

(1004) Proposal to reject the name *Citta nigricans* Lour. (Fabaceae) and all names based on it

Citta nigricans Lour., Fl. Cochinch. 456. 1770, *nom. rej. prop.* – LT. (here designated): Vietnam, *Loureiro* s.n. (BM).

≡ *Mucuna nigricans* (Lour.) Steudel, Nom. Bot. ed. 2, 2: 163. 1841.

The situation connected with this name, with its mixture of the same name applying to different taxa and the same taxon known by different names, is so complicated that it is best dealt with by firstly listing the taxa involved under the numbers 1 to 5, with a brief indication of their major differences, and secondly giving that part of their taxonomic history which shows how the confusions have arisen.

All five taxa are indistinguishable on vegetative characters. All have fruits adorned both with a pair of wings arising from each margin (suture) and with a surface ornamentation of numerous lamellae arising from each face and running transversely but somewhat obliquely across the face. These lamellae are of two types: type A, a simple raised flap usually continuous across the whole pod face; type B, a flap bifurcated to give a T shape in cross section and each flap interrupted at the mid-point to give an unornamented longitudinal mid-line down the pod face, flaps always running very obliquely across the pod.

Taxon 1: Fruit lamellae (type A) 20-25, not markedly oblique. Indian subcontinent, Burma, Philippines.

Taxon 2: Fruit lamellae (type B) 10-15, with margins undulate. Indian subcontinent, Burma.

Taxon 3: Fruit lamellae (type B) approximately 18, patent with margins upward-directed. Indochina, Burma, Bhutan, China.

Taxon 4: Fruit lamellae (type B) 8-12, strongly revolute. Indochina, China.

Taxon 5: Fruit lamellae (type A) 8-12(-14), markedly oblique; resembling taxon 1, differing mainly in its glabrescent, shiny fruit. Indochina, China.

Loureiro (1790: 456) described *Citta nigricans* from a specimen collected in Vietnam during his 34 years there. A sterile specimen at the Natural History Museum (BM) is undoubtedly part of this gathering and has been cited as the holotype (Wilmot-Dear, 1984: 43). Unfortunately, the specimen, being sterile, is useless for identification purposes. However, Loureiro gave quite a detailed description, particularly as regards the surface sculpturing of the fruit; this has, unfortunately, largely been ignored or misinterpreted. His “cellulas subquadratas” is quite appropriate to the appearance of a series of broadly bifurcated lamellae all interrupted along the mid-line of the fruit (type B) but if applied to type A seems quite unnecessarily obscure. It is therefore concluded that he intended to apply it to fruits of type B. Steudel (1841: 163) transferred this species to *Mucuna*.

Baker (1876: 185) discussed *Mucuna imbricata* DC. from India, establishing *M.* subg. *Amphiptera* for it. Although not actually mentioning *Citta nigricans*, Baker indicated that he did not think that it belonged with *M. imbricata* since he used the name *Citta* as an epithet for a separate subgenus that included two other species, both of which have fruits of type A. This suggests that Baker interpreted Loureiro’s description to apply to fruits of type A, although this is not absolutely certain, since it has been shown (Wilmot-Dear, 1987: 33) that Baker included within *M. imbricata* two taxa, 1 and 2 of the above list, and thus both fruit-types.

Gagnepain (1916: 320) recorded *Mucuna imbricata* from Vietnam, equating it with Loureiro's species since he included *Citta nigricans* as a synonym. However, he cited no specimens under the species itself except implicitly that of Loureiro. He also described *M. interrupta* using several collections from various parts of Indochina; these cited specimens and the characters in the accompanying description are a mixture of two taxa, 3 and 4, with fruit-type B. His comparison of *M. interrupta* with what he called *M. imbricata* implies that he had in mind fruits of type A, and therefore taxon 1, for the latter. At the same time Gagnepain described *M. imbricata* var. *bispicata* based on two collections, Trian, *Pierre*, and Delta region, *Harmand*; these conform well to taxon 4.

Merrill (1905: 38, 1906: 67) recorded "*Mucuna imbricata*" from the Philippines and later (1910: 116) reduced it to synonymy under *M. nigricans*. As with Baker, it seems quite possible that he made no distinction between the two fruit-lamella-types A and B and thus confused taxon 1 with 2 which is absent from the Philippines. (Examination of his Philippine citations (Merrill, 1910) apparently confirms this since among fruiting material of taxon 1 is one collection of a species new to science with immature fruit of type B, although its features are sufficiently unclear that he may have included it inadvertently.)

Merrill (1935: 209) stated that *Mucuna nigricans* and *M. imbricata* were either conspecific or very close, suggesting that he had considered Loureiro's description carefully. However, his discussion does not elucidate whether his linking of *M. imbricata* with *M. nigricans* is based on acquaintance with Indochinese material which he considered conformed to Loureiro's description as well as to *M. imbricata*, or merely on his reckoning Loureiro's fruit description a good match for *M. imbricata*. It is not finally clear from all this whether he considered as *M. imbricata* both taxa 1 and 2 or merely 1, nor which taxon, if any, he considered as *M. nigricans*. Merrill (1935) also pointed out that Loureiro's inclusion of "*Lobus Litoralis*. Rumph. Amb. 1. 7. c. 6. tab. 6" and "*Lobus Cartilagineus*. Clus. Exot. 1. 3. c. 9, & 10" under his new name (with a note that although these authors depicted pods with no surface ornamentation he judged them to be the same) must be set aside. These both represent *M. gigantea* (Willd.) DC. but do not render *Citta nigricans* a superfluous name since they are not types of any specific names. Candolle (1825: 405), misled by their inclusion and not having read thoroughly Loureiro's description, made *Citta nigricans* a variety of *M. gigantea*.

Indian literature appears to have ignored Merrill's linking of *Mucuna nigricans* with *M. imbricata* until Ohashi (1966: 160) sank the latter into the former; later authors followed this. From general distributions cited it would appear that taxa 1 and 2 remained confused, although most authors were dealing with areas from which taxon 2 appears to be absent and may have had only 1 in mind.

Craib (1928: 444) described *Mucuna nigricans* var. *cordata* from Thailand; this conforms to taxon 3.

Van Thuân (1979: 38) lectotypified *Mucuna interrupta*, selecting a specimen of taxon 3 and thus leaving taxon 4 (which Gagnepain had included under that name) with no name. He also recorded *M. nigricans* (with *M. imbricata* in synonymy) from Indochina. His description of the fruit very clearly fits only taxon 1 (although this does not occur there: see below) but his specimen citations, excluding Loureiro's, are from taxon 4. (He failed to recognise the existence of taxon 4: Most collections remain cited under *M. interrupta*, some under a further taxon, *M. biplicata* Teijsm. & Binnend. ex Kurz.)

Tateishi & Ohashi (1981: 100-102) somewhat added to the confusion when, in revising East Asian species, they sank *Mucuna hainanensis* Hayata and *M. suberosa* Gagnepain, both of which apply to taxon 5 which is present in Indochina, into *M. nigricans* (maintaining *M. imbricata* in synonymy and apparently still unaware of the confusion between taxa 1 and 2, but from their description, photograph and citation apparently intending merely taxon 1) thus further obscuring the fact that taxon 1 is absent from Indochina.

Wilmot-Dear (1984: 43) cited the Loureiro specimen (BM) as the holotype of *Mucuna nigricans* but, misinterpreting Loureiro's fruit description and misled by the confusion in the literature, followed the prevailing trend and interpreted *M. nigricans* sensu stricto, non Tateishi & Ohashi, as representing taxon 1 (which, from the literature, appeared to be present in Indochina) when raising taxon 5 (which does occur in Indochina) to varietal status within taxon 1.

Later, during work on Indian material (Wilmot-Dear, 1987: 33), the confusion between taxa 1 and 2 was indicated for the first time, but, material from Indochina having not yet been exhaustively examined, the assumption was still maintained that taxon 1 occurred in Indochina and thus Loureiro's name was still applied to it when taxon 2 was separated as *Mucuna imbricata* sensu stricto, and a lectotype chosen. Recent examination of almost all extant material, not merely from Vietnam but from the whole of Indochina, has confirmed the absence of both taxon 1 and taxon 2 from there.

The name *Mucuna nigricans* has been used in a variety of senses but predominantly for taxa 1 and 2. The geographical distribution of these two taxa excludes the possibility that Loureiro's type is referable to either. (As indicated above, his ample fruit description suggests that it is referable to either taxon 3 or 4, but not 5.) The name thus qualifies for rejection under Article 69, as one used widely (by almost all Asian and Malaysian authors) and persistently (from 1876 to the present day) in a sense excluding its type. This situation, where a neotype cannot be chosen because a specimen exists, but where the specimen is useless for identification purposes, appears to have no other solution under the *Code*.

A paper is in press to publish a name for taxon 1 which, presumably as a result of the above confusion, has never been formally described other than by Baker (1876) who mixed it together with taxon 2 as *Mucuna imbricata* and which therefore now, after the lectotypification of this (Wilmot-Dear, 1987) to exclude taxon 1, has no name.

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