

APHELANDRA BRACTEOPECTINATA (ACANTHACEAE):  
A BEAUTIFUL NEW SPECIES FROM NORTHWESTERN ECUADOR

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ABSTRACT

***Aphelandra bracteopectinata*** Cornejo, Wassh., & Cohen from the wet montane forests of northwestern Ecuador is described as new and illustrated with photographs. It is an attractive shrub with yellow corollas and pectinate floral bracts.

RESUMEN

Se describe y presenta formalmente como una nueva especie a ***Aphelandra bracteopectinata*** Cornejo, Wassh., & Cohen, un atractivo arbusto que tiene corolas amarillas y brácteas florales pectinadas, proveniente de los bosques montanos muy húmedos en el noroccidente de Ecuador.

KEY WORDS: endemics, Los Cedros Biological station, Neotropics, ornamental

INTRODUCTION

*Aphelandra* R. Br. (1810), is a Neotropical genus of Acanthaceae that comprises ca. 175 species. The genus is distributed in dry, moist, and wet forest, from northwestern Mexico southwards to the state of Santa Catarina in southeastern Brazil. The highest concentration of species is reported from the Andes of Colombia, Ecuador and Peru (Wasshausen 1975, 2013).

In the treatment of Acanthaceae of Ecuador (Wasshausen 2013), 40 species and three varieties were reported. Since then a distinctive new species of *Aphelandra* has been discovered during field work in northwestern Ecuador. It was first observed and photographed, but not collected, by the late Andreas Kay in Los Cedros Biological Reserve on 10 July 2013. His photos are posted in flickr at <https://www.flickr.com/photos/andreaskay/10280838794/in/photostream/>. Once recognized as new, the species was located and collected for the first time 12 years after the first observation by Kay. The new species of *Aphelandra* is formally described below.

***Aphelandra bracteopectinata*** Cornejo, Wassh., & Cohen, **sp. nov.** (Figs. 1–2). TYPE: ECUADOR. IMBABURA: LOS Cedros Biological Reserve, Los Cedros river, 0°18'8.496"N 78°46'52.1394"W, c. 1270 m, 16 Jan 2025 (fl), B. Cohen 1 [HOLOTYPE: GUAY (mounted and spirit); ISOTYPE: QCA].

**Diagnosis.**—The new species of *Aphelandra* is distinguished by the distichous, pectinate floral bracts, narrow, yellow corollas 28–35 mm long, and lanceolate to narrowly elliptic leaf blades.

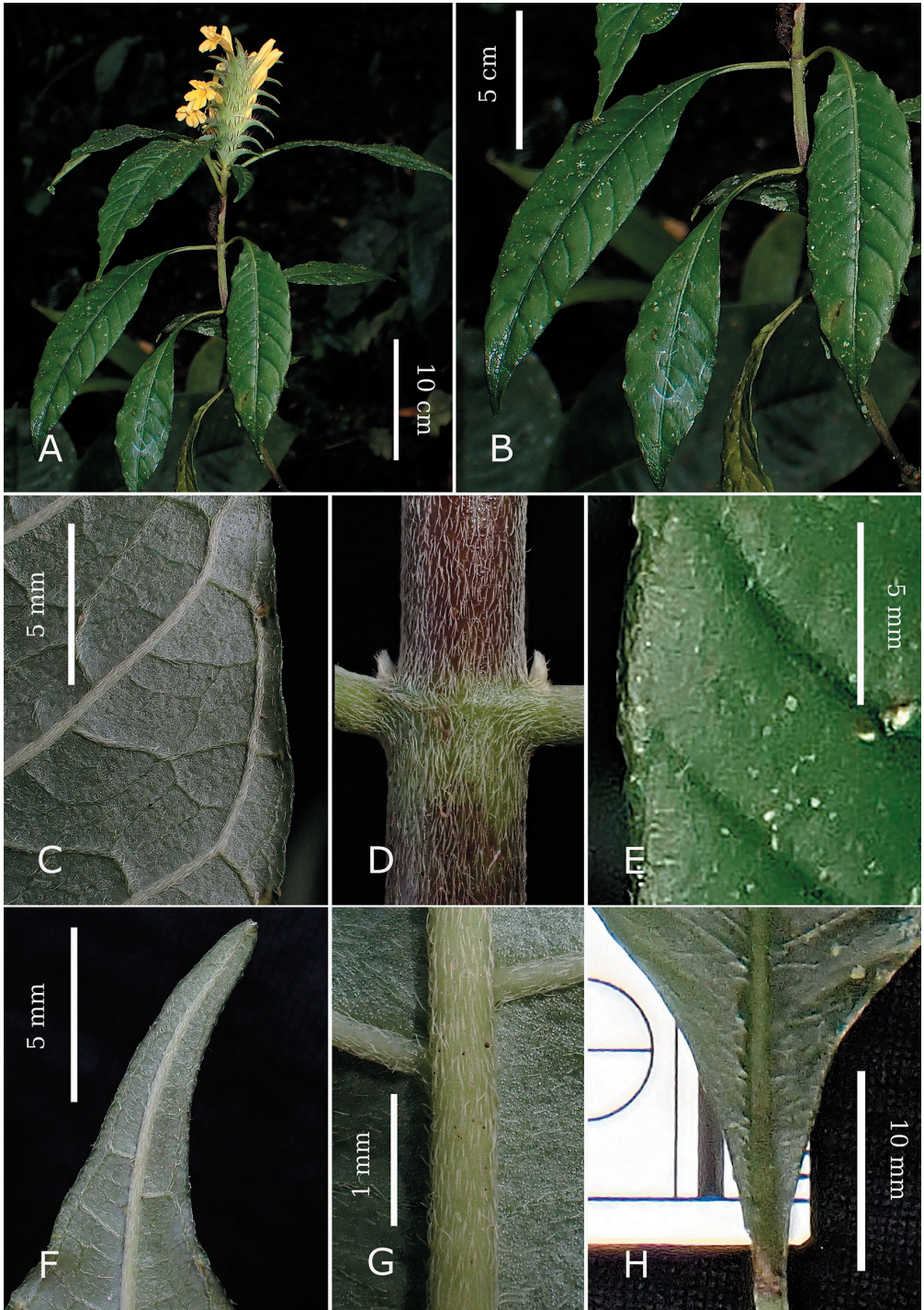


FIG. 1. *Aphelandra bracteopectinata* Cornejo, Wassh., & Cohen; **A.** Habit; **B.** Leaves; **C.** Close up of leaf blade, abaxial view; **D.** Stem and base of petioles, lateral view; **E.** Close up of leaf blade, adaxial view **F.** Apex of leaf blade, abaxial view; **G.** Midvein, abaxial view; **H.** Base of leaf blade, adaxial view (A–H, based on *Brandon Cohen 1*, the type). Photographs A–H, by Brandon Cohen.



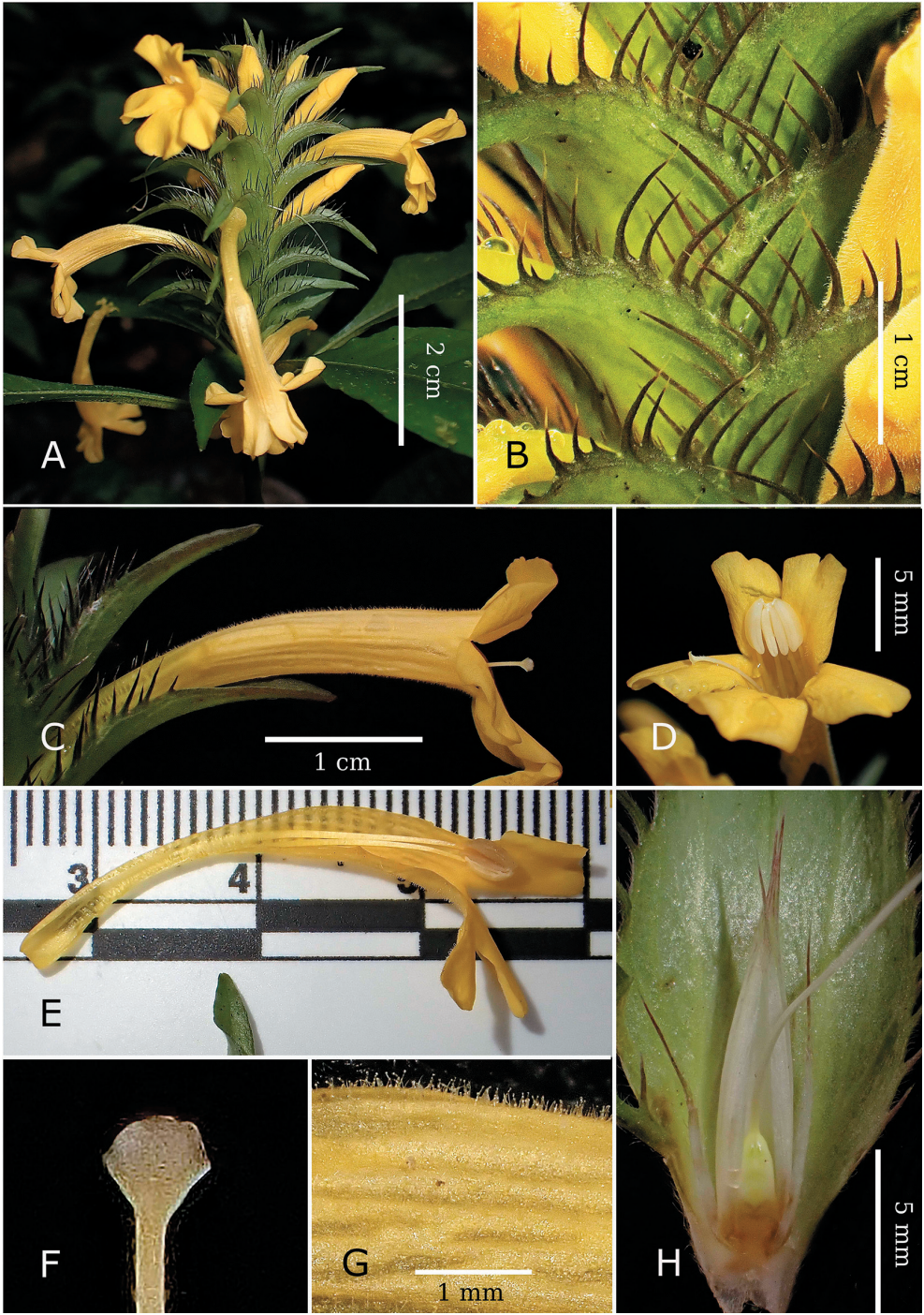


FIG. 2. *Aphelandra bracteopectinata* Cornejo, Wassh., & Cohen; **A.** Inflorescence, lateral view; **B.** Distichous pectinate floral bracts, lateral view; **C.** Flower at anthesis, lateral view; **D.** Corolla lobes and exerted anthers, front view; **E.** Longitudinal section of corolla displaying two stamens adnate at base, adaxial view **F.** Fan-like stigma lobe, lateral view; **G.** Close up of corolla displaying longitudinally furrowed surface and short glandular trichomes, lateral view; **H.** Pistil, calyx, and inner floral bract (A–H, based on *Brandon Cohen 1*, the type). Photographs A–H, by Brandon Cohen.

**Description.**—**Shrub** 60 to 120 cm tall; stems simple or few-branched, the branches loose, erect, densely appressed pubescent throughout. Leaves decussate, arranged at distal third of plants; **leaf blades** spreading, lanceolate to narrowly-elliptic, held horizontally or weakly deflexed, 7–15 × 2–5.3 cm, attenuate at base, subentire to inconspicuously crenate at margin, narrowly acuminate to shortly caudate at apex, the blade olive-green (when fresh), glabrous adaxially, lighter green, densely or abundantly appressed pubescent and glandular abaxially (fresh), midvein prominent on both surfaces, secondary veins in (8–)11–18 pairs, prominent and densely to loosely appressed pubescent abaxially; petioles 1–1.5 cm, flattened and slightly channeled adaxially, rounded and densely appressed abaxially. **Inflorescence** spicate, terminal 2–12 × 2–2.5 cm, the peduncle 0.1–0.3 mm, glabrous; **floral bracts** lanceolate 2–3 × 0.7–1 cm, cuneate at base, narrowly acute to acuminate at apex, green, margin pectinate, with soft bristles, pilose without, the trichomes hyaline, uniseriate, suberect to appressed; **bracteoles** 2, linear lanceolate, ca. 8 mm long; **calyx** lobes 5, 10–14 mm long, narrowly lanceolate, linear/aristate at apex; **corolla** yellow, 28–35 mm long, 2-lipped, the upper lip 2-lobed, each lobe oblong to obovate-oblong, 5–7 × 3 mm, shortly bifid, the lower lip 3-lobed, the two laterals oblong to obovate, 5–7 × 2.5–3 mm, the central lobe obovate, ca. 6 × 3–7 mm, the tube longitudinally furrowed, exterior pubescent with erect, hyaline, stipitate glandular, 1-seriate trichomes up to 0.4 mm long, the tube cylindric, curved, ca. 25–30 mm long, ca. 2.5 mm wide at base and ca. 4 mm at apex, the swollen apex of tube with sparse short trichomes within. Stamens 4, adnate at lower half of corolla tube, filaments ca. 28 mm, glabrous, the anthers oblong, ca. 3–3.5 mm, 1-theous, dorsifixed midway between middle and base, glabrous; ovary lanceolate-oblong, 2 × 1 mm; style ca. 35 mm, white, glabrous; stigma 2-lobed, the lobes flattened, fan-like, glabrous. **Capsule** not seen.

**Discussion.**—*Aphelandra bracteopectinata* is not closely related to any known species of yellow-flowering *Aphelandra* from Colombia, Ecuador or Peru. It can be readily distinguished from *A. sulphurea* Hook., another yellow-flowering species that occurs from the eastern Andean slopes to the Amazonia of Ecuador, by its unique distichous pectinate recurved floral bracts, narrow corollas 28–35 mm long and the lanceolate to narrowly elliptic leaf blades, these are distally straight to curved. In contrast in *A. sulphurea* the floral bracts are erect, serrate, 2–3 toothed on each side towards tip, corollas are larger, 55–60 cm long and the leaf blades broadly elliptic 13–23 mm long, not curved distally.

**Etymology.**—The epithet refers to the distinctive pectinate floral bracts that characterize this new species.

**Common names.**—Unknown.

**Habitat and distribution.**—Known only from Los Cedros Biological Reserve in northwestern Ecuador, where two populations of *Aphelandra bracteopectinata* were observed in January 2025, that of the type at ca. 1270 m, and a second population, that was not collected, at 0°19'0.156"N, 78°46'48.7194"W, at higher altitude ca. 1633 m.

*Aphelandra bracteopectinata* is locally dominant in understory, the stems rising from dense leaf litter. The understory plant community includes *Gasteranthus quitensis* Benth., *Kohleria villosa* (Fritsch) Wiehler, *Monophyle macrocarpa* Benth. (Gesneriaceae), *Justicia* sp. (Acanthaceae), *Pilea* spp. (Urticaceae), *Anthurium* spp., *Philodendron verrucosum* L. Mathieu (Araceae), *Burmeistera lutos* E. Wimm., *B. multiflora* Zahlbr. (Campanulaceae), and ferns as *Adiantum urophyllum* Hook., *Danaea erecta* Tuomisto & R.C. Moran, *Asplenium* spp., and *Blechnum* spp.

The population extends for 1,255 m along a river with several thousand plants to a smaller population on the forested crest ridge running SE to NE at 1,633 m elevation. A full survey of the extent of the population was not completed; there is potential for the discovery of other populations as suitable habitats occur in the immediate area.

**Phenology.**—Flowers have been observed in January (Brandon Cohen) and July (Andreas Kay). In mid-January, there were a few plants in bud and flower, the majority were in a vegetative state.

**Conservation status.**—Over 1,000–2,000 plants have been observed in the type population next to Río Los Cedros, and approximately 500–1,000 plants at the unvouchered second locality in the interior of the

same Los Cedros Biological Reserve (Cohen obs. pers. in the field). As the area of occupancy of the species is less than 100 km<sup>2</sup>, and there is a high rate of deforestation in northwestern Ecuador, it is suggested that this new species should be assigned Near Threatened (NT) status (IUCN 2022). Due to the highly attractive inflorescences it is suggested that *Aphelandra bracteoplectinata* may be bred for conservation *ex situ* and cultivated as an ornamental.

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