

## (2015) Proposal to conserve the name *Morinda citrifolia* (Rubiaceae) with a conserved type

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(2015) *Morinda citrifolia* L., Sp. Pl.: 176. 1 Mai 1753 [Dicot: Rub.], nom. cons. prop.

Typus: Sri Lanka, Southern Prov., Galle Distr., Galle Road, 34/7 Magonna, Oct. 05 1974, *Tirvengadam 624* (K!; isotypi: L, PDA), typ. cons. prop.

*Morinda citrifolia* L. is one of the three species that Linnaeus (Sp. Pl.: 176. 1753) included in his genus *Morinda* L. In the protologue of *M. citrifolia*, he provided the phrase name (diagnosis), “*Morinda arborea, pedunculis solitariis*”, which is uninformative with respect to characters that distinguish *M. citrifolia* and many other species of *Morinda* sensu Razafimandimbison & al. (in Molec. Phylog. Evol. 52: 879–886. 2009). The original elements that contributed to Linnaeus’s concept of *M. citrifolia* included: a plate of *Coda-pilava* in H.A. van Rheede’s *Hortus Indicus Malabaricus* (Hort. Malab. 1: 97, Fig. 52. 1678), a reference to J. Ray’s *Historiae Plantarum* (Raj. Hist. 2: 1442. 1693), and a reference to Linnaeus’s own *Flora Zeylanica* (Fl. Zeyl.: 82. 1747). The *Flora Zeylanica* entry is based on the drawings and specimens in Paul Hermann’s herbarium now at the BM. It contains three drawings of *Morinda* (Volume 5, folios 16, 182 & 336), which are taxonomically diverse. The drawing of the folio 336 and the illustration of *Morinda* in Rheede’s publication (l.c.) represent the nutraceutical, large-fruited form of *M. citrifolia* as currently and widely known by botanists. The drawings of the folios 16 and 182 are not identifiable. There are no specimens of *Morinda* referable to “*Morinda arborea, pedunculis solitariis*” in Hermann’s herbarium. The only potentially relevant specimen that is known to exist is in Linnaeus’s herbarium at LINN. The specimen No. 236.1 bears the name ‘*citrifolia*’ and the relevant *Species Plantarum* number “2” in Linnaeus’s hand and is therefore considered part of the original material for the name.

Dwyer (in Ann. Missouri Bot. Gard. 67: 288. 1980) designated Herb. Linnaeus No. 236.1 (LINN) as lectotype of the name *M. citrifolia*. Unfortunately, the specimen represents what is today understood as the continental Asian *Morinda* species, *M. coreia* Buch.-Ham., and is in conflict with the current usage of the name *M. citrifolia*. Ridsdale (Fl. Ceylon 12: 322. 1998) selected the illustration in H.A. van Rheede’s *Hortus Indicus Malabaricus* (Hort. Malab. 1: 97, Fig. 52. 1678) as lectotype of *M. citrifolia*. However, his lectotypification is not effective, as it cannot displace that made earlier by Dwyer (1980).

*Morinda citrifolia* is an economically important species that is marketed globally as noni or Indian mulberry and used in traditional medicine across much of the tropics. It is the only *Morinda* species with a pantropical distribution (Razafimandimbison & al. in J. Biogeogr. 37: 520–529. 2010) and is treated in published Floras of *Rubiaceae* for many tropical countries (Smith & Darwin in Smith, Fl. Vit. Nova 4: 143–362. 1988; Verdcourt in Bosser & al., Fl. Mascar. 108: 1–135. 1989; Burger & Taylor in Fieldiana Bot. 33: 1–333. 1993; Friedmann, Fl. Seych.: 571–615. 1994; Taylor & al. in Berry & al., Fl. Venez. Guayana 8: 497–848. 2004).

As the specimen LINN No. 236.1 is original material and is not in serious conflict with the protologue, Dwyer’s lectotypification cannot be superseded under Art 9.17b (ICBN, McNeill & al. in Regnum Veg. 146. 2006). Therefore, the current proposal is necessary to maintain established usage of *M. citrifolia*. If the proposal is declined, the name *M. citrifolia* would have to apply to the species presently known as *M. coreia* and the species presently known as *M. citrifolia*, a frequent component of coastal forests in the major parts of the tropics, would have to be called *M. nodosa* Buch.-Ham., causing tremendous confusion. This would be nomenclaturally disruptive for a *Rubiaceae* species firmly rooted in the *Rubiaceae* literature for over two centuries. The changed usage of *M. citrifolia* would be especially problematic due to the wide cultivation and commercial use of noni. For the purpose of nomenclatural stability and to allow the continued use of the well-established epithet *citrifolia* we propose that the name *M. citrifolia* be conserved with a conserved type (ICBN Art. 14.9).

We select *Tirvengadam 624* (K, K000265592) from Sri Lanka as the conserved type of the name *M. citrifolia*, as it is undoubtedly referable to the species to which the name is currently applied. Plus, it shows flowers and immature fruits and that there are duplicates of it currently kept at L and PDA according to Ridsdale (Fl. Ceylon 12: 323. 1998).

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