Index of names and types of *Hoya* (Apocynaceae: Asclepiadoideae) of Borneo

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ABSTRACT. Types of all *Hoya* species occurring in Borneo and their synonyms are indicated and clarified. Forty-six lectotypes, nine neotypes and five epitypes are designated.

**Keywords.** Brunei, epitype, holotype, Kalimantan, lectotype, neotype, Sabah, Sarawak

**Introduction**

The present paper is a precursor to a revision of *Hoya* R.Br. of Borneo. Its aim is to list all *Hoya* taxa occurring on the island of Borneo and their synonyms, clarify and standardize type citation, select lectotypes, epitypes and neotypes when necessary and provide an extensive list of isotypes and syntypes.

The earliest description of a *Hoya* species that occurs in Borneo, *H. multiflora* Blume, was described by the German born Dutch botanist Carl Ludwig Blume in 1823, based, however, on Javanese materials. The first *Hoya* species based on a Bornean collection, *H. imperialis* Lindl., was published by Lindley (1846). Later, in 1880, Bentham published a peculiar leafless species with long photosynthetic peduncles endemic to Borneo, *Astrostemma spartioides* Benth. (now *Hoya spartioides* (Benth.) Kloppenb.). Until 1921 only nine *Hoya* species where known to occur in Borneo (Merrill, 1921). Nutt (2001) listed 21 species in an unpublished checklist. Lamb et al. (2014) estimated 60–70 species for Sabah alone. In the past 20 years almost 40 taxa (species and subspecies) of *Hoya* from Borneo have been described, mostly by Ted Green and Dale Kloppenburg (USA). The most recently published taxa have been described predominantly based on collections from Sabah and Sarawak (Rodda & Simonsson, 2011a, 2011b; Rodda & Simonsson Juhonewe, 2013a; Lamb et al., 2014; Rodda et al., 2014, 2016; Rodda, 2015a; Lamb & Rodda, 2016) with only one from Kalimantan (Rahayu et al., 2015).

A guidebook to *Hoya* R.Br. of Borneo has been recently published (Lamb & Rodda, 2016) and includes a checklist of Bornean *Hoya* that lists 72 taxa (71 species and one subspecies) but does not deal with typification of names. The current bibliographic checklist of names is intended as a precursor to a formal taxonomic revision of the genus for Borneo.
Materials and methods

The list published here includes accepted names, indicated in bold, of all species occurring in Borneo following the guide book checklist by Lamb & Rodda (2016: 193–197). All taxa are listed regardless of where the type was collected. Under each accepted name all known synonyms are listed, again regardless of where the type was collected. The protologue of each name has been examined to establish which original materials were listed and needed to be located. Literature was obtained on the Biodiversity Heritage Library website [http://www.biodiversitylibrary.org], JSTOR [http://www.jstor.org/] and in the libraries of the Singapore Botanic Gardens, Royal Botanic Gardens Kew and Royal Botanic Garden Edinburgh.

Types have been located in person or via loans at A, BISH, BM, BO, BRUN, CGE, E, FI, G, HITBC, HN, IBSC, K, KEP, KUN, L, OXF, P, SAN, SAR, SING, SNP, TO, UC, US, VN, WRSL, Z and on JSTOR Global Plants (https://plants.jstor.org/ accessed on 28 July 2016).

If a suitable specimen is available, a lectotype is selected for names where the protologue does not explicitly mention a single type specimen with a direct reference to the institution in which it was deposited, strictly applying Art 9.1 & 9.2 of the ICN (McNeill et al., 2012). A reference to a single specimen indicated as ‘type’ or ‘holotype’ in treatments published before 1 January 2001 is considered as effective lectotypification under Art. 9.9 of the ICN (McNeill et al., 2012). Schlechter’s specimens in B are usually considered to be holotypes (Nicholas, 1992). However, for Hoya names this is incorrect under ICN Art. 9.1 (McNeill et al., 2012), as the herbarium where the specimens are deposited is not clearly indicated by Schlechter and it cannot be ascertained that only a single specimen of the type collection was consulted. I have therefore selected lectotypes whenever original material could be located.

Noltie (2005) clarified the type citations of taxa published by Wight. His notation of types is followed here. When based on specimens from Wallich the sheets usually bear a Wallich Asclepiadaceae number (Noltie, 2005), a number assigned to sheets given to Wight from Wallich before Wallich numbers were assigned. These sheets, listed in Linnean Society Manuscript SP1284 became part of Wight’s personal working herbarium and bear an HRWP (Herbarium Robert Wight Proper) label and may also bear a Wight number that is often a species number, an ‘Asclep’ number and the later assigned Wallich number. Sheets from Wight’s personal working herbarium are to be considered as Wight’s ‘top set’ (Noltie, 2005: 133), they are often annotated by Wight himself and may have pencilled sketches of the flowers. These specimens are here preferred over other duplicates in the selection of lectotypes. For taxa where a single sheet of a taxon was mentioned in Linne Soc Mss SP1284, if the sheet is extant and can be easily identified, it is considered a holotype.
Typification of recently published names

Twenty new *Hoya* names listed here have been published since 1995 in *Fraterna*, the bulletin of the International *Hoya* Society, and two (*Hoya ranauensis* T.Green & Kloppenb. and *Hoya amoena* Bakh.f. subsp. *bogorensis* T.Green & Kloppenb.) in the online journal *Hoya New* (http://www.rare-hoyas.com/publication.htm). As already mentioned by Forster (1991) in relation to taxa from the Philippines published by the same authors, their style of type citation may be confusing as it often includes only a number and the herbarium where the holotype is deposited. Frequently not explicitly referred to a collector, this number may be a sheet number, a collector number or the collection date of the specimen (see Rodda, 2015b). Without a full citation of the holotype, simple citation of a number may refer to multiple specimens belonging to different collectors. This is not strictly needed for valid publication but recommended by ICN Art. 40A.3. (McNeill et al., 2012). I have therefore examined all holotypes or specimens labelled as such in the herbaria where holotypes were deposited, matched them against the protologue and provided a full citation that is corrected in case mistakes were noted in the protologue. Herbarium acronyms followed by a number are here interpreted as sheet number (e.g. UC102003 for *Hoya kastbergii* Kloppenb.) but may potentially be dates as well (see below *H. walliniana* Kloppenb. & Nyhuus and *H. nyhuusiae* Kloppenb.). Holotypes of six species have not been found. For three names, *Hoya clemensiorum* T.Green, *H. lambii* T.Green and *H. monetteae* T.Green, specimens made by the publishing author and labelled as neotypes by him have been found, suggesting that the holotype is indeed missing or was never actually made.

The list of names


Notes. Schlechter (1908) mentioned only Schlechter 13550 for *Hoya aeschynanthoides* Schltr. A single duplicate bearing buds and a drawing of dissected flower parts has been found in B [B100277178] and it is therefore selected here as lectotype of *H. aeschynanthoides*.

Notes. *Hoya australis* R.Br. ex J.Traill is a widely variable species thought to occur in Australia, Papuasia and Melanesia (Hill, 1988; Forster & Liddle, 1991; Liddle & Forster, 2008). It is currently classified into seven subspecies based on vegetative morphology and distribution (Liddle & Forster 2008; Kloppenburg, 2012). The discovery of *Hoya australis* in Sabah (based on *Jamirus, J. in Lamb, A. AL2500/2014, SAN*) considerably extends its distribution area. Preliminary molecular analysis confirms that the Bornean collection belongs to *Hoya australis* but it is inconclusive to its sub-specific ranking (Rodda, unpublished). This is the reason why synonymies are not indicated here. For the most updated treatment of subspecies and synonymies of *Hoya australis* see Liddle & Forster (2008).

The specimen here indicated as lectotype of *Hoya australis* has long been considered a holotype (Hill, 1988; Smith, 1988; Forster & Liddle, 1991; Liddle & Forster, 2008). The specimen is not a holotype as the protologue of *Hoya australis* is not more specific than that the original material is from Australia in Brown’s herbarium. It is therefore impossible to establish whether it was based on a single specimen only. Hill (1988), in mentioning *Banks, J. & Solander, D. s.n* (BM) as holotype of *H. australis*, is here considered as an effective lectotypification following ICN Art. 9.9 (McNeill et al., 2012).


*Hoya callistophylla* T.Green, Fraterna 13(4): 2 (2000). – TYPE: Originally from Malaysia, Sabah, Nabawan, cultivated in USA, Hawaii, Oahu, Ka’a‘awa, vouchered on unknown date as *Green, T. 201* (holotype BISH [BISH1014775]).


Notes. Hooker indicated the type of *Hoya caudata* Hook.f. as Maingay 1128. This is the K distribution number of the Maingay sheets that corresponds to *Maingay 1956*. The indication by Rintz (1978) of *Maingay 1128* (K) as ‘type’ is an effective lectotypification under Art. 9.9 of the ICN (McNeill et al., 2012). However in K there are two sheets labelled *Maingay* (*Kew distr. no. 1128*) and, therefore, a second-step lectotypification is necessary. The duplicate with barcode K00895134 is a well-preserved fertile specimen that also bears a pencilled sketch and is here selected as lectotype of *H. caudata*.

Two duplicates have been found of the type of *Hoya crassifolia* Ridl. The SING sheet [SING0059473] is a well-preserved fertile specimen and is here selected as lectotype.


**Hoya clemensiorum** T.Green, Fraterna 14(3): 12 (2001). – TYPE: Originally from Malaysia, Sabah, Poring, Rafflesia Centre, 16 September 1991, cultivated in USA, Oahu, Ka’aa’awa, Hawaii, reputedly vouched on unknown date as Green, T. 91032 (holotype BISH, missing); Malaysia, Sabah, Mt. Kinabalu, Dallas, 8 September 1931, Clemens, J. & M.S. 26358 (neotype K, designated here; isoneotypes BM, BO, L).

Notes. The holotype of *Hoya clemensiorum* T.Green, Green 91032 dated 16 September 1991, cannot be found at BISH. In BISH there is instead a sterile specimen with the same collector and number dated 09 June 2008 labelled as neotype of *H. clemensiorum*, obtained in cultivation from a plant originally wild collected in Sabah on 16 September 1991. I have been unable to find the publication of a neotypification and I therefore select Clemens 26358 (K) as the neotype of *H. clemensiorum* as it matches the original description, is fertile, and is among one of the best preserved specimens of *H. clemensiorum* collected by the Clemenses.

**Hoya coriacea** Blume, Bijdr. Fl. Ned. Ind. 16: 1063 (1826); Rintz, Malayan Nat. J. 30: 495 (1978). – TYPE: Indonesia, Java, Salak [In fruticetis ad pedem montis Salak’], s.d., s.coll. (lectotype L [sheet number 898.168-117], designated here; possible isolectotype P [P00639838]).


Notes. Blume did not directly indicate any specimen for Hoya coriacea Blume but mentioned the provenance ‘In fruticetis ad pedem montis Salak’. I have located one specimen in L bearing an autograph label by Blume ‘Hoya coriacea; Salak’ which is, therefore, suitable for designation as the lectotype. A specimen sent by Blume to P in 1836 [P00639838] which is labelled ‘In fruticetis ad pedem montis Salak’ is a perfect match to Blume’s description. However there is no autograph label and therefore the L specimen is preferred as lectotype for H. coriacea.

Duplicates of Wall. Asclep. 37 [= Wall. Cat. 8163] have been found at E and K. The K duplicate is the only one bearing a Herbarium Robert Wight Proper (HRWP) label, it is annotated ‘37 H. brunoniana’ has a sketch of the flower in Wight’s hand and is therefore one of Wight’s specimens on which he based his descriptions. Linn Soc Mss SP1284 indicates that only 1 sheet of Wall. Asclep. 37 was given to Robert Wight for his personal working herbarium, therefore the K sheet can be considered a holotype.

The name Hoya fraterna was first mentioned in volume four of Rumphia (Blume, 1849: 32) [late October 1849] where Blume compared it to the similar species Hoya coriacea (fraterna = brotherly, closely associated (Stearn, 2008)). The description is expanded in Blume (1849: 44) [November 1849] (Stafleu & Cowan, 1976). Blume did not refer to any specimens but mentioned the provenance as ‘In calcareis Kuripan Javae occidentalis’. I have located one specimen in L bearing an autograph label in Blume’s hand ‘Hoya fraterna Bl; in calcareis Kuripan’ that is to be considered original material and is, therefore, selected as lectotype.

One duplicate has been found of the type of Hoya occlusa Ridl. at SING [SING0059478]. The specimen is well-preserved and fertile and is here selected as lectotype.


=Dischidia villosa nom. nud. (based on L sheet [L0004319, L0004320]).

Notes. Kleijn & Van Donkelaar (2001: 469) selected sheet no. 898.168-121 (L) as lectotype of Hoya coronaria Blume. This is one of three sheets annotated ‘Hoya coronaria Bl’ in Blume’s hand. It must be noted that both sheet no. 898.168-121 and sheet no. 898.168-128, despite being specimens seen by Blume, cannot be directly linked to the protologue of the taxon. The syntype sheet no. 898.168-124 instead has a label in Blume’s handwriting where, among undecipherable words, is the common name ‘Kilampahan’ and on a different label in Reinwardt’s handwriting the possible variant ‘Tjilampahan’, in agreement with Blume’s protologue.

Another syntype of Hoya coronaria is the illustration of Corona Ariadna, published in Rumph. Amb. 5. t. 172.

The synonymy of Hoya coronaria is complex and a taxonomic revision of Hoya section Eriostemma Schltr. is required before a complete list of synonyms can be given. The Bornean Eriostemma obtusifolioides Gilding & T.Green, however, is indistinguishable from H. coronaria so is included here. Eriostemma is nested within Hoya but can be recognised at the sectional level (Hoya sect. Eriostemma) (Wanntorp et al., 2006a, 2006b, 2011, 2014; Rodda & Ercole, 2014; Rodda et al., 2014). The type of Eriostemma obtusifolioides was only mentioned as ‘Bishop 736375 and ‘Ex hort. 97048TG, Apinapin, Sabah, Malaysia’. The code ‘97048TG’ was not found on the type sheet. Type citation has been here amended.


Hoya cumingiana Decne. in A.DC., Prodr. 8: 636 (1844). – TYPE: Philippines, Luzon, Batangas, s.d., Cuming, H. 1480 (lectotype P [P00639839], designated here; isolectotypes BM, C [C10006728], CGE (2 sheets), E [E00288755], G, G-Boiss (2 sheets), K [K001044838, K000911123], L [L0004322]).

Notes. In describing Hoya cumingiana, Decaisne (1844) mentioned a single gathering, Cuming 1480, kept in Delessert’s herbarium ‘v.s. in herb. Delessert’. Delessert’s herbarium was merged into G (Stafleu, 1970) where, however, I could not find any Cuming 1480 specimen clearly labelled as originating from Delessert’s herbarium. A suitable specimen from Delessert’s herbarium is instead present in P [P00639839], being a well-preserved fertile specimen and is here selected as lectotype for Hoya cumingiana.

Notes. King & Gamble (1908) described *Hoya curtisii* based on *Curtis 2894*. However, they did not mention where their types were deposited and, therefore, a lectotype needs to be selected. Two suitable fertile specimens are present at SING and [SING0059475] is here selected as lectotype.


**Hoya diversifolia** Blume, Bijdr. Fl. Ned. Ind. 16: 1064 (1826); Rintz, Malayan Nat. J. 30: 517 (1978); Jagtap & Singh, Fasc. Fl. India 24: 98 (1999). – TYPE: Rumphius Herbarium Amboinense 5 Tab. 175 Fig. 2. (lectotype, designated here); ‘*Hoya heterophylla*’ s.d., s.coll. (epitype L [sheet number 989168-147], designated here).

**Hoya heterophylla** nom. nud. (based on L sheet number 989168-147).


**Hoya liangii** Tsiang, Sunyatsenia 3(2–3): 177 (1936). – TYPE: China, Hainan, Ngai Yuen, 3 September 1933, *Liang, H.Y.* 26867 (lectotype IBSC [IBSC0005685], designated here; isolecotype NY [NY00318649]).


**Notes.** Blume (1826) indicated in the protologue of *Hoya diversifolia* a reference to Rumphius’ Herbarium Amboinense 5 Tab. 175 Fig. 2 and no direct or indirect reference to a specimen. Rumphius’s plate does not have a detailed illustration of the flowers and does not entirely match Blume’s description as the leaves, described as ‘aveniis’ by Blume have evident venation in the plate. However Blume’s description may be based on live plants, as fresh leaves do not have distinct venation while veins are sometimes visible in dry specimens. No specimen from Blume’s time annotated as collected in ‘Kuripan’ or ‘circa Bataviam’ has been found. Herbarium Amboinense 5 Tab. 175 Fig. 2 is therefore the only material available for lectotypification. In L there are numerous specimens identified as *Hoya diversifolia* with annotations in Blume’s hand. Among these there is one labelled *Hoya heterophylla* in Blume’s hand, a nomen nudum, and with a very similar etymology as *Hoya diversifolia*. Sheet number 989168-147 is a well-preserved fertile specimen and is therefore designated as epitype for *Hoya diversifolia*. Specimen [P00639841] in P is labelled both *Hoya heterophylla* and ‘*Hoya diversifolia* Bl. Bijdr’ in Blume’s (or Decaisne?) hand, the locality is Java, ‘m.[isit] Blume 1836’ and may be original material, however it is impossible to verify if it was collected prior to 1826.

*Hoya crassipes* Turcz. was based on Zollinger 2581. The KW duplicate [KW001000511] is a well-preserved fertile sheet and is designated here as lectotype.

*Hoya orbiculata* Wall. ex Wight & Arn. was based on Wall. Asclep. 32 [= Wall. Cat. 8151]. A specimen belonging to what used to be Wight’s personal herbarium and bearing a sketch of the flower in Wight’s hand is present at K and is the most suitable lectotype for *Hoya orbiculata* (Noltie 2005: 134). The plate of *Sussuela esculenta* in Rumphius (1747: t. 175.28) is a syntype of *Hoya orbiculata*.

*Hoya esculenta* Tsiang is an illegitimate name because it is clearly indicated as a synonym of the earlier *Hoya diversifolia* Blume and *Hoya orbiculata* Wall. ex Wight & Arn. and is therefore superfluous and illegitimate following ICN Art. 52.1 (McNeill et al., 2012). It is lectotypified by Herb. Amb. 5: 467, t. 175.28.

The type of *Hoya liangii* Tsiang was indicated as Liang 26867. The IBSC duplicate [IBSC0005685] is a well-preserved fertile sheet and is designated here as lectotype. The syntype *How, C.F. 73935 is also available at IBSC [IBSC0005687]*.

*Hoya elliptica* Hook.f., Fl. Brit. India 4: 58 (1883); Rintz, Malayan Nat. J. 30: 505 (1978). – TYPE: Malaysia, Malacca, 1 April 1868, Maingay, A.C. 3286, Kew Distrib. 1137 (lectotype K [K000895126], designated here; isolectotype K [K000895127]).

**Notes.** Hooker described *Hoya elliptica* citing specimen Kew Distrib. 1137. Two sheets are preserved at K labelled Kew Distrib. 1137 as well as bearing the original collection number Maingay 3286. The duplicate here selected as lectotype is well preserved, fertile and bears a dissection and a sketch of the flowers by Gamble as an aid to identification.


**Notes**. The occurrence of *Hoya finlaysonii* Wight in Borneo is doubtful. However, as numerous closely related taxa occur in Borneo and although their synonymies have not been fully clarified, this name is also typified here. Wight (1834) mentioned the materials for *Hoya finlaysonii* as ‘Wall Asclep. n. 42. Penang?; Wallich and Finlayson’. The description did not include a description of the flowers and it is possible that the specimens examined were all sterile, as also mentioned by King & Gamble (1908) when referring to Kew’s materials of *H. finlaysonii*. A sterile specimen belonging to what used to be Wight’s personal herbarium is present at K and is the most suitable lectotype for *Hoya finlaysonii* (Noltie 2005: 134). Rintz (1978) mentioned a ‘holotype’ of *Hoya finlaysonii* as ‘Malaysia, Melaka, Wight (K)’ but it is impossible to ascertain whether [K000895121] is the same specimen as no Wight specimen of the taxon was collected in Melaka. Since the specimen is sterile a careful selection of a fertile epitype will be needed. The syntype Wall Asclep. no 42[A = Wall. Cat. 8166A] is also present at K [K001129113].


**Notes**. Three specimens were cited in the original description of *Hoya forbesii*, Scortechini 1679 & 1680 and Forbes 2896a. The only extant specimen I was able to locate is Forbes 2896a (K), which also bears a dissection and a drawing of the flowers in Gamble’s hand and is therefore selected as the lectotype.


**Notes.** *Schlechter 13458* is extant in B and is therefore selected as lectotype for *Hoya glabra*.


**Notes.** The monotypic genus *Hiepia* V.T.Pham & Aver. was published on 28 September 2011. Examination of the protologue, associated images and detailed photographs of the taxon (Pham & Averyanov, pers. comm.) suggest that it is indistinguishable from a taxon published as *Hoya ignorata* T.B.Tran et al. on 29 December 2011. Rodda et al. (2014) showed that the taxon belongs to the genus *Hoya* and since the epithet ‘corymbosa’ is unavailable in *Hoya* the correct name is *Hoya ignorata* under Art. 11.4 of the ICN (McNeill et al., 2012).


**Notes.** Forster & Liddle (1992a) mentioned that a lectotype for *Hoya imperialis* Lindl. may have to be chosen from one of the illustrations published by Lindley (however no illustration was provided together with the protologue) as no type specimen may be extant in BM, K or L (Rintz, 1978). Lucas (2008) traces the Lindley herbarium to CGE. There I have found a specimen originally belonging to Lindley’s herbarium that is here selected as lectotype for *Hoya imperialis*.

*Hoya imperialis* Lindl. var. *rauschii* was described as having paler corolla lobes than the type. The taxon was described from cultivated material growing in Schaffhausen (Switzerland). Original material has not been found and it is possible that a specimen was never made. The illustration published concurrently with the description is selected as lectotype.


*Notes*. The type specimen of *Hoya kastbergii* was indicated only as ‘UC102003’. The specimen in UC barcoded [UC102003] belongs to *Érigeron glacialis* (Nutt.) A. Nelson var. *glacialis* (Pia Nutt pers. comm.). It is possible that ‘102003’ may be a collection date (October 2003) and not a barcode. See *Hoya nyhuusiae* below for a similar case. No other specimen of *Hoya kastbergii* is present in UC and since no collection information apart from the collector name and the UC barcode was provided in the description of the taxon it is impossible to identify isotypes that may be present in other herbaria. To fix the application of the name I have therefore selected another specimen matching the original description, *Collenette 2357* (L) as neotype of *H. kastbergii*.


**Hoya kloppenburgii** T.Green, Fraterna 14(2): 11 (2001). – TYPE: Originally from Malaysia, Sabah, Nabawan, cultivated in USA, Hawaii, Oahu, Kaʻaʻawa, reputedly vouchered on unknown date as Green, T. 9905 (holotype BISH [BISH1014779]).


*Notes*. The only specimen belonging to *Hoya lacunosa* Blume that can be referred to Blume is sheet number 898168-188 (L) that bears an autograph label ‘*Hoya lacunosa*’. Blume left Java in 1826 and returned to the Netherlands (Van Steenis-Kruseman, 1950). Therefore the specimen, if collected by Blume, is likely to have been collected before the publication of the Asclepiadaceae account in the Bijdragen (Blume, 1826) and is therefore a suitable lectotype for *Hoya lacunosa*.

**Hoya lambii** T.Green, Fraterna 13(2): 2 (2000). – TYPE: Originally from Malaysia, Sabah, cultivated in USA, Hawaii, Oahu, Kaʻaʻawa, reputedly vouchered on unknown date as Green, T. 9905 (holotype BISH, not found). Originally from Malaysia, Sabah,
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Cultivated in USA, Hawaii, Oahu, Ka‘a’awa, vouched on unknown date as Green, T. s.n. (neotype BISH [BISH1016619], designated here).

Notes: The holotype of Hoya lambii, Green 9905 is not present in BISH and no duplicates have been located in other herbaria. A specimen labelled as neotype is present in BISH (Green s.n.) suggesting that the publishing author may be aware that the holotype is missing. However, the neotypification has not been published and is therefore formally published here.


Notes. The name Hoya lasiantha is usually attributed to Blume (1849: 30) [late October 1849] (Stafleu & Cowan, 1976) where it is, however, a nomen nudum as it refers only to a specimen labelled Hoya lasiantha in Korthals herbarium. The taxon is validated as Plocostemma lasianthum Korth. ex Blume (Blume 1849: 60) [November 1849] (Stafleu & Cowan, 1976) and later transferred to Hoya by Miquel (1857). The authorship of the name is here corrected.

Blume mentioned a collection in Korthals herbarium from Borneo ‘ad montem Pamotton insulae Borneo’. I have located a single specimen matching Blume’s description and illustration (Blume, 1849: Fig. 14) with a manuscript annotation by Korthals ‘Hoya lasiantha Borneo’ in L (formerly in U). The label does not have further details on the collection locality, but this is common with Korthals specimens (Van Steenis-Kruseman, 1950). The specimen is only a fragment with a single mounted flower. It is possible that an original complete specimen was in L but may have gone missing, or that Korthal’s label may have been mixed during Miquel’s time (Van Steenis-Kruseman, 1950), therefore the U specimen is the only available original material for lectotypifying Hoya lasiantha. To aid in the application of the name the detailed illustration in Blume (1849, Fig. 14) is selected as epitype.


Notes. A suitable lectotype for Hoya latifolia G.Don can be selected from amongst material of the two syntypes indicated in the protologue (Wall. Asclep. no. 138[A = Wall. Cat 8161A] and Wall. Asclep. no. 138[B = Wall. Cat 8161B]). Original specimens have been found at CGE, E and K. The one here selected as lectotype is the only one bearing a Herbarium Robert Wight Proper (HRWP) label indicating that it was one of the specimens studied by Wight and on which he based his descriptions
(Noltie, 2005). The specimen is composed of two leaves and a follicle, excluding the flowers in the envelope, which belong to *Hoya mitrata* Kerr (Rodda, 2012). Often two types of leaves are present on each specimen, some agreeing with Wight description (palminerved) others easily separated because they are penninerved and with a thinner texture. As suggested by Nutt (label on [K000895124]), the flowers do not agree with *H. latifolia* as currently applied e.g. in Rintz (1978). A syntype Wall. Asclep. no. 138[B = Wall. Cat. 8165B] is present at K [K000895123].


*Notes*. The holotype of *Hoya meredithii* T.Green was cited by Green (2007) as ‘Bishop Museum, 511439 hic designatus, ex hort, T. Green of Oahu, Ka’aa’awa, Hawaii, Lectotype (NY)’. This is interpreted as holotype BISH [BISH1014780], with an isotype at NY. A second isotype at BISH [BISH1014781] is present.


**Hoya mitrata** Kerr, Hooker’s Icon. Pl. 35. t. 3406 (1940). – TYPE: Thailand, Surat, Ban Tong Tao, *Kerr, A.F.G.* 13152 (lectotype K, designated by Rintz (1978)).

**Hoya wallichiana** Decne. inA.DC., Prodr. 8: 635 (1844) nom. rej. prop. – TYPE: – [Malaysia, Penang] “Hoya Wallichiana Dne in DC. Prodr. Hoya coronaria Bl. (d’apres Hooker Fl. of British India IV 58)” (lectotype P designated in Rodda (2012)).

*Notes*. A lectotype was selected in Rodda (2012). However, Rintz (1978) mentioned the same specimen and used the word ‘type’ which counts as an earlier lectotypification under Art. 9.9 of the ICN (McNeill et al., 2012). *Hoya mitrata* has been proposed
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as a nom. cons. prop. against the earlier *Hoya wallichiana* Decne. (Rodda, 2012). A decision is still pending.


*Notes.* The specimen *Green 007*, dated 4 November 2000, is not extant in BISH. A sterile specimen, *Green 007*, dated 30 May 2008, labelled as neotype of *Hoya monetteae* is instead present at BISH. I have been unable to find publication of the neotypification. Specimen *Sugau et al. JBS340* (SAN) is a fertile and well-preserved specimen of *H. monetteae* and is here selected as a neotype.


Hoya refracta nom. nud. on numerous sheets in L and P.

Notes. The publication of Hoya multiflora Blume only consists of a diagnosis ‘caule fruticoso scandente; foliis oppositis oblong-lanceolatis utrinque acutis glabris subtus pallidioribus; floribus fasciculatis terminalibus’ without any information that could link it to a specimen such as a collector name, a locality or a common name. Numerous specimens of Hoya multiflora are present in L with Blume’s autograph labels. Among these, only one [L2727033] has a date definitively setting its collection before publication of the protologue, ‘16 September 1820’. It is a fertile and well-preserved specimen and is therefore suitable lectotype material.

There are no known extant collections from Blanco, including for Asclepias carnosa Blanco, non L.f. (Merrill, 1918). Merrill’s illustrative specimen 852 is therefore selected as neotype for Asclepias carnosa Blanco.

No specimens are listed for Cyrtoceras reflexum Benn. The plate included together with the species description (Bennett, 1838 Fig. 21) is therefore selected as lectotype. A Horsfield collection from Java [K000894745] that may be original material is selected as an epitype.

Cyrtoceras lindleyanum Decne. was a new name based on a plant misidentified by Lindley as Hoya coriacea Blume (Lindley, 1839). Lindley’s treatment was based on a plant ‘Sent by Mr Cuming to Messrs. Loddiges, from Manila; it flowered for
the first time in August 1838’. In Lindley’s herbarium at CGE there is a sheet labeled ‘*Hoya coriacea* Loddiges Aug. 1830’. Excluding the date that does not match, this sheet matches the protologue and being the only original material available is here selected as lectotype for *Cyrtoceras lindleyanum*. Miquel (1857: 515) cited *Cyrtoceras lindleyanum* Miq. with himself as the author. This, however, is likely a typographical error as he clearly also included *Cyrtoceras lindleyanum* Decne. in the citation.

*Cyrtoceras floribundum* is clearly indicated as a synonym of the earlier *Cyrtoceras reflexum* Benn. and is therefore superfluous and illegitimate following ICN Art. 52.1 (McNeill et al., 2012). The name was based, as per *Hoya coriacea* Lindl., on a live plant originally collected by Cuming in the Philippines and cultivated at Loddiges Nursery (UK). No specimens have been found with such provenance. The only material available for the selection of a lectotype is therefore the plate included together with the species description.

No specimens are mentioned for *Centrostemma micranthum* Blume. The illustration published concurrently with the description is therefore selected as the lectotype.

No specimens are mentioned for *Centrostemma elegans* Blume. There is, however, a specimen in L identified as *Centrostemma elegans* in Blume’s handwriting, also labelled *Cyrtoceras elegans* (Blume) Miq in Miquel’s hand and *Hoya elegans* (Blume) Boerl. in Boerlage’s hand, that is a suitable lectotype.

No specimen was mentioned in the description of *Centrostemma laurifolium*, only ‘In sylvis montanis Javae occidentalis.’ A specimen bearing a label in Blume’s hand from Salak is here selected as lectotype.

*Cyrtoceras uncinatum* Teijsm. & Binn. was described from plants cultivated in Bogor Botanic Garden originally collected from Sumatra by Teijsmann. No specimens have been found and it is possible that the description was based on a live plant. The name is neotypified with the lectotype of *Hoya multiflora*.

In P herbarium there is only one specimen labeled in Costantin’s hand as *Hoya reticulata* Costantin, collected by Pierre on Mt. Krewanh. This specimen [P00700502] is therefore selected as lectotype.

*Centrostemma platypetalum* Merr. was described based on Tso 23346. The NY duplicate is a fertile well-preserved specimen and is here selected as lectotype.


Notes. The protologue of *Hoya nyhuusiae* Kloppenb. states ‘(UC) Torill Nyhuus #2003 ex hort. Torill Nyhuus, Sweden. From Mt. Kinabalu, Sabah, Malaysia’. There is no specimen *Nyhuus 2003* in UC but the specimen labelled as holotype is *Nyhuus s.n.* and ‘2003’ is the year of collection as also noted for *Hoya walliniana*. Type citation has been amended accordingly.


Notes. No single holotype of *Hoya obscura* Elmer ex C.M.Burton was stated by Burton and a lectotype needs to be designated among the duplicates of the type collection Elmer 16719. All duplicates located and examined are sterile and a selection of an epitype is necessary for a correct application of the name. Specimen McGregor 11377, a fertile and well-preserved specimen is therefore selected as epitype of *H. obscura*.


**Hoya teysmanniana** Miq., Fl. Ned. Ind. 2: 522 (1857). – TYPE: Indonesia, Sumatra, Soengi Pagoe, s.d., Teijsmann, J.E., 1170HB (lectotype U [U0000686], designated here; possible isolecotype K [K000894744]).

Notes. Duplicates of Wall. Asclep. 38 [= Wall. Cat. 8167] have been found at E and K. The K duplicate is the only one bearing a Herbarium Robert Wight Proper (HRWP) label, it is annotated ‘38 Hoya obtusifolia RW’, and is therefore one of Wight’s specimens on which he based his descriptions. Linn Soc Mss SP1284 indicates that only 1 sheet of Wall. Asclep. 38 was given to Robert Wight for his personal working herbarium, therefore the K sheet can be considered a holotype.

**Hoya teysmanniana** Miq. was described from Teijsmann material indicated as being from ‘Sumatra, bij Soengi Pagoe’. The U specimen [U0000686] is the only one found which matches this information and is therefore selected as lectotype. The K specimen [K000894744] was also collected by Teijsmann in Sumatra and bears a label in Miquel’s hand. However, it does not have a collection number or locality (Sumatra only) and may be considered as a possible isolecotype.

Names and types of Bornean Hoya


Notes. A few specimens can be found in L labelled *Hoya pubera* Blume. Among these, [L0275692] bears a label, likely in Blume’s hand, with ‘1684 *Dischidia elliptica* Bl. *Hoya pubera* Bl.’ another specimen [L0275693] bears ‘*Acanthostemma pubera* Bl, *Hoya pubera* Bl (illegible) Bl. 1684’, possibly in Blume’s hand. Both are sterile and cannot without doubt be linked to the protologue of *Hoya pubera*. Another specimen, in P [P00639851], was sent by Blume as *Hoya pubera* in 1836 and mentioned by Decaisne (1844: 639). Once again this is sterile and it is impossible to ascertain whether it was collected before the publication of *H. pubera*. Another specimen in U [U1102645] is labelled as collected by Blume, but is undated and just a fragment. Following Art. 9.12 of the ICN (McNeill et al., 2012), [L0275692] is to be considered as ‘remaining original material’ and is therefore here selected as the lectotype for *Hoya pubera*.


Notes. Schwartz cited only a single collection for *Hoya phyllura*, Winkler 339. Two duplicates are found in HBG. The first, bearing a sketch of the flowers is selected as the lectotype.

Hoya ranauensis  T.Green & Kloppenb., Hoya New 2(3): 21 (2014) [before 22 May 2014]. – TYPE: Originally from Malaysia, Sabah, Ranau, Poring Hot Springs, cultivated in USA, Hawaii, Oahu, Ka’a’awa, garden of Ted Green, vouchered on unknown date as Green, T. s.n. (holotype BISH, sheet no. BISH757786 [BISH1049135]).

Notes. Schwartz cited only a single collection for *Hoya phyllura*, Winkler 339. Two duplicates are found in HBG. The first, bearing a sketch of the flowers is selected as the lectotype.


**Notes.** Three specimens are listed under the description of **Hoya scortechinii**: J. Scott s.n. from Penang, B. Scortechinii 464 & 1557 from Perak. I could only locate B. Scortechinii 464b in K. It is a complete and well-preserved specimen bearing a dissection and drawings by Gamble made in November 1906 and is therefore a suitable lectotype.


Notes. The type of *Hoya sipitangensis* was cited as ‘52002 (UC), collected by Eva-Karin Wiberg et al. at Sipitang, Sarawak, Malaysia *ex hort.* Eva-Karin Wiberg at Börlange, Sweden’. The specimen labelled as holotype of *Hoya sipitangensis* in UC agrees in collecting information but does not bear the number 52002 which is, in any event, probably a collection date rather than a number as observed for *Hoya walliniana* and *Hoya nyhuusiae*. It is barcoded UC1784973. As it is impossible to verify if [UC1784973] is the intended holotype or another specimen obtained from the same plant in cultivation it is designated as neotype of *Hoya sipitangensis*.

The collection date of the type of *Hoya yapiana* Kloppenb. is indicated in the protologue as ‘21 January 2008’; however, this is not the collection date of the specimen but the collection date of a living plant in Brunei that later bloomed in Singapore where it was cultivated by K.F. Yap, who made the type specimen from this plant on 20 April 2009. This collection date is mentioned on the holotype in SING but not on the duplicate in K.

*Hoya sigillatis* subsp. *sigillatis* T.Green, Fraterna 17(3): 2 (2004). – TYPE: Originally from Malaysia, Sabah, Tenom Agricultural Park, cultivated in USA, Hawaii, Oahu, Ka’a’a’awa, vouchered on unknown date as *Green, T. 91024* (holotype BISH [BISH1014783]).


Notes. Wanntorp & Forster (2007) selected *Burbidge s.n.* (K), a specimen not personally examined by the authors and mounted on two sheets, as lectotype of *Hoya spartioides*. However the two sheets are not clearly labelled as being part of the same specimen and must therefore be considered as two duplicates following ICN Art. 8.3 (McNeill et al., 2012). The specimen with barcode [K000894739] is therefore designated as the lectotype of *Hoya spartioides*. Syntype *Motley, J. 978* is extant at K [K000894737].


**Notes.** Schwartz cited only a single collection for *Hoya vacciniiflora* O.Schwartz, Winkler 339. One sheet of this collection is present at HBG and is here selected as lectotype.


Names and types of Bornean Hoya


Hoya bawanglingensis Shao Y. He & P.T. Li, Novon 19: 357 (2009). – TYPE: China, Hainan Province, Bawangling, 19°07’N 109°06’E, on tree in montane rainforest, 423 m, 8 August 2007, He, S.H. & Lin, J.Y. 0708081 (holotype CANT, n.v.; photo MO n.v.).

Hoya amoena Bakf. subsp. bogorensis T. Green & Kloppenb., Hoya New 2(4): 14 (2014) – TYPE: Originally from Indonesia, Java, Bogor Botanic Garden, cultivated in USA, Hawaii, Oahu, Oahu, Ka‘a‘a‘awa, vouchered in 2014 as Green, T. s.n. (holotype BISH [sheet number 759664]).

Sperlingia tetraphylla nom. nud. annotation on [C10006736].

Hoya albens nom. nud. in Miller, Bristol Nursery Cat. 55 (1826).

Hoya lanceolata Donn., Hort. Cantabrig., ed. 2: 92 (1826), nom. nud. non Hoya lanceolata Wall. ex D. Don (1825).

Notes. The specimen here selected as lectotype of Hoya verticillata was indicated by Veldkamp et al. (1995) as the holotype. This requires a correction to lectotype under ICN Art. 9.9 (McNeill et al., 2012). A possible isotype is present at C [C10006736]. It bears the same annotation on the back of the sheet as the lectotype. However, ‘Cynanchum?’ has been crossed out and substituted with Sperlingia tetraphylla, a nomen nudum and I therefore doubtfully refer to it as an isotype.

Hoya acuta Haw. was described by Haworth based on a sterile live plant cultivated in Kew ‘Vidi crescentem sine floribus in region horto Kewense A.D. 1819’. Following Traill (1830) and Veldkamp et al. (1995), Hoya pallida Lindl., Hoya acuta Haw., and the nomina nuda Hoya lanceolata and Hoya albens, may all represent the same plant, sent as a live specimen to K by Wallich and then spread to various gardens in the UK. Since no original material is available for Hoya acuta the name is neotypified by a specimen deposited in K that bloomed in ‘Hort Liv’ (Liverpool botanic garden?) in 1825, likely originating from the same Wallich stock.

Hoya pallida Lindl. was likely based on the same live plant as for Hoya acuta (Traill, 1830; Veldkamp et al., 1995) but cultivated in the garden of the Duke of Northumberland. The only original material available is the illustration published in Lindley (1826: 11, t. 951) that is selected as the lectotype. The neotype of Hoya acuta is also selected as an epitype of H. pallida. Another specimen, also labelled Hoya pallida that was obtained from cultivation in Chatsworth in 1850, is present in CGE.

The specimen [BM001014257] was indicated as the holotype of Hoya nicobarica R.Br. ex J. Traill in Veldkamp et al. (1995) and is here considered as an effective lectotypification following ICN Art. 9.9 (McNeill et al., 2012).
Names and types of Bornean Hoya

Hoya angustifolia J.Traill was possibly based on a live plant and no extant specimens have been found.

Wight indicated the materials for Hoya hookeriana as Wall. Asclep. 28A&B and Wall. Asclep. n. 39 (ex parte). Following Noltie (2005), the Wallich Catalogue numbers associated with Wall. Asclep. 28A,B are Wall. Cat. 8158A&B, while Noltie (2005) suggests excluding Wall. Asclep. n. 39 because it is unnamed in the Wallich Cataloge and it does not bear a locality. Wall. Cat. 8153A (K) was incorrectly indicated as the lectotype of Hoya hookeriana Wight by Veldkamp et al. (1995). The specimen here selected as the lectotype belonged to Wight’s personal working herbarium, is labelled ‘Herb. R. Wight. Prop’ and ‘28B’ and bears a description and sketch in Wight’s hand. Syntypes (Wall. Cat. 8158A) are to be found at E [E00179570], K [K001129100], [K000873070] and K-W.

Veldkamp et al. (1995) cited a Roxburgh (BM) specimen as the holotype of Hoya parasitica Wall. ex Wight. This counts as an effective lectotypification under ICN Art 9.9 (McNeill et al., 2012). However no Roxburgh specimen identified as Hoya parasitica is present in BM. The only original material is therefore the illustration in K that is here selected as the lectotype.

Numerous specimens are cited in the protologue of Hoya ridleyi King & Gamble, collected by Curtis and Ridley. Rintz indicates the type of the taxon as ‘Malaysia, Ridley (K)’ The only original materials collected by Ridley in K available for Hoya ridleyi are three dissections by Gamble mounted on a single card. Rintz (1978) cannot therefore be considered a first step lectotypification. Ridley 10358 (SING) is instead here selected as lectotype. Other syntypes found are Curtis s.n. [SING121195, SING0121079], Ridley 9476. ([SING0121189], K, dissection by Gamble), Ridley 5519 ([SING0121191], K, dissection by Gamble).

Hoya balansae Costantin was described from material collected by Balansa in Ha Long Bay in Vietnam. The only Balansa specimen from Ha Long Bay labelled Hoya balansae in Costantin’s handwriting has been found in P [P00645997] and is a suitable lectotype.

The only collection for Hoya globiflora Ridl. was indicated as ‘Koh Pennan No. 5756.’ Veldkamp et al. (1995) indicated a SING duplicate as the holotype that would count as an effective lectotypification under ICN Art 9.9 (McNeill et al., 2012). However, the specimen is not extant at SING and it is also not listed in the SING card index suggesting it may never have been present. The K duplicate is instead here selected as the lectotype for Hoya globiflora.

Hoya obscurinervia Merr. was based on McClure 9819. The duplicate at A [A00076421] is a well-preserved fertile specimen and it is selected as lectotype.

Hoya vitellina Blume, Mus. Bot. 1(3): 45 (1849) – TYPE: Java, West Java, Blume, C.L.?, s.n. (lectotype L [L0004346], designated here; possible isolectotypes BO [BO1869758, BO1869758], U [U1102651]).

Notes. *Hoya vitellina* Blume was indicated as originating from West Java, without providing any additional specimen information. Miquel (1857: 522) indicated that specimens of the taxon were collected by Blume and Van Hasselt. The only possible material likely collected by Blume is in L [L0004346]. Following Art. 9.12 of the ICN (McNeill et al., 2012) [L0004346] this is to be considered as ‘remaining original material’ and therefore here selected as lectotype. Three possible duplicates are present in U and BO. However, due to the lack of information on these sheets it is impossible to verify if they are actual duplicates.

*Hoya fuscomarginata* N.E.Br. was described from a specimen deposited in K originating from cultivation at Glasnevin Botanic Gardens, Dublin and originally purchased from Mr Pauwels, who stated that it had been imported with orchids from British Guiana. This is impossible, as no *Hoya* species is known to occur in the New World. There is only one specimen in K clearly labelled as type in Brown’s hand that is therefore a holotype.


Notes. The type of *Hoya walliniana* was indicated as ‘112003 (UC) ex hort. Torill Nyhuus Sweden, originally collected in 1997 in Sipitang, Sartawak [sic.], Sabah, Malaysia’. The specimen labelled as holotype in UC agrees in collecting author and provenance but does not bear collection number 112003. The number is here interpreted as a collection date (November 2003) as seen in *Hoya kastbergii* and *Hoya nyhuusiae*. The provenance of the plant is Sipitang, a division of the Malaysian state of Sabah, and not Sarawak as alternatively indicated in the type citation. Provenance and date are here updated in the holotype citation.


Notes. The type of *Hoya waymaniae* Kloppenb. was mentioned in the original publication as ‘cultivated at Fresno, CA., USA from clone obtained from the Sydney Botanical Garden by Ted Green in 1988 or there about. Holotype: UC#11’. In UC the label of the specimen indicated as holotype of *H. waymaniae* reads: ‘Pressed specimen prepared 23 April 1997 from material cultivated by Ted Green, cloned from plant in Sydney Botanical Garden which was obtained in 1985 by Ben Wallace from the Tenom Orchid Centre in Sabah, Borneo. Submitted by Dale Kloppenburg, 1999’. No collector
or collection number is present but the specimen is clearly derived from the original living plant. This specimen cannot be the type as it was collected two years after the description of *H. waymaniae*. Despite originating from the same living plant from which the type was collected, UC1776371 is not a suitable neotype as it is sterile. We select instead a well-preserved fertile specimen of the taxon, *van Valkenburg JVW1190* (K) as the neotype.


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Hoya hamiltoniorum A.L.Lamb, Gavrus, Emoi & Gokusing
Names and types of Bornean *Hoya*

*Hoya heterophylla* nom. nud. **sub:** *Hoya diversifolia* Blume

*Hoya hookeriana* Wight **sub:** *Hoya verticillata* (Vahl) G.Don

*Hoya ignorata* T.B.Trans, Rodda, Simonsson & Joongku Lee

*Hoya imperialis* Lindl.
*Hoya imperialis* Lindl. var. *rauschii* Regel **sub:** *Hoya imperialis* Lindl.

*Hoya javanica* Boerl. **sub:** *Hoya multiflora* Blume

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*Hoya kloppenburgii* T.Green

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*Hoya lasiantha* (Korth. ex Blume) Miq.

*Hoya latifolia* (Wight) G.Don

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*Hoya omlorii* (Livsh. & Meve) L.Wanntorp & Meve

*Hoya opposita* (Vahl.) G.Don **sub:** *Hoya verticillata* (Vahl) G.Don

*Hoya orbiculata* Wall. ex Wight & Arn. **sub:** *Hoya diversifolia* Blume

*Hoya pallida* Lindl. **sub:** *Hoya verticillata* (Vahl) G.Don

*Hoya parasitica* Wall. ex Wight **sub:** *Hoya verticillata* (Vahl) G.Don

*Hoya parasitica* Wight var. *geoffroyi* Costantin **sub:** *Hoya verticillata* (Vahl) G.Don

*Hoya parasitica* Wight var. *spirei* Costantin **sub:** *Hoya verticillata* (Vahl) G.Don

*Hoya persicinicornoraria* Shao Y.He & P.T.Li **sub:** *Hoya diversifolia* Blume

*Hoya phyllura* O.Schwartz
Hoya plicata King & Gamble subsp. rundumensis T.Green sub: Hoya rundumensis (T.Green) Rodda & Simonsson

Hoya pottsi J.Traill sub: Hoya verticillata (Vahl) G.Don

Hoya pottsii J.Traill var. angustifolia Tsiang & P.T.Li sub: Hoya verticillata (Vahl) G.Don

Hoya pubera Blume

Hoya ranauensis T.Green & Kloppenb.

Hoya recurvula Kloppenb. sub: Hoya verticillata (Vahl) G.Don

Hoya recurvula Kloppenb. subsp. bokorensis Kloppenb. & Yap sub: Hoya verticillata (Vahl) G.Don

Hoya refracta nom. nud. sub: Hoya multiflora Blume

Hoya reticulata Costantin sub: Hoya multiflora Blume

Hoya retrorsa Gavrus, A.L.Lamb, Emoi, Gokusing

Hoya revoluta Wight ex Hook.f.

Hoya ridleyi King & Gamble sub: Hoya verticillata (Vahl) G.Don

Hoya rintzii Rodda, Simonsson & S.Rahayu

Hoya rundumensis (T.Green) Rodda & Simonsson

Hoya ruthiae Rodda

Hoya sammannaniana A.L.Lamb, Gavrus, Emoi, Gokusing

Hoya scortechinii King & Gamble

Hoya sigillatis T.Green subsp. sigillatis

Hoya sigillatis T.Green subsp. paitanensis Gavrus, A.L.Lamb, Emoi, Gokosing

Hoya sipitangensis Kloppenb. & Wiberg

Hoya spartioides (Benth.) Kloppenb.

Hoya telosmoides Omlor

Hoya teysmanniana Miq. sub: Hoya obtusifolia Wight

Hoya ubudensis Kloppenb. & Yap sub: Hoya verticillata (Vahl) G.Don

Hoya undulata S.Rahayu & Rodda

Hoya vacciniiflora O.Schwartz

Hoya verticillata (Vahl) G.Don

Hoya vitellina Blume

Hoya wallichii (Wight) C.M.Burton

Hoya walliniana Kloppenb. & Nyhuus

Hoya waymaniae Kloppenb.

Hoya wibergiae Kloppenb. sub: Hoya verticillata (Vahl) G.Don

Hoya wongii Rodda, Simonsson & L.Wanntorp

Hoya yapitana Kloppenb. sub: Hoya sipitangensis Kloppenb. & Wiberg

Hoya zollingeriana Miq. sub: Hoya diversifolia Blume

Otostemma lacunosum (Blume) Blume sub: Hoya lacunosa Blume

Physostelma wallichii Wight sub: Hoya wallichii (Wight) C.M.Burton

Plocostemma lasianthum Korth ex Blume sub: Hoya lasiantha (Korth. ex Blume) Miq.

Sperlingia opposita Vahl sub: Hoya verticillata (Vahl) G.Don

Sperlingia tetraphylla nom. nud. sub: Hoya verticillata (Vahl) G.Don

Sperlingia verticillata Vahl sub: Hoya verticillata (Vahl) G.Don
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References
