

Curriculum Vitae. Ernesto Medina G.

Date: July 2015

Born in Maracaibo, Edo. Zulia, Venezuela July 27/1938

Married to Elvira Cuevas

University studies

- Licenciatura, Biología. Facultad de Ciencias, Universidad Central de Venezuela. Caracas, 1961. (Thesis: "Sobre la influencia de la temperatura y la luz en las velocidades de los procesos de asimilación y respiración en plantas terrestres")

-Doctor in Agronomy, University Hohenheim, Stuttgart-Hohenheim, Germany, 1964. (Thesis: "Die Beziehung zwischen Chlorophyllgehalt, assimilierender Fläche und Trockensubstanzproduktion in einigen Pflanzengemeinschaften")

-Post-Doctoral Fellow, Carnegie Institution of Washington, Stanford, California, 1970 ("Relationships between nitrogen level, photosynthetic capacity and carboxydismutase activity in *Atriplex patula* leaves")

Academic positions

- Senior researcher Instituto Venezolano de Investigaciones Científicas, since 1970, Emeritus since 2010

- Profesor Titular, Facultad de Ciencias, Universidad Central de Venezuela, Emeritus since 1989.

- Adjunct Scientist International Institute Tropical Forestry, USDA Forest Service (1995)(*ad honorem*)

- Adjunct Professor at the Dept. of Biology, University of Puerto Rico, Río Piedras (2013)(*ad honorem*)

Academic fellowships

- Consejo de Desarrollo Científico y Humanístico, Universidad Central de Venezuela. Stuttgart, Alemania 1961-63.

- Carnegie postdoctoral fellowship, Dept. of Plant Biology, Stanford, California, Feb-Aug 1970.

- Guggenheim Fellowship, USA 1986-87.

- Bacardi Scholar. University of Florida, Gainesville, USA, 1995

Distinctions

-Premio Lorenzo Mendoza Fleury. Fundación Polar, Caracas 1985.

- Foreign Member National Academy of Sciences (USA) 1992

- Foreign Member American Academy of Arts and Sciences (USA) 1992
- Member The Third World Academy of Sciences, 1993
- Premio "Francisco de Venanzi", Asociación para la Promoción de la Investigación Universitaria, Universidad Central de Venezuela, 1995
- Premio Nacional de Ciencia, Consejo Nacional de Investigaciones Científicas y Tecnológicas, 1995.
- Fellow Ecological Society of America, Noviembre 2012

Direction of University thesis

25 Licenciatura, 9 Magister and 9 Doctor

Field of research

Physiological ecology of tropical plants: mineral nutrition and photosynthesis

Current research projects

1. Ecology of coastal wetlands in the Maracaibo basin, and in the Atlantic coast of Venezuela
2. Nutrient and water relations of woody plants from forest on calcareous substrates in the Caribbean

Publications since 2010

Medina E., Cuevas E., Lugo A.E. Nutrient Relations of Dwarf *Rhizophora mangle* L. Mangroves on Peat in Eastern Puerto Rico. *Plant Ecology* 207: 13-24. 2010.

García M., Medina E. Crecimiento y morfología radical en dos genotipos de caña de azúcar estresados con sales simples o suplementadas con calcio. *Revista de Agronomía de la Universidad del Zulia* 27(1): 17-38. 2010

Leal Pinto F., Coppens D'Eckemnbrugge G., Avilan Rovira L, Medina E. La piña de América o ananás. Universidad Central de Venezuela. Consejo de Desarrollo Científico y Humanístico. Colección Estudios. Caracas 2010.

Cerón-Souza I.; Rivera-Ocasio E.; Medina E.; Jiménez J.A.; McMillan O.; Bermingham E. Hybridization and introgression in New World red mangroves *Rhizophora* (Rhizophoraceae). *American Journal of Botany* 97(6): 945–957. 2010

Herrera A., C.E. Martin, W. Tezara, C. Ballestrini, and E. Medina. Induction by drought of crassulacean acid metabolism in the terrestrial bromeliad, *Puya floccosa*. *Photosynthetica* 48 (3): 383-388, 2010

Mehlig U., Menezes M.P.M., Reise A., Schories D., and Medina E. Mangrove Vegetation of the

- Caeté Estuary. Pp. 71-108 In: Saint-Paul, U.; Schneider, H. (Eds.): Mangrove dynamics and management in north Brazil. Ecological Studies, Berlin: Springer. 2010
- Medina E., Cuevas E, Molina S., Lugo A.E., and Ramos O. Structural variability and species diversity of a dwarf Caribbean dry forest. *Caribbean Journal of Science* 46 (2-3): 1-13. 2012
- García M., Medina E, Jáuregui D. Cambios anatómicos inducidos por la salinidad en raíces de dos genotipos de caña de azúcar (*Saccharum* ssp) *Acta Botanica Venezuelica* 34 (1): 177-197. 2011.
- Medina E., E. Cuevas E. and Huber O. Origin of organic matter leading to peat formation in the Southeastern Guayana Uplands and Highlands. Chapter 8, in Zinck J.A. and Huber O.(eds.), *Peatlands of the Western Guayana Highlands, Venezuela*, Ecological Studies 217, pp. 237-246. DOI 10.1007/978-3-642-20138-7_8 . Springer-Verlag Berlin Heidelberg 2011
- Medina E., Cuevas E. Complejo Caatinga Amazónica: Bosques Pluviales Esclerófilos sobre Arenas Blancas. *BioLlania Edición Esp.* 10:241-249. 2011
- Querales Y., Barboza F., Briceño J., Medina E. Producción de hojarasca de *Rhizophora mangle* en el manglar de punta Capitán Chico, estado Zulia-Venezuela. *Boletín del Centro de Investigaciones Biológicas (Universidad del Zulia)* 45 (1):177-190. 2011
- Medina E. Cuarenta Años del Centro de Ecología del Instituto Venezolano de Investigaciones Científicas en perspectiva. *Interciencia* 36 (12): 876-880. 2011
- Medina E. y Lindorf H. Desarrollo de la ecología en Venezuela: una perspectiva desde el inicio hasta la consolidación de los estudios de postgrado. *Ecotropicos* 24(2): 123-144. 2011.
- Querales Y., Barboza F., Briceño J. y Medina E. Descomposición de material foliar de *Rhizophora mangle* en el manglar de punta de Capután Chico, Estado Zulia, Venezuela. *Boletín Centro Investigaciones Biológicas* 46: (1) 19-31. 2012.
- Medina E, González G, Rivera MM. Spatial and temporal heterogeneity of rainfall inorganic ion composition in northeastern Puerto Rico. *Ecological Bulletins* 54: 157-167. 2013
- Harris NL, Medina E. Changes in leaf properties across an elevation gradient in the Luquillo Mountains, Puerto Rico *Ecological Bulletins* 54: 167-179. 2013
- García M., Medina E. Effect of salt stress on the salt accumulation in roots and leaves of two sugarcane genotypes differing in salinity tolerance. *Journal of Tropical Agriculture* 51(1-2): 15-22. 2013
- Medina E. Contribuciones científicas de Volkmar Vareschi a la Ecología Vegetal En: Medina E, Huber O, Nassar JM & P Navarro (Eds.). *Recorriendo el paisaje vegetal de Venezuela*. Ediciones IVIC, Instituto Venezolano de Investigaciones Científicas (IVIC), Caracas, Venezuela. Pp. 43-56. 2013
- Jafet M. Nassar J.M., Velázquez G., Julio César Romero-Briceño J.C. Medina E. Las cactáceas como elementos de caracterización de ambientes áridos y semiáridos en Venezuela. En: Medina E, Huber O, Nassar JM & P Navarro (Eds.). *Recorriendo el paisaje vegetal de*

Venezuela. Ediciones IVIC, Instituto Venezolano de Investigaciones Científicas (IVIC), Caracas, Venezuela. Pp. 97-123. 2013

Medina E, Huber O, Nassar JM & P Navarro (Eds.) *Recorriendo el paisaje vegetal de Venezuela*. Ediciones IVIC, Instituto Venezolano de Investigaciones Científicas (IVIC), Caracas, Venezuela. 320 pp. 2013

Cerón-Souza I, Turner B.L., Winter K., Medina E., Bermingham E., Feliner G.N. Reproductive phenology and physiological traits in the red mangrove hybrid complex (*Rhizophora mangle* and *R. racemosa*) across a natural gradient of nutrients and salinity. *Plant Ecology* 215: 481-493. 2014

Lugo A.E. and Medina E. Mangrove Forests. Pp. 343-352, *Encyclopedia of Natural Resources* (Y. Wang, Editor) DOI: 10.1081/E-ENRL-120047500. CRC Press, Taylor & Francis Group. 2014

Medina E., Helmer E.H., Meléndez-Ackerman E., and Marcano-Vega H. Natural Vegetation Groups and Canopy Chemical Markers in a Dry Subtropical Forest on Calcareous Substrate: The Vegetation of Mona Island, Puerto Rico. *Caribbean Naturalist* No. 13: 1-15. 2014

Medina E., Cuevas E., Lugo A.E., Terezo E., Jiménez-Osornio J., Macario-Mendoza P.A., Montañez P. Conservative nutrient use by Big-Leaf Mahogany (*Swietenia macrophylla* King) cultivated under contrasting environmental conditions. *Revista Arvore (Brazilian Journal of Forest Science)* 38 (3): 479-488. 2014

Lugo A.E., Medina E., and Kathleen McGinley K. Issues and Challenges of Mangrove Conservation in the Anthropocene. *Maderas y Bosques* 20 : 11-38. 2014

Medina E. Elemental composition of species from contrasting environments in Puerto Rico. In: Sánchez M.J., López E. and Lugo A.E. (Compilers) *Chemical and physical analyses of selected plants and soils from Puerto Rico (1981-2000)*, pp. 61-82. US Department of Agriculture, Forest Service. International Institute of Tropical Forestry. General Technical Report IITF-GTR-45. 2015

Gomes Soares M.L, Pereira Tognella M.M., Cuevas E., and Medina E. Photosynthetic capacity and intrinsic water-use efficiency of *Rhizophora mangle* at its southernmost western Atlantic range. *Photosynthetica* 53 (3): 464-470, 2015.

Medina E, Fernandez W., and Barboza F. Element uptake, accumulation, and resorption in leaves of mangrove species with different mechanisms of salt regulation. *Web Ecol.*15: 1-11. 2015