

# Miscellaneous new taxa of Bromeliaceae (XVI)

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Luther, H. E. (Mulford B. Foster Bromeliad Identification Center, Marie Selby Botanical Gardens, 811 South Palm Avenue, Sarasota, FL 34236, U.S.A.; email: hluther@selby.org). Miscellaneous new taxa of Bromeliaceae (XVI). *Brittonia* 54: 279–285. 2002.—Four new taxa of Bromeliaceae are described: **Billbergia acreana** from Brazil; **Pitcairnia chocoensis** from Colombia; and **Guzmania diazii** and **Pitcairnia filifera** from Peru. Also included is the new name **Werauhia moralesii** from Costa Rica. Miscellaneous new taxa of Bromeliaceae (XV) appeared in *Selbyana* 21: 125–131. 2000.

**Key words:** Bromeliaceae, *Billbergia*, *Guzmania*, *Pitcairnia*, *Werauhia*, Neotropics.

During the course of routine determination of bromeliad collections from a variety of sources, several undescribed taxa were found. Two were originally detected by the late Lyman B. Smith but never published; I now take this opportunity to validate his names.

## Brazil

**Billbergia acreana** H. Luther, sp. nov. (Fig. 1)

TYPE: BRAZIL. Acre: Santa Rosa, Rio Chandless, tributary of Rio Purus, right bank, "Canamari," ca. 09°22'59"S, 69°56'38.9"W, 28 Mar 1999, *Daly et al.* 10162 (HOLOTYPE: HPZ; ISOTYPE: NY).

*Billbergiae tessmannii* Harms similis et affinis sed sepalis perminoribus differt; *B. oxysepalae* Mez similis sed sepalis et petalis longioribus differt.

*Plant* epiphytic. *Leaves* few in a suberect rosette, to 1.25 m long, coriaceous. *Leaf sheaths* narrowly elliptic, 8–10 × 4–7 cm, scarcely distinct from leaf blades, entire, scaraneous, punctate-lepidote, the scales densely appressed and brown. *Leaf blades* ligulate to subtriangular, acute to attenuate, 35–40 mm wide, antrorse serrate with 0.5–1 mm long dark spines, punctate-lepidote, the scales subdense and pale; trichomes randomly concentrated abaxially and form-

ing silvery spots, otherwise dull or dark green. *Scape* 50–75 cm × 4–5 mm, erect at first then pendant, green, coarsely white-lepidote; scape bracts elliptic, acute, 12–18 × 2–6 cm, entire, thin, nerved, pale-lepidote, the lowest bracts appressed and greenish white, the uppermost bracts spreading and rose to red. *Inflorescence* pendulous, simple, 15–25 × 12–17 cm, polystichously 20–40-flowered, the axis densely white-lepidote; floral bracts ovate, acute, 2–5 mm long, thin, nerved, white-lepidote. *Flowers* sessile, spreading ca. 45° from axis at anthesis, opening during the day; sepals elliptic to subtriangular, acute, slightly unequal, 17–25 × 4–7 mm, thin, nerved, blue, white-lepidote; petals ligulate, acute, tightly coiling abaxially, 88–100 × 4–9 mm, lustrous, pale green to gold-tinged green, each with two basal appendages, these 2–3 mm long; filaments 80–85 mm long; anthers narrow, 15–18 mm long; stigma conduplicate spiraled, ca. 15 mm long; ovary ellipsoid, 5–9 × 4–6 mm, the epigynous tube 4–5 × 5–8 mm, both white-lepidote and sulcate.

Additional specimens examined: BRAZIL. Acre: Santa Rosa, Rio Purus, left bank "Volta Grande," ca. 09°20'07"S, 70°25'13.6"W, 22 Mar 1999, *Daly et al.* 9927 (NY).

*Billbergia acreana* seems similar and related to *B. tessmannii* from Amazonian

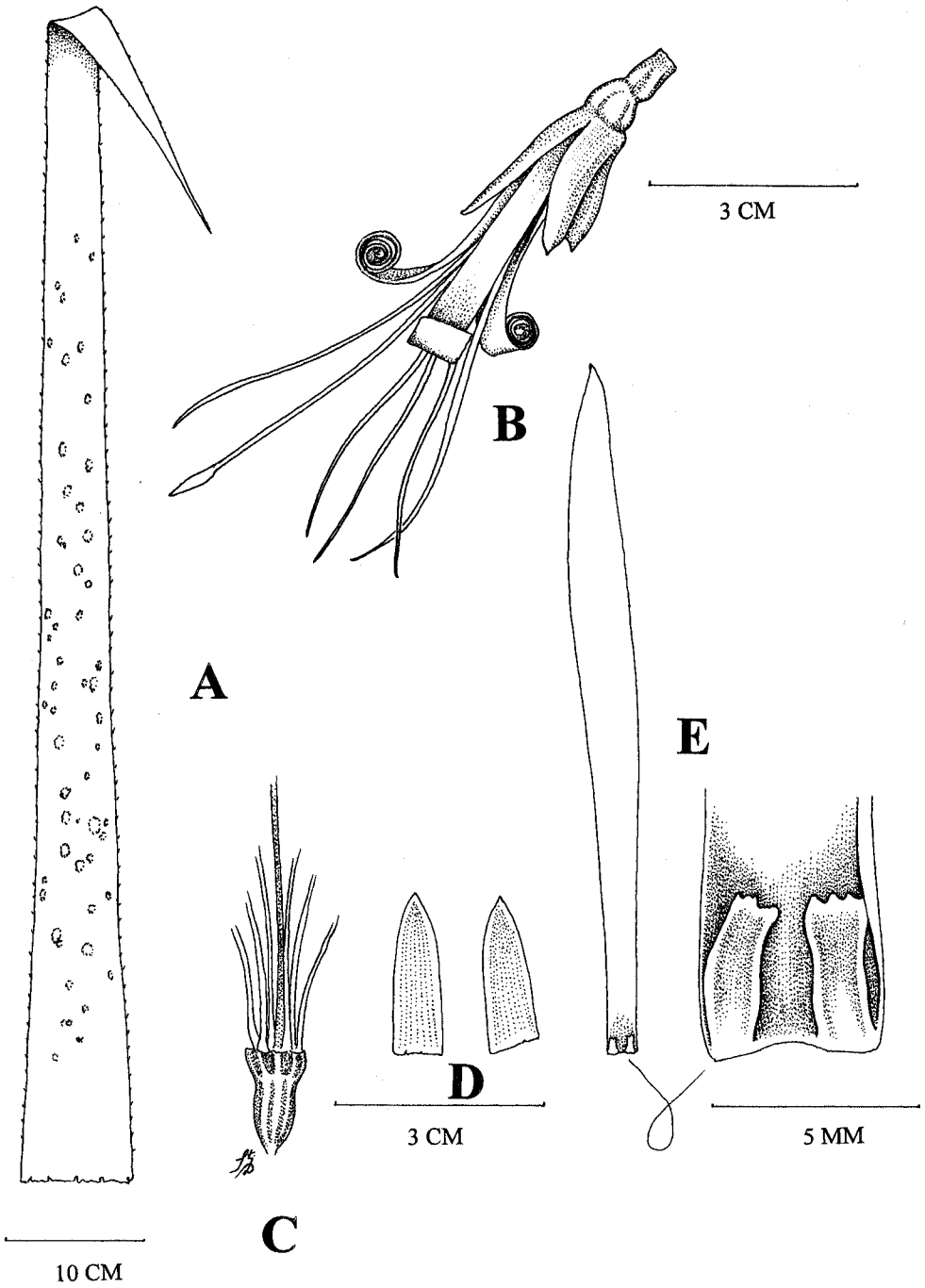


FIG. 1. *Billbergia acreana*. A. Leaf blade. B. Flower. C. Ovary. D. Sepals, two of three. E. Petal; detail showing appendages. (From the isotype, *Daly et al. 10162*, NY.)

Peru but differs in its much shorter sepals (17–25 mm vs. 34–42 mm, respectively). It also resembles *B. oxysepala* known from Amazonian Brazil and Ecuador but differs in its longer sepals (17–25 mm vs. 11–16 mm) and longer petals (88–100 mm vs. 60 mm).

### Colombia

***Pitcairnia chocoensis*** L. B. Sm. ex H. Luther, sp. nov. (Fig. 2)

TYPE: COLOMBIA. Choco: San José del Palmar, 5 km above San José del Palmar along rd. to Cartago, 1500 m, 7 Feb 1989, *W. J. Kress & B. Echeverry* 89–2612 (HOLOTYPE: US; ISOTYPE: SEL).

*Pitcairniae bellae* L. B. Sm. affinis sed laminis foliorum lanceolatis attenuatisque et sepalis perlongioribus differt.

*Plant* terrestrial, 50–70 cm tall in flower. *Leaves* 5–8, erect to spreading, green, the outermost leaves appearing as bladeless sheaths. *Leaf sheaths* narrowly elliptic, 8–12 × 2–4 cm, entire, nerved, thin-coriaceous, brown-lepidote. *Leaf blades* pseudopetiolate, the pseudopetiole channeled, 6–12 × 1 cm, entire, nerved, fugaceously brown-floccose especially abaxially; blade lanceolate in upper portion, acute to acuminate at both ends, entire, 3–5 cm wide, channeled, nerved, abaxially brown-floccose. *Scape* erect, 20–30 cm × 3–4 mm, fugaceously brown-floccose, yellow green; scape bracts narrowly elliptic, attenuate, thin, nerved, abaxially brown-floccose, much exceeding but not concealing internodes. *Inflorescence* simple, erect, polystichously 10–20-flowered; floral bracts elliptic, acute, very thin, fugaceous, green, the lowest bracts exceeding the pedicels, the uppermost bracts exceeded by the pedicels. *Flowers*: pedicel slender, 8–20 mm long, spreading ca. 45° from axis at anthesis, orange red; sepals narrowly triangular, acute, 28–32 mm long, thin, nerved; corolla slightly zygomorphic; petals narrowly oblanceolate to linear, obtuse, 6–7 cm long, unappendaged; ovary ca. 1/2 superior; ovules immature but apparently caudate.

*Pitcairnia chocoensis* seems most closely related to *P. bella*, also from Colombia. The

latter species has elliptic and attenuate leaf blades (vs. lanceolate and acute to acuminate in *P. chocoensis*) and shorter sepals (17–24 vs. 28–32 mm). All parts of *P. chocoensis* are rather thin and delicate.

### Costa Rica

***Werauhia moralesii*** H. Luther, nom. nov.

*Vriesea simulans* J. F. Morales, Novon 9: 404. 1999; not *Vriesea simulans* Leme, J. Bromeliad Soc. 47: 169, 171. 1997.

TYPE: COSTA RICA. Alajuela: Cantón de San Ramón, Reserva Forestal San Ramón, 1000 m, 17 Apr 1994. *J. F. Morales & Lépiz* 2704 (HOLOTYPE: INB; ISOTYPES: MO, SEL).

The specific name honors J. Francisco Morales, Costa Rican specialist of Bromeliaceae at INBio.

### Peru

***Guzmania diazii*** H. Luther, sp. nov. (Fig. 3)

TYPE: PERU. Amazonas: Imaza, Aguaruna Putuim, Anexo de Yamayakat, 700 m, 18 Jan 1996, *C. Díaz et al.* 7684A (HOLOTYPE: SEL; ISOTYPE: MO).

*Guzmaniae patulae* Mez & Wercklé affinis sed laminis foliorum longioribus angustioribusque et inflorescentia perlongioribus differt.

*Plant* terrestrial, 60–100 cm tall in flower; stolons ascending 15 cm × 2–4 mm. *Leaves* 10–12, rosulate, subspreading, thin-coriaceous, nerved, 40–60 cm long. *Leaf sheaths* elliptic, 6–10 × 2–3 cm, dark castaneous toward the base abaxially, punctate-lepidote, the scales subdense and brown. *Leaf blades* subligulate, acute to long-attenuate, 8–15 mm wide, punctate-lepidote, throughout but much more so abaxially. *Scape* stiffly erect, 50–70 cm × 2–3 mm, glabrous; scape bracts erect, imbricate, narrowly elliptic, acute to attenuate, exceeding internodes of scape but not concealing them, brown-lepidote especially abaxially. *Inflorescence* erect, simple, polystichously 45–60-flowered, 22–25 × 4–5 cm; floral bracts elliptic, 9–18 × 4–6 mm, thin, nerved, ecarinate, reddish, sparsely brown-lepidote, the apex acute and cucullate. *Flowers*: pedicel 1–3 mm long, stout, erect