

Fernando Machado-Stredel, Ph.D.

University of New Mexico (UNM) • Albuquerque, NM
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EDUCATION

- June 2023 **University of Kansas, Ph.D.**
Ecology and Evolutionary Biology Department
Dissertation: Evolutionary and Ecological Factors of Mating Systems in Caciques and Oropendolas (Aves, Cacicinae).
Advisor: A. Townsend Peterson
- July 2015 **Universidad Central de Venezuela, Licentiate in Biology (cum laude)**
Escuela de Biología, Facultad de Ciencias
Major: Ecology
Undergraduate Thesis: Geographic Variation in Mitochondrial and Phenotypical Characters of the Gray-breasted Wood-Wren *Henicorhina leucophrys* (Aves: Troglodytidae) from Venezuela.
Advisor: Jorge L. Pérez-Emán

PROFESSIONAL EXPERIENCE

- 2025 – **Faculty Forward Post Doctoral Scholar**
Department of Biology and Division for Change and Empowerment,
University of New Mexico.
Supervisor: Michael J. Andersen
- 2023 – 2025 **Postdoctoral Researcher**
Department of Biology and Department of Earth & Planetary Sciences,
University of New Mexico.
Supervisors: Michael J. Andersen and Corinne E. Myers
- 2020 – 2023 **Graduate Research Assistant**
Biodiversity Institute, University of Kansas.
Supervisor: A. Townsend Peterson
- 2018 – 2022 **Graduate Teaching Assistant**
Department of Ecology and Evolutionary Biology, University of Kansas.
Supervisors: John K. Kelly, Mark T. Holder, and Maria Orive
- 2017 – 2019 **Curatorial Assistant**
Division of Ornithology, KU Natural History Museum, Biodiversity Institute,
University of Kansas.
Supervisor: Mark Robbins
- 2015 – 2017 **Research Associate**
Laboratorio de Biología y Conservación de Aves,
Instituto de Zoología y Ecología Tropical, Universidad Central de Venezuela.
Supervisor: Jorge L. Pérez-Emán
- 2015 **GIS Analyst**
Provita, Venezuela.
Supervisor: Irene Zager

2011 – 2015	Undergraduate Teaching Assistant Escuela de Biología, Universidad Central de Venezuela. Supervisors: María Eugenia Grillet and Renato De Nóbrega
2013	Curatorial Assistant Ornithology Collection, Museo de Historia Natural La Salle, Venezuela. Supervisor: Vicky Malavé
2012	Undergraduate Research Assistant Laboratorio de Biología de Vectores, Universidad Central de Venezuela. Supervisor: María Eugenia Grillet

PUBLICATIONS

Google Scholar: <https://scholar.google.com/citations?user=HC41q2EAAAAJ&hl=en>

* denotes student mentee

13. Fernandes A.M.*, J.L. Pérez-Emán, **F. Machado-Stredel** (2025) [Description of a Crested Oropendola \(*Psarocolius decumanus*\) communal roost in Venezuela](#). *Ecotrópicos* 36, e0023.
12. **Machado-Stredel F.**, P.J. Atauchí, C. Nuñez-Penichet, M.E. Cobos, L. Osorio-Olvera, A. Khalighifar, A.T. Peterson, R.J. Fletcher Jr. (2024) [The roles of abiotic and biotic factors in driving range shifts: An invasive *Pomacea* snail facilitates *Rostrhamus sociabilis* \(Snail Kite\) northward range expansion](#). *Ornithology* 141 (3), ukae022.
11. Cobos M.E., C. Nuñez-Penichet, P.D. Campbell, J.C. Cooper, **F. Machado-Stredel**, N. Barve, U. Ashraf, A.A. Alkishe, E. Ng'eno, R.R. Nair, P.J. Atauchí, A. Adeboje, A.T. Peterson (2023) [Effects of occurrence data density on conservation prioritization strategies](#). *Biological Conservation* 284, 110207.
10. **Machado-Stredel F.**, B. Freeman, D. Jiménez-García, M.E. Cobos, C. Nuñez-Penichet, L. Jiménez, E. Komp, U. Perktas, A. Khalighifar, K. Ingenloff, W. Tapondjou, T. de Silva, S. Fernando, L. Osorio-Olvera, A.T. Peterson (2022) [On the potential of documenting decadal-scale avifaunal change from before-and-after comparisons of museum and observational data across North America](#). *Avian Research* 13, 100005.
9. Peterson A.T., M. Aiello-Lammens, G. Amatulli, R.P. Anderson, M.E. Cobos, J.A. Diniz-Filho, L.E. Escobar, X. Feng, J. Franklin, L. Gadelha, D. Georges, M. Guéguen, T. Gueta, K. Ingenloff, S. Jarvie, L. Jiménez, D. Karger, J. Kass, M. Kearney, R. Loyola, **F. Machado-Stredel**, E. Martínez-Meyer, C. Merow, M.L. Mondelli, S. Mortara, R. Muscarella, C.E. Myers, B. Naimi, D. Noesgaard, I. Ondo, L. Osorio-Olvera, H. Owens, R. Pearson, G. Pinilla-Buitrago, A. Sánchez-Tapia, E. Saupe, W. Thuiller, S. Varela, D. Warren, J. Wieczorek, K. Yates, G. Zhu, G. Zuquim, D. Zurell (2022) [ENM2020: a free online course and set of resources on modeling species' niches and distributions](#). *Biodiversity Informatics* 17, 1–9.

8. **Machado-Stredel F.**, M.E. Cobos, A.T. Peterson (2021) [A simulation-based method for selecting calibration areas for ecological niche models and species distribution models](#). *Frontiers of Biogeography* 13 (4), e48814. [Github].
7. **Machado-Stredel F.**, A.M. Fernandes, F. Riera, J.L. Pérez-Emán (2021) [A city of oropendolas: nesting colonies of Crested Oropendola \(*Psarocolius decumanus*\) in Caracas, Venezuela](#). *Wilson Journal of Ornithology* 132 (2), 259–270.
6. Gang S., R. Zhang, **F. Machado-Stredel**, P. Alström, U. Johansson, M. Irestedt, H.L. Mays, B.D. McKay, I. Nishiumi, Y. Cheng, Y. Qu, P.G.P. Ericson, J. Fjeldså, A.T. Peterson, F. Lei (2020) [Great journey of Great Tits \(*Parus major* group\): Origin, diversification, and historical demographics of a broadly- distributed bird lineage](#). *Journal of Biogeography* 47 (7), 1585–1598.
5. **Machado-Stredel F.**, A.M. Fernandes, F. Riera, R. Gianni, A. Rodríguez-Ferraro, J.L. Pérez- Emán (2019) [Monitoreo del Conoto Negro *Psarocolius decumanus* en un ecosistema urbano: una iniciativa de ciencia ciudadana en Caracas, Venezuela](#). *Revista Venezolana de Ornitología* 9, 4–14.
4. Peterson A.T., R.P. Anderson, M.E. Cobos, M. Cuahutle, A.P. Cuervo-Robayo, L.E. Escobar, M. Fernández, D. Jiménez-García, A. Lira-Noriega, J.M. Lobo, **F. Machado-Stredel**, E. Martínez-Meyer, C. Nuñez-Penichet, J. Nori, L. Osorio-Olvera, M.T. Rodríguez, O. Rojas-Soto, D. Romero-Álvarez, J. Soberón, S. Varela, C. Yañez-Arenas (2019) [Curso modelado de nicho ecológico, version 1.0](#). *Biodiversity Informatics* 14, 1–7.
3. Peterson A.T., R.P. Anderson, M. Beger, J. Bolliger, L. Brotons, C.P. Burridge, M.E. Cobos, A.P. Cuervo-Robayo, E. Di Minin, J. Diez, J. Elith, C.B. Embling, L.E. Escobar, F. Essl, K.J. Feeley, L. Hawkes, D. Jiménez-García, L. Jimenez, D.M. Green, E. Knop, I. Kühn, J.J. Lahoz-Monfort, A. Lira-Noriega, J.M. Lobo, R. Loyola, R.M. Nally, **F. Machado-Stredel**, E. Martínez-Meyer, M. McCarthy, C. Merow, J. Nori, C. Nuñez-Penichet, L. Osorio-Olvera, P. Pyšek, M. Rejmánek, A. Ricciardi, M. Robertson, O. Rojas-Soto, D. Romero-Álvarez, N. Roura-Pascual, L. Santini, D.S. Schoeman, B. Schröder, J. Soberón, D. Strubbe, W. Thuiller, A. Traveset, E.A. Tremblay, T. Václavík, S. Varela, J.E.M. Watson, Y. Wiersma, B. Wintle, C. Yañez-Arenas, D. Zurell (2019) [Open access solutions for biodiversity journals: Do not replace one problem with another](#). *Diversity and Distributions* 25, 5–8.
2. **Machado-Stredel F.**, J.L. Pérez-Emán (2017) [Using morphometrics to determine sex in a Neotropical passerine: the Gray-breasted Wood-Wren \(*Henicorhina leucophrys*\)](#). *Ornitología Neotropical* 28, 147–153.
1. Fernandes A.M.*, **F. Machado-Stredel**, M. Castro, J.L. Pérez-Emán (2016) [Identificación molecular del sexo de individuos del género *Henicorhina* en Venezuela](#). *Revista Venezolana de Ornitología* 6, 81–83.

In review

- Nuñez-Penichet C., J. Soberón, M.E. Cobos, **F. Machado-Stredel**, A.T. Peterson (2024) Enhancing island biogeography: Improving identification of potential species pools via environmental filtering. *Scientific Reports*.
- Williams C.*, **F. Machado-Stredel**, R. Martindale, C.E. Myers. Integrating fossil data in paleoecological niche models improves predictions of future habitat for key Caribbean reef corals. *Conservation Biology*.
- Ruiz-Utrilla Z., D. Rojas-Ariza, **F. Machado-Stredel**, J.C. Cooper, A.T. Peterson. Revisiting measuring the evolution of n-dimensional environmental niches: the need for a solid conceptual basis for new methodologies. *Ecography*.

In prep.

- **Machado-Stredel F.**, J.M. Mccullough, C. Eliason, S. Hackett, M.J. Andersen, C.E. Myers. Phylogenetic niche conservatism in rapid radiations: time and space as factors of conservatism in a great speciator (*Todiramphus*, Alcedinidae).
- Myers C.E., D. Perriguet, **F. Machado-Stredel**, J.R. Moore, L. Scuderi. “Pre-existing conditions” influence Phanerozoic extinction magnitude.
- Gamero García E.E.*, **F. Machado-Stredel**, K.M. Rodríguez-Clark, N. Ceballos-Mago, J.W. Lynch Alfaro, N.R. McInerney, J.E. Maldonado. Molecular phylogeography of the endangered Margarita capuchin monkey (*Sapajus apella margaritae*) and implications for its conservation.

PRESENTATIONS

* denotes graduate student mentee

Oral talks

- 2024 **Machado-Stredel F.**, J.M. Mccullough, C. Eliason, S. Hackett, M.J. Andersen, C.E. Myers. Ecological niche conservatism in a widespread geographic radiation: The *Todiramphus* kingfishers. American Ornithological Society Meeting, Estes Park, CO.
- 2024 **Machado-Stredel F.**, J. Naujokaityte, J.M. McCullough, K. Crowley, W.D. Allmon, R. Guardado, R. Lockwood, M.J. Andersen, C.E. Myers. An approach to quantify phylogenetic niche conservatism in radiations of extinct and extant taxa. Geological Society of America Meeting, Anaheim, CA.
- 2024 Nolan R.*, C.E. Myers, **F. Machado-Stredel**. Environmental thresholds in the paleoecological niches of Atlantic bivalve species. Geological Society of America Meeting, Anaheim, CA.

- 2024 **Machado-Stredel F.**, J.M. Mccullough, C. Eliason, S. Hackett, M.J. Andersen, C.E. Myers. Climatic tolerances of kingfishers from the Indo-Pacific: The *Todiramphus* radiation as a case of niche conservatism in insular systems. Evolution Meeting, Montreal, QC, Canada.
- 2023 **Machado-Stredel F.**, A.T. Peterson. Nesting patterns, elevational shifts and thermal niche evolution in a Neotropical radiation. American Ornithological Society Meeting, London, ON, Canada.
- 2023 **Machado-Stredel F.**, J.K. Kelly, A.T. Peterson. Population genetic diversity and heterozygosity of two blackbird species with distinct mating systems. Evolution Meeting, Albuquerque, NM.
- 2022 **Machado-Stredel F.**, A.T. Peterson. Phylogenetic relationships and niche conservatism of caciques and oropendolas. American Ornithological Society Meeting, San Juan, PR.
- 2022 **Machado-Stredel F.** Geographic patterns of vegetation structure in nesting sites of polygynous blackbirds. Annual Meeting for The Society for Integrative & Comparative Biology, Phoenix, AZ.
- 2021 **Machado-Stredel F.**, M.E. Cobos, A.T. Peterson. A package for dispersal simulations across geography and time to estimate calibration areas for niche and distribution models. American Ornithological Society Meeting (Virtual).
- 2020 **Machado-Stredel F.** Distributional patterns of monospecific and mixed colonies of caciques and oropendolas. 8th North American Ornithological Conference (Virtual).
- 2020 Peterson A.T., **F. Machado-Stredel**. [Closing a major biogeographic barrier: The Great Plains of North America](#). 72nd Kansas Ornithological Society Meeting.
- 2019 **Machado-Stredel F.**, S. Gang, R. Zhang, P. Alström, U. Johansson, M. Irestedt, H.L. Mays, B.D. McKay, I. Nishiumi, Y. Cheng, Y. Qu, P.G.P. Ericson, J. Fjeldså, A.T. Peterson, F. Lei. Modeling the niche in present and past climatic scenarios for the Great Tit. American Ornithological Society Meeting, Anchorage, AK.
- 2018 **Machado-Stredel F.**, A.M. Fernandes, F. Riera, J.L. Pérez-Emán. A city of oropendolas: A characterization of *Psarocolius decumanus* nesting colonies in an urban landscape. American Ornithological Society Meeting, Tucson, AZ.
- 2018 **Machado-Stredel F.**, S. Gang, R. Zhang, P. Alström, U. Johansson, M. Irestedt, H.L. Mays, B.D. McKay, I. Nishiumi, Y. Cheng, Y. Qu, P.G.P. Ericson, J. Fjeldså, A.T. Peterson, F. Lei. Modelling the niche of a traveler: Present and past climatic scenarios for the Great Tit. 70th Kansas Ornithological Society Meeting, Lawrence, KS.

2017	Machado-Stredel F. , J.L. Pérez-Emán. Morphological differences between sexes of the Gray-breasted Wood-Wren: A sexually monochromatic passerine from the Neotropics. 69 th Kansas Ornithological Society Meeting, Junction City, KS.
2015	Machado-Stredel F. , J.L. Pérez-Emán. The Mocquers' collections from Venezuela: Bucarito as a case study. 3 rd Venezuelan Ornithological Conference, Guanare, Venezuela.
2015	Machado-Stredel F. , J.L. Pérez-Emán. The use of digital photography to study geographic variation in plumage of a Neotropical montane bird. 11 th Venezuelan Ecological Conference, Margarita, Venezuela.
2015	Machado-Stredel F. , J.L. Pérez-Emán. Geographic variation of <i>Henicorhina leucophrys</i> in Venezuela. 10 th Neotropical Ornithological Conference, Manaus, Brazil.
Invited seminars	
2024	Machado-Stredel F. An approach to quantify phylogenetic niche conservatism in radiations of extinct and extant taxa. Paleontology Seminar Series, Jackson School of Geosciences, University of Texas at Austin, TX (Virtual).
2023	Machado-Stredel F. Studying species geographic distributions through the estimation of ecological niches and dispersal. Department of Earth and Planetary Sciences Colloquium, University of New Mexico, Albuquerque, NM.
2023	Machado-Stredel F. Integrating ecology, evolution, and behavior at multiple scales to study species distributions. Biology Seminar Series, Emporia State University, KS (Virtual).
2023	Machado-Stredel F. The interplay of biogeography and social behavior in shaping blackbird diversity. Ecology and Evolutionary Graduate Recruitment Symposium, University of Kansas, Lawrence, KS.
2021	Machado-Stredel F. Una ciudad de conotos: Estudio de la distribución de colonias de anidación del Conoto Negro en el área metropolitana de Caracas, Venezuela . 5 th Venezuelan Ornithological Conference (Virtual).
2021	Machado-Stredel F. , M.E. Cobos, A.T. Peterson. grinnell: Herramientas para simular dispersión y definir áreas accesibles de especies en MNE . Seminarios de Modelado de Nichos Ecológicos y Distribuciones Geográficas (Virtual).
2021	Machado-Stredel F. Blockchain in Museums. Red Hot Graduate Research, University of Kansas, Lawrence, KS.
2020	Machado-Stredel F. Conotos en Caracas . Charlas virtuales de la Unión Venezolana de Ornitólogos, Caracas, Venezuela (Virtual).

2018	Machado-Stredel F. A city of oropendolas: Exploring factors in colony size at an urban landscape. Ecology and Evolutionary Graduate Recruitment Symposium, University of Kansas, Lawrence, KS.
2017	Machado-Stredel F. Los Conotos de Caracas. Caracas, domicilio físico y espiritual, Museo de Ciencias, Caracas, Venezuela.
Selected posters	
2024	Machado-Stredel F., J.M. Mccullough, C. Eliason, S. Hackett, M.J. Andersen, C.E. Myers. Climatic tolerances of kingfishers from the Indo-Pacific: The <i>Todiramphus</i> radiation as a case of niche conservatism in insular systems. Annual New Mexico Postdoctoral Research Symposium, Albuquerque, NM.
2019	Machado-Stredel F., A.T. Peterson. Distributional patterns of mixed colonies of caciques and oropendolas. Geographic Information Systems Day at KU, Lawrence, KS. 2nd Place Student Poster Award.
2018	Machado-Stredel F., S. Gang, R. Zhang, P. Alström, U. Johansson, M. Irestedt, H.L. Mays, B.D. McKay, I. Nishiumi, Y. Cheng, Y. Qu, P.G.P. Ericson, J. Fjeldså, A.T. Peterson, F. Lei. Present and past ecological niche models for the Great Tit (<i>Parus major</i>). Geographic Information Systems Day at KU, Lawrence, KS. 2nd Place Student Poster Award.
2016	Machado-Stredel F., A.T. Peterson, J.L. Pérez-Emán. Improving our knowledge of species ranges: ecological niche modelling of a South American wren. 6 th North American Ornithological Conference, Washington DC.

GRANTS AND AWARDS

Total: \$15,355

2024	Postdoctoral Travel Award Office of the Vice President for Research, University of New Mexico (\$1,500).
2018 – 2023	Student Travel Support Biodiversity Institute and Ecology and Evolutionary Biology Department, University of Kansas (\$2,250).
2022	Travel & Research Award Graduate Student Organization, Ecology and Evolutionary Biology Department, University of Kansas (\$375).
2019, 2022	Panorama Grants Biodiversity Institute, University of Kansas: “Evolutionary Genomics of Blackbird Mating Systems” (\$2,000).
2022	Student Travel Award American Ornithological Society (\$580).

2021	Student Research Award American Ornithological Society: "The Genomic Footprint of Mating Systems in Neotropical Blackbirds" (\$2,000).
2021	CLAS Graduate Scholarly Development Fund University of Kansas: "Geographic patterns of vegetation structure in nesting sites of polygynous blackbirds" (\$500).
2020	Doctoral Student Research Fund Graduate Studies Office, University of Kansas: "Phylogenetic Relationships and Mating Systems of Blackbirds" (\$1,400).
2020	Vice Provost's Graduate Retention Fund University of Kansas (\$500).
2019	Summer Research Award Ecology and Evolutionary Biology Department, University of Kansas: "Effective Population Size in Avian Mating Systems" (\$2,000).
2019	Student Travel Award in Support of Diversity & Inclusion American Ornithological Society (\$750).
2018	Felipe A. Gomez Opportunity Fund Ecology and Evolutionary Biology Department, University of Kansas (\$1,500).
2016	Student Membership Award American Ornithologists' Union.

TEACHING

Teaching Assistant	
2021 – 2022	Graduate Teaching Assistant Biometry (BIOL 841), 20 graduate students per semester (Fall 2021, Fall 2022). Department of Ecology and Evolutionary Biology, University of Kansas. Supervisor: John K. Kelly
2018 – 2019	Graduate Teaching Assistant Biostatistics (BIOL 570), 60 undergraduate students per semester (Fall 2018, Fall 2019). Department of Ecology and Evolutionary Biology, University of Kansas. Supervisors: Mark T. Holder and Maria Orive
2014 – 2015	Undergraduate Teaching Assistant Quantitative Ecology, 15 undergraduate students per semester (Fall 2014, Spring 2015). Escuela de Biología, Universidad Central de Venezuela. Supervisor: María Eugenia Grillet

2011 – 2012	Undergraduate Teaching Assistant Biostatistics, 20 undergraduate students per semester (Spring 2011, Spring 2012). Escuela de Biología, Universidad Central de Venezuela. Supervisor: Renato De Nóbrega
Guest lectures	
2025	BIOL 442/542: Biodiversity Informatics. “Species Distribution Modeling I & II”. Department of Biology, University of New Mexico.
2022	BIOL 841: Biometry. “Analysis of covariance”. Department of Ecology and Evolutionary Biology, University of Kansas.
2021	BIOL 841: Biometry. “Normal distribution and other assumptions”. Department of Ecology and Evolutionary Biology, University of Kansas.
Mentorship	
2025 –	Chris Walker (MS student) Colorimetric techniques and programming (R, MATLAB) for plumage analyses in Red-winged Blackbirds (University of New Mexico).
2025 –	Alexandra Apgar (PhD student) Virtual world simulations and R programming to study fossil preservational bias in sedimentary basin (University of New Mexico).
2024 –	Claire Williams (PhD student) Niche overlap analyses and species distribution modeling for past, present, and future scenarios in Caribbean corals (remotely, University of Texas at Austin).
2024 – 2025	Crissie Rodriguez Cole (Undergrad) Ecological niche modeling and species distribution modeling of the <i>Nautilus</i> genus (University of New Mexico).
2023 – 2024	Rhiannon Nolan (MS student) Ecological niche modeling in Pleistocene mollusks (University of New Mexico).
2022 – 2023	Rahul Raveendran Nair (Postdoc) Accessing and cleaning biodiversity data, R programming, ecological niche modeling, and phylogenetic niche conservatism analyses of <i>Rhysida</i> centipedes (University of Kansas).
2021 – 2022	Emperatriz Gamero García (MS student) Bioinformatics pipelines and phylogenetic methods using ultraconserved elements and mitogenomic data of <i>Sapajus</i> monkeys (remotely, Instituto Venezolano de Investigaciones Científicas, Venezuela).
2015 – 2018	Ana Melisa Fernandes (Undergrad) Fieldwork, bird data collection, statistical analyses, and R programming within the context of a monitoring project of Crested Oropendola colonies (Universidad Central de Venezuela).

2015 – 2017	Fernando Riera (Undergrad) Sampling techniques and experimental design for a study on <i>Zonotrichia capensis</i> sparrows, and data collection of Crested Oropendola colonies (Universidad Central de Venezuela).
Workshops	
2020, 2022	Invited instructor “Modelado de Nicho Ecológico BUAP” (Spanish): Virtual workshops on ecological niche modeling best practices (1 week, 20 participants per year) organized by La Benemérita Universidad Autónoma de Puebla, Mexico.
2021	Workshop organizer Species Tree Estimation with PAUP* and SVDQ: Workshop directed to KU graduate students, hosted by the KU Ecology and Evolutionary Biology Graduate Student Organization in Lawrence, KS. Instructor: Laura Kubatko (The Ohio State University).
2020 – 2021	Instructor & organizer Ecological Niche Modeling 2020: Free online course (43 weeks) for 2,541 participants (72 countries) organized by the Peterson Lab, Biodiversity Institute, University of Kansas.
2020	Workshop organizer Introduction to Python: Workshop directed to KU undergraduate and graduate students, hosted by the KU Ecology and Evolutionary Biology Graduate Student Organization and the SACNAS KU Chapter in Lawrence, KS. Instructor: John K Kelly (KU).
2019	Workshop organizer Grant Writing: Workshop directed to KU and Iowa State University (ISU) students, organized by the SACNAS KU and ISU Chapters in Lawrence, KS. Instructor: Corey Welch (ISU).
2018	Instructor & organizer “Curso Modelado de Nicho Ecológico, Versión 1.0” (Spanish): Free online course (23 weeks) for 675 participants (29 countries), organized by the Peterson Lab, Biodiversity Institute, University of Kansas.
2018	Workshop organizer Web Scraping: Workshop directed to KU undergraduate and graduate students, hosted by the SACNAS KU Chapter in Lawrence, KS. Instructor: Mark T Holder (KU).
2017	Invited Instructor “Modelos de nicho y distribución de especies (ECO-289)” (Spanish): Virtual course on species distribution modeling organized by Unidad de Diversidad Biológica and Centro de Ecología (IVIC), Venezuela.

FIELDWORK

>550 specimens deposited in UNM Paleontology (UNMP), University of Kansas Natural History Museum (KUNHM), Colección Ornitológica Phelps (COP), Museo de Historia Natural La Salle (MHNLS).

2024 UNMP	Mississippi fossils Collecting Maastrichtian and Danian invertebrate fossils and setting stratigraphic columns around the Cretaceous–Paleogene boundary for the UNM Paleontology Collections.
2022 – KUNHM	Kansas resurvey Collecting bird specimens and recording occurrences to resurvey sites visited by KU curator C. D. Bunker in the 1910s (Douglas, Greenwood, Comanche, and Barber counties).
2020 – 2021 KUNHM	House Sparrows resurvey Collecting invasive House Sparrows in 11 historical localities studied by R. F. Johnston and R. K. Selander in the 1960s (ND, SD, MN, KS, CO, TX, LA, and FL).
2018 – 2021 KUNHM	Kansas local collections Collecting bird specimens in Douglas and Shawnee counties for the Biodiversity Institute, University of Kansas.
2015 COP	Eastern Coastal Cordillera (Venezuela) Collecting bird specimens and recording occurrences in Paria National Park and Mount Turimiquire (Sucre and Monagas states).
2015 COP	Portachuelo banding station (Venezuela) Mist netting and handling migratory and cloud forest bird species as a volunteer at Paso Portachuelo banding station, Henri Pittier NP, Aragua, Venezuela.
2014	Nest Box Monitoring in the Llanos (Venezuela) Handling and marking <i>Forpus passerinus</i> parrotlet fledglings in nest boxes as a volunteer at Hato Masaguaral, Guárico, Venezuela.
2013 MHNLS	Amazon Expedition (Venezuela) Censusing <i>Inia geoffrensis</i> dolphins and other aquatic mammals along the Orinoco River and Casiquiare Canal. Mist netting and collecting bird specimens at stopovers from Puerto Ayacucho to San Carlos de Río Negro, Amazonas, Venezuela.
2012 – 2014 COP	Regional expeditions in Venezuela Collecting bird specimens across north-central Venezuela (Yaracuy, Aragua, Miranda, Distrito Capital).

OUTREACH

2023	Research & Discovery Week Specimen exhibit at UNM Student Union, University of New Mexico, Albuquerque, New Mexico.
2023	Sexual Selection in Blackbirds Booth Hosting a collection tour for the New Mexico Association of Museums at the Museum of Southwestern Biology, Albuquerque, New Mexico.

2018, 2019, 2021	Avian Mating Systems Booth "Sexy Science" specimen exhibits at the University of Kansas Natural History Museum, Lawrence, KS.
2018, 2021	Spooky Birds "Science of the Macabre" specimen exhibits at the University of Kansas Natural History Museum, Lawrence, KS.
2019	Science Night Bird specimen exhibit for the public at Lawrence Beer Company, Lawrence, KS.
2019	Marine Birds "Discovery Day Marine Science" specimen exhibit at the University of Kansas Natural History Museum, Lawrence, KS.
2018 – 2019	Spanish Outreach Assistant Developing and guiding practical sessions in English and Spanish for third graders in Kansas within the Microbiomes of Aquatic, Plant, and Soil Systems (MAPS) project (NSF EPSCoR). Avian diversity in Kansas lessons, showcasing bird specimens. Supervisor: Peggy Schultz.
2018	Collections up Close (Ornithology) Specimen exhibit at University of Kansas Student Union, Lawrence, KS. Covered by Lawrence Journal-World (11/13/2018).
2018 – 2023	Collection Tours & Exhibits Support Providing tours in the KU Ornithology Collection to visiting students and researchers, potential donors, and the public, as well as collaborating in the installment of museum exhibits (e.g., "Common Work of Nature", "Collections Case Study: The House Sparrow").
2014 – 2015	Arboretum Guide Leading recreation activities, mainly directed at kids, about spatial learning in squirrels and avian diversity in an urban forest (Jardín Ecológico de la Concha Acústica). Supervisor: Luis Levin.

SERVICE

Officer	
2020 – 2021	Co-president University of Kansas Ecology and Evolutionary Biology Graduate Student Organization.
2020 – 2021	Vice President Society for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS), University of Kansas Chapter.
2019 – 2020	Vice President University of Kansas Ecology and Evolutionary Biology Graduate Student Organization.

2012 – 2015	President Biology Student Government, Universidad ty Central de Venezuela.
Committees	
2018 – 2021	Social Committee University of Kansas Ecology and Evolutionary Biology Graduate Student Organization.
2019 – 2020	Social Media Committee University of Kansas Ecology and Evolutionary Biology Graduate Student Organization.
2018 – 2019	Social Media Committee Society for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS), University of Kansas Chapter.
Peer Review	
2024	<i>Perspectives in Ecology and Conservation</i>
2019, 2023	<i>Journal of Biogeography</i>
2022	<i>Frontiers in Zoology</i> , German Society of Zoology
2019	<i>Ecología en Bolivia</i>
2018	<i>Wilson Journal of Ornithology</i>

PROFESSIONAL AFFILIATIONS

2016 –	American Ornithological Society
2024	Geological Society of America
2023 – 2024	Society for the Study of Evolution
2022 – 2023	Society for Integrative and Comparative Biology
2015 –	Venezuelan Ornithological Union
2015 – 2017	Neotropical Ornithological Society
2011 – 2017	Venezuelan Ecological Society

OTHER SKILLS

Languages	Spanish (Native), English (Proficient), Portuguese (Basic).
Coding	R, Python, bash, awk.
GIS	ArcGIS, QGIS, Google Earth Engine.