Elaeagia coriacea (Condamineeae, Rubiaceae), a new species from Ecuador

CARLA MALDONADO1,2,*, FINN BORCHSENIEUS3 & CHARLOTTE M. TAYLOR4
Herbario Nacional de Bolivia, Cota-cota, calle 27 s/n, Casilla 10077—Correo Central, La Paz, Bolivia.
3Botanic Garden & Herbarium, Natural History Museum of Denmark, Sølgade 83 Opg. S, DK1307 Copenhagen K, Denmark. Email: carla.goyzueta@snm.ku.dk
4Department of Bioscience, Aarhus University, Building 1540, Ny Munkegade, 8000 Aarhus C, Danmark. Email: finn.borchsenius@biology.au.dk
*Missouri Botanical Garden, P.O. Box 299, St. Louis, Missouri, 63166-0299. USA. Email: charlotte.taylor@mobot.org

Abstract

The new species Elaeagia coriacea (Condamineeae, Rubiaceae), from southern Ecuador, is here described and illustrated. It differs from Elaeagia ecuadorensis in its abaxially papillate leaves and by the short obtuse calyx lobes.

Resumen

La nueva especie Elaeagia coriacea (Condamineeae, Rubiaceae), del sur de Ecuador, es aquí descrita e ilustrada. Se diferencia de Elaeagia ecuadorensis por sus hojas papiladas en la haz, así como por sus lóbulos del cáliz: cortos y obtusos.

Introduction

Elaeagia Weddel (1849: 94) is a Neotropical genus of the tribe Condamineeae (Rubiaceae; Kainulainen et al. 2010), with 11 recognized species (Maldonado 2005) of shrubs and trees distributed from Honduras to Surinam, and along the Andes from Venezuela to Bolivia (Maldonado 2005, Taylor 2012). A single species is endemic to Cuba, and the genus is otherwise absent from the remainder of the Caribbean region. It is most abundant in premontane to montane forests of the Andes, at 1000–2500 m elevation. Many species of Elaeagia grow in small populations, and almost half of them are endemic to one country.

Elaeagia can be recognized by its intrapetiolar stipules with resin-secreting colleters located on their lower interior side, coriaceous leaves, terminal, cymose, pendulous or erect inflorescences, relatively small, five-merous, protogynous flowers, white corollas with imbricate aestivation, and small woody capsules with septicidal dehiscence and numerous small seeds. The genus is notable for its unusually well developed, intrapetiolar stipules that produce copious resin.

Elaeagia is taxonomically not well known. Steyermark (1965) presented a review of the species occurring in the Guayana Shield, and a few other authors have treated some individual species (Taylor 2001, Taylor & Hammel 1993). During the taxonomic revision of Elaeagia (Maldonado 2005) a new species was discovered, which is described and illustrated below.

Elaeagia coriacea Maldonado, sp. nov. (Figure 1)

Type:—ECUADOR. Zamora-Chinchipe: San Francisco Scientific Station, road Loja-Zamora, ca. 30 km from Loja, 2070 m, 3°58’S, 79°04’W, 11 Sept 2001, J. Homeier 966 (holotype MO-5679317!; isotype QCNE!).

Species nova magnitudine florium et fructuum Elaeagia ecuadorensis Steyermark (1960: 242) affinis, a qua differt magnitudine foliorum, lobis calycis dentatis (obtusum apex), foliis infra papillatis (non pubescentibus).
glabrous, tertiary veins not prominent. Inflorescences lax cymes, up to 6 cm long, glabrous, branched to 2–3 orders; bracts irregularly developed, 1–5 mm long on lower nodes and absent to 1 mm long on more distal nodes; pedicels 1–2 mm long, glabrous. Flowers pedicellate; hypanthium obovoid, 2–3.5 mm long, glabrous; calyx cupuliform, limb 2–3.5 mm long, 5-dentate, glabrous to shortly pubescent, lobes 1.0–1.3 mm, obtuse at apex; corolla campanulate, white, glabrous, tube ca. 2 mm long, lobes 5, 4–5 mm long, obtuse; stamens 5, filaments 1.5–2 mm long; anthers 1.5–4 mm long; style 3–4 mm long; stigma shortly exserted, 3–4 mm long, bilobate, lobes linear, recurved. Capsules bilocular, spherical, 3–4 mm diam. Seeds ca. 1 mm long.

**Distribution and habitat:**—This species is found in the forests surrounding the San Francisco Scientific Station, on the eastern slopes of the Cordillera of the Andes, southern Ecuador, at 2050–2070 m elevation.

**Taxonomic notes:**—The relatively small, coriaceous, abaxially papillate leaves in combination with the relatively large flowers (for *Elaeagia*) distinguish this new species within this genus. *Elaeagia coriacea* resembles *E. ecuadorensis* Steyerm. in having relatively large flowers and fruits; the latter differs from the former by its pilosulous (not abaxially papillate) leaf blades, and its larger (3–5 mm long), acuminate, calyx lobes.

**Conservation status:**—*Elaeagia coriacea* has a restricted distribution, only known from a few collections in the San Francisco Scientific Station, a small protected area in the southern part of Ecuador. In terms of our current knowledge, the species is assigned a provisional IUCN (2001) conservation status of endangered (EN) (IUCN SPWG 2010).

**Additional specimens examined:**—ECUADOR. Zamora-Chinchipe: San Francisco Scientific Station, road Loja-Zamora, ca. 30 km from Loja, 2050 m, 03°58'S, 79°04'W, 9 Mar 2000, J. Homeier & A. Scheffer 307 (MO, QCNE); ibid., 22 Oct 2001, D. Wolff 154 (MO); ibid., 2060 m, 17 Oct 2000, J. Homeier 546 (MO).

**Acknowledgements**

Funding for this study came from the Danish International Development Agency (DANIDA) (grant 104.dan.8.1.206 to Henrik Balslev) through the project Biodiversity and Economically Important Plants of the Andes (BEISA). We thank J. Homeier (GOET) and S. Liede-Schumann (UBT) for providing materials, and Carlos Maldonado who prepared the botanical drawings.

**References**


http://dx.doi.org/10.3732/ajb.100099


http://dx.doi.org/10.2307/3393066


http://dx.doi.org/10.2307/3393139