Glenda Mendieta-Leiva

H-index 7 with **16** publications in WOS | Google scholar | Researchgate

Education	
2009- 02/2015	**PhD in Ecology**, University of Oldenburg *Thesis:* **Long term dynamics of vascular epiphyte assemblages in a lowland rainforest in Panama.** Project funded by the German research foundation (DFG), in collaboration with the Smithsonian Research Tropical Institute (STRI), Panama. - Collation and analyses of census data from the Caribbean on over 800 trees. - Taxonomical identification and registration of >20 000 plant specimens. - Other main topics: statistics, community ecology, diversity, taxonomy, botany.
2011-2012	**Master courses.** Experimental Design and Data Analysis, Molecular Ecology (**University of Bremen)** Function, Ecology of Plants (**University of Oldenburg**).
2005-2007	**Master degree in Biology**, Universidad Nacional de Piura (Peru) *Thesis:* **Beta diversity of the epiphytic communities in the San Francisco reserve, Ecuador**. DFG research unit 420: Functionality in a tropical mountain rainforest.
02/2003	**Fellow** Internship in botany and conservation with the Missouri Botanical Garden and Herbario Nacional (QCNE) of Ecuador. Universidad Nacional de Quito (Ecuador).
2000-2005	**BSc Biological Sciences**, Universidad Nacional de Piura Main subjects: Ecology and Biodiversity

Research experience (selected)	
05/2015 - current	**Postdoctoral researcher.** University of Marburg. Laboratory *ecological plant geography*. Supervisor: Prof. Maaike Y. Bader. - Broadly, I study the distributional patterns of Neotropical vegetation. - Specifically, the ecology and diversity of vascular epiphytes (locally and regionally). - Planning & management of month-to-month activities (9 members, PhDs and Postdocs) - Teaching the lab data entry and sharing protocols, reproducibility tools, and statistics with R - Successfully writing and applying for third-party funding - Optimal administration of funding (65 000 €)
2018 - current	**R & D Project**: "Beta-diversity patterns of vascular epiphytes". Financed by the DFG. - Strengthening networking by organizing, managing and participating in a three-day international workshop with 24 participants from Latin America and Europe. - During the workshop the formation of the consortium EpIG (Epiphyte Inventory Group) took place which is currently formed by ca. 50 researchers. - Leading the construction and formalization of the first database of vascular epiphyte inventory data (EpIG-DB) which is described in a peer-review article.

2017 - current	**Field work in Peru (R & D Project**: "Testing the putative role of epiphytes in nutrient cycling in tropical montane cloud forests"). Funded by the University of Marburg. - Fieldwork in the Peruvian montane rainforest in cooperation with researchers from University of Turku, climbing trees and collection epiphytic biomass. - Methodological paper in preparation ("*The minimum sampling needed for reliable estimates of epiphytic biomass in tropical montane cloud forests*").
2009-2012	**Field work in Panama** (R & D Project: "Long term dynamics of vascular epiphyte assemblages in a lowland rainforest in Panama"). Funded by the DFG consisted on three field trips of one year, six months and two months: - Organising of field work & management of a team of seven collaborators on a day-to-day basis. - Overseeing of data entering, media organization and taxonomical identification of epiphytic individuals, in order to construct the project database.

Full list of publications in peer-reviewed scientific journals [number of citations in google scholar]

Salazar Zarzosa, P., **Mendieta-Leiva G.**, Navarro-Cerrillo R.M., Cruz G., Grados N. & R.Villar. An ecological overview of Prosopis pallida, one of the most adapted dryland species to extreme climate events. *Journal of Arid Environments* 193, 104576.

Mendieta-Leiva G., F. N. Ramos, J.P.C. Elias, G. Zotz, M. Acuña-Tarazona, F.S. Alvim, D.E.F. Barbosa, G.A. Basílio, S. P. Batke, A.M. Benavides, C. T. Blum, C. R. Boelter, M. J. Carmona, L.P. Carvalho, E. de la Rosa-Manzano, H.J.R. Einzmann, M. Fernández15, S.G. Furtado, A.L. de Gasper, V. Guzmán-Jacob, P. Hietz, M.V. Irume, D.A. Jiménez-López, M. Kessler, H. Kreft, T. Krömer, G.M.O. Machado, N. Martínez-Meléndez, P.L.S. S. Martins, R.M. Mello, A.F. Mendes, L.M. Neto, S.R. Mortara, C. Nardy, R.P. Oliveira, A.C.A. Pereira, L. Pillaca, A.C. Quaresma, C. Rodríguez Quiel, E. Soto Medina, A. Taylor, M.S. Vega, K. Wagner, M.S. Werneck, F.A. Werner, J.H.D. Wolf, C.E. Zartman, D. Zuleta & Borja Jímenez-Alfaro. **2020**. EpIG-DB: A database of vascular epiphyte assemblages in the Neotropics. *Journal of Vegetation Science*. 31: 518– 528. [4]

Méndez-Castro F.E., Rao D, **Mendieta-Leiva G**. & M.Y. Bader. **2020**. Island-biogeographic patterns of spider communities on epiphytes depend on differential space use among functional groups. *Journal of Biogeography*. 47: 1322– 1332. [2]

De la Rosa-Manzano E.*, **Mendieta-Leiva G.***, Guerra-Pérez A., & Mora-Olivo A. **2019**. Vascular epiphyte diversity in a Neotropical transition zone is driven by environmental and structural heterogeneity. *Tropical Conservation Science.* January 2019. *Equal first authorship [2]

Mezaka A., Bader, M.Y., Salazar-Allen, N. & **G. Mendieta-Leiva**. **2019**. Epiphyll specialization for leaf and forest successional stages in a tropical lowland rainforest. *Journal of Vegetation Science*. 31: 118– 128.[1]

Guevara-Perez C.I., "...", **Mendieta-Leiva G**. & E. De la Rosa-Manzano. **2019**. Epiphytic orchids *Stanhopea tigrina* and *Prosthechea cochleata* are differentially affected by drought in a subtropical cloud forest. *Photosynthetica*. 57(4): 1052-1065. [5]

Rodríguez-Quiel, E. E., **Glenda Mendieta-Leiva G.** & M. Y. Bader. **2019**. Elevational patterns of bryophyte and lichen biomass differ among substrates in the tropical montane forest of Baru volcano, Panama. *Journal of Bryology*. [8]

Méndez-Castro F.E., Bader M.Y., **Mendieta-Leiva G**., Rao D. **2018**. Islands in the trees: A biogeographic exploration of epiphyte-dwelling spiders. *Journal of Biogeography* 45:2262-2271. [8]

Bader, M.Y., Loranger, H., Zotz, G., **Mendieta-Leiva, G**. **2018**. Responses of Tree Seedlings near the Alpine Treeline to Delayed Snowmelt and Reduced Sky Exposure. *Forests* 9:12. [7]

De la Rosa-Manzano E., Guerra-Pérez A., **Mendieta-Leiva G.**, "...", and L.U. Arellano-Méndez. **2017**. Vascular epiphyte assemblages in two forest types of "El Cielo" biosphere reserve, México. *Botany* 95:599-610.[10]

Mendieta-Leiva G & G. Zotz. **2015**. A conceptual framework for the analysis of vascular epiphyte assemblages. *Perspectives in Plant Ecology Evolution and Systematics* 17: 510-521. [35]

Cabral JS, Petter G, **Mendieta-Leiva G**, Wagner K, Zotz G and Kreft H. **2015**. Branchfall as a demographic filter for epiphyte communities: Lessons from forest floor-based sampling. *PLoS ONE* 10(6): E0128019. [32]

Wagner K, **Mendieta-Leiva** G & Zotz G. **2015**. Host specificity in vascular epiphytes: a review of methodology, empirical evidence and potential mechanisms. AoB PLANTS, doi: 10.1093/aobpla/plu092. [153]

Brandes M, "...", **Mendieta-Leiva G**, Golubic S & K.A. Palinska. **2015**. Supratidal Extremophiles - Cyanobacterial Diversity in the Rock Pools of the Croatian Adria. *Microbial ecology* 70 (4), 876-888. [13]

Zotz G, **Mendieta-Leiva G** & Wagner K. **2014**. Vascular epiphytes at the treeline – composition of species assemblages and population biology. *Flora* 209: 385-390. [17]

Wester S, **Mendieta-Leiva G**, Nauheimer L, Wanek W, Kreft H & Zotz G. **2010**. Physiological diversity and biogeography of vascular epiphytes at Río Changuinola, Panama. *Flora* 206: 66-79. [25]

Peer-reviewed Book chapters [number of citations in google scholar]

Mendieta-Leiva G., Porada P & M.Y. Bader. **2020**. Chapter 09: Interactions of epiphytes with precipitation partitioning. Precipitation Partitioning by Vegetation: A Global Synthesis. J.T. Van Stan, J. Friesen & E. Gutmann (Eds.). Springer. Cham. https://doi.org/10.1007/978-3-030-29702-2_9 [11]

Allen S.T., Aubrey P., Bader M.Y, "...",, **Mendieta-Leiva G.**, Porada P., Qualls R.G., Schilperoort B., Stubbins A. & J.T. Van Stan. **2020**. Chapter 16: Key questions on the evaporation and transport of intercepted precipitation. Precipitation Partitioning by Vegetation: A Global Synthesis. J.T. Van Stan, J. Friesen & E. Gutmann (Eds.). Springer. Cham. https://doi.org/10.1007/978-3-030-29702-2_16 [8]

Other publications (Field guides & others)

- Werner F A. & **Mendieta-Leiva G**. 2014. Araceae of the "Estación Científica San Francisco", Ecuador. *Color Guide Series. Field Museum, Chicago (US)*.
- Werner F A & **Mendieta-Leiva G**. 2014. Ericaceae of the "Estación Científica San Francisco", Ecuador. *Color Guide Series. Field Museum, Chicago (US)*.
- Werner, F A & **Mendieta-Leiva G**. 2011. Epiphytic ferns and allies of Podocarpus Biosphere Reserve. *Color Guide Series. Field Museum, Chicago (US)*.
- Laube S, Nauheimer L, **Mendieta-Leiva G** & Croat T. 2008. Vascular epiphytes of the Rio Changuinola valley. *Color Guide Series. Field Museum, Chicago (US)*.
- Zotz, G., **Mendieta-Leiva, G.**, & Wagner, K. **2016**. The San Lorenzo Crane Plot. In G. Zotz (Ed.), Plants on plants - The biology of vascular epiphytes (pp. 181-184): Springer International Publishing.

Funding & Awards

12/2018 - ***Internationalization funds***, **University of Marburg**, Germany (**15 000** €). Binational field course (Peru) and scholarships for ten Peruvian students.

12/2017 - ***Initiation of international cooperation***, **DFG** (**37 500** €). **Project**: "Beta-diversity patterns of vascular epiphytes" resulting in:

- International workshop on vascular epiphytes (Marburg 2018)
- Creation and leadership of the consortium EpIG (Epiphyte Inventory Group)
- Per-reviewed publication about the EpIG database of vascular epiphyte inventory data

08/2016

- ***Funding research fund***, **University of Marburg** (**15 000** €). **Project**: "Testing the putative role of epiphytes in nutrient cycling in tropical montane cloud forests" resulting in:
  - Cooperative fieldwork in the Peruvian montane rainforest (University of Turku)
  - Methodological paper in preparation

06/2018

10/2015 - ***Lecture travel grant***, **DAAD** (German Academic Exchange Service)
To give a keynote lecture in the XVI National Congress of Botany, Peru.

- ***Travel grant***, **FONDECYT** (National Science and Technology Council), Peru.
To give a talk at the International meeting BIOCON: Biodiversity and conservation of the tropical Andes and the Amazon rainforest. Peru.

Presentations: Research & Scientific Outreach (*selected*)

Outreach

14/12/2020 ***Invited speaker,*** Connecting with science: visions, challenges and opportunities, Universidad Nacional Agraria la Molina, Lima, Perú: Studying the tropical diversity.

16/11/2019 ***Invited speaker,*** Week of Science: Humbolt expedition, Atlantic Botanical Garden, Asturias, Spain: **"**La vida en las alturas tropicales" (Life in the tropical heights).

19/10/2019 ***Invited speaker,*** Simposio Peruano de Diversidad y Taxonomia Vegetal (Peruvian Symposium on Diversity & Taxonomy), Universidad Científica del Sur, Peru: "EpIG 1.0: Epífitas vasculares en el Neotrópico" (EpIG 1.0: Neotropical Vascular epiphytes).

19/04/2019 ***Invited speaker,*** Centro de Estudiantes de Biología (CEBIO-UNALM), Universidad Nacional Agraria La Molina, Peru: **"**Epífitas vasculares" (Vascular epiphytes).

19/06/2018 ***Keynote speaker,*** XVI National Congress of Botany. Ayacucho, Peru: "Vascular epiphytes: diversity, ecology, and biogeography".

Academic conferences

11/06/2021 ***Mendieta-Leiva G***, et al. ¿What questions can we answer using EpIG-DB? First database of vascular epiphyte assemblages. **Invited Talk** at the 1st Colombian symposium of epiphytes: diversity, ecology and conservation, Jardín Botánico de Medellín, Colombia.

18/05/2021 ***Mendieta-Leiva G***, et al. EpIG 1.0: la primera base de datos de ensamblajes de epífitas vasculares. **Invited Talk** at the 2nd Forum in diversity, ecology y conservation of vascular epiphytes, Universidad Veracruzana, Veracruz, Mexico.

14/07/2019 ***Mendieta-Leiva G***, ***Jímenez-Alfaro, B.*** *et al*. Building EpIG 1.0, the epiphyte inventory group database. **Talk** at the IAVS 62nd Annual symposium, Germany.

06/02/2017 ***Mendieta-Leiva G*** & F Werner. Vascular epiphytes in mountain rainforests – beta diversity, topographical gradients and sampling units. **Talk** at the European Conference of Tropical Ecology. Brussels, Belgium.

15/10/2015

Méndez-Castro F, Bader M, ***Mendieta-Leiva G*** & D Rao. Islands in the trees: A Biogeographic exploration of epiphyte-dwelling spiders. **Talk** at the 7th International Canopy Conference. UK.

Peer Reviews (Journals and Book publishers: Publons profile)

Journal: Journal of Ecology, Diversity and Distributions, PeerJ, Journal of Plant Ecology, Journal of Tropical Ecology, Journal of Vegetation Science, Acta Oecologica, Landscape Ecology, Botanical Sciences, Biota Colombiana, Plant Biology, Ecotropica, Plant Ecology & Diversity. Book: Wiley. Special issue: current guest editor, research topic "Living Far From the Ground: Strategies of Forest Epiphytes" in Frontiers magazine.

RESEARCH SKILLS

Technical

- Tree climbing experience (over 15 years), field measurements, environmental surveying and diverse sampling techniques, photography (e.g. field guides and documentation).
- Extensive experience in international field work (Panama, Ecuador, Peru & France), organisation, taxonomic identification and herbarium work.
- In-depth knowledge of inferential & multivariate statistics & related programs (e.g. R environment, RMarkDown, Git), database management (TurboVeg, Juice).

Teaching and Supervision

- Advised students of different academic levels with statistical analysis.
- Taught climbing techniques, taxonomy & identification of vascular epiphytes in the field.
- Informal theses advisor of undergraduate Ecuadorean, Colombian and Peruvian students, at different stages.
- Provided guidance with sampling design and final thesis writing.
- Three PhD thesis in co-supervision: Eyvar Rodriguez Kiel, Phillips Marburg University (July 2020) Laura Rodríguez Lavín, Autonomous University of Tamaulipas (expected date 2021) João Pedro Costa Elias, Federal University of Alfenas (expected date December 2022). Two thesis of Bachelor and Three Master: Phillips University of Marburg (3) National University of Piura (1) Federal University of Alfenas (1, ongoing).

COMPETENCES AND SKILLS

- Excellent communication skills with an ability to liaise effectively with international researchers from different backgrounds and level of expertise.
- Advanced IT skills, demonstrated in familiarity with a range of specialist software, equipment and data analysis tools.
- A natural leader, demonstrated in the ability to oversee and lead research projects and work effectively as the head of a team (Leading the EpIG consortium resulting in EpIG-DB, with funding from DFG).
- Strong management skills, comfortable organising large-scale fieldwork projects and ecological surveys.

Languages

Spanish (mother tongue), English (TOEFL IBT 105/120), German (medium) & Portuguese (basic).

Professional Society Memberships

- **International Association of Vegetation Science** (IAVS)
  - Member of the ecoinformatics working group steering committee
  - Member of the Latin America and Caribbean working group temporal steering committee
- **Plant Ecology Division-CORBIDI**, Lima, Peru (Associated researcher)