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Notes on the flora of Madagascar, 22-25

Martin W. Callmander, Peter B. Phillipson & Laurent Gautier (ed.)

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Abstract

CALLMANDER, M. W., P. B. PHILLIPSON & L. GAUTIER (ed.) (2012). Notes on the flora of Madagascar, 22-25. *Candollea* 67: 137-151. In French and English, English and French abstracts.

Ongoing research on Madagascar's flora is revealing numerous taxonomic novelties and nomenclatural inconsistencies, and providing new data on species distribution. This is the fourth set of notes in a series that aims to provide the botanical community working on the flora of Madagascar an opportunity to publish short communications on these topics, and comprises four notes.

– *Note 22*. Description of the fruit of *Tabernaemontana capuronii* Leeuwenb. *(Apocynaceae)*, 40 years after the discovery of this species, by Lucile Allorge & Adolphe Lehavana. The fruit of an *Apocynaceae (Tabernaemontaneae), Tabernaemontana capuronii* Leeuwenb. (described as *Capuronetta elegans* Markgr. in 1972) is described for the first time. The fruit is of scientific interest because of the contested systematic position of this species.

– *Note 23*. Notes on the genus *Ochna* L. *(Ochnaceae)* in Madagascar, by Martin W. Callmander & Peter B. Phillipson. Four *Ochnaceae* species originally described in the genera *Diporidium* Tiegh., *Discladium* Tiegh. and *Polythecium* Tiegh. are formally transferred to the genus *Ochna*, following currently accepted generic delimitation in the family. The necessary combinations *Ochna baronii* (Tiegh.) Callm. & Phillipson, *Ochna louvelii* (H. Perrier) Callm. & Phillipson and *Ochna thouvenotii* (H. Perrier) Callm. & Phillipson are provided. A new name is required for *Polythecium macranthum* Tiegh.: *Ochna sambiranensis* Callm. & Phillipson.

Résumé

CALLMANDER, M. W., P. B. PHILLIPSON & L. GAUTIER (ed.) (2012). Notes sur la flore de Madagascar, 22-25. *Candollea* 67: 137-151. En français et anglais, résumés anglais et français.

Les recherches en cours sur la flore de Madagascar révèlent de nombreuses nouveautés taxonomiques, des problèmes de nomenclature et de nouvelles données sur la distribution des espèces. Cette publication est la quatrième d'une série de notes destinées à donner à la communauté botanique internationale travaillant sur Madagascar la possibilité de publier de courtes contributions traitant de ces aspects et comprend quatre notes.

– *Note 22*. Description du fruit de *Tabernaemontana capuronii* Leeuwenb. *(Apocynaceae)*, 40 ans après la découverte de l'espèce, par Lucile Allorge & Adolphe Lehavana. Description du fruit, jusqu'ici inconnu, d'une *Apocynaceae (Tabernaemontaneae), Tabernaemontana capuronii* Leeuwenb. (décrite sous *Capuronetta elegans* Markgr. en 1972). L'intérêt scientifique de ce fruit est important en raison de la position systématique contestée de l'espèce.

– *Note 23*. Notes sur le genre *Ochna* L. *(Ochnaceae)* à Madagascar, par Martin W. Callmander & Peter B. Phillipson. Quatre espèces d'*Ochnaceae* décrites dans les genres *Diporidium* Tiegh., *Discladium* Tiegh. et *Polythecium* Tiegh. sont formellement transférées dans *Ochna,* en accord avec les délimitations génériques qui prévalent actuellement dans la famille. Les nouvelles combinaisons nécessaires *Ochna baronii* (Tiegh.) Callm. & Phillipson, *Ochna louvelii* (H. Perrier) Callm. & Phillipson et *Ochna thouvenotii* (H. Perrier) Callm. & Phillipson sont proposées. Un nouveau nom est nécessaire pour *Polythecium macranthum* Tiegh.: *Ochna sambiranensis* Callm. & Phillipson.

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– *Note 24*. *Peltophorum dasyrhachis* (Miq.) Kurz: a new record of a Southeast Asian species of *Fabaceae (Caesalpinioideae)* naturalized in northwestern Madagascar, by Zachary S. Rogers and Mats Thulin. Two recent *Fabaceae* collections from northwestern Madagascar document the presence of *Peltophorum dasyrhachis* (Miq.) Kurz in the country. This discovery signals a new naturalized species of *Caesalpinioideae* for Madagascar and adds another genus to the island's highly diverse flora. The orthography and authorship of the name is discussed and a lectotype is designated.

– *Note 25*. *Mimusops coriacea* (A. DC.) Miq. *(Sapotaceae)*: nomenclature, distribution and ecology, by Laurent Gautier, Louis Nusbaumer, Rhéa Garrat, Richard Randrianaivo & Peter B. Phillipson. *Mimusops coriacea* (A. DC.) Miq., a useful species of the littoral forests of the humid coasts of Madagascar is still often erroneously refered to as *Mimusops commersonii* (Engl.) G. Don. The authors confirm the nomenclature of this useful species. They present a distribution map, analyze it, and discuss its phenology and conservation status.

Key-words

APOCYNACEAE – OCHNACEAE – FABACEAE – SAPOTACEAE – Tabernaemontanae – Caesalpinioideae – Capuronetta – Pandaca –Tabernaemontana – Diporidium – Discladium – Polythecium – Ochna – Peltophorum – Mimusops – Madagascar – Southeast Asia – Mauritius – Nomenclature – Taxonomy – IUCN Red List

– *Note 24*. *Peltophorum dasyrhachis* (Miq.) Kurz: une nouvelle occurence d'une espèce asiatique de *Fabaceae (Caesalpinioideae)* naturalisée dans le nortd-ouest de Madagascar, par Zachary S. Rogers et Mats Thulin. Deux collections récentes de *Fabaceae* du nord-ouest de Madagascar permettent de documenter la présence de *Peltophorum dasyrhachis* (Miq.) Kurz dans le pays. Cette découverte signale une nouvelle espèce naturalisée de *Caesalpinioideae* de Madagascar et ajoute un autre genre à la flore très diversifiée de l'île. L'orthographe et les auteurs du nom sont discutés et un lectotype est désigné.

– *Note 25*. *Mimusops coriacea* (A. DC.) Miq. *(Sapotaceae)*: nomenclature, distribution et écologie, par Laurent Gautier, Louis Nusbaumer, Rhéa Garrat, Richard Randrianaivo & Peter B. Phillipson. *Mimusops coriacea* (A. DC.) Miq., une espèce utile des forêts littorales des côtes humides de Madagascar est encore souvent appelée par erreur *Mimusops commersonii* (Engl.) G. Don. Les auteurs confirment la nomenclature de cette espèce utile, proposent une carte de sa répartition et l'analysent; ils discutent de sa phénologie et de son statut de conservation.

24. ROGERS, S. Zachary & Mats THULIN:

Peltophorum dasyrhachis (Miq.) Kurz: a new record of a Southeast Asian species of Fabaceae (Caesalpinioideae) naturalized in northwestern Madagascar

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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