SHORT COMMUNICATION

New combinations in Werauhia (Bromeliaceae) from Costa Rica

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While preparing the Bromeliaceae for the forthcoming Manual de las Plantas de Costa Rica, the necessity of two combinations in the genus Werauhia became evident. Grant (1995) reduced Vriesea macrantha Mez & Werckle and V. macrochlamys Mez & Werckle to the synonymy of the widespread Werauhia gladioliflora (Wendland) J. R. Grant. However, after an extensive field work, I concluded that the three species represent different taxa. There are several species restricted to the cloud forest and oak forest in the Cordillera de Talamanca in Costa Rica and Panama between 1600-2900 m, which has been misidentified in herbaria specimens as W. gladioliflora, since until recent collections, they were known for few collections or even just known from the type, but the progress of the treatment for the Costarican Bromeliads, show that must be treated as different species. Regards Werauhia gladioliflora, W. macrantha and W. macrochlamys, the most notorious differences are found in the floral bracts texture and altitudinal distribution. Werauhia gladioliflora is distinguished by its conspicuous verrucose, rugose or rugulose floral bracts and always is found growing below 1100 m (in Nicaragua, Costa Rica and Panama). In my field studies, I found that this species is the most common in the lowlands, and rarely is found growing under 1000 m. Numerous collections made in the last 10 years show that W. gladioliflora never growth up 1200 m. In macrantha and W. macrochlamys the bracts are usually smooth (or very minutely and inconspicuously punticulate in W. macrantha) and they are found growing up 1400 m, restricted to cloud forest and elfin forest. Others additional diagnostic features include longer sepals in W. macrantha and inflorescence bracts slightly imbricate in W. macrochlamys. Therefore, since both species of Vriesea don't have a name in Werauhia, two new combinations are proposed here.

Werauhia macrantha (Mez & Wercklé) J. F. Morales, comb. nov. Vriesea macrantha Mez & Wercklé, en Mez, Bull. Herb. Boissier sér. 2, 4: 867. 1904. TYPE. Costa Rica: without exact locality, Werckle s.n. (holotype, B not seen; photograph, INB).

Werauhia macrochlamys (Mez & Wercklé) J. F. Morales, comb. nov. Vriesea macrochlamys Mez & Wercklé, en Mez, Bull. Herb. Boissier sér. 2, 4: 865. 1904. . TYPE. Costa Rica: without exact locality, Werckle 115 (holotype, B not seen; photograph, INB)..

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Reference

Grant, J. R. 1995. The resurrection of *Alcantarea* and *Werauhia*, a new genus. **Tropische und Subtropische Pflanzenwelt, 91**: 7-57.