UWI
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FACULTY OF SCIENCE & TECHNOLOGY

DEPARTMENT OF LIFE SCIENCES

SEMINAR SERIES

Phylogenetics and Systematics and the National Herbarium of Trinidad and Tobago

Dr. Francisco Morales

Curator, National Herbarium of Trinidad and Tobago, Department of Life Sciences, The University of the West Indies, St Augustine

Thursday 8th December 2022

12pm

Natural Sciences Conference room, next to Department of Life Sciences offices

Please register your intended attendance here:

https://docs.google.com/spreadsheets/d/1-CrocBm3zwpCBVxBRZ5n44G0fovMKBOEpOXJ958nuNA/edit#gid=0

Abstract

Apocynaceae is one of the ten largest plant families, with about 366 genera and 3700 species distributed throughout the tropics, subtropics, and temperate regions. Since the reamalgamation of Apocynaceae and Asclepiadaceae by Endress & Bruyns (2000), two subsequent updates with several changes and improvements to the original classification have been made (2007, 2014). However, intertribal relationships and composition of several tribes and subtribes are still uncertain.

Endress & Bruyns (2000) proposed five subfamilies (Rauvolfioideae, Apocynoideae, Periplocoideae, Secamonoideae, and Asclepiadaceae), of which Apocynoideae and Rauvolfioideae remain paraphyletic. Our current projects include molecular phylogeny focusing on these groups based on sequence data from the internal transcribed spacer (ITS) from the nuclear ribosomal DNA (nrDNA) and three plastid DNA (cpDNA) regions (trnL intron and trnL-trnF intergenic spacer, rpl16 intron, matK and 3’ / 5’ trnK intron).

The First volume of the Flora of Trinidad and Tobago was published 100 years ago, and the last in 1990. These treatments are outdated. We are working on collecting data and photographs to start a new Flora of Trinidad and Tobago, including photos of all the possible species. Additional projects include cultivation in the greenhouse of exciting or showy plants for scientific and educational purposes and a database of Medicinal plants.

About the speaker

J. Francisco Morales (Costarican, Ph.D. Plant Systematics, University of Bayreuth, Germany) has published more than 240 scientific articles in international peer-reviewed journals, is the author of 8 field guides, scientific editor of several books, and is the principal author of the treatments of the Manual of Plants of Costa Rica project, coordinated by the Missouri Botanical Garden. Additional collaborations include the Flora Mesoamericana, Flora of Brazil, Flora of Colombia, Catalogue of the Plants of Bolivia, and Catalogue of the plants of Antioquia, Colombia, among others. He has done extensive fieldwork in almost all of Central and South America. He is a world-renowned expert on the Apocynaceae family, the Flora of Costa Rica, and the Mesoamerican Flora. Francisco currently leads or participates in molecular studies, systematics, and biogeography projects of Apocynaceae, Araliaceae, and Bromeliaceae in the neotropics.