HERNÁN LÓPEZ-FERNÁNDEZ - CURRICULUM VITAE

Department of Ecology and Evolutionary Biology and Program in the Environment, University of Michigan, 1105 N. University, Biological Sciences Building, Office 2014, Ann Arbor, MI 48109, USA

Email: hlopezf@umich.edu
Phone: Office - (734) 764-4816
Web: https://sites.google.com/site/hlffishes/

Professional preparation:

2006 – 2007 - Postdoctoral Research Associate, Section of Ecology, Evolution and Systematic Biology, Texas A&M University. Postdoctoral advisors: Kirk O. Winemiller and Rodney L. Honeycutt.
2005 – 2006 - Postodoctoral Fellow, Section of Integrative Biology, University of Texas at Austin. Postdoctoral advisor: Daniel I. Bolnick.
2004 - Ph. D. Section of Ecology, Evolution and Systematic Biology, Texas A&M University. Dissertation Title: Phylogeny of geophagine cichlids from South America (Perciformes: Cichlidae). Kirk O. Winemiller and Rodney L. Honeycutt, Dissertation Co-Advisors.
1998 - Licenciate in Biology (B.S.). Universidad de Los Andes, Mérida, Venezuela. Major: Biology, Minor (Specialization): Animal Ecology.

Professional appointments:

2020-Present – Associate Chair for Collections, Museum of Zoology and Herbarium, Department of Ecology and Evolutionary Biology, University of Michigan.
2019-2024 – Research Associate, Division of Ichthyology, Department of Natural History, Royal Ontario Museum, Toronto, Canada.
2019 – Present - Affiliated Faculty, Michigan Institute for Data Science (MIDAS), University of Michigan, Ann Arbor, USA.
2018 – Present - Associate Professor, Department of Ecology and Evolutionary Biology and Program in the Environment, University of Michigan, Ann Arbor, USA.
2018 – Present - Associate Curator of Fishes, University of Michigan Musem of Zoology, Department of Ecology and Evolutionary Biology, University of Michigan, Ann Arbor, USA.
2018 – June 2021 – Associate Professor, Status Only, Department of Ecology and Evolutionary Biology, University of Toronto, Canada.
2015 – 2017 - Associate Professor, Department of Ecology and Evolutionary Biology, University of Toronto, Canada
2014 – 2015 - Department Head, Department of Natural History, Royal Ontario Museum, Toronto, Canada.
2013 – 2014 - Deputy Department 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, Deptartment of Ecology and Evolutionary Biology, University of Toronto, Toronto, Canada.
2008 – 2012 - Associate Curator of Ichthyology, Freshwater Fishes, Deptartment of Natural History, Royal Ontario Museum, Toronto, Canada.

Languages: Spanish (Native), English (Speak, read, write), Portuguese (Speak, read).

Grants, honors and awards (last 10 years):

2020-2021 – "CHANGES: Collections, heterogeneous data, and Next Generation Ecological Studies", University of Michigan, Michigan Institute for Data Science (PI: K.M. Alofs (SEAS), Co-PIs: A. Thomer (School of Information), H. López-Fernández, Senior Scientists: J. Schnell (Library), R. Singer (EEB/UMMZ) *($90,000.00)*

2019-2021 – "The critical role of women in shifting local Guyanaese communities from artisanal mining to conservation", University of Michigan Institute for Research on Women & Gender MCubed Research Initiative (Co-PIs: A. Cotel, K.M. Alofs and H. López-Fernández) *($7,000.00)*

2019-2020 – University of Michigan Center for Research on Learning and Teaching (P.I.: Priscilla Tucker, Co-PIs: A. Davis Rabosky, H. López-Fernández, D. Rabosky, B. Winger, Ecology and Evolutionary Biology): Using 3-D printed anatomical models of specimens from the Museum of Zoology Research Collections to transform experiential learning in six vertebrate biodiversity laboratory courses *(US$ 10,000).*

2019 – Teaching Award, University of Michigan Biological Station, Michigan Fishes in Changing Environments (EAS501/ENVIRON463) – Undergraduate. A 2-week Transformative Learning Field Course (Co-taught with K.M. Alofs, School for Environment and Sustainability).

2018-2021 – University of Michigan MCubed Research Grant (P.I. López-Fernández, Co-PIs: K.M. Alofs [School of Environment and Sustainability] and A. Cotel [Department of Civil Engineering]): Impacts of gold mining related habitat destruction on a highly endemic Tropical freshwater fish fauna *(US$ 60,000).*

2016 – *Louise Hawley Stone Charitable Trust*, Acqusition Grant (with D.C. Evans and K. Seymour), Royal Ontario Museum *(CD$60,850.00*).

2016 – Research Award for Exploration and Conservation of Guiana Shield fishes, Durham Region Aquarium Society, Durham, Ontario, Canada *(CD$ 400.00*).

2015 – *Scientist of the Year Award,* Canadian Association of Aquarium Clubs*.*

2015 - *Schad Foundation for Conservation,* Royal Ontario Museum Governors *($30,000.00).*

2014-2019 - Macroevolutionary patterns and processes in Neotropical freshwater fishes: cichlids as a model. Natural Sciences and Engineering Research Council of Canada, *Discovery Grant* (*$170,000.00*).

2012 - *Rebanks Postdoctoral Fellowship*, Royal Ontario Museum Governors. Competitive peer-reviewd proposal award that supported Dr. Katriina L. Ilves for a 2-year postdoctoral research position (*$100,000.00*).

2011 - Rebanks student internship, Royal Ontario Museum Governors (for Frances Hauser, Ph.D. student). (*$3,5000.00*).

2011 - *James Böhlke Memorial Endowment Fund*, Academy of Natural Sciences of Philadelphia. (*US$500.00*).

2010 - *Schad Foundation for Conservation,* Royal Ontario Museum Governors (*$30,000.00*).

2009-2014 - Adaptive radiation and the role of ecology in Neotropical cichlid fish divergence. Natural Sciences and Engineering Research Council of Canada, *Discovery Grant*, (*$110,000.00*).

Peer-reviewed grants, Royal Ontario Museum Governors - 2008 (Fieldwork, *$21,668.00*), 2009 (Fieldwork, *$21,279.00*), 2013 (Phylogenomics, *$15,850.36*), 2014 (Fieldwork, *$14,865.00*), 2016 (Fieldwork, *$11,050*).

Peer-reviewed grants, Royal Ontario Museum, Dept. Natural History – 2008 (Fieldwork, *$4,000.00*), 2009 (Fieldwork, *$5,000.00*), 2010 (Fieldwork, *$5,000.00*), 2014 (Fieldwork, *$5,000.00*); 2016 (Fieldwork, *$5,000*).

Peer-reviewed publications:

ORCID**:** 0000-0003-0270-1671; Google Scholar citations = 2373, h-index = 25, i10-index = 41

59. Weller, H., **H. López-Fernández**, C.D. McMahan & E.L. Brainerd. Feeding constraints facilitate the evolution of mouthbrooding in Neotropical cichlids. *The American Naturalist (In Press).*
58. Hauser, F.E., Ilves, K.L, R.K. Schott, E. Alvi, **H. López-Fernández**, Chang. B. 2021. Evolution, inactivation, and loss of short wavelength-sensitive opsin genes during the diversification of Neotropical cichlids. *Molecular Ecology* 30:1688-1703. doi: 10.1111/mec.15838
57. **López-Fernández H**. 2021 Neotropical riverine cichlids: adaptive radiation and macroevolution at continental scales In: ME Abate & DLG Noakes (Eds.) *The Behavior, Ecology and Evolution of Cichlid Fishes: A Modern Synthesis*. Springer Academic (*In press*).
56. Kolmann, M.A., Hughes, L.C., Hernandez, L.P., Sabaj, M., **H. López-Fernández**, & G. Ortí. 2020. Phylogenomics of piranhas and pacus (Serrasalmidae) uncovers how convergent diets obfuscate traditional morphological taxonomy. *Systematic Biology* syaa065. doi.org/10.1093/sysbio/syaa065
55. L. Araujo Argolo, **H. López-Fernández**, H. Batalha-Filho & P.R.A.M. Affonso. 2020. Unraveling the systematics and evolution of the *'Geophagus' brasiliensis* (Cichliformes: Cichlidae) species complex. *Molecular Phylogenetics and Evolution* 150:106855. doi.org/10.1016/j.ympev.2020.106855
54. Mark H. Sabaj, **López-Fernández, H.**, Willis. S.C., Hemraj, D.D., Taphorn, D.C. & Winemiller, K.O. 2020. *Cichla cataractae* (Cichliformes: Cichlidae), new species of peacock bass from the Essequibo Basin, Guyana and Venezuela. *Proceedings of the Academy of Natural Sciences of Philadelphia* 167:69-86.
53. Arbour, J.H., C.G. Montaña, K.O. Winemiller, A.A. Pease, M. Soria-Barreto, J.L. Cochran-Biederman & **H. López-Fernández**. 2020. Repeated adaptive shifts towards predatory diets affect functional diversity in Neotropical cichlids. *Biological Journal of the Linnean Society* 129:844-861. Doi: 10.1093/biolinnean/blaa001
52. Andrade, M.C., **H. López-Fernández** & E. A. Liverpool. 2019. New *Myloplus* from the Essequibo River basin, Guyana (Characiformes: Serrasalmidae), with discussion of the taxonomic status of *Myleus pacu*. *Neotropical Ichthyology 17(4):e190026*.
51. K. Feilich & **H. López-Fernández**. 2019. When does form reflect function? Acknowledging and supporting ecomorphological assumptions. *Integrative and Comparative Biology* 59: 358-370. doi.org/10.1093/icb/icz070
50. Lehmberg ES, Elbassiouny, AA, Bloom, DD, **López-Fernández H,** Crampton, WGR & Lovejoy NR. 2018. Fish biogeography in the "Lost World" of the Guiana Shield: Phylogeography of the weakly electric knifefish *Gymnotus carapo* (Teleostei: Gymnotidae). *Journal of Biogeography* 45:815–825. DOI: 10.1111/jbi.13177
49. Arbour, JH & **H. López-Fernández.** 2018. Intrinsic constraints on the diversification of Neotropical cichlid adductor mandibulae size. *The Anatomical Record*, 226:216–226. doi: 10.1002/ar.23713.
48. Ilves, KL, Torti, D. & **H. López-Fernández**. 2018. Exon-based phylogenomics strengthens the phylogeny of Neotropical cichlids and identifies remaining conflicting clades (Cichlomorphae: Cichlidae: Cichlinae). *Molecular Phylogenetics and Evolution* 118:232-243. DOI: 10.1016/j.ympev.2017.10.008
47. Kullander, S.O., **H. López-Fernández** & P. van der Sleen. 2018. Cichlidae – Cichlids in *Field Guide to the Fishes of the Amazon, Orinoco and Guianas*, edited by J.S. Albert & P. van der Sleen, Princeton University Press, p. 359-384. ISBN 978-0-691-17074-9
46. Hauser, FE, KL Ilves, RK Schott, GM Castiglione, **H. López-Fernández** & Chang BSW. 2017. Evolutionary and functional divergence of rhodopsin accompanies cichlid colonization of Central America. *Molecular Biology and Evolution*, 31(5):1149-65. doi: 10.1093/molbev/msu064.

45. Lujan, N.K, C.A Cramer, R. Covain, S. Fisch-Muller, N.R. Lovejoy & **H. López-Fernández**. 2017. Evolutionary relationships and biogeographical patterns within the ornamental wood-eating catfish genera *Panaqolus* and *Panaque* (Siluriformes, Loricariidae), with descriptions of four new taxa. *Molecular Phylogenetics and Evolution* 109: 321-336. DOI: 10.1016/j.ympev.2016.12.040
44. Arbour, J.H. & **H. López-Fernández**. 2016. Continental cichlid radiations: functional diversity reveals the role of changing ecological opportunity in the Neotropics. *Proceedings of the Royal Society Series B*, 283(1836): 20160556. DOI: 10.1098/rspb.2016.0556
43. Varela, H.R., J. Zuanon, S.O. Kullander and **H. López-Fernández**. 2016. *Teleocichla preta*, a new species of cichlid fish from the Rio Xingu basin in Brazil. *Journal of Fish Biology,* 89:1551-1569. DOI: 10.1111/jfb.13053
42. Lujan, N.K., V. Mesa-Vargas, V. Astudillo-Clavijo, R. Barriga-Salazar and **H. López-Fernández**. 2015. A multilocus molecular phylogeny for *Chaetostoma* Clade genera and species with a review of *Chaetostoma* (Siluriformes: Loricariidae) from the Central Andes. *Copeia*, 664-701 (Awarded Copeia's best paper by a junior researcher [Nathan K. Lujan] for the year 2015).
41. Astudillo-Clavijo, V., J.H. Arbour and **H. López-Fernández**. 2015. Selection towards different adaptive optima drove the early diversification of locomotor morphology in the radiation of Neotropical geophagine cichlids. *BMC Evolutionary Biology*, 15:77 [Highly Accessed].
40. Lujan, N.K., J.W. Armbruster, N.R. Lovejoy & **H. López-Fernández**. 2015. Multilocus molecular phylogeny of the suckermouth armored catfishes (Siluriformes: Loricariidae) with a focus on the subfamily Hypostominae. *Molecular Phylogenetics and Evolution*, 82: 269-288.
39. Arbour, J. H. and **H. López-Fernández**. **2014**. Adaptive landscape and functional diversity of Neotropical cichlids: implications for the ecology and evolution of Cichlinae (Cichlidae: Cichliformes). *Journal of Evolutionary Biology*, 27: 2431-2442, doi: 10.1111/jeb.12486
38. Steele, S.E. & **H. López-Fernández**. **2014**. Body Size Diversity and Frequency Distributions of Neotropical Cichlid Fishes (Cichliformes: Cichlidae: Cichlinae), *PLoS ONE*, e106336, DOI: 10.1371/journal.pone.0106336.
37. Thompson, A.W., R. Betancur-R, **H. López-Fernández** & G. Ortí. **2014**. A Time-Calibrated, Multi-locus Phylogeny of Piranhas, Pacus, and Allies (Characiformes: Serrasalmidae) and a Comparison of Species Tree Methods. *Molecular Phylogenetics and Evolution*, 81: 242-257.
36. Arbour, J.H., R. Barriga and **H. López-Fernández. 2014.** A new species of *Bujurquina* (Teleostei: Cichlidae: Cichlasomatini) from the río Danta, Ecuador, with a key to all known species in the genus *Copeia*, 2014: 79-86.
35. **López-Fernández, H.*** J.H. Arbour*, S.C. Willis, C. Watkins, R.L. Honeycutt & K.O. Winemiller. **2014.** Morphology and efficiency of a specialized foraging behavior, substrate sifting, in Neotropical cichlid fishes. *PLoS ONE*, 9(3); e89832, DOI:10.1371/journal.pone.0089832. *Equal contributions
34. Schott, R., S. Refvik, F. E. Hauser, **H. López-Fernández,** B. Chang. **2014.** Positive Selection at Non-Overlapping Sites in Rhodopsin from Lake vs. Riverine Cichlids. *Molecular Biology and Evolution*, 31 (5), 1149-1165. DOI:10.1093/molbev/msu064
33. Ilves, K. & **H. López-Fernández**. **2014.** A targeted next-generation sequencing toolkit for exon-based cichlid phylogenomics. *Molecular Ecology Resources,* 14: 802-811. DOI: 10.1111/1755-0998.12222
32. Maldonado-Ocampo, J.A., **H. López-Fernández**, D.C. Taphorn, C. R. Bernard, W.G.R. Crampton & N.R. Lovejoy. **2014.** *Akawaio penak*, a new genus and species of Neotropical electric fish (Gymnotiformes, Hypopomidae) endemic to the Upper Mazaruni River in the Guiana Shield. *Zoologica Scripta*, 43: 24-33, DOI: 10.1111/zsc.12035.
31. Alofs, K.M., E.A. Liverpool, D.C. Taphorn, C.R. Bernard & **H. López-Fernández**. **2014**. Mind the (information) gap: the importance of exploration and discovery for assessing conservation priorities for freshwater fish. *Diversity and Distributions*, 20: 107-113, DOI: 10.1111/ddi.12127

30. Malabarba, M.C., L.R. Malabarba & H**. López-Fernández**. **2014**. On the Eocene cichlids from the Lumbrera Formation: additions and implications for the Neotropical ichthyofauna. *Journal of Vertebrate Paleontology*, 34: 49-58.
29. Hauser, F.E. & **H. López-Fernández**. **2013**. *Geophagus crocatus*, a new species of geophagine cichlid from the Berbice River, Guyana (Teleostei: Cichlidae). *Zootaxa* 3731: 279-286.
28. Phillip, D.A., D.C. Taphorn, E. Holm. J. Gilliam, B. Lamphêre & **H. López-Fernández**. **2013**. Annotated list and key to the riverine fishes of Trinidad & Tobago. *Zootaxa,* 3711: 1-64.
27. Lujan, N.K., H. Agudelo-Zamora, D.C. Taphorn, P. N. Booth & **H. López-Fernández. 2013.** Description of a new, narrowly endemic South American darter (Perciformes: Crenuchidae) from the central Guiana Shield highlands of Guyana. *Copeia*, 2013: 454-463.
26. Steele, S.E., E.A. Liverpool & **H. López-Fernández**. **2013.** *Krobia petitella*, a new species of cichlid fish from the Berbice River in Guyana (Teleostei: Cichlidae). *Zootaxa*, 3693:152-162.
25. Arbour, J.H & **H. López-Fernández. 2013.** Ecological variation in South American geophagine cichlids arose during an early burst of adaptive functional morphological evolution. *Proceedings of the Royal Society, Series B*, 280(1763):20130849.
24. Netto-Ferreira, A.L., **H. López-Fernández**, D.C. Taphorn, E.A. Liverpool. **2013.** New species of *Lebiasina* (Ostariophysi: Characiformes: Lebiasinidae) from the upper Mazaruni River drainage, Guyana. *Zootaxa*, 3652: 562-568
23. **López-Fernández**, **H.,**J. H. Arbour, K. O. Winemiller & R. L. Honeycutt. **2013.** Testing for ancient adaptive radiations in Neotropical cichlid fishes. *Evolution*, 67: 1321-1337. (*Journal Issue Cover*)
22. **López-Fernández, H.,** D. C. Taphorn & E. Liverpool. **2012**. Phylogenetic diagnosis and expanded description of the genus *Mazarunia* Kullander 1990 (Teleostei: Cichlidae) from the upper Mazaruni River, Guyana, with description of two new species. *Neotropical Ichthyology*, 10(3):465-486
21. Willis, S.C., **H. López-Fernández**, C.G. Montaña, I.P. Farias, G. Orti. **2012**. Species-level phylogeny of 'Satan's perches' based on discordant gene trees (Teleostei: Cichlidae: *Satanoperca* Günther 1862). *Molecular Phylogenetics and Evolution*, 63: 798-808.
20. **López-Fernández**, H. K. O. Winemiller C. G. Montaña**,** & R. L. Honeycutt. **2012**. Diet-morphology correlations in the radiation of South American geophagine cichlids (Perciformes: Cichlidae: Cichlinae). *PLoS ONE* 7(4):e33997 doi:10.1371/journal.pone.0033997
19. **López-Fernández, H.** & J. S. Albert. **2011.** Paleogene radiations. In. Albert, J. & R. E. Reis (Eds.) *Historical Biogeography of Neotropical Freshwater Fishes*, University of California Press Pp. 105-117.
18. Hulsey, C.D. & **Hernán López-Fernández. 2011.** Nuclear Central America. In. Albert, J. & R. E. Reis (Eds.) *Historical Biogeography of Neotropical Freshwater Fishes*, Univeristy of California Press. Pp. 279-291.
17. Arbour, J. & **H. López-Fernández**. **2011**. *Guianacara dacrya*, a new species from the Rio Branco and Essequibo River drainages of the Guiana Shield (Cichlidae, Perciformes). *Neotropical Ichthyology* 9: 87-96.
16. Taphorn, D. C., J. W. Armbruster, **H. López-Fernández** & C. R. Bernard. **2010.** Description of *Neblinichthys brevibracchium* and *N. echinasus* from the upper Mazaruni River, Guyana (Siluriformes: Loricariidae), and recognition of *N. roraima* and *N. yaravi* as distinct species. *Neotropical Ichthyology*, 8: 615-624.
15. **López- Fernández, H.**, K.O. Winemiller & R.L. Honeycutt. **2010.** Multilocus phylogeny and rapid radiations in Neotropical cichlid fishes (Perciformes: Cichlidae: Cichlinae). *Molecular Phylogenetics and Evolution*, 55: 1070-1086. [Highly Cited]
14. Taphorn, D. C. T., **H. López-Fernández** & C. R. Bernard. **2008.** *Apareiodon agmatos*, a new species from the upper Mazaruni river, Guyana (Teleostei: Characiformes: Parodontidae). *Zootaxa* 1925: 31-38.

13. Montaña, C.G., **H. López-Fernández** & D.C. Taphorn. **2008.** A new species of *Crenicichla* (Perciformes: Cichlidae) from the Rio Ventuari, Upper Rio Orinoco, Amazonas State, Venezuela. *Zootaxa***,** 1856: 33-40.
12. Winemiller, K.O., **H. López-Fernández**, D. C. Taphorn, L. Nico and A. Barbarino. **2008.** Fish assemblages of the Casiquiare River, a corridor and zoogeographic filter for dispersal between the Orinoco and Amazon basins*. Journal of Biogeography*, 35: 1551-1563.
11. Bolnick, D.I, M. Turelli, **H. López-Fernández,** P.C. Wainwright and T.J. Near. **2008.** Accelerated mitochondrial evolution and 'Darwin's corollary': Asymmetric viability of reciprocal F_1 hybrids in centrarchid fishes. *Genetics*, 178: 1037–1048.
10. **López-Fernández, H.** & D.I. Bolnick. **2007.** What causes partial F1 hybrid viability? Incomplete penetrance versus genetic variation. *PLoS ONE* 2(12): e1294. doi:10.1371/journal.pone.0001294.
9. Correa, S.B., K.O. Winemiller, **H. López-Fernández** and M. Galetti. **2007**. Seed consumption and dispersal by fishes: evolutionary perspectives. *BioScience,* 57: 748-756.
8. **López-Fernández, H.**, D.C. Taphorn and S.O. Kullander. **2006**. Two new species of *Guianacara* from the Venezuelan portion of the Guiana Shield (Perciformes: Cichlidae). *Copeia***,** 2006: 384-395.
7. **López-Fernández, H.**, R.L. Honeycutt, M.L.J. Stiassny and K.O. Winemiller. **2005**. Morphology, molecules, and character congruence in the phylogeny of geophagine cichlids from South America (Perciformes: Labroidei). *Zoologica Scripta***,** 34: 627-651.
6. **López- Fernández, H.**, R.L. Honeycutt and K.O. Winemiller. **2005**. Molecular phylogeny and evidence for an adaptive radiation of geophagine cichlids from South America (Perciformes: Labroidei). *Molecular Phylogenetics and Evolution*, 34: 227-244.
5. Willis, S.C., K.O. Winemiller and **H. López-Fernández**. **2005**. Habitat structural complexity and morphological diversity of fish assemblages in a Neotropical floodplain river. *Oecologia*, 142: 284-295.
4. **López-Fernández, H**. and K.O. Winemiller. **2005**. Status of *Dionda diaboli* and report of established populations of exotic fish species in Lower San Felipe creek, Val Verde County, Texas. *The Southwestern Naturalist***,** 50: 246-251.
3. **López-Fernández, H.** and D.C. Taphorn. **2004**. *Geophagus abalios*, *G. dicrozoster* and *G. winemilleri* (Perciformes: Cichlidae), three new species from Venezuela. *Zootaxa*, 439: 1-27.
2. **López-Fernández, H.** and K. O. Winemiller. **2003.** Morphological variation in *Acestrorhynchus microlepis* and *A. falcatus* (Characiformes: Acestrorhynchidae), reassessment of *A. apurensis* and distribution of *Acestrorhynchus* in Venezuela. *Ichthyological Exploration of Freshwaters*, 14: 193-208.
1. **López-Fernández, H.** and K. O. Winemiller**. 2000**. A review of Venezuelan species of *Hypophthalmus* (Siluriformes: Pimelodidae). *Ichthyological Exploration of Freshwaters*, 11:35-46.

<u>Manuscripts submitted, in review, revision or preprint:</u>

Alofs, KM, KBS King, M. Lenard, J. Schell, R. Singer, **H. López-Fernández**, KE Wehrly & AK Thomer. A guide for coupling natural history specimens and historical survey data to understand ecological patterns. *Methods in Ecology and Evolution* (*In review)*.

Borstein, S.R., O. Lucanus, K. Gajapersad, R.A. Singer, J. Mol, **H. López-Fernández**. Fish diversity of the upper Tapanahony River, Suriname. *Miscellaneous Publications of the University of Michigan Museum of Zoology (In review)*.

Astudillo-Clavijo, V., M.L. J. Stiassny, Z. Musilová, W. Salzburger & **H. López-Fernández**. Exon-based phylogenomics and the relationships of African cichlids: tackling the challenges of reconstructing phylogenies with nested rapid radiations. *Systematic Biology (Revised)*.

Anderson, S.A.S., **H. López-Fernández**, J.T. Weir. Does ecological speciation drive the build-up of continental biodiversity? *Ecology Letters (In revision)*.

Foster, K., N.K. Lujan, R.M. Everts, J. Armbruster, **H. López-Fernández** & D. D. Bloom. Multilocus phylogeny of South American darters (Characiformes: Crenuchidae) reveals widespread paraphyly among genera and accelerated cladogenesis in benthic lineages. *Molecular Phylogenetics and Evolution (In revision).*

Argolo, L.A., H. Batalha-Filho, J.A. Dergam, **H. López-Fernández**, P.R.A. de M. Affonso. Synergic effects between river captures and paleodrainages shaped the biogeographic history of the '*Geophagus*' *brasiliensis* (Cichliformes: Cichlidae) complex. *Journal of Biogeography (In revision)*

Manuscripts in preparation: (*shared first-authorship; advanced or full-draft manuscripts included)

Viviana Astudillo-Clavijo, T. Mankis & **H. López-Fernández**. Opening the museum's vaults: Field records in museum collections support habitat as an ecological dimension of diversification in the adaptive radiation of Geophagine cichlids. Intended for *The American Naturalist*.

Leandro A. Argolo[a], Ivan P. A. Campos[a], **H. López-Fernández[b]**, Henrique Batalha-Filho[a,c], Paulo R. A. M. Affonso. Past riverine connectivity effects in population structure and the evolution of species distributions in a diversity hotspot of the '*Geophagus*' *brasiliensis* (Cichlidae) complex. Intended for *Hydrobiologia*.

Stephanie Blain*, V. Astudillo-Clavijo, S. Willis, I.P. Farias, E. Liverpool, J. Mol, **H. López-Fernández*** Each species matters: increased phylogenomic resolution of Neotropical cichlids allows dating of Guiana Shield biogeographic events within the genus *Geophagus*. Intended for *Journal of Biogeography*.

Reports and other non-peer reviewed publications:

Lucanus, O., **H. López-Fernández** & S. Borstein. 2020. Ornamental fish as a sustainable resource? An Assessment for the upper Tapanahony River, Suriname. -- An in-house report prepared for Conservation International Suriname based on the results from the UMMZ-Fish Division upper Tapanahony River expedition, March 2020.

Taphorn, D.C. J. Armbruster, D. Fernandes, M. Kolmann, E. Liverpool, H. **López-Fernández, H**, & D. Werneke. 2017. *Fishes of the upper Potaro River, Guyana*. In: Alonso, L.E., J. Persaud & A. Williams (Eds.). Biodiversity assessment survey of the Kaieteur Plateau and upper Potaro, Guyana, BAT Survey Report No. World Wildlife Fund

Popular Articles:

2017 Burridge, ME & **H. López-Fernández**. Up the River: The ROM's ichthyology research team travels the Saramacca into uncharted territory. *ROM Magazine*, Spring 2017

2014 Burridge, M. & **López-Fernández. H.** A "lot" has happened in a century. *ROM Magazine* 47(2): 3 pp.

2014 **López-Fernández. H.** The found fishes of the Lost World, *Practical Fish Keeping*, reprinted from *ROM Magazine*, February 2014.

2012 Lujan, N.K. & **H. López-Fernández.** Rivers of Life – Fishing for answers in the exotic biodiversity of the Amazon headwaters, *ROM Magazine*, 2012

2012 **López-Fernández, H.** The found fishes of the Lost World, Part II. Paradise Lost? *ROM Magazine*, Fall 2012

2012 **López-Fernández, H.** The found fishes of the Lost World, Part I. *ROM* Magazine, Summer 2012

2011 **López-Fernández, H.** Exhibit A: Watching Angels. *ROM Magazine*, Summer 2011

2006 **López-Fernández, H.** Geophaginae: earth eating is not the whole story. Speakers Program, *Buntbarsche Bulletin*, 233: 8-14.

Postdoctoral Fellows

University of Michigan

2021-2023 - Dr. Samuel R. Borstein – Postdoctoral Research Fellow, U.S. National Science Foundation, Department of Ecology and Evolutionary Biology
2021 - Dr. Viviana Astudillo-Clavijo – Postdoctoral Research Fellow, Department of Ecology and Evolutionary Biology
2019-2021 - Dr. Samuel R. Borstein – University of Michigan Postdoctoral Fellow, Department of Ecology and Evolutionary Biology
2018-2021 - Dr. Henrique R. Varella – FAPESP Postdoctoral Fellowship, Biosciences Institute of Botucatu, National State University of São Paulo, São Paulo, Brazil. International supervisor; Brazilian supervisor, Dr. Claudio de Oliveira.

University of Toronto/Royal Ontario Museum
2012-2015 - Dr. Katriina Ilves – Rebanks Postdoctoral Fellow, Department of Natural History, Royal Ontario Museum. *Currently* Curator of Ichthyology, Canadian Museum of Nature, Ottawa, Ontario, Canada.
2012 -2014 - Dr. Nathan K. Lujan – (Coadvised with Nathan R. Lovejoy). Dept. Ecology and Evolutionary Biology, U Toronto. *Currently* Curator of Fishes, Royal Ontario Museum, Toronto, Canada.

Graduate students

University of Michigan
2020 – Patricia Torres-Pineda (PhD, Fulbright Scholar), Dept. Ecology and Evolutionary Biology, University of Michigan.
2019 – Benjamin Nicholas (Ph.D.), Dept. Ecology and Evolutionary Biology, University of Michigan.
2018 – Thomas Morgan (Ph.D.), Dept. Ecology and Evolutionary Biology, University of Michigan.

University of Guyana
2019 – Devya Hemraj, (M.Sc. co-supervised with Dr. Giamprya Maharaj), Dept. Biological Sciences, University of Guyana.

University of Toronto/Royal Ontario Museum
2017 – 2018 Thomas Morgan (Ph.D.), Dept. Ecology and Evolutionary Biology, U Toronto. (Transferred to U Michigan)

Former Graduate Students

2014 - 2020 - Viviana Astudillo-Clavijo (Ph.D. Candidate, Co-advised with Dr. Santiago Claramunt), Dept. Ecology and Evolutionary Biology, U Toronto. *Currently*: Postdoctoral fellow, Department of Ecology and Evolutionary Biology, University of Michigan.
2013 - 2017 - Sarah Steele (Ph.D. Completed), Dept. Ecology and Evolutionary Biology, U Toronto. *Currently*: Postdoctoral researcher, Institute of Life and Environmental Sciences, University of Iceland.
2011- 2017- Frances Hauser (Ph.D. Completed, co-supervised with Belinda Chang), Dept. Ecology and Evolutionary Biology, U Toronto. *Currently*: Postdoctoral Researcher, Department of Biological Sciences, University of Toronto, Scarborough
2010-2015 - Jessica Arbour (Ph.D. Completed), Dept. Ecology and Evolutionary Biology, U Toronto. *Currently*: Assistant Professor, Department of Biology, Eastern Tennessee State University.
2010-2013 - Elford Liverpool (M.Sc. Completed co-supervised with P. DaSilva), Dept. Biological Sciences, U Guyana. *Currently:* Lecturer and Chair, Department of Biology, U Guyana, Georgetown; Scientific Personnel, Centre for the Study of Biological Diversity, University of Guyana.

2012-2103 - Stéphanie Lefevbre (M.Sc. Completed, co-supervised with N. R. Lovejoy), Dept. Ecology and Evolutionary Biology, U Toronto.
2010-2012 - Shannon Refvik (M.Sc. Completed, co-supervised with Belinda Chang), Dept. Ecology and Evolutionary Biology, U Toronto.

Visiting Graduate students

University of Michigan

2018 – Leandro Argolo, (Ph.D., Completed January 2020). Departamento de Ciências Biológicas, Universidade Estadual do Sudoeste da Bahia (UESB), Jequié, Bahia, Brasil. (Ph.D. Supervisor: Paulo Melo Affonso,

University of Toronto/Royal Ontario Museum

2016 – Kleber Matubara Leite, (M.Sc.). Masters Program, University of São Paulo, São Paulo, Brazil (M.Sc. Supervisor: Mónica de Toledo Piza Ragazzo)
2016 – Álvar Hernando Callejas (M.Sc.). Masters Program in Ecology, Autonomous University of Madrid, Spain.
2014 - Ricardo Britzke (Ph.D. Supervisor: Claudio de Oliverira, co-supervisor: Jonathan S. Ready**).** Institute for Biosciences, State University of São Paulo, Botucatu, Brazil.

Undergraduate students

University of Michigan

2021- Coen Long, Independent research, Dept. Ecology and Evolutionary Biology, Museum of Zoology– Co-mentored with Postdoc Samuel Borstein
2021- Mariana Fernández Correa, Dept. Ecology and Evolutionary Biology, Museum of Zoology, Undergraduate Research Opportunity Program (UROP) – Co-mentored with Postdoc Samuel Borstein
2021- Yongxin Zheng, Dept. Ecology and Evolutionary Biology, Museum of Zoology, Undergraduate Research Opportunity Program (UROP) – Co-mentored with Postdoc Samuel Borstein
2021- Lauren Scheffer, Dept. Ecology and Evolutionary Biology, Museum of Zoology, Undergraduate Research Opportunity Program (UROP) – Co-mentored with Postdoc Samuel Borstein
2021- Milo Neirink, Dept. Ecology and Evolutionary Biology, Museum of Zoology, Undergraduate Research Opportunity Program (UROP) – Co-mentored with Postdoc Samuel Borstein
2021- Paul Fedorowitz, Independent research, Dept. Ecology and Evolutionary Biology, Museum of Zoology
2020– Katherine Baxter, Dept. Ecology and Evolutionary Biology, Museum of Zoology – Co-mentored with Postdoc Samuel Borstein
2019–2020 Luke McGill, Dept. Ecology and Evolutionary Biology) – Co-mentored with Postdoc Samuel Borstein
2019–2020 Bronya Sandorffi, Dept. Ecology and Evolutionary Biology, Museum of Zoology, Undergraduate Research Opportunity Program (UROP) – Co-mentored with Postdoc Samuel Borstein
2019– Katherine Quinlan, Dept. Ecology and Evolutionary Biology, Museum of Zoology, Undergraduate Research Opportunity Program (UROP) – Co-mentored with Postdoc Samuel Borstein
2019 – Coen Long, Dept. Ecology and Evolutionary Biology – Co-mentored with Postdoc Henrique Varella
2018–2020 Maria Gedris, Dept. Ecology and Evolutionary Biology, Museum of Zoology, University of Michigan and MCubed Scholars program
2018-2019 – Nicholas Hansen, Dept. Ecology and Evolutionary Biology, Museum of Zoology, Undergraduate Research Opportunity Program (UROP) and Work-study program, University of Michigan. *Currently*: Masters Student, School for Environment and Sustainability
2018-2019 – Julia Weiss, Dept. Ecology and Evolutionary Biology, Museum of Zoology, Univeristy of

Michigan. *Currently*: Research Assistant, Trevor Price Lab, University of Chicago

University of Toronto

2015-2016 - Tobias Mankis, Dept. Ecology and Evolutionary Biology, U Toronto. EEB498-Advanced research studies. *Currently*: MSc. Student, Science Communication Program, Laurentian University, Sudbury, Ontario, Canada

2015-2016 - Stephanie Blain, Dept. Ecology and Evolutionary Biology, U Toronto, EEB498-Advanced research studies. *Currently*: Ph.D. Student, Dolph Schluter Lab, University of British Columbia, Vancouver, Canada.

2015 - Stephanie Blain, Dept. Ecology and Evolutionary Biology, U Toronto, NSERC-Undergraduate Student Research Award.

2014 - Victor de Brito, Federal University of Rio de Janeiro. Summer internship as part of FAPESP Science without Borders program. Dept. Ecology and Evolutionary Biology, U Toronto, Mississauga. *Currently*: PhD Candidate, Western Michigan University, Kalamazoo, Michigan.

2013- 2014 - Gillian Fuss, Dept. Ecology and Evolutionary Biology, U Toronto, EEB498-Advanced Research studies.

2012- 2013 - Viviana Astudillo-Clavijo, Dept. Ecology and Evolutionary Biology, U Toronto, EEB498-Advanced Research studies.

Graduate student supervisory committees

University of Michigan

2020: Kristen Wacker, PhD, (Dissertation committee, Advisor: Benjamin Winger, Department of Ecology and Evolutionary Biology)

2020: James Andrews, PhD, (Dissertation committee, Advisor: Matt Friedman, Department of Earth Sciences and Museum of Paleontology)

2020: Rodrigo Tinoco Figueroa, PhD, (Dissertation committee, Advisor: Matt Friedman, Department of Earth Sciences and Museum of Paleontology)

2019: Taylor West, PhD, (Dissertation committee, Advisor: Alison Davis-Rabosky, Department of Ecology and Evolutionary Biology)

2019: Eric Gulson, PhD, (Dissertation committee, Advisor: Benjamin Winger, Department of Ecology and Evolutionary Biology)

2018-2021: Alessio Capobianco, PhD, (Completed. Dissertation committee, Advisor: Matt Friedman, Department of Earth Sciences and Museum of Paleontology)

2018: Lijun Zhao, PhD, (Dissertation committee, Advisor: Stephen Smith, Department of Ecology and Evolutionary Biology)

Dept. Ecology and Evolutionary Biology, University of Toronto

2016: Yan Wang, PhD, (Dissertation Defense committee); Lauren Barth, PhD (Appraisal committee); Andrew Chin, PhD (Appraisal committee).

2015: Lucia Kwan, Ph.D Completed; Danielle DeCarle, PhD, Ongoing; James Boyko, MSc, Completed; Karl Lamothe, PhD (Appraisal committee).

2014: Ruben Cordero, MSc. Completed; Yan Wang, PhD, (Appraisal committee).

2013: Matthew Kolman, PhD, Completed (*Currently*: Assistant Proffesor, Louisville University, Kentucky); Emma Lehmberg, MSc. Completed; Bradley Doyle, MSc. Completed; Collin VanBuren, M. Sc. Completed.

2012: Devin Bloom, Ph.D. Completed (Currently: Associate Professor, Western Michigan University, Kalamazoo, Michigan; Derek Larson, Ph.D. (Appraisal committee.)

2011: Julio Rivera, Ph.D. Completed; Kristen Brochu, M.Sc. Completed.

2010: Gustavo Ybazeta, Ph.D. Completed (Defense committee); Christopher McGarrity, M.Sc. Completed, (Defense committee).
2009: Rosemary Gibson, Ms.C. Completed, (Defense committee); Christina Davy, Ph.D. Completed, (Appraisal committee); Christopher Blair, Ph.D. Completed, (Appraisal committee).

External graduate student committees
2020 – PhD Defense committee, Maria Laura Delapieve, "Cascudinhos do Sul do Brasil: Sistemática, endemismo e relações usando novas abordagens (Loricariidae, Hypoptopomatinae". Pontifícia Universidade Católica do Rio Grande do Sul, Advisor: Dr. Roberto E. Reis.
2020 – PhD Defense jury, Luana Bourgeaud, "Histoire evolutive et potential adaptative: une approche éco-évolutive de la vulnérabilité des espèces aux chengements climatiques". Université de Toulouse Paul Sabatier, Advisors: Dr. Gaël Grenouillet and Jérôme Murienne.
2019- present: Victor de Brito, Ph.D., Committee Member, Department of Biological Sciences, Western Michigan University, Kalamazoo, MI. Advisor: Devin D. Bloom
2018- present: Hannah Weller, Ph.D., Committee Member, Department of Ecology and Evolutionary Biology, Brown University, Providence, RI, USA. Advisor: Elizabeth L. Brainerd
2017- present: Kimberly L. Foster, Ph.D., Committee Member, Western Michigan University, Kalamazoo, MI. Advisor: Devin D. Bloom
2017 Emanuell Ribeiro, Ph.D., Committee Member, University of Puerto Rico, Puerto Rico. Advisor: Ricardo Betancur
2008 Natasha Meliciano, Ms.C. Completed, Evaluation panel, Univ. Federal do Amazonas, Brazil. Advisor: Izeni P. Farias

Volunteers and interns
2013: Vanessa Minke-Martin, Fleming College intern, Program in Environmental Visual Communication, ROM ichthyology research and 100 aniversary.
2012: Saili Bundele, Fleming College intern, Forensic Sciences, ROM Laboratory of Molecular Systematics, Multilocus phylogeny of the cichlid genus *Geophagus*.
2011: Rex Tang, Volunteer at the ROM ichthyology lab, identifying and cataloguing of fish samples from Costa Rica and Venezuela.
2010-2011: Jared Sheath, Co-op volunteer High School student, organization of the ROM-Ichthyology tissue collection
2009-2010: Jackie Hung, Volunteer student, organization of the ROM-Ichthyology tissue collection.
2009: Paul Cheung, Undergraduate volunteer at the ROM Laboratory of Molecular Systematics, Multilocus phylogeny of the cichlid genus *Geophagus*.
2009: Kevin Shu, Co-op volunteer High School student, organization of the ROM-Ichthyology tissue collection.
2006-2007: Undergraduate Mentor. Undergraduate Mentoring in Environmental Biology Program, National Science Foundation. Students: Cassidy Crane and Crystal Watkins, projects: A multilocus phylogeny of the Neotropical Cichlidae and Feeding performance of Neotropical cichlids on benthic prey.
2006: Undergraduate Mentor. Research Experience for Undergraduates Program, National Science Foundation. Student: Cassidy Crane, project: A phylogeny of the Neotropical Cichlidae based on ribosomal 16S sequences.
2005-2006: Undergraduate Mentor. Section of Integrative Biology, University of Texas at Austin. Students: Zack Lanfear, Sheng Ma. Project: Postzygotic hybrid inviability in sunfishes in the genus *Lepomis*.

1998-2003: Undergraduate Mentor, Department of Wildlife and Fisheries Sciences, Texas A&M University. Students: Stuart Willis, Michele Pepperman, Jeremy Walther. Various projects on fish ecology and behavior.

Courses taught at Dept. Ecology and Evolutionary Biology, University of Michigan

2020 (Fall) – Capstone Seminar (EEB 410), co-taught with Thomas F. Duda
2019, 2021 (Summer) – Michigan Fishes in Changing Environments (EAS501/ENVIRON463) – Undergraduate. A 2-week Transformative Learning Field Course at the University of Michigan Biological Station (Co-taught with K.M. Alofs, School for Environment and Sustainability).
2018 - 2021(Fall) – Biology of Fishes, Lecture (ENV422/EAS422/EEB440) – Undergraduate.
2018 - 2021(Fall) – Biology of Fishes, Lab (ENV423/EASS423/EEB441) – Undergraduate.

Courses taught at Dept. Ecology and Evolutionary Biology, University of Toronto

2014-2016 - Approaches to Study Biodiversity (EEB 466H) – Undergraduate.
2012-2015 - Advanced Research Studies (EEB 498Y) – Undergraduate.
2011-2016 - Diversity of Fishes (EEB 382H) – Undergraduate.
2010 - Faculty Research Course (EEB 1100H) – Graduate.
2008-2010 - Seminar in Ecology (EEB495Y, Fall) – Undergraduate.

Guest lectures at University of Michigan

2020 – "Research in a museum: from biodiversity discovery to evolution and conservation", in BIO173 Introductory Biology. Remote lecture. Instructor: C. Nowicki, Program in Biology, August, 2020
2018-2021 – "Diversity of Fishes", in ENV490 Ecology of Fishes, Instructor: K.M. Alofs, School for Environment and Sustainability, January 14, 2020

Workshops

2019 – Panel member: *"The Faculty Search Process: The Interview"*. NextProf Science: Diversifying Academia. College of Literature, Science and the Arts, University of Michigan. May 7, 2019.
2018 – Panel member: *"The Faculty Search Process: The Interview"*. NextProf Science: Diversifying Academia. College of Literature, Science and the Arts, University of Michigan. May 2, 2018.

Field expeditions:

University of Michigan
Summer 2019: Michigan, Emmet and Cheboygan Counties, UM Biological Station
Winter 2020: Suriname, upper Tapanahony River basin
Summer 2019: Michigan, Emmet and Cheboygan Counties, UM Biological Station
Winter 2019: Guyana, Upper Mazaruni River basin
Winter 2018: Suriname, Cosewijne, Tibiti, Suriname rivers; Guyana, Rewa, Rupununi rivers

Royal Ontario Museum
Summer 2017: Lake Superior, Ontario, Canada
Spring 2017: Uruguay, Laguna Merín, Uruguay and Río de la Plata basins
Fall 2016: Suriname, Saramacca and Commewijne rivers
Spring 2016: Guyana, Mazaruni River basin;
Fall 2014: Suriname, Marowijne, Corantijn, Suriname rivers
Spring 2014: Guyana, Potaro, Kuribrong rivers
Spring 2012: Ecuador, Pacific versant of the Andes
Spring 2011: Guyana, upper Mazaruni basin

Spring 2010: Guyana, Berbice, Rupununi rivers, Trinidad and Tobago
Spring 2009: Guyana, Rupununi region
Fall 2008: Brazil, Iriri-Xingu rivers
Spring 2008: Guyana, upper Mazaruni River basin

Texas A&M University/University of Texas at Austin
Fall 2007: Mexico, Chiapas, Lacanjá, Cedros rivers
Spring 2005: Venezuela, upper Orinoco, Mavaca, Ocamo rivers
Spring-Fall 2005: Central Texas basins

Service:

Editorial and Professional Board Memberships
2020-2023 – Founding Partners Board Member, University of Michigan Representative, Specify Collections Consortium
2018-Present - Associate Editor, *Systematic Biology*
2017-2019 - Associate Editor, *Molecular Phylogenetics and Evolution*
2016-2020 – Elected Member, Board of Governors, *American Society of Ichthyologists and Herpetologists*.
2016-2019 - Experts Directory for the Invading Species Hotline and EDDMapS Ontario, Invading Species Awareness Program, Ontario Federation of Anglers and Hunters
2014-Present - Associate Editor, *Neotropical Ichthyology*
2010-2021 - Editorial Board, *Canadian Journal of Zoology*

University of Michigan committees
2021-Present – Infrasctructure Committee Member - Michigan Pathogen Biorepository, Michigan Center for Infectious Disease Threats
2021-Present – Ex-officio member, Scientific Advisory Committee - Michigan Pathogen Biorepository, Michigan Center for Infectious Disease Threats
2021 – Search Committee member, Insect Division Collection Manager
2020-Present – Executive Committee, University of Michigan Museum of Anthropological Archeology.
2020-Present – Ex-officio member, Executive Committee - Dept. Ecology and Evolutionary Biology.
2019-2020 –Chair, Organizing Committee, Early Career Scientists Symposium "Natural History Collections: Drivers of Innovation", March 13-14, 2020.
2019-2020 – Admissions Committee, Frontiers Masters Program, Dept. Ecology and Evolutionary Biology
2019-2020 – Museums Seminar Committee, UMMZ and Herbarium
2019-2020 – University of Michigan Museum of Natural History, Faculty Science Advisory Committee
2018-2020 – Executive Committee, Dept. Ecology and Evolutionary Biology
2018 – Chair, Search Committee for Collection Manager, Fish Division, Dept. Ecology and Evolutionary Biology and Museum of Zoology
2018 – Biodiversity group representative in *ad hoc* committee overseeing the move of the Dept. Ecology and Evolutionary Biology to the Biological Sciences Building
2018 – NextProf Science: Diversifying Academia. May 1- May 3, 2018. Host and organizing committee (with. D. Rabosky), Dept. Ecology and Evolutionary Biology, College of Literature, Science and the Arts, University of Michigan.

Other Selected Committees
2017 – Mini-Symposium coordinator, Neotropical cichlids, in "II Symposium on Phylogeny and Classification of Neotropical Fishes", Londrina, Pará State, Brazil, 23-27 October, 2017.

2015 - Chair, Search Comm. Curator of Ornithology, Dept. Natural History, Royal Ontario Museum.
2014-2015 - Member, Royal Ontario Museum Executive Group
2014-2015 - Member, Royal Ontario Museum Collections, Exhibits and Research Comm.
2012-2014 - Member, Graduate Affairs Comm., Dept. Ecology and Evolutionary Biology, U Toronto.
2011-2012 - Member, Graduate Admissions Comm., Dept. Ecology and Evolutionary Biology, U Toronto.
2009-2016 - Chair, Collections Comm., Dept. Natural History, Royal Ontario Museum.
2009-2017 - Co-chair, Animal Care Comm., Royal Ontario Museum.
2009-2017 – Peer-review committee, Royal Ontario Museum Governors.

Ad-hoc referee for research funding agencies
2021 – U.S. National Science Foundation, BIO advisory panel; ad-hoc reviewer Division of Environmental Biology
U.S. National Science Foundation ad-hoc reviewer; United States-Israel Binational Science Foundation; National Geographic Society, Committee for Research and Exploration; American Cichlid Association, Jordan Endowment Fund.

Ad-hoc reviewer for promotion and tenure
Texas A&M International University; Texas A&M University

Referee for peer-reviewed publications
American Musem Novitates, The American Naturalist, Aqua: International Journal of Ichthyology, Axios Reviews, Biological Journal of the Linnean Society, Biota Colombiana, Biota Neotropica, BMC Evolutionary Biology, Checklist, Copeia, Cybium, Ecology, Environmental Biology of Fishes, Evolution, Genetics, Hydrobiologia, Integrative and Comparative Biology, International Journal of Evolutionary Biology, Journal of Anatomy, Journal of Biogeography, Journal of Fish Biology, Memoria de la Sociedad de Ciencias Naturales La Salle, Molecular Ecology, Molecular Phylogenetics and Evolution, Nature Ecology and Evolution, Neotropical Ichthyology, Oikos, Organisms Diversity and Evolution, PLoS ONE, Proceedings of the Academy of Natural Sciences of Philadelphia, Proceedings of the Biological Society of Washington, Proceedings of the Royal Society of London Series B, Systematic Biology, Systematics and Biodiversity, Zoological Journal of the Linnean Society, Zoomorphology, Zootaxa

Professional societies:
American Society of Ichthyologists and Herpetologists, Society of Systematic Biologists, Society for the Study of Evolution, Brazilian Society of Ichthyologists, American Society of Naturalists

Invited scientific talks:
2020 – (Virtual seminar) Exploring and conserving the fishes of the Guiana Shield, Canadian Museum of Nature, Ottawa, Ontario, Canada, June 30, 2020.
2020 – Macroevolution of Neotropical cichlid fishes, a model for iderstanding the origin of the largest freshwater fish diversity on earth, Western Michigan University, Kalamazoo, MI, January 17, 2020.
2019 – Macroevolution of Neotropical cichlid fishes, a model for iderstanding the origin of the largest freshwater fish diversity on earth, University of North Texas, Denton, TX, April 19, 2019.
2019 – Research needs in water sustainability, School for Environment and Sustainability, University of Michigan, Ann Arbor, MI, February 11, 2019.
2017 – Phylogeny and Classification of Neotropical Cichlids twenty years later – A macroevolutionary perspective. II International Symposium on the Phylogeny and Classification of Neotropical Fishes, Londrina, Paraná, Brazil, October 23-28, 2017.

2017 – Macroevolutionary approaches to understanding Neotropical fish diversity. Department of Ecology and Evolutionary Biology, University of Michigan, Ann Arbor, MI, January 17, 2017.
2015 - Phylogenomics and patterns of macroevolutionary divergence in Neotropical cichlid fishes. Department of Biology, University of Puerto Rico, San Juan, PR, December 1, 2015.
2014 - Ancient adaptive radiations and ecomorphological convergence in Neotropical cichlid fishes. Department of Biology, Rochester University, Rochester, New York, USA, February 7.
2013 - Ancient adaptive radiations and ecomorphological convergence in Neotropical cichlid fishes. Department of Biology, Dalhousie University, Nova Scotia, Canada, September 19.
2013 - Keynote speaker: "Molecular phylogenies of non-ostariophysan clades: what they tell us about Neotropical fish evolution". XXth Brazilian encounter of Ichthyologists, Maringá, Brazil.
2011 - Timing and patterns of diversification in Neotropical cichlid fishes. Museu de Ciencias e Tecnologia, Pontificia Universidade Catolica do Rio Grande do Sul, Porto Alegre, Brazil.
2011 - Phylogeny and adaptive radiations in Neotropical Cichlid Fishes. Department of Ecology and Evolutionary Biology, University of Toronto, Mississauga.

Invited Popular Talks:

2021 – From the Field to the Museum and Back. Ohio Cichlid Association, Cleveland, OH, November 5, 2021.
2020 – Exploring and conserving the fishes of the Guiana Shield. North Jersey Aquarium Society, virtual talk, October 18, 2020.
2019 – From fossils to genomes: Building the Tree of Life and the cichlid timeline of evolution in a modern museum. Northeast Council of Aquarium Societies, Cromwell, CT, April 12-14, 2019.
2019 – (with Karen M. Alofs). Exploring and conserving the fishes of the Guiana Shield. Northeast Council of Aquarium Societies, Cromwell, CT, April 12-14, 2019.
2017 – From fossils to genomes: Building the Tree of Life and the timeline of Evolution in a modern museum. Durham Region Aquarium Society, Toronto, Ontario, October 13, 2017.
2016 – Exploring and conserving the diversity of fishes in the Guiana Shield. Annual Convention of the Canadian Association of Aquarium Clubs, London, Ontario, May 21, 2016.
2016 – From fossils to genomes: Building the tree of life and the timeline of evolution in a modern museum. Annual Research Colloquium, Royal Ontario Museum, Toronto, February 23, 2016.
2014 – The found fishes of the "Lost World": exploration, discovery and conservation of fishes in the Guiana Shield. Annual Meeting of the Canadian Association of Aquarium Clubs, Toronto, May 16-18, 2014.
2013 - Finding fishes in the Lost World and other adventures in South American fish evolution. Ottawa Valley Aquarium Society, Ottawa, March 23, 2013.
2012 - The found fishes of the Lost World: Diversity and conservation of the strangest fishes of South America, Durham Region Aquarium Society, Feb 11, 2012.

Contributed Scientific Talks and Presentations (*indicates students or postdoctoral researchers):

2019 – **H. López-Fernández**, S. Blain*, V. Astudillo-Clavijo*. Incremento en la resolución filogenómica en cíclidos neotropicales permite datar eventos biogeográficos del género *Geophagus* en el Escudo de Guayana. Meeting of the Asociación Colombiana de Ictiólogos, Medellín, Colombia, July 17-19, 2019.
2018 – **H. López-Fernández**, S. Blain*, V. Astudillo-Clavijo*. Increased phylogenomic resolution of Neotropical cichlids allows dating of Guiana Shield biogeographic events within the genus *Geophagus*. Joint Meetings of Ichthyology and Herptelogy, Rochester, New York, US, July 11-17, 2018.

2018 –V. Astudillo-Clavijo*, T. Mankis*, **H. López-Fernández**. Field records in museum collections support habitat as an ecological dimension of diversification in the adaptive radiation of geophagine cichlids. Joint Meetings of Ichthyology and Herptelogy, Rochester, New York, US, July 11-17, 2018.

2018 – **T. D. Morgan***, S.C. Willis, I.P. Farias, R. Covain, J. Mol, D. Portnoty, **H. López-Fernández**. The biogeography and phylogenomics of *Geophagus* (Subfamily Cichlinae) in the Guiana Shield. Joint Meetings of Ichthyology and Herptelogy, Rochester, New York, US, July 11-17, 2018.

2017 – **H. López-Fernández**, E. Holm, M.E. Burridge, M. Zur, D. Stacey. Central and South American Fish Holdings of the Royal Ontario Museum, Canada. II International Symposium on the Phylogeny and Classification of Neotreopical Fishes, Londrina, Paraná, Brazil, October 23-28, 2017.

2017 – **H. López-Fernández**. Is intraspecific variation driven by size? Examining changes in diet-morphology correlations in a Neotropical cichlid population. Annual Meeting of the Ecological Society of America, Portland, Oregon, USA.

2017 - Hauser FE*, Ilves KL*, Castiglione GM, Schott, RK, **López-Fernández, H**, Chang BSW. Functional divergence of the dim light opsin following cichlid invasion of Central America. Evolution Meeting, Portland, OR, USA.

2017 – C.G. Montaña, E.A. Liverpool, D.C. Taphorn, **H. López-Fernández**, K.M. Alofs. Trophic relationships and mercury levels in a Neotropical river food web. Joint meeting of Ichthyologists and Herpetologists, July 12-16, 2017, Austin, Texas, USA.

2016 – **López-Fernández, H.,** K.L. Ilves* & M.C. Malabarba. Phylogenomics, Fossils and a Tip-dating approach to the Age of Neotropical Cichlids. 100th Joint Meeting of Ichthyology and Herpetology, American Society of Ichthyologists and Herpetologists, New Orleans, LA, USA.

2016 – Ilves, K.L*. & **H. López-Fernández**. A Targeted Exon approach for (Neotropical) Cichlid Phylogenomics. 100th Joint Meeting of Ichthyology and Herpetology, American Society of Ichthyologists and Herpetologists, New Orleans, LA, USA.

2016 – Steele, S.E*. & **H. López-Fernández**. Examining the Role of Ontogeny and Body Size Evolution in the Diversification of Neotropical Cichlid Fishes. 100th Joint Meeting of Ichthyology and Herpetology, American Society of Ichthyologists and Herpetologists, New Orleans, LA, USA.

2016 **-** Astudillo-Clavijo, V*., K.L. Ilves*, W. Salzburger, M.L.J. Stiassny, **H. López-Fernández.** A Phylogenomic Tree for African non-Rift-Lake Cichlids. 100th Joint Meeting of Ichthyology and Herpetology, American Society of Ichthyologists and Herpetologists, New Orleans, LA, USA.

2016 **-** Hauser, F*., K.L. Ilves*, R. Schott, **H. López-Fernández** & B. Chang**.** Evolutionary Dynamics of the Dim-Light Visual Pigment in Neotropical Cichlid Fishes . 100th Joint Meeting of Ichthyology and Herpetology, American Society of Ichthyologists and Herpetologists, New Orleans, LA, USA.

2016 **–** Blain, S*., Astudillo-Clavijo, V*. Steele, S.E.*, Ilves, K.L. & **López-Fernández, H.** Phylogeography and morphological evolution in *Geophagus* cichlids. 46th Ontario Ecology, Ethology and Evolution Colloquium, University of Toronto, Toronto, ON, Canada.

2016 **–** Mankis, T*., Astudillo-Clavijo, V. & **López-Fernández, H.** 2016.The link between swimming morphology and habitat in a cichlid adaptive radiation. 46th Ontario Ecology, Ethology and Evolution Colloquium, University of Toronto, Toronto, ON, Canada.

2015 **- López-Fernández, H***., Alofs, K.M., Liverpool, E.A. and De Brito, V. 2015. Gold mining changes composition, habitat correlates and morphological attributes of an endemic fish assemblage in the Guiana Shield highlands, Guyana, South America. 100th Annual meeting of the Ecological Society of America, Baltimore, Maryland, USA.

2015 **-** Steele, S.E*., M.A. Kolmann & **H. López-Fernández**. 2015. Body size diversity across the fish tree of life and the impact of environment on maximum body size: does water and macrohabitat type shape the dsitribution of size? 100th Annual meeting of the Ecological Society of America, Baltimore, Maryland, USA.

2015 - Astudillo-Clavijo, V*. Arbour, J.H. & **H. López-Fernández**. 2015. Selection towards different adaptive optima drove the early diversification of locomotor phenotypes in the radiation of Neotropical geophagine cichlids. 100th Annual meeting of the Ecological Society of America, Baltimore, Maryland, USA.

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