

A NEW COMBINATION IN *HANDROANTHUS* (BIGNONIACEAE)

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ABSTRACT

The new combination *Handroanthus coronatus* (Proença & Farias) Farias is proposed for *Tabebuia coronata* Proença & Farias. Floral and vegetative features supporting this taxonomic transfer are discussed.

As originally described, *Tabebuia* Gomes ex DC. (Bignoniaceae) (typified by *Tabebuia cassinoides* (Lam.) DC. included only arboreal species with simple leaves (Candolle 1838). With the description of more species of Bignoniaceae, several shrubby and arboreal taxa with palmately compound leaves were included in the genus and *Tabebuia* was rendered more heterogeneous. Mattos (1970) stated that a group of Brazilian species known as "ipês" differed from what was originally proposed for *Tabebuia* (i.e., with simple leaves, 3-4 ovules per ovary in transversal section). Therefore, he (Mattos 1970) proposed the new genus *Handroanthus* Mattos [typified by *Handroanthus albus* (Cham.) Mattos] to accommodate species with palmately compound leaves and 8-9 ovule series per locule.

Gentry (1992) considered *Handroanthus* in the synonymy of *Tabebuia*, including shrubby or arboreal species with simple, unifoliolate, or palmately 3-7(-9) foliolate leaves and 2-multi ovules series per locule in the genus. Nevertheless, molecular phylogenetic analyses (Grose & Olmstead 2007a) showed that *Tabebuia*, as accepted by Gentry (1992), is distributed in three clades that are not closely related to each other. Based on these results, Grose &

Olmstead (2007b) resurrected *Handroanthus* and *Roseodendron* Miranda to accommodate the species that are not within the *Tabebuia* clade.

Tabebuia coronata Proença & Farias was published after the phylogenetic analyses of Grose & Olmstead (2007a), but its vegetative and floral features unequivocally place it under the current delimitation of *Handroanthus*. Therefore, we are proposing the formal transference of *T. coronata* to *Handroanthus*.

Handroanthus is a neotropical genus and most of its species present a restricted distribution. However, some species such as *Handroanthus impetiginosus* (Mart. ex DC) Mattos, *Handroanthus heptaphyllus* (Vell.) Mattos and *Handroanthus ochraceus* (Cham.) Mattos, are widely distributed. For instance, *H. impetiginosus* dwells from South-eastern Mexico to Central-Western Brazil.

Handroanthus coronatus, as other unifoliolate (or uni to trifoliolate) species of the genus, occurs in campos rupestres, in sandy or stony soils; in areas with marked seasonal dryness. For instance, *Handroanthus pumilus* (A.H. Gentry) S. Grose and *Handroanthus selachidendatus* (A.H. Gentry) S. Grose thrive under such conditions. The reduction to unifoliolate leaves could be interpreted as a reversal (from compound to

simple leaves). The presence of compound leaves is the prevailing condition in Bignoniaceae. However, several species present simple leaves (e.g.: *Jacaranda simplicifolia* K. Schum. ex Bureau & K. Schum.). However, this idea needs to be tested through phylogenetic studies and by plotting these characters on well-supported phylogenies.

Handroanthus coronatus (Proença & Farias) Farias, **comb. nov.**

Basionym: *Tabebuia coronata* Proença & Farias, *Heringeriana* 2(1): 82. 2008. Type: BRAZIL, Goiás: Alto Paraíso de Goiás, between Alto Paraíso de Goiás and Vale da Lua, Aug. 2007, C. Proença & S.A. Harris 3387 (Holotype: UB).

Comments: *Handroanthus coronatus* presents unifoliolate leaves and diagnostic floral features, such as yellow flowers, campanulate calyx covered by dendritic trichomes and 8-9 series of ovules per locule, that clearly supports its transfer to *Handroanthus* (see Grose and Olmstead 2007a for a more thorough discussion of these morphological features). So far, this species is only known from Cerrado of the

Distrito Federal and some nearby localities in Goiás, from 1125 to 1235 m.a.s.l (Farias-Singer & Proença 2008). Figure 1.

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Figure 1. *Handroanthus coronatus*. A. Branches bearing leaves. B. Habit and inflorescence. (Photos *A. Mendonça et al. 2459, B. Proença & Harris 3387*). Reproduced with authorization from “Uma nova espécie de *Tabebuia* para o Planalto Central, Brasil”, Proença, C.E.B. & Farias-Singer, R. *Heringeriana* 2(1): 81-83. 2008.

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