

JORGE ANTONIO GÓMEZ DÍAZ

1. BASIC INFORMATION

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Postdoctoral Researcher, Evolutionary Biology Network, Institute of Ecology A.C., Xalapa, Veracruz, Mexico

2. PROFESSIONAL TRAINING

2.1. Degrees

Doctor Rerum Naturalium (Dr. Rer. Nat.), 2012-2017, Direct Doctorate, Abteilung Landschaftsökologie (Department of Landscape Ecology), Georg-August-Universität Göttingen, Göttingen, Germany. Date of Exam: January 30th, 2017. Graduated with *Summa Cum Laude*. Title Thesis: Diversity patterns of herbaceous angiosperms along gradients of elevation and forest use intensity in Central Veracruz, Mexico. Advisor: Professor. Dr Gerhard Gerold.

Specialization In statistical methods, 2011-2012, Faculty of Statistics and Computer Science, University of Veracruz, Xalapa. Date of Exam: August 1, 2012. Average: 97.64/100. Thesis title: Study of the environmental effects on the morphophysiology of some ferns in different environments. Advisor: M.C. Jesús Hernández Suárez.

Licenciado in Biology, 2006-2010, Faculty of Biology, Universidad Veracruz, Xalapa. Review Date: October 10, 2010. Average: 9.33/10. Graduated with Honorable mention. Thesis title: Floristic comparison of epiphytes between a mountain cloud forest and a secondary forest in the municipality of Tlalnelhuayocan, Veracruz. Advisor: Dr Thorsten Krömer.

2.2. Stays

a) *Postdoctoral*

Laboratory of Evolutionary Ecology, Evolutionary Biology Network, Institute of Ecology A.C. Scholarship of National Council of Science and Technology of Mexico (CONACyT). September 2017-August 2019. Supervisor: Dr Fabricio Villalobos Camacho.

b) *Research*

School of Statistics, University of Costa Rica, San José, Costa Rica, 1 month, development of ecological methodology.

The College of the southern border, Campeche, Mexico, 2 months, assessment of the state of conservation of *Los Petenes*.

CUCBA, University of Guadalajara, Guadalajara, Mexico, 2 months, assessment of the ecosystem services of the *Bosque la Primavera* and the Chapala Lagoon.

3. LANGUAGES

- 3.1. English:** *Level C1.* Test of English as a Foreign Language (TOEFL).
3.2. German: *Level B2.* Georg-August-Universität Göttingen.
3.3. Nahuatl: *Level A1.* Veracruz Academy of Indigenous Languages (AVELI).

4. PROFESSIONAL EXPERIENCE

4.1. Research

Interim investigator, Environment and Sustainability Network, Institute of Ecology A.C., June-August 2017.

Herbarium Assistant, Center for Tropical Research (CITRO), Universidad Veracruz, Xalapa, 2010-2012.

4.2. Teaching

a) Graduate

Ecology applied to gradients. Lead instructor. Postgraduate program in sciences, Institute of Ecology A.C. December 2018. (40 hours).

Numerical Ecology with R. Lead instructor. Postgraduate program in sciences, Institute of Ecology A.C. January 2018. (40 hours).

b) High school

Geography. Teacher. Anahuac High School Xalapa. January-August 2018 (1 semester).

Ecology and Middle Environment. Teacher. Anahuac High School Xalapa. August-December 2017 and 2018 (2 semesters).

5. HUMAN RESOURCES TRAINING

5.1. Assessor of students

a) Doctorate

Mary Antoinette Isidro Vázquez. Recognition of the potential of non-timber forest products in the national park *El Cofre de Perote*: an alternative for the wellbeing of its inhabitants. PhD in Environmental Management for Development, The Center for Atmospheric and Ecological Research, Universidad Popular Autonoma de Veracruz. September 2018-In progress.

b) Master of Science

Alondra Yajaira Sánchez-Camarillo. Diversity and floristic composition of ferns and lycophytes along elevation and disturbance gradients in the region Orizaba-Córdoba, Veracruz. Postgraduate course in tropical ecology, Center for Tropical Research, University of Veracruz. Advisor. September 2018 – ongoing.

Flor Celeste Pérez Sánchez. Characterization of the management of Cameo Palm (*Chamaedora elegans* Mart.) and its influence on the retention of plant diversity in the ejido of Rancho Nuevo,

Veracruz. Postgraduate course in tropical ecology, Center for Tropical Research, University of Veracruz. Advisor. September 2018 – ongoing.

Alma Patricia Bautista Bello. "Diversity of woody shrubs and vines in gradients of altitude and human influence in the center of Veracruz, México". Postgraduate Course in tropical ecology, Center for Tropical Research, University of Veracruz. Advisor. September 2017- July 2018.

c) *Specialization*

Edgar Santiago González Martínez. "Structural equations applied to green-conscious databases ". Postgraduate Course in statistical methods, Faculty of Statistics and Informatics, University of Veracruz. 2017-26 October 2018.

d) *Licenciatura degree (Bachelor of Science)*

Nallely Aburto Garcia. "Influence of altitude and disturbance in the physicochemical parameters of soils in the center of Veracruz, México". Statistical sciences and techniques, Faculty of Statistics and Informatics, Universidad Veracruz. Co-director of theses. 2018-In progress

Rosa Elvira Ramírez Ramírez. "Perception and knowledge of the conservation of forests in the communities surrounding the national park *El Cofre de Perote*". Biology, University Center of Biological and Agricultural Sciences, University of Guadalajara. Professional Internship Supervisor. January-May 2018.

6. EDITORIAL WORK

6.1. Reviewer:

Forest, Ecology and Evolution, Botanical Sciences, Tropical Conservation Science, Madera y bosques, Acta Botánica Mexicana.

7. AWARDS AND RECOGNITIONS

7.1. National System of researchers SNI

Candidate for the national investigator, level C. From January 1, 2019, to December 31, 2021.

7.2. Scholarships

Scholarship of the National Council of Science and Technology (CONACyT), Postdoctoral scholarship. Call 2018. Postdoctoral Fellowship to continue a temporary position at the Instituto de Ecología A.C., from September 2018 to August 2019.

Scholarship of the National Council of Science and Technology (CONACyT) postdoctoral scholarship. Call 2017. Postdoctoral fellowship for a temporary position at the Instituto de Ecología A.C., from September 2017 to August 2018.

Scholarship National Council of Science and Technology (CONACyT) and the Deutsche Akademischer Austausch Dienst (DAAD) to obtain doctorate degree in Germany.

7.3. Awards

State Award of the Youth of Veracruz 2018. Academic achievement modality. The Government of the state of Veracruz.

Recognition by the Secretary of education of Veracruz Dr Víctor A. Arredondo, for receiving a second place in the XV National Olympiad of Biology. February 2006.

Recipient of the 2 ° Place in the XV National Biology Olympiad. February 2006.

8. SCIENTIFIC SOCIETIES

Botanical Society of Mexico, A.C.

9. ASSISTANCE TO COURSES AND WORKSHOPS OF TRAINING (RECENT)

- 9.1.** GIS applied to Environment with ArcGIS 10, Udemy, online course, January 2018, Five hours.
- 9.2.** Codata-GDR School of Research Data Science, International Centre for Theoretical Physics and South American Institute for Fundamental Research, Sao Paulo, Brazil December 2017, 60 hours.
- 9.3.** Null models in Ecology and Evolution, Institute of Ecology A.C., October 2017, 4 hours.
- 9.4.** Basic programming course with Python, National Laboratory of Advanced Informatics A.C., Xalapa, July 2017, 20 hours.
- 9.5.** Data analysis with Python, specialization in statistical methods and Master of Applied Statistics, Faculty of Statistics and Computer Science, Universidad Veracruz, June 2017, 20 hours.
- 9.6.** Applied Geostatistics, specialization in statistical methods and Master of Applied Statistics, Faculty of Statistics and Computer Science, Universidad Veracruz, June 2017, 20 hours.
- 9.7.** Forest monitoring with Claslite, Carnegie Institute for Science, online course, 20 hours.
- 9.8.** Advanced R, Georg-August-Universität Göttingen, Göttingen, Germany, 13 hours.
- 9.9.** Applied methods in community ecology and functional ecology, Centre for ecology, evolution and environmental changes, Lisbon, Portugal, 36 hours.
- 9.10.** Tools for Analysing Landscape Connectivity: Methods and applications, Georg-August-Universität Göttingen, Göttingen, Germany, 16 hours.
- 9.11.** Data Science Specialization Course, Johns Hopkins University, Baltimore, United States of America, 8 weeks.
- 9.12.** Quick Start R: An introduction of applications oriented to the statistical package R (in German). Georg-August-Universität Göttingen, Göttingen, Germany, 11 hours.

10. SCIENTIFIC PRODUCTION

10.1. Publications

https://www.researchgate.net/profile/Jorge_Gomez-Diaz

<https://scholar.google.es/citations?user=geZmaZcAAAAJ&hl=es>

a) *Refereed publications with Impact factor (ISI-JCR):*

Castro A, Lascurain M, **Gómez-Díaz JA**, Sosa V. 2018. Mayan Homegardens in decline: The case of the Pitahaya (*Hylocereus Undatus*) A Vine cactus with edible fruit. *Tropical Conservation Science*. Doi: 10.1177/1940082918808730

Bautista-Bello AP, López-Acosta JC, Castillo-Campos GC, **Gómez-Díaz JA**, Krömer T. 2018. Diversity of shrubs along elevation and disturbance gradients in downtown Veracruz, Mexico. *Acta Mexicana botany*, DOI: 10.21829/ABM 126.2019.1369

Carvajal-Hernández CI, **Gómez-Díaz JA**, Kessler M, Krömer T. 2018. Influence of elevation and habitat disturbance on the functional diversity of ferns and lycophytes. *Plant Ecology & Diversity*, DOI: 10.1080/17550874.2018.1484526

Gómez-Díaz JA, Brast K, degenerate J, Krömer T, Ellis E, Heitkamp F, Gerold G. 2018. Long-term changes in forest cover in central Veracruz, México (1993-2014). *Tropical Conservation Science* 11: 1940082918771089

Benítez-Badillo G, Lascurain-Rangel M, Álvarez JL, **Gómez-Díaz JA**, Avendaño-Reyes S, Dávalos-Sotelo, López-Acosta JC. 2018. Prediction of availability of wild edible fruits due to land-use changes in the state of Veracruz, Mexico. *Tropical Conservation Science* 11:1940082918758662.

Pietersen S, López-Acosta JC, **Gómez-Díaz JA**, Lascurain-Rangel M. 2018. Floristic diversity and cultural importance in agroforestry systems on small-scale farmer livelihoods in central Veracruz, Mexico. *Sustainability* 10 (1): 279.

Gómez-Díaz JA, Krömer T, Kreft H, Gerold G, Carvajal-Hernández CI, Heitkamp F. 2017. Diversity and composition of herbaceous angiosperms along gradients of elevation and forest use intensity. *PLoS ONE* 12 (8): e0182893.

Carvajal-Hernández CI, Krömer T, López-Acosta JC, **Gómez-Díaz JA**, Kessler M. 2017. Conservation value of disturbed and secondary forests for ferns and lycophytes along a subtropical elevational gradient. *Applied Vegetation Science* 20 (4): 662-672.

Gómez-Díaz JA, Krömer T, Carvajal-Hernández CI, Gerold G, Heitkamp F. 2017. Richness and distribution of herbaceous angiosperms along gradients of elevation and forest disturbance in central Veracruz, Mexico. *Botanical Sciences* 95 (2): 307-328.

b) Chapters of books:

Krömer T, Viccon-Esquivel J, **Gómez-Díaz JA**. Accepted. Anthropogenic effects on the diversity of epiphytes and orchids in the center of Veracruz. In: Association for the Conservation of wild orchids (Eds.). *Orchids of Veracruz*. The Government of the state of Veracruz.

Gómez-Díaz JA, Hernández-Suárez J Krömer T. 2015. Effect of disturbance on the morphophysiology of epiphytes ferns in different environments. In: M.L. Hernández-Maldonado, M.M. Ojeda-Ramírez, C. Cruz-López (Ed.). *The statistical methodology: application Cases*. Collection of academic texts of statistics-series books by contribution. Imaginary editors, Xalapa, Ver.

c) Scientific dissemination:

Gómez-Díaz JA, Villalobos F. Under review. Montañas guardianas de Biodiversidad. *Ciencia Ergo Sum*.

Ramírez-Ramírez RE, Villalobos F, **Gómez-Díaz JA**. Perception and conservation of the surrounding forests Xalapa. 2018. *In Vivo: Scientific Supplement to the Journal of Xalapa*. Monday, September 17th.

Gómez-Díaz JA, Curiel Ballesteros To. 2008. Assessment of the cultural services of the ecosystems in the *Bosque la Primavera* and the Chapala Lagoon. *Sustainability Magazine*. University Center of Biological and Agricultural Sciences. The University of Guadalajara.

10.2. Invited seminars and conferences

2017. Restoration and ecological connectivity in the municipality of Xalapa. Environment Forum and Sustainability, Xalapa Recreational Center. Organizers: Dr Pedro Hipólito Rodríguez Herrero and Dr Luisa I Paré Ouellet.

2017. Diversity and distribution of herbaceous angiosperms in gradients of altitude and intensity of forest use. Institute of Biological Research, University of Veracruz. Organizer: M. En C. Alvar González Christen.

2017. Diversity and distribution of herbaceous angiosperms in gradients of altitude and intensity of forest use. Bachelor's degree in Atmospheric science, Faculty of Electronic instrumentation and Atmospheric Science, Universidad of Veracruz. Organizer: Dr Juan Matías Mendez Perez.

11. PARTICIPATION IN CONFERENCES (RECENT)

- 11.1. Carvajal-Hernández CI, Krömer T, López-Acosta JC and **Gómez-Díaz JA**. Anthropogenic impact on epiphytes ferns in downtown Veracruz. Forum "Plants Epiphytes: Ecology and conservation". Videoconference room USBI Xalapa. 22 of May. Paper.
- 11.2. Bautista-Bello AP, Krömer T, López-Acosta JC, Castillo-Campos G And **Gómez-Díaz JA**. 2018. Patterns of diversity and distribution of shrubs in the center of Veracruz, México. Forum plants epiphytes "diversity, ecology and conservation". Poster.
- 11.3. **Gómez-Díaz JA**. 2017. Applied numerical ecology. VII International Forum on Applied Statistics. Xalapa. Paper.
- 11.4. **Gómez-Díaz JA**, Krömer T, Gerold G, Heitkamp F. 2016. Species richness and distribution of herbaceous angiosperms along gradients of elevation and human disturbance in Central Veracruz, Mexico. Annual Conference of the Society for Tropical Ecology (GTÖ), Göttingen, Germany. Oral presentation.
- 11.5. **Gómez-Díaz JA**, Heitkamp, F., Gerold, G., and Krömer, T. 2015. Species richness and complementarity of herbaceous angiosperms along an elevational gradient in Central Veracruz, Mexico. The annual meeting of the German Society of Ecology, Göttingen, Germany. Poster.
- 11.6. **Gómez-Díaz JA**, Heitkamp, F., Gerold, G. and Krömer, T. 2015. Species richness and complementarity of herbaceous angiosperms along an elevational gradient in central Veracruz, Mexico. Annual Conference of the Society for Tropical Ecology (GTÖ), Zurich, Switzerland. Poster.
- 11.7. **Gómez-Díaz JA**, Heitkamp, F., Gerold, G. and Krömer, T. (2014). Influence of altitude and human impacts on diversity of ferns and herbs and soil parameters at the *Cofre de Perote* (Veracruz, Mexico). 11th Latin-American Botanical Congress. Salvador da Bahia, Brazil. Poster.
- 11.8. **Gómez-Díaz JA**. (2014). Herbaceous angiosperms as indicators of Environmental Parameters along an altitudinal gradient at the *Cofre de Perote* (Veracruz, Mexico). Annual Conference of the Society for Tropical Ecology. 25-28 of February. Freising Germany. Oral presentation.
- 11.9. **Gómez-Díaz JA**. (2013). Angiosperms herbaceous as an indicator of environmental parameters along an altitudinal gradient in the *Cofre de Perote* (Veracruz, Mexico). Symposium on the Interdisciplinary Project chest of But. Xalapa, Mexico. November 14th. Oral presentation.
- 11.10. **Gómez-Díaz JA**. (2013). Herbaceous ferns and angiosperms as indicators of soil parameters along an altitudinal gradient at the *Cofre de Perote* (Veracruz, Mexico). XI Symposium of Mexican students and studies in the UK. Sheffield, United Kingdom. 11-13 Of July. Oral Presentation.
- 11.11. **Gómez-Díaz JA**. (2012). Herbaceous ferns and angiosperms as indicators of soil quality and microclimate along an altitudinal gradient in the central Gulf of Mexico. Latin America Symposium, Neotropics-Challenges for Integrative Ecology. Bonn, Germany. 17-18 of December. Oral presentation.

12. PARTICIPATION IN PROJECTS

12.1. With Financing

Biovera- Exploration and explanation of biodiversity patterns along gradients of climate, soil and disturbance in Central Veracruz, Mexico, CONACYT-DAAD (ProAIMex), Mexico-Germany, \$350.000. July 2015-June 2017.

Study of diversity, vertical distribution and morpho-ecophysiological patterns of epiphytes in mountain cloud forests along latitude gradients and anthropogenic alteration. Universidad Veracruz (PROMEP), Mexico, \$100.000. July 2010-September 2011.

12.2. No financing

Identification of sites Priority For conservation in central Veracruz. Institute of Ecology A.C. and the University of Veracruz. September 2017-in progress.

Biovera: Exploration and explanation of biodiversity patterns along altitude gradients, climate and human influence in central Veracruz, Mexico. The University of Göttingen, University of Veracruz, University of Zurich, Institute of Ecology A.C. Germany, Mexico and Switzerland. August 2012-In progress. <https://www.uv.mx/personal/tkromer/biovera/>