



## A new species of *Erythroxylum* (Erythroxylaceae) from Colombia and emendation of *Erythroxylum plowmanianum*

ORLANDO A. JARA-MUÑOZ

Posgrado en Biología, Instituto de Ciencias Naturales, Universidad Nacional de Colombia, Apartado 7495, Bogotá D.C. Colombia.  
Current address for correspondence: Laboratorio de Botánica, Departamento de Ciencias Biológicas, Universidad de los Andes, Cl. 18-2 68, Bogotá D.C. Colombia, E-mail: oa.jara38@uniandes.edu.co

### Abstract

The description of *Erythroxylum plowmanianum* is emended, and the new species *Erythroxylum cogolloi* is described. Both species are endemics to the sub-montane forest of Colombia's Middle Magdalena River Basin. Diagnostic characters are discussed, notes on distribution and illustration are provided for each species.

### Resumen

Se emienda la descripción de *Erythroxylum plowmanianum* y se describe la nueva especie *Erythroxylum cogolloi*. Ambas especies son endémicas de los bosques sub-montanos de la cuenca media del río Magdalena. Para cada especie se discuten sus caracteres diagnósticos, y se incluyen ilustraciones y notas sobre su distribución.

### Introduction

*Erythroxylum* P.Browne (1756: 278) comprises around 240 species, nearly 187 of which are native to the Neotropics (Plowman & Hendsold 2004). The species of the genus grow in a broad spectrum of habitats, such as perhumid regions of the Choco and the xerophytic area in north-west of Peru. In Colombia there has been recorded 40 species, seven endemic and five of these of narrow endemics to the interandean valleys (Jara, unpublished data).

In revising *Erythroxylum* in Colombia, a new species was discovered among the specimens originally included in the description of *Erythroxylum plowmanianum* Cogollo & Pipoly (1993: 126). Here, I describe this new species based on specimens mistakenly included in the protologue of *E. plowmanianum* as well as some recent collections. The description of *E. plowmanianum* is emended to reflect these changes.

### Taxonomic Treatment

*Erythroxylum cogolloi* Jara sp. nov. (Fig. 1).

Similar to *Erythroxylum acuminatum* Ruiz & Pavón (1957: 136) but differing in shorter petioles, (1.5–3.5 mm vs. 6–9.3 mm in *E. acuminatum*), and secondary veins not impressed adaxially (vs. impressed in *E. acuminatum*).

**Type:**—COLOMBIA. **Antioquia:** Municipio San Luis, Cañón del Río Claro, sector nor-occidental, margen derecha, sector sur, 6°2'0"N–74°55'0"W, 03 December 1983, *A. Cogollo 1036* (holotype, COL!; isotypes, JAUM!, MO!).

Small tree or shrub to 6 m tall. Branchlets erect-patents, brown to dun, longitudinally striate at apex; lenticels few. Cataphylls persistent, similar to stipules, 1.2–3.8 mm long, 0–6 at the internodes. Stipules persistent, triangular to

size and form, and their persistent stipules are nearly 2 mm long. Additionally, both species occur sympatrically and likely share the same micro-habitat. However, they have morphological differences that were missed in the description of *E. plowmanianum*. Clearly, these two species are differentiated based on presence versus absence of striated stipules. Stipules in *Erythroxyllum plowmanianum* lack striations, whereas the new species, *E. cogolloi*, has striations. Presence of striated stipules is a stable character used by Schulz (1907) as one of the most important characters to separate sections in *Erythroxyllum*. Other characters that differentiate these two species are listed in Table 1.

**TABLE 1.** Morphological comparison between *Erythroxyllum plowmanianum* and *E. cogolloi*

Characters	<i>E. plowmanianum</i>	<i>E. cogolloi</i>
Stipule length (mm)	0.7–1.4	1.7–3.1
Pedicel length (mm)	1.2–3.5	3.4–4.3
Pale apicule at apex of calyx lobes	present	absent
Staminal cup Vs. calyx	longer	shorter

**Additional specimens examined:**—COLOMBIA. **Antioquia:** Municipio San Lu s, ecological park Ca n del R o Claro, northern sector, left side, 350–450 m, 25 October 1983, *A. Cogollo*, *A. 814* (COL, MO); Municipio San Lu s, Ca n del R o Claro, north-west sector, left side, 5  53' N, 74  37', 375–600 m, 9 March 1984, *A. Cogollo 1442* (COL); *Ibidem*. 2 September 1984, *A. Cogollo 1470* (MO).

## Acknowledgments

I thank the curators of the following herbaria who kindly lend or allowed me to study specimens: COL, HUA, JAUM, MO, UDBC and UIS. Further, I thank to Melissa Islam (Denver Botanical Gardens) for the language revision and suggestions about the manuscript.

## References

- Browne, P. (1756) *The Civil and Natural History of Jamaica in Three Parts*. Printed for the author, and sold by T. Osborne and J. Shipton in Gray's-Inn, London, 503 pp.  
<http://dx.doi.org/10.5962/bhl.title.10826>.
- Cogollo, A. & Pipoly, J.III. (1993) Una nueva especie del g nero *Erythroxyllum* (Erythroxylaceae) de Antioquia, Colombia. *Novon* 3: 126–128.  
<http://dx.doi.org/10.2307/3391517>
- Cogollo, A. & Pipoly, J.III. (1995) Una nueva especie del g nero *Pteropepon* (Cucurbitaceae) de Colombia. *Sida* 16: 401–406.
- Peyritsch, J.J. (1878) Erythroxylaceae. In: Martius, C.F.P von (Ed.) *Flora Brasiliensis* vol. 12, part 1. R. Oldeburg, Munich and Leipzig, pp. 125–180.  
<http://dx.doi.org/10.5962/bhl.title.454>
- Pipoly, J.III. (1991) Nuevas especies del g nero *Cybianthus* Martius subgenero *Conomorpha* (Myrsinaceae) de Colombia. *Caldasia* 19: 257–264.
- Plowman, T. (1989) Erythroxylaceae. In: Harling, G. & Andersson, L. (Eds.) *Flora of Ecuador*. University of G teborg, Riksmuseum and Pontificia Universidad Cat lica del Ecuador, G teborg, Stockholm and Quito, pp. 1–32.
- Plowman, T. & Hensold, N. (2004) Names, types, and distribution of Neotropical species of *Erythroxyllum* (Erythroxylaceae). *Brittonia* 56(1): 1–53.  
[http://dx.doi.org/10.1663/0007-196X\(2004\)056\[0001:NTADON\]2.0.CO;2](http://dx.doi.org/10.1663/0007-196X(2004)056[0001:NTADON]2.0.CO;2)
- Ruiz, H. & Pavon, J. (1957) Flora Peruviana, et Chilensis, vol. 4. *Anales del Instituto Bot nico A. J. Cavanilles* 15: 717–784.
- Saint-Hilaire, A.F.C.P (1829) Erythroxylaceae. In: Saint-Hilaire, A.F.C.P., Jussie, A. & Cambess des, J. (Eds.) *Flora Brasiliae Meridionalis*, vol. 2. A. Berlin Bibliopolan, Paris, pp. 92–101.  
<http://dx.doi.org/10.5962/bhl.title.45474>.
- Schulz, O.E. (1907) Erythroxylaceae. In: Engler, A. (Ed.) *Das Pflanzenreich regui vegetabilis conspectus* IV. 134. Verlag von Wilhelm Engelmann, Leipzig, pp. 1–246.
- Taylor, C. (1999) Dos nuevas especies de *Simira* (Rubiaceae) de Colombia. *Novon* 9: 568–570.  
<http://dx.doi.org/10.2307/3392169>