



## *Neomillspaughia hondurensis* (Polygonaceae), a new species from Central America

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### Abstract

A new species *Neomillspaughia hondurensis* (Polygonaceae) from Honduras is described and illustrated. This species is morphologically and ecollogically different from the other two currently known *Neomillspaughia* species, being more related to *N. emarginata* than to *N. paniculata*. A comprehensive comparison and a key for the three species are provided.

### Resumen

Se describe e ilustra la nueva especie *Neomillspaughia hondurensis* (Polygonaceae) de Honduras. Esta especie es morfológicamente y ecológicamente diferente de las dos únicas especies de *Neomillspaughia*, estando más relacionada con *N. emarginata* que con *N. paniculata*. Se proporciona información comparativa de la nueva especie con las especies relacionadas y una clave para la identificación de las mismas.

**Key words:** Central America, *Neomillspaughia*, taxonomy

### Introduction

*Neomillspaughia* S.F.Blake (1921: 84) is a genus of small trees restricted to dry forests of Central America (Burke *et al.* 2010) including two species: *N. emarginata* (H.Gross 1913: 218) S.F.Blake (1921: 85) distributed from Mexico (Yucatan Peninsula) to Belize and Guatemala, and *N. paniculata* (Donnell Smith 1899: 440) S.F.Blake (1921: 85) distributed from Guatemala, to Honduras and Nicaragua. Recent phylogenetic studies have clarified the position of *N. emarginata* as sister to *Coccoloba* P.Browne (1756: 209) (Burke *et al.* 2010, Burke & Sánchez 2011). From the morphological point of view, *Neomillspaughia* is characterized by a winged 5-lobed perianth, peduncles without wings, pubescent filaments, and trigonous achene with acrescent tepals (Standley & Steyermark 1946, Ortiz-Díaz 1994).

During the revision of herbarium material for the taxonomic treatment of *Neomillspaughia* for *Flora Mesoamericana*, we initially realized that some populations from Honduras showed inconsistencies in size and shape of the leaves, perianth, and fruit. After comparing, and measuring all available specimens we confirm that character variability did not fit the current morphological circumscriptions of any of the two already known species of *Neomillspaughia*, so we decided that it was a new one, here named as *N. hondurensis*. Previous collections of the new species were doubtfully identified as *N. paniculata*, but a detailed morphological examination revealed that the new species is more closely related to *N. emarginata*. In order to clarify the taxonomic status of *N. hondurensis*, a morphological and ecological study was carried out.

**TABLE 1.** Principal taxonomic characters for the delimitation of the taxa (in fruit, measurements of the perianth length without pedicels).

	<i>N. hondurensis</i>	<i>N. emarginata</i>	<i>N. paniculata</i>
Apex of the leaf (mm)	10–16	5–25	25–40(–50)
Internodes width (mm)	2–3.5	2–3.5	3.5–4.5(–6.5)
Leaf blades (cm)	8–12 × 8–10	6–13 × 6–14	10–20(–30) × 14–20(–30)
Petiole (mm)	20–30 × 1–2	19–30(–40) × 1–2(–3)	(20–)30–40(–50) × (1.5–)2–3
Inflorescence (cm)	7–13 × 2–7 1–3 racemes with a rachis not well differentiated	8–10(–17) × 8–15(–20) (3–)6–10 racemes with a rachis well differentiated	(10–)13–20 × 11–26 5–12 racemes with a rachis well differentiated
Perianth (mm)	10–14 × 5–6	8–11(–13) × 4–5(–6.5)	7–8(–10) × 3–4(–4.8)
Inner tepals (mm)	3.5–4.0 × 1.7	2.5–3.5(–4.0) × 2.0	2.0–3.0 × 0.8–1.0
Fruit (mm)	4.0–5.5 × 2.5–3.5	2.5–3.0(–4.0) × 1.8–2.0	2.5–3.5 × 1.5–2

### Key to the species of *Neomillspaughia* from Mexico and Central America

1. Leaf blades 14–20(–30) cm width, emarginate at the apex 25–40(–50) mm; inflorescence (10–)13–20 × 11–26 cm with a rachis of 2–3 mm width; perianth 7–8(–10) × 3–4(–4.8) mm, inner tepals 0.8–1 mm width ..... *N. paniculata*
- Leaf blades 6–14 cm width, obtuse or emarginate at apex 5–25 mm; inflorescence 7–13(–17) × 2–15(–20) cm with a rachis of 0.6–1.3 mm width; perianth 8–14 × 4–6 mm, inner tepals 1.7–2 mm width ..... 2
2. Inflorescence a panicle with (3–)6–10 racemes in a rachis well differentiated, 8–15(–20) cm width; achene 2.5–3(–4) × 1.8–2 mm ..... *N. emarginata*
- Inflorescence a panicle with 1–3 racemes in a rachis not well differentiated, 2–7 cm width; achene 4.0–5.5 × 2.5–3.5 mm ..... *N. hondurensis*

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