Taxonomic Re-evaluation of the Tropical Blueberries (*Vaccinium* L., Ericaceae) of Palawan and Mindanao Islands, Philippines

Maverick N. Tamayo[1], Peter W. Fritsch[2] and John D. Horner[1]

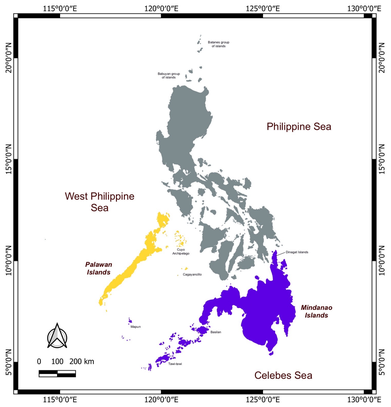
[1]*Department of Biology, College of Science and Engineering, Texas Christian University*
[2]*Fort Worth Botanic Garden | Botanical Research Institute of Texas*

INTRODUCTION

Biodiversity, which is important to the function and stability of ecosystems, is currently being lost to extinction at an alarming rate. Thus, cataloguing and documenting the biodiversity of the world has never been more critical. In this study, the diversity and taxonomy of the tropical blueberries (*Vaccinium* L., Ericaceae) of Palawan and Mindanao Islands, Philippines were revisited. A total of 27 species (24 from Mindanao and four from Palawan) were documented and recorded. Description of novel species, new island records, and clarification of ambiguous species complexes were included.

METHODOLOGY

Field Documentations and Processing of Vouchers



Map of the Philippines showing Palawan (yellow) and Mindanao (blue) Islands.

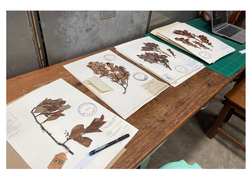
Field excursions

Specimen collection

Evaluation of field characters

Specimen drying

Evaluation of Herbarium Collections and Field Collected Specimens



Specimen annotation

Leaf blade marginal glands

Anther spurs

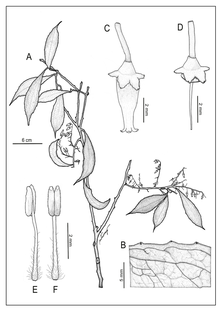
RESULTS

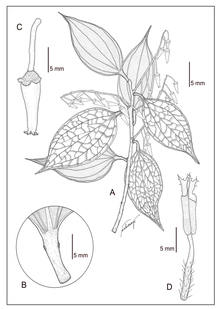
Taxonomic Re-evaluation

Valuable characters: flower morphology, glands, trichomes, and stamens (anther shape, presence of spurs, hairiness).

Four new island records and clarification of three ambiguous species complexes.

Description of Six Novel Species





Two of the six novel species (***V. jubatum*** and ***V. vomicum***) were discovered among herbarium collections, while the rest (***V. carmesinum***, ***V. coarctatum***, ***V. fallax***, and ***V. gamay***) were discovered during field excursions.

CONCLUSIONS

The Island of Mindanao is the center of Philippine *Vaccinium* diversity. This study underscores the crucial role of herbaria and field collections in understanding the floristic diversity of the world. This study also serves as a basis for taxonomical studies of the other blueberries in the Philippine Islands and Southeast Asia.

ACKNOWLEDGEMENTS

Herbaria: A, BRIT, CAHUP, CAS, CMUH, NY, PNH, PPC, PUH, UC, US

William R. Anderson Grant 2022