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**Education**

- 2010 – 2016 PhD Ordway Lab for Ecosystem Conservation. Department of Biology & Florida Museum of Natural History. University of Florida. Gainesville, FL.
- 2006 – 2009 Master in Biological Sciences. Department of Biology, Universidad de los Andes, Bogotá, Colombia.
- 2000 – 2006 B. Sc. Biology, Universidad de los Andes, Bogotá, Colombia.

**Publications**

- 2020 Mavrodiev, E.V., **J.P. Gomez**, A. Melton, M. Martinez-Azorin, D. Steadman, S.K. Robinson. On biodiversity and conservation of the 'Iris hexagona complex' (Phaeiris, Iridaceae). *Ecosphere*. Accepted.
- 2020 Yang, A., **J.P. Gomez**, J.K. Blackburn. Exploring Environmental Coverages of Species: A New Variable Selection Methodology for Rulesets from the Genetic Algorithm for Ruleset Prediction (GARP). *PeerJ*. 8:e8968 <https://doi.org/10.7717/peerj.8968>.
- 2020 Easterday W.R., J.M. Ponciano, **J.P. Gomez**, M.N. Van Ert, T. Hadfield, K. Bagamian, J.K. Blackburn, N.C. Stenseth, W.C. Turner. Coalescence modeling of intra-infection *Bacillus anthracis* populations allows estimation of infection parameters in wild populations. *Proceedings of the National Academy of Sciences*. Accepted for Publication.
- 2020 **Gomez J.P.**, J.M. Ponciano, G.A. Londoño, S.K. Robinson. The biotic interactions hypothesis may explain bird species turnover in a Neotropical rainfall gradient. *Global Ecology and Biogeography*. 29: 491 – 502 <https://doi.org/10.1111/geb.13047>.
- 2019 Chavarria-Pizarro T, **J.P. Gomez**, J. Ungvari-Martin, R. Bay, M.M. Miyamoto, R. Kimball. Strong phenotypic divergence in spite of low genetic structure in the endemic Mangrove Warbler subspecies (*Setophaga petechia xanthotera*) of Costa Rica. *Ecology and Evolution*. 9: 13902 - 13918. <https://doi.org/10.1002/ece3.5826>
- 2019 Echeverri, A., L.O. Frishkoff, **J.P. Gomez**, J.R. Look, P.J. Juarez, R. Naidoo, K.M.A. Chan and D.S. Karp. Effects of precipitation and land use gradients on avian taxonomic phylogenetic and functional alpha diversity in northwestern Costa Rica. *Diversity and Distributions*. <https://doi.org/10.1111/ddi.12932>.
- 2019 Yang A., **J.P. Gomez**, C.G. Haase, K.M. Proffitt and J.K. Blackburn. Effects Of Brucellosis Serologic Status On Physiology and Behavior of Rocky Mountain Elk (*Cervus canadensis nelsoni*) In Southwestern Montana. *Journal of Wildlife Diseases*. <https://doi.org/10.7589/2018-01-011>
- 2018 **Gomez, J.P.**, D. Nekorchuk, L. Mao, S.J. Ryan, J.M. Ponciano, J.K. Blackburn. Decoupling environmental effects and host population dynamics in a classic reservoir-driven disease. *PLOS ONE*. 13(12): e0208621.
- 2018 Pulgarín, P., **J.P. Gomez**, S.K. Robinson, R.E. Ricklefs, and C.D. Cadena. Host Species, and not Environment, Predict Variation in Parasite Prevalence, Distribution, and Diversity along a Humidity Gradient in Northern South America. *Ecology and Evolution*. 2018;00:1-15. <https://doi.org/10.1002/ece3.3785>.

- 2018 **Gomez, J.P.**, S.K. Robinson, J.K. Blackburn, J.M. Ponciano. An efficient extension of N-mixture models for multispecies abundance estimation. *Methods in Ecology and Evolution*. 9: 340 - 353  
DOI: 10.1111/2041-210X.12856.
- 2017 Gillooly, J.F., **J.P. Gomez** and E.V. Mavrodiev. A broad-scale comparison of aerobic activity levels in vertebrates: endotherms versus ectotherm. *Proceedings of the Royal Society of London B*. 284: 20162328.
- 2017 Sandoval-Hernández, J, **J.P. Gomez**, C.D. Cadena. Is the largest river valley west of the Andes a driver of diversification in Neotropical lowland birds? *The Auk*. 134 (1): 168 - 180.
- 2016 Zhong, M. G.M. Hill, **J.P. Gomez**, D. Plotkin, J.R. Barber & A.Y. Kawahara. Quantification of wing shape and size variation in Saturniidae. *Journal of Tropical Lepidoptera*. 70 (2): 99 – 107.
- 2016 Gillooly, J., **J.P. Gomez**, E. Mavrodiev, Y. Rong, E.S. McLaamore. Structural constraints on passive oxygen diffusion explain body mass scaling of metabolic rate. *Proceedings of the National Academy of Sciences*. 113 (19): 5340 -5345.
- 2016 Martinez, A., **J.P. Gomez**, J.M. Ponciano, and S.K. Robinson. Functional traits, flocking propensity and perceived predation risk in an Amazonian understory bird community. *The American Naturalist*. 187 (5): 607 - 619.
- 2015 Mavrodiev, E., **J.P. Gomez**, A. Laktionov, S.K. Robinson. Invasive plant distributions recapitulate patterns found in native plant assemblages in a heterogeneous landscape. *Ecosphere*. 6 (4): 48.
- 2013 Martinez A. and **J.P. Gomez**. Are Mixed-species flocks stable through two decades? *The American Naturalist*. 181: E53 - E59.
- 2012 Cadena, C.D., K. H. Kozak, **J. P. Gomez**, J. L. Parra, C. M. McCain, R. C. K. Bowie, A. C. Carnaval, C. Moritz, C. Rahbek, T. E. Roberts, N. J. Sanders, C. Schneider, J. VanDerWal, K. Zamudio & C. H. Graham. Latitude, elevational climatic zonation, and speciation in New World vertebrates. *Proceedings of the Royal Society of London B*, 279 (1726): 194 – 201.
- 2010 **Gomez J.P.**, Bravo, G.A. Brumfield, R.T., Tello, J.G. and C.D. Cadena. A phylogenetic approach to disentangling the role of competition and habitat filtering in community assembly of Neotropical forest birds. *Journal of Animal Ecology*, 78 (6): 1181 – 1192.

### Book Chapters

- 2014 **Gomez, J.P.** and S.K. Robinson. Aves del bosque seco tropical de Colombia: las comunidades del valle alto del río Magdalena. In: El Bosque Seco Tropical en Colombia. M.C. Pizano Editor. Ediciones Instituto Alexander von Humboldt. Bogotá – Colombia.

### Publications in Review

- \_\_\_\_ Ponciano, J.M., J.A. Ponciano, **J.P. Gomez**, R.D. Holt, J.K. Blackburn. Poverty levels, societal and individual heterogeneities explain the SARS-CoV2 pandemic growth in Latin America. *Science Advances*. Submitted.
- \_\_\_\_ Morales, C.C., **J.P. Gomez**, J.L. Parra. Morphological variation of *Manacus manacus* in Colombia: Effects of isolation by distance, environment and contact zones. *Biological Journal of the Linnaean Society*. Major Changes suggested.
- \_\_\_\_ Martinez, A.E., E. Parra, **J.P. Gomez**, V.T. Vredenburg. Predator-Driven bilingualism in Amazonian Monkeys and Birds. *PLOS One*. In revision

### Pre-print publications

- \_\_\_\_ **Gomez, J.P.**, S.K. Robinson and J.M. Ponciano. Asymmetric effects of environmental filtering on the assembly of tropical lowland forest bird communities along a moisture gradient. *BioRxiv*. bioRxiv 251249; doi: <https://doi.org/10.1101/251249>.
- \_\_\_\_ **Gomez, J. P.**, E. Ortiz-Acevedo, and J. E. Botero. Effects of shade coffee certification programs on bird, plant and butterfly diversity in Colombia. *BioRxiv*. 251231; doi: <https://doi.org/10.1101/251231>

## Grants and Fellowships

- 2019 Latin American – Swiss Center Seed Grant. USD\$19.700
- 2015 AOU Research Award. AOU USD\$ 2500
- 2014 College of Liberal Arts and Sciences. UF. Travel Award. USD\$ 300
- 2014 Congreso Colombiano de Zoología. Travel award. USD\$ 350
- 2013 Waitts Grant. National Geographic Society. USD\$ 12.000
- 2012 Frank M. Chapman Research Award. AMNH. USD\$ 2.500
- 2011 Sigma Xi Grants in aid of Research. USD\$ 800.
- 2011 Wilson Ornithological Society. Louis Agassiz Fuertes Research Award. USD\$ 2500.
- 2010 ALUMNI Fellowship, University of Florida. USD\$25.000 per year for four years
- 2008 125<sup>th</sup> AOU/COS/SCO meeting (Portland, Oregon). Travel Award. USD\$ 200
- 2007 Proyecto Semilla, Universidad de los Andes for Gomez J.P. & C.D. Cadena. USD\$1000
- 2007 Tropical Andean Butterfly Diversity Project. USD\$ 700
- 2005 Fundación Natura. USD\$ 2,500

## Research Experience

- 2016 Postdoctoral Associate. Spatio-temporally explicit estimation of R0 for pathogens with environmentally-mediated transmission. PIs Jason Blackburn and Jose Miguel Ponciano.
- 2014-2015 Research Assistant. “*Modeling diversity and stability of vaginal microbial communities*”. PI Jose Miguel Ponciano.
- 2011 Research Assistant. “*Assembly and Stability of Mixed Species Flocks*”. PI. Ari Martinez – Nouragues Biological Station/French Guiana
- 2009 Research assistant. “*Assembly and Stability of Mixed Species Flocks*”. PI. Ari Martinez – Madre Selva Biological Station/Peru
- 2009 Research Assistant. NESCent funded Working Group. PI(s): Ken Kozak, Catherine Graham, Carsten Rahbek.
- 2007 – 2008 Assistant curator for the Ornithological and Tissue Collection, Universidad de los Andes.
- 2007 Research Assistant GEMA expedition – IAvH. Estación Biológica El Zafire, Amazonas, Colombia.
- 2005 – 2006 Associate undergraduate researcher for B.Sc. thesis elaboration. Conservation Biology Program. Cenicafé. Chinchiná, Colombia.

## Teaching experience

- 2019 Instructor. Master’s course in Tropical Ecology. Universidad del Norte.
- 2019 Instructor. Research Seminar. Universidad del Norte.
- 2019 Instructor. Caribbean Birds. Universidad del Norte.
- 2019 Instructor. General Biology. Universidad del Norte.
- 2016 Teaching Assistant University of Florida, Gainesville, Fl. Avian Biology, Instructor: Dr. Scott K. Robinson.
- 2015 Teaching Assistant University of Florida, Gainesville, Fl. Statistical Principles for the Biological Sciences, Instructor: Dr. Jose Miguel Ponciano.
- 2015 Instructor: Field Course in research design. Estacion Farallones de Cali, Universidad ICESI, Cali, Colombia.
- 2013 Instructor: Field Course in research design. Estacion Bajo Calima, Universidad del Tolima, Buenaventura, Colombia.
- 2011 – 2013 Teaching Assistant University of Florida, Gainesville, Fl. Principles of Biology, Instructor: Dr. Kent Vilet
- 2009 – 2012 Instructor: Field Course in research design. Madre Selva Biological Station, Loreto, Perú
- 2006 – 2008 Teaching Assistant, Universidad de los Andes, Bogotá, Colombia. Vertebrate Zoology, Instructor: Dr. C. Daniel Cadena

## Mentoring

- 2015 Undergraduate Thesis advisor: Estefania Guzman. Universidad del Tolima, Ibagué, Colombia.
- 2015 Undergraduate Thesis co-advisor: Camilo Morales. Universidad del Tolima, Ibagué, Colombia.
- 2014 Undergraduate Thesis co-advisor: Jacob R. Drucker. Hampshire College.
- 2012 Undergraduate Thesis co-advisor: Sandoval-Hernández J. Universidad de los Andes, Bogotá, Colombia
- 2009 Undergraduate Thesis Advisor. Chadid, M.A. Universidad de los Andes, Bogotá, Colombia.
- 2009 Undergraduate Thesis Advisor. Rojas, L.A. Universidad de los Andes, Bogotá, Colombia.

## Presentations

- 2018 Gomez, J.P., J.M. Ponciano & J.K. Blackburn. Inferring processes from dynamic abundance time series. American Association of Geographers Annual meeting.
- 2018 **Gomez J.P.** Consecuencias de la variabilidad climática sobre los procesos que regulan la biodiversidad. Invited seminar speaker Coloquio Ecocampus. Universidad del Norte, Barranquilla, Colombia. Press release: <https://goo.gl/y2f2r2>
- 2016 **Gomez J.P.**, J.M. Ponciano & S.K. Robinson. Deterministic turnover of tropical bird communities along a steep rainfall gradient. VI North American Ornithological Congress.
- 2016 **Gomez J.P.**, S.K. Robinson & J.M. Ponciano. Asymmetric effects of environmental filtering on the assembly of tropical bird communities along a moisture gradient. Ecological Society of America Annual Meeting.
- 2014 **Gomez J.P.** and S.K. Robinson. Efectos de filtro ambiental sobre el ensamblaje de las comunidades de aves en el gradiente de precipitación del valle del Río Magdalena. IV Congreso Colombiano de Zoología
- 2012 **Gomez J.P.**, G.A. Bravo, R.T. Brumfield, J.G. Tello, C.D. Cadena. A phylogenetic approach to disentangling the role of competition and habitat filtering in community assembly in Neotropical forest birds. NAOC - V.
- 2008 **Gomez J.P.**, C.D. Cadena & G.A. Bravo. Phylogenetic Structure of Typical Antbird (Thamnophilidae) Assemblages. 125 AOU/COS/SCO meeting. (Presentation Awarded for outstanding Poster presentation)
- 2008 **Gomez J.P.**, C.D. Cadena & G.A. Bravo. A phylogenetic approach to disentangling the role of competition and habitat filtering in community assembly in Neotropical forest birds. I Simposio de la Red Colombiana de Biología Evolutiva. (Presentation Awarded for Outstanding Oral Presentation)
- 2007 **Gomez J.P.** & J.E. Botero. Evaluación del papel de las certificaciones ambientales al café en la conservación de la Biodiversidad: un enfoque en las comunidades de aves. VIII Neotropical Ornithological Congress.
- 2007 **Gomez J.P.** & J.E. Botero. Evaluación del papel de las certificaciones ambientales al café en la conservación de la Biodiversidad: un enfoque en las comunidades de aves. II Congreso Colombiano de Ornitología.
- 2006 **Gomez J.P.** & J.E. Botero. Evaluación del papel de las certificaciones ambientales al café en la conservación de la Biodiversidad: un enfoque en las comunidades de aves. V Simposio de Biodiversidad en Caldas.