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

JAYSON G. CHAVEZ1, RUSSELL EVAN L. VENTURINA2 & GRECEBIO JONATHAN D. ALEJANDRO2,3
1Department of Biological Sciences, Institute of Arts and Sciences, Far Eastern University, Nicanor Reyes Sr., 1008 Manila, Philippines. Email: jayson.chavez@gmail.com
2The Graduate School, and 3Research Center for the Natural and Applied Sciences, University of Santo Tomas, España, 1015 Manila, Philippines. Email: russellventurina2000@yahoo.com and gdalejandro@mnl.ust.edu.ph

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 lenticelled 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

Accepted by Axel Arriola: 12 Jul. 2015; published: 7 Aug. 2015