CURRICULUM VITAE

Elvia J. Meléndez-Ackerman – Environmental Scicences-College of Natural Sciences, University of Puerto Rico, Rio Piedras 17 Ave Universidad Ste 1701, Tel 787-764-0000 x88197 – email: elmelend@gmail.com

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EDUCATION

B. S., June 1987: Biology. University of Puerto Rico, Río Piedras.

M. S., July 1990: Biology. Department of Biology, University of Puerto Rico, Río Piedras. Thesis: "The effects of a fungal disease on the fitness of individuals in a natural population of *Tolumnia variegata* (Orchidaceae)". **Advisor: Dr. James D. Ackerman**

Ph. D., Dec 1995 Biological Sciences. Department of Ecology and Evolutionary Biology, University of California, Irvine. Dissertation: "Pollinator-mediated selection in an *Ipomopsis* hybrid zone". **Advisor: Dr. Diane R. Campbell**

POSITIONS HELD

July 2006-Present	Full professor Env. Science Department, University of Puerto Rico, Río Piedras.
May 2007 – 2014	Subdirector Center for Applied Tropical Ecology and Conservation, University of Puerto Rico, Río Piedras.
Jan 2006 – August2010	Interim Director Institute of Tropical Ecosystem Studies, University of Puerto Rico, Río Piedras,
January 2001 - 2006.	Associate Professor, Institute of Tropical Ecosystem Studies, University of Puerto Rico, Río Piedras,
July 1996 – Dec. 2000	Assistant Professor and Director of El Verde Field Station, Institute of Tropical Ecosystem Studies, University of Puerto Rico, Río Piedras,
Jan 1996 - Jun 1996	Assistant Professor, Department of Biology, University of Puerto Rico, Humacao,.

TEACHING EXPERIENCE

1996-Present Undergraduate: Undergraduate Research (Biol 4990), Lecture and Coordination of Botany Laboratories (Biol 3014; 3014L), Botany (Biol. 3014)), Lecture and Coordination Ecology Labs (Biol 3111; Biol 3012), Coordinator Biology Tutoring (Biol 4980), Introduction to Environmental Sciences (CIAM 3005), Plant Taxonomy (UPR-Humacao)
Graduate: Graduate Rotation (Biol 8700), Problems in Biology (6855) Coordinator and part-time lecturer of GIS course in Collaboration with CRC-Smithsonian (not for credit), Bioconservation.(Biol 6145) Ecology, (Biol 6007- Graduate Seminar in Zoology theme – Evolution (Biol 6996), Plant Reproductive Ecology (Biol 6007)**, Undersdtandind the vulnerability and and sustainability of urban social-ecological systems** (CINA 4995 y) PRGH **). ULTRA** Social Ecological Systems Seminar (CIAM 8901), iTree CIAM (8901), iTree and Forest Health (CIAM 4997), CIAM 4997-011 (Proposal), CIAM 4997-013 (Bsc Thesis), CIAM 4995 (Use of Unmanned Aircraft Systems in Natural Resource Management)

University of Puerto Rico, Río Piedras:
1987-1990 Teaching Assistant: Developmental Biology, Biometry, Genetics,

University of California at Irvine:
1990-1995 Teaching Assistant: Ecology, Genetics: Restoration Ecology, General Biology.

Colegio Universitario de Humacao:
Jan - Jun1997: Plant Taxonomy, Ecology Laboratory

ADMINISTRATIVE EXPERIENCE:

July 1996 - June 2000 Scientist-in-Charge, El Verde Field Station, UPR-Rio Piedras-ITES
Staff: 2 maintenance workers, one assistant manager, 2 field technicians.

June 2002-2014 Director Species and Population Management Cluster (Subgroup II) – Center for Applied
Tropical Ecology and Conservation
Jan 2006 – Aug 2010 Acting Director – Institute for Tropical Ecosystem Studies, UPR-Rio Piedras
May, 2006 (1 week) Acting Director Environmental Science Program
Jul17-21, 2006 Acting Director Environmental Science Program
Sept. 2007-2012 Sub director, Center for Applied Tropical Ecology and Conservation
Jan 2018-Present Chair, Board NGO Amigos del Yunque

RESEARCH EXPERIENCE

Areas: Plant Ecology and Evolution, Bio conservation, Social-Ecological Research, Urban Ecosystem Services

June 1986 - May 1987: S.U.B.E. Program for Undergraduate Research in Biology, research assistant for Dr. Sharon File. Department of Biology, University of Puerto Rico, Río Piedras.
August, 1989 - May 1990: Research assistant for Dr. James D. Ackerman, Department of Biology, University of Puerto Rico, Río Piedras.
June 1991 - June 1992; Research assistant for Dr. Diane Campbell,
July 1993 - August 1993; Department of Ecology and Evolutionary Biology,
July 1994 - August 1994; University of California, Irvine and Rocky Mountain
July 1995 - Dec. 1995: Biological Laboratory, Gothic, Colorado.
January 1996 - May 1996; Department of Biology, Colegio Universitario de Humacao.
July 1996 - 2014; Institute for Tropical Ecosystem Studies, UPR-Río Piedras.
2014-Present Department of Environmental Sciences, UPR-Río Piedras.
2009-Present San Juan ULTRA and Urban Field Station (IITF-FS)
2015-Present *Instituto Nacional de Energía y Sustentabilidad Isleña* (National Institute of Energy and Island Sustainability)

SELECTED PUBLICATIONS (Last Five years; Total Publications = 76)

1. **E. J. Meléndez-Ackerman**, Rojas-Sandoval J., D. S. Fernández., Grizelle Gonzalez, Hana López, J. Sustache, M. Morales-Vargas, M. García-Bermúdez and, S. Aragón. 2016. *Associations between Soil Variables and Vegetation Structure and Composition of Caribbean Dry Forests.* Caribbean Naturalist 1:176-198.
2. Rojas-Sandoval, J., **E. J. Meléndez-Ackerman**, J.Fumero-Cabán, M. García-Bermúdez, J. Sustache , S. Aragón, M. Morales-Vargas, G. Olivieri and D. S. Fernández. 2016. "10-year assessment of ungulates exclusion in the dry forest of Mona Island: understory vegetation responses" *Caribbean Naturalist* 1:138-156.
3. Rojas-Sandoval and J., **E. J. Meléndez-Ackerman**. 2016.Assessing the impact of grass invasions on the population dynamics of a threatened Caribbean dry forest cactus. Biological Conservation 196:156-164
4. **Elvia J. Meléndez-Ackerman ***, Christopher J. Nytch, Luis E. Santiago-Acevedo, Julio C. Verdejo-Ortiz, Raúl Santiago Bartolomei, Luis E. Ramos-Santiago, Tischa A. Muñoz-Erickson. 2016. Synthesis of Household Yard Area Dynamics in the City of San Juan Using Multi-Scalar Social-Ecological Perspectives Authors: Sustainability *8*(5), 481; doi:10.3390/su8050481
5. Torres-Camacho, K.A., **Meléndez-Ackerman, E.J**., Díaz, E. et al. 2016. Intrinsic and extrinsic drivers of yard vegetation in urban residential areas: implications for conservation planning. Urban Ecosystems 1-11.doi:10.1007/s11252-016-0602-9.
6. E**. Meléndez-Ackerman**, Sofía Olivero-Lora, Angélica Erazo, José Fontánez, Khrisia Torres, Yankiomy Hernández, Cristina Vila, Elizabeth Diaz, Nicolás Correa, Luis Santiago, Ray Rodríguez and José Seguinot. UPR-IGERTS' gents of change project: Best practices for interdisciplinary work. 2016. Acta Cientifica 30:202-216.

7. Medina E., E. Cuevas, H. Marcano-Vega, E. Meléndez-Ackerman, and E. H. Helmer. 2017. Biogeochemical

Relationships of a Subtropical. Caribbean Naturalist 41:1-24.

8. Pérez M.E., **Mélendez-Ackerman, E.J.**, and Monsegur, O. 2018. Breeding system and pollination of *Gesneria pauciflora* (Gesneriaceae) a threatened Caribbean species. Flora 242:8-15.
9. Franklin, J., R. Andrade, M. Daniels, P. Fairbairn, Patrick; M. Fandino, T. W. Gillespie, G. González, D. Imbert, V. Kapos, D. Kelly, Marcano-Vega, Humfredo; **E. Meléndez-Ackerman**, K. McLaren, M. MCDonald, J. Ripplinger, J. Rojas-Sandoval, M. Ross, J. Ruiz, D. W. Steadman, E. Tanner. 2018. Geographical Ecology of Dry Forest Tree Communities in the West Indies. Journal of Biogeography, doi: 10.1111/jbi.13198
10. Vila Ruiz, C.P., Shear, T.H., Warren, S., Flores Mangual, M.L., and **Meléndez-Ackerman, E.J**. A socio-ecological assessment of the potential for vegetable gardens in elementary schools across an urban tropical watershed in Puerto Rico. Cities and the Environment (CATE). : 11 (1), Article 2 [Online] http://digitalcommons.lmu.edu/cate/vol11/iss1/2/
11. A. Henderson, **E.J. Melendez-Ackerman**, J.C Rodrigues-Verle. 2018 Abundance and Distribution of Brevipalpus (Acari: Tenuipalpidae) in the Residential Rio Piedras Watershed of San Juan's Metropolitan Area of Puerto Rico. Caribbean Naturalist 52:1-12
12. Christopher J. Nytch, **Elvia Meléndez-Ackerman**, Jorge Ortiz-Zayas, María Egleé. Rainfall interception by six urban trees in San Juan, Puerto Rico. Urban Ecosystems DOI: 10.1007/s11252-018-0768-4
13. Lugo , A. Mendez, P. Rodriguez, M and **E. J. Melendez-Ackerman**. 2018. Puerto Rico y El Mundo: El Cambio Climatico. Fundacion Amigos del Yunque Inc., 49pp.
14. Elvia Melendez-Ackerman, Ana Trujillo, Christopher Nytch, Molly Ramsey, Bejamin Branoff, Sofia Olivero Lora et al. 2018. **Ecological vulnerability of urban green infrastructure to Hurricanes Irma and Maria in Puerto Rico**; Report to IITF-FS funded by DOI-Fema https://www.researchgate.net/publication/327235826_Ecological_vulnerability_of_urban_green_infrastructure_to_Hurricanes_Irma_and_Maria_in_Puerto_Rico
15. ME Pérez, **EM Meléndez-Ackerman**, S Bonilla, JBauer, M Volcán, APou , C Caballero, L Cortés, WJ. Arendt, T Muñoz-Erickson, D Nowak. 2019. Urban Forest Assessment in Dominican Republic. International Forestry Working Group Newsletter March 2019: Page 4-6 http://www.orrforest.net/saf/index.html
16. ME Pérez, **EJ Meléndez-Ackerman**, OA Monsegur-Rivera 2019. Variation across river channels in demographic dynamics of a riparian herb with threatened status: management and conservation implications. American Journal of Botany 106: 996-1010.
17. Ramsey, M. T Munoz-Ericson, **E. Melendez-Ackerman** et al 2019. Overcoming Barriers to Knowledge Integration for Urban Resilience: A Knowledge Systems Analysis of Two-Flood Prone Communities in San Juan, Puerto Rico. Environmental Science and Policy 99:48-57.
18. Murray, *B.,* R.J. Colon-Merced, R. Colon-Rivera, C. Fury, M.A. Garcia-Bermudez, J.L. Herrera-Giraldo, C.W. Jackson, C. Lilyestrom, I. Llerandi-Roman, **E. Melendez-Ackerman**, M. Melendez-Oyola, O. Monzon-Carmona, R. Platenberg, M. Quinones, H.J. Ruiz, M.S. Umpierre, B. Stys, K. Swinnerton, G. Toledo-Soto, J. Vargas. 2019. An Overview Of The Socio-Ecological System Of Cays And Islets In The US Caribbean And Their Vulnerability To Climate Change. Earth Systems and Environmental Sciences, doi: 10.1016/B978-0-12-409548-9.12010-X
19. Olivero-Lora, S.; **Meléndez-Ackerman**, E.; Santiago, L.; Santiago-Bartolomei, R.; García-Montiel, D. Attitudes toward Residential Trees and Awareness of Tree Services and Disservices in a Tropical City. *Sustainability* **2020**, *12*, 11
20. Acevedo, Miguel & Beaudrot, Lydia & Melendez-Ackerman, Elvia & Tremblay, Raymond. (2020). Local extinction risk under climate change in a neotropical asymmetrically dispersed epiphyte. Journal of Ecology. 10.1111/1365-2745.13361.

INTERNET PUBLICATIONS

1. Olivero S. and **EJ Meléndez-Ackerman**. 2013. An Interdisicplinary Challenge: The Rivas Case Study (Case Study #13).Teaching module developed through workshop: Teaching Socio-Environmental Synthesis through case studies [online] http://www.sesync.org/the-rivas-case-study-case-study-13

2. **Melendez-Ackerman, E** 2015 ¿Es el Naled Seguro? 80 grados http://www.80grados.net/author/elvia/ http://www.noticel.com/blog/192378/es-naled-seguro.html

PRESENTATIONS IN 2019 (N= 194 Since 2000 includes first author and co-author)

Elvia Meléndez-Ackerman. Hurricanes in Puerto Rico: Opportunities for research and reflection. Texas Tech University. Lubbok TX January 17 2019.

1. Elvia Melendez-Ackerman. Evolution of Flowers and Breeding systems: A Case for Natural Selection. March 2019. Invited lecturer UPRRP Biol 6802. Evolution (Grad Course).
2. Elvia Melendez-Ackerman Cambio climático y algunas respuestas de la vegetación. Curso de Cambio Climático UPRRP. Invited lecturer UPRRP March 28 2019
3. Elvia Melendez-Ackerman. Plants in my backyard: Factors that may facilitate plant invasion. Course Invasive species biology. Invited lecturer UPRRP. San Juan April 15 2019
4. Elvia Melendez-Ackerman. Panel Duscussion about the channelization Project of Rio Piedras river: Environmental Opinion. Invited Panelist. Architects and Landscape Architects Guild. San Juan, April 23, 2019
5. Irma Cabrera and Elvia Melendez-Ackerman (speaker)Evaluating insect diversity of mango flowers at the Juana Diaz Experimental Station, Puerto Rico. Puerto Rico Honey Bee and Evolution of Invasive Organisms on Islands." Aug 13, 2019 Colegio de Abogados de Puerto Rico, San Juan PR
6. Elvia Meléndez-Ackerman (speaker), Mervin Pérez, Ana Pou, Claudia Caballero, Leonardo Cortés, Jerry Bauer, Solhanlle Bonilla, Wayne Arendt, Mirel Volcán, David Nowak. 2019. An Evaluation of the Urban Forest of the National District of Santo Domingo: Management Implications. NSF Workshop on Sustainability of Small and Mid-Size Cities- August 14-16, Texas Tech, Lubbock TX
7. Elvia Meléndez-Ackerman. La infraestructura verde de la ciudad y ciudades resilientes. Ciudad Global: Conociendo Puerto Rico, Medellín Colombia Oct 28-Nov1, 2-019

SYMPOSIA ORGANIZED

Co- Organized Urban Ecology Symposium at the Ecological Society of America. Fort Lauderdale Florida. August 10, 2016. Title: SYMP 15: Urban Ecology: A Socio-Ecological Insight from Tropical Regions and Latin America August 2016

Co-Organized Multi-Land Grant Partner Institution (MLPI) / Environmental Career Day in October 28 2016. Participants = 107, Many State and Federal Partners participated. Melendez-Ackerman, E. Rio Piedras in Collaboration with Michigan State, NC State and UPR Humacao. October 2016

COORDINATION OF SPECIAL COURSES WITH INVITED SPEAKERS (N=6, since 2008)

March 2016 November 2015. Seminar "Strengths and Limitations of Modeling Forest Ecosystem Services and Values ", Course:"Use of iTree tools in urban forest management: advantages and limitations. CIAM 8990. Dr. David Nowak (FS-Northern Research Station). Funded by Visiting Professors Program. 17 participants.

March 2017. Seminar "Knowledge systems innovation and urban resilience ". Course: "Knowledge Systems Analysis and Application to Sustainability and Resilience" (CIAM 8990). Dr. Clark Miller (Arizona State University). Funded by Visiting Professors Program. 16 Participants.

Spring 2019. Use of Unmanned Aircraft Systems for Natural Resource Management. Jarlath O'Neil-Dune and Emma Estabrook (University of Vermont). Funded by USDA-NIFA. 23 participants.

MENTORING: 1 Postdoct, 5PhD, 4MSc; Current: 10 Ph.D. 3MSc, 12 Undergraduate Senior Theses (Programs: Biology, Environmental Science, Interdisciplinary Science). Over 120 undergraduate students engaged in research for credit.

CURRENT FUNDING

March 2018 *Unmanned Aircraft Systems for Sustainable Agriculture and Natural Resource Management* USDA-NIFA E. Melendez-Ackerman (PI), M. Yu and A. Torres (co-PI) $150,000 funded Sept 2018-Aug 2020

February 2019 *Developing the infrastructure for 'The Puerto Rico Wood Products Team'* E. Meléndez-Ackerman (PI), Jess Zimmerman and L. Santiago (CoPIs). USDA Woods Innovation Grants. $250,000 August 2019-August 2021

April 2019 *Population Status, Habitat Requirements and Reproductive Biology of The Endangered Gonocalyx*

Concolor DRNA-USFW ($37,168.00), Oct 8 2019-Aug 2020.

Total awards from external funds since 1996 - $7.15M