateolopus*) – Parque Internacional La Amistad, Parque Nacional Los Altos de Campana [Panama], Parque Nacional Chirripó [Costa Rica], and Parque Nacional Natural Chingaza [Colombia]
- 2021 ▪ Distinguished Professor Appointment – Messiah University
- 2019 ▪ Scholarship Chair – Messiah College
 - Ambassador for Bolivian Children to End All Kinds of Human Poverty – Humanitarian Service Award: Food for the Hungry – Bolivia
 - District and Club Grants – District 7390 [South-central Pennsylvania] and the Rotary Club of Mechanicsburg North [humanitarian outreach work in Bolivia]
- 2018 ▪ Dr. Robert and Marilyn Smith Outstanding Teaching Award – Messiah College
 - Club Grant - Rotary Club of Mechanicsburg North [humanitarian outreach work in Bolivia]
- 2017 ▪ Messiah College Faculty Scholarship Grant
- 2015 ▪ Sawyer Products Inc. - Research Grant [Water quality studies in Bolivia and Fiji]
- 2014 ▪ Steinbrecher Award for Mentored Student Research
- 2013 ▪ Steinbrecher Award for Mentored Student Research
- 2012 ▪ Steinbrecher Award for Mentored Student Research
 - Messiah College Faculty Scholarship Grant
- 2011 ▪ Messiah College Faculty Scholarship Grant
- 2009 ▪ Sabbatical Leave Award: Child Health and Water Filtration Study, Cochabamba, Bolivia Amphibian-Fungal Pathogen Study in Cloud Forests, Parque Nacional Carrasco, Bolivia
 - Sawyer Products Inc. – Research Grant
- 2007 ▪ Christian Scholars Foundation/Emerging Scholars Network Grant
 - Messiah College Faculty Scholarship Grant – Cross Cultural Grant
- 2006 ▪ Growing Greener Program Grant. Department of Conservation and Natural Resources – Commonwealth of Pennsylvania
 - Messiah College Faculty-Student Scholarship Grant
- 2005 ▪ Wild Resources Conservation Grant. Department of Conservation and Natural Resources – Commonwealth of Pennsylvania
- 2004 ▪ Messiah College Faculty-Student Scholarship Grant
- 2003 ▪ Appalachian College Association Faculty Research Grant (declined: institution change)
- 2002 ▪ Corredor Mesoamericano del Atlántico Panameño
 - Cleveland Metroparks Zoo Scott Neotropic Fund Grant
 - Lee University Faculty Summer Mini Sabbatical Fellowship
 - Lee University Faculty Summer Research Fellowship
- 2001 ▪ Faculty Excellence in Scholarship Award – Lee University
 - American Zoo and Aquarium Association-Disney Conservation Endowment Fund Grant
 - Lee University Faculty Summer Mini Sabbatical Fellowship (2)
 - Lee University Faculty Summer Research Fellowship (2)
 - The Bay Foundation Grant

- 2000
 - Appalachian College Association Faculty-Student Research Grant
 - Appalachian College Association Faculty-Student Research Grant
- 1999
 - National Science Foundation – Course, Curriculum, and Laboratory Improvement Program
 - Appalachian College Association Faculty-Student Research Grant
 - Wildlife Conservation Society Species Survival Fund Small Grant
 - Lee University Faculty Summer Research Fellowships
- 1998
 - Columbus Zoological Park Association Conservation Fund Grant
- 1997
 - International Conference Travel Grant, College of Biological Sciences, The Ohio State University
 - Columbus Zoological Park Association Conservation Fund Grant

SELECTED PROFESSIONAL PAPERS/PRESENTATIONS

- *E Jerome, M Shin, ED Lindquist. 2023. Testing for the Presence of *Batrachochytrium dendrobatidis* and *B. salamandrivorans* in a Local Population of *Eurycea longicauda*. Pennsylvania Academy of Sciences. Gannon University. Erie, PA
- *A Nevin, H Ross, ED Lindquist, T Soerens, L Mylin. 2015. A Study on the Long-term Performance of the Sawyer PointONE™ Filter in the Developing World. Pennsylvania Academy of Sciences. Delaware Valley University. Doylestown, PA
- ED Lindquist, T Soerens, L Mylin, H Ross, A Nevin, D Yeisley. 2015. Accord Network Conference. A Study on the Long-term Performance of the Sawyer PointONE™ Filter in the Developing World. Colorado Springs, CO.
- *A Nevin, H Ross, ED Lindquist, T Soerens, L Mylin. 2015. A Study on the Long-term Performance of the Sawyer PointONE™ Filter in the Developing World. Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland – Baltimore Campus. Baltimore.
- ED Lindquist, CM George, J Perin, KL Neiswender de Calani, WR Norman, H Perry, TP Davis. 2014. Accord Network Conference. A Cluster Randomized Controlled Trial to Reduce Childhood Diarrhea Using Hollow Fiber Water Filter and/or Hygiene-Sanitation Educational Interventions. Colorado Spr.
- ED Lindquist, T Davis. 2009. Effectiveness of Hollow Fiber Water Filters in Peri-urban Communities of Bolivia. Transformational Development Conference. Eastern University, St. Davids, PA.
- K Zippel, R Ibáñez, *ED Lindquist, CR Richards, C Jaramillo. 2006. SSAR/ASIH Joint Meeting. Conservation implications of taxonomically revising Panamanian golden frogs (*Atelopus*). New Orleans.
- *ED Lindquist, SA Sapoznick, EJ Griffith, PB Johantgen, JM Criswell. 2006. SSAR/ASIH Joint Meeting. Determination of nocturnal vertical position in a rain forest frog (*Atelopus*: Bufonidae), using fluorescent pigments. New Orleans.
- *MJ Freake, ED Lindquist. 2006. SSAR/ASIH Joint Meeting. Geographic pattern analysis of pesticide exposure in salamander populations of the Great Smoky Mountains National Park. New Orleans.
- *G Diehl, S Forbes, ED Lindquist. 2004. The Nature Conservancy (Pennsylvania Chapter Annual Meeting). Educational enrichment through undergraduate research: vernal pool ecosystem studies in the South Mountain landscape. Grantham, PA.
- *CA Jaramillo, R Ibáñez D, E Bermingham, KC Zippel, A Wisnieski, ED Lindquist. 2003. VI Congreso Latinoamericano de Herpetología. Filogenia de las ranas del género *Atelopus* (Anura, Bufonidae) de America Central basada en un analisis de ADNmt. Lima, Perú.

INVITED PRESENTATIONS

- Tackling a Crisis in the Neotropics: Using an Amphibian Decline Model to Identify Factors, Mitigate Efforts, and Monitor Status. Fulbright Forum. Malaysian-American Commission on Educational Exchange and Methodist College – Kuala Lumpur, Malaysia. June 2023.
- Biodiversity, Endangerment & Extinction. Methodist College – Kuala Lumpur, Malaysia. May 2017.
- Coordinating Environmentally and Culturally Sensitive Educational Experiences. Green Allies Conference. Franklin and Marshall College. Lancaster, PA. February 2016.

- Rapid Assessment Tools for Conserving Woodland Vernal Pools in the Northern Blue Ridge Mountains. Idaho Herpetological Society Meeting. Northwest Nazarene University. Nampa, ID. November 2012.
- Rapid Assessment Tools for Conserving Woodland Vernal Pools in the Northern Blue Ridge Mountains. South Mountain Partnership. Messiah College. December 2012.
- Vernal Pool Rapid Assessment. Northwest Nazarene University. Nampa, ID. October 2010.
- Rapid Reduction in Early Childhood Diarrheal Prevalence in Bolivia Using Hollow-fiber Water Filters. III Feria Internacional del Agua. April, 2011. Cochabamba, Bolivia
- Balancing strategies: behavior, communication and conservation of the golden frog. Keynote Presentation: 2009 Senior Seminar Research Symposium. Northwest Nazarene University. Nampa, ID. April 2009.
- A Strategy of Questions: Broadening Horizons through Transformational Development. Presented by C Frey, E Lindquist, and M Pucci. Food for the Hungry Summit. February 2009.
- Vernal Pool Rapid Assessment. South Mountain Partnership. June 2008.
- Rapid Assessment of Vernal Pools in South-central Pennsylvania. Joint seminar given to The Department of Conservation and Natural Resources and Department of Environmental Protection - PA, March 2008.
- Appalachian Audubon Society – Life and Death in the Tropics. Harrisburg, PA. November 2006.
- Shippensburg University, Shippensburg, PA – Balancing Strategies: Behavior and Coloration in the Golden Frog. Biology Department Seminar. December 2005.
- Global Amphibian Declines and Conservation Initiatives. Tennessee River Gorge Project and Beta Beta Honors Society, University of Tennessee, Chattanooga. 2002.

MEETINGS/SYMPOSIA ORGANIZED

- Critical Conversations: Sustainable Development. Accord Network. Ashville, NC. 2016.
- Critical Conversations: Sustainable Development. Accord Network. Colorado Springs. 2015.
- Preservation Issues Concerning Panamanian Amphibian Declines and Discussion on Development of the PAG (Panamanian Amphibian Group) Consortium. Meeting of Midwest Regional Zoological Parks. Columbus, Ohio. 1998.
- Simposio sobre las Declinaciones de las Poblaciones de Anfibios Mesoamericanos y Taller sobre Programas de su Monitoreo. Organizer and Coordinator. La Sociedad Mesoamericana para Biología y Conservación. Tegucigalpa, Honduras. 1997.

MEETINGS/CONFERENCES/TRAININGS ATTENDED (PAST 20 YEARS)

- 2020
 - The 8th World Sustainability Forum [WSF 2020]. 15-17 September, 2020. Virtual. Switzerland.
 - Crisis-Ready Leadership [Webinar]. Council for Christian Colleges and Universities.
- 2019
 - Workshop for Department and Division Chairs. The Council of Independent Colleges: Virginia Beach.
- 2018
 - Lodestone Safety International Webinar: Responding to Mental Health Events During Study Away.
- 2017
 - Leadership Academy for Department Chairs: American Council on Education. Washington DC
 - Lodestone Safety International: Navigating Health, Safety, Security, and Risk Management Abroad. Messiah College, Mechanicsburg.
 - The Racial Climate on Campus: Create A Community That Embodies Inclusive Excellence, PaperClip Webinars
- 2016
 - 10 Critical Risk Management Responsibilities, PaperClip Webinars
- 2015
 - Vortex Ecological Modeling Workshop, Project Golden Frog. Smithsonian Tropical Research Institute, Balboa, Panama

- Accord Network Developing Excellence Conference. Colorado Springs.
- Lodestone Safety International – Navigating Health, Safety, and Security Abroad, Temple University, Philadelphia
- 2014 ▪ Accord Network Developing Excellence Conference. Colorado Springs
- 2013 ▪ International Association for the Promotion of Christian Higher Education (IAPCHE). Calvin College. Grand Rapids, MI
- 2011 ▪ Association of American of American Colleges and Universities. January. San Francisco.
- 2010 ▪ III Feria Internacional del Agua. Cochabamba, Bolivia.
- 2009 ▪ Transformational Development Conference. Eastern University. St. Davids, PA
- 2006 ▪ Joint Meeting of the American Society of Ichthyologists and Herpetologists/Society for the Study of Amphibians and Reptiles. New Orleans.
- 2005 ▪ Annual Meeting of the American Scientific Affiliation. Grantham, PA

PROFESSIONAL PROJECTS/ENDEAVORS

- Service-learning projects in community-based, ecologically sustainable development with Food for the Hungry in Bolivia. 2008-2019.
- Documentary consultant and on-screen interviewee with Sir David Attenborough for BBC Natural History Unit – Series, “Life in Cold Blood” 2008.
- Proyecto Rana Dorada. Co-founder and Co-director of Field Studies and Training. Conservation initiative for the endangered Panamanian golden frog, *Atelopus zeteki*. 1997-2020.
- 2002 Summer Spanish Language Institute – Coordinator. Chile. Lee University. 2002.

TEACHING EXPERIENCE

Messiah University. Department of Biological Sciences – Mechanicsburg, PA [2003-present]

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| <ul style="list-style-type: none"> ▪ Diversity of Life and Plant Science ▪ Biological Sciences Cornerstone ▪ Animal Form and Systematics ▪ Principles of Comparative Physiology ▪ Animal Behavior ▪ Herpetology ▪ Ornithology ▪ Tropical Biology [Costa Rica Panama] ▪ Cultures and Ecosystems of Malaysia and Borneo [Malaysia Singapore Brunei] ▪ Environmental Science ▪ Global Perspectives ▪ Field Biology | <ul style="list-style-type: none"> ▪ Environmental Issues and Sustainable Solutions ▪ Animal Form and Function ▪ Ecology ▪ Conservation Biology ▪ Bioscience ▪ Tropical Forest Canopies [Panama] ▪ Ecological Anthropology of the Andes [Bolivia Peru] ▪ Natural and Cultural History of Patagonia [Chile Argentina] ▪ Natural and Cultural History of New Zealand ▪ Desert Ecology [USA Mexico] |
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Au Sable Institute of Environmental Studies – Mancelona, MI [Summer 2009]

- Conservation Biology

CCSP Environmental Study Abroad [intermittently 2004-2013]

- | | |
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| <ul style="list-style-type: none"> ▪ Neotropical Forest Ecology [Belize] | <ul style="list-style-type: none"> ▪ Terrestrial Ecosystems of New Zealand |
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Lee University – Cleveland, TN [1998-2003]

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|--|--|
| <ul style="list-style-type: none"> ▪ Evolutionary Biology ▪ Vertebrate Zoology ▪ Tropical Biodiversity [Panama Costa Rica] ▪ Environmental Science ▪ Honors Environmental Science | <ul style="list-style-type: none"> ▪ Human Biology ▪ Freshman Seminar ▪ Senior Seminar ▪ Global Perspectives ▪ Cross-Cultural Experiences |
|--|--|

Indiana University – Bloomington, IN [Postdoctoral Teaching and Research Fellow 1997-1998]

- General Biology (Organismal/Evolutionary Biology)

The Ohio State University – Columbus, OH [Graduate Teaching Associate 1992-1997]

- Evolutionary Biology
- Animal Form and Function
- Introductory Zoology
- Vertebrate Zoology
- Introductory Physiology
- Introductory Anatomy
- Vertebrate Dissection Laboratory

Southern Illinois University– Carbondale, IL [Graduate Teaching Assistant (Non-degree) 1992]

- Ecology for Teachers

PROFESSIONAL REFERENCES

- **Angela Hare** (Supervisor)
Associate Provost and Dean of the School of Science, Engineering and Health
Messiah University
Campus Center, One University Avenue, Mechanicsburg, PA 17055
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- **Roberto Ibáñez**, Ph.D. (Research Colleague)
Staff Scientist and Director of the Panama Amphibian Rescue and Conservation Project
Smithsonian Tropical Research Institute
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- **Michael Freake**, Ph.D. (Research Colleague)
Professor of Biology
Department of Natural Sciences and Mathematics
Lee University
1120 North Ocoee St., Cleveland, TN 37320-3450
telephone: (423) 614-8282 e-mail: mfreake@leeuniversity.edu
- **Kristin Coury**, M.S. (Alumna and Collaborator)
Senior Aquarist, Rain Forest and Australia Freshwater Galleries
The National Aquarium
111 Market Pl, STE 800, Baltimore, MD 21202
telephone: (540) 521-5142 e-mail: kcoury@aqua.org
- **Brandon Hoover**, M.A. (Former Teaching Colleague)
Director of Sustainability
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