



Gynochthodes leonardii: a novel species of Morindeae-Rubiaceae from Palawan, Philippines

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Abstract

Gynochthodes leonardii, a new taxon from vegetations on ultramafic substrates in the northern and central regions of Palawan province, Philippines is described and illustrated. It is superficially similar to *G. bartlingii* but is readily recognized by the induments on its vegetative and reproductive structures, sulcate and lenticled branches, scarious and deciduous stipules, 3–9 capitula in an inflorescence, and shorter corolla tubes.

Introduction

Gynochthodes Blume (1827:993) of the Rubiaceae occurs in the Paleotropics where it is distributed from Madagascar to tropical Asia reaching towards the western Pacific islands including northern Australia. In the recent molecular phylogenetic assessment of tribe Morindeae Miquel (1857:239,241) by Razafimandimbison *et al.* (2009), the genus was re-circumscribed in a wider sense to accommodate all lianescent dioecious species of *Morinda* Linnaeus (1753:176) with small flowers, which subsequently led to a vast proposal of nomenclatural changes by Razafimandimbison and Bremer (2011) making it the largest in Morindeae with an estimate of 95 species (Razafimandimbison & Bremer, 2011; Razafimandimbison *et al.*, 2012; Govaerts *et al.*, 2013). As currently delimited by Razafimandimbison & Bremer (2011) and Razafimandimbison *et al.* (2012); *Gynochthodes* can be recognized from other Morindeae genera by: inflorescences that are not paniculate bearing small flowers, corolla tubes that are 0.7–55 mm long, and corolla lobes that are 1.5–11.0 mm long.

After Merrill's (1923:571) "Enumeration of Philippine Flowering Plants" wherein he recognized four species of *Gynochthodes* occurring in the islands of Luzon, Negros, Panay and Mindanao, namely: *G. lenticellata* (C.B. Robinson 1911:227) Merrill (1923: 571), *G. mindanaensis* Merrill (1920:1425), *G. nigra* (Merrill 1913:58) Merrill (1923: 571), and *G. philippinensis* (Elmer 1911:1043) Merrill (1923:571). Razafimandimbison and Bremer (2011) added 9 more species to this list representing the archipelago with 13 taxa or ~14% of the world's *Gynochthodes* species. While conducting taxonomic studies on Philippine Morindeae, specimens of a species annotated as *Morinda* were found in various herbaria; whose habit and reproductive structures evidently denoted its attribution to the genus *Gynochthodes*. This taxon is closely related to *G. bartlingii* (Elmer 1912:1340) Razafimandimbison and B.Bremer (2011:287) based on our taxonomic survey and is here described as a new species.

Materials and Methods

Materials of the Philippine and Malesian *Gynochthodes* from the following herbaria have been used: CAHUP, PNH, PSUH and USTH; as well as type specimen images available from: A, K, L, MO, NY, and US (abbreviations are according to Thiers, 2014 and is continuously updated). Morphological examinations of dried materials of *G. leonardii* from several localities and of ethanol-fixed specimens coming from its *locus classicus* have been carried out using Optika SZM 2LED stereomicroscope. Measurements were obtained with a metric Vernier caliper, while terminologies