

**Jimena Golcher-Benavides**

Lees McRae, Biology Program

Lees-McRae College, P.O. Box 128, Banner Elk, North Carolina 28601

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<b>2015-2021</b>	PhD in Ecology. Program in Ecology, University of Wyoming, Laramie, WY. Advisor: Dr. Catherine E. Wagner.
<b>2012-2015</b>	MSc. in Biological Sciences at University of Konstanz, Konstanz, Germany. Advisors: Dr. Axel Meyer & Dr. Mark van Kleunen.
<b>2006-2011</b>	Bachelor of Biological Sciences, emphasis on Tropical Biology, National University (UNA), Heredia, Costa Rica.

**ACADEMIC EXPERIENCE**

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<i>June 2022-present</i>	<b>Postdoctoral Research</b>   “Monitoring anthropogenic impacts on Lake Tanganyikan fishes” Dr. Catherine E. Wagner and Dr. Peter B. McIntyre.
<b>2021-2022</b>	<b>Visiting Assistant Professor</b>   Biology Program, Lees-McRae College.
<b>2015-2021</b>	<b>Graduate Research</b>   PhD Dissertation Thesis “Eco-evolutionary drivers of diversity in East African cichlid fishes” Committee members: Dr. Catherine E. Wagner (PhD Advisor), Dr. Peter B. McIntyre, Dr. Robert O. Hall, Dr. Amy C. Krist, Dr. Carlos Martínez del Río & Dr. Craig W. Benkman. <i>Field work, data, and specimen collection in four expeditions to Lake Tanganyika, Tanzania 2016-2019.</i>
<b>2019-2020</b>	<b>Graduate Research</b>   “Monitoring Critical Habitat for Fish Fauna” The Nature Conservancy’s Tuungane Project advised by Craig Leisher, Director of Monitoring and Evaluations at The Nature Conservancy and Dr. Peter B. McIntyre, Cornell U.
<b>2012-2015</b>	<b>Graduate Research</b>   MSc Thesis “The effects of predation on the stability of a color polymorphism in Midas cichlids from Nicaraguan crater lakes” Universität Konstanz, Germany. Dr. Axel Meyer & Dr. Mark van Kleunen. <i>Field work providing aquatic biodiversity survey data for the water authority in Managua, Nicaragua.</i>
<b>2013</b>	<b>Graduate Research</b>   Universität Konstanz, Germany. Dr. Helen Gunter.
<b>2012</b>	<b>Undergraduate Internship</b>   Veterinary School (TiHo) Hannover, Germany.
<b>2011</b>	<b>Undergraduate Internship</b>   Smithsonian Tropical Research Institute, Panama.
<b>2009-2011</b>	<b>Undergraduate Research</b>   Organization for Tropical Studies and Environmental impact assessment with Universidad Nacional (UNA).

**TEACHING EXPERIENCE**

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<b>2022 – Spring</b>	<b>Instructor</b>   Lees-McRae College <b>BIO 361 Genetics</b> lecture and lab sections (15 students), <b>BIO 211 General Zoology</b> lecture (18 students) and lab sections (19 students), and <b>BIO 122 Introduction to Evolution</b> lecture (28 students).
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2021 – Fall	<b>Instructor</b>   Lees-McRae College <b>BIO 114 Introductory Biology for Majors I</b> Two lecture sections (48 <i>students</i> ) and three lab sections (57 <i>students</i> ).
2021 – Spring	<b>Guest Lecturer</b>   Two lectures “Animal World: Fishes” Lees-McRae College <b>General Zoology</b> Dr. Porter.
2021 – Spring	<b>Guest Lecturer</b>   Oklahoma State University <b>Introduction to Natural History</b> Dr. Duchardt.
2020 – Fall	<b>Guest Lecturer</b>   Adams College <b>Gen. Biology</b> Dr. Gibson-Reinemer.
2020 – Spring	<b>Teaching Assistant (TA)</b>   University of Wyoming <b>Gen. Ecology</b> Dr. Barber. In charge of lectures on evolutionary ecology and biodiversity.
2019 – Fall	<b>TA</b>   University of Wyoming <b>Marine Biology</b> Dr. North. In charge of lectures on biodiversity metrics.
2018 – Spring	<b>TA</b>   University of Wyoming <b>Genetics</b> Dr. Weinig. In charge of lectures on population genetics, ecological speciation and two study groups.
2016 & 2017	<b>TA</b>   University of Wyoming <b>Evolution</b> Dr. Wagner. In charge of lectures on evolutionary research in zoological and geological museums.
2015 – Fall	<b>Lab Instructor &amp; Lecture TA</b>   University of Wyoming <b>Biology</b> Dr. J. Willford and Dr. North in charge of two General Biology laboratory sections.
2013 – 2014	<b>TA</b>   University of Konstanz <b>Zoology</b> Dr. Kleineidam & Dr. Woltering (2014) Dr. Gunter (2013) in charge of two study groups.

## WORKSHOP PARTICIPATION & TRAINING

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2021- Present	Learning Actively Mentoring Program Summer Institute and Yearlong Training on Active Learning Program- University of Wyoming
2021	Virtual Machine Learning using Python Workshop WEST 11-15 January 2021
2021	Virtual OTS Scientific Illustration 27 January-12 February 2021
2020	Virtual Safe Zone Training – University of Wyoming – 10 August 2020
2017	National Science Foundation Grantsmanship Workshop 14 October 2017
2017	Bodega Applied Phylogenetics Workshop Application 11-18 March 2017
2017	Occupancy Workshop 20-24 March 2017

## MENTORING

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2019 – 2021	Shadow T. McKim   UW Undergraduate research & manuscript preparation.
2016 – 2020	Msafiri George (Tanzania)   Undergraduate academic writing.
2020 – Summer	Carlos Muñoz (Colombia)   Academic writing.
2020 – Spring	Nathan T. Barrus   UW Undergraduate research.
2018 – Spring	Thyme L. Cook & Reid Olson   UW Undergraduate research experience.
2017 – Summer	Brittany Nordberg   UW Undergraduate research experience.
2013 – Fall	Gabriel Brenes   (Nicaragua) ENACAL Water Enterprise Staff Assistant.
2011 – Fall	Francesca Protti & Miguel Chaves   (CR) Undergraduate academic writing.

## WORKSHOP ORGANIZER & INSTRUCTOR EXPERIENCE

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2020 – Spring	<b>Virtual Intro to Digital Illustration</b>   Program in Ecology – <i>Organized and taught.</i>
2019 – Summer	<b>Statistical Analyses and Advanced R Programming for Fisheries</b>   Tanzanian Fisheries at Research Institute. <i>Organized and co-taught with</i>

	<i>Jessica Rick, with help of Masumbuko Semba and Jesse Alston in Dar Es Salaam, Tanzania.</i>
<b>2018 – Summer</b>	<b>Intro to R Computer Programming</b>   Tanzanian Fisheries at Research Institute. <i>Organized and co-taught with J. Rick, with help of M. Semba in Kigoma, Tanzania.</i>
<b>2016 – Spring</b>	<b>Career panel for graduate students</b>   Program in Ecology – <i>organized with Dr. Lisa Barret at University of Wyoming Laramie, WY.</i>
<b>2015 – Summer</b>	<b>Intro to Scientific Illustration using vector art</b>   Program in Ecology – <i>organized and taught at University of Wyoming Laramie, WY.</i>

## AWARDS AND FELLOWSHIPS

	<b>Total</b>
	<b>\$54,962.36</b>
<b>2021</b>	LAMP Science Initiative Summer Institute and Year-long training.....\$2,500.00
<b>2021</b>	Workshop Participation Grant, UW.....\$400.00
<b>2021</b>	The Nature Conservancy (TNC) Stipendium.....\$2,000.00
<b>2020</b>	Biodiversity Institute 2020 Research Enhancement Grant, UW.....\$28,018.00
<b>2020</b>	Frederic E. Clements Award, UW.....\$1,000.00
<b>2019</b>	Women in Conservation Biology, Ecology and Education Fellowship .....\$1,000.00
<b>2018</b>	Department of Botany Student Awards.....\$300.00
<b>2018</b>	Dean's Graduate Scholars Award, Arts & Sciences UW .....\$2,500.00
<b>2018</b>	Center for Global Studies Harris Research Endowment, UW.....\$2,500.00
<b>2018</b>	Departmental awards, Department of Botany UW .....\$300.00
<b>2018</b>	Wilhelm and Ragnhild Solheim Memorial Scholarship, UW .....\$1000.00
<b>2017</b>	Rosemary Grant Award, Society for the Study of Evolution .....\$2,500.00
<b>2017</b>	Bodega Applied Phylogenetics Workshop, Department of Botany UW.... \$1,000.00
<b>2017</b>	Aven Nelson Award, Department of Botany UW .....\$2,000.00
<b>2017</b>	Own-it Award, Celebrating UW Women in STEM Graduate student
<b>2014</b>	Graduate tuition- Tropical Ecology – Org. Tropical Studies (OTS)
<b>2013</b>	CONICIT-Costa Rican Government Science Incentive.....\$7,944.36
<b>2012</b>	German Academic Exchange Service (DAAD) Tuition & Stipendium
<b>2010</b>	Tuition & Research Experience for Costa Rican Students, OTS/CRUSA

## PUBLICATIONS

- Rick, J.R., C.D. Brock, A.L., Lewanski\*, **J. Golcher-Benavides**, and C. E. Wagner. 2022. Reference genome choice and filtering thresholds jointly influence phylogenies. Manuscript under review in journal: *Systematic Biology*\* graduate student co-author.
- Lewanski, A.L.\*, **J. Golcher-Benavides**, J.A. Rick, and C. E. Wagner. 2022. Variable hybridization between two Lake Tanganyikan cichlid species in recent secondary contact. Manuscript under review in journal: *Molecular Ecology*\* graduate student co-author.
- Porter, C.K., **J. Golcher-Benavides**, and C. W. Benkman. 2022. Seasonal patterns of dietary partitioning in vertebrates. Manuscript under review in journal: *Ecology Letters*.
- Golcher-Benavides, J.**, S. M. McKim\*, and C. E. Wagner. 2022. Aggression bias in *Tropheus brichardi* population "Kalemie". Manuscript in prep. for journal: *Hydrobiologia*\* Undergraduate student co-author.
- Golcher-Benavides, J.**, P.B. McIntyre, C. D. Brock and C. E. Wagner. 2022. Depth as an axis of community organization in Lake Tanganyikan cichlids, East Africa. Manuscript in prep. for journal: *Ecological Monographs*.

- Golcher-Benavides, J.,** P.B. McIntyre, E.G.M. Mandeville and C. E. Wagner. 2022. Ecology as driver of genetic differentiation in Lake Tanganyikan cichlids. Manuscript in prep. for journal: *Evolution*.
- Golcher-Benavides, J.** and C. E. Wagner. 2019. Playing out Liem's Paradox: opportunistic piscivory in the Lake Tanganyikan cichlid fishes. *The American Naturalist*.
- Torres-Dowdall, J.\*, **Golcher-Benavides, J.\***, Machado-Schiaffino, G. and A. Meyer. 2017. The role of rare morph advantage and conspicuousness in the stable gold-dark colour polymorphism of a crater lake Midas cichlid fish. *J Anim Ecol.* 2017; 86:1044–1053, DOI: 10.1111/1365-2656.12693. \*Co-first authorship.
- Golcher-Benavides, J.** and M. Protti Quesada. 2011. Fish Species Richness in Lowland Streams with a Geothermal Input Phenomenon, Sarapiquí de Heredia. Open Access ISRN Ecology. *ISRN Ecology*. Volume 2011: 695492, DOI:10.5402/2011/695492.

## SCIENTIFIC TALKS & POSTERS

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- Golcher-Benavides, J.** 2022. Genetics in the real world: Exploring undergraduate student's perception of learning in an experiential learning context. Learning Actively Mentoring Program Poster Session (poster)
- Golcher-Benavides, J.,** Leisher, C. 2021. The Nature Conservancy Tuungane Global and Africa Fish Conservation Interdisciplinary Team Meeting. "Fish Survey comparison" with Dr. Walter Salzburger and Dr. Peter B. McIntyre. (30 min talk)
- Golcher-Benavides, J.,** Mandeville, E.G., McIntyre, P.B.M and C.E. Wagner. 2021 Virtual Asilomar American Society for Naturalists Meeting. "Predictors of population genetic differentiation in Lake Tanganyikan cichlids". (15 min [talk](#) starts at min 40)
- Golcher-Benavides, J.** and C.E. Wagner. 2019. Invited Speaker in Research Seminar Series. Center for Limnology and Marine Biology, Universidad de Costa Rica (UCR). "Eco-evolutionary drivers of cichlid fish diversity." (50 min talk)
- Golcher-Benavides, J.** and C.E. Wagner. 2019. Talk at Departmental Botany/Ecology Seminar Series University of Wyoming "Eco-evolutionary drivers of cichlid fish diversity." (10 min talk)
- Golcher-Benavides, J.,** P.B. McIntyre, C. Brock and C.E. Wagner. 2019. Poster presentation at Wyoming Goes Global, University of Wyoming. "Is cichlid fish community diversity energy-driven in Lake Tanganyika."
- Golcher-Benavides, J.** and C.E. Wagner. 2018. PhD Proposal Talk in Program in Ecology University of Wyoming "Diversity and coexistence in East African Cichlids." (50 min talk)
- Golcher-Benavides, J.,** P.B. McIntyre, C. Brock and C.E. Wagner. 2018. Poster presentation Student Symposium Program in Ecology, University of Wyoming. "Examining patterns of community diversity within an adaptive radiation."
- Golcher-Benavides, J.,** P.B. McIntyre, C. Brock and C.E. Wagner. 2017. Talk at the Guild of Rocky Mountain Ecologists and Evolutionary Biologists Meeting at UC Mountain Research Station, Colorado "Resource availability as driver of community assembly in Lake Tanganyika." (15 min talk)
- Golcher-Benavides, J.,** Torres-Dowdall, Machado-Schiaffino, G. and A. Meyer. 2015. Talk at CIMAR and UNA Costa Rica (UNA) "Midas cichlids viewed from the predators perspective." (50 min talk)
- Golcher-Benavides, J.,** Torres-Dowdall, Machado-Schiaffino, G. and A. Meyer. 2015. Poster at National Biology Meeting EAWAG Zürich, Switzerland "Midas cichlids viewed from the predators perspective".

**Golcher-Benavides, J.**, Torres-Dowdall, Machado-Schiaffino, G. and A. Meyer. 2014. Poster at Evolution Meeting 2014 North Carolina “Midas cichlids viewed from the predators perspective.”

**Golcher-Benavides, J.** and Protti-Quesada. 2011. Talk at the National Biology Meeting, in San José, Costa Rica. “Fish species richness in Caribbean lowland streams.” (15 min talk)

## PEER REVIEW SERVICE, MEMBERSHIPS & OUTREACH

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**Peer review** | Peer review for International Journal of Tropical Biology and Conservation (Rev. Biol. Trop. 2016-2022), Functional Ecology (2017), Journal of Great Lakes Research (2019), Hydrobiologia (2020).

**Memberships** | American Society of Naturalists, Society for the Study of Evolution, Society for Freshwater Science, American Society of Ichthyologists and Herpetologists (2022).

**2022** “Wimblu” Podcast guest discussing biodiversity and evolution with Alessandra Baltodano. March 2022 (en español).

**2021** “Patagonia Film and lecture” Discussing Patagonia’s documentary “Drop” during Welcome Week 2021.

**2021** “Freshwater fish conservation” guest lecture at European High School, CR.

**2020** “Aquatic biodiversity and cichlid fishes” guest lecture at European High School, CR.

**2019** Tutor at Program in Ecology Odyssey for incoming students, Wyoming 2019.

**2019** “Lake Tanganyika Underwater” Speaker at Rocky Mountain Cichlid Association in Colorado, 2017 and 2019.

**2019** “Cichlid fish diversity” public talk at Laramie Audubon Society, Wyoming.

**2019** “Science Café” public talks at Sublette and Albany County Public Libraries in Wyoming.

**2019** Panelist at Shepard Symposium on Social Justice-Panel on Science-Policy Interface.

**2018 & 2019** “Fish evolution in East Africa” exhibition for Fossil Fish Day at UW Geological Museum.

**2016** “Conducting research in Lake Tanganyika” public talk at the American Fisheries Society -University of Wyoming Chapter.

**2021** Publication of 4<sup>th</sup> Grade Educational Material- Module 1: Fish adaptations to thrive underwater: <http://freshwater.wyomingbiodiversity.org>

**2021** Organizer at “I Simposio #CienciaTica 2021” Friday, 15 January 2021.

**2020** Organizer and mentor at PiE Mentor Mentee Program.

**2020** Contributor for “Guidelines and advice for incoming UW graduate students”.

**2019** Organizer at Fossil Fish Day at the UW Geological Museum.

**2018** Organizer at Symposium, VII<sup>th</sup> Student Symposium Program in Ecology.

**2018** Organizer at Fossil Fish Day at the UW Geological Museum 2018 and 2019.

**2017** Organizer at Symposium, VI<sup>th</sup> Student Symposium Program in Ecology.

**2017** Judge for the Wyoming State Science Fair 2017.

**2017** Master of Ceremonies for UW International Students Office events.

**2016** Organizer at student talks in Departmental Seminar Series.

**2016** University of Wyoming – Mentor at Latina Youth Conference.

**2016** University of Wyoming – Organizer at Women in Math, Science and Engineering.

**2016** Judge for the Wyoming State Science Fair 2016.

**2015** Guide for High School Students Irazú Volcano National Park.

## INTERESTS & LANGUAGES

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**Interests** | Citizen Science | Ecology | Evolution | Ichthyology | eDNA & Conservation genetics  
| Phylogenetics | SCUBA CMAS\* PADI Advanced Open Water 100+ hours of experience in  
scientific diving | Fishing | Birdwatching | Data Visualization | Art | iNaturalist (+2,000 obs.)  
**Languages** | Spanish, English & French (fluent) | German (intermediate) | Swahili (basic)