

A NEW LARGE-LEAVED SPECIES OF *CALYPTRANTHES* (MYRTACEAE) FROM ECUADOR

MARIA LUCIA KAWASAKI,^{1,2} BRUCE K. HOLST,³ AND ALVARO J. PEREZ⁴

Abstract. *Calyptranthes magna*, a new species of Myrtaceae from Yasuní National Park (Orellana, Ecuador), is described and illustrated.

Resumen. Se describe *Calyptranthes magna*, una especie nueva de Myrtaceae del Parque Nacional Yasuní (Orellana, Ecuador).

Keywords: *Calyptranthes*, Myrtaceae, Ecuador, Yasuní

In a recent treatment of Myrtaceae from Ecuador (Kawasaki et al., 2019), we reported 131 species, including 28 species of *Calyptranthes* Sw.; it was mentioned, however, that there were many more undescribed taxa in the country. In this paper, an additional new species is described and illustrated.

Calyptranthes magna B. Holst, M.L. Kawas. & Á.J. Pérez, *sp. nov.*

TYPE: ECUADOR. Orellana: Yasuní National Park, Yasuní Scientific Station, 50-ha plot, 00°38'S, 76°30'W, 200–300 m, 15 Feb 2009 (fl), Á. J. Pérez & P. Alvia 4087 (Holotype: QCA). Fig. 1–2.

Tree; trichomes yellowish brown; leaves obovate, subcordate, truncate at base; inflorescences to 8 cm long, multiflorous; flower buds obovoid, 7–9 mm long, furfuraceous.

It is distinguished from *Calyptranthes nervata* M.L. Kawas. & B. Holst by the obovate leaves with biconvex midvein and shorter inflorescences with larger flower buds.

Trees 5–10 m high, the branchlets terete; trichomes bifurcate, yellowish brown. *Leaf blades* obovate, coriaceous, 25–42 × 15–24 cm, drying olive-green above, yellowish-green below, puberulous to glabrous on both surfaces; glands indistinct above, punctiform and salient below; midvein biconvex on the upper surface, convex below, with glands throughout its length on both surfaces; lateral veins 25–30 pairs, salient above, plane below; marginal vein 1, almost parallel to the margin, ca. 2–5 mm from it; apex abruptly acuminate; base subcordate, truncate; petioles 6–8 mm long, terete, glabrous, drying reddish brown. *Inflorescences* paired panicles, subterminal, multiflorous, to 8 cm long, the axes puberulous; bracts lanceolate, ca. 1.5 cm long, hirsutulous; bracteoles not seen, early deciduous; flower buds obovoid, 7–9 mm long, sessile, furfuraceous, the calyx closed; petals not seen; disk ca. 4 mm diam., glabrous; stamens ca. 6 mm long; style 6–7 mm long; ovary 2-locular, with 2 ovules per locule. *Fruits* not seen.

Phenology: collected with flowers in February.

Distribution, habitat, and ecology: *Calyptranthes magna* is endemic to Yasuní National Park in the Orellana province, growing at 200–300 m elevation. According to the Ministerio del Ambiente del Ecuador (2013), the area is dominated by “bosque siempre verde de tierras bajas del Napo-Curaray (BsTa02)”; to date it is only recorded from the 50-ha plot and the forests surrounding the Yasuní Scientific Station (Valencia et al., 2004, 2009). Population dynamics data for this species come from a 25-ha area, where 11 individuals with dbh ≥ 1 cm were recorded; between 1995 and 2007, the annual mortality rate was 4.11%, recruitment rate was 2.15 individuals per year, average growth rate was 0.55 mm per year, and above-ground biomass was 0.13 ton.

Etymology: the specific epithet refers to the large leaves and flowers.

Conservation status: following IUCN (2017) criteria, its status would be Data Deficient (DD). However, its population should be protected within the Yasuní National Park.

Among the species of *Calyptranthes* from Ecuador, *C. magna* is similar to *C. nervata* M.L. Kawas. & B. Holst in the large leaves with many pairs of lateral veins and in the subterminal, multiflorous inflorescences; it is distinguished by the obovate (vs. narrowly elliptic to elliptic, oblong, or oblanceolate) leaves with biconvex (vs. impressed) midvein, plane (vs. salient) lateral veins on the lower surface, and shorter inflorescences (to 8 cm long vs. 12–31 cm long) with larger flower buds (7–9 mm long vs. 5–6 mm long).

This new species could also be confused with *Calyptranthes maxima* McVaugh, a species from Colombia and Peru. These two species have large flower buds in short panicles and large leaves with biconvex midvein on the upper surface; however, in *C. magna*, the leaves are obovate (vs. narrowly elliptic in *C. maxima*).

LITERATURE CITED

- IUCN. 2017. Guidelines for using the IUCN red list categories and criteria, version 13. Prepared by the Standards and Petitions Subcommittee. Available from: <http://www.iucnredlist.org/documents/redlistGuidelines.pdf> (accessed April 1, 2020).
- KAWASAKI, M. L., B. K. HOLST AND A. J. PEREZ. 2019. Myrtaceae. *Fl. Ecuador* 95: 1–186.
- MINISTERIO DE AMBIENTE DEL ECUADOR. Sistema de clasificación de los ecosistemas del Ecuador continental. 2013. Subsecretaría de Patrimonio Natural, Quito.
- VALENCIA, R., R. CONDIT, H. C. MULLER-LANDAU, C. HERNANDEZ, AND H. NAVARRETE. 2009. Dissecting biomass dynamics in a large Amazonian forest plot. *J. Trop. Ecol.* 25: 473–482.
- VALENCIA, R., R. FOSTER, G. VILLA, R. CONDIT, J.-C. SVENNING, C. HERNÁNDEZ, K. ROMOLEROUX, E. LOSOS, E. MARGÅRD, AND H. BALSLEV. 2004. Tree species distribution and local habitat variation in the Amazon: Large forest plot in eastern Ecuador. *J. Ecol.* 92: 214–229.

We thank Renato Valencia and Consuelo Hernández for providing data on this species from the 50-ha plot in Yasuní.

¹ Field Museum of Natural History, 1400 South Lake Shore Drive, Chicago, Illinois 60605-2496, U.S.A.

² Corresponding author: ikawasaki@fieldmuseum.org

³ Marie Selby Botanical Gardens, 811 South Palm Avenue, Sarasota, Florida 34236-7726, U.S.A.; bholst@selby.org

⁴ Herbario QCA, Pontificia Universidad Católica del Ecuador, Apartado 17-01-2184, Quito, Ecuador; ajperzc@puce.edu.ec



FIGURE 1. *Calyptranthes magna* B. Holst, M.L. Kawas. & Á.J. Pérez. A, leaves, inflorescences, and detail of flower bud. From Pérez & Alvia 4087 (Holotype: QCA).



FIGURE 2. *Calyptranthes magna* B. Holst, M.L. Kawas. & Á.J. Pérez. From Pérez & Alvia 4087 (Holotype: QCA).