



A new species of *Graffenrieda* (Melastomataceae) from the Andes in Southern Ecuador

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Abstract

Graffenrieda penneysii, a new species known only from cloud forests in southern Ecuador is described. *Graffenrieda penneysii* is characterized by a calyptrate calyx that irregularly dehisces at anthesis, four-merous flowers, and indumentum of minute, sessile, glandular trichomes. This new species is compared to putative relatives in *Graffenrieda* and with the Andean members of *Huberia* due to their phenotypic resemblance. A line illustration and photograph of the type collection in the field are provided.

Resumen

Se describe *Graffenrieda penneysii*, una especie nueva conocida solo de los bosques nublados en el sur de Ecuador. *Graffenrieda penneysii* se caracteriza por el cáliz caliptrado que es dehiscente de manera irregular, las flores tetrámeras y el indumento de tricomas glandulares, sésiles, diminutos. Esta especie nueva se compara con especies putativamente emparentadas en *Graffenrieda*, y debido a su parecido fenotípico, con los miembros andinos de *Huberia*. Se proveen una ilustración y una fotografía de la colección tipo en el campo.

Key words: Cloud forest, *Huberia*, Merianieae

Introduction

Graffenrieda Candolle (1828: 105) is a neotropical genus of shrubs and small trees with about 45 described species (Renner 1993, Goldenberg & Meirelles 2011). The great majority of the diversity is found in the Andes, but it also reaches the Amazon rain forest, Guayana Highlands, Eastern Brazil, the Caribbean, Southern Mexico, and Central America (Almeda 2009, Goldenberg & Meirelles 2011). The genus has traditionally been placed in the Merianieae due to its flowers with a superior ovary that develops into a capsule, anthers with a dorsal appendage, and long pyramidal seeds (Cogniaux 1891). This placement is in agreement with recent molecular phylogenetic analyses based on DNA sequence data (Goldenberg *et al.* 2008, Michelangeli *et al.* 2011), and these same analyses also suggest that the genus may be monophyletic (but none of these studies were designed to test the relationship of *Graffenrieda*).

Within *Graffenrieda* a group of eight species has a calyptrate calyx, and most of these species were once segregated in their own genus *Calyptrella* Naudin (1852: 115), but later transferred into *Graffenrieda* by Williams (1963) because he did not see the calyx character as sufficient to segregate these species into two genera, and because there were some intermediate morphologies when analyzing all the species attributed to *Calyptrella* and *Graffenrieda*. The calyptrate members of *Graffenrieda* are distributed from Western Amazonia through the Andes and into Central America and Southern Mexico, with one species in the Guayana Highlands, but none are present in Eastern Brazil, Central Amazonia or the Caribbean (Goldenberg & Meirelles 2011).