


SHORT NOTE

First record of *Myrcianthes prodigiosa* (Myrtaceae) for Colombia, and notes on its flowers and fruits

Primer registro de *Myrcianthes prodigiosa* (Myrtaceae) para Colombia, y notas sobre sus flores y frutos

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ABSTRACT

A new record of *Myrcianthes* (Myrtaceae) for the Andean forests of Serranía de Los Yariguíes, Santander department, Colombia, is reported. Notes on the species' habitats, expanded distribution range, and morphological observations on its flowers and fruits are provided.

Keywords: Colombian Flora, Santander, Serranía de los Yariguíes.

RESUMEN

Se reporta un nuevo registro de *Myrcianthes* (Myrtaceae) para los bosques andinos de la Serranía de Los Yariguíes, del departamento de Santander, Colombia. Se incluyen anotaciones sobre los hábitats en donde se encontró la especie y de la expansión de su rango de distribución, así como observaciones morfológicas sobre sus flores y sus frutos.

Palabras clave: Flora de Colombia, Santander, Serranía de Los Yariguíes.

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Recent research expeditions to the region of the north-eastern Andes of Colombia, in the Santander department, led to the discovery of one species of *Myrcianthes*, previously known only in French Guiana, Suriname, Guyana, Venezuela, Ecuador, and Peru. Comments about the geographical distribution of this species and its expanded range are provided in this short communication, as well as notes on its flowers and a morphological description of its fruits and seeds; voucher specimens of the new record were deposited in COL, HECASA, HUA, JAUM, JBB, and UIS (acronyms of the herbaria follow Thiers (c2023)).

***Myrcianthes prodigiosa* McVaugh**, Fieldiana, Bot. 29(8):492-493. 1963. (Figs. 1, 2, 3).

Comments. Originally described by McVaugh (1963), *Myrcianthes prodigiosa* was found in forests associated with tepuis and plateaus of the Guiana Shield of Guyana and Suriname. Later, Holst (1999) reported the presence of this species in Ecuador, from premontane forests on the sandstone plateau of the Cordillera del Cóndor between 930–1120 m. Grifo (2003) recorded the presence of *M. prodigiosa* in lowland to montane forests of the Venezuelan Guayana, between (100–) 1000–1600 m. According to TROPICOS database B. Holst determined, in 2000, a specimen of *M. prodigiosa* from French Guiana (Prévost 3687 (MO)); also, in 2010 he determined a Peruvian specimen of this species (Rojas *et al.* 1005 (MO)) from Amazonas state, at 750 m (Fig. 3).

In Colombia, specimens of two trees of *Myrcianthes prodigiosa* have been collected recently in the north of the Serranía de Los Yariquíes of Santander (Andean region, Fig. 3), which is part of the Eastern Cordillera Mountain range, forming an isolated north-western extension (Donegan *et al.* 2007). The first one is from a 12 m tall tree (Díaz-Rueda *et al.* 2619) that was collected near *Coffea arabica* L. crops, close to a farmer's house, at 1480 m (Figs. 1, 2). During the collection of this specimen, the owners of the house informed D. Díaz-Rueda that they did not plant this tree on their land and that such tree was a relict from the native forest that was cleared some years ago to grow 'café' (*C. arabica*). The second tree sampled is 8 m tall and was found on the edge of a cattle pasture, near to a road (Díaz-Rueda *et al.* 2827). Colombian specimens of *M. prodigiosa* studied here expand the range of this species ca. 1320 km north and ca. 870 km west of its previously known distribution, but they are not associated with

forests on Guiana shield remnants or sandstone plateau, habitats where the species now lives in British Guiana, Suriname, Venezuela, and Ecuador. Flowers of *M. prodigiosa* produced a strong and pleasant aroma, and they are visited by the 'abeja real' (*Apis mellifera* Linnaeus, 1758). Fruiting of this species occurs between March and April, and their fruits are eaten by species of mammals, such as the 'ñeque' (*Dasypsecta punctata* Gray, 1842) and the 'tinajo' (*Cuniculus paca* Linnaeus, 1766); nevertheless, the fruit of *M. prodigiosa* is not consumed by people due to its unpleasant taste (B. Monsalve, personal communication). B. Monsalve also informed us that *M. prodigiosa* shed its leaves after fruiting; shedding of leaves has been reported in lowland species of *Myrcianthes* in years of extreme dryness (Grifo 1992), but we did not find records of such leaves shedding after fruiting in other species of the genus. We do not have enough information about this species yet to properly categorized it following IUCN criteria, but we only found two trees growing in an area of ca. 6 km², which could indicate that, locally, the population of this species has been diminished due to deforestation and agricultural expansion on this area.

Myrcianthes prodigiosa is a very remarkable species, easily distinguished from other species of *Myrcianthes* by its elliptic or elliptic-obovate leaves, its large dichasia, its large flowers and fruits, and its trilocular ovary (McVaugh 1963, Grifo 1992, Kawasaki *et al.* 2019). Examining flowers of Díaz-Rueda *et al.* 2619, we have seen flowers with a trilocular ovary as described by McVaugh in 1963 (Fig. 2a), but we found also flowers with a bilocular ovary (Fig. 2b); in these flowers, we found 15–20 ovules per locule. When *M. prodigiosa* was described (McVaugh 1963), fruit characters were evaluated using immature fruits (Grifo 2003). Here we expand the description of fruits and seeds based on mature fruits from the specimens examined, as follows:

Fruits green or yellowish-green, dark brown when dry, widely fusiform, widely ellipsoid or sometimes globose, 8–11 × 5.5–7 cm, glabrous, smooth, with minute yellowish golden glands, calyx persistent in ripe fruit with five calyx lobes; seeds 1 (–2), globose or ellipsoid, sometimes slightly reniform, 5.5–6.5 × 4–5 cm, seed coat coriaceous, brown; embryo with two separate and unequal plano-convex cotyledons, with minute yellowish golden to light brown glands.

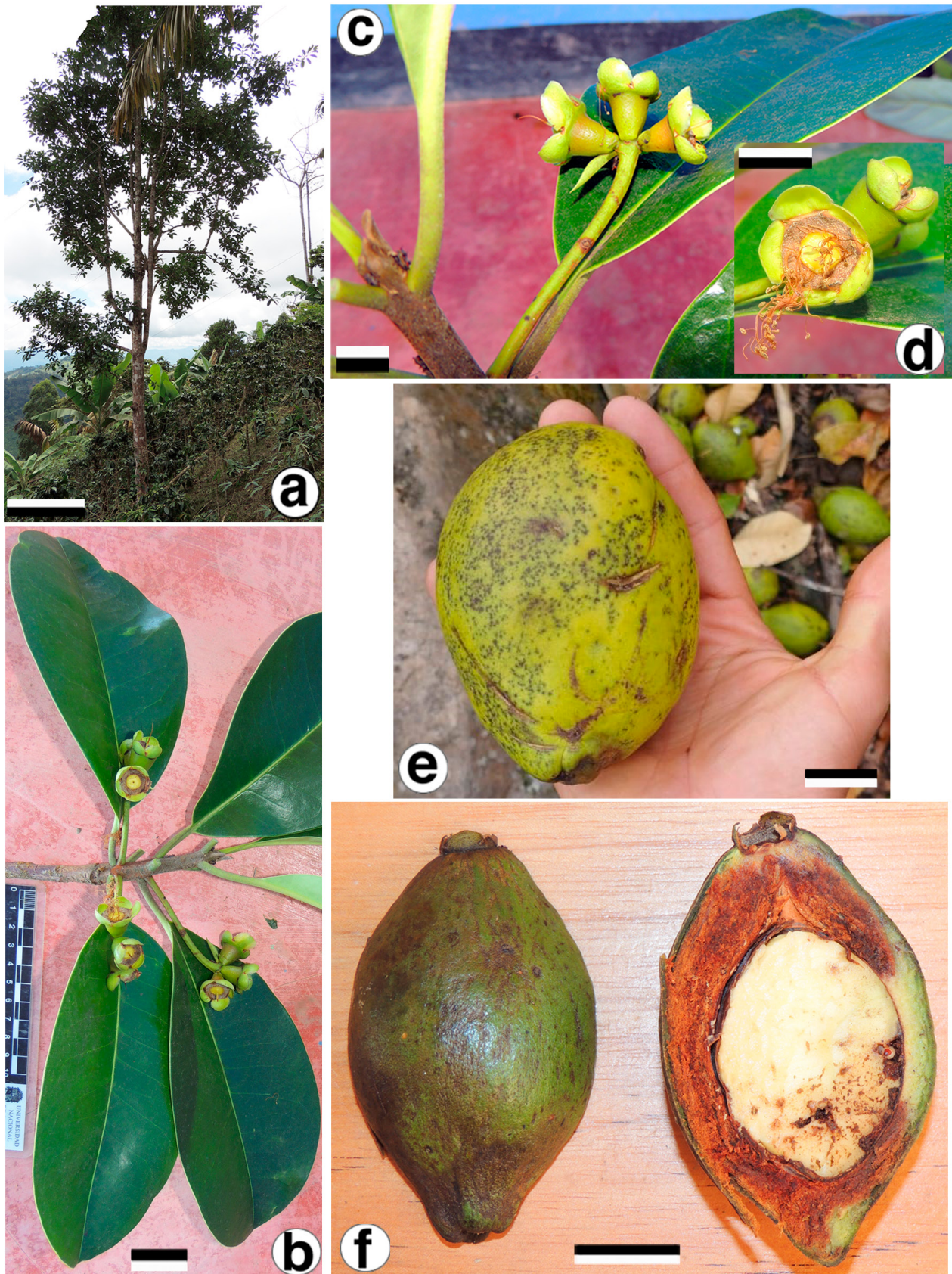


Figure 1. *Myrcianthes prodigiosa* McVaugh. **a.** Habit, **b.** Twig with inflorescences, **c.** Inflorescence with flowers, **d.** Flowers without petals, showing the staminal ring, **e-f.** Fruits and seeds [a-f from Díaz-Rueda et al. 2619]. Scale for **a** = 2 m, **b** = 2 cm, **c-d** = 1 cm, **e-f** = 2 cm. Photos a-d, f by Daniel Díaz-Rueda; photo e by Bryan Monsalve.

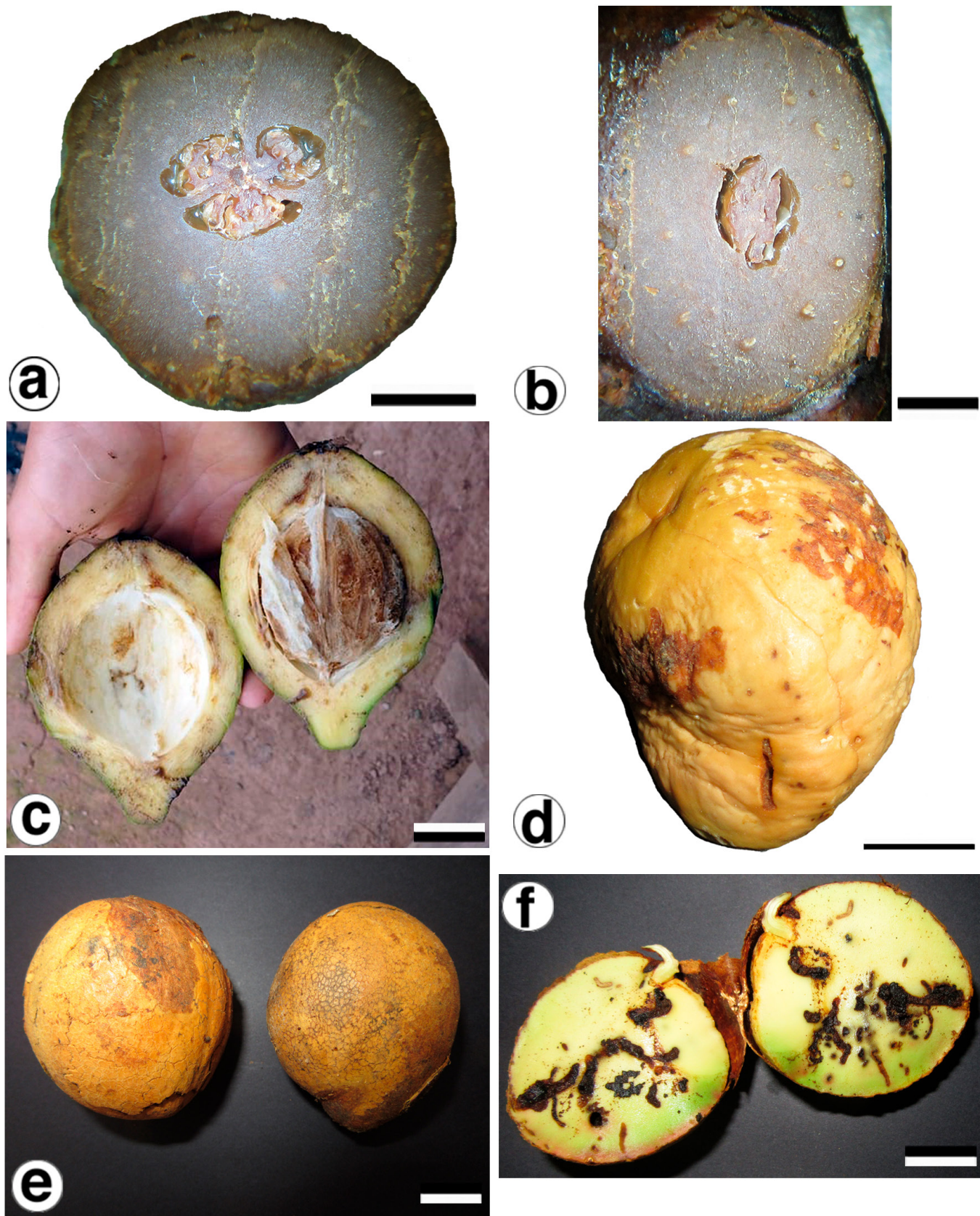


Figure 2. *Myrcianthes prodigiosa* McVaugh. **a.** Trilocular ovary, **b.** Bilocular ovary, **c.** Fruit and seed, **d.** Slightly reniform seed with seed coat removed, **e.** Globose and slightly ellipsoid seeds with seed coat partially removed, **f.** Seed with exposed cotyledons and radicle [a-f from Díaz-Rueda et al. 2619]. Scale for a-b = 2 mm, c-f = 2 cm. Photos a, b, d-f by Carlos Parra-O.; photo c by Daniel Díaz-Rueda.

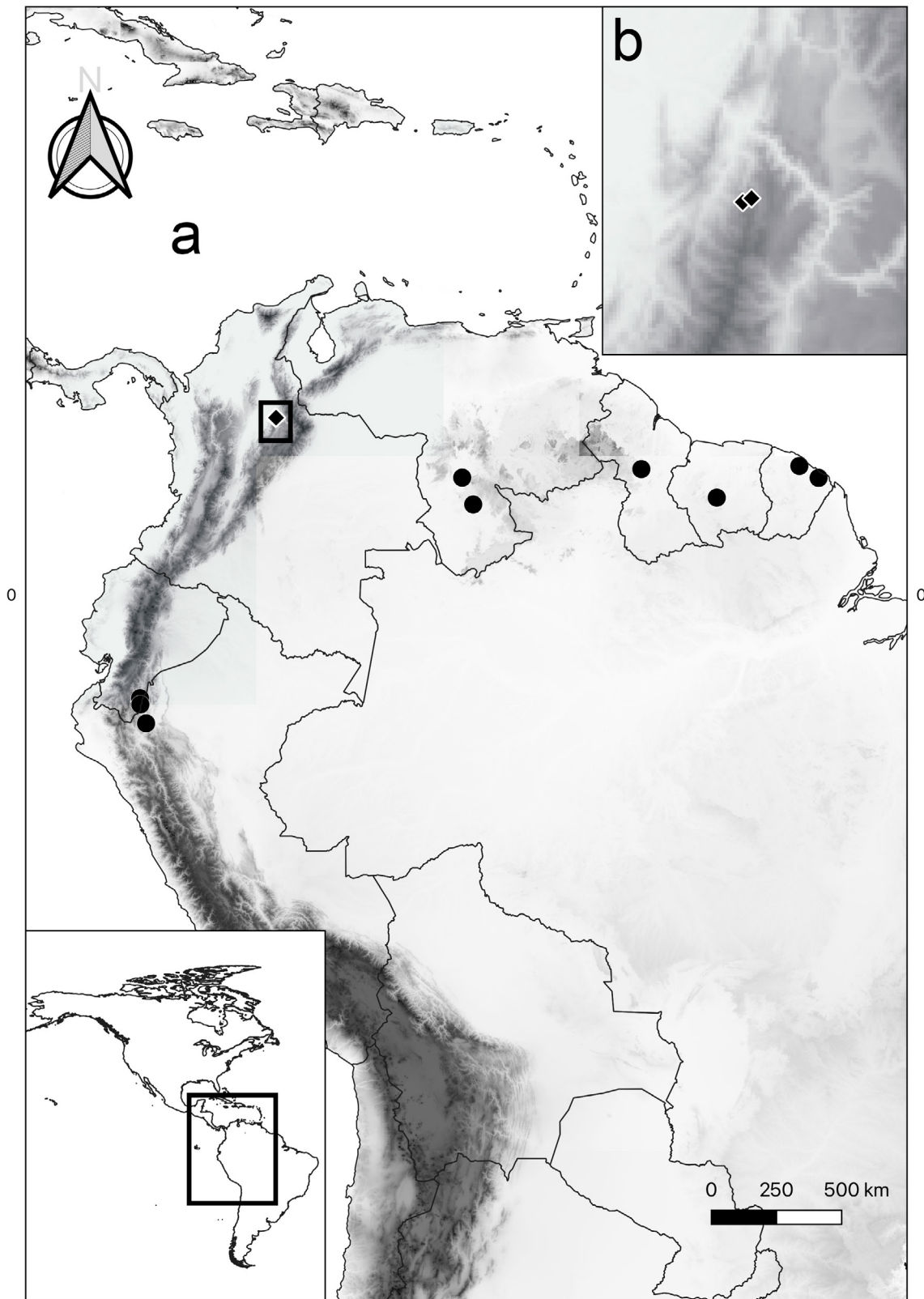


Figure 3. a. Map of records of *Myrcianthes prodigiosa* in South America. The circles indicate the previously known records of the species in French Guiana, Suriname, Guyana, Venezuela, Ecuador, and Peru, b. The diamonds indicate the novelty presence of *M. prodigiosa* in Santander department at the north-eastern Andes of Colombia.

Myrcianthes prodigiosa has, by far, the largest fruit with-in *Myrcianthes*; *Myrcianthes* species (except *M. prodigiosa*) have fruits 0.3–3 cm in diameter, while ripe fruits of *M. prodigiosa* are 5.5–7 cm in diameter. Also, our findings allow us to confirm that this species has one of the largest fruits of the fleshy-fruited neotropical native Myrtaceae.

Material examined: COLOMBIA. **Santander:** San Vicente de Chucurí, vereda Chanchón Bajo, finca La Florinda, “cerca de la casa, zona norte de la serranía de Los Yariguíes”, 6°53'28.48"North, 73°21'27.11"West; 1480 m, 29 jul 2022 (fl, fr), *D. Díaz-Rueda et al.* 2619 (COL, JAUM, JBB, UIS); San Vicente de Chucurí, vereda Chanchón Alto, finca Hato Nuevo, “1,7 km subiendo desde la tienda de Loma Redonda, por el ramal a la finca El Paraíso, zona norte de la serranía de Los Yariguíes”, 6°53'57.4"North, 73°20'20.5"West; 1715 m, 06 apr 2023 (fr), *D. Díaz-Rueda et al.* 2827 (COL, HECASA, HUA, JAUM, JBB, UIS).

AUTHOR'S CONTRIBUTION

CPO wrote the text and reviewed the herbarium specimens; DDR collected the field data and reviewed the entire manuscript.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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