Peponium: an interesting genus of Cucurbitaceae from Africa, Madagascar, and the Seychelles

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The genus Peponium (Cucurbitaceae: Cucurbitoideae) comprises about 20 species ranging from Gabon to Madagascar with one widespread species, P. vogelii, reaching the Seychelles. Eight species occur on mainland Africa, whereas 11 endemic species. all narrowly distributed, are found on Madagascar. Peponium species are generally climbing perennial herbs with tuberculate roots and simple leaves with tendrils. Most species are poorly documented and three are only known from their types. Historically the affinity and tribal placement of Peponium within the subfamily Cucurbitoideae have been unclear using traditional morphological characters. Jeffrey (1961) originally ascribed Peponium to tribe Trichosantheae subtribe Trichosanthinae, and later (1990) moved the genus to subtribe Ampelosicyinae. In the most recent classification (Jeffrey, 2005), the genus was transferred to tribe Benincaseae subtribe Benincasinae (without any explanation concerning the new placement). A general discussion of Peponium is provided here including information about the morphology, phylogeny. ecology, and distribution of the genus. Our preliminary investigation, which is part of a collaborative effort to treat Cucurbitaceae for the Missouri Botanical Garden's Catalogue of Vascular Plants of Madagascar project, indicates that the entire genus is in need of taxonomic revision. Peponium leucanthum is provisionally assigned to the endangered (EN) category of the IUCN Red List (2001), and at least three other species (two Malagasy and one African) should be considered threatened judging from a preliminary analysis of distribution information.

Key words - Africa, conservation, Cucurbitaceae, Madagascar, morphology, Peponium, phylogeny, taxonomy