

CV: Nereyda Falconi, Ph.D.

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<https://github.com/nereydafl>

EDUCATION

Ph.D. - University of Massachusetts Amherst, Amherst, MA 2021

Department of Environmental Conservation, Concentration in Wildlife, Fish and Conservation Biology, and Massachusetts Cooperative Fish & Wildlife Research Unit
Dissertation: *Data access, distribution models, and stable isotopes: merging approaches to improve bear distribution estimates and bear carnivory for conservation.*

M.Sc. - Universidade Estadual de Santa Cruz, Ilhéus, Brazil 2013

Department of Ecology and Conservation
Thesis: *Home range and habitat selection for the maned sloth (Bradypus torquatus) in southern Bahia.*

B.S. - Universidad Nacional Agraria la Molina, Lima, Perú 2008

Department of Biology
Thesis: *Activity patterns of Xenarthra (Orders Pilosa and Cingulata) in the department of Madre de Dios, Peru*

WORK EXPERIENCE

Postdoctoral Scholar- The Pennsylvania State University 2024-present

Postdoctoral position in Dr. Tomas Carlo's lab, Department of Biology of Penn State. I work with data management and data analysis for a large NSF project. Moreover, I help students with the data analysis of their projects.

Postdoctoral Scholar- The Pennsylvania State University 2022-2024

Postdoctoral position in the disease ecology laboratory of Dr. Guilherme Becker, Department of Biology of Penn State. My work involved data analysis and manuscript preparation for studies on frog ecology, frog migration, and Chytrid fungi infection.

Associate Researcher – Ecology Department, Natural History Museum of San Marcos University, Lima, Peru 2017-present

I participate in projects related to mammal ecology and conservation, developed for the Ecology Department, and advise undergraduates from the department. This is a pro-bono affiliation.

Member - Andean Bear Expert Team – UICN Bear Specialist Group 2021-2025

My role is to support the work of the BSG and the ABET specifically, respond to queries, and

participate in joint efforts at various levels, whether regional, national, international, or global. These efforts range from responding to a question about the potential reintroduction of a single bear to updating the IUCN Red List entry for the Andean bear. This is a pro-bono affiliation.

Specialist - Wildlife Conservation Society (WCS), Lima, Peru 2014-2015

I led a project on the Peruvian Amazon focused on communal monitoring of large mammals with camera traps. My work included project logistics, preparing technical and financial reports for donors, training local community members, collecting and analyzing data, and preparing manuscripts for publication. As part of the WCS Peru team, I also contributed to additional institutional activities, including workshops and meetings with Peruvian governmental authorities.

Consultant - US Forest Service- Perú Forest Sector Initiative-Perú, Lima, Peru. 2013-2014

I worked on developing methodologies for collecting wildlife data for national inventories. For this, I collaborated with specialists from the US Forest Service (USFS), the US Geological Survey (USGS), and the Peruvian Forest and Wildlife Service. My work included preparing technical reports, presenting proposed methodologies to various institutions, and training the technical team.

Researcher - Biological Reserve and Wildlife Refuge, Bahia, Brazil 2010-2011

I worked on the project “Characterization of forest fragments, conservation of terrestrial mammals and primates threatened with extinction in Biological Reserve and Wildlife Refuge of Una, Bahia, Brazil.” I collected field data using camera traps, Sherman traps, and footprint traps. I identified, collected, and prepared specimens for a museum collection. I helped with data systematization, analysis, and conference presentations.

SKILLS

Quantitative & Ecological Analysis: Quantitative ecology, spatial ecology, landscape ecology, species distribution modeling, community ecology, ecological modeling, biodiversity analysis, agent-based models.

GIS & Spatial Analysis: GIS, spatial statistics, raster and vector analysis, habitat mapping, GPS data processing, Land-cover classification..

Programming & Software: R, ArcGIS, QGIS, Google Earth Engine, Python, SQL.

Statistical Methods: GLMs, GAMs, mixed-effects models, Bayesian analysis, multivariate analysis, simulation modeling.

Research & Communication: Scientific writing, technical reporting, experimental design, field sampling design, project management, interdisciplinary collaboration, international collaboration.

TRAINING

Creative Leadership for Conservation, Conservation Leadership 2019

Programme (CLP), Salta, Argentina

4- day international course organized by Conservation Leadership Programme and Wildlife Conservation Society. This course is designed to support participants in becoming more effective, collaborative, strategic, and creative leaders.

TEACHING

Invited Professor - The Pennsylvania State University, Eberly College 2025-26

BIO 499A (3 cr.) Topical Field Ecology -Dr Tomas Carlo

This is an undergraduate course in Costa Rica. In this course, students develop research projects: 2 led by the professor and 1 independent project. During the course, students learn about tropical plants, animals, and their habitats. They also visit lowland, mountain, and dry forests.

Teaching Assistant - Univ. Massachusetts, Amherst, Environmental Conservation 2016

ECO601(3 cr.) Research Concepts - Dr. Stephen DeStefano

This graduate course introduced the research process in natural resources and environmental conservation sciences by focusing on research philosophy, basic concepts, and study design. I assisted Professor DeStefano with classes, helped grade assignments, and held office hours.

MENTORSHIP AND ADVISING

Graduate Research Mentor – The Pennsylvania State University

- Tyvonta Servance (M. Sc Biology, 2024-present) Mentoring on movement ecology, agent-based modeling, and manuscript preparation.
- Adriana Jordan (M.Sc. Ecology, 2024-2025) Mentoring in conservation and spatial distribution of tropical mistletoe.
- Julissa I. Irizarry (Ph.D. Ecology, 2023-present) Mentoring on urban bird community ecology analysis and manuscript preparation.

Undergraduate Research Mentor – The Pennsylvania State University & San Marcos University

- Jonah Naugle (B.Sc. Environmental Resource Management, Penn State, 2023) Mentored on camera traps data management as part of BIOL 296
- Brandon Yarasca (B.Sc. Biology San Marcos University, 2022) Co-advised on vertebrate community associations and keystone species analysis in Central Peru.

GRANTS/AWARDS

International Association for Bear Research and Management (IBA) - \$4,700	2022
The Rufford Foundation - \$6,950	2018
International Association for Bear Research and Management (IBA) - \$10,000	2017
WCS Christensen Conservation Leaders Scholarship - \$36,000	2016
PhD Scholarship Fondo Nacional de Desarrollo Científico y de Innovación Tecnológica (FONDECYT) - \$99,000	2016
Master Scholarship Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES) - \$17,000	2014
Subvencion for participation in scientific events. Fondo Nacional de Desarrollo Científico Tecnológico y de Innovación Tecnológica (FONDECYT) -2,000	2011

PUBLICATIONS

Submitted or in prep articles

- Falconi N**, Carlo TA, Yarasca B, Antunéz S, Mayta M, Santos F. Keystone species and interspecific associations of vertebrate communities of Central Peru. *In prep for* Journal of Applied Ecology.
- Servance T, **Falconi N**, Carlo TA. Effects of birds' movement on rain dynamics in a fragmented landscape. *In prep for* Landscape Ecology.
- Irizarry JI, **Falconi N**, Carlo TA. When Less Is More: Self-Organization in Tropical UrbanLandscapes Drives Plant-Bird Diversity *In prep for* Nature Communications.
- Jordan A, **Falconi N**, Carlo TA. Population Status and Conservation Challenges of *Dendrophthorabermejae* (Santalaceae) in Cabo Rojo Puerto Rico: a Host-specific Endemic Mistletoe. *Submitted to* Caribbean Journal of Science.

Peer-reviewed articles

- Carvalho T, **Falconi N**, White T, Alves dos Anjos L, Giasson LOM, Haddad CFB, Toledo LF, Becker G. (2025). The Role of Seasonal Migration in Predicting Amphibian Population Persistence Across Fragmented Tropical Landscapes: An Individual-Based Model. *Biodiversity and Conservation*.
- Falconi N**, Finn JT, Fuller TK, DeStefano S, Organ JF. (2022a). Do unpublished data help redraw distributions? The case of the spectacled bear in Peru. *Mammal Research*.
- Falconi N**, Carlo TA, Fuller TK, DeStefano S, Organ JF. (2022b). Bear diets and human-bear conflicts: insights from isotopic ecology. *Mammal Review*.
- Falconi N**, Fuller TK, DeStefano S, Organ JF. (2020). An open access, occurrence database for Andean bears in Peru. *Ursus* 31e11:1-6.
- Nagy-Reis, M ... **Falconi N** ... & Lopes, C. M. (2020). NEOTROPICAL CARNIVORES: a data set on carnivore distribution in the Neotropics. *Ecology* 101:11e03128
- Santos, P. M... **Falconi N** & Fischer, E. (2019). NEOTROPICAL XENARTHTRANS: a data set of occurrence of xenarthran species in the Neotropics. *Ecology* 100:7e02663.

- Falconi N.** (2019). Spectacled bear database for Peru. Global Biodiversity Information Facility. <https://doi.org/10.15468/8dakqd>
- Isasi-Catala E., Acosta J., Achante A., Bianchi G., Caro J., **Falconi N.**, Maffei L., Martinez J.L., Goldstein I. (2016). Modelos de ocupación para el monitoreo de la efectividad de estrategias de conservación del ACR-CTT, Loreto-Perú. *Ecologia Aplicada* 15:61-68.
- Falconi N.**, Vieira E., Baumgarten J., Faria D., Giné G.A.F. (2015). The home range and multi-scale habitat selection of the threatened maned three-toed sloth (*Bradypus torquatus*), *Mammalian Biology* 80(5):431-439.

Popular Science articles

- Falconi N.** 2017. Ask your food for its DNA ID. That's Life [Science].
<http://thatslifesci.com/2017-04-23-Ask-your-food-for-its-DNA-ID-Falconi/>
- Falconi N.** 2018. Drinking from the rivers and eating from the forest. That's Life [Science].
<http://thatslifesci.com/2016-07-21-Drinking-from-the-rivers-and-eating-from-the-forest-NFalconi/>
- Falconi N.** 2018. Walking with Giant Anteaters. That's Life [Science].
<http://thatslifesci.com/2016-05-05-walking-with-giant-anteaters-nfalconi/>

SELECTED PRESENTATIONS

- Falconi N.** (2021). "Value of data for Andean bear distribution estimation for Peru". *Oral presentation*. 26th International Conference on Bear Research and Management, virtual.
- Quevedo M., **Falconi N.**, Lama T., Lescano J. (2018). Effects of Economic Development Projects in the Amazonian Region. An Updated Literature Review. *Oral presentation*. Charting Pathways to Prosperity: A Workshop to Identify & Promote Science-Based Infrastructure Standards in the Amazon. Iquitos-Peru.
- Falconi N.** (2017). "Value of data sharing for conservation. A study case of a large-scale project of spectacled bears in Peru". *Oral presentation*. 25th international conference on bear research and management, Quito-Ecuador
- Falconi N.** (2016). Activity of terrestrial mammals in the Tamshiyacu Tahuayo communal reserve, northeastern Peru. *Oral presentation*. 51^a Annual Meeting of the Association for Tropical Biology and Conservation, Montpellier-France.
- Falconi N.**, Bermudez P., Galvez-Durand J., Piana R., Organ J. (2014). Habitat approach based on direct and indirect records of fauna in forest inventories in peruvian rainforest. *Poster*. 51^a Annual Meeting of the Association for Tropical Biology and Conservation, Cairns-Australia.
- Falconi N.**, Vieira E., Baumgarten J., Faria D., Giné G. (2014). Multi-scale habitat selection by the threatened maned three-toed sloth. *Poster*. 51^a Annual Meeting of the Association for Tropical Biology and Conservation, Cairns-Australia.
- Falconi N.**, Oliveira L.S., Henriques A.C.C., Marchena B.R.T., Gudinho F.S., Abrão J.G.O. (2011) Differentiation of Habitats Used by *Cebus xanthosternos*, *Leontopithecus chrysomelas*, *Callicebus melanochir* e *Callithrix Kuhlii* in fragments of Atlantic Forest in southern Bahia. *Poster*. X Brazilian Congress of Ecology, São Lourenço-MG- Brazil.

GUEST LECTURES

Falconi N. (2018) Cámaras trampa y aplicaciones. Undergrad class. 5 September, Lima, Peru.
Universidad Mayor de San Marcos

SERVICE AND INCLUSION

Centre LGBT+

Volunteer (2024-2025), Assistant Volunteer coordinator (2025-present).

Award: Ally of the Year (2025)

Toward a More Inclusive Science-Life Science (TaMIS)

Led discussion “*Colonialism in science*” (2023)

Research Experience for Peruvian Undergraduates (REPU)

REPU Ecology. Admission committee member (2020-2022)

MEMBERSHIP IN PROFESSIONAL SOCIETIES

Association for Tropical Biology and Conservation (ATBC)

Ecological Society of America (ESA)

International Association for Bear Research and Management (IBA)

PEER-REVIEW SERVICE

Biodiversity and Conservation

Discover Conservation

Oikos

PLOS ONE

Annals of Botany

Human Ecology

Journal for Nature Conservation

The Raffles Bulletin of Zoology

Landscape Ecology

Ursus

Northeastern Naturalist

Studies on Neotropical Fauna and Environ.

Revista Peruana de Biología