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DIVERSITY AND CHARACTERISTICS OF *CRYPTOCORYNE* (ARACEAE) SPECIES OF PEAT SWAMP ECOSYSTEM IN BORNEO

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Cryptocoryne (Araceae) is a genus of submerged aquatic plants commonly known as water trumpet. Cryptocoryne spp. have been increasingly popular and used in the aquarium industry worldwide. They are found in rivers, streams or swampy areas mostly in fresh water and peat swamps while a few species are able to grow in mangroves. Some Cryptocoryne species are rare and grow within their native habitats and are considered localised in their distribution and endemic to certain areas. This study was carried out in Borneo focusing on areas within Sarawak, Malaysia and Kalimantan, Indonesia. Our surveys recorded about 14 Cryptocoryne species in Sarawak. The species that inhabit the peat swamp ecosystem of Sarawak are C. ferruginea Engler, C. fusca de Wit, C. longicauda Engler, C. striolata Engler, C. pallidinervia Engler, and C. vujii Bastmeijer. The most common species, is C. ciliata (Roxburgh.) Schott., is the only species that thrives in mangrove and brackish water habitats. Two varieties of C. cordata Griff., namely C. cordata var. zonata and C. cordata var. grabowskii, have also been recorded. The common species that occur in peat swamp areas in Kalimantan are C. edithiae de Wit, C. fusca, C. longicauda, C. pallidinervia and three varieties of C. cordata namely C. cordata var. grabowskii, C. cordata var. griffithii and C. cordata var. zonata while C. purpurea Ridl. has one variety known as C. purpurea var. borneoensis. Our field observations of Cryptocoryne populations in natural habitat indicated that they are often in a stage of high disturbance due to human activities for land conversion and also overharvesting to cater for the commercial demand for aquarium culture. Hence ex situ conservation of Cryptocoryne species in suitable totally protected areas, especially in Sarawak, should be considered to avoid species extinction in the future.

Keywords: Cryptocoryne, peat swamp ecosystem, Borneo, conservation