

A new species of *Columnea* and range extension in the Gesneriaceae from Costa Rica

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Kriebel, R. (Instituto Nacional de Biodiversidad (INB), Apdo. 22–3100, Santo Domingo, Heredia, Costa Rica; e-mail: rkriebel@inbio.ac.cr). A new species of *Columnea* and range extension in the Gesneriaceae from Costa Rica. *Brittonia* 57: 39–42. 2005.—*Columnea lariensis* is described and illustrated as a new species from the Talamanca Mountains, Costa Rica. It is similar to *C. canarina* from Panama. *Alloplectus weirii* is here reported for the first time from Mesoamerica and an illustration is provided.

Key words: Mesoamerica, Costa Rica, Gesneriaceae, *Alloplectus*, *Columnea*.

Kriebel, R. (Instituto Nacional de Biodiversidad (INB), Apdo. 22–3100, Santo Domingo, Heredia, Costa Rica; e-mail: rkriebel@inbio.ac.cr). A new species of *Columnea* and range extension in the Gesneriaceae from Costa Rica. *Brittonia* 57: 39–42. 2005.—*Columnea lariensis* de la Cordillera de Talamanca, Costa Rica, es descrita e ilustrada. Es similar a *C. canarina* de Panamá. *Alloplectus weirii* se reporta para Mesoamérica por primera vez y se incluye una ilustración de la misma.

Columnea is the largest genus of New World Gesneriaceae. It contains about 160 species (Skog, 1979), of which 38 occur in Costa Rica. It has been subdivided into six sections based on anisophylly, fruit and corolla morphology, and indumentum.

One of the easiest sections to recognize based on corolla morphology is section *Columnea* because of its strongly zygomorphic, bilabiate, never ventricose or constricted corollas that widen from the base (Smith, 1994). *Columnea lariensis*, described below, belongs to this section.

***Columnea lariensis* Kriebel, sp. nov.** (Fig. 1.)

TYPE: COSTA RICA. Limón: Cordillera de Talamanca, Bratsi, Amubri, Alto Lari, Kivut, 9°22'50"N, 83°05'10"W, 1500 m, 21 Mar 1992, *Gerardo Herrera 5417* (HOLOTYPE: INB; ISOTYPES: CR, MO-n.v., US-n.v.).

A *Columnea canarina*, calycis lobis 8–17 mm longis, denticulatis, acutis, et ad basem villosis differt.

Epiphytic herbs; stems unbranched, terete, villous especially towards the apex, 2–4 mm in diameter, internodes 1.7–3 cm long; leaf pairs strongly anisophyllous, the petioles 2–5 mm long, sericeous, the larger blade 8.5–15 × 1.6–3 cm, elliptic-oblong to oblanceolate, basally oblique, apically acuminate, entire, chartaceous, green, glabrous to strigulose above, below brown with red-purple apex or distal half and sericeous-villous, the lateral pairs of veins 4–5(6). Inflorescence axillary, 1–3 flowered, pedicels 4–10 mm long, villous; calyx lobes 5, subequal, 8–17 × 3–5 mm, oblong to obovate, chartaceous, connate at base for 1–2 mm, acute, denticulate with the longer teeth (1–4 mm long) at the base, green, villous at the base, sericeous towards the apex; corolla 3.9–5.6 cm long, erect in the calyx, funnel-shaped, zygomorphic, the mouth of the tube oblique, ca. 3 cm in diameter, the spur 1–2 mm long, glabrous to villous, the tube and lobes villous externally, yellow, lobes 5, unequal, the two posterior lobes oblong, connate and truncate at the apex, 14–16 × 5–

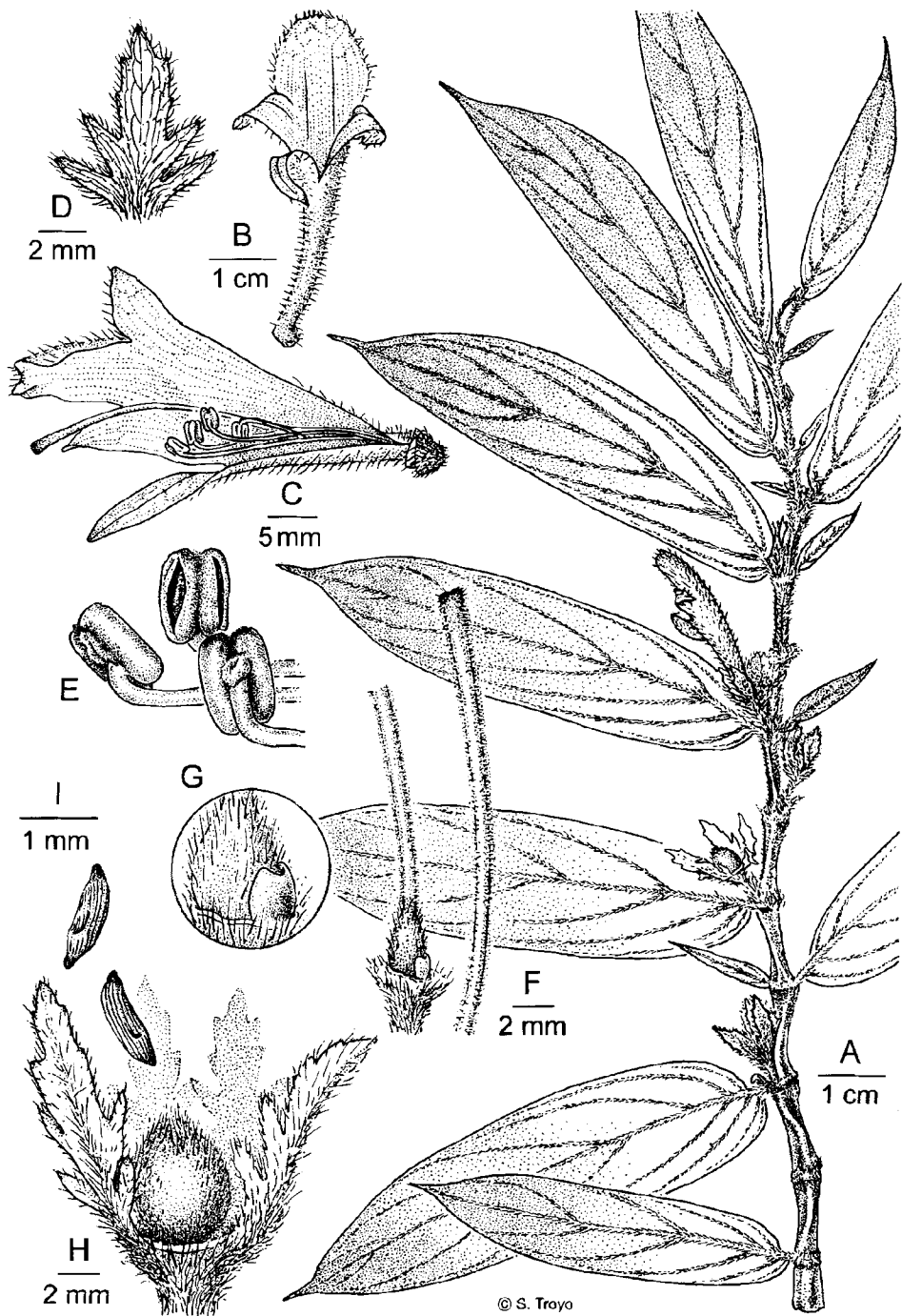


FIG. 1. *Columnea lariensis*. A. Habit. B. Corolla. C. Open corolla showing stamens and pistil. D. Calyx lobe. E. Anther thecae attached to filaments (after anthesis). F. Style and pistil attached to ovary. G. Dorsal nectariferous gland. H. Fruit with persistent calyx. I. Seeds (From *G. Herrera 5417, INB*; holotype).

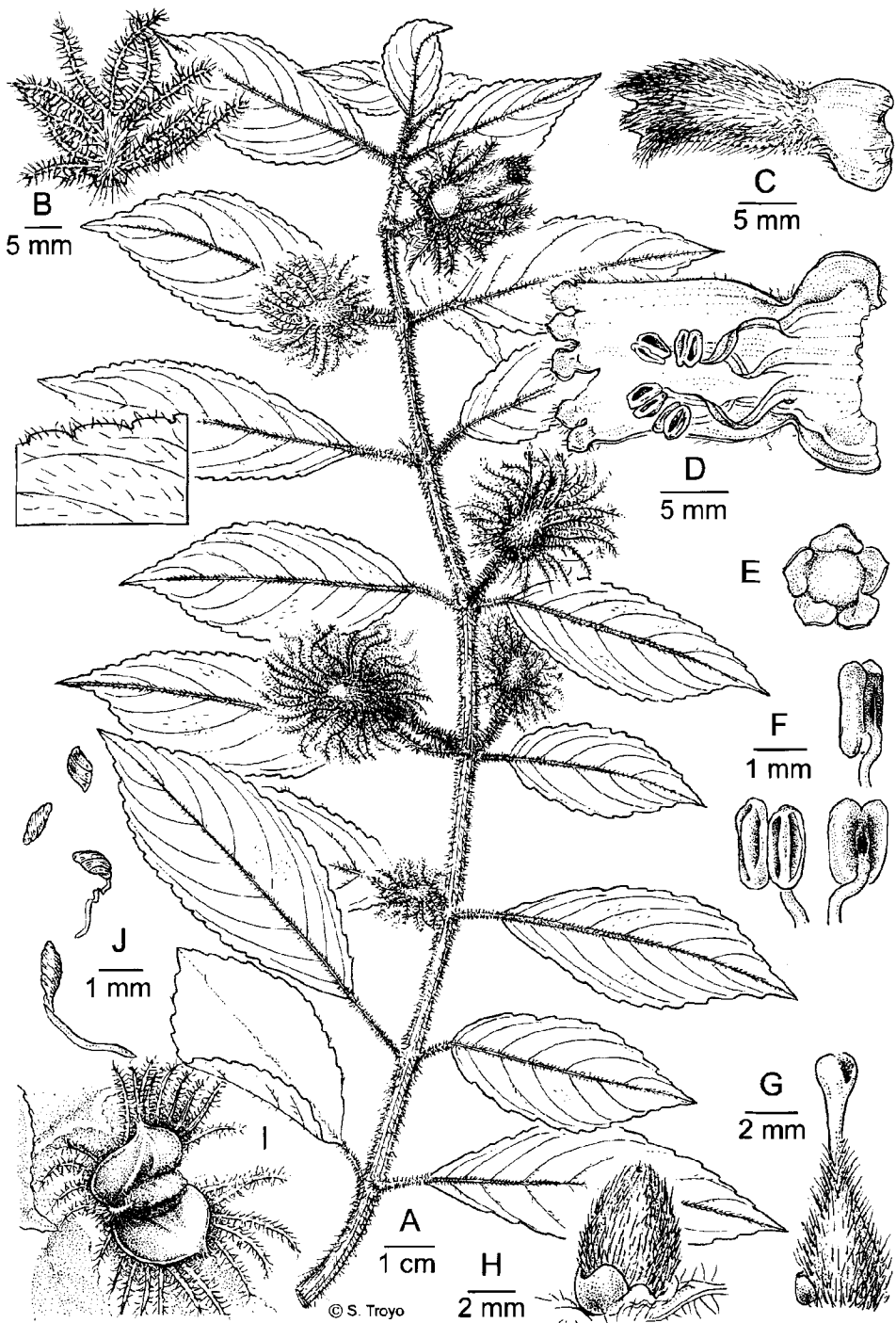


FIG. 2. *Alloplectus weirii*. A. Habit. B. Calyx lobe. C. Corolla. D. Open corolla showing stamens and filaments adnate to corolla base. E. Frontal view of corolla mouth. F. Anther thecae attached to filaments. G. Pistil. H. Ovary with ventral nectariferous gland. I. Fruit. J. Seeds (from R. Kriebel 894, INB).

6 mm, entire, the two lateral lobes triangular, reflexed, ca. 10×5 (basally) mm, acute, the basal lobe linear-oblong, reflexed, $15\text{--}20 \times 3\text{--}4$ mm, acute, the inside dorsally with short glandular hairs; stamens 4, the filaments adnate for ca. 2 mm to the base of the corolla tube, ca. 4.5 cm long, densely glandular-pilose, anthers coherent, each theca 2×1.5 mm, the thecae dehiscent by longitudinal slits; ovary 3–4 mm long, densely white-sericeous, the style ca. 5.4 cm long, glandular-pilose, the stigma barely expanded and mouth-shaped; nectary of a single, dorsal, bilobed gland, 1×1.5 mm, glabrous. Fruit a globose, sericeous berry, ca. 6×4 mm; seeds fusiform, somewhat oblique and curved, longitudinally striate, dark brown, 1×0.20 mm.

Distribution.—Costa Rica. Known from only three specimens, all from the Talamanca mountains in Bratsi, Amubri, Alto Lari, and Kivut, from 1300–1550 m.

Phenology.—Plants have been collected in flower and fruit in March.

Columnea lariensis is recognized by its anisophyllous leaf blades that are reddish brown abaxially to about half their length, villous indumentum of stem apex, abaxial leaf surface, pedicels, calyx base and corolla, small, oblong and acute calyx lobes, denticulate towards the base and yellow corolla.

Among yellow flowered Columneas, *C. lariensis* is most similar to and has been confused with *C. canarina* of Panama. *Columnea lariensis* is distinguished by the usually villous indumentum of its stems, leaf underside, pedicels, and calyx; the oblong, denticulate and acute calyx lobes to 17 mm long (vs. sericeous, lanceolate, serrulate and long acuminate to 36 mm long in *C. canarina*); and shorter pedicels and corollas, the latter of which are villous (vs. white-sericeous in *C. canarina*). The leaf blade in *C. lariensis* is also usually reddish brown on the abaxial leaf surface, half to

all the way, versus only on the tip in *C. canarina*.

The specific epithet commemorates Alto Lari, one of the indigenous communities visited when the type specimen was collected. This locality has yielded many interesting specimens.

Additional specimens examined. **COSTA RICA.** LIMÓN. Cordillera de Talamanca, Cantón de Talamanca, Bratsi, Amubri, Alto Lari, Kivut, $9^{\circ}23'50''\text{N}$, $83^{\circ}05'20''\text{W}$, 1300–1500 m, 15 Mar 1992, R. Aguilar & H. Schmidt 1112 (INB, MO); Bratsi, Amubri, Alto Lari, Kivut, subiendo entre las cabeceras del Río Lari y Río Dapari, $9^{\circ}23'33''\text{N}$, $83^{\circ}05'40''\text{W}$, 1550 m, 15 Mar 1992, G. Herrera 5360 (INB, MO).

Alloplectus Mart. has only 6 species in Costa Rica. Specimens of one of these species were annotated by Hans Wiehler as *A. trichocalyx* Wiehler, but this name was never published. The species was thought to be endemic to the Caribbean slope of the Cordillera de Tilarán. A published name that applies to this species is *Alloplectus weirii* (Kuntze) Wiehler (Fig. 2), which comes to my attention thanks to *Alloplectus* monographer John Clark who alerted me to the similarities between the two species. The new range of *A. weirii* extends from Peru, Ecuador, and Colombia to Costa Rica. It probably also occurs in Panama.

Acknowledgments

I thank John L. Clark for his help in determining *Alloplectus weirii*. I also thank Silvia Troyo for her illustrations and Gerardo Herrera and Reinaldo Aguilar, two of the best plant collectors that have walked Costa Rican forests and the only ones that have collected the new species until now.

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