Peltophorum Dasyrhachis (Miq.) Kurz: A New Record of a Southeast Asian Species of Fabaceae (Caesalpinioideae) Naturalized in Northwestern Madagascar

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24. ROGERS, S. Zachary & Mats THULIN:

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Introduction

Peltophorum (Vogel) Benth. *(Fabaceae: Caesalpinioideae)* is a woody genus of 5–7 species distributed in tropical and subtropical regions of the Old and New World (LEWIS, 2005). Some of the species are widely cultivated as shade trees and for their attractive long pendant inflorescences composed of fragrant yellow flowers (HOU, 1996; LEWIS, 2005). *Peltophorum dasyrhachis* (Miq.) Kurz is native to Southeast Asia (type from Sumatra) and has been reported for adjacent areas in the region (e.g., Borneo, Java, Peninsular Malaysia, Laos, Cambodia, Thailand, Vietnam; LARSEN & al., 1980; HOU, 1996). The species has been introduced in the tropics (RUDD, 1991) and become naturalized in a few African countries (e.g., Tanzania, Uganda; BRENAN, 1967). Two herbarium collections made in northwestern Madagascar in 2005 and 2006 mark the first records of *P. dasyrhachis* for the country. Previously, DU PUY & al. (2002) reported a total of 667 Malagasy species of *Fabaceae* including 94 introduced or naturalized species and a total of 100 species (native and naturalized) belonging to *Caesalpinioideae.*

Two varieties of *Peltophorum dasyrhachis* are generally recognized: the widespread autonymic variety, to which the Malagasy material belongs, and *P. dasyrhachis* var. *tonkinense* (Pierre) K. Larsen & S. S. Larsen, a variety that some authors (e.g. DEZHAO & al., 2010) have treated as a distinct species restricted to Cambodia, Laos, Vietnam and China.

Peltophorum dasyrhachis (Miq.) Kurz in J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 45: 128. 1876.

≡ *Caesalpinia dasyrhachis* Miq. in Fl. Ned. Ind., Eerste Bijv. 2: 292. 1861. ≡ *Brasilettia dasyrhachis* (Miq.) Kuntze in Revis. Gen. Pl. 1: 164. 1891.

Lectotypus (designated here): **INDONESIA. Sumatra:** Mangala, Lampongs, s.d., fl., *Teijsmann 4547HB* (U [U0003297]!).

Nomenclatural notes. – The authorship of *Peltophorum dasyrhachis* has been cited incorrectly in the literature (most often as "(Miq.) Baker" or "(Miq.) Kurz ex Baker", even in recently published treatments (e.g. RUDD, 1991; DEZHAO & al., 2010). The error stems from authors overlooking KURZ (1876) as the first person to validly transfer the basionym *Caesalpinia dasyrhachis* Miq. to *Peltophorum*, and consequently recognizing a superfluous combination published by BAKER (1878). Kurz's article was issued on 14 November 1876, whereas Baker's treatment was not published until July 1878. Baker's publication further confused the situation by modifying the original orthography of the epithet and acknowledging Kurz via the citation "*P. dasyrachis*, Kurz MSS." Miquel's original spelling should be retained as stipulated in Art. 60.1 of the ICBN (MCNEILL & al., 2006).

Typification. – In the protologue the provenance of the species was given as *"Sumatra orient. in prov. Lampong, prope Mengala, Kebang (T.)".* LARSEN & al. (1980) and later HOU (1996) cited an unnumbered *Teijsmann* duplicate from Sumatra at L as the holotype and a K sheet as an isotype, but unique identifiers (e.g., accession number, specific locality) for the types were not provided in either publication. We have examined two unnumbered *Teijsmann* sheets at L [L0019200, L0019201] with red "Type" stickers. Both were annotated by Ding Hou in 1993 as *Peltophorum dasyrhachis*, but the precise type status (e.g., holotype, isotype, syntype) was not indicated on either sheet. Sheet [L0019201] bears a handwritten label including the general locality "Lampongs" and a "Herbarium Dr. J. K. Hasskarl" stamp, whereas [L0019200] has a typewritten label noting "Sumatra" and "Ex Herbario Miquel". None of the annotations on either L sheet belong to Miquel. Conversely, we have examined two numbered *Teijsmann* collections from Sumatra at U that were originally part of Miquel's private herbarium (*Teijsmann 4322HB* [U0003298]; *Teijsmann 4547HB* [U0003297]). Both of the collections were annotated by Miquel as *Caesalpinia dasyrhachis*. The original handwritten label of [U0003298] was

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annotated as "Kebang, Lampongs", whereas the label of [U0003297] was annotated as "Mangala, Lampongs." The labels and plants of the two *Teijsmann* collections at U match the information given in the protologue, suggesting that at least two different collections (i.e., syntypes) were used for the protologue description. The U sheets are treated as syntypes and the two L sheets may represent duplicates of the U collections, or could even be additional syntype material. No effectively published lectotypification statements have been found for *Caesalpinia dasyrhachis*. *Teijsmann 4547HB* [U0003297] includes flowers and is in good condition and is designated here as lectotype. The other syntype is in fruit.

Peltophorum dasyrhachis (Miq.) Kurz var. ***dasyrhachis***

Distribution and ecology in Madagascar. – *Peltophorum dasyrhachis* var. *dasyrhachis* occurs in the DIANA Region of Antsiranana Province and has been found growing in two habitats: on a sandy beach near sea level along the edge of degraded gallery forest on Nosy Be, and in secondary riparian forest among rocks and boulders at ca. 40 m elevation in the Sambirano Basin. One 20 m tall tree with flowers and old fruits was seen at the Nosy Be locality. A male long-billed green sunbird (*Nectarinia notata* Müller, 1776) was observed visiting the fragrant yellow flowers around 10 am (Fig. 1). The tree from Sambirano was smaller (ca. 4 m tall) and the abundance at this site was not recorded on the herbarium label. Additional photographs of *Rogers & al. 1177* taken in the field are available on Tropicos (2012).

Fig. 1. – *Peltophorum dasyrhachis* (Miq.) Kurz var. *dasyrhachis*, with a male long-billed green sunbird (*Nectarinia notata* Müller, 1776) visiting the fragrant yellow flowers (*Rogers & al. 1177*).

[Photo: C. Davidson]

Specimens examined. – **Madagascar. Prov. Antsiranana, DIANA Region:** Nosy Be, southeast corner of island in Lokobe Forest, ca. 1 m, 13°24'47''S 48°20'08''E, 15.XI.2006, *Rogers, Ranaivojaona, Davidson & Christoph 1177* (G!, K!, MO [MO6347606]!, P!, TAN!, UPS!); Ambanja, Commune Rurale Benavony, Bassin Sambirano, Vallée Ramena, Fokontany Ambobaka, Cascade d'Antsahabe, 40 m, 13°44'28''S 48°31'22''E, 28.II.2005, *Wohlhauser, Ravokatra, Buerki & Callmander 779* (G, K, MO [MO4848817]!, P [P00524303]!, TEF).

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