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A NEW SPECIES OF *BEGONIA* (BEGONIACEAE) FROM MÉXICO

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ABSTRACT

Begonia motozintlensis Burt-Utley & Utley from Chiapas, México, is described as new, illustrated, and compared to *B. strigillosa* A. Dietr. and *B. cristobalensis* Ziesenh.

Begonia in Chiapas, México is represented by about 48 species, including *B. motozintlensis* that is placed in sect. *Gireoudia* (Kl.) A. DC. because of its rhizomatous habit and staminate and pistillate flowers with two sepals and no petals (Burt-Utley 1984). It is uncommon among species in this section in its elongate rhizomes that freely branch. Like several other rhizomatous Mexican taxa in sect. *Gireoudia*, leaf blades typically have conspicuous maroon maculations, a character which is rare in the Central American taxa (Burt-Utley, pers. obs.).

BEGONIA MOTOZINTLENSIS Burt-Utley & Utley, sp. nov. **TYPE: MÉXICO. Chiapas.** About 7.3 mi N of Motozintla de Mendoza along road to Siltepec and El Porvenir which begins ca 3 mi S of Motozintla, 7400 ft, 28 Dec, 1983, *J. Utley & K. Utley 7373* (holotype: MEXU; isotypes: BM, CAS, DUKE, GH, MICH, MO, NY, US, USF). Figure 1.

Rhizomatous herbs to 45 cm long**,** branching freely; internodes short to elongate, often slender, (0.3–)1.4–4.3 cm, 1.5–4(–6.5) mm diam, glandular, villous and occasionally with a few lacerate scales intermixed, the trichomes 1–5 mm and a ring of lacerate scales to 3.5–5 mm often at bases of stipules and petioles. **Leaf blades** asymmetric, ovate to elliptic or obovate, 4–10(–12.5) X 2.5–7 cm, basally cordate with the lobes occasionally overlapping, apically attenuate-acuminate, marginally ciliate-dentate to ciliate-denticulate at ends of nerves or sometimes ciliate and undulate or shallowly dentate lobed, above glabrous or with scattered villi above the petiole-blade junction, below minutely glandular and sparingly villous, green or green with conspicuous maroon maculations; 8–10(–11)-palmatinerved; petioles 2.5–19(–23) cm, lanate with fine sericeous villi to (2.5–)3.5–5 mm, becoming sparingly pilose with age, and occasional narrow scales and stout villi, especially subtending the blades; stipules persistent, spreading to reflexed with age, lance-ovate, 6–25 mm X 4–8 mm, marginally entire, revolute, keeled with the keel excurrent apically or subapically, glabrous to villous or the keel only villous to villous-squamose, cystospheres present. **Inflorescences** asymmetric, shorter than to exceeding the foliage, few-many-flowered; peduncles (5–)8–29(–48) cm, glabrous to very sparingly finely pilose with trichomes to 4 mm and minute glandular hairs; lowermost bracts obovate, 10 X 8 mm, marginally densely glandular-ciliate-serrulate. **Staminate flowers** with pedicels 6–12.5(–23) mm, glabrous to occasionally minutely glandular; sepals 2, suborbicular to broadly transversely elliptic, (6–)8–12.5(–15) X (6–)8.5–13 mm, glabrous to minutely glandular, pink; petals wanting; stamens 7–12; filaments 0.4–1.5 mm, free or on a very low torus; anthers obovate to elliptic in outline, 1–2 X 0.7–0.9 mm. **Pistillate flowers** with pedicels (4–)7–13 mm, glabrous to sparingly minutely glandular; bracteoles wanting; sepals 2, elliptic to suborbicular or transversely elliptic, (5.5–)7.5–13 X 8–12.5 mm, glabrous to very sparingly minutely glandular, pink; petals wanting; styles 3, 2–3 mm, fused to ½ their length; stigmas lunate; ovary trilocular with

Figure 1. *Begonia motozintlensis*, isotype (*John & Kathy Utley 7373*, USF).

bipartite placentae, 6–12 mm, glabrous to sparingly minutely glandular. **Capsules** with pedicels (0.7–)0.9–1.5(–2) cm; bodies 0.8–1.5 cm; locule chambers externally appearing oblong, elliptic or ovate, (0.5–)0.7–1.1 X (0.4–)0.5–0.7 cm; wings variable, equal, subequal or unequal, symmetrically to asymmetrically triangular or less commonly asymmetrically ovate, the largest or primary wing 0.7–1.5 X 0.6–1.2 cm, apically acute to acuminate or rounded, the second often equal or subequal to the primary wing, symmetric to asymmetric, triangular to lunate-triangular, (0.4–)0.6–1.1(–1.3) X (0.5–)0.7–1(–1.3) cm, the third triangular, lunate-triangular or lunate, and equal or subequal to the second.

Distribution and habitat. Steep slopes and canyons of montane rain forests and cloud forests between 1900 and 2400 m in southeastern Chiapas, where it can be found growing epilithically on generally shaded steep rocky outcrops or occasionally growing epiphytically. Considering its locations in Chiapas, *B. motozintlensis* is expected to occur in adjacent Guatemala.

Additional specimens examined. **MÉXICO. Chiapas.** Mpio. Motozintla de Mendoza, 45–50 km NE of Huixtla along road to Motozintla, 1900 m, 17 Nov 1971, *Breedlove & A.R. Smith 22609* (DS); 28 Dec 1972, *Breedlove & Thorne 30977* (DS); SW side of Cerro Mozotal, 11 km NW of jct of rd to Motozintla, along rd to El Porvenir, 2100 m, 21 Nov 1976, *Breedlove 41625* (DS); 23 Nov 1981, *Breedlove & Bartholomew 55721* (DS); 30 Jan 1982, *Breedlove & Almeda 58136* (CAS); 5 km NNW of Buenos Aires on road to Siltepec, 1980 m, 6 Sept 1988, *Breedlove 69786* (CAS). Mpio. Siltepec, ridge above Siltepec on rd to Huixtla, 2000–2400 m, 18 Jan 1973, *Breedlove & A.R. Smith 31895* (DS); Barranca Honda, Siltepec, Oct-Nov 1949, *Matuda 4113* (NY).

Begonia motozintlensis is an attractive rhizomatous species with short to more often long, slender internodes that branch freely and very elongate rhizomes. These are characters that immediately distinguish *B. motozintlensis* from both *B. strigillosa* and *B. cristobalensis.* In *B. motozintlensis* internodes are (0.3–)1.4–4.3 cm X 1.5–4(–6.5) mm, in contrast to those of *B. strigillosa* that are typically unbranched and 0.2–0.8(–1.2) cm X 3–8 mm, while those of *B. cristobalensis* are 1.5–5 X 3–4 mm. Moreover, stipules of *B. motozintlensis* are lance-ovate, 6–25 X 4–8 mm, marginally entire, revolute, keeled with the keel excurrent apically or subapically, glabrous to villous or the keel only villous to villous-squamose, while those of *B. strigillosa* are asymmetric, broadly ovate to triangular, 10–19(–22) X 5–9 mm, entire and glabrous, with a glabrous to vestite keel. In *B. cristobalensis* stipules are typically smaller and asymmetrically ovate to triangular, (4.5–)6–8(–10) X 3–6 mm but are glabrous to villous with a fimbriate keel. Another difference is in the lowermost inflorescence bracts where those of *B. motozintlensis* are marginally densely glandular-ciliate-serrulate, in contrast to those of both *B. strigillosa* and *B. cristobalensis* that are entire. Capsule bodies overlap in size in all three species but differ in their wings. In *B. motozintlensis*, wings are equal, subequal or unequal and the largest or primary wing is symmetrically to asymmetrically triangular or ovate and apically acute to acuminate or rarely rounded, but in *B. strigillosa* wings are always asymmetric and subequal, with the largest asymmetrically triangular to lunate-triangular and apically rounded to acute while in *B. cristobalensis* wings are always unequal and asymmetrically ovate to broadly lunate and rounded to truncate.

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LITERATURE CITED

Burt-Utley, K. 1985. A Revision of the Central American Species of *Begonia* section *Gireoudia* (Begoniaceae). Tulane Stud. Zool. and Bot. 25: 1–131.