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THE IDENTITY OF SPERLINGIA VAHL (ASCLEPIADACEAE)

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SUMMARY

Sperlingia Vahl (Asclepiadaceae) is a synonym of *Hoya* R.Br. sect. *Hoya* (Asclepiadaceae). Its two species are identical. The lectotype, *S. verticillata* Vahl, is the basionym of *H. verticillata* (Vahl) G. Don, the correct name for *Hoya parasitica* (Roxb.) Wall. ex Wight.

INTRODUCTION

At the end of the 18th century a Danish mission was active in SE India at Tranquebar. Some of its employees, the most famous of which was J.G. Koenig (1728–1785), collected plants and sent them home. One of these was P.J. Floer or Flohr, who apparently between 1760 and 1777 sent living specimens to Vahl in Copenhagen. Among these specimens were two which Vahl thought to represent a new genus, *Sperlingia*, named after Otto Sperling (1602–1681), a medical doctor in Copenhagen and Keeper of a royal private Garden at Rosenborg Castle. Vahl thought that there were two species, *S. verticillata* Vahl and *S. opposita* Vahl. In 1837 G. Don realized that these belonged to *Hoya* R.Br. and made the necessary combinations. He remarked that they "are probably identical with two of those described above", but as he did not know which ones, these combinations are validly published.

It may be noted that Don thought that *Sperlingia* was an older name for *Hoya*, but he referred to the publication of R. Brown 'On the Asclepiadeae' of 1811, apparently not knowing there was a preprint of it published on 3 April 1810. Mabberley (1985) stated that it was published a week earlier, on 27 March, in the Prodromus, which is against Stearn's (1960) citation of the unpublished council minutes of the Linnean Society, which to him suggested that both works were published on the same day, 3 April. This is in direct contradiction to Stearn's own remark a few lines earlier, that a handwritten note by R. Brown in the copy of the Prodromus says that Brown gave 20 copies to the publishers Miles & Hunter in March. We therefore agree with Reveal & Hoogland (1992) and Liede & Albers (1994: 222) and disagree with Brummitt (1994).

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The exact date of Vahl's publication is not known. The type sheets are annotated '(1804) 1810'. Warming (1880) said that the Society ceased to exist in 1804 and that the paper was published in 1810, while Christensen (1924) said it was published in 1818. It may be that the paper was read in 1804. Dr. B. Hansen (C) informed us that "there is no doubt that it was printed and released from the printer office at some date in 1810." We will at present accept that it was later than Brown's publication; if it can be shown that it was earlier, *Hoya* must be conserved!

Blume (1826–1827) divided *Hoya* into four parts, three unnamed, the fourth with the remark '(*Acanthostemma*)'. This is a validly published name without rank (Art. 35.2) and not a section as is sometimes said (e.g. by Liede & Albers, 1994: 220). In 1849 he mentioned it as a section of *Hoya*, thereby clarifying his intention, but at the same time elevated it to generic rank. Is this a validation according to Art. 35.Ex.2? Some have accepted it as such, see e.g. Bullock (1979) and, more recently, in various treatments of the species in issues of The Hoyan (e.g. Burton, 1985, 1991).

Miquel (1857) used the name *Sperlingia* (as '*Sperlengia*') again for a section of *Hoya* in which he also included *Acanthostemma* Blume. (That it is a section and not an unnamed infrageneric entity is shown by his remark under sect. *Physostelma*.) If Blume indeed has validated sect. *Acanthostemma*, sect. *Sperlingia* Miq. is superfluous, but not illegitimate, as the basionym is legitimate (Art. 63.3).

Miquel did not include any of Vahl's species, probably because he thought that they did not occur in the Dutch East Indies. This has induced some to select one of the included species as the lectotype of sect. *Sperlingia*, but this is obviously erroneous: type and name are irrevocably linked, and one of Vahl's original species must be selected. The most obvious choice as the lectotype is *S. verticillata*, as after Don *S. opposita* was even more neglected and almost forgotten, and we agree with Hill's choice (1988) followed by Liede & Albers (1994: 224). The necessary lectotypification of *Acanthostemma* was also made by Hill who choose *H. rumphii* Blume, a combination with a chaotic nomenclatural history and identity that will have to be dealt with elsewhere.

Teijsmann & Binnendijk (1863) have used the name *Acanthostemma* at an infrageneric level, but it may for differing reasons be regarded as NOT validly published as a section here. Some argue that the word 'section' is not used here, but a paragraph sign, others regard '*Acanthostemma folia enervia*' as a strophe-name.

One of us, RDK, has extensively studied this section, and distributed working copies of various stages of the manuscript to interested persons. These writings must therefore NOT be regarded as effective publications with validly published names or combinations! RDK had the suspicion that *S. verticillata* did not belong to this section, however, and so JFV asked the type material on loan from C.

RvD inspected these and concluded that they were conspecific with each other and with the widely spread, polymorphous *H. parasitica* (Roxb.) Wall. ex Wight. As the latter was published in 1834, *H. verticillata* (Vahl) G. Don is the correct name for it. The consequence of this is that the name *Sperlingia* for a genus or section becomes a heterotypic synonym of *Hoya* sect. *Hoya* ('*Eu-Hoya*' auct.), and that the species included in sect. '*Sperlingia*' auct. belong to a different section:

Hoya R. Br. section **Acanthostemma** (Blume) Blume

Hoya § *Acanthostemma* Blume, Bijdr. Fl. Ned. Indië 16 (1827) 1065 (no indication of rank). — *Hoya* sect. *Acanthostemma* Blume & *Acanthostemma* Blume, Rumphia 4 (1848) 49. — Lectotype: *H. rumphii* Blume.
Hoya R. Br. sect. *Sperlingia* auct. non Miq.

Further study will very likely reveal further additions to the list of synonyms. At present the synonymy for *H. verticillata* seems to be:

Hoya verticillata (Vahl) G. Don

Hoya verticillata (Vahl) G. Don, Gen. Hist. 4 (1837) 128. — *Sperlingia verticillata* Vahl, Skr. Naturhist.-Selsk. 6 (1810) 113. — Type: *Flohr in Hb. Vahl* (C holo, labeled IDC neg. 72[II], 6–7).
Sperlingia opposita Vahl, Skr. Naturhist.-Selsk. 6 (1810) 114. — *Hoya opposita* G. Don, Gen. Hist. 4 (1837) 128. — Type: *Flohr in Hb. Vahl* (C holo).
Hoya acuta Haw., Rev. Pl. Succ. (1821) 4. — Type: Extant? 'In regio horto kewense A.D. 1819' (see note).
Hoya pallida Lindl., Bot. Reg. 10 (Feb 1826) t. 951. — Type: Extant? 'Duke of Northumberland' (see note).
Hoya lanceolata Lindl. in Donn, Cat., ed. 11 (early 1826) 92. — Type: (see note).
Hoya angustifolia Traill, Trans. Hort. Soc. London 7 (Nov. 1826) 29. — *Hoya pottsii* Traill var. *angustifolia* Tsiang & Li, Acta Phytotax. Sin. 12 ('January' 1974, rec. in L 23-4-1974) 124; Fl. Hainan. 3 ('October' 1974) 272. — Type: *Potts* (extant?).
Hoya pottsii Traill, Trans. Hort. Soc. 7 (Nov 1826) 25, t. 1. — Type: *Potts* (extant?, if not: Traill's plate).
Hoya nicobarica R. Br. ex Traill, Trans. Hort. Soc. London 7 (Nov. 1826) 28. — Type: *Hb. Banks* (BM holo).
Hoya albens J. Miller, Bristol Cat. (1826). — Type: unknown (see note).
Hoya hookeriana Wight, Contr. Bot. India (1834) 37. — Lectotype: *Wallich Cat. 8153-A* (K holo).
Asclepias parasitica Roxb., [Hort. Beng. (1814) 20, nom. inval.] Fl. Ind. ed. 2, 2 (1832) 42. — *Hoya parasitica* Wall. ex Wight, Contr. Bot. India (1834) 37. — Type: *Hb. Roxburgh* (BM holo; K, plate).
Hoya parasitica Wight var. *geoffrayi* Constantin, Fl. Gén. Indo-Chine 4 (1912) 136. — Type: *Geoffray 382* (P holo).
Hoya parasitica Wight var. *spirei* Constantin, Fl. Gén. Indo-Chine 4 (1912) 136. — Lectotype: *Spire 1529* (P holo).
Hoya globiflora Ridl., J. Fed. Mal. States Mus. 5 (1915) 164. — Type: *Robinson 5756* (SING holo) from S Thailand, not *Ridley s.n.* from Sumatra as cited by Rintz (1978, as '*globifera*').

Some other names may belong here as well:

Hoya ridleyi King & Gamble, J. As. Soc. Bengal 74 (1908) 575. — Lectotype: *Ridley s.n.* (CAL holo; K) (appointed by Rintz, 1978, but three Ridley collections were cited by K & G).
Hoya rigida Kerr, Kew Bull. (1939) 463. — Type: *Put 3034* (K holo).
Hoya obscurinervia Merr., Philip. J. Sc. 23 (1923) 263. — Type: *McClure 9819* (PNH holo, lost; HK, SYS).

Note — From Traill (1826) it becomes obvious that *H. acuta, H. pallida, H. lanceolata,* and perhaps *H. albens* were all based on cuttings from a Wallich accession in K first described by Haworth (1821). These names are not homotypic (see Art. 9.5): later collections from a living specimen that originally provided the material for the holotype or its generative or vegetative descendants are not considered to be iso-

types, or even fragments of the holotype. Such things may be called merotypes. Contrary to a remark by Britten (1898), Traill did not validate *H. parasitica* Wall.: he cited the name in synonymy under *H. pallida*. Rintz (1978) has treated *H. citrina* Ridl. as a variety of *H. parasitica*. We have the impression that it is a distinct, but closely related species, perhaps identical with *H. macrophylla* Blume. *Hoya cinnamomifolia* Hooker is usually cited as identical, but differs in leaf shape and the corona; it also grows at higher altitudes.

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REFERENCES

Backer, C.A., & R.C. Bakhuizen van den Brink f. 1965. Flora of Java 2: 266–271. Groningen.
Blume, C.L. 1827. Asclepiadeae. Bijdragen tot de Flora van Nederlandsch Indië 16: 1065. Batavia.
Blume, C.L. 1849. Asclepiadeae. Rumphia 4: 49.
Britten, J. 1898. Notes on Hoya. J. Bot. 36: 413–414, 418.
Brummitt, R.K. (ed.). 1994. Report of the Committee for Spermatophyta: 40. Taxon 43: 120.
Bullock, A.A. 1979. Index nominum genericorum 3. Reg. Veget. 102: 1638-a.
Burton, C.M. 1985. Hoya sections. Hoyan 7: 36–37.
Burton, C.M. 1991. Hoya sections. Hoyan 12: 69.
Christensen, C. 1924. Den Dansk botanisk Historie 2: 88. Copenhagen.
Don, G. 1837. A general history of dichlamydeous plants 4: 128. London.
Haworth, A.H. 1821. Revisiones plantarum succulentarum: 4. London.
Hill, K.D. 1988. A revision of Hoya (Asclepiadaceae) in Australia. Telopea 3: 241–255.
Kerr, A.F.G. 1951. In: W.G. Craib & A.F.G. Kerr, Flora siamensis enumeratio 3: 40–41. Bangkok.
Liede, S., & F. Albers. 1994. Tribal disposition of genera in the Asclepiadaceae. Taxon 43: 220, 222, 224.
Mabberley, D.J. 1985. Jupiter botanicus: 168, 411. London.
Miquel, F.A.W. 1857. Flora Indiae batavae 2: 521, 523. Amsterdam, Utrecht.
Reveal, J.L., & R.D. Hoogland. 1992. Proposals to modify entries in Appendix IIB of the Code. Taxon 41: 122–123.
Rintz, R.E. 1978. The Peninsular Malaysian species of Hoya (Asclepiadaceae). Mal. Nat. J. 30: 467–522.
Stearn, W.J. 1960. An introduction to Robert Brown's 'Prodromus florae novae Hollandiae', in R. Brown, Prodromus, facs. ed.: xxix.
Teijsmann, J.E., & S. Binnendijk. 1863. Plantae novae in Horto bogoriensi cultae. Natuurk. Tijdschr. Ned. Indë 25: 408.
Traill, J.W.H. 1826. Accounts and descriptions of the several plants belonging to the genus Hoya, which are cultivated in the garden of the Horticultural Society at Chiswick. Trans. Hort. Soc. London 7: 23.
Vahl, M. 1810. Beskrivelse over nye Planteslægter. Skr. Naturhist.-Selsk. 6: 112–114.
Warming, E. 1880. Den Danske botaniske literatur fra de ældste tider til 1880. Bot. Tidsskr 12: 80.