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# *Callianthe montana*, a new combination for *Abutilon montanum* (Malvaceae, Malvoideae), a rediscovered species endemic to the state of Minas Gerais, Brazil

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## Abstract

Since its description in 1827, *Abutilon montanum* was previously known exclusively from the type collection. Its rediscovery is reported here 180 years after its description in Serra Negra, Minas Gerais. An expanded species description, unpublished illustrations, comments about the distribution and commentaries on IUCN conservation status of this species are presented. The new combination *Callianthe montana* is also proposed here.

Key words: taxonomy, rain forest, Serra Negra

### Introduction

The neotropical genus *Callianthe* Donnell (Malveae, Malvoideae, Malvaceae) is comprised of about 40 species, primarily distributed in South America with a center of diversity in the Atlantic Forest of Brazil. *Callianthe* includes all species previously referred to *Bakeridesia* subg. *Dipteron* and several species of *Abutilon* Mill. (excluding *Abutilon* sensu stricto, which has a base chromosome number of x=7, and 2–3 ovules per carpel).

*Callianthe* differs from *Abutilon* s. str. and *Bakeridesia* s. str. in having the following combination of characters: a base chromosome number of x=8, four or more ovules per carpel, relatively large flowers with petals seldom shorter than 1.5 cm, petals with prominent veins, a glabrous staminal tube and stellate-pubescent inner mericarp wall, and a 25 base-pair deletion in the ITS2 rDNA sequence (Donnell *et al.* 2012).

*Abutilon montanum* was originally named by Auguste Saint-Hilaire in 1827 based on material from Serra Negra, Minas Gerais, Brazil. Since then, no further collections of this plant are recorded. During visits to approximately thirty Brazilian herbaria (2008–2013), recently collected, unidentified specimens of *Abutilon montanum* were found in CESJ (duplicates: RB, SP). This is the first record after 180 years since its description.

We present the rediscovery of *Abutilon montanum* in nature, a species description, previously unpublished illustrations, comments about the distribution and conservation status of this species; a new combination in *Callianthe* is also proposed here.

Following a detailed morphological examination of the preserved herbarium specimens, the digital image of the lectotype, the original description and the literature (Schumann, 1891; Kearney, 1958) it became clear that *Abutlion montanum* would require a new combination in *Callianthe*. This study was based on analysis of material from the following herbaria: CESJ, SP and RB. The illustrations were drawn by the first author, using a stereomicroscope coupled with a light chamber. Morphological terminology was based on Fryxell (1988), Takeuchi & Esteves (2012) and Radford *et al.* (1974).

Callianthe montana (A. Saint Hilaire) Donnell & C. Takeuchi, comb. nov.

Basionym:—Abutilon montanum A. St.-Hil. (1827: 207).

Type:—BRAZIL. Minas Gerais: Serra Negra, s.a., A. Saint-Hilaire s.n. (lectotype P!, designated by Fryxell, Lundellia 5:99. 2002).

Distribution and Habitat:—Endemic to Serra Negra, Minas Gerais, Brazil, in dense rainforest and high fields.
Specimens examined:—BRAZIL. Minas Gerais: Rio Preto, Serra Negra, 27 July 2006, *C.N. Matozinhos et al.* 292 (CESJ, RB); 31 July 2009, *N.L. Abreu et al.* 319 (CESJ, SP); 1 August 2009, *N.L. Abreu et al.* 322 (CESJ, SP).

**Observations:**—*Abutilon montanum* is easily recognized by its lanceolate ovate leaf blades with long attenuate leaf apices, reddish petals with a dark spot at the base of the claw and calyx lobes that are narrowly triangular with a long attenuate apex.

**Conservation status:**—According to IUCN criteria, *Callianthe montana* should be included in the endangered category (EN) due to the existence of only a single known locality

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#### References

Donnell, A., Ballard Jr., H.E. & Cantino, P.D. (2012) *Callianthe* (Malvaceae): A new Genus of Neotropical Malveae. Systematic Botany 37(3): 712–722.

http://dx.doi.org/10.1600/036364412X648689

Fryxell, P.A. (1988) Malvaceae of Mexico. Systematic Botany 25: 1–522. [pp. 24–68.]

Fryxell, P.A. (2002) An Abutilon Nomenclator. Lundellia 5: 79-118.

IUCN (2001) *IUCN Red List Categories and Criteria: Version 3.1. IUCN Species Survival Commission*. IUCN, Gland, Switzerland and Cambridge, UK, ii + 30 pp.

Kearney, T.H. (1958) A tentative key to the South American species of Abutilon. Leaflets of Western Botany 8: 201-216.

Radford, A.E., Dickison, W.C., Massey, J.R. & Bell, C.R. (1974) Vascular Plants Systematics. Harper & Row Publisher, New York, 1-889.

Saint-Hilaire, A. de (1827) Flora Brasiliae Meridionalis. Bibliopolam, Paris, pp. 207-208.

Schumann, K. (1891) Malvaceae I. In: Martius, C.F.P. & Eichler, A.W. (Eds.) Flora Brasiliensis. Lipsidae, Monachii, pp. 253-456.

Takeuchi, C. & Esteves, G.L. (2012) Synopsis of *Abutilon* (Malvoideae, Malvaceae) in the state of São Paulo, Brazil. *Phytotaxa* 44: 39–57.