

Bredemeyera hebeclada, a New Combination in Polygalaceae

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ABSTRACT. The identity of *Securidaca hebeclada* DC. (Polygalaceae) is explained and a new combination is made: *Bredemeyera hebeclada* (DC.) J. F. B. Pastore. *Bredemeyera velutina* A. W. Benn. is synonymized under the latter name and its lectotype is selected herein. An illustration of *B. hebeclada* is provided, and its distribution and morphology are discussed.

RESUMO. A identidade de *Securidaca hebeclada* DC. (Polygalaceae) é explicada e é proposto aqui uma nova combinação *Bredemeyera hebeclada* (DC.) J. F. B. Pastore. Além disso, *B. velutina* A. W. Benn. é sinonimizada sob o nome mais antigo *B. hebeclada* e com escolha de um lectótipo. Também é apresentada uma ilustração e comentários sobre a sua distribuição e morfologia.

Key words: Brazil, *Bredemeyera*, Polygalaceae, *Securidaca*.

During the preparation of Flora do Morro do Chapéu, Bahia (Pastore, unpublished), *Securidaca hebeclada* DC. was shown to be an older name for *Bredemeyera velutina* A. W. Benn. The name and type specimen of *S. hebeclada* were overlooked by early authors. Marques (1980, 1996) monographed the genera *Bredemeyera* Willd. and *Securidaca* L. Unfortunately, she was not able to analyze the type of *S. hebeclada*, and the original description (de Candolle, 1824) does not describe the fruits (Marques, 1996). Consequently, the taxonomic identity of *S. hebeclada* has remained uncertain until now.

Securidaca and *Bredemeyera* are distinguished by their fruits, by their samara and capsule, respectively. Because the type collection of *S. hebeclada* has flowers but not fruits, this obviously contributed to the confusion that led de Candolle (1824) to include this species in *Securidaca*. *Bredemeyera* and *Securidaca* can be distinguished in flower through examination of the ovary revealing the early stage of fruit, which is 1-locular in *Securidaca* and 2-locular in *Bredemeyera* (Pastore & Cavalcanti, 2006). Because the type of *S. hebeclada* is in fact a *Bredemeyera*, a new combination is needed and is made below.

Bredemeyera hebeclada (DC.) J. F. B. Pastore belongs to a complex that involves four species: *B. kunthiana* (A. St.-Hil. & Moq.) Klotzsch ex A. W. Benn., *B. laurifolia* (A. St.-Hil. & Moq.) Klotzsch ex A. W. Benn., *B. velutina* A. W. Benn., and *B. autranii* Chodat. Marques (1980) treated these as discrete species, using leaf shape, size, and indument; floral dimensions; and the presence or absence of a ring of trichomes at the ovary base to separate them. However, with the large number of collections now available, it is difficult to find morphological discontinuities that justify the recognition of all four species, and it is possible that all four names refer to the same species. Until more solid conclusions can be drawn, it is proposed in this paper to treat only *B. velutina* in the synonymy of *B. hebeclada*, the name with the oldest specific epithet available in this complex.

Bredemeyera hebeclada (DC.) J. F. B. Pastore, comb. nov. Basionym: *Securidaca hebeclada* DC., Prodr. 1: 341. 1824. TYPE: "In Brasilia," s.d., *Anonymous* s.n. (holotype, G-DC; isotype, FI) Figure 1.

Bredemeyera velutina A. W. Benn., Fl. Bras. 13(3): 53. 1874, syn. nov. TYPE: Brazil. Minas Gerais: s. loc., 1842, *G. Gardner 4418* (lectotype, designated here, K; isotypes, CGE, F, NY, P).

Liana or scandent shrub, 2–5 m; stems velvety-pubescent near inflorescence. Leaves alternate; petiole 4–6 mm, pubescent; blade coriaceous, discolorous, (2–)3–10 × (1–)2–4 cm, elliptic to ovate-elliptic, apex acute, attenuate, obtuse to rounded, mucronate, margin ciliate, base acute, obtuse, or rounded, abaxial surface velvety-pubescent, adaxial surface shiny, scattered-pubescent on surface with midvein pubescent (Bahia) or pubescent to velvety-pubescent (Minas Gerais, Goiás, and Distrito Federal). Panicles (4–)8–20 cm; bracts 1.4–1.7 × 0.8–1.1 mm, persistent in fruit; bracteoles 0.9–1.4 × 0.6–1.1 mm; pedicels 0.3–0.8 mm. Flowers yellowish white becoming orange or dark reddish when dry, 4.4–6 mm; external abaxial sepal 1.9–2.4 × 1.4–2.1 mm; adaxial sepal 1.8–2.6 × 1.7–2.3 mm; internal sepal

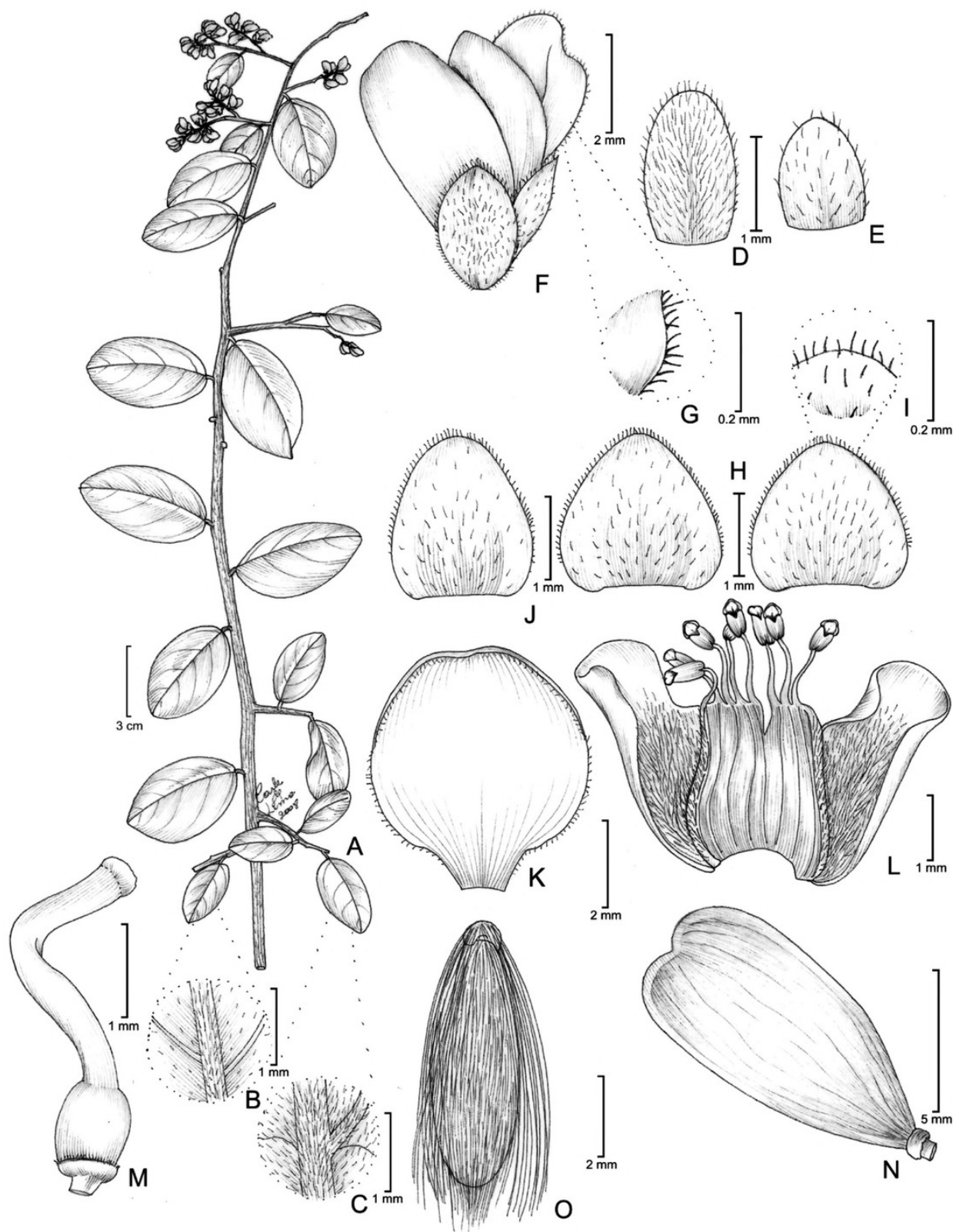


Figure 1. *Bredemeyera hebeclada* (DC.) J. F. B. Pastore. —A. Habit. —B. Leaf blade, adaxial face. —C. Leaf blade, abaxial face. —D. Bract. —E. Bracteole. —F. Flower. —G. Detail of internal sepal (wing). —H. Superior outer sepals. —I. Detail of external sepal margin. —J. Inferior outer sepal. —K. Internal sepal (wing). —L. Androecium and lateral petals. —M. Gynoecium with trichome disc around ovary base. —N. Capsule. —O. Seed. A from the holotype (G-DC), B–O from *E. Saar et al.* 5027 (HUEFS).

(wing) orbicular to obovate, 4–5.3 × 3.2–6.3 mm, ciliate; carina 3.8–4.7 mm, 2.2–2.7 mm deep, inner surface puberulent, claw 1–1.3 mm; lateral petal slightly or not widened at apex, puberulent in medial ventral portion, 1.4–1.6 mm wide; rudimentary petal 0.7–0.8 × ca. 0.3 mm; filament sheath 4–5 mm, the free filaments 1.3–2 mm; style strongly curved; ovary with a ring of trichomes at base. Capsule flattened, oblanceolate, dark reddish, 12–17 × 4–6 mm, glabrous; seeds narrowly cylindrical, 6–8 × 1.8–2.7 mm, pubescent for most of length with soft spreading trichomes, at apex with a tuft of long trichomes longer than body of seed; aril apical, white, curved, puberulent.

Distribution and habitat. This species occurs throughout the Brazilian states of Bahia, Minas Gerais, and Goiás and in the Distrito Federal (Marques, 1980; Pastore & Cavalcanti, 2006); it is frequently collected in savanna regions and forest borders.

The specimen at K was chosen as lectotype because it is representative and the best-preserved specimen among the syntypes of *Bredemeyera velutina*. Furthermore, the Kew herbarium has kept an important part of the examined material and notes from Alfred W. Bennett, who prepared the Polygalaceae treatment for *Flora Brasiliensis* (Bennett, 1874).

Selected specimens examined. BRAZIL. s. loc., *J. B. E. Pohl 3049* (F not seen, F photo at F, NY, US not seen, US photo at US, W not seen). **Bahia:** Abaíra, caminho de Catolés–Capão, 6 July 1992, *W. Ganey 433* (HUEFS); Mucugê, Faz. Pedra Grande, 13°00'20"S, 41°33'48"W, 17 Feb. 1997 (fl.), *E. Saar et al. 5833* (HUEFS); Paulo Afonso,

Est. Ecol. do Raso da Catarina, 09°33'08"S, 38°30'47"W, 31 Jan. 2006, *M. M. M. Lopes et al. 439* (HUEFS); Piatã, estr. Catolés–Inúbia, 7 July 2008, *W. Ganey 803* (HUEFS); Rio de Contas, 13°27'33"S, 41°52'24"W, 4 Feb. 1997, *E. Saar et al. 5027* (HUEFS). **Distrito Federal:** ca. 30 km S of Brasília, on rd. to Belo Horizonte, 26 Aug. 1964, *H. S. Irwin & T. R. Soderstrom 5611* (NY, RB, UB). **Goiás:** Cavalcante, trilha para a Ponte de Pedra, 20 Apr. 2003, *J. F. B. Pastore & E. Sukanuma 514* (CEN, RB). **Minas Gerais:** Viçosa, campus da Univ. Fed. de Viçosa, 12 July 2002, *M. M. M. Lopes et al. 118* (HUEFS).

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