

PROMOTION RECOMMENDATION
The University of Michigan
College of Literature, Science, and the Arts

Hernán López-Fernández, associate professor of ecology and evolutionary biology, with tenure, College of Literature, Science, and the Arts, and associate professor of environment, without tenure, School for Environment and Sustainability and College of Literature, Science, and the Arts, is recommended for promotion to professor of ecology and evolutionary biology, with tenure, College of Literature, Science, and the Arts, and professor of environment, without tenure, School for Environment and Sustainability and College of Literature, Science, and the Arts.

Academic Degrees

Ph.D.	2004	Texas A&M University
B.S.	1998	Universidad de Los Andes, Mérida, Venezuela

Professional Record

2020–present	Associate Chair for Collections, Museum of Zoology and Herbarium, Department of Ecology and Evolutionary Biology, University of Michigan
2018–present	Associate Professor, Department of Ecology and Evolutionary Biology and Program in the Environment, University of Michigan
2018–present	Associate Curator of Fishes, University of Michigan Museum of Zoology, Department of Ecology and Evolutionary Biology, University of Michigan
2015–2017	Associate Professor, Department of Ecology and Evolutionary Biology, University of Toronto, Canada
2014–2015	Head, Department of Natural History, Royal Ontario Museum, Toronto, Canada.
2013–2014	Deputy Head, Department of Natural History, Royal Ontario Museum, Toronto, Canada.
2012–2017	Curator of Ichthyology, Freshwater Fishes, Department of Natural History, Royal Ontario Museum, Toronto, Canada.
2008–2015	Assistant Professor, Department of Ecology and Evolutionary Biology, University of Toronto, Toronto, Canada.
2008–2012	Associate Curator of Ichthyology, Freshwater Fishes, Department of Natural History, Royal Ontario Museum, Toronto, Canada.

Summary of Evaluation:

Teaching: Professor López-Fernández is a committed and engaging instructor, on campus, in the collections, and at the University of Michigan Biological Station. His very hands-on courses focus on the evolution, ecology, and conservation of biodiversity, with a focus on fishes. In addition, Professor López-Fernández has taught the EEB capstone course. Though most of Professor López-Fernández's courses are traditional taxonomically-focused courses, he has brought them into the modern era and focuses on more than simply learning about fish; they are innovative in that each incorporates global change biology and sustainability as core tenets. Professor López-Fernández also devotes considerable energy to teaching in the collections, and has hosted a number of visiting international students. Since arriving at the University of Michigan, he has also mentored two undergrads in his lab, four graduate students, and three postdoctoral scholars.

Research: Since his arrival at the University of Michigan, Professor López-Fernández has developed an internationally recognized research program on the diversification of biodiversity, mostly focused on Neotropical fishes. His work is changing the ways in which scholars think about the pace of evolutionary change and the generation of biodiversity. He has consistently published in the top journals in his field and is recognized as a leading integrative organismal biologist. In addition, he is rapidly becoming recognized as a thought leader on how natural history museums can be leveraged to study biodiversity in a changing world. In both general areas, Professor López-Fernández shows no signs of slowing down.

Recent and Significant Publications

- Arbour, J. H., Montana, C.G., Winemiller, K.O., Pease, A.A., Soria-Barreto, M., Cochran-Biederman, J.L., and López-Fernández, H. (2020). Macroevolutionary analyses indicate that repeated adaptive shifts towards predatory diets affect functional diversity in Neotropical cichlids. *Biological Journal of the Linnean Society*, 129(4), 844-861.
- Argolo, L.A., López-Fernández, H., Batalha-Filho, H., and Antunes de Mello Affonso, P.R. (2020). Unraveling the systematics and evolution of the ‘*Geophagus*’ *Brasiliensis* (cichliformes: cichlidae) species complex. *Molecular Phylogenetics and Evolution*, 150, 106855.
- Feilich, K. L. and López-Fernández, H. (2019). When does form reflect function? Acknowledging and supporting ecomorphological assumptions. *Integrative and Comparative Biology*, 59(2), 358–70.
- Ilves, K.L., Torti, D., and López-Fernández, H. (2018). Exon-based phylogenomics strengthens the phylogeny of Neotropical Cichlids and identifies remaining conflicting clades (cichliformes: cichlidae: cichlinae). *Molecular Phylogenetics and Evolution*, 118, 232–243.

Service: Professor López-Fernández contributes significant time and energy as the associate chair of collections for the University of Michigan Museum of Zoology and the Herbarium. His work in coming back after the pandemic has been instrumental in allowing the faculty curators, collections managers, and countless postdoctoral scholars, graduate students, and undergraduate students to continue their research in the world-class facility. His work has facilitated continued growth of the collections and enhanced research capabilities. In addition, Professor López-Fernández has served on the department’s Executive Committee and was instrumental in preparing the department’s self-study for external evaluation.

External Reviewers:

Reviewer (A): “The quality of Dr. López-Fernández’s body of work is strong. He is asking important questions, and is producing work at a steady rate. His work demonstrates a level of creativity motivated by natural history which exemplifies a strong organismal-based evolutionary biology research program, which is on par with others at his career stage.”

Reviewer (B): “I can say unequivocally that I think [Professor López-Fernández] is an exceptional scientist and I am proud that he is the head of the Fish Division at the University of Michigan; he is an internationally recognized scientist with an excellent reputation in ichthyology and evolutionary biology.”

Reviewer (C): “Prof. López-Fernández is an internationally recognized leader in the understanding of the biodiversity and evolutionary history of South American freshwater fishes. In addition, Prof. López-Fernández is widely considered a most collegial member of the community of scientists studying the biodiversity of fishes. The combination of his research accomplishments, his commitment to the development and curation of museum-based research collections, and his

professionalism all contribute to his unimpeachable reputation as an internationally recognized scientist.”

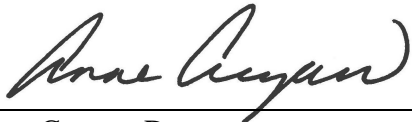
Reviewer (D): “[Professor López-Fernández’s] commitment to advancing ichthyology is evident through his extensive publication record in high quality journals and his pioneering research that has significantly contributed to our understanding of diversification in Neotropical fishes.”

Reviewer (E): “[Professor López-Fernández] is a great example of a truly integrative biologist who leverages his profound knowledge of a very rich biological system to the best interest of science and society. Such profiles are rare among faculty in ecology and evolutionary biology.”

Reviewer (F): “I consider [Professor López-Fernández] the world’s top Neotropical cichlid researcher in his generation. There are lots of fish that are not cichlids but among researchers that work mainly on freshwater fishes, cichlid biologists outnumber everyone else by at least 3-1. So for me to say that I consider him the top Neotropical cichlid researcher is saying that he sits at the top of quite a long list. He also takes very seriously his roles as a museum collections advocate and a university educator.”

Summary of Recommendation:

Professor López-Fernández has played a key role in leading our museums and doing research on the evolution of biodiversity while teaching hands-on courses in our laboratories, collections, classrooms, and the field. The Executive Committee of the College of Literature, Science, and the Arts and I recommend that Associate Professor Hernán López-Fernández be promoted to the rank of professor of ecology and evolutionary biology, with tenure, College of Literature, Science and the Arts, and professor of environment, without tenure, School for Environment and Sustainability and College of Literature, Science, and the Arts.



Anne Curzan, Dean
Geneva Smitherman Collegiate Professor of
English Language and Literature, Linguistics,
and Education
Arthur F. Thurnau Professor
College of Literature, Science, and the Arts



Jonathan T. Overpeck
Samuel A. Graham Dean
School for Environment and Sustainability