

Claudia Nuñez-Penichet

Postdoctoral Research Associate

Ecology and Evolutionary Biology Department and Biodiversity Institute, University of Kansas

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Research Interests

My research interests include diverse questions in invasive species, distributional ecology, insect-host plant interaction, dispersal ecology, and biodiversity patterns. My work focuses on understanding species invasions, their potential distributions, and invasion pathways, as well as the potential effects of invaders on native and cultivated species. I am also using simulations, ecological modeling, and population genetic approaches to understand migratory patterns of *Urania* moths.

Education

Ph.D. Ecology and Evolutionary Biology with Honors, University of Kansas, USA	2023
M.Sc. Zoology and Animal Ecology, Universidad de La Habana, Cuba	2017
B.Sc. Biology with Honors, Universidad de La Habana, Cuba	2013

Appointments and Professional Experience

Postdoctoral Fellow. <i>Department of Ecology and Evolutionary Biology & Biodiversity Institute. University of Kansas, Lawrence, KS, USA.</i>	2024–present
Lecturer. <i>Facultad de Biología, Universidad de La Habana, La Habana, Cuba.</i>	2014-2017
Instructor. <i>Facultad de Biología, Universidad de La Habana, La Habana, Cuba.</i>	2013-2014

Research Experience

POSTDOCTORAL RESEARCHER

Project: NSF DEB-BOCP-Biodiv on Changing Planet (2225013). Using the Past to Predict the Future: How Physiology and other Functional Traits Determine Survival/Extinction in W. Atlantic Mollusks. *Advisor:* Bruce S. Lieberman, PhD. Department of Ecology and Evolutionary Biology & Biodiversity Institute, *University of Kansas*. 2024–present. *Main Activities:* data analysis, ecological modeling, grant-proposal development, student mentoring.

GRADUATE RESEARCH ASSISTANT

Project: United States Department of Agriculture Animal and Plant Health Inspection Service. Modeling Projects to Support and Advance Aquaculture Surveillance and Risk Assessments. *Advisor:* A. Townsend Peterson, PhD. Biodiversity Institute, *University of Kansas*. Spring 2022-Fall 2023. *Main Activities:* data collection of oysters and the invasive pathogens that affect them, data analysis, and ecological modeling.

Project: NSF EPSCOR (OIA-1920946). Marshaling Diverse Big Data Streams to Understand Risk

of Tick-Borne Diseases in the Great Plains. *Advisor:* A. Townsend Peterson, PhD. Biodiversity Institute, *University of Kansas*. Spring 2022-Summer 2022 and Summer 2023-Fall 2023. *Main Activities:* field work for tick collections, data collection, and data analysis.

ASSOCIATED RESEARCHER

Project: **Ecological bases for restoration of degraded ecosystem biodiversity and functionality in southern Ecuador, in the face of potential global environmental changes.** *Advisor:* Nikolay Aguirre, PhD. Programa de Investigación de la Biodiversidad y Servicios Ecosistémicos, *Universidad Nacional de Loja*. 2016–2017. *Main Activities:* project design, data collection, data analysis, ecological modeling.

Publications

(24 total published - Google Scholar citations: 323; h-index: 9; i10-index: 8)

JOURNAL ARTICLES

- 24 **Nuñez-Penichet C.**, Maita J., Soberón J. (2024). Land-cover change in Cuba and implications for the area of distribution of a specialist's host-plant. *PeerJ*. e17563. <https://peerj.com/articles/17563>
- 23 Machado-Stredel F., Atauchi PJ., **Nuñez-Penichet C.**, Cobos ME., Osorio-Olvera L., Khalighifar A., Peterson AT., Fletcher RJ. (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*, ukae022. <https://doi.org/10.1093/ornithology/ukae022>
- 22 **Nuñez-Penichet C.**, Soberón J., Osorio-Olvera L. (2023). The dispersal patterns of a migratory insect are driven by biotic interactions. *Journal of Biogeography*, 50(8), 1464-1472. <https://onlinelibrary.wiley.com/doi/abs/10.1111/jbi.14669>
- 21 Simões M., **Nuñez-Penichet C.**, Warren D., Schmitt T., Krull M. (2023). Regional anthropogenic disturbance and species-specific niche traits influence the invasiveness of European beetle species. *Frontiers in Ecology and Evolution*, 11, 450–462. <https://www.frontiersin.org/articles/10.3389/fevo.2023.1160598/full>
- 20 Paulo P., Teófilo FH., Bertuol C., Polo E., Moncrieff AE., Bandeira LN., **Nuñez-Penichet C.**, Fernandes IY., Bosholn M., Machado AF., Luna LW., Peçanha WT., Rampini AP., Hashimoto S., Dias C., Araripe J., Aleixo A., do Rêgo PS., Hrbek T., Farias IP., Peterson AT., Kaefer IL., Anciães M. (2023). Geographic drivers of genetic and plumage color diversity in the blue-crowned manakin. *Evolutionary Biology*, 50(4), 413–431. <https://link.springer.com/article/10.1007/s11692-023-09613-4>
- 19 Cobos ME., **Nuñez-Penichet C.**, Campbell PD., Cooper JC., Machado-Stredel F., Barve N., Ashraf U., Alkische AA., Ng'eno E., Raveendran R., Atauchi PJ., Adeboje A., Peterson AT. (2023). Effects of occurrence data density on conservation prioritization strategies. *Biological Conservation*, 284, 110207. <https://www.sciencedirect.com/science/article/pii/S0006320723003087>
- 18 **Nuñez-Penichet C.**, Cobos, ME., Soberón, J., Gueta, T., Barve, N., Barve, V., Navarro-Sigüenza, AG., Peterson, AT. (2022). Selection of sampling sites for biodiversity inventory: Effects of environmental and geographical considerations. *Methods in Ecology and Evolution*, 13(7), 1595–1607. <https://doi.org/10.1111/2041-210X.13869>
- 17 Cobos, ME., Barve, V., Barve, N., Jiménez-Valverde, A., **Nuñez-Penichet, C.** (2022). rangemap: An R package to explore species' geographic ranges. *Biodiversity Informatics*, 17, 59–66. <https://doi.org/10.17161/bi.v17i.16271>
- 16 Machado-Stredel, F., Freeman, B., Jiménez-García, D., Cobos, ME., **Nuñez-Penichet, C.**, Jiménez, L., Komp, E., Perktas, U., Khalighifar, A., Ingenloff, K., Tapondjou, W., de Silva, T., Fernando, S., Osorio-Olvera, L., Peterson, AT. (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. <https://doi.org/10.1016/j.avrs.2022.100005>
- 15 **Nuñez-Penichet, C.**, Cobos, ME., Soberon, J. (2021). Non-overlapping climatic niches and biogeographic barriers explain disjunct distributions of continental *Urania* moths. *Frontiers of Biogeography*. <https://doi.org/10.21425/F5FBG52142>

- 14 **Nuñez-Penichet, C.**, Cobos, ME., Checa, MF., Quinde, JD., Aguirre, Z., Aguirre, N. (2021). High diversity of diurnal Lepidoptera associated with landscape heterogeneity in semi-urban areas of Loja City, southern Ecuador. *Urban Ecosystems*. <https://doi.org/10.1007/s11252-021-01110-w>
- 13 **Nuñez-Penichet, C.**, Osorio-Olvera, L., Gonzalez, VH., Cobos, ME., Jiménez, L., Deraad, DA., Alkische, A., Contreras-Díaz, RG., Nava-Bolaños, A., Utsumi, K., Ashraf, U., Adeboje, A., Peterson, AT., Soberon, J. (2021). Geographic potential of the world's largest hornet, *Vespa mandarinia* Smith (Hymenoptera: Vespidae), worldwide and particularly in North America. *PeerJ*, 9, e10690. <https://doi.org/10.7717/peerj.10690>
- 12 Deraad D., Cobos ME., Alkische A., Ashraf U., Mensah A., **Nuñez-Penichet C.**, Peterson TA. (2021). Genome-environment associations reveal omnigenic adaptation to ecological niche across the distribution of *Anopheles gambiae*. *Molecular Ecology*. <https://doi.org/10.1111/mec.16094>
- 11 Soberon J., Cobos ME., **Nuñez-Penichet C.** (2021). Visualizing species richness and site similarity from presence-absence matrices. *Biodiversity Informatics*. 16, 20-27. <https://doi.org/10.17161/biv16i1.14782>
- 10 Khalighifar, A., Jiménez, L., **Nuñez-Penichet, C.**, Freeman, B., Ingenloff, K., Jiménez-García, D., Peterson, T. (2020). Inventory statistics meet big data: Complications for estimating numbers of species. *PeerJ* 8:e8872. <https://doi.org/10.7717/peerj.8872>
- 9 Mazón, M., **Nuñez-Penichet, C.**, Cobos, ME. (2020). Relationship between body mass and forewing length in Neotropical Ichneumonidae (Insecta: Hymenoptera). *Neotropical Entomology*. <https://doi.org/10.1007/s13744-020-00784-9>
- 8 **Nuñez-Penichet, C.**, Barro, A. (2020). Caterpillars of *Urania boisduvalii* (Uraniidae) feed on *Omphalea trichotoma* (Euphorbiaceae) fruits in western Cuba. *The Journal of the Lepidopterists' Society*. 74:124–126. <https://doi.org/10.18473/lepi.74i2.a7>
- 7 Simões, M., Romero-Alvarez, D., **Nuñez-Penichet, C.**, Jiménez, L., Cobos, ME. (2020). General theory and good practices in ecological niche modeling: A basic guide. *Biodiversity Informatics*, 15(2), 67–68. <https://doi.org/10.17161/bi.v15i2.13376>
- 6 **Nuñez-Penichet, C.**, Cobos, ME., Barro, A., Soberón, J. (2019). Potential migratory routes of *Urania boisduvalii* (Lepidoptera: Uraniidae) among host plant populations. *Diversity and Distributions*, 25(3), 478–488. <https://doi.org/10.1111/ddi.12881>
- 5 Peterson, AT., Anderson, RP., Beger, M., Bolliger, J., Brotons, L., Burridge, CP., Cobos, ME., Cuervo-Robayo, AC., Minin, ED., Diez, J., Elith, J., Embling, CB., Escobar, LE., Essl, F., Feeley, KJ., Hawkes, L., Jiménez-García, D., Jimenez, L., Green, DM., Knop, E., Kühn, I., Lahoz-Monfort, JJ., Lira-Noriega, A., Lobo, JL., Loyola, R., Nally, RM., Machado-Stredel, F., Martínez-Meyer, E., McCarthy, M., Merow, C., Nori, J., **Nuñez-Penichet, C.**, Osorio-Olvera, L., Pyšek, P., Rejmánek, M., Ricciardi, A., Robertson, M., Rojas Soto, O., Romero-Alvarez D., Roura-Pascua, N., Santin, L., Schoeman, DS., Schröder, B., Soberon, J., Strubbe, D., Thuiller, W., Traveset, A., Treml, EA., Václavík, T., Varela, S., Watson, JEM., Wiersma, Y., Wintle, B., Yanez-Arenas, C., and Zurell, D. (2019). Open access solutions for biodiversity journals: Do not replace one problem with another. *Diversity and Distributions*, 25(1), 5–8. <https://doi.org/10.1111/ddi.12885>
- 4 Peterson, AT., Anderson, Cobos, ME., Cuahutle, M., Cuervo-Robayo, AP., Escobar, LE., Fernández, M., Jiménez-García, D., Lira-Noriega, A., Lobo, JM., Machado-Stredel, F., Martínez-Meyer, E., **Nuñez-Penichet, C.**, Nori, J., Osorio-Olvera, L., Rodríguez, MT., Rojas-Soto, O., Romero-Álvarez, D., Soberón, J., Varela, S., and Yañez-Arenas, C. (2019). Curso modelado de nicho ecológico, version 1.0. *Biodiversity Informatics*, 14, 1–7. <https://doi.org/10.17161/bi.v14i0.8189>
- 3 Cobos, ME., Jiménez, L., **Nuñez-Penichet, C.**, Romero-Alvarez, D., Simoes, M. (2018). Sample data and training modules for cleaning biodiversity information. *Biodiversity Informatics*, 13, 49–50. <https://doi.org/10.17161/bi.v13i0.7600>
- 2 Cobos, ME., **Nuñez-Penichet, C.**, Valarezo-Aguilar, K. (2016). First record of an American Bullfrog (*Lithobates catesbeianus*) population in Loja, Ecuador. *IRCF Reptiles and Amphibians*, 22(1), 46–48.
- 1 **Nuñez-Penichet, C.**, Cobos, ME., Gutiérrez, J. E., Barro, A. (2016). Distribución potencial del género *Omphalea* (Euphorbiaceae) en Cuba: Aproximación a su distribución real. *Revista del Jardín Botánico Nacional*, 37, 165–175. <https://www.jstor.org/stable/44318551>

ARTICLES IN REVIEW

- 2 Barve N., Ashraf U., Barve V., Cobos ME., **Núñez-Penichet C.**, AT. Peterson. Revisiting Plant hardiness zones to include multiple climatic stress dimensions. *iScience*.
- 1 Osorio-Olvera L., **Núñez-Penichet C.**, Jiménez L., Mosley J., Machado-Stredel F., DeCicco LH., Nava-Bolaños A., Atauchi PJ., Contreras-Díaz RG., Adeboje A., Soberón J., AT Peterson. Temporal turnover of climatic conditions as a pervasive filtering mechanism in island biogeography. *Global Ecology and Biogeography*.

PRE-PRINTS AND IN PREPARATION (*POST-BACHELORETTE STUDENT MENTEE, **GRADUATE STUDENT MENTEE)

- 8 **Núñez-Penichet C.**, Maita J., Soberón J. (2023). Land-cover changes in Cuba may favor biodiversity. An example using *Omphalea* plants and *Urania boisduvalii*. <https://www.biorxiv.org/content/10.1101/2023.02.17.529023v3.abstract>
- 7 **Núñez-Penichet C.**, Ruiz-Utrilla Z.**, Rojas-Ariza D.**, Corimanya JL., Trindade WCF., Herrera A.**, Pitogo KME., AT. Peterson. Geographic potential of the Elm Zigzag Sawfly, *Aproceros leucopoda* in North America. In prep.
- 6 **Núñez-Penichet C.**, J. Soberón. Completeness of knowledge of the butterflies of the state of Kansas. In prep.
- 5 **Núñez-Penichet C.**, Soberón J., Cobos ME., Peterson AT., F. Machado-Stredel. Island Biogeography pools: Butterflies of the Caribbean Islands. In prep.
- 4 Herrera A.**, **Núñez-Penichet C.**, González VH., J. Soberón. Diversity patterns of bees in the neotropical seasonally dry forest. In prep.
- 3 Ng'eno E., **Núñez-Penichet C.**, Martins PI., Ruiz-Utrilla Z.**, Alkische A., Argudo V., AT. Peterson. Global geographic potential of the invasive mosquito species, *Aedes vittatus*, with special attention to potential as a North American invader. In prep.
- 2 Haddock, J. B.*, **Núñez-Penichet, C.**, Cobos, ME., Colella, JP. Leveraging historical occurrence data to assess change in mammal diversity across space and time. In prep.
- 1 Torres, **Núñez-Penichet, C.**, RE. Glor. Patterns of climatic niches overlap suggest both ecological competitive exclusion and niche partitioning as factors explaining the distribution of Cuban green anoles (Squamata, Anolidae, *Anolis*). In prep.

OTHER PUBLICATIONS

- 3 **Núñez-Penichet C.** 2023. Distributional and dispersal patterns of *Urania* moths, elements for the conservation of a migratory insect. Doctoral Thesis. University of Kansas.
- 2 **Núñez-Penichet C.** 2017. Posibles rutas migratorias the *Urania boisduvalii* a travez de sus plantas hospederas del género *Omphalea*. Master's Thesis. Universidad de La Habana.
- 1 **Núñez-Penichet C.** 2013. Comparación de los modelos del nicho ecológico de *Grus canadensis nesiototes* (Aves: Gruidae) entre las poblaciones de La Isla de la Juventud y del Gran Humedal del Norte de Ciego de Ávila, Cuba. Bachelor's Thesis. Universidad de La Habana.

Conference Presentations

- 22 Peterson A. T., **Núñez-Penichet C.**, and C. Ellis. Global ecology and distributional potential of two oyster aquaculture pests: OSHV-1 and *Perkinsus marinus*. *Aquaculture America*. San Antonio Texas, USA (2024).
- 21 **Núñez-Penichet C.**, Cobos ME., Soberon J., and V. Barve. Island biogeography from a Grinnelian niche perspective: An example using swallowtail and sulphur butterflies from the Caribbean islands. *2023 Entomological Society of America*. Maryland, USA. (2023).
- 20 **Núñez-Penichet C.** and J. Soberon. Island biogeography and species' pools. *International Biogeography Society - 10th Biennial Conference*. Vancouver, Canada. (2022).
- 19 Cobos M., **Núñez-Penichet C.**, J. Soberón, T. Gueta, N. Barve, V. Barve, A. G. Navarro-Sigüenza, and

- A. T. Peterson. Selection of sampling sites for biodiversity inventory: Effects of environmental and geographical considerations. *International Biogeography Society - 10th Biennial Conference*. Vancouver, Canada (2022).
- 18 **Núñez-Penichet C.**, J. Maita-Chamba, and J. Soberon. Land-cover in Cuba may favor biodiversity. An example using *Urania boisduvalii*. *The Lepidopterists Society 69th Annual Meeting*, USA (2021).
 - 17 **Núñez-Penichet C.** and J. Soberon. Completeness of knowledge of the butterflies of the state of Kansas. *The Lepidopterists Society 69th Annual Meeting*, USA (2021).
 - 16 **Núñez-Penichet, C.**, Soberon, J., and Osorio-Olvera, L. Migration of *Urania boisduvalii* (Lepidoptera: Uraniidae) in Cuba. Host-plant quality, dispersal capacities, and climatic niches. *Ecological Society of America Annual Meeting*, USA (2020).
 - 15 Cobos, M. E., A. T. Peterson, **C. Núñez-Penichet**, J. Soberón, L. Osorio-Olvera, S. Goodman, and A. P. Raselimanana. Models and simulations to understand biological invasions: the case of *Duttaphrynus melanostictus* invasion in Madagascar. *IBS 2019 Humboldt Meeting and 2nd Latin American Biogeography Meeting*. Quito, Ecuador (2019)
 - 14 **Núñez-Penichet, C.**, J. Soberón, and M. E. Cobos. Why continental *Urania*'s species have a disjunct distribution? *IBS 2019 Humboldt Meeting and 2nd Latin American Biogeography Meeting*. Quito, Ecuador (2019)
 - 13 **Núñez-Penichet, C.**, M. E. Cobos, A. Barro, and J. Soberón. Potential migratory routes of *Urania boisduvalii* (Lepidoptera: Uraniidae) among the populations of its host (*Omphalea* spp.). *VI Meeting of Neotropical Lepidoptera*. Concepción, Chile (2018).
 - 12 Cobos, M. E., **C. Núñez-Penichet**, C. Mendoza, and K. Valarezo-Aguilar. Impacto del cambio climático en la distribución potencial del Perico Pechiblanco (*Pyrrhura albigpectus*). *V Encuentro Ornitológico Ecuatoriano*. Zamora. Ecuador (2016).
 - 11 Cobos, M. E. and **C. Núñez-Penichet**. Pérdidas forestales y cambio climático: Búsqueda de posibles sinergias para identificar áreas prioritarias de restauración. *I Congreso Ecuatoriano de Restauración del Paisaje*. Loja, Ecuador (2016).
 - 10 **Núñez Penichet, C.**, M. E. Cobos, and A. Barro. Rutas migratorias potenciales de *Urania boisduvalii* (Lepidoptera: Uranidae) en Cuba: Conectividad y conservación. *Reunión para la Conservación de la Biodiversidad en Cuba-2015*. Havana, Cuba (2015).
 - 9 **Núñez-Penichet, C.**, Barro, A., and Cobos, M. E. Relationship between the probability of the presence of *Urania boisduvalii* (Lepidoptera: Uranidae) and its host plants (genus *Omphalea*). *IV Reunión para la Conservación de la Biodiversidad en Cuba-2014*, Havana, Cuba (2014).
 - 8 **Núñez-Penichet, C.** and A. Barro. Modeling the ecological niche of *Greta cubana* (Lepidoptera: Nymphalidae: Ithomiinae). *III Reunión para la Conservación de la Biodiversidad en Cuba-2013*, Havana, Cuba (2013).
 - 7 **Núñez-Penichet, C.**, Ferrer, Y., and Denis, D. Comparison of the ecological niche models of *Grus canadensis nesiotis* (Aves: Gruidae) between two Cuban populations. *XVII Mesoamerican Congress of Biology and Conservation; VII Symposium of Zoology*. Havana, Cuba (2013).
 - 6 **Núñez-Penichet C.**, Ferrer, Y., and Denis, D. Comparison of the ecological niche of *Grus canadensis nesiotis* (Aves: Gruidae) between the populations of the Isla de la Juventud and the Great Northern Wetland of Ciego de Ávila, Cuba. *II Reunión para la Conservación de la Biodiversidad en Cuba-2012*, Havana, Cuba (2012).
 - 5 **Núñez-Penichet, C.**, Ferrer, y., and Denis, D. Is it possible to predict the presence and abundance of *Grus canadensis nesiotis* in the Fauna refuge El Venero, based on geographic and spectral habitat variables? *II International Symposium on Ecology and Conservation "S.O.S NATURA"*, Santiago de Cuba, Cuba (2012).
 - 4 **Núñez-Penichet, C.**, Ferrer, Y. and Denis, D. Modeling potential distribution of *Grus canadensis nesiotis* (Aves: Gruidae) in Cuba. *III National Workshop on Ornithology*. Ciénaga de Zapata, Matanzas, Cuba (2012).
 - 3 **Núñez-Penichet, C.**, Ferrer, Y., and Denis, D. Potential value of habitat spectral indices in the study of nesting site selection of *Grus canadensis nesiotis* (Aves: Gruidae) in marsh grasslands. *III Symposium on Ecology, Society, and Environment*, Pinar del Río, Cuba (2011).

- 2 **Núñez-Penichet, C.**, Rodríguez, A., Navarro, Z., Valentín, N., Márquez, A., and La rosa, Y. Relationship between habitat characteristics and bird communities of the Great Northern Wetland of Ciego de Ávila. *II National Workshop on Ornithology*. Pinares de Mayarí, Holguín, Cuba (2010).
- 1 Rodríguez, A., Navarro, Z., Valentín, N., **Núñez-Penichet, C.**, Márquez, A., and La rosa, Y. Composition and structure of the bird communities of the Great Northern Wetland of Ciego de Ávila, Cuba. *II National Symposium on the Administration, Management and Sustainable Use of Natural Resources*. Ciego de Ávila, Cuba (2010).

INTERNSHIPS

Insect anatomy and histology: Anatomy and histology of Holometabola insects. Instituto Nacional de Ecología. Jalapa, Veracruz, Mexico. January 2016.

Teaching Experience

GRADUATE TEACHING ASSISTANT

Course: **Molecular Biology (BIOL 150)**. Department of Ecology and Evolutionary Biology, *University of Kansas*. Lawrence, Kansas, USA. Fall 2018-Spring 2021.

LECTURER

Course: **Zoology of Invertebrates II** for Biology Students, Biology Faculty, *Universidad de La Habana*, Cuba. (2014-2016).

Course: **Zoology of Invertebrates I** for Biology Students, Biology Faculty, *Universidad de La Habana*, Cuba. (2013-2016).

Course: **Biological fieldwork I** for Biology Students, Biology Faculty, *Universidad de La Habana*, Cuba. (2014-2016).

Guest Lecturer

4 **Núñez-Penichet C.** An integrative approach to understanding insect migration dynamics. *Department of Natural History, University of Florida*, USA. April 2024.

3 **Núñez-Penichet C.** Distributional and dispersal patterns of *Urania* moths, elements for the conservation of a migratory insect. *Department of Biology, Pittsburg State University*, USA. March 2024.

2 **Núñez-Penichet C.** Species distributions and how they change. *Fish and Wildlife department. Virginia Tech*, USA. October 2023.

1 **Núñez-Penichet C.** Insects, biodiversity, and conservation in Latin America. *Center for Latin American and Caribbean Studies. University of Kansas*, USA. April 2023.

INSTRUCTOR

Course: **Modelado de Nichos Ecológicos**. Fundação Oswaldo Cruz (Fiocruz). Manguinhos, Rio de Janeiro, Brazil. March 2024.

Course: **Modelado de Nichos Ecológicos Avanzado**. Instituto Nacional de Ecología. Jalapa, Veracruz, Mexico. December 2023.

Course: **Modelos de Nicho y de Distribución de Especies**. Instituto Nacional de Ecología. Jalapa, Veracruz, Mexico. June 2019.

Course: **Curso Avanzado de Modelado de Nichos Ecológicos**. Instituto Nacional de Ecología. Jalapa, Veracruz, Mexico. June 2019.

Course: **Modelado de Nicho Ecológico**. Biodiversity Institute, University of Kansas. Online course. 2018.

Course: **Effective Scientific Communication for Undergraduate Students**. Universidad Nacional de Loja, Loja, Ecuador. 2017.

Course: **El Hombre y el Medio Ambiente**. Universidad Nacional de Loja, Loja, Ecuador. 2016.

Course: **Biodiversidad y el Agua**. Universidad Nacional de Loja, Loja, Ecuador. 2016.

Course: **Lab Practicum II for Biology Students**, Biology Faculty, *Universidad de La Habana*, Cuba. 2015.

Course: **Ecology for Biology Students**, Biology Faculty, Universidad de La Habana, Cuba. 2014.

Mentorship

^{URM}under-represented minority, ^{INT}international, *co-authored manuscript(s)

Wyatt Zabinski	PhD student at University of Kansas. (2024-present) Distributional patterns of <i>Andrena</i> bees in North America.
Jennifer Ramos ^{INT}	PhD student at University of Kansas. (2024-present) <i>Areas of importance for conservation of bat biodiversity.</i>
Andres F. Herrera-Motta* ^{INT}	PhD student at University of Kansas. (2023-present) <i>Diversity of bees in the Neotropical dry forest.</i>
Daniel Rojas ^{INT}	Master student at University of Kansas. (2023-present) <i>Functional traits and ecological niche models of mollusks.</i>
Anahi Quezada ^{INT}	Master student at University of Kansas. (2023-present) <i>Habitat characteristics in areas of distribution of butterflies in Kansas</i>
Janey Bryce* ^{URM}	University of Kansas Post-bachelor. (2022-present) <i>Assessment of mammal community change in Kansas.</i>
Isaily Cuellar ^{INT, URM}	College student at Universidad de La Habana, Cuba. (2016) <i>Reproductive biology of <i>Empyreuma pugione</i>.</i>

Fellowships, Grants, and Awards

- 20 Presidential Postdoctoral Fellowship, Virginia Tech, USA. 2024. **\$186,176.**
- 19 Entomology Finishing Fellowship, University of Kansas, USA. 2023. **\$13,500.**
- 18 Entomology Travel Award (H.D. Hungerford Fund), University of Kansas, USA. 2023. **\$1,500.**
- 17 Graduate Student Travel Fund, Academic Affairs and Graduate Studies, University of Kansas, USA. 2023. **\$750.**
- 16 Felipe A. Gomez Award, Department of Ecology & Evolutionary Biology, University of Kansas Endowment, University of Kansas, USA. 2022. **\$3,000.**
- 15 Entomology Travel Award (R. H. Beamer Scholarship Fund), University of Kansas, USA. 2022. **\$2,000.**
- 14 Biodiversity Institute Panorama Grant. University of Kansas, USA. Summer 2022. **\$1,000.**
- 13 Doctoral Student Research Fund. University of Kansas, USA. 2022. **\$1,500.**
- 12 CLAS Graduate Scholarly Development Fund. University of Kansas, USA. 2022. **\$500.**
- 11 Deal Scholarship Fund from the Entomology Division, Department of Ecology & Evolutionary Biology, University of Kansas, USA. 2021. **\$7,000.**
- 10 Robert Oppenheimer Memorial Scholarship from the Center of Latin American & Caribbean Studies, University of Kansas, USA. 2021. **\$2,500.**
- 9 Biodiversity Institute Panorama Grant, University of Kansas, USA. 2020. **\$1,000.**
- 8 Entomology Travel Award (R. H. Beamer Scholarship Fund), University of Kansas, USA. 2020. **\$1,500.**
- 7 Entomology Graduate Summer Support (John M. Deal). Department of Ecology & Evolutionary Biology, University of Kansas, USA. 2020. **\$5,500.**
- 6 Google Summer of Code 2020 program, USA. 2020. **\$6,000.**
- 5 Biodiversity Institute Travel Award, University of Kansas, USA. 2019. **\$350.**
- 4 Ecology and Evolutionary Biology Department Travel Award, University of Kansas, USA. 2019. **\$350.**
- 3 Graduate Student Organization Travel Award. Department of Ecology & Evolutionary Biology, University of Kansas, USA. 2019. **\$375.**
- 2 Entomology Graduate Summer Support. Department of Ecology & Evolutionary Biology, University of Kansas, USA. 2019. **\$5,000.**
- 1 Leaman D. Harris Biodiversity Scholarship. Biodiversity Institute, University of Kansas, USA. 2019. **\$2,996.**

Outreach Experience

- 15 **K-Pop “Amazing Insects”**. *Activities:* Creation of materials and didactic activities and facilitator. *Scope:* General public. Biodiversity Institute, University of Kansas, Lawrence, Kansas, USA. Spring 2024.
- 14 **Amazing Pollinators Kids Program**. *Activities:* Creation of materials and didactic activities to explain insect-mediated pollination and facilitator. *Scope:* Kids from 7 to 11 years old and general public. Lawrence Public Library, Lawrence, Kansas, USA. Spring 2024.
- 13 **Celebrating Women in Science**. *Activities:* Creation of materials and didactic activities and facilitator. *Scope:* KU undergraduate students and general public. Biodiversity Institute, University of Kansas, Lawrence, Kansas, USA. Spring 2024.
- 12 **Climate Change Club**. *Activities:* Organizing and co-leading, gathering information, creation of materials and didactic activities, and facilitator. *Scope:* junior high school students from the Kansas City, Kansas public school system. Biodiversity Institute and KU TRIO Talent Search program, University of Kansas, Lawrence, Kansas, USA. Spring 2024.
- 11 **Read Conmigo Summer program**. *Activities:* Gathering information, creation of materials and didactic activities, Spanish translator, and facilitator. *Scope:* K12 teachers of several courses and levels of education. Center of Latin American and Caribbean Studies, University of Kansas, Lawrence, Kansas, USA. Summer 2023.
- 10 **Celebrating Women in Science**. *Activities:* Creation of materials and didactic activities and facilitator. *Scope:* KU undergraduate students and general public. Biodiversity Institute, University of Kansas, Lawrence, Kansas, USA. Spring 2023.
- 9 **Kansas Ecology for Elementary Schools (KEES)**. *Activities:* Creation of materials and didactic activities, instructor, facilitator, and Spanish translator. *Scope:* 3rd grade students of five Elementary Schools, one of them dual language, from Lawrence and Topeka. University of Kansas, Lawrence, Kansas, USA. Fall 2018-present.
- 8 **Mini BugBlitz**. *Activities:* Facilitator. *Scope:* General public. Biodiversity Institute, University of Kansas, Lawrence, Kansas, USA. Fall 2018.
- 7 **XXVIII Jornada Científica Estudiantil**. *Activities:* Organization and committee member. *Scope:* Undergraduate students from Biology major. Universidad de La Habana, Havana, Cuba. May 2016.
- 6 **III Bat festival**. *Activities:* Instructor and facilitator. *Scope:* General public. National History Museum of Cuba, Havana, Cuba. October 2015.
- 5 **XXVII Jornada Científica Estudiantil**. *Activities:* Organization and committee members. *Scope:* Undergraduate students from Biology major. Universidad de La Habana, Havana, Cuba. May 2015.
- 4 **Open House**. *Activities:* Organization and facilitator. *Scope:* High School students that want to attend college and start a major in Biology. Universidad de La Habana, Havana, Cuba. June 2014-2016.
- 3 **XXVI Jornada Científica Estudiantil**. *Activities:* Organization and committee members. *Scope:* Undergraduate students from Biology major. Universidad de La Habana, Havana, Cuba. May 2014.
- 2 **VI Festival of the Cuban Sandhill Crane**. *Activities:* Creation of materials and activities for the festival, instructor, and facilitator. *Scope:* Elementary school students from rural areas of Ciego de Ávila province. Empresa para la Protección de la Flora y la Fauna, Ciego de Ávila, Cuba. March 2012.
- 1 **V Festival of the Cuban Sandhill Crane**. *Activities:* Creation of materials and activities for the festival, instructor, and facilitator. *Scope:* Elementary school students from rural areas of Ciego de Ávila province. Empresa para la Protección de la Flora y la Fauna, Ciego de Ávila, Cuba. February 2011.

Professional Affiliations

- Entomological Society of America (2023-present)
- Ecological Society of America (2020)
- The Lepidopterists' Society (2019-present)
- International Biogeography Society (2018-present)

Mesoamerican Society of Conservation Biology (2013-2017)
 Cuban Society of Botany (2012-2017).
 Cuban Zoological Society (2010-present)

Professional Service

COMMITTEES

Strategic Plan. Biodiversity Institute. University of Kansas. Member. 2022-present.

REVIEWER FOR SCIENTIFIC JOURNALS

Scientific Reports

PeerJ

Biodiversity Informatics

Revista del Jardín Botánico Nacional

Zoological Research

South African Journal of Botany

CEDAMAX

Journal of Melittology

Conservation Biology

Biological Conservation

Austral Ecology

Fieldwork

2023	Kansas, USA	Surveys of butterflies for strategic planning, Field lead
2022	Cuba	Moth and host plant sampling in western Cuba, Field lead
2021-2022	Kansas, USA	Small mammal and tick survey in Public Lands, Field assistant
2021	Kansas, USA	Greater Duckweed sampling across the State, Field assistant
2022-2023	Kansas, USA	Tick and tick-pathogen survey in Public Lands, Field assistant
2019	Cuba	Moth and host plant sampling in eastern Cuba, Field lead
2018-2019	Kansas, USA	Surveys of butterflies, Field lead
2017	Ecuador	Invasive Bullfrog surveys in the Amazon region, Field assistant
2017	Ecuador	Surveys of butterfly species in Botanical Garden and National Protected Park, Field assistant
2013-2017	Cuba	Survey of invertebrates across the main Cuban Island, Field co-lead
2009-2013	Cuba	Monitoring Cuban Sandhill Crane and other aquatic birds, Field co-lead

Open Source Software

biosurvey *Tools for Biological Survey Planning. Creator.*
 R package <https://github.com/claununez/biosurvey>; <https://CRAN.R-project.org/package=biosurvey>

rangemap *Simple Tools for Defining Species ranges. Contributor.*
 R package <https://github.com/marloncobos/rangemap>

References

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