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Blakea attenboroughii (Melastomataceae: Blakeeae): A New Species from Ecuador

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***Blakea attenboroughii*, a new Ecuadorian endemic is described, illustrated, and compared with several allied species, including *B. truncata, B. harlingii,* and *B. brasiliensis*. The new species is remarkable for its outer floral bracts that are large, foliaceous, distinctly keeled, decurrent, and basally adpressed to each other, and also for having lavender- to blue-colored anthers.**

Blakea (Melastomataceae: Blakeeae) is a Neotropical genus comprised of ca. 100 species of woody root climbers, shrubs, and trees that may be terrestrial, hemiepiphytic, or epiphytic (Almeda 2000). Found from Mexico to Bolivia, including several species in the Antilles, these berry-fruited plants are characterized by their solitary to fascicled, axillary flowers, that are subtended by two pairs of decussate bracts, and laterally compressed anthers (Penneys 2007). The species proposed here is currently known only from the type locality within the Reserva Ecológica Cerro Candelaria (Fundación EcoMinga), Tungurahua, Ecuador. This species is distinctive for having large, keeled, and foliaceous outer floral bracts that are basally decurrent and adpressed to each other, as well as for having lavender- to blue-colored anthers. This combination of characters is unique in the genus.

***Blakea attenboroughii* Penneys, sp. nov.**

Type.— Ecuador. **Tungurahua**: Reserva Ecológica Cerro Candelaria (Fundación EcoMinga), Río Chinchin Grande, 1890 m, Nov. 2007 (bud, fl), *Lou Jost, Javier Robayo, A. Recalde, J. Recalde* 8545 (holotype: QCNE; isotypes: CAS, NY, QCA). Figure 1.

Frutex hemiepiphyticus. Ramuli primum quadrangulati demum teretes. Petioli 6–20 mm longi; lamina 6.0–12.5 × 2.8–5.0 cm, elliptica vel angosto-obovata, apice obtusa vel rotundata, caudato-acuminata, basi acuta vel angosto-obtusa, ad maturitatem coriaeea et glabra, 5-nervata, nervis secundariis 0.5–1.1 mm inter se distantibus. Flores 6-meri in quoque nodo superiore 1-2, pedunculares 27–45 mm longis; bracteae exteriores 30–39 × 13–18 mm ellipticae ad basim paulo (ca. 2 mm) coalitae; bracteae interiores 11–16 × 8–12 mm lato-obovatae omnino liberae. Hypanthium (ad torum) 7.5–8.5 mm longus; calyces tubus 2.0–2.5 mm longus, lobis 0.1–0.2 mm longis. Petala 16–18 × 14–16 mm obovato-subrhombica. Antherae 7.7–8.1 × 3.0–3.2 mm, inter se lateraliter cohaerentes apice minute biporosae; connectivum ad basium dorsaliter dente 3.2–3.6 mm descendenti armatum. Ovarium 6-loculare.

Hemiepiphytic shrubs. Upper branchlets quadrate, becoming terete with age. Vegetative buds, young branchlets, young petioles, adaxial and abaxial leaf surfaces, and inner and outer floral bracts glabrous except very sparsely provided with sessile, globular-glandular and granulose hairs.

Mature leaves of a pair equal to somewhat unequal in size, isomorphic; petioles 6–20 mm long; blades planar, subcoriaceous, 6.0–12.5 × 2.8–5.0 cm, elliptic to narrowly obovate, apex obtuse to rounded and acuminate to caudate-acuminate, base acute to narrowly obtuse, shortly decurrent, margin entire, 5-nerved, striolate transverse secondary veins spaced 0.5–1.1 mm apart at widest portion of blade. Flowers erect, 1–2 in each leaf axil of uppermost branches; peduncles 27–45 mm long, elenticellate, quadrangular, distal wings formed by decurrent outer floral bracts. Outer floral bracts subcoriaceous, foliaceous, basally tinged red during anthesis, becoming reddish and showy in fruit, 30–39 × 13–18 mm, fused basally for ca. 2 mm, elliptic, apex acute to acuminate, spreading distally, base acute and winged-decurrent along peduncle, margin entire, multi-veined, the median vein prominently keeled, keel descending peduncle and jointed at point of ovary insertion; inner floral bracts subcoriaceous, pale green, 11–16 × 8–12 mm, free, broadly obovate, apex obtuse, spreading distally, margin entire, the median vein keeled. Hypanthium campanulate, obscurely 6-ribbed, 7.5–8.5 mm long to the torus, 7.1–7.3 mm wide, glabrous; inner hypanthium 2.4 mm high, glabrous, ridged. Calyx tube 2.2–2.4 mm long; calyx lobes 0.1–0.2 × 5.7–5.9 mm, glabrous on both surfaces, very broadly rounded, obscure, margin entire, external calyx teeth elongate, obscure, callose thickenings descending along hypanthium ribs. Petals 6, glabrous, 16–18 × 14–16 mm, widely obovate to subrhombic, white, entire, apex obtuse, shortly acuminate. Stamens 12, isomorphic; filaments adaxially keeled, laterally flanged, 8.4–8.6 mm long, cream, glabrous, declined to one side of the flower opposing the style; anthers laterally coherent, compressed, 7.7–8.1 × 3.0–3.2 mm, mostly lavender, dorsally blue on distal half to just below apex, connective appendage white; apical pores two, circular, 0.10 × 0.10 mm; anther sacs completely separated, thecae surfaces smooth; connective obscurely rugose, prolonged dorso-basally into a thick, triangular tooth 3.2–3.6 mm long, basally sulcate. Ovary inferior, 6-celled, glabrous, locules 3.1 × 5.4 mm, apex conic, 2 mm high, placentation intruded axile. Style straight, apically tapering, glabrous, 14–16 mm long; stigma truncate, 0.15 × 0.4 mm. Mature berry and seeds not seen.

Distribution and phenology.— Known only from the type locality, *Blakea attenboroughii* was found in the recently designated Reserva Ecológica Cerro Candelaria (Fundación EcoMinga), Tungurahua, Ecuador, at 1890 meters. The reserve lies on the eastern slopes of the Andes, between the Parque Nacional Los Llanganates and Parque Nacional Sangay. The type was collected in bud and flower in November, and a different plant (not collected) was observed fruiting in February.

Blakea attenboroughii is notable for its outer floral bracts that are large, foliaceous, basally adpressed, prominently keeled, and decurrent on the peduncles. In combination with its lavender- and blue-colored anthers, this species could be confused with the Colombian endemic, *B. truncata* Gleason (including the synonymous *B. mitrata* Uribe). Though these two species share a number of similar morphological characters, they can be readily distinguished. *Blakea attenboroughii* has petioles 6–20 mm long (vs. 2–7 mm in *B. truncata*); leaves with basal nerves that descend the petioles (vs. leaves plinerved); outer floral bracts prominently decurrent on the peduncles (vs. outer floral bracts not decurrent), connate basally for only ca. 2 mm (vs. connate ca. 9 mm); hypanthium 7.5–8.5 mm long to the torus × 7.1–7.3 mm diameter (vs. 10–13 × 15 mm); petals 16–18 × 14–16 mm (vs. 22–30 × 12 mm), widely obovate to subrhombic (vs. narrowly ovate to oblong-lanceolate), and with the apex obtuse and shortly acuminate (vs. acute to long-acuminate); filaments 8.4–8.6 mm long (vs. 10–11 mm long); anther connective appendage prolonged dorso-basally into a thick, triangular tooth 3.2–3.6 mm long (vs. a narrower, ascending spur, 4.5–5.5 mm long); ovary cone 2 mm high (vs. 5 mm); style straight (vs. curved); and stigma truncate (vs. punctiform).

Blakea attenboroughii is also quite similar to *B. harlingii* Wurdack, but the latter species lacks decurrent outer floral bracts, and has well-developed calyx lobes, ciliate petals, and anthers that are about 3 mm shorter. For its foliaceous outer floral bracts, *Blakea attenboroughii* bears some

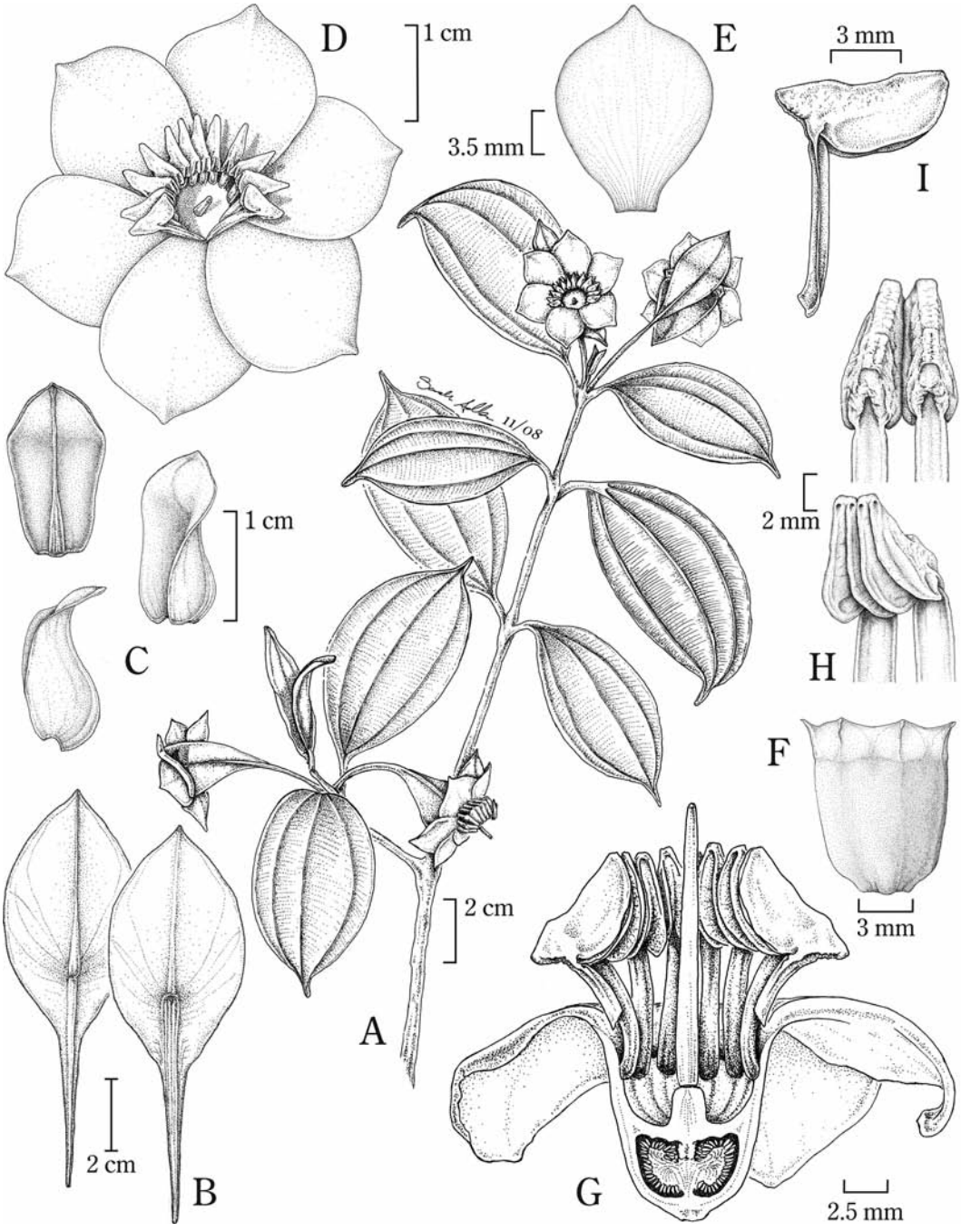

FIGURE 1. *Blakea attenboroughii* Penneys. A. Habit. B. Outer floral bracts, abaxial surface (left), adaxial surface (right). C. Inner floral bracts, abaxial surface (above), 3/4 view (right), lateral view (below). D. Flower. E. Petal (abaxial). F. Hypanthium and calyx. G. Flower, longitudinal section. H. Stamens, dorsal view (above), ventral view (below). I. Stamen, lateral view. (Reproductive structures drawn from spirit-preserved material of type specimen, *Jost, et al. 8545*.)

resemblance to *B. brasiliensis* Cogniaux, which itself is very closely allied to *B. standleyana* Macbride. The latter two species, however, have furfuraceous pubescence, lavender petals, and yellow anthers. They also occur at lower elevations in the western Amazon and eastern slopes of the Andes, with *B. standleyana* growing up to 1100 meters. The Central American *Topobea mcphersonii* Almeda has outer floral bracts remarkably similar to those of *B. attenboroughii*, but otherwise the two species diverge greatly, particulary in that the anthers of *T. mcphersonii* are only 3–5 × 1 mm, yellow, and linear-oblong.

Etymology

This species is named in honor of the great natural historian, Sir David Attenborough, whose fundraising efforts permitted the land where it was discovered to be purchased.

Acknowledgments

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