Marlon E. Cobos

Ph.D. Candidate
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Education

University of Kansas, USA, Ph.D. Ecology and Evolutionary Biology 2017–present

Universidad de La Habana, Cuba, M.Sc. Zoology and Animal Ecology 2016

Universidad Nacional de Loja, Ecuador, B.A. Environmental engineering 2012

Research Interests

My research interests include diverse questions in distributional ecology, evolutionary adaptation, and disease biogeography. As part of multidisciplinary teams, I contribute to the development of theory, methods, and tools to understand why biodiversity is distributed the way it is. My current work focuses on understanding thermal adaptation in Greater Duckweed using eco-physiological, modeling, and genomic approaches.

Other interests of mine include open science, open source software development, and diversity, equity, and inclusion in science.

Research Experience

Graduate Research Assitant

Project: NSF EPSCoR. Ticks and Tick-borne diseases of the Great Plains. Biodiversity Institute, *University of Kansas*. 2020–present. *Main Activities:* field work for tick collections, data analysis, ecological modeling, AI implementations for automated identification of species.

Research Assitant

Project: NSF PIPP-Pandemic Prevention. Center for Emerging Pathogen Prediction and Integration. Biodiversity Institute, *University of Kansas*. 2022–present. *Main Activities:* data analysis, ecological modeling.

Project: Potential distribution of Cuban biota: Assessing the impact of climate change (National Climate Change Program). *Institute of Ecology and Systematics*. 2016–2017. *Main Activities:* methodological advisory.

Project: Bases for conservation of the most endangered Cuban toad, *Peltophryne florentinoi*. Museum of Natural History "Felipe Poey", *Universidad de La Habana*. 2015–2017. *Main Activities:* monitoring species populations and habitats, data analysis, and statistical modeling.

Associated Researcher

Project: Ecological bases for restoration of degraded ecosystem biodiversity and functionality in southern Ecuador, in the face of potential global environmental changes. 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.

Undergraduate Research Assistant

Project: Characterization, conservation and sustainable use of native animal species of South-Ecuadorian Amazon. Museum of Zoology "LOUNAZ", *Universidad Nacional de Loja*. 2011. *Main Activities:* filed work to register species of interest and their habitats, data analysis, and mapping information.

Project: Trophic niche overlap and disease transmission between the American Bullfrog (*Lithobates catesbeianus*, Anura: Ranidae) and native frogs of South-Ecuadorian Amazon. Museum of Zoology "LOUNAZ", *Universidad Nacional de Loja*. 2011. *Main Activities:* filed work, lab work to collect data.

Teaching Experience

Graduate Teaching Assistant

Course: Human Anatomy, Dissection Lab. Department of Ecology and Evolutionary Biology, *University of Kansas*. Lawrence, Kansas, USA. 2019-2020.

Course: Human Anatomy, Observation Lab. Department of Ecology and Evolutionary Biology, *University of Kansas*. Lawrence, Kansas, USA. Fall 2018.

Course: Introductory Biology Lab. Department of Ecology and Evolutionary Biology, *University of Kansas*. Lawrence, Kansas, USA. Spring 2018.

Course: Chordate Zoology Lab. Department of Animal and Human Biology, *Universidad de La Habana*. Havana, Cuba. Fall 2015.

Lecturer

Course: Experimental Design. *Universidad Nacional de Loja*. Spring 2017.

Course: Inorganic Chemistry. *Universidad Nacional de Loja*. Spring 2017.

Instructor

Course: Ecological Niche Modeling Applied to Fossil Data (short course), *Geological Society of America (annual meeting)*. Denver, Colorado, USA. 2022.

Course: Ecological Niche Modeling for Zoonotic Diseases. *American Society of Microbiology, and University of Kansas Biodiversity Institute*. Online course. 2020.

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

Course: Ecological Niche Modeling (ENM 2020). Biodiversity Institute, *University of Kansas*. Online course. 2020.

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: Conectividad de Hábitat. *Institute of Ecology and Systematics*. Havana, Cuba. Fall 2015.

Professional Experience

Environmental Consultant. *IMPROYAM Environmental Consulting*. Zamora Chinchipe, Ecuador. 2013-2014

Technician of Planning and Land Management. *El Guismi Decentralized Autonomous Government*. Zamora Chinchipe, Ecuador. 2012-2013

Outreach Experience

Outreach (Broader Impacts): Microbes on the move. *Activities:* Review of Spanish translations of existing outreach materials; Spanish translations of social media posts; general outreach activities in places visited. *Scope:* Three cities in the state of Kansas. Biodiversity Institute, *University of Kansas*. Kansas, USA. July, 2022

Environmental education program: Battery disposal awareness campaign. *Activities:* Design of content and teaching materials for primary schools; Presentation of contents and educational activities in primary schools with the involvement of teachers and students. *Scope:* Ten rural schools. *El Guismi DAG*. Zamora Chinchipe, Ecuador. 2012-2013

Environmental education program: Plastic bottle recycling campaign. *Activities:* Design of content and teaching materials for primary schools; Presentation of contents and educational activities in primary schools with the involvement of authorities, teachers, and students. Design of mechanisms to collect, store, and recycle collected materials. *Scope:* Ten rural schools. *El Guismi DAG*. Zamora Chinchipe, Ecuador. 2012-2013

Fellowships, Grants, and Awards

Biodiversity Institute Panorama Grant. *University of Kansas*, USA. Summer 2022. US $ 1,000.
Biodiversity Institute Panorama Grant. *University of Kansas*, USA. Summer 2021. US $ 1,000.
Division of Ornithology Grant, Biodiversity Institute. *University of Kansas*, USA. Summer 2021. US $ 1,000.
Summer research scholarship. *University of Kansas*, USA. Summer 2019. US $ 2,000.
Graduate scholarly presentation travel fund. *University of Kansas*, USA. July 2018. US $ 500.
Summer research scholarship. *University of Kansas*, USA. Summer 2018. US $ 3,000.
Fellowship for graduate studies. *University of Kansas*, USA. Fall 2017. US $ 9,370.
Scholarship for graduate studies. *National Secretary of Superior Education Science and Technology* (SENESCYT), - Ecuador. 2014. US $33,297

Professional Affiliations

Society for the Study of Evolution	2022-present
International Biogeography Society	2018-present
Society for the Study of Amphibians and Reptiles	2018

Publications

Journal Articles

41 Ashraf, U., Peterson, A. T., Chaudhry, M. N., & **Cobos, M. E.** (2023). Global ecological niche conservatism and evolution in *Olea* species. *Saudi Journal of Biological Sciences*, 30(1), 103500. https://doi.org/10.1016/j.sjbs.2022.103500

40 Alkishe, A., **Cobos, M. E.**, Osorio-Olvera, L., & Peterson, A. T. (2022). Ecological niche and potential geographic distributions of *Dermacentor marginatus* and *Dermacentor reticulatus* (Acari: Ixodidae) under current and future climate conditions. *Web Ecology*, 22(2), 33–45. https://doi.org/10.5194/we-22-33-2022

39 Busby, W. H., Barve, N., **Cobos, M. E.**, & Peterson, A. T. (2022). Effects of landscape history on current geographic distributions of four species of reptiles and amphibians in Kansas. *The Southwestern Naturalist*, 66(2), 157–165. https://doi.org/10.1894/0038-4909-66.2.157

38 **Cobos, M. E.**, 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

37 **Cobos, M. E.**, & Peterson, A. T. (2022). Detecting signals of species' ecological niches in results of studies with defined sampling protocols: Example application to pathogen niches. *Biodiversity Informatics*, 17, 50–58. https://doi.org/10.17161/bi.v17i.15985

36 Contreras-Díaz, R. G., Falconi, M., Osorio-Olvera, L., **Cobos, M. E.**, Soberón, J., Townsend Peterson, A., Lira-Noriega, A., Álvarez-Loayza, P., Luis Gonçalves, A., Hurtado-Astaiza, J., Gonzáles, R. del P. R., Zubileta, I. S., Spironello, W. R., & Vásquez-Martínez, R. (2022). On the relationship between environmental suitability and habitat use for three neotropical mammals. *Journal of Mammalogy*, 103(2), 425–439. https://doi.org/10.1093/jmammal/gyab152

35 Machado-Stredel, F., Freeman, B., Jiménez-Garcia, D., **Cobos, M. E.**, Nuñez-Penichet, C., Jiménez, L., Komp, E., Perktas, U., Khalighifar, A., Ingenloff, K., Tapondjou, W., de Silva, T., Fernando, S., Osorio-Olvera, L., & Peterson, A. T. (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

34 Nuñez-Penichet, C., **Cobos, M. E.**, Soberón, J., Gueta, T., Barve, N., Barve, V., Navarro-Sigüenza, A. G., & Peterson, A. T. (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

33 Peterson, A. T., Aiello-Lammens, M., Amatulli, G., Anderson, R., **Cobos, M. E.**, Diniz-Filho, J. A., Escobar, L., Feng, X., Franklin, J., Gadelha, L., Georges, D., Guéguen, M., Gueta, T., Ingenloff, K., Jarvie, S., Jiménez, L., Karger, D., Kass, J., Kearney, M., Loyola, R., Machado-Stredel, F., Martínez-Meyer, E. Merow, C., Modelli, M. L., Moratara, S., Myers, C., Naimi, B., Noesgaard, D., Ondo, I., Osorio-Olvera, L., Owens, H., Pearson, R., Pinilla-Buitrago, G., Sánchez-Tapia, A., Saupe, E., Thuiller, W., Varela, S., Warren, D., Wieczorek, J., Yates, K., Zhu, G., Zuquim, G., Zurell, D. (2022). ENM2020: A free online course and set of resources on modeling species' niches and distributions. *Biodiversity Informatics*, 17, 1–9. https://doi.org/10.17161/bi.v17i.15016

32 Banks, W. E., Moncel, M.-H., Raynal, J.-P., **Cobos, M. E.**, Romero-Alvarez, D., Woillez, M.-N., Faivre, J.-P., Gravina, B., d'Errico, F., Locht, J.-L., & Santos, F. (2021). An ecological niche shift for Neanderthal populations in Western Europe 70,000 years ago. *Scientific Reports*, 11(1), 5346. https://doi.org/10.1038/s41598-021-84805-6

31 **Cobos, M. E.**, Cheng, Y., Song, G., Lei, F., & Peterson, A. T. (2021). New distributional opportunities with niche innovation in Eurasian snowfinches. *Journal of Avian Biology*, 52(12), e02868. https://doi.org/10.1111/jav.02868

30 DeRaad, D. A., **Cobos, M. E.**, Alkishe, A., Ashraf, U., Ahadji-Dabla, K. M., Nuñez-Penichet, C., & Peterson, A. T. (2021). Genome-environment association methods comparison supports omnigenic adaptation to ecological niche in malaria vector mosquitoes. *Molecular Ecology*, 30(23), 6468–6485. https://doi.org/10.1111/mec.16094

29 Gonzalez, V. H., Cobos, M. E., Jaramillo, J., & Ospina, R. (2021). Climate change will reduce the potential distribution ranges of Colombia's most valuable pollinators. Perspectives in Ecology and Conservation, 19(2), 195–206. https://doi.org/10.1016/j.pecon.2021.02.010

28 Machado-Stredel, F., **Cobos, M. E.**, & Peterson, A. T. (2021). A simulation-based method for identifying accessible areas as calibration areas for ecological niche models and species distribution models. *Frontiers of Biogeography*, 13(4), e48814. https://doi.org/10.21425/F5FBG48814

27 Nuñez-Penichet, C., **Cobos, M. E.**, Checa, M. F., Quinde, J. D., 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*, 24(6), 1155–1164. https://doi.org/10.1007/s11252-021-01110-w

26 Nuñez-Penichet, C., **Cobos, M. E.**, & Soberón, J. (2021). Non-overlapping climatic niches and biogeographic barriers explain disjunct distributions of continental *Urania* moths. *Frontiers of Biogeography*, 13(2), e52142. https://doi.org/10.21425/F5FBG52142

25 Nuñez-Penichet, C., Osorio-Olvera, L., Gonzalez, V. H., **Cobos, M. E.**, Jiménez, L., DeRaad, D. A., Alkishe, A., Contreras-Díaz, R. G., Nava-Bolaños, A., Utsumi, K., Ashraf, U., Adeboje, A., Peterson, A. T., & 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

24 Raghavan, R. K., Koestel, Z., Ierardi, R., Peterson, A. T., & **Cobos, M. E.** (2021). Climatic suitability of the eastern paralysis tick, *Ixodes holocyclus*, and its likely geographic distribution in the year 2050. *Scientific Reports*, 11(1), 15330. https://doi.org/10.1038/s41598-021-94793-2

23 Simões, M. V. P., Saeedi, H., **Cobos, M. E.**, & Brandt, A. (2021). Environmental matching reveals non-uniform range-shift patterns in benthic marine Crustacea. *Climatic Change*, 168(3), 31. https://doi.org/10.1007/s10584-021-03240-8

22 Soberón, J., **Cobos, M. E.**, & Nuñez-Penichet, C. (2021). Visualizing species richness and site similarity from presence-absence matrices. *Biodiversity Informatics*, 16, 20–27. https://doi.org/10.17161/bi.v16i1.14782

21 Vignoles, A., Banks, W. E., Klaric, L., Kageyama, M., **Cobos, M. E.**, & Romero-Alvarez, D. (2021). Investigating relationships between technological variability and ecology in the Middle Gravettian (ca. 32–28 ky cal. BP) in France. *Quaternary Science Reviews*, 253, 106766. https://doi.org/10.1016/j.quascirev.2020.106766

20 Alkishe, A., **Cobos, M. E.**, Peterson, A. T., Samy, A. M. 2020. Recognizing sources of uncertainty in disease vector ecological niche models: An example with the tick *Rhipicephalus sanguineus sensu lato*. *Perspectives in Ecology and Conservation*. https://doi.org/10.1016/j.pecon.2020.03.002

19 Mazón, M., Nuñez-Penichet, C., **Cobos, M. E.** 2020. Relationship between body mass and forewing length in Neotropical Ichneumonidae (Insecta: Hymenoptera). *Neotropical Entomology*. https://doi.org/10.1007/s13744-020-00784-9

18 Owens, H. L., Ribeiro, V., Saupe, E. E., **Cobos, M. E.**, Hosner, P. A., Cooper, J. C., Samy, A. M., Barve, V., Barve, N., Muñoz-R, C. J., Peterson, A. T. 2020. Acknowledging uncertainty in evolutionary reconstructions of ecological niches. *Ecology and Evolution*, 10(14), 6967–6977. https://doi.org/10.1002/ece3.6359

17 Simões, M., Romero-Alvarez, D., Nuñez-Penichet, C., Jiménez, L., **Cobos, M. E.** 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

16 **Cobos, M. E.**, Peterson, A. T., Osorio-Olvera, L., Jiménez-García, D. 2019. An exhaustive analysis of heuristic methods for variable selection in ecological niche modeling and species distribution modeling. *Ecological Informatics*, 53, 100983. https://doi.org/10.1016/j.ecoinf.2019.100983

15 **Cobos, M. E.**, Peterson, A. T., Barve, N., Osorio-Olvera, L. 2019. kuenm: An R package for detailed development of ecological niche models using Maxent. *PeerJ*, 7, e6281. https://doi.org/10.7717/peerj.6281

14 Nuñez-Penichet, C., **Cobos, M. E.**, 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

13 Peterson, A. T., Anderson, R. P., Beger, M., Bolliger, J., Brotons, L., Burridge, C. P., **Cobos, M. E.**, Cuervo-Robayo, A. P., Minin, E. D., Diez, J., Elith, J., Embling, C. B., Escobar, L. E., Essl, F., Feeley, K. J., Hawkes, L., Jiménez-García, D., Jimenez, L., Green, D. M., Knop, E., Kühn, I., Lahoz-Monfort, J.J., Lira-Noriega, A., Lobo, J.M., Loyola, R., Nally, R.M., 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., Soto, O.R., Romero-Alvarez, D., Roura-Pascual, N., Santini, L., Schoeman, D.S., Schröder, B., Soberón, J., Strubbe, D., Thuiller, W., Traveset, A., Treml, E.A., Václavík, T., Varela, S., Watson, J.E.M., Wiersma, Y., Wintle, B., Yanez-Arenas, C., 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

12 Peterson, A. T., Anderson, R. P., **Cobos, M. E.**, Cuahutle, M., Cuervo-Robayo, A. P., Escobar, L. E., Fernández, M., Jiménez-García, D., Lira-Noriega, A., Lobo, J. M., Machado-Stredel, F., Martínez-Meyer, E., Nuñez-Penichet, C., Nori, J., Osorio-Olvera, L., Rodríguez, M. T., Rojas-Soto, O., Romero-Álvarez, D., Soberón, J., Varela, S., 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

11 Raghavan, R. K., Barker, S. C., **Cobos, M. E.**, Barker, D., Teo, E. J. M., Foley, D. H., Nakao, R., Lawrence, K., Heath, A. C. G., Peterson, A. T. 2019. Potential spatial distribution of the newly introduced Long-horned tick, *Haemaphysalis longicornis* in North America. *Scientific Reports*, 9(1), 498. https://doi.org/10.1038/s41598-018-37205-2

10 Raghavan, Ram K., Peterson, A. T., **Cobos, M. E.**, Ganta, R., Foley, D. 2019. Current and future distribution of the Lone Star Tick, *Amblyomma americanum* (L.) (Acari: Ixodidae) in North America. *PLoS ONE*, 14(1), e0209082. https://doi.org/10.1371/journal.pone.0209082

9 Ramírez-Gil, J. G., **Cobos, M. E.**, Jiménez-García, D., Morales-Osorio, J. G., Peterson, A. T. 2019. Current and potential future distributions of Hass avocados in the face of climate change across the Americas. *Crop and Pasture Science*, 70(8), 694–708. https://doi.org/10.1071/CP19094

8 **Cobos, M. E.**, Alonso Bosch, R. 2018. Breeding sites of a narrowly distributed amphibian, a key element in its conservation in the face of global change. *Aquatic Conservation: Marine and Freshwater Ecosystems*, 28, 1089–1098. https://doi.org/10.1002/aqc.2967

7 **Cobos, M. E.**, 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

6 Peterson, A. T., **Cobos, M. E.**, Jiménez-García, D. 2018. Major challenges for correlational ecological niche model projections to future climate conditions. *Annals of the New York Academy of Sciences*, 1429(1), 66–77. https://doi.org/10.1111/nyas.13873

5 Torres-Porras, J., **Cobos, M. E.**, Seoane, J. M., Aguirre, N. 2017. Large and medium-sized mammals of Buenaventura Reserve, southwestern Ecuador. *Check List*, 13(4), 35–45.

4 **Cobos, M. E.**, Alonso Bosch, R. 2016. Recent and future threats to the Endangered Cuban toad *Peltophryne longinasus*: Potential additive impacts of climate change and habitat loss. *Oryx*. https://doi.org/10.1017/S0030605316000612

3 **Cobos, M. E.**, Cruz, D. D., Hernández, M. 2016. Análisis multitemporal del Índice Normalizado de Diferencia de Vegetación (NDVI) en Cuba. *Revista Del Jardín Botánico Nacional*, 37, 15–18.

2 **Cobos, M. E.**, 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, M. E.**, 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.

Books

1 Aguirre, N., Mazón, M., and **Cobos, M. E.** 2019. *Comunicar y divulgar la ciencia. Redacción y publicación de trabajos científicos y divulgativos*. EDILOJA. Loja, Ecuador.

Other Publications

2 **Cobos, M. E.** 2016. Posibles implicaciones del cambio climático sobre la distribución de las especies del género *Peltophryne* (Anura: Bufonidae) en Cuba. *Master's Thesis*. Universidad de La Habana.

1 **Cobos, M. E.** 2012. Distribución potencial de la rana toro (*Lithobates catesbeiana*, Anfibia: Anura) y su relación con la fragmentación de hábitats en Zamora Chinchipe, Ecuador. *Bachelor's Thesis*. Universidad Nacional de Loja.

Conference Presentations

17 **Cobos, M. E.**, C. Nuñez-Penichet, 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. June 2022.

16 **Cobos, M. E.** Conservación de especies y cambio del clima. *Seminario Internacional Biodiversidad y Cambio Global*. Loja, Ecuador. June 2022.

15 **Cobos, M. E.** Diseño de sistemas de monitoreo de la biodiversidad: consideraciones para lograr muestreos más efectivos. *II Seminario de Calidad Ambiental y Biodiversidad*. Loja, Ecuador. February 2022.

14 **Cobos, M. E.** Ecological niche models and climate change: considering variability in data and results. *Congreso Internacional de Variabilidad y Cambio Climático*. Bogota, Colombia. March 2021.

13 **Cobos, M. E.** A. T. Peterson, C. Nuñez-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 Meting*. Quito, Ecuador. August, 2019.

12 Nuñez-Penichet, J. Soberón, and **M. E. Cobos**. Why continental Urania's species have a disjunct distribution? *IBS 2019 Humboldt Meeting and 2nd Latin American Biogeography Meting*. Quito, Ecuador. August, 2019.

11 Simões, M. V. P., H. Saeedi, **M. E. Cobos**, & A. Brandt. Bottom-up: Exploring climate change effects on habitat suitability for the deep sea fauna of Isopods (Crustacea: Isopoda). *International Biogeography Society Conference*. Malaga, Spain. January 2019.

10 **Cobos, M. E.** and R. Alonso Bosch. Multiscale analyses reveal the importance of breeding sites for conservation of a critically endangered Cuban toad in the face of global change. *Joint Meeting of Ichthyologists and Herpetologists*. Rochester, New York, USA. July 2018.

9 Nuñez-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. January 2018.

8 Cobos, M. E., R. Alonso-Bosch. Vulnerabilidad de los bufónidos cubanos al cambio climático: Una evaluación basada en características ecológicas y geográficas de su nicho. Quito, Ecuador. July 2017.

7 Mendoza, C., K. Valarezo-Aguilar, and **M. E. Cobos**. Distribución potencial del Perico Pechiblanco (*Pyrrhura albipectus*): factores climáticos que determinan su presencia. *V Encuentro Ornitológico Ecuatoriano*. Zamora. Ecuador. August 2016.

6 **Cobos, M. E.**, C. Nuñez-Penichet, C. Mendoza, and K. Valarezo-Aguilar. Impacto del cambio climático en la distribución potencial del Perico Pechiblanco (*Pyrrhura albipectus*). *V Encuentro Ornitológico Ecuatoriano*. Zamora. Ecuador. August 2016.

5 **Cobos, M. E.** and C. Nuñez-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. April 2016.

4 **Cobos, M. E.** Avances en métodos para el estudio de la distribución de especies. *Reunión para la Conservación de la Biodiversidad en Cuba-2015*. Havana, Cuba. November 2015

3 Nuñez 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. November 2015

2 **Cobos, M. E.** and R. Alonso. Efectos aditivos del cambio climático y la pérdida de hábitat en el rango de distribución de un sapo cubano amenazado. *X Convenio Internacional sobre Medio Ambiente y Desarrollo: V Congreso sobre Gestión de Ecosistemas y Medio Ambiente de Biodiversidad*. Havana, Cuba. July 2015

1 **Cobos, M. E.** and R. Alonso. Un hábitat vulnerable para un sapo cubano amenazado. *Reunión para la Conservación de la Biodiversidad en Cuba-2014*. Havana, Cuba. November 2014

Professional Service

Committees

Diversity, Equity, Inclusion, and Belonging Committee. Biodiversity Institute. University of Kansas. Member. 2021-present.

Reviewer for Scientific Journals

Aquatic Conservation: Marine and Fresh Water Ecosystems
Biological Conservation
Copeia
Ecological Modelling
Ecology and Evolution
Global Ecology and Biogeography
Hydrobiologia
Journal of Animal Ecology
Journal of Biogeography
Journal of Forestry Research
Journal of Medical Entomology
Mammalian Biology
Methods in Ecology and Evolution
Nordic Journal of Botany
Ornithological Applications
Oryx
PeerJ
Perspectives in Ecology and Conservation
PLoS ONE
Progress in Oceanography
Tropical Medicine & International Health
Waterbirds

Scientific Profiles

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Researcher ID: I-1647-2019

Scopus Author ID: 57191756685

Google Scholar: Marlon E. Cobos

ResearchGate: Marlon E. Cobos

Programming Experience

Participation in Projects

Project: A GUI to Manage SQLite Databases. *Google Summer of Code 2022*. Mentor with R project for statistical computing.

Project: A GUI to Manage SQLite Databases. *Google Summer of Code 2020*. Mentor with R project for statistical computing.

Project: Biological Survey Planning Considering Hutchinson's Duality. *Google Summer of Code 2020*. Contributor with R project for statistical computing.

Project: Grinnellian ecological niches and ellipsoids in R. *Google Summer of Code 2019*. Participant with R project for statistical computing.

Project: Species range maps in R. *Google Summer of Code 2018*. Participant with R project for statistical computing.

Open Source Software

biosurvey: Tools for Biological Survey Planning. Creator: Nuñez-Penichet, C. Contributors: **Cobos, M. E.**, A. T. Peterson, J. Soberon, N. Barve, V. Barve, T. Gueta. https://CRAN.R-project.org/package=biosurvey

ellipsenm: Ecological niche's characterization using ellipsoids. Creator: **Cobos, M. E.** Contributors: Osorio-Olvera, L., J. Soberón, A. T. Peterson. https://github.com/marlonecobos/ellipsenm

grinnell: Dispersal simulations based on ecological niches. Creator: Machado-Stredel, F. Contributors: **Cobos, M. E.**, A. T. Peterson. https://github.com/fmachados/grinnell

kuenm: An R Package for Detailed Development of Ecological Niche Models Using Maxent. Creator: **Cobos, M. E.** Contributors: Peterson A. T., L. Osorio-Olvera, N. Barve. https://github.com/marlonecobos/kuenm

nichevol: Tools for Ecological Niche Evolution Assessment Considering Uncertainty. Creator: **Cobos, M. E.** Contributors: Owens, H. L., A. T. Peterson. https://CRAN.R-project.org/package=nichevol

rangemap: Simple Tools for Defining Species Ranges. Creator: **Cobos, M. E.** Contributors: Barve, V., N. Barve, A. Jiménez-Valverde, C. Nuñez-Penichet. https://CRAN.R-project.org/package=rangemap

rsqliteadmin: A GUI to Manage SQLite Databases. Creator: Chawla, D. Contributors: Barve, V., T. Nagarajah, N. Barve, **M. E. Cobos**. https://CRAN.R-project.org/package=rsqliteadmin

References

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