

Morphology, Chromosome Numbers and Molecular Evidences of Three New Species of Begonia Section Baryandra (Begoniaceae) from Panay Island, Philippines

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Abstract : The flora of Panay Island is under-collected compared with the other islands of the Philippines. In a joint expedition to the island, botanists from Taiwan and the Philippines found three unknown Begonia and compared them with potentially allied species. The three species are clearly assignable to Begonia section Baryandra which is largely endemic to the Philippines. Studies of literature, herbarium specimens, and living plants support the recognition of the three new species: *Begonia culasiensis*, *Begonia merrilliana*, and *Begonia sykakiengii*. Somatic chromosomes at metaphase were determined to be $2n=30$ for *B. culasiensis* and $2n=28$ for both *B. merrilliana* and *B. sykakiengii*, which are congruent with those of most species in sect. Baryandra. Molecular phylogenetic evidence is consistent with *B. culasiensis* being a relict from the late Miocene, and with *B. merrilliana* and *B. sykakiengii* being younger species of Pleistocene origin. The continuing discovery of endemic Philippine species means the remaining fragments of both primary and secondary native vegetation in the archipelago are of increasing value in terms of natural capital. A secure future for the species could be realized through ex-situ conservation collections and raising awareness with community groups.

Keywords : conservation, endemic , herbarium , limestone, phylogenetics, taxonomy

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