RESEARCH ARTICLE

Systematics of *Planchonella* Pierre: The largest Sapotaceae genus in subfamily Chrysophylloideae

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Abstract *Planchonella* is the largest genus in subfamily Chrysophylloideae (Sapotaceae), believed to circumscribe about 110 species, occurring throughout tropical Asia, Australia, and Oceania, as well as the Seychelles and Hawaii. Previous studies have confirmed the monophyly of *Planchonella* but also identified problems such as species limits of the name-bringing taxon *P. obovata*, paraphyly of the widespread *P. chartacea*, confusion between the large-leaved and often cultivated species *P. maclayana* and *P. pomifera*, and the variable species *P. torricellensis*. Species limits of *P. chartacea*, *P. duclitan*, *P. obovata* and *P. torricellensis* are investigated by sampling multiple accessions. We examine these problems in a Bayesian framework using BEAST by using three nrDNA loci (ETS, ITS, *RPB2*) and indel data of 184 terminals, which represent about 90% of the recognised species. Five morphological characters for the *P. chartacea* complex were mapped onto the resultant tree. Our analyses agree with previously obtained *Planchonella* phylogenies with four major clades recovered. *Planchonella obovata* is found to be a variable taxon, and two species, *P. clemensii* and *P. mindanaensis*, are synonymised with *P. obovata*, opposed to *P. merrillii*, which is reinstated. Three species are synonymised under *P. chartacea*, a widespread species that ranges from Singapore in the west to different Pacific islands in the east. Leaf morphology is very similar in *P. maclayana*, *P. macrantha*, and *P. pomifera*, but they can be distinguished on tertiary leaf venation patterns. Our molecular phylogeny demonstrates that *P. duclitan* as currently circumscribed represents two species: *P. duclitan* mainly distributed east of Wallace's Line and *P. spectabilis* west of Wallace's Line. Ninety-six described species are recognised, for which we provide full nomenclature and typification. Seven undescribed species are identified. Four species require transfer to the related genus *Pleioluma*, one to *Sideroxylon*, and two species, *P. erringtonii* and *Chrysophyllum rhodoneurum*, are excluded from *Planchonella*. We designate lectotypes for 71 names, make one new combination, viz. *Planchonella bakhuizenii*, and designate neotypes for *P. duclitan* and *P. endlicheri*.

Keywords Bayesian inference; molecular phylogeny; New Guinea; nomenclature; Pacific; Southeast Asia

Supporting Information may be found online in the Supporting Information section at the end of the article.

■ INTRODUCTION

Phylogenetic analyses in Sapotaceae have revealed that *Planchonella* Pierre is the largest genus in subfamily Chrysophylloideae (Bartish & al., 2005; Swenson & al., 2007a, 2013, 2020), not the pantropical genus *Pouteria* Aubl., with which *Planchonella* was united by Pennington (1990, 1991). Instead, *Pouteria* only includes hitherto seven identified species (Swenson & al., 2023a), not the 300+ species as previously circumscribed (Baehni, 1942; Pennington, 1991). *Planchonella* is believed to include some 110 species of large canopy trees, understory trees, and shrubs, distributed from the Seychelles in the west, across tropical Asia, Australia, and Oceania, reaching Hawaii in the east with two species (Swenson & al., 2019; Havran & al., 2021). Highest species diversity is found in New Caledonia and New Guinea with 38 and 25 described species respectively. The genus originated somewhere in the Sahul Shelf area at 44–46 Ma with a subsequent colonisation of New Caledonia and thereafter it dispersed to many areas and islands in the Pacific (Swenson & al., 2014, 2019, 2023b). Several name-bringing lineages such as *Beauvisagea* Pierre and *Boerlagella* Pierre

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ex Cogn. have been demonstrated to belong to *Planchonella* and are synonymised with it (Swenson & al., 2020). However, these studies also identified several anomalous species circumscriptions and unclear typifications.

Most species of Sapotaceae exude white latex (rarely yellowish or bluish) from stem, petiole, leaf tissue, and fruits. Identification keys to the Sapotaceae genera in New Guinea have been provided by Swenson & Kearey (2020) and Briggs & al. (2021), and keys to species of *Planchonella* in Australia and New Caledonia have been published by Jessup (2019) and Munzinger & Swenson (2009) respectively. *Planchonella* is readily recognised in the field and in herbaria, provided fertile material is available. Leaves are always alternate, simple, and entire (Fig. 1A,B,D,F,H), except for *P. crenata* Munzinger & Swenson, an endemic New Caledonian species which often has some crenate leaf margins (Swenson & al., 2007a). The tertiary leaf venation is usually reticulate, oblique, or horizontal and the higher-order venation is never areolate as in relatives such as *Magodendron* Vink, *Pichonia* Pierre, and *Pleioluma* (Baill.) Baehni, genera that co-occur in the same geographical area. Flowers are usually small (less than 10 mm long), 5-merous with a calyx in one whorl, and dome-shaped to shortly tubular corolla, consisting of a corolla tube with free corolla lobes and staminodes in the corolla lobe sinuses (Fig. 1B–E). Cup-shaped flowers, which are characteristic for the Australian genus *Niemeyera* F.Muell. and the New Caledonian genus *Pycnandra* Benth., are rare, but occur in at least the name-bringing species *P. obovata* (R.Br.) Pierre (Fig. 1F,G). One important feature is that the stamens are usually inserted in the corolla tube just below the tube orifice (or rarely in the middle) (Fig. 1E), which differs from an insertion in the corolla tube orifice (*Pichonia* and *Sersalisia* R.Br.) as well as in the middle of the tube or near the base (*Pleioluma*). Mature fruits are usually spherical (Fig. 1H) and smooth, sometimes ridged, where each ridge corresponds to a seed (Fig. 1K). Depending on pollination success, the fruit sets 1–5 seeds and the seeds have foliaceous cotyledons, a radicle extending below the cotyledon commissure, and an endosperm (Fig. 1I). Among the closely related genera, this three-character combination is only present in *Pleioluma*, the others have seeds with plano-convex cotyledons, included radicle (except *Magodendron*), and no endosperm.

Planchonella was instated by Pierre (1890) in honour of the French botanist Jules Émile Planchon (1823–1888). Since then, it has gone through a convoluted history of either being recognised or synonymised, usually with *Pouteria* (Baehni, 1938, 1942; Pennington, 1990, 1991), eventually being reinstated based on phylogenetic evidence by Swenson & al. (2007b). The generic name is conserved against *Hormogyne* A.DC., *Iteiluma* Baill., and *Peuceluma* Baill. (Swenson & Morat, 2008). The name-bringing species, *P. obovata*, is based on *Sersalisia obovata* R.Br. and was originally described from material collected by Joseph Banks and Daniel Solander along the Endeavour River in Australia during Captain Cook's first voyage to the Pacific (Brown, 1810). During the following 100 years, no less than 25 species were described, combined into various genera, and later synonymised with *P. obovata* (Lam, 1925). Today, about 50 heterotypic synonyms exist (powo.science.kew.org) and the species has a wide distribution, from the Seychelles in the west, across Southeast Asia and Australia, into the Pacific, with the Solomon Islands as the eastern outpost. Hence, there is a risk that lineages meriting species recognition are not recognised or vice versa. In a recent phylogenetic analysis using nuclear sequence data, a clade of eight *P. obovata* accessions nested *P. clemensii* (Lecomte) P.Royen from China and *P. mindanaensis* H.J. Lam from the Philippines, casting doubts whether *P. obovata* is correctly delimited (Swenson & al., 2019). Also, when sampling for the present study, we discovered that the type of *P. merrillii* Dubard from the Philippines, synonymised with *P. obovata*, may match *Pouteria ridsdalei* Vink (Vink, 2002), a species recently transferred to *Planchonella* (Swenson & al., 2013). Suffice to say that species circumscription of *P. obovata* needs to be tested by comprehensive sampling across its entire distribution.

The genera *Beauvisagea* and *Boerlagella*, known only from old (up to 150 years) type material, were recently synonymised with *Planchonella* based on a phylogenetic analysis using leaf fragments from the type specimens and sequenced for nuclear ribosomal DNA (ETS, ITS) and the nuclear gene *RPB2* (Swenson & al., 2020). Both type specimens have large leaves and lack complete fertile material. *Boerlagella* (= *Planchonella spectabilis* (Miq.) Dubard) was placed in the vicinity of *Planchonella duclitan* (Blanco) Bakh.f., a species we return to below. *Beauvisagea* (= *Planchonella pomifera* (Pierre) Dubard) was placed with strong support in a clade together with *P. maclayana* (F.Muell.) Swenson, another large-leaved species. The type material of *P. maclayana* consists only of fruit and seed fragments (not even leaves), but seed size of both *P. maclayana* and *P. pomifera* indicate that the fruit is likely large, approximately the size of a modern cultivated apple (*Malus domestica* (Suckow) Borkh.). Collections of either species frequently lack mature fruit, or fruits are stored as macroobjects in separate collections, but large-leaved specimens from the Maluku Islands (Indonesia) to the Solomon Islands are common in several herbaria (BO, CANB, K, L, SING). It would therefore be desirable if *P. maclayana* and *P. pomifera* could be distinguished on a vegetative feature, such as patterns of tertiary leaf venation. *Planchonella maclayana* seems to have rather long, perpendicular tertiaries (or intersecondaries) to the midvein that distally make a nearly 90° bend towards the secondary vein below and anastomose; towards the leaf margin, they are more or less oblique and reticulate. Tertiaries in *P. pomifera* are not as long, are perpendicular at the midvein, but rather immediately curve towards the secondary vein below and beyond this area, towards the leaf margin, tertiaries become oblique.

Planchonella chartacea (F.Muell. ex Benth.) H.J.Lam and *P. linggensis* (Burck) Pierre form a species complex and the two species have been difficult to separate based on morphology alone. The former was described in 1868 from northern Australia and the latter in 1885 from Lingga Island,



Fig. 1. Examples and morphological characteristics of *Planchonella*. **A**, *P. skottsbergii*, example of a treelet; **B**, *P. crassinervia*, one of many species with dome-shaped corollas; **C**, *P. baillonii*, one of few species with red flowers; **D**, *P. ericiflora*, one of few species with tubular corollas; **E**, Open corolla of *P. spathulata* showing staminodes and stamen insertion just below the tube orifice; **F** & **G**, *P. obovata*, the type species with cup-shaped flowers and almost glabrous sepals (**F**) or ferruginous tomentulose sepals (**G**); **H**, *P. contermina*, with a typical globular fruit; **I**, Transverse section of a globular fruit (*P. garberi*), showing five seeds with endosperm and foliaceous cotyledons (red arrow); **J**, Aborted ovaries in *P. spathulata* (yellow arrow), indicating trioecy with male, female, and bisexual flowers on separate individuals; **K**, *P. rufocostata*, showing ridged fruit, a character common for a clade restricted to New Caledonia. — Photos: A by Gildas Gâteblé; B, D, H & K by Jérôme Munzinger; C, E, I & J by Ulf Swenson; F by Timothy Utteridge; G by Daniel Nickrent (Plants and Lichens of the Philippines 2626).

located between Singapore and Sumatra. Both species from these areas display similar leaf, flower, and fruit morphology, but Van Royen (1957) distinguished *P. chartacea* from *P. linggensis* by having sepals sericeous inside, especially at the apex, in contrast to sepals glabrous inside in the latter. In addition, based on variable leaf morphology, Van Royen recognised three varieties of *P. linggensis*, one of which was var. *garberi* (Christoph.) P.Royen. Smith (1981) argued that *P. garberi* Christoph. must be kept as a separate species from *P. linggensis* since it has larger corolla, larger fruit, and four or five larger seeds (fewer and smaller in *P. linggensis*). *Planchonella garberi* occurs in the southwest Pacific islands, including Fiji, Samoa, Solomon Islands, and Vanuatu. Molecular phylogenetic analyses using several accessions of *P. chartacea* and *P. linggensis* indicate that *P. chartacea* from Australia could be sister to *P. linggensis* from the Pacific islands, but accessions of *P. linggensis* from New Guinea may form a grade including *P. garberi* and *P. garcinioides* (K. Krause) Swenson, a species with even larger leaves mainly known from New Guinea (Swenson & al., 2019, 2020). However, these studies placed with strong support another accession of *P. linggensis* in a separate clade; the only obvious difference was that it originated from a limestone site in Papua (Indonesia). This complex of four species needs further attention by ample sampling across the entire distribution area combined with studies of alleged key morphological characters.

Planchonella duclitan is a widespread species occurring in wet tropical forests of Southeast Asia, from Sumatra in the west to Taiwan in the north and New Guinea in the east. It is a problematic species for four reasons: (1) as currently circumscribed, seven other names are placed in synonymy (powo.science.kew.org); (2) it was originally described by Francisco Manuel Blanco (1778–1845), a Spanish explorer and botanist whose herbarium is unknown (*Taxonomic literature II*: https://www.sil.si.edu/DigitalCollections/tl-2/); (3) despite the latter, a neotype has never been designated; and (4) it was recently suggested to be polyphyletic (Swenson & al., 2020). Even if the latter problem is believed solved (the voucher used in that study, *Ridsdale & al. 1188* [BO, K, L] represents *P. villamilii* (Merr.) Swenson rather than *P. duclitan*), the species displays variation in leaf and fruit size. For example, leaves of plants from the eastern part of the species' range are usually elliptic and 8–15 cm long, or broadly elliptic and 20–25 cm in Sulawesi and Sumatra (once described as *Sideroxylon celebicum* Pierre ex Burck), or almost round in Taiwan, or up to 50 cm long in juvenile individuals from Christmas Island. *Boerlagella spectabilis* (or *Planchonella spectabilis*), was placed as sister to a grade of *P. duclitan*, *P. torricellensis* (K.Schum.) H.J.Lam, *P. forbesii* (S.Moore) H.J.Lam, and *P. polyneura* (K.Krause) Swenson (Swenson & al., 2020). Inflorescence morphology of these species (with reservation for *P. spectabilis*) is rather similar, usually formed by axillary shoots with multi-flowered fascicles, sometimes with a leaf or two distributed along the shoot. It is therefore of interest to test whether all accessions of *P. duclitan* and *P. spectabilis* form a single clade or if they could be interpreted as two different species with different leaf and fruit sizes. Another pertinent problem in this clade is whether *P. torricellensis* circumscribes one species from New Guinea and nearby areas (Van Royen, 1957) or two species, with the other occurring in the Pacific islands, occasionally still recognised as *P. samoensis* Christoph., described from Samoa (Whistler, 2022).

Fieldwork and studies at various herbaria (BM, BO, BRI, CANB, K, MEL, MO, P, SING) have revealed several specimens that could merit recognition as new species. Material suitable for molecular analysis is not always available, but we have been able to obtain sequences of *Planchonella* "Bangun 685" from Halmahera (Maluku Island), *Planchonella* "Munzinger 6979" from Papua New Guinea, *Planchonella* "Ridsdale 487" from the Philippines, *Planchonella* "Soepadmo 41348" from Borneo, and *Planchonella* "Takeuchi 25495" from Papua New Guinea. Their phylogenetic relationships will be tested and discussed in the light of placement and morphology.

The overall goal of this paper is to estimate a phylogeny using nuclear molecular sequence data in a Bayesian framework to better understand the diversity of *Planchonella*. Subjects in focus are (1) species limits of the widely distributed type species *P. obovata*, (2) limits of the complex *P. chartacea* and *P. linggensis*, (3) whether it is possible to distinguish between *P. maclayana* and *P. pomifera* on vegetative characters, (4) investigating species limits of *P. duclitan*, *P. spectabilis* and *P. torricellensis*, and (5) to phylogenetically place some potential new species and evaluate whether they merit species recognition. All accepted *Planchonella* species are then listed together with nomenclature, designation of lectotypes or neotypes (if necessary), and distribution.

■ MATERIALS AND METHODS

Taxonomy and sampling strategy. — We follow the latest subfamily concept of Chrysophylloideae (Anderberg & Swenson, 2003; Swenson & Anderberg, 2005) and use the classification proposed by Swenson & al. (2013, 2020). Accepted names and synonyms of Sapotaceae are continuously updated online in the Plants of the World Online, Royal Botanic Gardens, Kew (powo.science.kew.org).

Since the monophyly of *Planchonella* is well established (Swenson & al., 2013, 2019, 2020, 2023b), we use the monotypic genus *Sahulia* Swenson from New Guinea (Swenson & Kearey, 2020) as outgroup to root the phylogeny. We aimed to sample all accepted species by visiting many herbaria (BM, BO, BRI, CANB, K, L, MEL, P, S, SING), but failed finding suitable material for molecular analysis of 10 species, viz. *P. cyclopensis* P.Royen, *P. kaernbachiana* (Engl.) H.J.Lam, *P. kaniensis* (K.Krause) H.J.Lam, *P. keyensis* H.J.Lam, *P. menait* (Vink) Swenson, *P. schlechteri* (K.Krause) H.J. Lam, *P. tenuipes* (K.Krause) H.J.Lam, all from New Guinea, as well as *P. lamii* P.Royen, *P. paucinervia* (Erlee) Swenson, and *P. vrieseana* (Pierre ex Burck) Dubard from the

Indonesian and Philippine archipelagos. Accessions of six potentially new species were included; one from the Maluku Islands ("Bangun 685"), one from Borneo ("Soepadmo 41348"), one from Fiji ("Munzinger 6490"), one from Luzon ("Ridsdale 487"), and two from New Guinea ("Munzinger 6979", "Takeuchi 25496").

Species that are part of complexes with unclear limits have been sampled multiple times across their distributions. *Planchonella obovata* is represented by 25 accessions from the Seychelles in the west, Vietnam in the north, and Solomon Islands in the east. The *P. chartacea*/*P. linggensis* complex includes *P. chartacea*, *P. garberi*, *P. garcinioides* and *P. linggensis*, and is represented by 10, 5, 5 and 9 accessions, respectively. *Planchonella garberi* is from the Pacific islands and *P. garcinioides* mainly from New Guinea. Herbarium specimens of these four species are rather similar in habit, especially in leaf size, with the smallest leaves found in *P. chartacea* and *P. linggensis*, slightly larger in *P. garberi*, and largest in *P. garcinioides* (Fig. 2). Names were given to these specimens as they best concur with five reported key characters (Van Royen, 1957; Smith, 1981). In order to investigate whether it is possible to distinguish between *P. maclayana* and *P. pomifera* on leaf venation, eight and five collections, respectively, were eventually successfully sequenced. Six accessions of *P. torricellensis* eventually became available for molecular studies, one from New Guinea and five from Pacific islands. In total, 184 accessions were included in the phylogenetic analysis which represent at least 97 species, all of which are listed with voucher information and GenBank accession numbers in Appendix 1.

Citation of collectors' initials differ in the text. Voucher specimens mentioned in the text are cited without initials, but if available are listed in Appendix 1. Type material is always cited with collectors' initials provided they appear on the holo- or lectotype label. Species sampled with multiple accessions are cited with the surname initials, immediately followed by collection number in figures. The botanist Johannes Elias Teysmann (1808–1882) made numerous collections deposited in Bogor Herbarium (BO), usually without initials and collection numbers. His collections frequently received herbarium numbers in Bogor, numbers that only occasionally were annotated on specimens sent to other herbaria in Australia and Europe.

Molecular data. — Sequence data from nuclear ribosomal DNA (ETS, ITS) and the nuclear gene *RPB2* were used because they have, together with gap information, proven to provide useful information for phylogenetic inference in Sapotaceae (Swenson & al., 2013, 2019, 2020; Terra-Araujo & al., 2015; Faria & al., 2017). Different cpDNA regions have been tested elsewhere, especially across different genera, but found rather uninformative for phylogenetic inference (Swenson & al., 2013). Since we analyse a more inclusive group here, we consider the use of cpDNA as inappropriate. Plant material for DNA extraction was obtained as silica gel-dried leaf material, fragments removed from herbarium specimens, or aliquots used in previous phylogenetic studies. Extraction, amplification, and primers followed the protocols established by Bartish & al. (2005) for ITS, Swenson & al. (2008) for ETS, and Swenson & al. (2013) for *RPB2*. A complete list of used primers is reported in Swenson & al. (2020). Purified PCR products were sent to Macrogen Europe B.V. (Amsterdam, Netherlands) for Sanger sequencing. Sequence assembly and editing were done using Staden (1996).

In order to avoid possible issues with reproducibility (e.g., Eisner, 2018; Fanelli, 2018), all sequence data were realigned from scratch, locus by locus, rather than adding new sequences to existing data matrices used by Swenson & al. (2019, 2020, 2023b). Matrices were assembled in AliView v.1.26 (Larsson, 2014), manually checked, edited, and partly realigned, and then prepared in BEAUti v.1.10.4 (part of the BEAST package) as an input file for Bayesian inference. Gaps for each locus were manually scored as binary characters (present/absent) in separate partitions, disregarding uninformative deletions or inserts, homopolymer regions with high variability, and regions with ambiguous alignment.

Phylogenetic inference. — Phylogenetic relationships were estimated with Bayesian inference (Rannala & Yang, 1996; Yang & Rannala, 1997) and the aligned matrices were loaded into BEAST v.1.10.4 (Drummond & al., 2012; Suchard & al., 2018). Each locus was treated as a unique partition and tested for the best-fit substitution model using jModelTest2 (Darriba & al., 2012), assigning the HKY + Γ model (Hasegawa & al., 1985) to ETS and *RPB2*, and GTR + Γ to ITS. The BEAST package was primarily used to derive a tree topology of *Planchonella* in order to investigate species relationships and/or circumscriptions rather than divergence time estimates under an uncorrelated relaxed molecular clock assumption, which has been done elsewhere (Swenson & al., 2019). *Sahulia subopposititifolia* (H.J.Lam) Swenson was used as outgroup to root the tree, the parameters of the molecular clock were left unconstrained, and the root height was artificially fixed by using a normal prior with an arbitrary mean (100) and a narrow standard deviation (0.1). BEAST was run 10 times, each for 50 million generations while sampling from the posterior every 50,000 generations. After removal of a portion of each run as burn-in, the chains were checked for convergence and stable states in Tracer v.1.7 (Rambaut & al., 2018). Remaining samples were combined in LogCombiner v.1.10.4 and summarised onto a maximum clade credibility (MCC) tree in TreeAnnotator v.1.10.4 (part of the BEAST package). We used FigTree v.1.4.3 (Rambaut, 2013) to visualise the MCC tree. Clade support is reported as posterior probability (PP), where PP ≥ 0.95 is considered strong support, PP 0.85–0.94 moderate support, and PP ≤ 0.84 is considered indicative of relationships.

Morphological data. — Key morphological characters distinguishing *Planchonella chartacea*, *P. garberi*, *P. garcinioides*, and *P. linggensis* used by Van Royen (1957) and Smith (1981) were optimised onto the tree topology. They used five characters, including presence/absence of indumentum on sepals outer (char. 1) and inner (char. 2) surfaces; whether the tertiary leaf venation is reticulate or parallel (char.

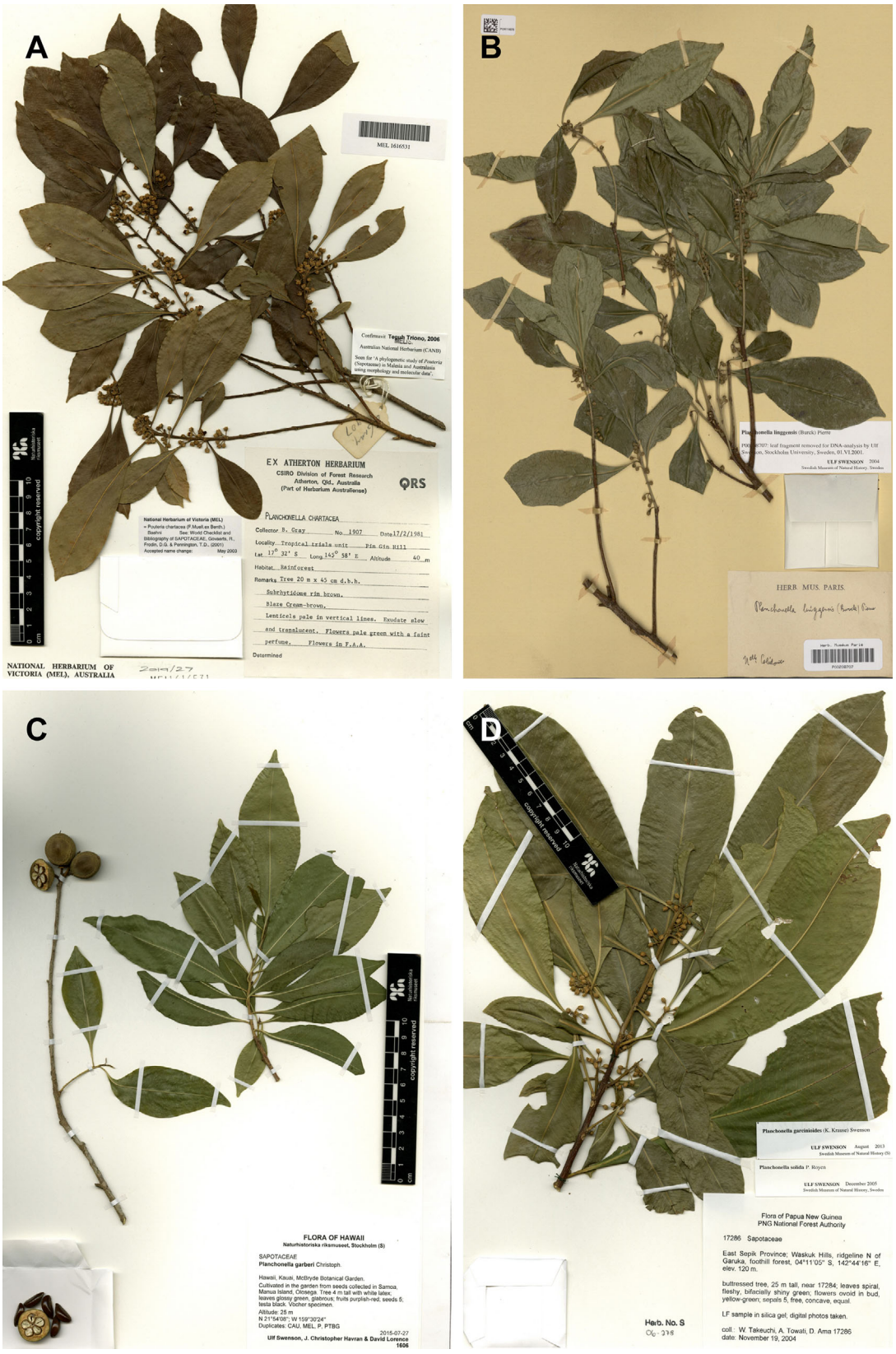


Fig. 2. Representative and voucher specimens of the *Planchonella chartacea*/*P. linggensis* complex. **A**, *P. chartacea*, *B. Gray 1907*, from Australia (MEL: MEL 1616531); **B**, *P. linggensis*, unknown collector, from New Caledonia (P: P00208707), **C**, *P. garberi*, *U. Swenson & al. 1606*, from American Samoa, cultivated in McBryde Botanical Garden, Kauai (S: S15-45472); **D**, *P. garcinioides*, *W. Takeuchi & al. 17286*, from New Guinea (S: S06-278).

3); if the mature fruit is longer/shorter than 20 mm (char. 4); and whether the fruit develops 4 or 5 seeds opposed to 1–3 seeds (char. 5).

Nomenclature and typification. — We identified types in various herbaria and designate lectotypes (as well as neotypes if necessary) in accordance with McNeill (2014) and the *International Code of Nomenclature of algae, fungi, and plants* (*ICN*, *Shenzhen Code*, Turland & al., 2018). Types seen in vivo or imaged are annotated with an exclamation mark (!). Second-step lectotypes are designated when necessary and several inadvertent lectotypifications (cf. Art. 7.11 and 9.17), mainly effected by Baehni (1942) and Van Royen (1957), are identified.

■ RESULTS

Molecular data. — Selecting herbarium material for molecular phylogenetics poses some challenges: judging whether the material was properly dried (i.e., rapidly, without decomposition), if it has been appropriately stored, if the age matters, and whether the material will yield useful and non-contaminated products. For the entire study, 212 samples were included, but 28 failed to yield any products, resulting in 184 useful accessions. ETS and ITS were less problematic, compared to *RPB2*, and, respectively, 73 and 69 new sequences are here published and used in the phylogenetic analysis. Four additional ITS sequences were obtained in order to investigate a specific question concerning *Planchonella duclitan*. *RPB2* consists of both introns and exons, yielding 1156 aligned nucleotides. Full-length sequences of *RPB2* are frequently difficult to obtain and we managed to obtain 48 sequences, but only 31% are in full length. Contamination has not been detected. Hence, 190 sequences are published here. The complete input file for the BEAST analysis contains a matrix of 184 accessions, 2451 characters (suppl. Appendix S1) distributed among 385 ETS nucleotides, 865 ITS nucleotides, and 1156 *RPB2* nucleotides, along with 45 characters coded as indels.

Tree topology. — The MCC tree topology of *Planchonella* obtained from the Bayesian analysis, rooted on *Sahulia*, is largely well-supported and concurs with previous estimated phylogenies (Swenson & al., 2019, 2020). *Planchonella baillonii* is sister to all other species, which are grouped into major clades that in turn form a grade, here reported in three figures (Figs. 3–5). One basal clade assembles all included accessions of *P. maclayana*, *P. macrantha* (Merr.) Swenson, and *P. pomifera*, three monophyletic species that we will return to (Q1 and Q2) in the discussion (Fig. 3). The next clade assembles 17 species endemic to New Caledonia (Q3). Sister to the New Caledonian clade is a well-supported clade that includes two subclades of which one groups all but two accessions determined to *P. chartacea*, *P. garberi*, *P. garcinioides*, or *P. linggensis* (Q8). However, two samples of *P. linggensis* are recovered with strong support in another subclade (Q4). Three more issues are found here: the placement of *P. teysmanniana* (Burck) Dubard (Q5); the undescribed taxon *Planchonella* "Soepadmo 41348" is related to a grade of *P. maingayi* (C.B.Clarke) P.Royen and *P. stellibacca* (J.F. Maxwell) Swenson (Q6); and that *P. grandifolia* (Wall.) Pierre is nested within *P. annamensis* Pierre ex Dubard. (Q7).

The middle part of the phylogeny (Fig. 4) recovered strong support for three deep branches and one branch with only an indication of relationships. Within the latter, two accessions, one each from Norfolk Island and New Zealand, form a monophyletic disjunct *Planchonella costata* (Endl.) Pierre (Q9). Another strongly supported clade (Q10) assembles one Australian species, *P. euphlebia* (F.Muell.) Francis, with 14 species endemic to New Caledonia and one that is restricted to Vanuatu. Many relationships within this latter clade are uncertain. The lower clade depicted in Fig. 4 has three issues, one pertinent to the identity of *Chrysophyllum bakhuizenii* P.Royen (Q11); the identity of three accessions from the Philippines (Q12); and the circumscription of the generic name-bringing species *P. obovata* (Q13). All but one accession of *P. obovata* fall within a well-supported clade, but it also includes *P. clemensii* and *P. mindanaensis*, making *P. obovata* polyphyletic.

The sister to the clade reported above is strongly supported with several well-supported subclades but mutual relationships of the subclades are uncertain (Fig. 5). Six strongly supported problems are identified, including the placement of *Chrysophyllum bakhuizenii* (Q11); embedment of *Planchonella peekelii* (K.Krause) H.J.Lam in *P. myrsinodendron* (F. Muell.) Swenson & al. (Q14); a new species from the Maluku Islands (Q15); a complex of large-leaved species from New Guinea (Q16); relationships and delimitations of *P. duclitan*, *P. spectabilis*, and *P. torricellensis* (Q17); and species limits of *P. forbesii*, *P. polyneura*, and *P. torricellensis* (Q18).

***Planchonella chartacea* complex. —** Five key morphological characters to distinguish *Planchonella chartacea*, *P. garberi*, *P. garcinioides*, and *P. linggensis* were mapped on Q8 of Fig. 3. Twenty-seven accessions were scored, having 135 data points of which 30 (22%) are scored as unknown (question marks). Some characters were scored as variable, especially sepal indumentum and tertiary leaf venation (Fig. 7).

■ DISCUSSION

Our Bayesian inference analysis of the phylogenetic relationships of *Planchonella* using three nrDNA loci and indel data of 184 terminals, including 88%–90% of the species pool, provides a platform to discuss the 18 identified problems or questions addressed in our Results. These will be discussed in the order as they appear in the phylogeny (Figs. 2–4), i.e., Q1–Q18.

***Planchonella maclayana* and *P. pomifera* (Q1, Q2). —** In order to place the genus *Beauvisagea* in Sapotaceae, Swenson & al. (2020) sequenced type material of *B. pomifera* (specimen *B533*) and demonstrated that *Pouteria doonsaf* P.Royen (specimens *MD3750* and *M2236*) was described based on

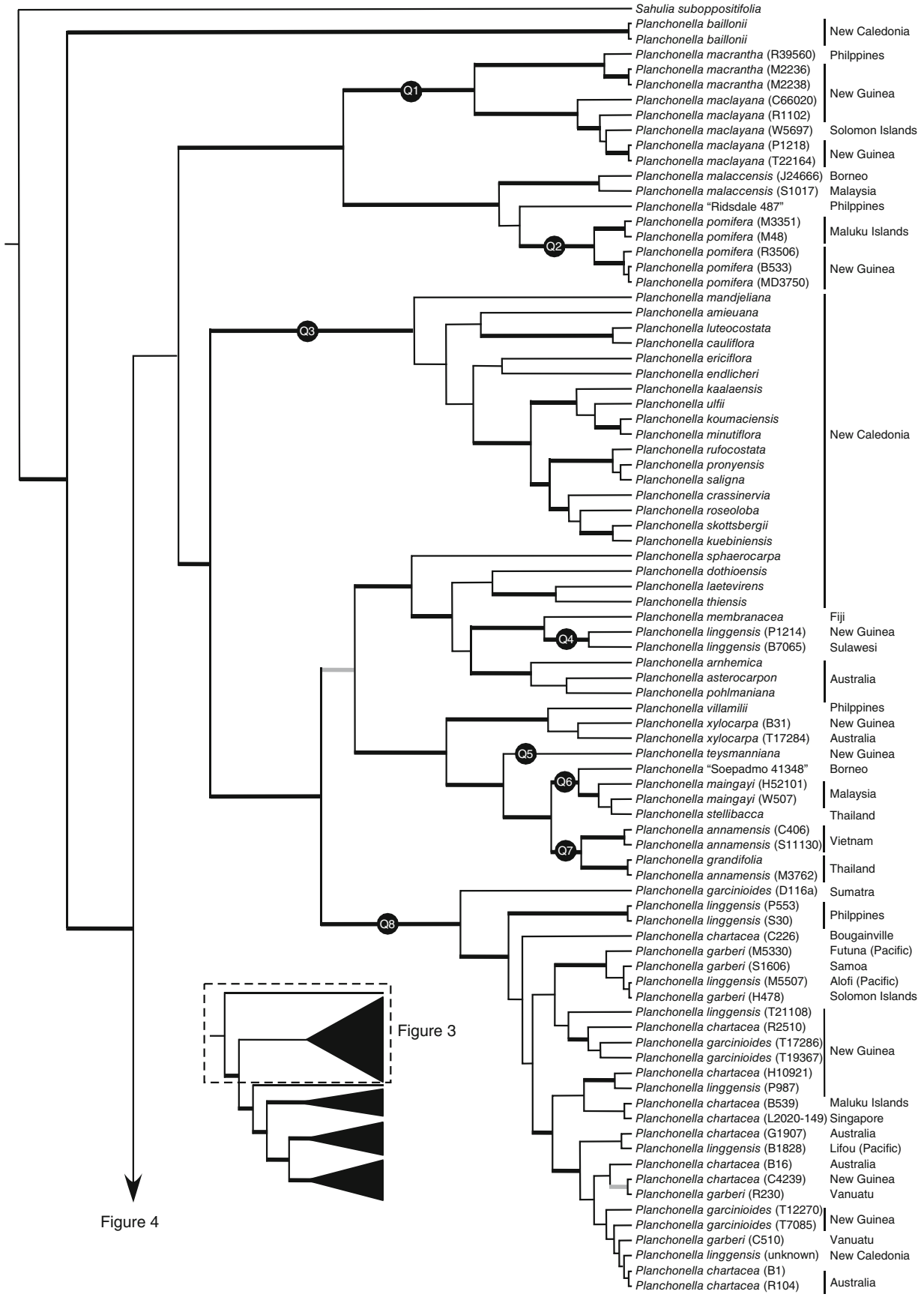


Fig. 3. Caption on next page.

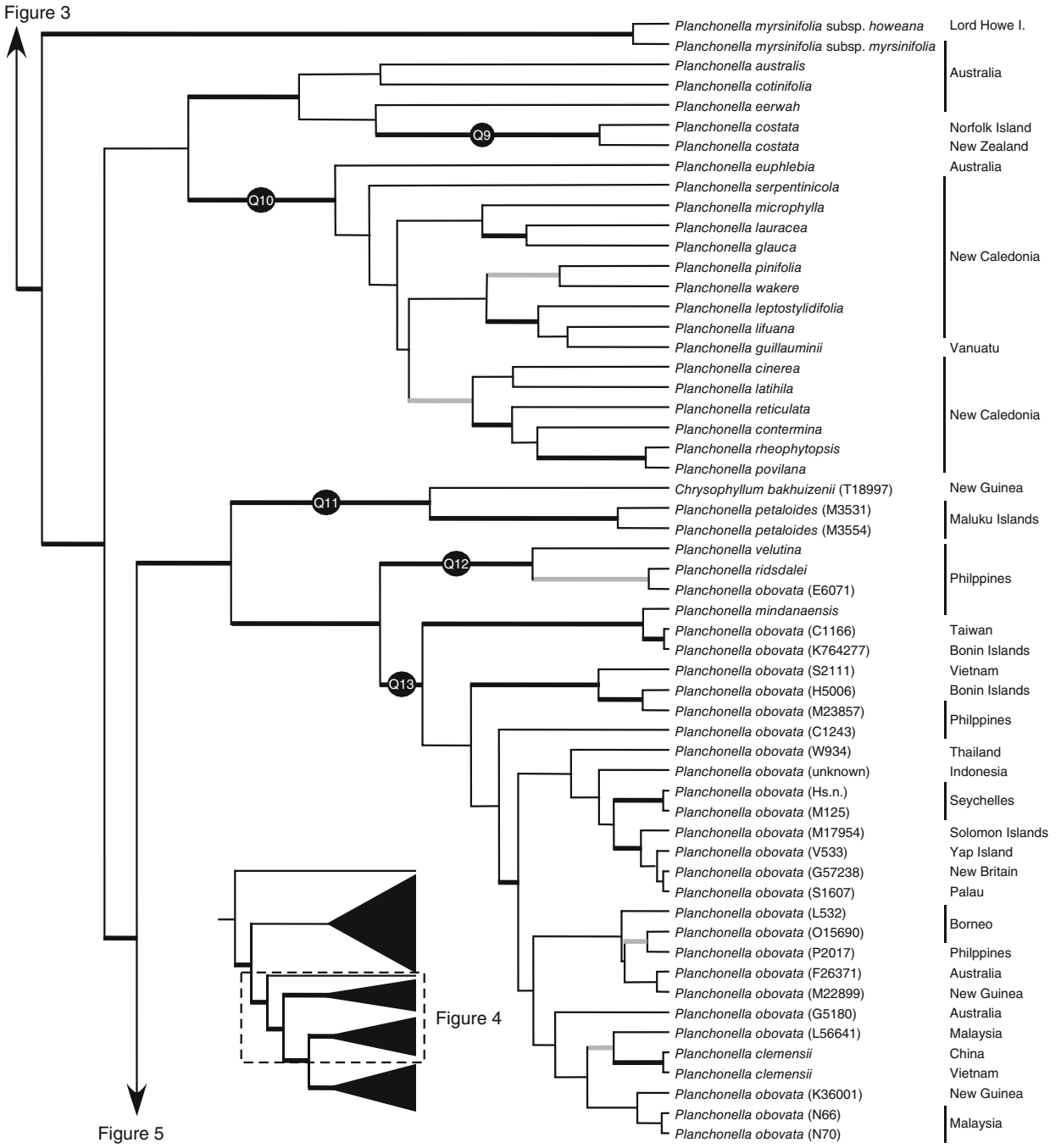


Fig. 4. Continuation of the MCC tree of *Planchonella* from Fig. 3 with the second part of the phylogeny. Another five problems are highlighted with black circles (Q9–Q13), among them the variable type species *P. obovata*. Distributions are indicated on far right. Clade support is shown as thick black branches (PP ≥ 0.95) or thick grey branches (PP 0.85–0.94).

Fig. 3. First part of the maximum clade credibility (MCC) tree of *Planchonella* (Chrysophylloideae, Sapotaceae) obtained from the BEAST analysis of nrDNA (ETS, ITS, *RPB2*). The tree is rooted on *Sahulia suboppositifolia* from New Guinea. Eight problems discussed in the text are indicated with black circles (Q1–Q8). Multiple accessions of the same species are indicated in parentheses with a capital letter of the first collector and the collection number (see Appendix 1). Distributions are indicated on far right. Clade support is shown as thick black branches (PP ≥ 0.95) or thick grey branches (PP 0.85–0.94).

material from at least two different species. Sequences of the specimen *MD3750* were identical to and conspecific with the earlier described species *P. pomifera* (specimen *B533*), while the specimen *M2236* could possibly be assigned to *P. maclayana* or to an unidentified species, identified here as *P. macrantha*, a species not previously known from New Guinea (Fig. 3). *Planchonella maclayana* and *P. pomifera* are two rather large-leaved species which are difficult to separate. The former is believed to occur from Borneo in the west to Solomon Islands in the east and the latter occurs only in Western New Guinea (powo.science.kew.org). Both have globose fruits similar in size to a modern cultivated apple, even if *P. maclayana* seems to have slightly larger fruit, up to 13 cm in diameter and with a ferruginous lanate surface. Fruit of the latter is believed to be smaller with a dark, ferruginous tomentum that soon falls off. Many collections in various herbaria comprise only leaves, or have fruits stored in carpological collections and therefore not immediately available, which most likely contributes to misidentifications. Therefore, Swenson & al. (2020) called for a more extensive sampling, analysed in a molecular framework to investigate if it is possible to distinguish the species on leaf venation.

Five collections each of *Planchonella maclayana* and *P. pomifera*, identified on the tertiary leaf venation pattern described above, were successfully sequenced. One sample of *P. macrantha* (*R39560*) and two earlier referred to *Pouteria doonsaf* (*M2236*, *M2238*) were also included. These 13 samples were recovered in three strongly supported clades, each corresponding to *P. maclayana*, *P. macrantha* and *P. pomifera*, showing that some specimens earlier included

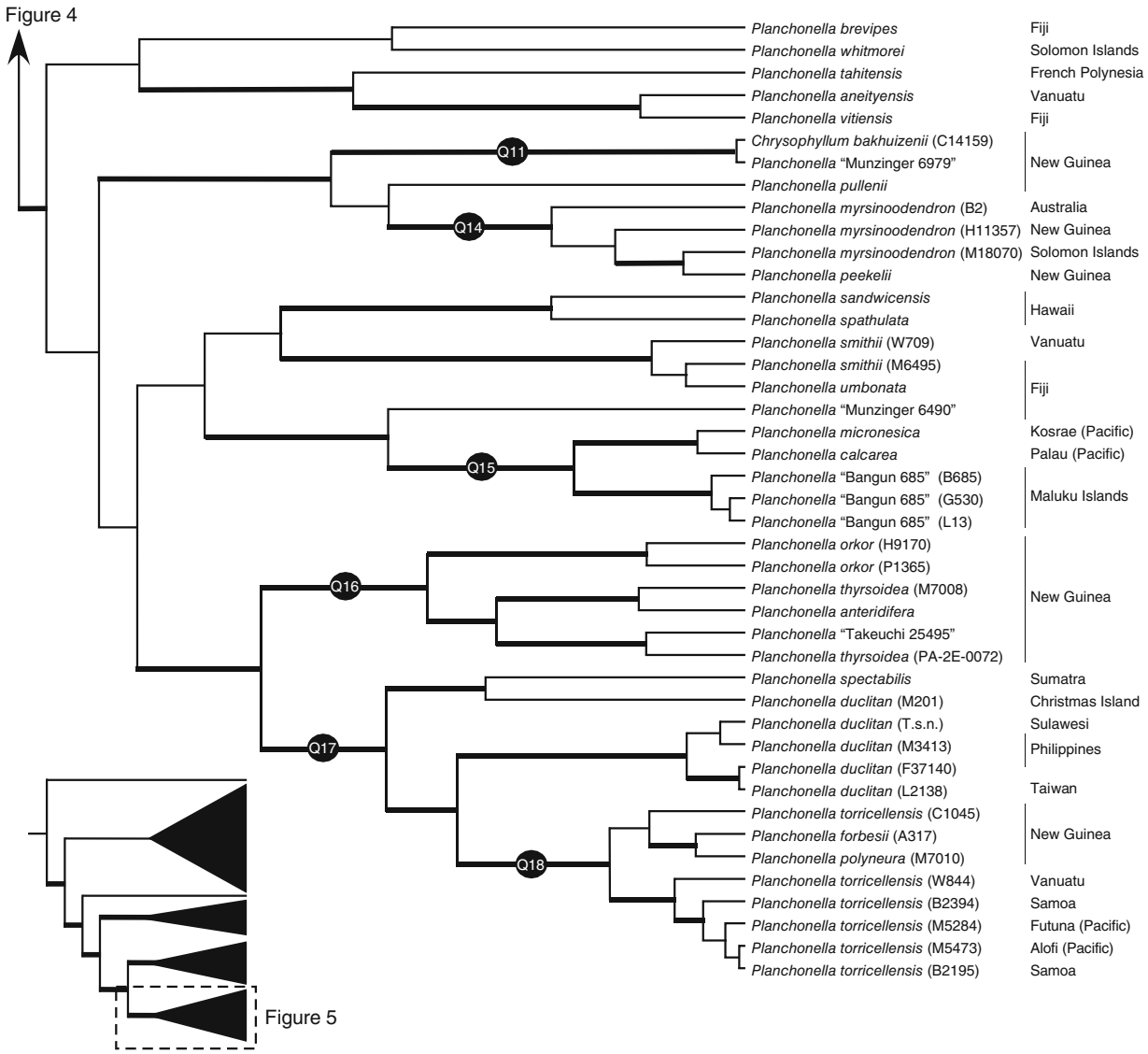


Fig. 5. Continuation of the MCC tree of *Planchonella* from Fig. 4 with the last part of the phylogeny. Another five problems are highlighted with black circles (Q14–18), for example the identity of *P. duclitan*. Distributions are indicated on far right. Clade support is shown as thick black branches (PP ≥ 0.95) or thick grey branches (PP 0.85–0.94).

in the polyphyletic taxon *Pouteria doonsaf* are better accommodated in *P. macrantha* than in *P. maclayana* (Fig. 3). These three species are very similar and difficult to distinguish without complete material of flower and fruit, but there are morphological patterns we believe are helpful.

All three species have glabrous leaves that are superficially similar; sepals are tomentulose outside, and the fruits are large and ± globose. *Planchonella maclayana* has broadly obovate to elliptic leaves, frequently reaching a length of 25 cm, a variable apex, and the tertiary veins are ± perpendicular to the midvein, rather long, and some are usually bent nearly 90° towards the secondary vein below (Fig. 6A). Sepals are glabrous inside and the fruits are up to 13 cm in diameter, and have a short, light brown, almost lanate indumentum that eventually falls off, at least in patches. *Planchonella macrantha* is a poorly known taxon that usually has broadly elliptic to oblanceolate leaves, believed to reach 29 cm in length, with an acute to round apex, making it rather easy to distinguish, but in Bird's Head Peninsula (New Guinea), the leaves are more obovate without a pronounced acute leaf apex and easily confused with *P. maclayana* or *P. pomifera*, but smaller. Tertiary and higher leaf venation are more reticulate (Fig. 6B). Sepals were reported to be sericeous within (Herrmann-Erlee & Van Royen, 1957), with an indumentum actually limited to the margin, combined with a glabrous surface inside. Fruits are ferruginous tomentose, soon glabrous, and up to 6 cm in diameter (Herrmann-Erlee & Van Royen, 1957). Leaves of *P. pomifera* are usually 20–25(–30) cm long and the tertiaries are more gently bent without a 90° kink (Fig. 6C). Sepals have a sparse indumentum on the inner surface, and young fruits have a dark, ferruginous tomentum, that quickly falls off.

A clade of endemics for New Caledonia (Q3). — *Planchonella* is represented in New Caledonia by 38 described species, all but one endemic, and 13 being described since 2007 (Swenson & al., 2007a; Munzinger & Swenson, 2009; Munzinger, 2015; Gâteblé & al., 2018). Fruits of *Planchonella* are usually globose and smooth (Fig. 1H), but most species in the Q3-clade (Fig. 3) have ridged fruits, each ridge usually corresponding to a seed (Fig. 1K). We once speculated whether the ridged fruit could be a synapomorphy for this clade, but that is not supported since *P. endlicheri* (Montrouz.) Guillaumin and *P. ericiflora* Munzinger & Swenson have smooth fruits, and *P. kaalaensis* Aubrév. and *P. mandjeliana* Munzinger & Swenson develop only weak ridges.

A new species from Indonesia (Q4). — *Planchonella chartacea* and *P. linggensis* form a mixed species complex (Q8) that we return to below, but Swenson & al. (2019, 2020) placed one accession (*P1214*) of the latter as sister to

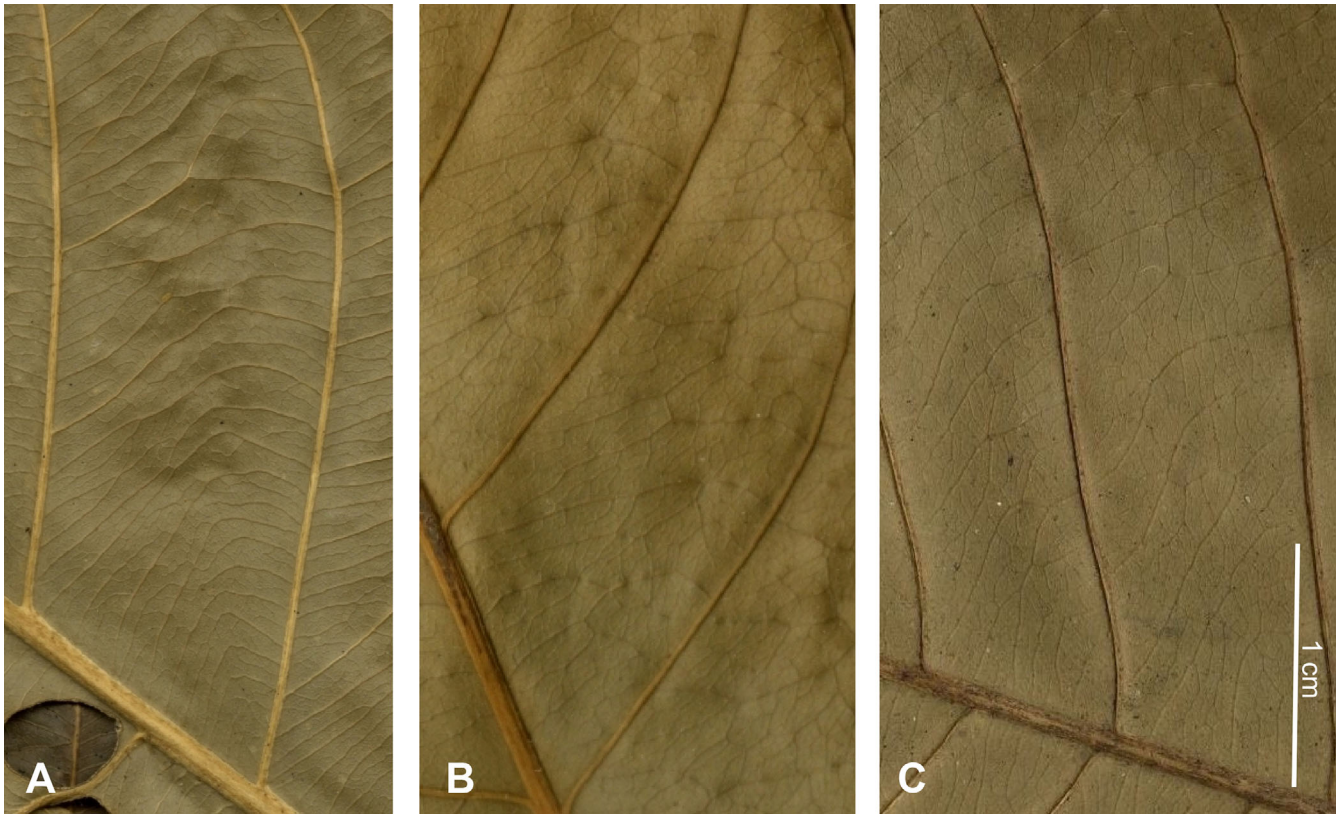


Fig. 6. Tertiary leaf venation of three similar species of *Planchonella*. **A**, *Planchonella maclayana* with rather long tertiaries that, from the midvein, distally bend nearly 90° towards the secondary vein below, and beyond becoming ± oblique; **B**, *Planchonella macrantha* with a more reticulate venation; **C**, *Planchonella pomifera* with shorter tertiaries without a distinct 90° kink. Scale applies to the figure in its entirety.

P. membranacea H.J.Lam rather than with the other accessions of the complex. Without discussing it further, the lineage including *P1214* diverged from the *P. chartacea*/*P. linggensis* complex 25.2 Ma (32.2–18.5 Ma) (Swenson & al., 2019). Our current analysis places another accession (*B7065*) from Sulawesi as sister to *P1214* from New Guinea in a clade with at least 15 other species distributed in Australia, New Caledonia, the Philippines, and mainland Southeast Asia (Fig. 3). A cursory inspection of the material reveals only differences in sepal indumentum, viz. the outer surface of the two outer sepals is glabrous while the three inner sepals have a fawn or golden tomentulose indumentum with a glabrous margin, as opposed to a similar indumentum on all sepals of *P. chartacea*/*P. linggensis*. In summary, considering the clear molecular difference, we believe that *B7065* and *P1214* (and additional specimens we have identified) represent a new species that needs to be described.

Revival of *Planchonella teysmanniana* (Q5). — A leaf fragment of a green specimen (*Takeuchi 7166*) with almost sessile fruit from Papua New Guinea, housed in the Leiden

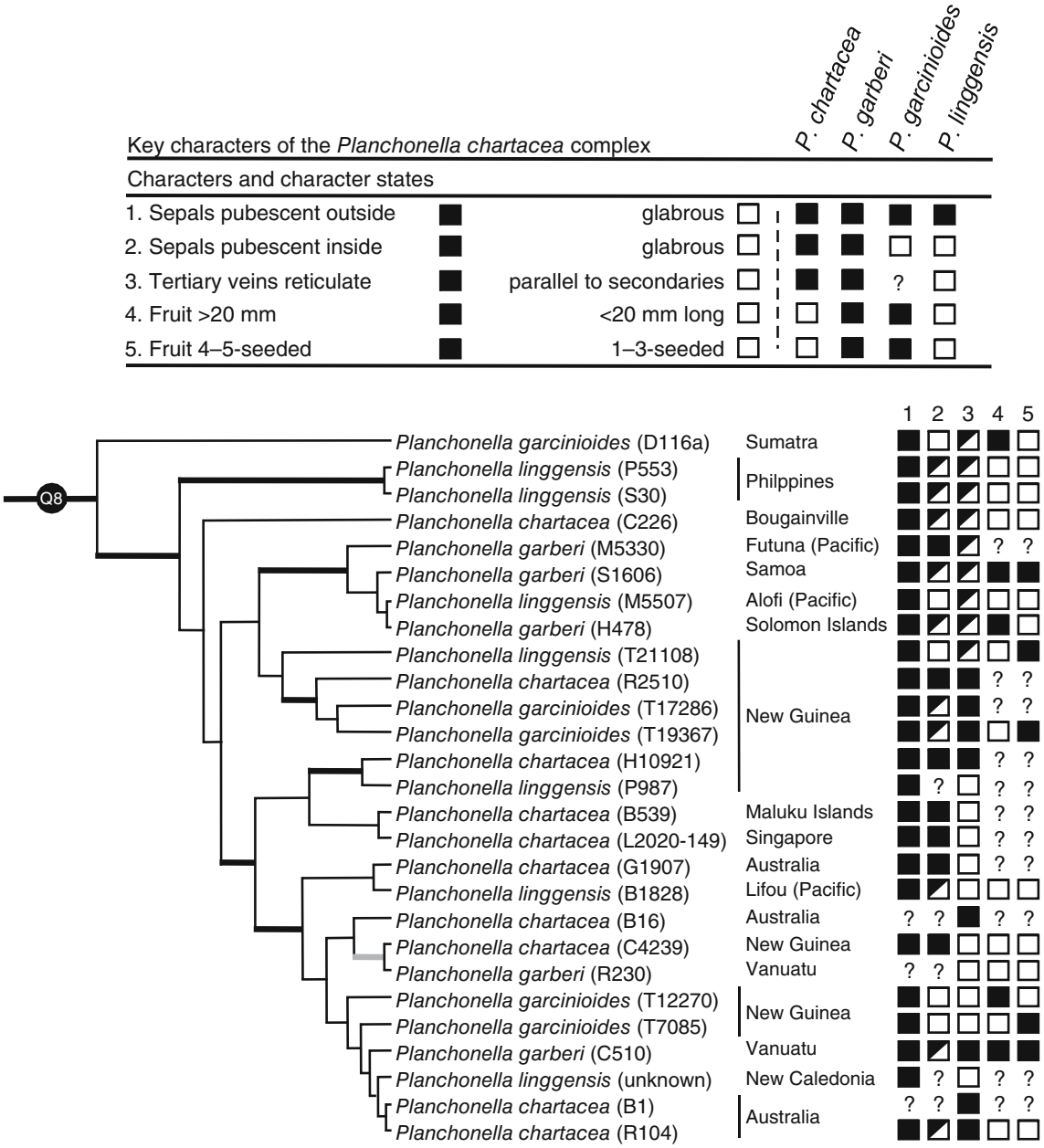


Fig. 7. Key characters distinguishing *Planchonella chartacea*, *P. garberi*, *P. garcinioides* and *P. linggensis*, and their distribution. Squares with both character states indicate variation, i.e., some sepals have indumentum as opposed to others which are glabrous. Accessions under the same name are not grouped in clades and clade support merely indicates specimen relationships without any coherent pattern. Thick black branches indicate strong support (PP ≥ 0.95) and thick grey branch indicates moderate support (PP 0.85–0.94).

Herbarium (L 0790576), was sequenced, analysed, and placed in *Planchonella* but not identified to species by Swenson & al. (2019, 2020). The first author believed it represented an undescribed species until type specimens of *Sideroxylon teysmannianum* Burck, or *P. teysmanniana* (Burck) Dubard, were located in Melbourne (MEL 2467334) and Bogor (BO No. 092449) herbaria. Burck (1885) described the species on leaf features and stated (p. 19), "Flores et fructus adhuc ignoti", translating to "Flowers and fruit still unknown". This concurs with the type specimen housed in Melbourne, but the type specimen (*Teysmann 7486*) in Bogor has a single, almost sessile flower that lacks a corolla. Based on a constant leaf shape and venation, Lam (1925) united it with *Planchonella firma* (Miq.) Dubard, a species now placed in *Pleioluma*, a genus characterised partly by an areolate higher-order leaf venation, which is absent in *Planchonella* (Swenson & al., 2013). Distribution of *P. teysmanniana* is admittedly odd, with two known collections, the type from Gebe Island east of the Moluccas and a more recent collection from the Herzog Mountains in Papua New Guinea. However, both have same leaf shape and size, eucamptodromous leaf venation, rather tight, oblique tertiaries, non-areolate higher venation, and almost sessile flowers and fruit, which prompt us to believe that they are conspecific, enough evidence to reinstate *P. teysmanniana*.

A new species from Borneo (Q6). — An interesting Sapotaceae specimen was collected in Sabah (Borneo) in the 1980s and determined to *Eberhardtia* Lecomte (Pennington, 1991), a genus earlier known only from continental Southeast Asia. This species was listed and illustrated as *E. aurata* (Pierre ex Dubard) Lecomte in the *Tree flora of Sabah and Sarawak* (Soepadmo & al., 2002). A cursory comparison of the species description and the illustrated plant (*Soepadmo & al. 41348*) revealed that the plant was misidentified. For example, *E. aurata* has an almost silvery pellicle on the lower leaf surface, lanceolate stipules, and globose, tomentose fruit, as opposed to the illustrated plant, which has a brown, pilose indumentum, no stipules, and smoothly ridged fruit with a velvety, brown indumentum, resembling the surface of a brain. Collections from Sabah were available at the herbarium at the Royal Botanic Garden Edinburgh (E) and a loan was requested for molecular and morphological studies. GenBank blast of the generated ITS sequence indicated a placement in *Planchonella* and it was included as *Planchonella* "Soepadmo 41348" in the current study. Our BEAST analysis placed it as sister to accessions of *P. maingayi* and *P. stellibacca* (Fig. 3), two species with smaller, almost glabrous leaves and globose fruit (often ridged in *P. stellibacca*) that may have some brown, dehiscent indumentum, not at all similar to "Soepadmo 41348". Five collections, all from Sabah, have been located and we conclude that this is a new species of *Planchonella*, not *Eberhardtia*, which is still unrepresented in Borneo.

***Planchonella annamensis* and *P. grandifolia* (Q7). —** These two species just overlap one another in continental Southeast Asia. *Planchonella grandifolia* occurs from Assam (India) in the west to Yunnan (China) and Cambodia in the east, replaced by *P. annamensis* in Laos, Vietnam, and Guangxi (China) in the east (Aubréville, 1963; Santisuk & Balslev, 2014; powo.science.kew.org). Both have obovate leaves, but the former has larger than the latter. *Planchonella annamensis* was represented in the study by two accessions from Vietnam and one from Thailand, whereas *P. grandifolia* was represented by a single accession from Thailand. All four accessions were recovered in a strongly supported clade with two subclades formed by accessions from Thailand and Vietnam, respectively. Hence, *P. grandifolia* is embedded in *P. annamensis* and further inspection of types and additional material revealed no diagnostic features, other than a variable leaf size. We conclude that these two species cannot be separated, that they represent a single taxon, and that the name *P. grandifolia* has priority over *P. annamensis*.

***Planchonella chartacea*/*P. linggensis* complex (Q8). —** Circumscription of *Planchonella chartacea*, *P. linggensis*, and *P. garberi* has been controversial over many years. Baehni (1942) placed the former in *Sideroxylon* L., the second in synonymy with *Pouteria oxyedra* (Miq.) Baehni, and the latter as an accepted species in *Pouteria*. In contrast, Van Royen (1957), in his revision of *Planchonella*, reduced these three taxa to varieties of *P. linggensis* and pointed out that the type specimen of *Sideroxylon oxyedrum* Miq. (= *Pouteria oxyedra*) is sterile, a specimen representing "a quite different species" (p. 385) and believed it was not a member of *Planchonella*. In the same issue of *Blumea*, Herrmann-Erlee & Van Royen (1957) revised *Pouteria* for Australasia without justifying morphological differences compared to *Planchonella* and described *Pouteria celebica* Erlee from Sulawesi. Let us first sort out the two *Pouteria* species, *P. celebica* and *P. oxyedra*.

The type material of *Pouteria oxyedra* is sterile but the type of *P. celebica* has buds. Both types have the same leaf shape, size and venation, and are generally similar. Flowers are 5-merous, here with young corolla, staminodes and stamens, which are inserted near the base of a very short, 1 mm long corolla tube (Herrmann-Erlee & Van Royen, 1957; U. Swenson, pers. obs.). However, insertion point is not necessarily near the tube base because the tube is undeveloped and stamens would most likely be inserted just below the tube orifice in a fully developed corolla. All this supports a placement in *Planchonella*. A placement in *Pleioluma* (or *Pichonia* or *Sersalisia* R.Br.) is rejected since the plant lacks areolate higher-order leaf venation. Very little material of this species has been located, none suitable for molecular analysis, but it is not a member of the *P. chartacea*/*P. linggensis* complex and we tentatively accept it as *P. oxyedra* (Miq.) Dubard.

Smith (1981), in his Flora of Fiji, argued that *Planchonella garberi* was restricted to the Pacific and to be accepted on species level and separated from *P. linggensis* based on larger corolla, projecting style, larger fruit and seeds, and 4 or 5 seeds per fruit, not 1–3 as in *P. linggensis* (*P. chartacea* was not discussed). Govaerts & al. (2001) accounted for all three species in *Pouteria*, together with the

rather large-leaved species *P. garcinioides* (K.Krause) Baehni from New Guinea. Molecular analysis of *P. chartacea* and *P. linggensis* (Swenson & al., 2007a,b, 2013), and subsequently also *P. garberi* and *P. garcinioides* (Swenson & al., 2019), have strengthened the vision that circumscriptions of these four taxa are better tested in a phylogenetic context. Our analysis placed 27 accessions in a strongly supported clade with 8 out of 25 branches being moderately to strongly supported, indicating the following: (1) there is no clade that groups accessions with the same name, (2) there is no clade that groups all accessions from the same geographical area (e.g., Australia, New Guinea, or Pacific islands), (3) there is no clade that groups accessions with the same morphology, (4) and there is not a single voucher specimen that fully concurs with the alleged species morphology (Fig. 7). Only two accessions from Palawan, Philippines (*P553*, *S30*), have some coherence and differ in having an ensiform rather than obovate leaf shape. Moreover, *P. garcinioides* from Sumatra (*D116a*), a rather large-fruiting specimen, is sister to all other accessions, including the two specimens from Palawan. Because of this and that the sister node only is an indication of relationships, we refrain from accepting the Palawan population as a separate species. The oldest published names for this complex are *Achras chartacea* F.Muell. ex Benth. (1868) and *Sideroxylon linggense* Burck (1885), and as such it follows that *P. chartacea* (F.Muell. ex Benth.) H.J.Lam is the name to use for this complex.

***Planchonella costata* (Q9). —** Circumscription of the Pacific species *Planchonella costata* has varied over the years. In the 1950s, Van Royen (1957) accepted four varieties, two restricted to Fiji. In the 1980s, Smith (1981) gave species rank to three of them, all endemic to Fiji and believed *P. costata* to be restricted to New Zealand and Norfolk Island. Subsequent phylogenetic analyses have supported Smith's view, viz. *P. smithii* (P.Royen) A.C.Sm., *P. umbonata* (P.Royen) A.C. Sm., and *P. vitiensis* Gillespie are better recognised at species level since they are not always one another's closest relative and they differ in morphology (Swenson & al., 2007a, 2013, 2019). However, it was recently established, but not explicitly discussed, that the populations of *P. costata* in New Zealand and Norfolk Island are sisters, estimated to have diverged at 3.5 Ma (8.7–0.8 Ma) (Swenson & al., 2023b). This sister relationship is here confirmed and supports Smith's view from the 1980s (Fig. 4).

***Planchonella guillauminii* (Q10). —** Biogeography of *Planchonella* is complex and its members have colonised different islands in the Pacific many times since the estimated origin of the genus at 44.6 Ma (Swenson & al., 2014, 2019). The genus has colonised New Caledonia five times, an area presumed never to have acted as a stepping-stone or source area for colonisation of islands north or east of the archipelago. Our analysis, however, placed *P. guillauminii* H.J.Lam, a species occurring in Solomon Islands and Vanuatu, as sister to *P. lifuana* (Baill.) Pierre ex Dubard, a species endemic to the Loyalty Islands (part of New Caledonia). Hence, we have here identified a case when New Caledonia did act as a source area for subsequent dispersal to the northeast.

Identity of *Chrysophyllum bakhuizenii* (Q11). — Obtaining molecular sequences from old type material for phylogenetic analyses can be of tremendous importance for determining incomplete or juvenile specimens (Swenson & al., 2020; Sánchez-C. & al., 2022). Swenson & al. (2013) used the collection *W. Takeuchi & al. 18997* with young fruit, collected in moist forest at 840 m altitude in Papua New Guinea, Morobe Province, and determined it as *Chrysophyllum bakhuizenii* P.Royen. After comparing its morphology with *Planchonella lamii* P.Royen from the Maluku Islands (Indonesia), they believed these taxa were conspecific and united them. As part of a later analysis aimed at resolving relationships of two enigmatic genera, a sterile specimen (*J. Munzinger & al. 6979*) with large leaves from Mount Wilhelm, Madang Province, Papua New Guinea, once determined as *Pouteria doonsaf*, proved to be misidentified because it did not group with or close to sequenced specimens cited in the protologue of *P. doonsaf* (Swenson & al., 2020). We here successfully obtained ETS, ITS, and *RPB2* sequences from a leaf fragment of the type of *C. bakhuizenii* (*C.E. Carr 14159*), collected at Alola, Oro Province, Papua New Guinea, a species here included with two accessions (*Takeuchi & al. 18997*, *C.E. Carr 14159*). Our analysis did not group these two accessions as sisters. Instead, the first mentioned was placed on a rather long branch, sister to *P. petaloides* H.J.Lam and most likely represents an undescribed species (Fig. 4), while the other specimen (the type of *C. bakhuizenii*) was recovered as sister to *J. Munzinger & al. 6979* from Mount Wilhelm (Fig. 5; Q11). Comparing sequences from these two specimens reveals identical sequences except from some nucleotides annotated as uncertain. One could suspect contamination of the former, an almost 90-year-old collection, but it was sequenced for this study, while the *J. Munzinger & al. 6979* was sequenced more than five years ago for a different study (Swenson & al., 2019). The holotype of *P. lamii* was recently examined in the Bogor Herbarium (BO), a specimen with brown leaves, calyx, and young fruit (additional material was not located), suggesting that it is not conspecific with *C. bakhuizenii*, but possibly with *P. obovata*. In short, *C. bakhuizenii* is a member of, and is here transferred to, *Planchonella*; *Takeuchi & al. 18997* and another eight collections represent a new taxon that deserves recognition; and *P. lamii* is accepted with doubt and ought to be examined under molecular phylogenetics.

Resurrection of *Planchonella merrillii* (Q12). — Dubard (1912) described *Planchonella merrillii* Dubard from the Philippines in honour of the American botanist Elmer D. Merrill (1876–1956), who studied the flora of the archipelago for more than 20 years. Lam (1925), in his account of Sapotaceae of Southeast Asia, synonymised *P. merrillii* with *P. obovata*, and the species has remained in synonymy ever since (Baehni, 1942; Van Royen, 1957; Govaerts & al., 2001). Later, *Pouteria ridsdalei* Vink was described

from Mindoro, the Philippines, and associated with *P. obovata*, distinguished by having a thinly sericeous corolla, especially near the base, not glabrous as in *P. obovata* (Vink, 2002). Vink was likely unaware of *P. merrillii* from the neighbouring island of Luzon since it was not mentioned by him. Inspection of the type of the latter (*A.D.E. Elmer 6071*) revealed a corolla base with a ring of short, stout trichomes, plus some scattered trichomes on the outer corolla surface, concurring with the diagnostic of *P. ridsdalei*. When sampling for the current study, we successfully obtained molecular sequences from the type of *P. merrillii* and a paratype of *P. ridsdalei*, two accessions placed as sisters in the phylogeny, and together sister to *P. velutina* (Elmer) H.J.Lam, forming a well-supported sister clade to *P. obovata* s.str. (Fig. 4). Indumentum on the lower leaf surface is a promising distinguishing feature, greyish to fawn sericeous or velutinous in *P. velutina*, floccose and glabrescent in *P. merrillii*, but the tomentulose indument in *P. obovata* is more variable, everything from silvery, fawn, to ferruginous. Suffice to say, the molecular and morphological evidence is unambiguous and we conclude that *P. merrillii*, a name from 1912, deserves resurrection, while *P. ridsdalei* is a later heterotypic synonym from 2002 and should be reduced.

Circumscription of the type species *Planchonella obovata* (Q13). — *Planchonella* was established by Pierre (1890) and conserved against *Hormogyne* with *P. obovata* as the type (Blake & al., 1953). Lam (1925) and Baehni (1942), placed *Planchonella obovata* in *Planchonella* and *Pouteria* respectively, and united many taxa with it. At present are no less than 50 names in synonymy under *P. obovata*.

Morphology of *Planchonella obovata* is rather constant but some key characters vary across the species distribution. Plants from Queensland, Australia, including the type locality at the Endeavour River, as well as New Guinea, have obovate leaves with silvery to fawn tomentulose indumentum on the lower leaf surface, pedicel, and sepals, but trichome density decreases from the calyx base towards the sepal apices, usually forming a rather broad, glabrous, ciliate margin, especially on the inner three sepals. Flowers are rather open, more or less cup-shaped, and greenish (Fig. 1F,G). Fruits are usually 1–seeded, slightly oblique, and less than 10 mm long. These plants can be compared with collections from the Bonin Islands, which have smaller leaves, ferruginous indumentum on the lower leaf surface, pedicel, and the entire outer sepal surface, but the sepal margin is still ciliate and the fruit is small, oblique, and often 1-seeded. These plants match *Sideroxylon ferrugineum* Hook. & Arn., described from the Bonin Islands, a species later transferred to *Planchonella* and eventually united with *P. obovata*. In the Seychelles, the species' most western outpost, leaves, pedicels and sepals are glabrous, but the sepals still have a ciliate margin, the fruit is slightly oblique, and slightly larger, up to 12 mm long.

Swenson & al. (2019, 2020) indicated that the circumscription of *Planchonella obovata* was likely inaccurate. While all accessions of the species were indeed grouped in one clade, accessions of *P. clemensii* from Southeast Asia and *P. mindanaensis* from the Philippines were also nested in the same clade. Apart from the resurrection of *P. merrillii* (see above), our analysis placed 24 accessions sampled across the distribution of *P. obovata* plus two accessions of *P. clemensii* and one of *P. mindanaensis* in a strongly supported clade, consistent with earlier results (Fig. 4). Morphology of *P. mindanaensis* matches the type of *P. obovata*, for example, with ciliate inner sepals and slightly oblique fruits, but leaves and fruits are somewhat larger, and fruits have been recorded with up to four seeds. *Planchonella clemensii*, known from Hainan (China) and Vietnam, is possibly the most different entity with lanceolate (not obovate) leaves, a few scattered trichomes along the pedicel, and glabrous sepals without a ciliate margin, and could possibly be recognised at subspecific rank within *P. obovata*. Support for a sister relationship for the two is strong, but *P. clemensii* is nonetheless placed in a derived position and nested among samples of *P. obovata* from Australia, Malaysia, and New Guinea. Accordingly, we refrain from accepting *P. clemensii* as a distinct taxon at any rank, and unite *P. clemensii* and *P. mindanaensis* with *P. obovata*, the most widespread species in the genus and distinguished by rather open, cup-shaped, often greenish flowers, sepals with varying tomentum but nearly always with ciliate margins, ±10 mm long, slightly oblique fruit with one (occasionally up to four) seed.

The identity of *Planchonella peekelii* (Q14). — Krause (1923) described *Sideroxylon peekelii* K.Krause, later transferred to *Planchonella* (Lam, 1932), from the Bismarck Archipelago (New Britain) based on a flowering specimen (*Peekel 676*) with areolate leaf venation, stamens inserted deep down in the corolla tube, hispid gynoecium and a glabrous style. The original material, not accompanied with an illustration, was deposited in the Berlin Herbarium, which was destroyed during World War II. However, Lam (1932) illustrated *Peekel 676* before the outbreak of World War II, an illustration deposited in the Leiden Herbarium (U.1731184). Loss of the type material prompted Van Royen (1957) to designate a neotype (*R.S. Haas 158*) from the Leiden Herbarium, but he selected a specimen in bud and fruit, not in flower, which was the phenological state of the original material. The collection *R.S. Haas 158* has been impossible to relocate in Leiden, but two duplicates under the same herbarium number have been located in the Queensland Herbarium (BRI AQ0022581).

We obtained ETS and ITS sequences (*RPB2* failed) from the isoneotype *R.S. Haas 158* and analysed it phylogenetically, which placed the specimen in a clade of *Planchonella myrsinodendron*. *Planchonella myrsinodendron* is possibly one of the easiest members of *Planchonella* to recognise, especially in fruit because the remnant style is surrounded by a glabrous, verrucose area, to our knowledge not found elsewhere in the genus. Close examination of the isoneotype, compared with the protologue, shows that it has reticulate higher leaf venation (not areolate), 1 mm long sepals (not 3 mm long), and a fruit apex with a verrucose area around the persistent style. In addition, the illustration of *Peekel 676* shows two corolla lobes with stamens inserted below the

middle of the corolla tube, a feature typical for *Pleioluma*, not *Planchonella*, which usually has stamens inserted just below the corolla tube orifice. We conclude that *P. peekelii* is most likely a member of *Pleioluma*, that the neotype is in severe conflict with the protologue and Lam's illustration, and represents *P. myrsinodendron* instead of *P. peekelii*. The neotype must therefore be suppressed since it is in severe conflict with the protologue (*ICN* Art. 9.19) (*Shenzhen Code*, Turland & al., 2018).

A new species from the Maluku Islands (Q15). — Mining of ultramafic soils, especially in open-pit mines, are severe threats to ecosystems, fauna and flora, and well-being in general, as known for a long time in New Caledonia (Bruy & al., 2023). Such threats are equally applicable in Indonesia, not the least on the island of Halmahera, Maluku Islands, where the Weda Bay Nickel project concession covers a large proportion of the island where some 21% of the mining area is within protected forest (Marshall & al., 2016). Botanical surveys in Halmahera have revealed a rich and poorly understood flora with many new taxa, such as the monotypic palm genus *Jailoloba* Heatubun & W.J.Baker (Heatubun & al., 2014), three new species of *Pandanus* Parkinson (Callmander & al., 2015), and the spectacular new genus *Weda* Welzen in Euphorbiaceae (Van Welzen & al., 2021). Sapotaceae collections from the corresponding expeditions became available to the first author in 2020, of which 10 collections were superficially similar to *Planchonella chartacea* or the Pacific species *P. calcarea* (Hosok.) P.Royen from Palau. It was given the working name *Planchonella* "Bangun 685".

Our analysis included three specimens of *Planchonella* "Bangun 685" from central Halmahera, all grouped in a strongly supported clade, sister to the pair of *P. calcarea* and *P. micronesica* (Kaneh.) Kaneh. ex. H.J.Lam, and it is not closely related to *P. chartacea* (Fig. 5). The former two species are poorly known and Van Royen (1957) doubted the distinctiveness of *P. calcarea*; yet he transferred it from *Sideroxylon* to *Planchonella*. All three species have similar, glabrous leaves with brochidodromous leaf venation and reticulate tertiaries. *Planchonella micronesica* has the largest leaves. Petiole length differs markedly between them, usually 20 mm in *Planchonella* "Bangun 685", up to 37 mm in *P. calcarea*, and up to 60 mm in *P. micronesica*. Flowers are white, 1.0–1.3 mm long in *Planchonella* "Bangun 685" (not recorded in *P. calcarea*) and greenish, 2.0–2.5 mm long in *P. micronesica*. Fruit length also differs, 6–10 mm in *Planchonella* "Bangun 685", 19 mm in *P. calcarea*, and 12–15 mm in *P. micronesica* (Van Royen, 1957). Phylogenetic position, molecular branch lengths, and morphological differences indicate that *Planchonella* "Bangun 685" merits recognition. It is presently known only from Halmahera, but most likely present on other Maluku Islands.

Large-leaved species in New Guinea (Q16). — Large-leaved *Planchonella* in New Guinea and surrounding islands include several species (Vink, 2002). Included in this study are *P. anteridifera* (C.T.White & W.D.Francis ex Lane-Poole) H.J.Lam, *P. orkor* (Vink) Swenson, *P. thyrsoidea* C.T.White, the undescribed species *Planchonella* "Takeuchi 25495", and *P. whitmorei* (Vink) Swenson from Solomon Islands. We believe that the unsampled species *P. cyclopensis* and *P. kaernbachiana* also belong to this group of species. Morphological features, apart from being large-leaved, are broad leaves with cuneate or attenuate and abruptly truncate leaf bases, petiole almost absent to several centimetres long, lower surface of the leaf blades almost glabrous, with scattered Y-shaped trichomes, or tomentulose, and flowers arranged in axillary fascicles on the main shoot or fascicles distributed along leafless shoots.

Molecular data indicate that *Planchonella whitmorei*, even if only parts of ETS and ITS sequences were obtained, is more closely related to Pacific species than it is to the large-leaved species in New Guinea (Fig. 5). *Planchonella thyrsoidea* was represented by two accessions (*PA-2E-0072*, *Munzinger & al. 7008*), both from Madang Province, and those are not one another's closest relative. Both specimens are sterile, but have attenuate and truncate leaf bases, whereas the type material (*Hebblethwaite 562*) has a cuneate leaf base. Examination of tertiary leaf venation and indumentum of the lower leaf blade reveals that the accession *PA-2E-0072* is glabrous throughout with rather weak, oblique tertiaries, and *Munzinger & al. 7008* has scattered Y-shaped trichomes throughout and pronounced, oblique tertiaries. However, the type specimen *Hebblethwaite 562* has oblique tertiaries and a surface covered by a tomentulose indumentum. Considering these differences and that there is strong support for relationships in this clade, we presume that *P. thyrsoidea* s.str. has not been sampled and that we instead have three undescribed species in this clade. We recommend, provided material is available, that more extensive sampling, including *P. cyclopensis* and *P. kaernbachiana*, be conducted to investigate species limits in this large-leaved species complex in New Guinea.

Identity of *Planchonella duclitan* (Q17). — *Planchonella duclitan*, also known under the more recent name *P. nitida* Dubard, poses systematic, nomenclatural, and typification problems as narrated in the introduction. The two latter problems are dealt with below under "Systematics of *Planchonella*". Swenson & al. (2020) placed *P. spectabilis* as sister to a grade of *P. duclitan*, *P. torricellensis*, *P. forbesii*, and *P. polyneura*. The hypothesis herein tested was whether all accessions of *P. duclitan* and *P. spectabilis* form a single clade or if they could be interpreted as two different species with different morphology, viz. *P. duclitan* with smaller leaves and fruit versus *P. celebica* (Pierre ex Burck) Dubard with larger leaves and fruit. The current analysis concurs with the hypothesis of two species, but differs in that leaf and fruit size do not corroborate for two reasons: *Planchonella duclitan* from Christmas Island (*M201*), a rather small-leaved specimen, is sister to *P. spectabilis*, a rather large-leaved specimen from Sumatra, which together form a sister pair to the remaining accessions of *P. duclitan* (forming a clade of four specimens), *P. forbesii*, *P. polyneura*, and *P. torricellensis* (Fig. 5). Complete fertile material with sepals, corolla, fruit and seeds of

all species is unavailable, but the inflorescence morphology of these species (with reservation for *P. spectabilis*) is rather similar, formed by axillary shoots with multi-flowered fascicles, with or without interspersed leaves. Morphological examination of the available specimens of the two clades reveals *P. spectabilis* and *M201* have small patches of a whitish pellicle (appressed trichomes) on the lower leaf surface, ovate to triangular sepals 1.5–2.0 mm long versus glabrous leaves and more triangular sepals ca. 1.0 mm long, i.e., insignificant differences for species recognition.

Molecular support for close phylogenetic relationships of included accessions of *Planchonella duclitan* and *P. spectabilis* is strong even if the accessions are placed in two subclades (Fig. 5). ITS sequences of *P. spectabilis* + *M201* and four derived accessions of *P. duclitan* (*T.s.n.*, *M3413*, *F37140*, *L2138*) are identical overall but differ in seven positions, viz. 199 (T/C), 263 (G/A), 322 (G/A), 531 (T/A), 592 (C/T), 598 (G/A), and 865 (T/A). In order to investigate if these substitutions are consistent, we sequenced the ITS of four additional specimens that could correspond to *P. spectabilis* (*Du Puy 39* [CANB9405557], *Mitchell 128A* [CANB8414094], *Prain s.n.* [MEL2467786], and *Wilkie 817* [S No. 21-352]), the first-two from Christmas Island, the third from Bangladesh, and the latter from Java. Furthermore, *Mitchell 128A* represents a juvenile plant with large leaves 40 × 14 cm and *Prain s.n.* corresponds to *P. longipetiolata* (King & Prain) H.J.Lam, recorded from Bangladesh and Myanmar (powo.science.kew.org). It turns out that all four specimens have identical ITS sequences as *P. spectabilis* + *M201*, indicating that two, not four, species merit recognition: *P. duclitan* and *P. spectabilis*, with *P. longipetiolata* united with the latter. It seems plausible that *P. duclitan* occurs east of Wallace's Line and *P. spectabilis* to the west, rather than Wallacea (cf. Van Welzen & al., 2011), since the sea between Java and Bali, not Java and Sumatra, is believed to form the biogeographic boundary between the two species. However, we encourage a more thorough systematic and biogeographic study of these two taxa.

Loss of two species (Q18). — One accession each of *Planchonella forbesii* and *P. polyneura* as well as six of *P. torricellensis* were included in our analysis and all form a strongly supported clade (Fig. 5). Five out of six accessions of *P. torricellensis* from different Pacific Islands are well-supported, whereas the sixth from New Guinea (*C1045*) is indicted to be related with *P. forbesii* and *P. polyneura*. At a first glance this hints at the possibility of resurrecting the Pacific species *P. samoensis* and maintaining *P. forbesii*, *P. polyneura* and *P. torricellensis* from New Guinea as separate species. However, specimen morphology and molecular differences point in another direction. Apart from the usual many-flowered fascicles separated by short internodes, often along leafless shoots, the specimens can be sorted into two morphotypes, one (#1) with large, broadly elliptic, leaves up to 25 cm long, with ±10 mm between secondary veins, and sepals 2.5–3.5 mm long versus the second (#2) with smaller, elliptic, leaves up to 9 cm long, with ±5 mm between secondary veins, and sepals 1.0–2.0 mm long. The first combination of features matches *P. forbesii*, *P. polyneura*, and *P. torricellensis* from Samoa and Alofi (*B2394*, *M5473*, *B2195*), while the second combination matches *P. torricellensis* specimens from New Guinea (*C1045*), Vanuatu (*W844*), and Futuna (*M5284*).

Aligned ribosomal nrDNA (ETS, ITS) of all eight accessions discussed above are very similar and differ only in seven nucleotides (Table 1). Sequences of *Planchonella forbesii* and *P. polyneura* are identical, agreeing with their morphology. All six accessions of *P. torricellensis* lack a nucleotide in the ITS (I559), but the sample from New Guinea (*C1045*) has the same nrDNA nucleotides as *P. forbesii* and *P. polyneura* in five positions (E5, I289, I635, I674, I727), which is reflected as weak (PP 0.57) association of these three samples in the phylogeny (Fig. 5). In other words, samples from New Guinea and Vanuatu, and thereafter, from Futuna, are those that best fit the morphology of the type of *P. torricellensis*, while molecular data from three different species (samples) from New Guinea are rather similar. It could be argued that young, sterile specimens have large leaves, similar to morphotype #1, which is correct, but types of *P. forbesii* (*Forbes 756*), *P. polyneura* (*Ledermann 9054*), and *P. samoensis* (*Christophersen 2628*) are all fertile and have large leaves. We conclude, having the primary principle of monophyly and the secondary principle

Table 1. Accessions in clade Q18 (Fig. 5): origin, voucher and nucleotide position in two ETS (E) and five ITS (I) positions.

Taxon	Origin	Voucher	E5	E123	I289	I559	I635	I674	I727
Planchonella forbesii	West Papua	*K. Armstrong 317*	A	G	C	G	A	T	A
Planchonella polyneura	Papua New Guinea	*J. Munzinger & al. 7010*	A	G	C	G	A	T	A
Planchonella torricellensis	Papua New Guinea	*L.A. Craven & R. Schodde 1045*	A	C	C	–	A	T	A
Planchonella torricellensis	Samoa, Savai'i	*M.L. Bristol 2195*	G	C	G	–	G	C	G
Planchonella torricellensis	Samoa, Upolu	*M.L. Bristol 2394*	G	C	G	–	G	C	G
Planchonella torricellensis	Vanuatu, Tanna Island	*J.I. Wheatley 844*	G	C	G	–	G	C	A
Planchonella torricellensis	Wallis, Alofi	*J. Munzinger 5473*	G	C	G	–	G	C	G
Planchonella torricellensis	Wallis, Futuna	*J. Munzinger 5284*	G	C	G	–	G	C	G

of ease of identification in mind (Backlund & Bremer, 1998), that *P. forbesii* and *P. polyneura* must be reduced under *P. torricellensis*, and *P. samoensis* should not be resurrected.

■ SYSTEMATICS OF *PLANCHONELLA*

The current phylogenetic analysis of *Planchonella* is so far the best sampled study ever performed of this monophyletic genus. The generic circumscription differs markedly from the treatment by Van Royen (1957), who also included species now placed in *Achrouteria* Eyma, *Pichonia*, *Pleioluma*, *Sahulia*, and *Sarcosperma* Hook.f. (Swenson & al., 2013, 2023a; Swenson & Kearey, 2020). Below, all accepted species are listed with full nomenclature, type information and distribution. Instances of advertent and inadvertent typification have been gathered from Baehni (1942) and Van Royen (1957) in general, Aubréville (1967) for New Caledonia, Smith (1981) for Fiji, Vink (2002) for New Guinea, and Jessup (2019) for Australia. Seventy-one lectotypes and two neotypes are designated.

Planchonella Pierre, Not. Bot.: 34. 1890 – Type: *Planchonella obovata* (R.Br.) Pierre, Not. Bot.: 36. 1890 ≡ *Sersalisia obovata* R.Br., Prodr.: 530. 1810, nom. cons.

= *Siderocarpus* Pierre, Not. Bot.: 31. 1890 – Type: *Siderocarpus vrieseanus* (Pierre ex Burck) Pierre, Not. Bot.: 31. 1890 ≡ *Sideroxylon vrieseanum* Pierre ex Burck in Ann. Jard. Bot. Buitenzorg 5: 18. 1885.

= *Iteiluma* Baill. in Bull. Mens. Soc. Linn. Paris 2: 892. 17 Dec 1890 ≡ *Poissonella* Pierre, Not. Bot.: 29. 30 Dec 1890, nom. superfl. – Type: *Iteiluma baillonii* (Zahlbr.) Baill., Hist. Pl. 11: 286. 1891 ≡ *Lucuma baillonii* Zahlbr. in Oesterr. Bot. Z. 39: 287. 1889, nom. rej.

= *Peuceluma* Baill. in Bull. Mens. Soc. Linn. Paris 2: 895. 1890 – Type: *Peuceluma pinifolia* Baill., nom. rej.

= *Beauvisagea* Pierre, Not. Bot.: 15. 1890 – Type: *Beauvisagea pomifera* Pierre.

= *Bureavella* Pierre, Not. Bot.: 16. 1890 – Type: *Bureavella maclayana* (F.Muell.) Pierre ≡ *Bassia maclayana* F.Muell. in Australas. Chem. Druggist 7: 93. 1885.

= *Fontbrunea* Pierre, Not. Bot.: 31. 1890 – Type: *Fontbrunea malaccensis* (C.B.Clarke) Pierre, Not. Bot.: 32. 1890 ≡ *Sideroxylon malaccense* C.B.Clarke in Hooker, Fl. Brit. India 3: 537. 1882.

= *Boerlagella* Pierre ex Cogn. in Candolle & Candolle, Monogr. Phan. 7: 1173. 1891 ≡ *Boerlagia* Pierre, Not. Bot.: 33. 30 Dec 1890, nom. illeg., non *Boerlagea* Cogn. ex Boerl., Handl. Fl. Ned. Ind. 1: 505, 522. Aug 1890 – Type: *Boerlagella spectabilis* (Miq.) H.J.Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 7: 251. 1925 ≡ *Sapota spectabilis* Miq., Fl. Ned. Ind., Eerste Bijv.: 580. 1861.

= *Krausella* H.J.Lam in Nova Guinea 14: 566. 1932 – Type: *Krausella polyneura* (K.Krause) H.J.Lam in Nova Guinea 14: 566. 1932 ≡ *Sideroxylon polyneurum* K.Krause in Bot. Jahrb. Syst. 58: 475. 1923.

= *Albertisiella* Pierre ex Aubrév. in Adansonia, n.s., 4: 42. 1964 – Type: *Albertisiella novoguineensis* (Vink) Aubrév. ≡ *Chrysophyllum novoguineense* Vink in Blumea 9: 67. 1958.

= *Blabeia* Baehni in Arch. Sci. 17: 77. 1964 – Type: *Blabeia endlicheri* (Montrouz.) Baehni ≡ *Sapota endlicheri* Montrouz. in Mém. Acad. Roy. Sci. Lyon, Sect. Sci. 10: 228. 1860.

= *Pyriluma* Aubrév., Fl. Nouv.-Calédonie & Dépend. 1: 83. 1967 – Type: *Pyriluma sphaerocarpa* (Baill.) Aubrév., Fl. Nouv.-Calédonie & Dépend. 1: 84. 1967 ≡ *Sideroxylon sphaerocarpa* Baill. in Bull. Mens. Soc. Linn. Paris 2: 891. 1890.

Diagnostic character combination. – Tertiary leaf venation reticulate, oblique or horizontal; higher-order venation reticulate or absent, not areolate; flowers fasciculate, usually axillary, rarely along leafless shoots, 5-merous with a calyx of free sepals in one whorl, usually small (less than 10 mm long); corolla dome-shaped to shortly tubular with free corolla lobes, rarely cup-shaped; stamens usually inserted just below corolla tube orifice, rarely in middle of tube; staminodes in corolla lobe sinuses, usually entire; style with small, round stigmatic areas; fruit usually round, sometimes ridged, 1–5-seeded (depending on pollination success); seeds frequently shaped as a jolly-boat; cotyledons foliaceous with a radicle extending below cotyledon commissure; endosperm present.

Size and range. – Approximately 110 species of which 96 are described, 9 are likely to be described in the near future, and 4 to 6 belong to a complex that must be perused in a more detailed study. *Planchonella* occurs in tropical areas from the Seychelles in the west to Hawaii in the east, with the highest species diversity in New Caledonia and New Guinea.

Planchonella amieuana (Guillaumin) Aubrév., Fl. Nouv.-Calédonie & Dépend. 1: 154. 1967 ≡ *Chrysophyllum amieuanum* Guillaumin in Bull. Mus. Natl. Hist. Nat., sér. 2, 22: 520. 1950 ≡ *Pouteria amieuana* (Guillaumin) P.Royen in Blumea 8: 497. 1957 – Holotype: Nouvelle Calédonie, col d'Amieu, May 1950, [bud], *Sarlin 279* (P barcode P00290563!).

Distribution. – New Caledonia; restricted to humid forest on volcanic-sedimentary substrate.

Planchonella aneityensis (Guillaumin) H.J.Lam ex P.Royen in Blumea 8: 388. 1957 ≡ *Sideroxylon aneityense* Guillaumin in J. Arnold Arbor. 13: 13. 1932 – Lectotype (inadvertently designated by Van Royen in Blumea 8: 388. 1957): New Hebrides [Vanuatu], Aneityum Island, Anelgauhat Bay, alt 1000 ft, 14 Feb 1929, [fl.], *S.F. Kajewski 771* (A barcode 00075964!; isolectotypes: BISH barcode BISH1005010!, BO No. 0092856!, BRI barcode BRI-AQ0022587!, K barcode K000777995!, MEL barcode MEL 2453496!, NY barcode 00296976!, P barcode P00 646398!, S No. S07-10115!, SING barcode 0260884!, US barcode 00113300!).

Distribution. – New Britain, Solomon Islands, and Vanuatu; occurring in rainforest on volcanic soil.

Planchonella anteridifera (C.T.White & W.D.Francis ex Lane-Poole) H.J.Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 8: 471. 1927 ≡ *Sideroxylon anteridiferum* C.T.White & W.D.Francis ex Lane-Poole, Forest Resources Territ. Papua and New Guinea: 132. 1925 ≡ *Pouteria anteridifera* (C.T.White & W.D.Francis ex Lane-Poole) Baehni in Candollea 9: 381. 1942 – Lectotype (inadvertently designated by Van Royen in Blumea 8: 336. 1957): Papua New Guinea, Northern Division, Buna District, on the plain, Jul 1922, [old fl.], *C.E. Lane-Poole 161* (BRI barcode BRI-AQ0023843!; isolectotypes: BO No. 0089982!, K barcodes K000009104! & K001327242!).

= *Palaquium komakomar* P.Royen in Blumea 10: 486. 1960 – Holotype: Papua New Guinea, Northern District, Tufi Subdistrict, near Budi Barracks, alt. 75 m, 23 Aug 1954, [young fr.], *R.D. Hoogland 4521* (L barcode L 0006404!; isotypes: A barcode 00075753!, BRI barcode BRI-AQ0022559!, CANB barcodes CANB40997! & CANB40998!).

Distribution. – Papua New Guinea; in lowland rainforest.

Planchonella arnhemica (F.Muell. ex Benth.) P.Royen in Blumea 8: 397. 1957 ≡ *Achras arnhemica* F.Muell. ex Benth., Fl. Austral. 4: 280. 1868 ≡ *Sideroxylon arnhemicum* (F.Muell. ex Benth.) F.Muell., Syst. Census Austral. Pl. 1: 91. 1882 ≡ *Sersalisia arnhemica* (F.Muell. ex Benth.) Domin in Biblioth. Bot. 89: 508. 1928 ≡ *Pouteria arnhemica* (F.Muell. ex Benth.) Baehni in Candollea 9: 286. 1942 – Lectotype (inadvertently designated by Van Royen in Blumea 8: 398. 1957): Australia, Sea Range, Dec 1855, *F. Mueller s.n.* (MEL barcode MEL 233052!; isotypes: BRI!, K barcode K000792014!).

= *Sideroxylon portus-darwini* O.Schwarz in Repert. Spec. Nov. Regni Veg. 24: 92. 1927 – **Lectotype (designated here):** Australia, Northern Territory, Port Darwin, Apr 1927, [fr.], *A.J.A. Bleeser 297* (NSW barcode NSW2255934!; isolectotype: B†, MEL barcode MEL 232970!).

= *Planchonella crocodiliensis* P.Royen in Blumea 8: 433. 1957 – Holotype: Australia, Northern Territory, Crocodile Island, Dec 1924, [fr.], *S.H. Wilkins 216* (BM barcode BM001015947!).

Distribution. – Australia, northern Western Australia and the Northern Territory; occurring in *Eucalyptus* woodland.

Note. – Original material of *Sideroxylon portus-darwini* held in the National Herbarium of Victoria (MEL) is dated "Nov. 1929", i.e., two years after publication of the name, but this date refers to when the material was received and incorporated into the collection at MEL, not the date of collection of the material by *Bleeser* (Willis, 1966).

Planchonella asterocarpon (P.Royen) Swenson, Bartish & Munzinger in Cladistics 23: 222. 2007 ≡ *Planchonella pohlmaniana* var. *asterocarpon* P.Royen in Blumea 8: 395, 432. 1957 ≡ *Pouteria asterocarpon* (P.Royen) Jessup in Austrobaileya 6: 163. 2001 – Holotype: Australia, Queensland, Cook District, Atherton, [without date], [fr.], *L. Kemp s.n.* (BRI barcode BRI-AQ00 22582!).

Distribution. – Australia, Queensland; restricted to rainforest at 900–1150 m altitude.

Planchonella australis (R.Br.) Pierre, Not. Bot.: 36. 1890 ≡ *Achras australis* R.Br., Prodr.: 530. 1810 ≡ *Sapota australis* (R.Br.) A.DC, Prodr. 8: 175. 1844 ≡ *Sideroxylon australe* (R.Br.) Benth. & Hook.f. ex F.Muell., Syst. Census Austral. Pl. 1: 92. 1882 ≡ *Sersalisia australis* (R.Br.) Domin in Biblioth. Bot. 89: 508. 1928 ≡ *Pouteria australis* (R.Br.) Baehni in Candollea 9: 308. 1942 ≡ *Xantolis australis* (R.Br.) Baehni in Boissiera 11: 22. 1965 – Lectotype (inadvertently designated by Van Royen in Blumea 8: 301. 1957): [Australia, New South Wales, Hunter's River], 1802–1805, *R. Brown s.n.* [*Bennett 2824*] (K barcode K000792012!; isolectotypes: BM barcodes BM001015944! & BM00 1015946!, E barcode E00259996!).

= *Sersalisia glabra* A.Gray in Proc. Amer. Acad. Arts 5: 327. 1862 – **Lectotype (designated here):** [Australia], New South Wales, Wollongong, 1838–1842, *U.S. South Pacific Exploring Expedition under the command of Capt. Wilkes, 1838–42, s.n.* (US barcode 00113272!; isolectotypes: GH barcode 00075841!, NY barcode 00273686!).

Distribution. – Australia, coastal Queensland and New South Wales; occurring primarily in notophyll rainforest up to 900 m altitude.

Planchonella baillonii (Zahlbr.) Dubard in Ann. Mus. Colon. Marseille, ser. 2, 10: 57. 1912 ≡ *Lucuma baillonii* Zahlbr. in Oesterr. Bot. Z. 39: 287. 1889 ≡ *Iteiluma baillonii* (Zahlbr.) Baill. in Bull. Mens. Soc. Linn. Paris 2: 892. 1890 ≡ *Sideroxylon baillonii* (Zahlbr.) Engl. in Engler & Prantl, Nat. Pflanzenfam., Nachtr. 1: 277. 1897 ≡ *Poissonella baillonii* (Zahlbr.) Pierre ex Dubard in Ann. Mus. Colon Marseille, sér. 2, 10: 57. 1912 ≡ *Pouteria baillonii* (Zahlbr.) Baehni in Candollea 9: 375. 1942 – Lectotype (inadvertently designated by Baehni in Candollea 9: 376. 1942): Nouvelle Calédonie, Kanala, [without date], *Deplanche s.n.* [*Vieillard 196*], [old fl.], (W No. 0013461!); isolectotypes: G barcode G00439376!, K barcodes K000009101! & K000009102!, L barcode L 0006347!, P barcodes P00482551!, P00639327!, P00639328! & P00639329!).

Distribution. – New Caledonia; occurring in maquis vegetation, often along water courses, and restricted to ultramafic substrate.

Note. – Original material of *Lucuma baillonii* was cited as "Vieillard no. 196 in herb. Verdob." by Zahlbruckner (1889), a number referring to a species envisioned by Eugène Vieillard (1819–1896), not the collector or his number, which was Émile Deplanche (1824–1874).

Planchonella bakhuizenii (P.Royen) Swenson, **comb. nov.** ≡ *Chrysophyllum bakhuizenii* P.Royen in Blumea 9: 74.

1958 – Holotype: Papua New Guinea, Alola, 6000 ft alt., 3 Jan 1936, *C.E. Carr 14159* (L barcode L 0006126!; isotypes: A barcode 00075587!, BM barcode BM013861399!, NY barcode 00273454!, SING barcodes 0261216!, 0261217!, 0261218! & 0261219!).

Distribution. – Papua New Guinea.

Planchonella brevipes A.C.Sm., Fl. Vit. Nova 2: 752, 764. 1981 – Holotype: Fiji, Vanua Levu, Thakaundrove, summit of Mount Mbatini, 700–1030 m alt., 28–29 Nov 1933, [fl.], *A.C. Smith 683* (BISH barcode BISH 1004989!; isotypes: GH barcode 02502613!, K barcode K000777978!, P barcode P00641552!, S No. S05-9385!, US barcode 00811417!).

Distribution. – Fiji; occurring in thickets on ridges and crests.

Planchonella calcarea (Hosok.) P.Royen in Blumea 8: 422. 1957 ≡ *Sideroxylon calcareum* Hosok. in Trans. Nat. Hist. Soc. Taiwan 32: 17. 1942 ≡ *Pouteria calcarea* (Hosok.) Fosberg in Smithsonian Contr. Bot. 45: 17. 1980 – **Lectotype (designated here):** Palau, islet Oropsyakal, 30 Aug 1941, [fr.], *T. Hosokawa 9790* (TAI No. 119057!; isolectotype: TAI No. 088894!).

Distribution. – Micronesia, Palau.

Note. – *Sideroxylon calcareum* was described by Hosokawa (1942) based on the collection *T. Hosokawa 9790* from Palau. Five specimens of this number have been located, one in Arnold Arboretum (A 00055055), one in Bishop Museum (BISH1005012), and three in the National Taiwan University Herbarium (TAI Nos. 088893, 088894, and 119057). However, the specimens belong to two different gatherings, one from the islet of Oropsyakal on 30 August 1941 (the type locality) and the other from Mount Korôru on 31 August 1941. Two specimens of the former are present in TAI from which the lectotype has been selected.

Planchonella cauliflora Munzinger & Swenson in Adansonia, sér. 3, 31: 177. 2009 – Holotype: New Caledonia, Province Sud, La Foa, Ouaménie, 21°46′29″S, 165°58′39″E, 1 Jul 2006, [fl.], *J. Munzinger, D.I. & C. Létocart & R. Amice 3495* (P barcode P04021824!; isotypes: K barcode K000662817!, MO barcode MO-3099169 [No. 5957576]!, NOU barcode NOU013905!, S Nos. S07-1890! & S07-1894!).

Distribution. – New Caledonia; occurring on grauwackes and calcareous substrate.

Planchonella chartacea (F.Muell. ex Benth.) H.J.Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 7: 217. 1925 ≡ *Achras chartacea* F.Muell. ex Benth., Fl. Austral. 4: 281. 1868 ≡ *Sideroxylon chartaceum* (F.Muell. ex Benth.) F.Muell., Syst. Census Austral. Pl. 1: 91. 1883 ≡ *Sersalisia chartacea* (F.Muell. ex Benth.) Domin in Biblioth. Bot. 89: 508. 1928 ≡ *Beccariella chartacea* (F.Muell. ex Benth.) Aubrév. in Adansonia, n.s., 4: 232. 1964 ≡ *Pouteria chartacea* (F.Muell. ex Benth.) Baehni in Boissiera 11: 59. 1965 – **Lectotype** (first-step inadvertently designated by Van Royen in Blumea 7: 411. 1957 [MEL]; **second-step designated here**): [Australia, Queensland], Tamoshanter Point, 15 Aug 1865, [fr.], *Green s.n.* (*J. Dallachy*) (MEL barcode MEL 233055!; isolectotypes: BRI barcode BRI-AQ0022567!, MEL barcode MEL 233053!).

= *Sideroxylon linggense* Burck in Ann. Jard. Bot. Buitenzorg 5: 15. 1885 ≡ *Planchonella linggensis* (Burck) Pierre, Not. Bot.: 35. 1890 ≡ *Pouteria linggensis* (Burck) Baehni in Boissiera 11: 57. 1965 – **Lectotype** (first-step inadvertently designated by Van Royen in Blumea 8: 385. 1957 [BO]; **second-step designated here**): Lingga, [without date], *Teysmann s.n.* [*J.G. Boerlage 1899*] (BO No. 0092868!; isolectotypes: BO No. 112380!, K barcode K000009085!, L barcode L 0006368!, MEL barcode MEL 2467795!, P barcode P00648092!, U barcode U 0079971!).

= *Lucuma discolor* Baill. in Bull. Mens. Soc. Linn. Paris 2: 935. 1891 ≡ *Pouteria discolor* (Baill.) Baehni in Candollea 9: 337. 1942 – Lectotype (designated by Baehni in Candollea 9: 338. 1942): Nouvelle Calédonie, Lifou, Jul 1869, [fr.], *Balansa 1828* (P barcode P00292418!; isolectotypes: BM barcode BM013861396!, K barcode K000777989!).

= *Chrysophyllum curtisii* King & Gamble in J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 74: 159. 1906 – **Lectotype (designated here):** Malaysia, Penang, Batu Ferengy, Oct 1886, [fr.], *C. Curtis 1072* (K barcode K000009084!; isolectotypes: SING barcodes 0046058! & 0046059!).

= *Sideroxylon pittosporifolium* Elmer in Leafl. Philipp. Bot. 3: 872. 1910 – **Lectotype (designated here):** Philippine Islands, Magallanes (Mt. Giting-Giting), Island of Sibuyan, May 1901, [fl.], *A.D.E. Elmer 12552* (G barcode G00439375!; isolectotypes: A barcode 00075958!, BM barcode BM014117520!, BO No. 0092485!, G barcode G00439374!, HGB barcode HBG-510729!, L barcode L 0006369!, MO barcode MO-345900 [No. 2644010]!, NY barcode 00296991!, US barcode 00113327!).

= *Sideroxylon garcinioides* K.Krause in Bot. Jahrb. Syst. 58: 477. 1923 ≡ *Lucuma garcinioides* (K.Krause) H.J.Lam in Nova Guinea 14: 568. 1932 = *Pouteria garcinioides* (K. Krause) Baehni in Candollea 9: 338. 1942 ≡ *Planchonella garcinioides* (K.Krause) Swenson in Taxon 62: 761. 2013 – Type: (B†) – Lectotype (designated by Vink in Blumea 47: 103. 2002): Neu Guinea, Sepik-Gebiet, im Alluvialwald am Sepik, beim Lager Malu, alt. 20–40 m, [fr.], Jan 1913, *Ledermann 10728* (L barcode L 0006411!).

= *Sideroxylon albocostatum* K.Krause in Bot. Jahrb. Syst. 58: 479. 1923 – Type: Neu-Guinea, Sepik-Gebiet, [without date], *Ledermann 9845* (B†).

= *Chrysophyllum ledermannii* K.Krause in Bot. Jahrb. Syst. 58: 485. 1923 ≡ *Planchonella chrysophylloides* H.J.Lam in Nova Guinea 14: 566. 1932 [nom. nov.] ≡ *Pouteria lamii* Baehni in Candollea 9: 313. 1942 [nom.

nov.] – Lectotype (inadvertently designated by Lam in Bot. Jahrb. Syst. 58: 566. 1923): Neu-Guinea, Sepik-Gebiet, Hunstein Peak, 1300 m, [without date], *Ledermann 11343* (B†). Neotype (designated by Vink in Blumea 47: 105. 2002): New Guinea, East Sepik Province, Hunstein range (Mt. Samsai), near site "Camp 4", 04°31′S, 142° 43′E, 1000+ m alt., 23 Jul 1990, [fr.], *W. Takeuchi 6442* (L barcode L 0393077!; isoneotype: BRI barcode BRI-AQ0595831!).

= *Sideroxylon littorale* Ridl., Fl. Malay Penins. 2: 259. 1923 ≡ *Planchonella littoralis* (Ridl.) H.J.Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 7: 216. 1925 – **Lectotype (designated here):** Malay Peninsula, State of Johor, Pulau Tinggi, 17 Jun 1915, [fl.], *I.H. Burkill 876* (K barcode K000777957!; isolectotypes: SING barcode 0058079!).

= *Planchonella garberi* Christoph. in Bull. Bernice P. Bishop Mus. 128: 170. 1935 ≡ *Pouteria garberi* (Christoph.) Baehni in Candollea 9: 296. 1942 ≡ *Planchonella linggensis* var. *garberi* (Christoph.) P.Royen in Blumea 8: 387. 1957 – Holotype: Samoa, Island of Ofu, top of Nuu islet, 75 m alt., 4 Jul 1925, [fr.], *D.W. Garber 1101* (BISH barcode BISH1011950!; isotypes: A barcode 00075794!, BISH barcode BISH1011951!, K barcode K000777976!).

= *Planchonella linggensis* var. *vinicolorata* P.Royen in Blumea 8: 432. 1957 – Holotype: New Guinea, Subdistrict Manokwari Vogelkop, Arfak, Angi Gita Lake, 1800 m alt., 9–22 Oct 1948, [fr.], *A. Kostermans 2242* (L barcode L 0006370!; isotype: BO No. 20713!).

= *Planchonella solida* P.Royen in Blumea 8: 433. 1957 – Holotype: New Guinea, Yalu, near Lae, 5 Mar 1950, [fl.], *D. Fryar 3344* (SING barcode 0056484!; isotypes: A barcode 00075789!, BM barcode BM000057912!, BO No. 0091028!, CANB barcode CANB41221!, K barcode K001327244!, L barcode L 0281607!, LAE n.v.).

– "*Planchonella viridis*" Pierre, Not. Bot.: 36. 1890, nom. nud., not validly published.

Distribution. – Variable and widespread in Southeast Asia and the Pacific, from Peninsular Malaysia in the west to Samoa in the east; occurring primarily in rainforests, from sea level to 1200 m altitude.

Note. – Elmer (1910) described *Sideroxylon pittosporifolium* from the Philippines and cited two gatherings, one in flower (*Elmer 12552*) and one in fruit (*Elmer 12318*), with duplicates distributed to many herbaria. Since the distribution of indumentum on the calyx has played an important role to distinguish taxa in this complex, the best-preserved flowering material of *Elmer 12552* was selected as lectotype whereas specimens of *Elmer 12318* are considered as residual syntypes (A, BISH, GH, HBG, K, L, MO, NY, U, US).

Planchonella cinerea (Pancher ex Baill.) P.Royen in Blumea 8: 281. 1957 ≡ *Sersalisia cinerea* Pancher ex Baill. in Bull. Mens. Soc. Linn. Paris 2: 905. 1891 ≡ *Pouteria cinerea* (Pancher ex Baill.) Baehni in Candollea 9: 339. 1942 ≡ *Xantolis cinerea* (Pancher ex Baill.) Baehni in Boissiera 11: 24. 1965 – **Lectotype** (first-step designated by Van Royen in Blumea 8: 283. 1957 [P]; **second-step designated here**): Nouvelle Calédonie, [without precise locality and date], [fl.], *Pancher 252* [*Vieillard 881*] (P barcode P00291012!; isolectotypes: K barcodes K001327254! & K001327255!, P barcodes P00291013! & 00291014!, US barcodes 00731422! & 00731423!).

– "*Planchonella pancheri*" Pierre, Not. Bot.: 35. 1890, nom. nud., not validly published.

Distribution. – New Caledonia; in littoral forest, often on calcareous substrate.

Note. – Original material of *Planchonella cinerea* includes *Pancher 252* (Baillon, 1891), a collection also annotated (often on the same label) as "*Vieillard 881*" in some herbaria (e.g., material at P). Van Royen (1957) presumed that the number *252* was an inadvertent mistake by Baillon, referring to an accession number for the New Caledonian Museum rather than a collector's number, and designated "*Vieillard 881*" as the lectotype. However, we believe *Pancher 252* is the correct collector and collector number citation for this material, because *Vieillard 881* was never cited by Baillon (1891) and that collector and collector number is absent from sheets considered to represent original material of this name at the Kew Herbarium (K) and Smithsonian Institute (US).

Planchonella contermina Pierre ex Dubard in Notul. Syst. (Paris) 2: 81. 1911 ≡ *Pouteria contermina* (Pierre ex Dubard) Baehni in Candollea 9: 406. 1942 – **Lectotype** (first-step inadvertently designated by Baehni in Candollea 9: 406. 1942 [P]; **second-step designated here**): Nouvelle Calédonie, Gatope, 1861–67, [fr.], *Deplanche 437* (P barcode P00291024!; isotypes: G barcode G00439372! [fragm.], K barcode K000777990!, P barcode P00291025!).

Distribution. – New Caledonia; occurring in maquis vegetation on ultramafic substrate.

Planchonella costata (Endl.) Pierre, Not. Bot.: 36. 1890 ≡ *Achras costata* Endl., Prodr. Fl. Norfolk.: 49. 1833 ≡ *Sapota costata* (Endl.) A.DC., Prodr. 8: 175. 1844 ≡ *Sideroxylon costatum* (Endl.) F.Muell., Syst. Census Austral. Pl. 1: 92. 1882 ≡ *Sersalisia costata* (Endl.) Domin in Biblioth. Bot. 89: 508. 1928 ≡ *Pouteria costata* (Endl.) Baehni in Candollea 9: 304. 1942 – Lectotype (inadvertently designated by Van Royen in Blumea 8: 378. 1957): [Australia], Insula Norfolk, [without date], [bud], *F. Bauer s.n.* (W No. W0132776!; isolectotypes: K barcode K000792254!, W No. W0132777!).

= *Achras novozelandica* F.Muell., Fragm. 9: 72. 1875 ≡ *Sideroxylon novozelandicum* (F.Muell.) Hemsl. in Bull. Misc. Inform. Kew 1908: 459. 1908 ≡ *Planchonella novozelandica* (F.Muell.) Allan, Fl. New Zealand 1: 539. 1961 – **Lectotype (designated here):** New Zealand, North Island, Great Barrier Island, [without date], *T. Kirk s.n.* (MEL barcode MEL 2467768!; isolectotype: OTA No. 015707!).

– "*Planchonella costata* var. *austro-montana*" H.J.Lam in Blumea 5: 6. 1942, not validly published (*ICN* Art. 26.2).

Distribution. – Norfolk Island and the north island of New Zealand; occurring in forests along the coast, on islands and islets.

Note. – *Achras novozelandica* was described from New Zealand from material collected by R. Colenso and T. Kirk, discovered by the latter "In Barrier-Islands", i.e., Little and Greater Barrier Islands, north of the Coromandel Peninsula (Mueller, 1875). Colenso's material has not been located, including the "isosyntype" cited by Green (1986) at K. Four syntypes collected by Kirk have been located, one in Dunedin (OTA) and three in Melbourne (MEL) herbaria, viz. *Kirk s.n.* (without date) from Great Barrier Island (OTA No. 015707, MEL 2467768) and two sheets in MEL annotated "*T.K. 392*, Dec 1867", one of which from Little Barrier Island (MEL 2463698) and the second from Great Barrier Island (MEL 2467875). We have selected *Kirk s.n.* (MEL barcode 2467768) as the lectotype since the material, a branch with one fruit showing three seeds, concurs with the protologue ("Fructus semina usque tria maturantes", which translates to "mature fruit with up to three seeds").

Planchonella cotinifolia (A.DC.) Dubard in Ann. Mus. Colon. Marseille, sér. 2, 10: 56. 1912 ≡ *Hormogyne cotinifolia* A.DC., Prodr. 8: 176. 1844 ≡ *Sersalisia cotinifolia* (A.DC.) F.Muell., Fragm. 5: 161. 1866 ≡ *Achras cotinifolia* (A.DC.) F.Muell. in Nuovo Giorn. Bot. Ital. 3: 31. 1871 ≡ *Sideroxylon cotinifolium* (A.DC.) Engl. in Engler & Prantl, Nat. Pflanzenfam., Nachtr. 1: 276. 1897 ≡ *Pouteria cotinifolia* (A.DC.) Baehni in Candollea 9: 377. 1942 ≡ *Xantolis cotinifolia* (A.DC.) Baehni in Boissiera 11: 22. 1965 – Holotype: [Australia, Queensland], shaded forest on the mountains at Moreton Bay, 28°S, 1827, [old fl.], *A. Cunningham s.n.* (G barcode G00139732!).

Distribution. – Australia, Queensland and New South Wales; occurring mainly in notophyll forest.

Note. – *Planchonella* was recently revised for Australia by Jessup (2019) and he stated that types are present at the Natural History Museum (BM) and the Royal Botanic Garden (K). However, all these collections are from New South Wales (BM001015941, BM001015942, BM001015943, K000792015, K000792016) and not part of the original material from Queensland.

Planchonella cotinifolia var. ***pubescens*** P.Royen in Blumea 8: 296, 428. 1957 ≡ *Pouteria cotinifolia* var. *pubescens* (P.Royen) Jessup in Austrobaileya 6: 162. 2001 ≡ *Planchonella pubescens* (P.Royen) Swenson, Munzinger & Bartish in Taxon 56: 351. 2007 – Holotype: Australia, Queensland, Leichhardt District, Duaringa, 23 Nov 1943, [fl.], *C.T. White 12462* (L barcode L 0006405!; isotype: BRI barcode BRI-AQ0022577!).

Distribution. – Australia, Queensland and New South Wales; occurring in similar but drier forests than *Planchonella cotinifolia* var. *cotinifolia*.

Planchonella crassinervia Dubard in Ann. Mus. Colon. Marseille, sér. 2, 10: 44. 1912 [nom. nov.] ≡ *Sideroxylon pancheri* var. *vestitum* Baill. in Bull. Mens. Soc. Linn. Paris 2: 886. 1890 – **Lectotype (designated here):** Nouvelle Calédonie, Mont Humboldt, vers 500 m, 26 Sep 1869, *Balansa 1829* (P barcode P00291036!; isolectotypes: P barcodes P00291037! & P00291038!).

= *Sideroxylon pancheri* Baill. in Bull. Mens. Soc. Linn. Paris 2: 885. 1890 ≡ *Pouteria pancheri* (Baill.) Baehni in Candollea 9: 308. 1942 ≡ *Planchonella dubardii* Aubrév. in Adansonia, n.s., 2: 198. 1962 ≡ *Xantolis pancheri* (Baill.) Baehni in Boissiera 11: 23. 1965 – Lectotype (designated by Herrmann-Erlee & Van Royen in Blumea 8: 481. 1957): Nouvelle Calédonie, collines éruptives situées entre Kanala et Couaoua, Jul 1871, [st.], *Balansa 3148* (P barcode P00292335!).

= *Sideroxylon pancheri* var. *glabrescens* Baill. in Bull. Mens. Soc. Linn. Paris 2: 886. 1890 – **Lectotype (designated here):** Nouvelle Calédonie, collines ferrugineuses au-dessus d'Ouroué à l'embouchure du Dotio, [without date], [fl.], *Balansa 3463* (P barcode P00291041!; isolectotypes: P barcodes P00639330!, P00291039! & P00291040!).

Distribution. – New Caledonia; confined to ultramafic substrate.

Planchonella crenata Munzinger & Swenson in Taxon 56: 338. 2007 – Holotype: New Caledonia, Province Nord, Koné, Koniambo, along Pandanus River valley, 21°01′13″S, 164°47′22″E, 3 Oct 2005, [fr.], *U. Swenson & J. Munzinger 705* (P barcode P00612496!; isotypes: NOU barcode NOU010728!, S No. S05-10366!).

Distribution. – New Caledonia; restricted to maquis on eroded serpentine substrate.

Planchonella cyclopensis P.Royen in Blumea 8: 333, 430. 1957 ≡ *Pouteria cyclopensis* (P.Royen) T.D.Penn., Gen. Sapotac.: 201. 1991 – **Lectotype (here designated):** Netherlands [West] New Guinea, residency Hollandia, Cycloop Mts, path Ifar–Ormoe, near Jaboe Creek, alt. 920 m, 13 Oct 1954, [old fl., fr.], *P. van Royen 3770* (L barcode L 0484081!; isolectotypes: BM barcode BM000067110!, BO No. 0089958!, BRI barcode BRI-AQ0022575!, CANB barcode CANB41005!, G barcode G00439351!, K barcode K000009096!, L barcode L 0484082!, P barcode P00648111!, SING barcode 261102!, US barcode 00664162!).

Distribution. – West New Guinea (Cyclops Mountains) and New Britain; occurring in *Nothofagus* forest on clayey soil mixed with serpentine.

Planchonella dothioensis (Aubrév.) Swenson, Bartish & Munzinger in Cladistics 23: 222. 2007 ≡ *Pyriluma dothioensis* Aubrév., Fl. Nouv.-Calédonie & Dépend. 1: 88. 1967 – Holotype: Nouvelle Calédonie, Ouroué, embouchure de la Dothio, 8 Jan 1966, [fl.], *H.S. MacKee*

14204 (P barcode P00291381!; isotypes: A barcode 00075859!, BISH barcode BISH1011949!, K barcode K000777988!, L barcode L 0006441!, P barcode P00291382!).

Distribution. – New Caledonia; restricted to ultramafic substrate, usually serpentine and in maquis vegetation.

Planchonella duclitan (Blanco) Bakh.f. in Blumea 12: 62. 1963 ≡ *Sideroxylon duclitan* Blanco, Fl. Filip.: 129. 1837 ≡ *Beccariella duclitan* (Blanco) Pierre, Not. Bot.: 30. 1890 ≡ *Pouteria duclitan* (Blanco) Baehni in Candollea 9: 283. 1942 – **Neotype (designated here):** Philippines, Luzon, Manila, May 1914, [fl.], *Merrill Species Blancoanae 1* (P barcode P00648108!; isoneotypes: BO No. 0092462!, K barcode K001499006!).

= *Sideroxylon nitidum* Blume, Bijdr. Fl. Ned. Ind.: 675. 1826, nom. illeg., non *Sideroxylon nitidum* Lam. (1794) ≡ *Planchonella nitida* Dubard in Ann. Mus. Colon. Marseille, sér 2, 10: 62. 1912 ≡ *Xantolis nitida* (Dubard) Baehni in Boissiera 11: 23. 1965 ≡ *Pouteria nitida* (Dubard) S.P.Teo in Sarawak Mus. J. 51: 217. 1998 ("1997"), nom. illeg, non *Pouteria nitida* (A.DC.) Radlk. (1882) – Lectotype (inadvertently designated by Van Royen in Blumea 8: 363. 1957): [Indonesia]. In sylvis montis Sulin Provinciae Buitenzorg, [without date], *Blume s.n*. (L n.v.).

= *Sideroxylon balitbitan* Blanco, Fl. Filip.: 130. 1837 ≡ *Beccariella balitbitan* (Blanco) Pierre, Not. Bot.: 30. 1890 – Type: not designated.

= *Chrysophyllum sundaicum* Miq., Fl. Ned. Ind., Eerste Bijv.: 578. 1861 ≡ *Sideroxylon sundaicum* (Miq.) Burck in Ann. Jard. Bot. Buitenzorg 5: 9. 1885 ≡ *Planchonella sundaica* (Miq.) Dubard in Ann. Mus. Colon. Marseille, sér. 2, 10: 62. 1912 – **Lectotype (designated here):** Sumatra, Pueloe Sangian, [without date], [fl.], *Teysmann s.n*. [*Herb. Bog. 2976*] (L barcode L 0006355!; isolectotype: BO No. 0039980!).

= *Sideroxylon celebicum* Pierre ex Burck in Ann. Jard. Bot. Buitenzorg 5: 8. 1885 ≡ *Beccariella celebica* (Pierre ex Burck) Pierre, Not. Bot.: 30. 1890 ≡ *Planchonella celebica* (Pierre ex Burck) Dubard in Ann. Mus. Colon. Marseille, sér. 2, 10: 61. 1912 ≡ **Lectotype (designated here):** [Indonesia], Archipel. Ind., [Celebes], (Menado), [without date], [fr.], *Teysmann s.n*. [*Herb. Bog. 5259*] (MEL barcode MEL 2467840!; isolectotypes: BO No. 0093255!, L barcode L 0006354!, MEL barcode MEL 2467763!, P barcode P04609804!, U barcode U.1731238!).

= *Sideroxylon ramiflorum* Merr. in Publ. Bur. Sci. Gov. Lab. 17: 43. 1904 – **Lectotype (designated here):** Philippines, Province of Rizal, Bosoboso, Jul 1903, [fl.], *E.D. Merrill 2793* (US barcode 00113328!; isolectotype: BM barcode BM014117519!).

Distribution. – Malesia east of Java and Taiwan.

Note. – *Sideroxylon duclitan* was described by Blanco (1837), a Spanish priest and botanist, who was the first to seriously explore and describe the flora of the Philippine Islands. At the time it was difficult to preserve and protect botanical specimens, not least against insects in the tropics, a probable reason why no herbarium specimens attributed to Blanco exist (Merrill, 1918). This prompted Merrill to collect, press, and conserve plant material in an exsiccate series, "*Species Blancoanae*", following his interpretation of Blanco's descriptions. Exsiccatae of *S. duclitan* are present in Bogor (BO), Kew (K), and Paris (P), specimens we have examined. All match Blanco's description and we designate the best-preserved specimen as a neotype of *S. duclitan*.

The protologue of *Sideroxylon ramiflorum* cites three different collections, viz. *Merrill 2793*, *Merrill 3413*, and *Forest Bureau 77* (*P.T. Barnes 11135*). The first has been selected as lectotype, the second has not been located, and the third, present in two herbaria (BM barcode BM014117518, K barcode K001327243) are considered residual syntypes.

Planchonella eerwah (F.M.Bailey) P.Royen in Blumea 8: 302. 1957 ≡ *Sideroxylon eerwah* F.M.Bailey in Proc. Roy. Soc. Queensland 10: 52. 1894 ≡ *Sersalisia eerwah* (F.M.Bailey) Domin in Biblioth. Bot. 89: 509. 1928 ≡ *Pouteria eerwah* (F.M.Bailey) Baehni in Candollea 9: 408. 1942 – Holotype: Australia, Queensland, Moreton District, Mt Eerwah, 24 Mar 1894, *Field Naturalists' Club s.n*. (BRI barcode BRI-AQ0022589!).

Distribution. – Australia, Queensland; occurring in rather dry forest or thickets.

Planchonella endlicheri (Montrouz.) Guillaumin in Ann. Soc. Bot. Lyon 38: 101. 1914 ("1913") ≡ *Sapota endlicheri* Montrouz. in Mém. Acad. Imp. Sci. Lyon, Sect. Sci. 10: 228. 1860 ≡ *Pouteria endlicheri* (Montrouz.) Baehni in Candollea 9: 305. 1942 ≡ *Bureavella endlicheri* (Montrouz) Aubrév. in Adansonia, n.s., 3: 332. 1963 ≡ *Blabeia endlicheri* (Montrouz.) Baehni in Arch. Sci. 17: 77. 1964 – Probable holotype (vide Herrmann-Erlee & Van Royen in Blumea 8: 494. 1957): [Nouvelle Calédonie], Ile Art, [without date], *Montrouzier 137* (LY†) – **Neotype (designated here):** Nouvelle Calédonie, Kuébini, 22°15′26″S, 167°00′21″E, 11 May 2004, [fr.], *J. Munzinger & P.P. Lowry 2038* (S No. S06-12492!; isoneotypes: K barcode K001532755!, MPU barcode MPU227842!, NOU barcode NOU093326!, P barcode P00538649!).

= *Labatia macrocarpa* Pancher & Sebert in Sebert, Rev. Marit. Colon. 40: 582. 1874, nom. illeg., non *Labatia macrocarpa* Mart. (1827) ≡ *Chrysophyllum macrocarpum* Baill. in Bull. Mens. Soc. Linn. Paris 2: 901. 1891 ≡ *Planchonella petitiana* Pierre ex Dubard in Ann. Mus. Colon. Marseille, sér. 2, 10: 51. 1912, nom. superfl. & illeg. – **Lectotype (designated here):** Nouvelle Calédonie [without precise locality and date], [fr.], *Petit 19* (P barcode P00278279!).

– "*Sideroxylon petitianum*" Pierre, Not. Bot.: 36. 1890, pro syn., not validly published.

Distribution. – New Caledonia; restricted to ultramafic substrates.

Note. – *Sapota endlicheri* was described based on material collected by Montrouzier from Ile Art, but Montrouzier did not cite any material in the protologue. Baehni (1942) cited several collections, including *Montrouzier 137*, a specimen later cited as the type of this name (apparently held at P) by Herrmann-Erlee & Van Royen (1957). Montrouzier's herbarium was once housed in Lyon (LY), but disappeared during a move in the 1950s (Morat, 2010) and since then has been considered lost (M. Thiébaut; J. Munzinger, in email). Accordingly, a neotype is here designated for this name.

Planchonella ericiflora Munzinger & Swenson in Adansonia, sér. 3, 31: 179. 2009 – Holotype: Nouvelle Calédonie, Vallée de la Tontouta, 11 Mar 2007, [bud, fr.], *J. Munzinger, G. McPherson, D. & I. Létocart, R. Amice & O. Chapelle 4197* (NOU barcode NOU017125!; isotypes: P barcode P00971719!, S No. S07-10131!).

Distribution. – New Caledonia; restricted to maquis vegetation on serpentine.

Planchonella euphlebia (F.Muell.) Francis, Austral. Rain-Forest Trees, ed. 2: 448. 1951 ≡ *Achras euphlebia* F. Muell., Fragm. 7: 110. 1870 ≡ *Sideroxylon euphlebium* (F.Muell.) F.Muell., Syst. Census Austral. Pl. 1: 92. 1882 ≡ *Sersalisia euphlebia* (F.Muell.) Domin in Biblioth. Bot. 89: 508. 1928 ≡ *Pouteria euphlebia* (F.Muell.) Baehni in Candollea 9: 335. 1942 ≡ *Xantolis euphlebia* (F.Muell.) Baehni in Boissiera 11: 22. 1965 – **Lectotype** (first-step inadvertently designated by Van Royen in Blumea 8: 292. 1957 [MEL]; **second-step designated here**): Australia, Rockingham Bay, [without date], [fr.], *Dallachy s.n.* (MEL barcode MEL 233058!; BRI barcode BRI-AQ0022569!, MEL barcodes MEL 233056!, MEL 233057! & MEL 233060!, P barcode P00648112!).

= *Sideroxylon euphlebium* var. *cryptophlebium* C.T.White in Proc. Roy. Soc. Queensland 50: 81. 1939 ≡ *Pouteria euphlebia* var. *cryptophlebia* (C.T.White) Baehni in Candollea 9: 335. 1942 ≡ *Planchonella euphlebia* var. *cryptophlebia* (C.T.White) P.Royen in Blumea 8: 294. 1957 – Lectotype (inadvertently designated by Van Royen in Blumea 8: 294. 1957): Australia, Queensland, Mt. Spurgeon, Sep 1936, [bud], *C.T. White 10655* (BRI barcode BRI-AQ0022590!: isotypes: A barcode 00075975!, BM barcode BM001015939!, K barcode K000792011!).

– "*Pouteria euphlebia* var. *typica*" Baehni in Candollea 9: 335. 1942, not validly published (*ICN* Art. 26.1).

Distribution. – Australia, northeast Queensland; occurring in drier forests.

Planchonella glauca Swenson & Munzinger in Taxon 56: 340. 2007 – Holotype: New Caledonia, Province Nord, Roches de la Ouaième, 28 Oct 2005, [fl.], *J. Munzinger, P.P. Lowry, H. Blaffart & E.A. Brown 3128* (P barcode P00612499!; isotypes: A barcode 00286744!, BRI!, MO barcode MO-2289198 [No. 6039221]!, NOU barcode NOU009662!, S No. S06-3140!).

Distribution. – New Caledonia; restricted to humid forest above 600 m altitude on schist.

Planchonella grandifolia (Wall.) Pierre, Not. Bot.: 36. 1890 ≡ *Sideroxylon grandifolium* Wall. in Roxburgh, Fl. Ind. 2: 348. 1824 ≡ *Lucuma grandifolia* (Wall.) Dubard in Ann. Mus. Colon. Marseille, sér. 2, 10: 19. 1912 ≡ *Pouteria grandifolia* (Wall.) Baehni in Candollea 9: 332. 1942 – Lectotype (inadvertently designated by Herrmann-Erlee & Van Royen in Blumea 8: 482. 1957): [Bangladesh], Silhet [= Sylhet], [without date], [fl.], *N. Wallich 4155* (K barcode K000777960!; isolectotypes: BM barcode BM000887182!, BR barcode BR0000013462802!, E barcode E00265134!, G barcodes G00139799!, G00439344! & G00439345!, GZU barcode GZU000280818!, M barcode M-0174334!, P barcodes P00640519! [fragm.] & P00640520!).

= *Planchonella annamensis* Pierre ex Dubard in Notul. Syst. (Paris) 2: 83. 1911 ≡ *Sideroxylon annamense* (Pierre ex Dubard) Lecomte in Lecomte & Humbert, Fl. Indo-Chine 3: 892. 1930 ≡ *Pouteria annamensis* (Pierre ex Dubard) Baehni in Candollea 9: 311. 1942 – **Lectotype (designated here):** Vietnam, Tonkin, Khang Thuong (Ma Co), Province Ninh Binh, 12 Jun 1883, [fl.], *R.P. Bon 2171* (P barcode P00640517!; isolectotypes: P barcodes P00640515! & P00640516!).

= *Sideroxylon hainanense* Merr. in Lingnan Sci. J. 9: 41. 1930 ≡ *Pouteria hainanensis* (Merr.) Baehni in Candollea 9: 312. 1942 – **Lectotype** (first-step inadvertently designated by Baehni in Candollea 9: 313. 1942 [UC]; **second-step designated here**): China, Hainan Island, Shui Mi Shan, 25 May 1928, [st.], *W.T. Tsang Herb. No. 17245* [= *Field No. 496*] (UC barcode UC373852!; isolectotypes: A barcodes 00075919! & 00075920!, B barcode B 10 0296105!, K barcode K000009103!, NY barcode 00296971!, UC barcode UC356723!, US barcodes 00113324! & 00902318!).

= *Planchonella kerrii* H.R.Fletcher in Bull. Misc. Inform. Kew 1937: 371. 1937 ≡ *Pouteria kerrii* (H.R.Fletcher) Baehni in Candollea 9: 313. 1942 – Holotype: Thailand, Ao Luk, Krabi, 16 Mar 1930, [fl.], *A.F.G Kerr 19372* (K barcode K000009087!).

Distribution. – Southeast Asia, from Assam in northeastern India to China and Thailand.

Note. – *Sideroxylon grandifolium* was described on a gathering (*N. Wallich 4155*) from India (now Bangladesh), with several duplicates distributed around the world. The label information is poor but the lectotype, inadvertently designated by Herrmann-Erlee & Van Royen (1957), includes the locality "Silhet" and the collection number "*4155*" information we consider essential for it to be part of the original material. Two sheets, one in Leiden (L 0006412) and one in Melbourne (MEL 2467306) lack either locality or collection number, which makes it unclear if they belong to the original gathering.

Sideroxylon hainanense was described based on a sterile collection, cited by Merrill as "*Wai-Tak Tsang 17245*". However, the number cited is the herbarium registration number, not the collector's field number, which is "*496*". Nevertheless, these two numbers appear on all labels of this collection except for UC373852, which only is annotated "*17245*" and carries an unsigned type label. Since no herbarium was indicated in the protologue, Baehni (1942) in citing "Tsang Wai Tak n. 17245 = type in hb. Univ. California" inadvertently designates material at Berkeley University Herbarium (UC) as the lectotype. We here select the better-preserved of the two specimens held at UC as a second-step lectotypification.

Planchonella guillauminii H.J.Lam in Blumea 5: 9. Jun 1942 ≡ *Pouteria guillauminii* (H.J.Lam) Baehni in Candollea 9: 408. Dec 1942 – **Lectotype (designated here):** New Hebrides [Vanuatu], Eromanga Island, Dillon Bay, alt. 300 m, 8 Jun 1928, [fr.], *S.F. Kajewski 385* (K barcode K000777993!; isolectotypes: BISH barcode BISH1011952!, BRI barcode BRI-AQ0022576!, P barcode P00646396!, US barcode 00113343!).

Distribution. – Solomon Islands and Vanuatu; occurring in rainforest.

Note. – Baehni (1942) inadvertently lectotypified this name by designating material of *S.F. Kajewski 385* reportedly held in the Arnold Arboretum Herbarium (A) as the type, apparently without having seen the material. This material has subsequently been impossible to locate and is now regarded as having been lost or never present in the first place (M. Schmull, in email). Accordingly, we here select a lectotype from the known syntypes.

Planchonella kaalaensis Aubrév., Fl. Nouv.-Calédonie & Dépend. 1: 134. 1967 – Holotype: Nouvelle Calédonie, Pente sud du Mont Kalla, vers 400–500 m, 10 Oct 1965, [old fl.], *MacKee 13573* (P barcode P00291132!; isotypes: NOU barcode NOU006548!, P barcode P00291133!).

Distribution. – New Caledonia; occurring in maquis on ultramafic substrates.

Planchonella kaernbachiana (Engl.) H.J.Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 7: 200. 1925 ≡ *Sideroxylon kaernbachianum* Engl. in Notizbl. Bot. Gart. Berlin-Dahlem 1: 102. 1895 ≡ *Pouteria kaernbachiana* (Engl.) Baehni in Candollea 9: 338. 1942 – Type (vide Baehni in Candollea 9: 339. 1942): Neu-Guinea, Kaiser-Wilhelmsland, auf dem Sattelberg, 900 m, [without date], *Kärnbach 19* (B†). Neotype (designated by Van Royen in Blumea 8: 332. 1959): Papua New Guinea, Isuarava, [Oro District, 09°00′S, 147°44′E], ca. 5000 ft alt., 13 Feb 1936, [fr.], *C.E. Carr 15562* (L barcode L 0006413!; isoneotypes: BM barcode BM000057894!, BO No. 0091258!, CANB barcode CANB58939!, K barcode K000009086!, L barcode L 0006414!, SING barcodes 0261147!, 0261148! & 0261149!).

Distribution. – Papua New Guinea; occurring in rainforest between 800 and 1500 m altitude.

Note. – A neotype of *Sideroxylon kaernbachianum* was designated by Van Royen (1957), but that action is likely incorrect and the neotype may need to be superseded (*ICN* Art. 9.18 and 9.19; *Shenzhen Code*, Turland & al., 2018) because the original material, from Huon Peninsula, is described as having ferruginous pilose ovaries, whereas the neotype from Fergusson Island has glabrous fruit except for a few trichomes at the top of the fruit, which is at odds with the protologue. Material with similar leaf shape but described fruit indumentum has also been collected in Fergusson Island (*Brass 27014*: K, L, S, US). *Planchonella kaernbachiana* has not been sequenced and placed in the phylogeny, but is suspected to be a member of, and should be studied with, the unresolved clade Q16 discussed above.

Planchonella kaniensis (K.Krause) H.J.Lam in Nova Guinea 14: 565. 1932 ≡ *Sideroxylon kaniense* K.Krause in Bot. Jahrb. Syst. 58: 480. 1923 ≡ *Pouteria kaniensis* (K. Krause) Baehni in Candollea 9: 284. 1942 – Type: *R. Schlechter 17892* (B†). Lectotype (designated by Van Royen in Blumea 8: 365. 1957): Papua Nieuw Guinea, Kani-gebergte, 2 Jul 1908, [old fl.], *R. Schlechter 17892* (L barcode L 0352235! [fragm.]; isolectotypes: BR barcode BR0000005199549!, P barcodes P00648086!, P00648087! & P00648088!).

Distribution. – Papua New Guinea; only known from Kani Mountains.

Planchonella keyensis H.J.Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 7: 197. 1925 ≡ *Pouteria keyensis* (H.J.Lam) Baehni in Candollea 9: 210. 1942 – **Lectotype** (first-step inadvertently designated by Baehni in Candollea 9: 211. 1942 [BO]; **second-step designated here**): [Indonesia, Maluku Islands], Archipel. Ind., Key [Kai] Islands, *Jaheri 138* (BO No. 1364219!; isolectotypes: BO No. 1364218!, L barcode L 0064021!).

Distribution. – Maluku Islands, New Guinea and Solomon Islands; occurring on well-drained ridges, clay, sand and limestone, also frequently along watercourses, inundated and marshy lands.

Planchonella koumaciensis Aubrév., Fl. Nouv.-Calédonie & Dépend. 1: 154. 1967 – Holotype: Nouvelle Calédonie, 8 km de Koumac sur la route de Paagoumene, 30 m alt., 16 Mar 1966, [fl.], *MacKee 14561* (P barcode P00291198!; isotypes: K barcode K000777987!, L barcode L 0006362!, P barcode P00291199!).

Distribution. – New Caledonia; occurring in maquis vegetation on serpentine.

Planchonella kuebiniensis Aubrév., Fl. Nouv.-Calédonie & Dépend. 1: 142. 1967 – Holotype: Nouvelle Calédonie, Kuébini, 17 Oct 1965, [fl.], *MacKee 13616* (P barcode P00291182!; isotypes: BO!, K barcode K000777986!,

L barcodes L0006364! & L0006365!, NOU barcode NOU006547!, P barcodes P00291183! & P00291184!).

Distribution. – New Caledonia; occurring in humid forest on ultramafic soil.

Planchonella laetevirens (Baill.) Pierre ex Dubard in Ann. Mus. Col. Marseille, sér. 2, 10: 47. 1912 ≡ *Lucuma laetevirens* Baill. in Bull. Mens. Soc. Linn. Paris 2: 894. 1890 ≡ *Sideroxylon laetevirens* (Baill.) Engl. in Engler & Prantl, Nat. Pflanzenfam., Nachtr. 1: 277. 1897 ≡ *Pouteria laetevirens* (Baill.) Baehni in Candollea 9: 377. 1942 – **Lectotype** (first-step inadvertently designated by Baehni in Candollea 9: 377. 1942 [P]; **second-step designated here**): Nouvelle Calédonie, Mont Pénari, vers 800 m d'alt., Feb 1872, [fl.], *Balansa 3464* (P barcode P00291205!; isolectotypes: E barcode E00259992!, G barcode G00439371!, K barcode K000777985!, P barcodes P00208722! & P00291204!, SING barcode 0050900!).

Distribution. – New Caledonia; occurring in humid forest on ultramafic substrate.

Planchonella lamii P.Royen in Blumea 8: 432. 1957 – Holotype: Indonesia, Ambon, near Sirimau, 450 m alt., 11 Feb 1930, *NIFS bb 14283* (L barcode 0006366!; isotype: BO No. 0089953!).

Distribution. – Only known from Ambon in the Maluku Islands, Indonesia.

Planchonella latihila Munzinger & Swenson in Taxon 56: 341. 2007 – Holotype: Nouvelle Calédonie, Province Sud, Prony est, zone S5, 21 Sep 2004, [fr.], *J. Munzinger (leg. G. Dagostini) 2394* (NOU barcode NOU006492!; isotypes: P barcode P00697107!, S No. S06-12465!).

Distribution. – New Caledonia; rare in humid forest on ultramafic soil.

Planchonella lauracea (Baill.) Dubard in Ann. Mus. Colon. Marseille, sér. 2, 10: 44. 1912 ≡ *Sideroxylon lauraceum* Baill. in Bull. Mens. Soc. Linn. Paris 2: 890. 1890 ≡ *Pouteria lauracea* (Baill.) Baehni in Candollea 9: 339. 1942 ≡ *Xantolis lauracea* (Baill.) Baehni in Boissiera 11: 22. 1965 – **Lectotype** (first-step inadvertently designated by Baehni in Candollea 9: 399. 1942 [P]; **second-step designated here**): Nouvelle Calédonie, Bassin du Dotio, Dec 1871, [fr.], *Balansa 3467* (P barcode P00291078!; isolectotypes: G barcode G00439370! [fragm.], P barcodes P00291076! & P00291077!).

= *Sideroxylon dictyoneuron* Baill. in Bull. Mens. Soc. Linn. Paris 2: 884. 1890, nom. illeg., non *Sideroxylon dictyoneuron* Griseb. (1862) ≡ *Planchonella dictyoneura* Pierre, Not. Bot.: 35. 1890 ≡ *Pouteria koghiensis* Baehni in Candollea 9: 295. 1942 [nom. nov.] – **Lectotype** (first-step inadvertently designated by Van Royen in Blumea 8: 287. 1957 [P]; **second-step designated here**): Nouvelle Calédonie, sommet du Kougui, vers 1050 m alt., 7 Nov 1868, [fr.], *Balansa 460* (P barcode P00291068!; isolectotypes: P barcodes P00291069! & P00291070!).

= *Planchonella serpentina* S.Moore in J. Linn. Soc., Bot. 45: 352. 1921 ≡ *Pouteria serpentina* (S.Moore) Baehni in Candollea 9: 413. 1942 – Holotype: New Caledonia, Comboui Mts., 28 Oct 1914, [fl.], *R.H. Compton 2183* (BM barcode BM001015922!).

Distribution. – New Caledonia; occurring in maquis on ultramafic substrates.

Planchonella leptostylidifolia Guillaumin in Bull. Soc. Bot. France 91: 70. 1944 ≡ *Iteiluma leptostylidifolia* (Guillaumin) Aubrév. in Adansonia, n.s., 2: 191. 1962 – Holotype: Nouvelle Calédonie, Cap Tonnerre, *Deplanche 440* [Mus. Néocal. No. 105, Vieillard No. 2913] (P barcode P00292370!; isotypes: K barcode K000777984!, P barcodes P00292369! & P00292371!).

Distribution. – New Caledonia; occurring in maquis on ultramafic substrates.

Planchonella lifuana (Baill.) Pierre ex Dubard in Ann. Mus. Colon. Marseille, sér. 2, 10: 45. 1912 ≡ *Sideroxylon lifuanum* Baill. in Bull. Mens. Soc. Linn. Paris 2: 890. 1890 ≡ *Pouteria lifuana* (Baill.) Baehni in Candollea 9: 300. 1942 ≡ *Xantolis lifuana* (Baill.) Baehni in Boissiera 11: 23. 1965 – **Lectotype** (first-step inadvertently designated by Baehni in Candollea 9: 301. 1942 [P]; **second-step designated here**): Nouvelle Calédonie, Lifou, [without date], [fr.], *Balansa 1826* (P barcode P01155420!; isolectotypes: BM barcode BM001015924!, E barcode E00259991!, K barcode K000777983!, L barcode L 2661956!, NOU barcode NOU093447!, P barcodes P00291210!, P00291212! & P00291211!, S No. S23-37764!).

Distribution. – New Caledonia, known from the Loyalty Islands and Isle of Pines; restricted to calcareous substrate.

Note. – *Sideroxylon lifuanum* was described on the fruiting gathering *Balansa 1826*, which eventually was dispersed from Paris to four other herbaria (BM, E, K, L). No herbarium was indicated in the protologue and Baehni (1942) inadvertently lectotypified the name on material held at Paris, which comprises six specimens, four with barcodes (P00291210, P00291211, P00291212, P01155420) and two without barcodes that will be distributed in exchange with Noumea (NOU) and Stockholm (S). The best-preserved Paris specimen (P01155420) is here in a second step selected as the lectotype.

Planchonella luteocostata Munzinger & Swenson in Taxon 56: 342. 2007 – Holotype: Nouvelle Calédonie, Tiéa, propriété Nicoli, 21°08′19″S, 164°56′18″E, 20 Nov 2004, [fl.], *J. Munzinger, J.N. Labat & J.-P. Butin 2601* (P barcode P00612456!; isotypes: A!, BRI!, K barcode K000463871!, MO!, NOU barcodes NOU010751!, NOU010752!, NOU054691 [alcohol] & NOU054793 [alcohol], P barcode P00856517!, S No. S06-12322!).

Distribution. – New Caledonia; occurring in sclerophyll forest on calcareous substrate, black clays, and alluvial deposits.

Planchonella maclayana (F.Muell.) Swenson in Taxon 62: 762. 2013 ≡ *Bassia maclayana* F.Muell. in Australas. Chem. Druggist 7: 93. 1885 ≡ *Illipe maclayana* (F. Muell.) F.Muell., Descr. Notes Papuan Pl. 6: 12. 1885 ≡ *Bureavella maclayana* (F.Muell.) Engl., Nat. Pflanzenfam., Nachtr. 1: 279. 1897 ≡ *Lucuma maclayana* (F. Muell.) H.J.Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 7: 22. 1925 ≡ *Pouteria maclayana* (F.Muell.) Baehni in Candollea 9: 307. 1942 – Lectotype (inadvertently designated by Herrmann-Erlee & Van Royen in Blumea 8: 477. 1957): New Guinea, edible fruit called "Dim", [without date], [seed fragm.], *Miklouho-Maclay s.n.* (MEL barcode MEL 583664!; isolectotypes: P barcodes P00648096! & P00648097!).

= *Bassia dubia* Gaertn., Fruct. Sem. Pl. 2: 105. 1790 – Holotype: [illustration] "Bassia dubia" in Fruct. Sem. Pl. 2, t. 104 fig. [2]a–b. 1790.

= *Lucuma navicularis* H.J.Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 7: 221. 1925 ≡ *Pouteria navicularis* (H.J.Lam) Baehni in Candollea 9: 345. 1942 – **Lectotype (designated here):** [Indonesia], Archipel. Ind. Key, [without date], [seed fragm.], *Jaheri 136* (BO No. 0087222!).

Distribution. – Maluku Islands, New Guinea, and Solomon Islands; often cultivated due to the large, up to 15 cm, globose, edible fruit.

Note. – Lam (1925) described *Lucuma navicularis* and cited three gatherings: *Jaheri 136* (BO No. 0087222), *Jaheri 137* (BO No. 0087223, L barcode L 0352338), and *Jaheri 140* (not located), all considered syntypes. Herrmann-Erlee & Van Royen (1957) united the species with *Pouteria maclayana* without further discussion. Examination of the syntypes indicated that the collection *Jaheri 136*, which also includes seed fragments, is the best-preserved and most likely concurs with *Planchonella maclayana*. This specimen is here chosen as lectotype. The collection *Jaheri 137* is a smaller-leaved specimen that better matches *Planchonella macrantha*.

Planchonella macrantha (Merr.) Swenson in Taxon 62: 762. 2013 ≡ *Sideroxylon macranthum* Merr. in Publ. Bur. Sci. Gov. Lab. 35: 56. 1906 ("1905") ≡ *Lucuma macrantha* (Merr.) H.J.Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 7: 225. 1925 ≡ *Pouteria macrantha* (Merr.) Baehni in Candollea 9: 328. 1942 ≡ *Bureavella macrantha* (Merr.) Aubrév. in Adansonia, n.s., 3: 331. 1963 – **Lectotype** (first-step inadvertently designated by Herrmann-Erlee & Van Royen in Blumea 8: 486. 1957: *Borden 2741* [PNH†]; **second-step designated here**): Philippines, Province of Batan, Luzon, Lamao River, Mt. Mariveles, Mar 1905, [fl.], *Forestry Bureau 2741* [= *T.E. Borden 21736*] (K barcode K000009069!; isolectotypes: BO No. 0089948!, NY barcode 00296988!, SING barcode 0069592!, US barcode 00113315!).

= *Sideroxylon stenophyllum* Merr. in Philipp. J. Sci., C, 3: 258. 1908 – **Lectotype (designated here):** Philippines, Mindoro, Jan 1908, [fr.], *M.L. Merritt* (*Forest Bureau*) *8626* (K barcode K000009068!; isolectotype: NY barcode 00296994!).

= *Planchonella philippensis* Dubard in Notul. Syst. (Paris) 2: 82. 1911 ≡ *Sideroxylon philippense* (Dubard) Merr., Enum. Philipp. Fl. Pl. 3: 287. 1923 – Holotype: Philippines, [without date], [fl.], *Vidal 2* [*Pierre 6132*] (P barcode P00648131!).

= *Lucuma dolichosperma* H.J.Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 7: 223. 1925 ≡ *Pouteria dolichosperma* (H.J.Lam) Baehni in Candollea 9: 407. 1942 – Lectotype (inadvertently designated by Baehni in Candollea 9: 407. 1942): Philippines, Luzon, Province of Camarines, Dec 1913, *Ramos 2079* (L barcode L 0790567!; isolectotypes: BM!, BO No. 138570!, G barcode G00439350!, P barcode P00288768!, SING barcode 0260900!).

= *Lucuma lucida* H.J.Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 7: 226. 1925 ≡ *Pouteria lucida* (H.J.Lam) Baehni in Candollea 9: 410. 1942 – Holotype: [Indonesia, Maluku], Kai, [without date], [fr.], *Jaheri 139* (L barcode L 0790563!).

– "*Planchonella koordersii*" Koord. in Meded. Lands Plantentuin 19: 519. 1898, nom. nud., not validly published.

Distribution. – Philippines, Sulawesi, Maluku Islands, and Papua (Indonesia); a poorly known species.

Note. – Since Herrmann-Erlee & Van Royen (1957) inadvertently lectotypified the name *Planchonella macrantha* on material housed in the National Museum herbarium in Manila (PNH), a collection destroyed during World War II, we select here a lectotype in a second-step designation.

Planchonella maingayi (C.B.Clarke) P.Royen in Blumea 8: 413. 1957 ≡ *Sideroxylon maingayi* C.B.Clarke in Hooker, Fl. Brit. India 3: 536. 1882 ≡ *Lucuma maingayi* (C.B.Clarke) Dubard in Ann. Mus. Colon. Marseille, sér. 2, 10: 19. 1912 ≡ *Pouteria maingayi* (C.B.Clarke) Baehni in Candollea 9: 343. 1942 – **Lectotype** (first-step inadvertently designated by Baehni in Candollea 9: 343. 1942 [K]; **second-step designated here**): [Malacca], Malaya [without precise locality and date], [fr.], *A.C. Maingay 993* (K barcode K000009080!; isolectotypes: K barcode K000512340!, L barcode L 0790564!, P barcode P00640521!).

= *Sideroxylon borneense* Burck in Ann. Jard. Bot. Buitenzorg 5: 15. 1885 ≡ *Planchonella borneensis* (Burck) Pierre, Not. Bot.: 35. 1890 – **Lectotype (designated here):** Borneo, *Teysmann s.n.* [*Herb. Bog. 8647*] (FI barcode FI008959!; isolectotypes: BO No. 0087695!, L barcode L 0006373!, MEL barcode MEL 2467328!, P barcodes P00648099!, P00648100! & P00648101!, U barcode U 0079943!).

Distribution. – Borneo, Malay Peninsula, Philippines (Palawan), Sumatra, Thailand. A poorly known species.

Note. – *Sideroxylon borneense* was described on the gathering *Teysmann s.n.* made in Borneo and housed in the Bogor

herbarium (BO: *Herb. Bog. 8647*). Another seven specimens have been located of which only one specimen (FI008959) is labelled with the Bogor Herbarium number. However, all specimens are annotated "*Sideroxylon borneense* Burck" and we believe that all specimens are part of the original material of which we have designated the material in the Florence herbarium (FI008959) as lectotype.

Planchonella malaccensis (C.B.Clarke) Swenson in Taxon 62: 762. 2013 ≡ *Sideroxylon malaccense* C.B.Clarke in Hooker, Fl. Brit. India 3: 537. 1882 ≡ *Fontbrunea malaccensis* (C.B.Clarke) Pierre, Not. Bot.: 31. 1890 ≡ *Lucuma malaccensis* (C.B.Clarke) Dubard in Ann. Mus. Colon. Marseille, sér. 2, 10: 19. 1912 ≡ *Pouteria malaccensis* (C.B.Clarke) Baehni in Candollea 9: 302. 1942 ≡ *Xantolis malaccensis* (C.B.Clarke) Baehni in Boissiera 11: 23. 1965 – **Lectotype (designated here):** Malaya [without precise locality], 9 Mar 1865–66, [fl., fr.], *A.C. Maingay 994* (K barcode K001327241!; isolectotypes: K barcode K000009082!, L barcode L 0006419!, P barcode P00640522! [fragm.]).

Distribution. – Widely distributed in Southeast Asia.

Note. – Clarke (1882) described *Sideroxylon malaccense* based on the collection *A.C. Maingay 994*, a gathering inadvertently lectotypified by Herrmann-Erlee & Van Royen (1957), indicated as being present at the Singapore Botanical Garden Herbarium (SING), but not located there (D. Middleton, in email). Clarke in his protologue stated "Fruit not seen", which is at odds with duplicates in Kew, Leiden and Paris herbaria, all of which are in fruit, but a second specimen at Kew has flowers, which prompts us to select it (K001327241) as the lectotype.

Planchonella mandjeliana Munzinger & Swenson in Taxon 56: 344. 2007 – Holotype: Nouvelle Calédonie, [Province Nord], Ouégoa, Mandjélia, près de l'ancienne scierie, vers 700 m alt, 12 Dec 1991, [fr.], *J.M. Veillon, C. Tirel & J. Jérémie 7457* (NOU barcode NOU010879!; isotypes: BRI barcode BRI-AQ0849264!, NOU barcode NOU010878!, P barcode P00290954!, S No. S06-12286!).

Distribution. – New Caledonia; occurring in humid forest between 600 and 750 m altitude on micaschist substrate.

Planchonella membranacea H.J.Lam in Blumea 5: 11. Jun 1942 ≡ *Pouteria membranacea* (H.J.Lam) Baehni in Candollea 9: 411. Dec 1942 – Lectotype (inadvertently designated by Baehni in Candollea 9: 411. 1942): Fiji, Vanua Mbalavu, 2 Apr 1934, [fr.], *A.C. Smith 1491* (BISH barcode BISH1005000!; isolectotypes: GH barcode 02502713!, K barcode 000662815!, L barcode L 0006374!, P barcode P00641506!, S No. S05-10422!, US barcode 00113344!).

Distribution. – Fiji, Niue, Tonga, and Vanuatu; occurring on calcareous substrate.

Planchonella menait (Vink) Swenson in Taxon 62: 762. 2013 ≡ *Pouteria menait* Vink in Blumea 47: 131. 2002 – Holotype: Papua New Guinea, East Sepik Province, Hunstein Range (Mt. Samsai), at the site "Camp 3" on slopes above the main stream course, 450 m alt, 04°29′S, 142°41′E, 19 Jul 1990, [fl.], *W. Takeuchi 6276* (L barcode L0393117!; isotypes: A barcode 00589444!, BISH barcode BISH1005009!, E barcode E00224840!, L barcode L 0393118!).

Distribution. – New Guinea; occurring from sea lea level to 800 m altitude, primarily in rainforest.

Planchonella merrillii Dubard in Ann. Mus. Colon. Marseille, sér. 2, 10: 50. 1912 ≡ *Sideroxylon coriaceum* Merr. in Publ. Bur. Sci. Gov. Lab. 29: 44. 1905, nom. illeg., non *Sideroxylon coriaceum* Baill. (1890) ≡ *Sideroxylon merrillii* (Dubard) Merr., Enum. Philipp. Fl. Pl. 3: 286. 1923 – **Lectotype (designated here):** Philippines, Province of Benguet, Luzon, Baguio, Apr 1904, [fl.], *A.D.E. Elmer 6071* (P barcode P00648129!; isolectotypes: K barcode K000792039!, NY barcode 00296981!, PNH†, US barcode 00113307!).

= *Sideroxylon apoense* Elmer in Leafl. Philipp. Bot. 8: 2821. 1915 – **Lectotype (designated here):** Philippines, Mindanao, District of Davao, Todaya (Mt. Apo), May 1909, [fl.], *A.D.E. Elmer 10800* (K barcode K000792038!; isolectotypes: A barcode 00075949!, BISH barcode BISH1005011!, BM barcode BM014117516!, BO No. 0093236!, G barcodes G00439365! & G00439364!, GH barcode 00075948!, HBG barcode HBG-510717!, L barcode L 0006380!, NY barcode 00296977!, P barcode P00648132!).

= *Pouteria ridsdalei* Vink in Blumea 47: 136. 2002 ≡ *Planchonella ridsdalei* (Vink) Swenson in Taxon 62: 762. 2013 – Holotype: Philippines, Mindoro, Mt. Halcon area near Paitan, Dulangan Range, 1200 m alt, 13°12′N, 121° 12′E, 8 May 1986, [fl.], *C.E. Ridsdale 1695* (L barcodes L 0393525!, L 0393526! & L 0614211! [on 3 sheets]; isotypes: BO Nos. 0092206! & 0092207!, K barcode K000792037!).

Distribution. – Philippines (Luzon, Mindanao, Mindoro); known from forest or thickets on soils derived from quartz at 1200 to 1350 m altitude.

Note. – Leiden Herbarium holds the holotype of *Pouteria ridsdalei* and includes three sheets of the collection *C.E. Ridsdale 1695*, all clearly labelled as being part of the same specimen, fide *ICN* Art. 8.3 (Turland & al., 2018).

Planchonella micronesica (Kaneh.) Kaneh. ex H.J.Lam in Blumea 5: 12. 1942 ≡ *Sideroxylon micronesicum* Kaneh. in Bot. Mag. (Tokyo) 46: 671. 1932 ≡ *Pouteria micronesica* (Kaneh.) Fosberg in Smithsonian Contr. Bot. 45: 17. 1980 – Lectotype (inadvertently designated by Lam in Blumea 5: 13. 1942): Caroline Islands, Kusai, Jun 1931, [fr.], *R. Kanehira 1322* (L barcode L 0006375!).

Distribution. – Caroline Islands (Kosrae).

Note. – Syntypes of *Sideroxylon micronesicum* include the collections *Kanehira 1322* (in fruit) and *Kanehira 1462* (in flower), originally deposited at The Kyushu University Museum (FU), but also distributed to other herbaria. *Kanehira 1322* is housed in Honolulu (BISH), Leiden (L), and Taipei (TAI), but comprises two different collections, one gathered in June (L) and the other in July (BISH, TAI). As Lam (1942) inadvertently designated the Leiden material as the lectotype, the other two gatherings are treated as residual syntypes.

Planchonella microphylla Pierre ex Dubard in Notul. Syst. (Paris) 2: 82. 1913 ≡ *Pouteria microphylla* (Pierre ex Dubard) Baehni in Candollea 9: 373. 1942 – **Lectotype (designated here):** Nouvelle Calédonie, Ile Art, 1868–1870, [fr.], *Balansa 3152* (P barcode P00292416!; isolectotypes: L barcode L 0614210!, P barcodes P00292414!, P00292415! & P00639332!).

Distribution. – New Caledonia; occurring in maquis vegetation on ultramafic substrates.

Note. – *Planchonella microphylla* was described on the gathering *Balansa 3152* deposited in Pierre's herbarium (Dubard, 1913), today integrated in the Paris Herbarium. However, two sheets are labelled "Herb. L. Pierre" of which the best-preserved specimen has been selected as lectotype.

Planchonella minutiflora Munzinger & Swenson in Adansonia 31: 182. 2009 – Holotype: Nouvelle Calédonie, Province Nord, pente du mont Kaala au dessus de Gomen, vers 300–500 m, 21 Apr 1967, [fl.], *H.S. MacKee 16639* (P barcode P00538594!; isotypes: NOU barcode NOU011147!, S No. S07-13541!).

Distribution. – New Caledonia; occurring in rocky maquis vegetation on serpentine substrate.

Planchonella myrsinifolia (F.Muell.) Swenson, Bartish & Munzinger in Cladistics 23: 222. 2007 ≡ *Sersalisia myrsinifolia* F.Muell., Fragm. 5: 165. 1866 ≡ *Pouteria myrsinifolia* (F.Muell.) Jessup – Lectotype (designated by Jessup in Austrobaileya 6: 162. 2001): Australia, [Queensland, Moreton District], Brisbane River, [without date], [fl.], *W. Hill s.n.* (MEL barcode MEL 1058112!).

= *Achras myrsinoides* A.Cunn. ex Benth., Fl. Austral. 4: 283. 1868 ≡ *Sideroxylon myrsinoides* (A.Cunn. ex Benth.) Benth. & Hook.f. ex F.Muell., Syst. Census Austral. Pl. 1: 92. 1882 ≡ *Sersalisia myrsinoides* (A.Cunn. ex Benth.) Domin in Biblioth. Bot. 89: 508. 1928 ≡ *Pouteria myrsinoides* (A.Cunn. ex Benth.) Baehni in Candollea 9: 303. 1942 ≡ *Planchonella myrsinoides* (A.Cunn. ex Benth.) S.T.Blake ex Francis, Austral. Rain-Forest Trees, ed. 2: 358. 1951 ≡ *Xantolis myrsinoides* (A.Cunn. ex Benth.) Baehni in Boissiera 11: 23. 1965 – Lectotype (designated by Green in J. Arnold Arbor. 67: 118. 1986): Australia, [Queensland, Port Curtis District], Rodd's Bay, May 1819, [fl.], *A. Cunningham 123* (K barcode K000792008!).

Distribution. – Australia, Queensland and New South Wales; occurring in noto- and microphyll vineforest and thickets.

Planchonella myrsinifolia subsp. ***howeana*** (F.Muell.) Jessup in Austrobaileya 10: 357. 2019 ≡ *Achras howeana* F. Muell., Fragm. 9: 72. 1875 ≡ *Sideroxylon howeanum* (F. Muell.) F.Muell., Syst. Census Austral. Pl. 1: 92. 1882 ≡ *Planchonella howeana* (F.Muell.) Pierre, Not. Bot.: 36. 1890 ≡ *Sersalisia howeana* (F.Muell.) Domin in Biblioth. Bot. 89: 508. 1928 ≡ *Pouteria howeana* (F.Muell.) Baehni in Candollea 9: 306. 1942 – Lectotype (designated by Green in Kew Bull. 45: 251. 1990): Australia, Lord Howe Island, [without date], [fl.], *J.P. Fullagar s.n.* (MEL barcodes MEL 242536!, MEL 242674!, MEL 242675!, MEL 242676! & MEL 242677! [on 5 sheets]; isolectotypes: BO No. 0091016!, E barcode E00259995!, K n.v., P barcode P00648104!).

Distribution. – Lord Howe Island; occurring in low closed forest.

Note. – Green (1990) lectotypified *Achras howeana* based on material in the Melbourne Herbarium (MEL). This material comprises five individual sheets which are clearly labelled as being part of the same specimen, see *ICN* Art. 8.3 (Turland & al., 2018) and are therefore considered to comprise the lectotype.

Planchonella myrsinodendron (F.Muell.) Swenson, Bartish & Munzinger in Cladistics 23: 222. 2007 ≡ *Chrysophyllum myrsinodendron* F.Muell., Fragm. 6: 178. 1868 ≡ *Pouteria myrsinodendron* (F.Muell.) Jessup in Austrobaileya 6: 163. 2001 – **Lectotype (designated here):** Australia, Queensland, Herbert River, [6 Dec 1867], [fl.], *J. Dallachy s.n.* (MEL barcodes MEL 233326!, MEL 233327! & MEL 233328! [on 3 sheets]; isolectotype: BM barcode BM001015938!).

= *Sideroxylon javense* Burck in Ann. Jard. Bot. Buitenzorg 5: 14. 1885 ≡ *Planchonella javensis* (Burck) Pierre, Not. Bot.: 35. 1890 – **Lectotype (designated here):** Archipel. Ind., Java, [without date], [fr.], *Teysmann s.n.* (P barcode P00648127!; isolectotypes: BO No. 0092088!, MEL barcode MEL 2467793!, P barcode P00648126!).

= *Chrysophyllum novoguineense* Vink in Blumea 9: 33, 67. 1958 ≡ *Albertisiella novoguineensis* (Vink) Aubrév. in Adansonia, n.s., 4: 42. 1964 – Holotype: New Guinea, Fly River, Jan 1879, [fr.], *Beccari 184* (P barcode P00649406!; isotype: P barcode P00649405!).

= *Planchonella obovoidea* H.J.Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 7: 207. 1925 ≡ *Pouteria obovoidea* (H.J.Lam) Baehni in Candollea 9: 412. 1942 – Lectotype (inadvertently designated by Baehni in Candollea 9: 412.

1942): Indonesia, Kai Is., [without date], [fr.], *Jaheri 134* (BO No. 1364220!; isolectotype: L barcode L 0006384!).

Distribution. – From Java, Lesser Sunda, Maluku Islands, New Guinea to Fiji and Queensland, Australia.

Note. – Original material of *Chrysophyllum myrsinodendron* at MEL comprises three individual sheets which are clearly labelled as being part of the same specimen (cf. Jessup, 2019), therefore complying with *ICN* Art. 8.3 (Turland & al., 2018).

Planchonella obovata (R.Br.) Pierre, Not. Bot.: 36. 1890 ≡ *Sersalisia obovata* R.Br., Prodr.: 530. 1810 ≡ *Sideroxylon obovatum* (R.Br.) Sm. in Rees, Cycl. 32: *Sideroxylon* no. 6. 1816 ('*Sideroxylum*'), nom. illeg., non *Sideroxylon obovatum* Lam. (1794) ≡ *Achras obovata* (R.Br.) F.Muell. ex Benth, Fl. Austral. 4: 283. 1868 ≡ *Sapota obovata* (R.Br.) Radlk. ex G.Holle, Über den anatomischen Bau des Blattes in der Familie der Sapotaceen und dessen Bedeutung für die Systematik [Diss., Erlangen]: 17. 1892 ≡ *Pouteria obovata* (R.Br.) Baehni in Candollea 9: 324. 1942 – Holotype (fide Mabberley & Moore, Robert Brown Handb.: 455. 2022): New Holland [Australia], Endeavour River, 1770, [fl.], *Banks & Solander s.n*. (BM barcode BM000947189!; isotypes: MEL barcode MEL 2280472!, P barcode P00648135!).

= *Sideroxylon ferrugineum* Hook. & Arn., Bot. Beechey Voy.: 266. 1838 ≡ *Planchonella ferruginea* (Hook. & Arn.) Pierre, Not. Bot.: 35. 1890 ≡ *Sersalisia ferruginea* (Hook. & Arn.) Nakai in Bull. Tokyo Sci. Mus. 22: 31. 1948 – **Lectotype (designated here):** [Japan], Bonin, [without date], [fl.], *Beechey s.n*. (K barcode K000777905!; isolectotype: E barcode E00207247!).

= *Sideroxylon attenuatum* A.DC., Prodr. 8: 178. 1844 ≡ *Planchonella attenuata* (A.DC.) Pierre, Not. Bot.: 35. 1890 – **Lectotype (designated here):** Iles Philippines, [without date], [fl.], *Cuming 1243* (K barcode K000792041!; isolectotypes: BM barcode BM014117515! [upper specimen], FR barcode FR-0038173!, G barcodes G00439367!, G00439368! & G00139838! [fragm.], M barcode M-0174336!, MEL barcode MEL 2467759!, P barcode P04585378!).

= *Sideroxylon attenuatum* var. *acuminatum* A.DC., Prodr. 8: 178. 1844 – Holotype: [without locality, date, and collector], Herbier de Ventenat (G barcode G00439369!).

= *Chrysophyllum obovatum* Wall. ex A.DC., Prodr. 8: 178. 1844, nom. illeg., non *Chrysophyllum obovatum* Sabine & G.Don (1824) – Holotype: [Myanmar, Birmanie], 1827, [st.], [*N. Wallich*] *1524* (G-DC barcode G00139774!).

= *Sideroxylon chrysophyllum* de Vriese in De Vriese & al., Pl. Ind. Bat. Orient.: 59. 1856 ≡ *Planchonella chrysophylla* (de Vriese) Pierre, Not. Bot.: 35. 1890 – **Lectotype (designated here):** Archipel. Ind. [Indonesia], culta H.B., Noesa Kambangan, [Java], [without date and collector], [st.], (L barcode L 0006377!; isolectotype: P barcode P00648125!).

= *Sideroxylon bancanum* Burck in Ann. Jard. Bot. Buitenzorg 5: 10. 1885 ≡ *Planchonella bancana* (Burck) Pierre, Not. Bot.: 35. 1890 – **Lectotype (designated here):** Archipel. Ind., [Indonesia], Banka, [without date], *Teysmann s.n*. (BO No. 0092159!; isolectotypes: K barcode K000777952!, MEL barcode MEL 2467327!, P barcode P00648123!).

= *Sideroxylon obovatum* Burck in Ann. Jard. Bot. Buitenzorg 5: 11. 1885, nom. illeg., non *Sideroxylon obovatum* C.F. Gaertn. (1806) – **Lectotype (designated here):** Archip. Ind. [Indonesia], Java, [in Hort. Bot. Bog. cult.], [without date and collector], [fl.], (P barcode P04568227!; isolectotype: L 0006379!).

= *Sideroxylon obovatum* var. *ceramense* Burck in Ann. Jard. Bot. Buitenzorg 5: 11. 1885 – **Lectotype (designated here):** Archip. Ind. [Indonesia], Ceram, [without date], [bd.], *Teysmann s.n*. [*Herb. Bog. 1947*] (BO No. 0091999!; isolectotypes: L barcode L 0006382!, P barcode P00648133!).

= *Sideroxylon nodosum* Burck in Ann. Jard. Bot. Buitenzorg 5: 12. 1885 ≡ *Planchonella nodosa* (Burck) Pierre, Not. Bot.: 35. 1890 – **Lectotype (designated here):** Archip. Ind. [Indonesia], Java, [in Hort. Bot. Bog. culta], [without date], [old fl.], *Burck s.n*. (BO No. 0092278!; isolectotype: L barcode L 0006378!).

= *Sideroxylon undulatum* Burck in Ann. Jard. Bot. Buitenzorg 5: 12. 1885 – **Lectotype (designated here):** Archip. Ind. [Indonesia], Banka, [in Hort. Bot. Bog. cult.], [without date], [fr.], *Teysmann s.n*. (P barcode P00648124!; isolectotypes: BO No. 0093187!, K barcode K000777955!).

= *Sideroxylon indicum* Burck in Ann. Jard. Bot. Buitenzorg 5: 13. 1885 ≡ *Planchonella indica* (Burck) Pierre, Not. Bot.: 35. 1890 – **Lectotype (designated here):** Archip. Ind. [Indonesia, Java], Banka, [in Hort. Bot. Bog. Cult.], [without date], [old fl.], *Teysmann s.n*. (P barcode P00648122!; isolectotypes: K barcode K000009073!, MEL barcode MEL 2467782!).

= *Sideroxylon lanceolatum* Burck in Ann. Jard. Bot. Buitenzorg 5: 14. 1885 ≡ *Planchonella lanceolata* (Burck) Pierre, Not. Bot.: 35. 1890 – **Lectotype (designated here):** Archipel. Ind. [Indonesia, Java], Banka (Djeboes), [without date], *Teysmann s.n*. (BO No. 0093189!; isolectotypes: BO No. 0093185!, MEL barcode MEL 2467794!, P barcodes P00648120! & P00648121!).

= *Sideroxylon novoguineense* K.Schum. in Bot. Jahrb. Syst. 9: 214. 1888 – **Lectotype (designated here):** Neu-Guinea [without precise locality and date], [fl.], *Hollrung 12* (K barcode K000009067!; isolectotype: P barcode P00648134!).

= *Sideroxylon timorense* Blume ex Pierre, Not. Bot.: 35. 1890 – Holotype: Timor, [without date], *Blume s.n*. (L barcode L 0006383!).

= *Sideroxylon glomeratum* Volkens in Bot. Jahrb. Syst. 31: 472. 1901 – **Lectotype (designated here):** West-Karolinen [Caroline Islands], Yap, Gehölzbusch der Berge, Nov 1899–Jun 1900, [bd.], *G. Volkens 533*

(BM barcode BM013861403!; isolectotypes: SING barcode 0260886!, US barcode 00113323!).

= *Sideroxylon ahernianum* Merr. in Publ. Bur. Sci. Gov. Lab. 35: 55 1906 ("1905") – **Lectotype (designated here):** Philippines, Luzon, Province of Rizal, Bosoboso, Dec 1904, [fl.], *G.P. Ahren's collector 2165* (NY barcode 00296974!; isolectotypes: BO No. 0093237!, G barcode G00439363!, K barcode K000792042!, P barcode P00648130!, SING barcode 0260902!, US barcode 00113299!).

= *Planchonella cochinchinensis* Dubard in Notul. Syst. (Paris) 2: 89. 1911 – **Lectotype (designated here):** [Vietnam], Cochinchine, montem Dinh, Baria, Oct 1866, [st.], *Pierre 434* (P barcode P00640524!; isolectotype: P barcode P00640523!).

= *Planchonella polymorpha* Dubard in Compt. Rend. Hebd. Séances Acad. Sci. 152: 773. 1911 – Type: Not designated (species aggregate).

= *Sideroxylon acuminatum* Elmer in Leafl. Philipp. Bot. 4: 1487. 1912 – Holotype: Philippines, Luzon, Tayabas Province, Lucban [Mt. Banahao], May 1907, [fl.], *A.D.E. Elmer 7904* (L barcode L.2662770!).

= *Sideroxylon glabrum* Ridl. in J. Straits Branch Roy. Asiat. Soc. 61: 28. 1912 ≡ *Planchonella glabra* (Ridl.) H.J. Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 7: 217. 1925 ≡ *Pouteria glabra* (Ridl.) I.M.Turner in Novon 6: 223. 1996 – Lectotype (inadvertently designated by Van Royen in Blumea 8: 424. 1957): Peninsular Malaysia, Selangor, 189?, [fl.], [*H.N. Ridley*] *15770* (SING [not located]; isolectotype: K barcode K000777959!).

= *Planchonella mindanaensis* H.J.Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 7: 207. 1925 ≡ *Pouteria mindanaensis* (H.J.Lam) Baehni in Candollea 9: 326. 1942 ≡ *Xantolis mindanaensis* (H.J.Lam) Baehni in Boissiera 11: 23. 1965 – Lectotype (first-step inadvertently designated by Van Royen in Blumea 8: 414. 1957: *M.S. Clemens 1126* [PNH†]; **second-step designated here**): Philippines, Mindanao, Lake Lanao, Camp Keithley, Jun 1907, [fr.], *M.S. Clemens 1126* (US barcode 00113345!; isolectotypes: BO No. 0092319!, G barcode G00439349!, K barcode K000777938!, M barcode M-0174592!, P barcode P00288772!).

= *Sideroxylon boninense* Nakai in Bot. Mag. (Tokyo) 43: 444. 1929 ≡ *Planchonella boninensis* (Nakai) Masam. & Yanagita in Trans. Nat. Hist. Soc. Formosa 31: 322. 1941 ≡ *Pouteria boninensis* (Nakai) Baehni in Candollea 9: 311. 1942 ≡ *Sersalisia boninensis* (Nakai) Nakai in Bull. Tokyo Sci. Mus. 22: 31. 1948 – Holotype: Japan, Hahajima group, Mukojima Island, 15 Aug 1927, *H. Toyoshima s.n.* (TI barcode 00043496!).

= *Pouteria obovata* var. *dubia* H.Hara, Enum. Spermatophytarum Japon. 1: 100. 1948 – Lectotype (designated by Watanabe-Toma & al. in Phytotaxa 33: 53. 2011): Japan, Bonin Chichijima, Jan 1918, *S. Nishimura 31* (TI No. 43571a n.v.; isolectotypes: TI Nos. 43571b n.v. & 43571c n.v.).

= *Sideroxylon clemensii* Lecomte in Lecomte & Humbert, Fl. Indo-Chine 3: 890. 1930 ≡ *Pouteria clemensii* (Lecomte) Baehni in Candollea 9: 310. 1942 ≡ *Planchonella clemensii* (Lecomte) P.Royen in Blumea 8: 375. 1957 – Lectotype (designated by Van Royen in Blumea 8: 377. 1957): Indo-China, Annam [Vietnam], Tourane, May–Jul 1927, [young fr.], *J. & M.S. Clemens 3340* (K barcode K001327226!; isolectotypes: A barcode 00075925!, NY barcode 00296967!, P barcode P00640518!).

– "*Hormogyne cochinchinensis*" Dubard in Notul. Syst. (Paris) 2: 89. 1911, pro. syn., not validly published.

– "*Palaquium boninense*" Nakai in Sci. World 26(5): 7. 1928, nom. nud., not validly published.

– "*Sideroxylon dubium*" Nakai in Sci. World 26(5): 7. 1928, nom. nud., not validly published.

– "*Palaquium boninense*" Nakai in Bot. Mag. (Tokyo) 43: 444. 1929, nom. nud., not validly published.

– "*Sideroxylon dubium*" Koidz. in Bull. Biogeogr. Soc. Japan 1: 261. 1930, nom. nud., not validly published.

– "*Planchonella obovata* var. *dubia* (Koidz.)" Hatus. in Daitoujima Tennen-Kinenbutu Tokubetu Chousa-Houkoku [Daito Island National Monument Special Investigation Report]: 30. 1973, nom. nud., not validly published.

Distribution. – The most widespread member of *Planchonella*, from the Seychelles in the west across Southeast Asia in the west to the Solomon Islands in the east.

Note. – *Sideroxylon ferrugineum* was described by Hooker & Arnott (1838) using material from the Bonin Islands, located south of Japan and collected during Captain Beechey's voyage to the Pacific Ocean. Original material of *S. ferrugineum* has been located in the Edinburgh (E00207247) and Kew Gardens (K000777905) herbaria, of which the former is annotated "*Lucuma ferruginea* Mexico". Terry Pennington, who saw this specimen in 2007, believed that it was mislabelled and instead suggested that it could be the type of *S. ferrugineum* from the Bonin Islands, also referring to Hooker & Arnott's original plate 55. We agree with Pennington because if the specimen is mirrored, it is nearly a perfect match with the printed illustration. Hence, we believe that these two specimens are part of the original material and designate the better-preserved specimen, also annotated "Bonin", as lectotype.

Candolle (1844) described *Sideroxylon attenuatum* using the material *Cuming 1243* collected in the Philippines, today present in several herbaria (BM, FR, G, K, M, MEL, P). He also referred to a β taxon "*acuminata*" and distinguished the former on "foliis obovato-oblongis integris basi" from the latter on "foliis obtuse acuminatis elongatis", or as we translate it, ovate-oblong leaves in the former versus obtuse, elongate acuminate leaves in the latter. By examining all *Cuming 1243* specimens it seems clear that the material is of two different gatherings, one with smaller, obovate leaves with round apices, one with larger, elliptic-obovate leaves where some leaves are somewhat acute. We have selected the smaller-leaved material and designated the best-preserved material (K000792041) as lectotype of *S. attenuatum*.

Material from Java labelled *Sideroxylon chrysophyllum* has been located in K, L, P, and U, of which two are sterile (L 0006377, P00648125) and two in bud (K000009074, U 0079973). It is presumed that the species was described on sterile material from Java because buds, flowers or fruits were not mentioned in the protologue why the cited material is considered being of two gatherings. We have selected the best-preserved sterile material as lectotype (L 0006377).

Sideroxylon indicum was described by Burck (1885), who cited "*Teysmann in Herb. Hort. Bogor*", a collection that has not been located in the Bogor Herbarium (BO), but in Kew, Melbourne, and Paris (K, MEL, P). The specimens are in late flower and we have selected the best-preserved specimen as lectotype (P00648122).

Planchonella mindanaensis was described on material collected by M.S. Clemens (*1015*, *1126*) from Lake Lanao (spelt "Lamao" on the labels) in Mindanao, the Philippines. *Clemens 1126*, housed in the National Museum Herbarium in Manila (PNH) was destroyed during World War II, but inadvertently lectotypified by Van Royen (1957). Duplicates of this material have been distributed to several herbaria, but the collection number is missing on specimen labels in material housed in Kew, Munich, and Paris, but other label information is identical, written in the same handwriting. We are therefore convinced that all specimens of *Clemens 1126* belong to a single gathering and we designate a lectotype annotated with collection number to replace the material at PNH selected by Van Royen.

Planchonella orkor (Vink) Swenson in Taxon 62: 762. 2013 ≡ *Pouteria orkor* Vink in Blumea 47: 134. 2002 – Holotype: New Guinea, Saidor Subdistrict, Naho-Rawa, Budemu, 4150 ft alt., 24 Oct 1964, [fl., fr.], *C.D. Sayers NGF 21329* (L barcodes L 0393528! & L 0393529! [on 2 sheets]; isotypes: BM barcode BM000839519!, BO No. 0091017!, BRI barcode BRI-AQ0030862!, CANB barcode CANB541997!, LAE n.v., SING barcode 0261388!).

Distribution. – New Guinea; occurring in rainforest from 500 to 1550 m altitude (Vink, 2002).

Note. – Leiden Herbarium (L) houses two sheets of the holotype, both clearly labelled as "sheet 1" and "sheet 2", as part of a single collection, and thereby complying with *ICN* Art. 8.3 (Turland & al., 2018).

Planchonella oxyedra (Miq.) Dubard in Ann. Mus. Colon. Marseille, sér. 2, 10: 50. 1912 ≡ *Sideroxylon oxyedrum* Miq., Fl. Ned. Ind., Eerste Bijv.: 580. 1861 ≡ *Pouteria oxyedra* (Miq.) Baehni in Candollea 9: 315. 1942 – Lectotype (inadvertently designated by Van Royen in Blumea 8 423. 1957): Archip. Ind. [Indonesia, Sumatra], Muara Enim, Palembang, [without date], [st.], *Teysmann s.n.* [*Herb. Bog. 3672*] (BO No. 1364221!; isolectotypes: L barcodes L 0006385! & L 0006386!, P barcode P00648095!).

= *Pouteria celebica* Erlee in Blumea 8: 502. 1957 – Holotype: Indonesia, Selebes, B. Wawu, Meusa, 800 m alt., 19 Sep 1929, [bd.], *G. Kjellberg 2325* (S No. S-G-5026!; isotypes: BO No. 0089949!, L barcode L 0330533!).

Distribution. – Known only from Sulawesi and Sumatra, Indonesia.

Planchonella paucinervia (Erlee) Swenson in Taxon 62: 762. 2013 ≡ *Pouteria paucinervia* Erlee in Blumea 8: 503. 1957 – Holotype: Indonesia, Sumatra, Riouw District, Indragiri, Bovenlanden, Moeata Pedjanki, 11 Apr 1939, [fr.], *P. Buwalda 6503* (L barcode L 0006426!; isotypes: A barcode 00075837!, BO No. 53992!, K barcode K000777950!, PNH!, SING barcode 0051868!).

Distribution. – Malay Peninsula, Malaysia and Sumatra, Indonesia; growing in lowland rainforest.

Planchonella petaloides H.J.Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 7: 196. 1925 ≡ *Lucuma petaloides* (H.J. Lam) H.J.Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 8: 477. 1927 ≡ *Pouteria petaloides* (H.J.Lam) Baehni in Candollea 9: 328. 1942 – **Lectotype** (first-step inadvertently designated by Van Royen in Blumea 8: 426. 1957 [BO]; **second-step designated here**): [Indonesia], Ambon, Hila, [without date], [st.], *Teysmann s.n.* [*J.G. Boerlage 1879*] (BO No. 0089394!; isolectotypes: BO No. 0089393!, L barcodes L 0064820! & L 0064821!).

Distribution. – Ambon and Halmahera in the Maluku Islands, Indonesia and New Guinea; a poorly known species.

Planchonella pinifolia (Baill.) Dubard in Ann. Mus. Col. Marseille, sér. 2, 10: 57. 1912 ≡ *Peuceluma pinifolia* Baill. in Bull. Mens. Soc. Linn. Paris 2: 895. 1890 ≡ *Pouteria pinifolia* (Baill.) Baehni in Candollea 9: 376. 1942 ≡ *Iteiluma pinifolia* (Baill.) Aubrév. in Adansonia, sér. 2, 2: 191. 1962 – Lectotype (first-step inadvertently designated by Van Royen in Blumea 8: 270. 1957 [P]; **second-step designated here**): Mount Poume, dans des terrains éruptifs, May 1871, [fr.], *Balansa 3151* (P barcode P00290156!; isolectotypes: G barcode G00439362! [fragm.], P barcodes P00290157! & P00290158!).

Distribution. – New Caledonia; more or less restricted to maquis vegetation on eroded, ultramafic soils.

Planchonella pohlmaniana (F.Muell.) Pierre ex Dubard in Ann. Mus. Colon. Marseille, sér. 2, 10: 47. 1912 ≡ *Achras pohlmaniana* F.Muell., Fragm. 5: 184. 1866 ≡ *Sideroxylon pohlmanianum* (F.Muell.) Benth. & Hook.f. ex F.Muell., Syst. Census Austral. Pl. 1: 91. 1882 ≡ *Sersalisia pohlmaniana* (F.Muell.) Domin in Biblioth. Bot. 89: 506. 1928 ≡ *Pouteria pohlmaniana* (F.Muell.) Baehni in Candollea 9: 334. 1942 – Lectotype (first-step inadvertently designated by Van Royen in Blumea 8: 393. 1957 [MEL]; second-step designated by Jessup in Austrobaileya

10: 361. 2019): [Australia], Queensland, Edgecombe Bay, 19 Jun 1863, [fl., fr.], *J. Dallachy s.n.* (MEL barcode MEL 2280413!; isolectotype: BRI barcode BRI-AQ0022570!).

= *Sideroxylon dugulla* F.M.Bailey in Queensland Agric. J. 1: 80. 1897 ≡ *Sersalisia dugulla* (F.M.Bailey) Domin in Biblioth. Bot. 89: 509. 1928 ≡ *Pouteria dugulla* (F.M. Bailey) Baehni in Candollea 9: 407. 1942 – **Lectotype (designated here):** Australia, Queensland, Kamerunga, [fr.], *E. Cowley s.n.* (K barcode K000792006!; isolectotypes: BM barcode BM001015934!, BRI barcode BRI-AQ0022565!).

– "*Sapota pohlmaniana*" F.Muell., Fragm. 5: 184. 1866, pro syn., not validly published.

– "*Planchonella pohlmaniana* var. *vestita*" P.Royen in Blumea 8: 395. 1957, not validly published (*ICN* Art. 39.1).

Distribution. – Australia, Queensland, with records in the northeast corner of New South Wales; occurring in rather dry habitats such as thickets and woodlands.

Planchonella pomifera (Pierre) Dubard in Ann. Mus. Colon. Marseille, sér. 2, 10: 63. 1912 ≡ *Beauvisagea pomifera* Pierre, Not. Bot.: 15. 1890 ≡ *Sideroxylon zippelianum* Pierre ex Boerl., Handl. Fl. Ned. Ind. 2: 312. 1891, nom. superfl. & illeg. ≡ *Sideroxylon pomiferum* (Pierre) Engl. in Engler & Prantl, Nat. Pflanzenfam., Nachtr. 1: 277. 1897 ≡ *Lucuma pomifera* (Pierre) H.J.Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 7: 221. 1925, nom. illeg., non *Lucuma pomifera* Peckolt in Pharm. J. Trans., ser. 3, 18: 952. 1888 – Lectotype (designated by Swenson & al. in Taxon 69: 1010. 2020): Andai, Aug 1872, [seed], *O. Beccari 533* (FI barcode FI008042!; isolectotypes: P barcodes P04609778! & P04028371!).

= *Pouteria doonsaf* P.Royen in Blumea 8: 502. 1957 ≡ *Bureavella doonsaf* (P.Royen) Aubrév. in Adansonia, n.s., 3: 332. 1963 – Holotype: Netherlands New Guinea, District Sorong, Sorong, region behind office of Forest Department, c. 10 m alt., 23 Mar 1954, [bd., fr.], *P. van Royen 3506* (L barcode L 0006406!; isotypes: A barcode 00061549!, BRI barcode BRI-AQ0022601!, BO No. 0093774!, CANB barcode CANB41033!, K barcode K000009095!, L barcode L 0006407!, SING barcode 0050901!).

Distribution. – Maluku Islands, Indonesia to New Guinea, possibly also in the Solomon Islands; occurring in lowland rainforest (see also Swenson & al., 2020).

Planchonella povilana Swenson & Munzinger in Taxon 56: 346. 2007 – Holotype: New Caledonia, Province Nord, Monéo, along RPN3, just north of Monéo, west of the road, 100 m to the sea shore, 21°09′00″S, 165°20′03″E, 10 Oct 2005, [fr.], *U. Swenson & J. Munzinger 732* (P barcode P00612498!; isotypes: A barcode 00286743!, BRI!, MO barcode MO-2289223 [No. 6039220]!, NOU barcode NOU010071!, S No. S05-10404!).

Distribution. – New Caledonia; occurring in maquis vegetation on ultramafic substrate.

Planchonella pronyensis Guillaumin in Bull. Mus. Natl. Hist. Nat., sér. 2, 5: 322. 1933 ≡ *Xantolis pronyensis* (Guillaumin) Baehni in Boissiera 11: 23. 1965 – **Lectotype** (first-step inadvertently designated by Van Royen in Blumea 8: 276. 1957 [P]; **second-step designated here**): Nouvelle Calédonie, Prony, plateaux boisés, Jan 1914, [fl.], *Franc 1601 A* (P barcode P00292411!; isolectotypes: A barcode 00075800!, G barcode G00439361! [fragm.], L barcode L 2653461!, P barcode P00292412!, Z barcode Z-000028137!).

Distribution. – New Caledonia; occurring in humid forest, usually on ultramafic substrate.

Note. – *Planchonella pronyensis* was described on material collected by Éloi-Isidore Franc, cited as "Prony, plateaux boisés (1601 série A, 1601a)", made in, respectively, January 1914 and January 1915. Van Royen (1957) inadvertently designated "*Franc A 1601*" (i.e., the collection made in January 1914) in the Paris Herbarium as the lectotype. However, two sheets of this collection are present in Paris and we have, in a second-step lectotypification, selected the best-preserved material in accordance with the *ICN* Art. 9.17 (Turland & al., 2018). One specimen in the Paris Herbarium is annotated as "Holotype" (P00292413) and another in Geneva is annotated as "Isolectotype" (G00439577), but these belong to the gathering from January 1915 and are therefore syntypes.

Planchonella pullenii (Vink) Swenson in Taxon 62: 762. 2013 ≡ *Pouteria pullenii* Vink in Blumea 47: 98. 2002 – Holotype: New Guinea, Milne Bay District, Baniara Subdistrict, south of Opanabu village, 149°43′E, 10°01′S, 600–700 m alt., 16 Jul 1969, [fr.], *A. Kanis 1243* (L barcodes L 0393532! & L 0393533! [on 2 sheets]; isotypes: A barcode 00589445!, BRI barcode BRI-AQ0365892!, CANB barcode CANB213046!, CHR barcode CHR 247532!, K barcode K001327248!, LAE n.v., S No. S20-8836!).

Distribution. – New Guinea; occurring in rainforest, from sea level to almost 1000 m altitude.

Note. – The holotype consists of two sheets clearly labelled as being part of the same specimen, complying with *ICN* Art. 8.3 (Turland & al., 2018).

Planchonella pyrulifera (A. Gray) H.J.Lam ex P.Royen in Blumea 8: 381. 1957 ≡ *Sapota pyrulifera* A.Gray in Proc. Amer. Acad. Arts 5: 328. 1862 ≡ *Sideroxylon pyruliferum* (A.Gray) Benth. & Hook.f. ex Drake, Ill. Fl. Ins. Pacif.: 229. 1892 – Lectotype (inadvertently designated by Van Royen in Blumea 8: 383. 1957): Feejee Islands [Fiji, Ovalau], 1838–1842, [fr./st.], *U.S. South Pacific Exploring Expedition under the command of Capt. Wilkes, 1838–42, s.n.* (US barcode 00113247!; isolectotypes: GH barcode 00075862!, P barcode P00641507!).

Distribution. – Fiji.

Planchonella reticulata (Baill.) Pierre ex Dubard in Ann. Mus. Colon. Marseille, sér. 2, 10: 45. 1912 ≡ *Sideroxylon*

reticulatum Baill. in Bull. Mens. Soc. Linn. Paris 2: 891. 1890 ≡ *Pouteria viscosa* Baehni in Candollea 9: 414. 1942 [nom. nov.] ≡ *Xantolis reticulata* (Baill.) Baehni in Boissiera 11: 23. 1965 ≡ *Pouteria myrsinoides* subsp. *reticulata* (Baill.) P.S.Green in Kew Bull. 45: 251. 1990 – Lectotype (inadvertently designated by Baehni in Candollea 9: 415. 1942): Nouvelle Calédonie, rade de Canala, 2 Nov 1869, [fr.], *Balansa 1827* (P barcode P00292408!; isolectotypes: G barcode G00439360! [fragm.], P barcodes P00292409!, P00292410! & P00374318!).

Distribution. – New Caledonia; occurring in maquis vegetation on ultramafic substrates.

Note. – *Sideroxylon reticulatum* was described by Baillon (1890) based on the collection *Balansa 1827*. There are four sheets of this gathering in the Paris Herbarium, of which only one is annotated with the species name together with Baillon's initials in his own handwriting (P00292408), a sheet later annotated and inadvertently designated as lectotype by Baehni (1942). This sheet could be considered the holotype, but for the time being follow the lectotypification by Baehni (1942) since it is unclear if Baillon ever saw any of the duplicates.

Planchonella rheophytopsis P.Royen in Blumea 8: 428. 1957 ≡ *Iteiluma rheophytopsis* (P.Royen) Aubrév., Fl. Nouv.-Calédonie & Dépend. 1: 126. 1967 – Holotype: Nouvelle Calédonie, entre Tio et Néketé, 1868–1870, [fl.], *Balansa 3469* (L barcode L 0006387!; isotypes: BR barcode BR0000005417230!, E barcode E00265191!, G barcodes G00439357!, G00439358!, G00439359! & G00439409!, MPU barcode MPU019070!, NY barcode 02742509!, P barcodes P00292366!, P00292367! & P00292368!, S No. S07-4110!).

Distribution. – New Caledonia; usually found in maquis on ultramafic substrate.

Planchonella roseoloba Munzinger & Swenson in Taxon 56: 348. 2007 – Holotype: Nouvelle Calédonie, Tchamba, 21°00′19″S, 165°15′01″E, 15 Jul 2004, [fl.], *J. Munzinger 2232* (P barcode P00630506!; isotypes: BRI barcode BRI-AQ0834895!, MO barcode MO-2246990 [No. 6128346]!, NOU barcodes NOU010908! & NOU054699!, S No. S06-12267!).

Distribution. – New Caledonia; occurring in humid forest on micaschist, at 450–700 m elevation.

Planchonella rufocostata Munzinger & Swenson in Taxon 56: 348. 2007 – Holotype: New Caledonia, Province Nord, Touho, Pondanou River valley, south of river, 20°49′06″S, 165°13′11″E, 160 m alt., 8 Oct 2005, [fr.], *U. Swenson & J. Munzinger 725* (P barcode P00612497!; isotypes: A barcode 00286721!, BRI barcode BRI-AQ699081!, CANB barcode CANB691641!, K barcode K000575302!, MO barcode MO-2289224 [No. 6039219]!, NOU barcode NOU000245!, NSW barcode NSW1133564!, S No. S05-10396!).

Distribution. – New Caledonia; in humid forest on micaschist and ultramafic substrates, usually at low elevations.

Planchonella saligna S.Moore in J. Linn. Soc., Bot. 45: 353. 1921 ≡ *Pouteria saligna* (S.Moore) Baehni in Candollea 9: 331. 1942 – Holotype: Mount Panié, among rocks by cascade 1200 ft, 29 Aug 1914, *R.H. Compton 1826* (BM barcode BM001015923!).

Distribution. – New Caledonia; occurring along watercourses on volcanic-sedimentary substrates.

Planchonella sandwicensis (A.Gray) Pierre, Not. Bot.: 36. 1890 ≡ *Sapota sandwicensis* A.Gray in Proc. Amer. Acad. Arts 5: 328. 1862 ≡ *Sideroxylon sandwicense* (A.Gray) Hillebr., Fl. Hawaiian Isl.: 276. 1888 ≡ *Pouteria sandwicensis* (A.Gray) Baehni & O.Deg. in Degener, Fl. Hawaiiensis 1: 23. 1938 – Lectotype (designated by Havran & al. in Syst. Bot. 46: 880. 2021): Iles Sandwich [Hawaiian Islands], Oahu (Montagne), Apr 1855, [fr.], *J. Remy 478* (P barcode P00641513!; isolectotype: P00641512!).

= *Sideroxylon sandwicense* var. *auratum* Hillebr., Fl. Hawaiian Isl.: 277. 1888 – Lectotype (designated by Havran & al. in Syst. Bot. 46: 883. 2021): Molokai [Hawaiian Islands], Jul 1870, [fl.], *W. Hillebrand 18* (US barcode 00440631!).

= *Sideroxylon spathulatum* var. *densiflorum* Hillebr., Fl. Hawaiian Isl.: 277. 1888 ≡ *Planchonella densiflora* (Hillebr.) H.J. Lam in Blumea 5: 21. 1942 ≡ *Planchonella sandwicensis* f. *densiflora* (Hillebr.) H.J.Lam in Blumea 5: 28. 1942 ≡ *Pouteria sandwicensis* f. *densiflora* (Hillebr.) Baehni in Candollea 9: 300. 1942 ≡ *Planchonella spathulata* var. *densiflora* (Hillebr.) H.St.John in Mem. Pacific Trop. Bot. Gard. 1: 273. 1973 – Lectotype (designated by Van Royen in Blumea 8: 409. 1957): Sandwich Isl. [Hawaiian Islands], Kaala auf Oahu, 1870, [fl.], *Hillebrand s.n.* (P barcode P00641504!; isolectotypes: E barcode E00259990!, GH barcode 00075972!).

= *Sideroxylon rhynchospermum* Rock in Bull. Torrey Bot. Club 37: 297. 1910 ≡ *Pouteria rhynchosperma* (Rock) Fosberg in Occas. Pap. Bernice Pauahi Bishop Mus. 23: 39. 1962 ≡ *Planchonella rhynchosperma* (Rock) H.St.John in Mem. Pacific Trop. Bot. Gard. 1: 272. 1973 – Holotype: Hawaiian Islands, Maui, Nahiku, 15 Jan 1909, [st.], *H.L. Lyon 6061* (BISH barcode BISH1016612!; isotype: BISH barcode BISH1016613!).

= *Sideroxylon ceresolii* Rock, Indig. Trees Haw. Isl.: 385. 1913 ≡ *Pouteria ceresolii* (Rock) Fosberg in Occas. Pap. Bernice Pauahi Bishop Mus. 23: 39. 1962 ≡ *Planchonella ceresolii* (Rock) H.St.John in Mem. Pacific Trop. Bot. Gard. 1: 272. 1973 – Holotype: Hawaiian Islands, Maui, Makawao, Waihou Gulch, Mar 1912, [fr.], *J.F. Rock & P. Ceresole 10150* (BISH barcode BISH1014752!; isotype: L barcode L0006394! [fragm.]).

= *Planchonella puulupensis* Baehni & O.Deg. in Degener, Fl. Hawaiiensis, Fam. 293: [s.p.]. 1938 ≡ *Planchonella sandwicensis* f. *puulupensis* (Baehni & O.Deg.) H.J.

Lam in Blumea 5: 26. Jun 1942 ≡ *Pouteria sandwicensis* f. *puulupensis* (Baehni & O.Deg.) Baehni in Candollea 9: 300. Dec 1942 – Holotype: Hawaii, Oahu, Kawailoa, Puulupe, 25 Feb 1937, [bd.], *O. Degener, Topping, Martinez & Salucop 11067* (G barcode G00439356!; isotypes: A barcode 00075970!, L barcode L 0006391!, S No. S06-12225!, US barcode 00440646!).

Distribution. – Hawaii Islands (except Big Island); believed to originally occur in mesic forest between 500 and 1400 m in elevation (Havran & al., 2021).

Planchonella schlechteri (K.Krause) H.J.Lam in Nova Guinea 14: 561. 1932 ≡ *Sideroxylon schlechteri* K.Krause in Bot. Jahrb. Syst. 58: 478. 1923 ≡ *Pouteria schlechteri* (K.Krause) Baehni in Candollea 9: 293. 1942 – Lectotype (designated by Van Royen in Blumea 8: 362. 1957): Papua Nieuw Guinea, bossen bij Saugueti steppe, c. 300 m alt., 19 Sep 1908, [bd.], *R. Schlechter 18856* (L barcode L 0006396!; isolectotypes: P barcodes P00648145!, P00648146!, P00648147! & P00648148!).

Distribution. – Papua New Guinea.

Planchonella serpentinicola Swenson & Munzinger in Austral. Syst. Bot. 31: 467. 2018 – Holotype: New Caledonia, Province Nord, Ile Art, North Plateau, along the most eastern prospecting track, 19°42′06″S, 163°39′49E″, 256 m alt., 26 Aug 2009, [fr.], *U. Swenson, J. Munzinger & L. Barrabé 921* (P barcode P01156238!; isotypes: NOU barcode NOU051206!, S No. S09-36604!).

Distribution. – New Caledonia, mainly the archipelago north of Grande Terre; occurring in shrubby vegetation on serpentine (Gâteblé & al., 2018).

Planchonella sessilis A.C.Sm. & S.P.Darwin in Brittonia 27: 165. 1975 – Holotype: Fiji, Viti Levu, Rewa, summit of Mt. Korombamba, alt. 1408 ft, Jan 1973, [fl.], *S. Vodonaivalu 18093* (A barcode 00075795!; isotypes: BISH barcode BISH1005004!, K barcode K000662816!, MASS barcode 00320416!, NY barcode 00273616!, SUVA n.v., US barcode 00113347!).

Distribution. – Fiji, known only from Mount Korombamba on Viti Levu (Smith, 1981).

Planchonella skottsbergii Guillaumin in Acta Horti Gothob. 18: 256. 1950 – Lectotype (inadvertently designated by Van Royen in Blumea 8: 291. 1957): Nova Caledonia, Montagne des Sources, 7–800 m alt., 17 Jan 1949, [fl., fr.], *C. Skottsberg 19* (S No. S-G-4904!; isolectotypes: NOU barcode NOU010837!, P barcode P00291269! [fragm.]).

Distribution. – New Caledonia; occurring in low, dense forest on ultramafic substrate.

Planchonella smithii (P.Royen) A.C.Sm., Fl. Vit. Nova 2: 757. 1981 ≡ *Planchonella costata* var. *smithii* P.Royen in Blumea 8: 379, 432. 1957 – Holotype: Fiji, Vanua Levu, Mathuata, southern slope of Mt. Numbuiloa, east of Lambasa, 100–350 m alt., 27 Oct–10 Nov 1947, [fr.], *A.C. Smith 6368* (L barcode L 0006350!; isotypes: A barcode 02502610!, BISH barcode BISH1004988!, BRI!, K barcode K000009099!; P barcode P00641549!, S No. S05-10412!, US barcode 00811419!).

Distribution. – Fiji and Vanuatu.

Planchonella spathulata (Hillebr.) Pierre, Not. Bot.: 36. 1890 ≡ *Sideroxylon spathulatum* Hillebr., Fl. Hawaiian Isl.: 277. 1888 ≡ *Planchonella sandwicensis* var. *spathulata* (Hillebr.) H.J.Lam in Blumea 5: 26. Jun 1942 ≡ *Pouteria sandwicensis* var. *spathulata* (Hillebr.) Baehni in Candollea 9: 300. Dec 1942 ≡ *Pouteria spathulata* (Hillebr.) Fosberg in Occas. Pap. Bernice Pauahi Bishop Mus. 23: 40. 1962 – Lectotype (designated by Havran & al. in Syst. Bot. 46: 885. 2021): Iles Sandwich [Hawaiian Islands], Lanai, 1851–1855, [fl.], *J. Remy 475* (L barcode L 0006393!; isolectotypes: GH barcode 00075971!, P barcode P00641511!).

= *Myrsine molokaiensis* H.Lév. in Repert. Spec. Nov. Regni Veg. 10: 154. 1911 ≡ *Suttonia molokaiensis* (H.Lév) H. Lév. in Repert. Spec. Nov. Regni Veg. 10: 373. 1912 ≡ *Sideroxylon spathulatum* var. *molokaiense* (H.Lév.) Rock, Indig. Trees Haw. Isl.: 392. 1913 ≡ *Planchonella spathulata* var. *molokaiensis* (H.Lév.) H.St.John in Mem. Pacific Trop. Bot. Gard. 1: 273. 1973 – Lectotype (designated by Havran & al. in Syst. Bot. 46: 885. 2021): Iles Sandwich [Hawaiian Islands], Molokai, Kamolo, 1000 m, Jun 1910, [fl., fr.], *A. Faurie 435* (P barcode P00641505!; isolectotypes: A barcode 00025570!, BISH barcodes BISH 1010635! & BISH1010636!, BM barcode BM001015920!, G barcode G00439355!, L barcode L 006392!, P barcode P00641520!).

= *Sideroxylon auahiense* Rock in Bull. Coll. Hawaii Publ. 1: 18. 1911 ≡ *Planchonella auahiensis* (Rock) Skottsb. in Acta Horti Gothob. 10: 152. 1936 ≡ *Pouteria auahiensis* (Rock) Fosberg in Occas. Pap. Bernice Pauahi Bishop Mus. 23: 40. 1962 – Holotype: Hawaii Islands, Maui, Kahikinui, Auahi, Oct 1910, *J.F. Rock 8668* (BISH barcode BISH1014756!).

= *Sideroxylon auahiense* var. *aurantium* Rock, Indig. Trees Haw. Isl.: 391. 1913 – *Planchonella aurantia* (Rock) Skottsb. in Acta Horti Gothob. 10: 152. 1936 ≡ *Pouteria aurantia* (Rock) Fosberg in Occas. Pap. Bernice Pauahi Bishop Mus. 23: 40. 1962 – Lectotype (designated by Havran & al. in Syst. Bot. 46: 885. 2021): Hawaiian Islands, Hawaii, South Kona, Kapua, Jan 1912, [st.], *J.F. Rock 10029* (BISH barcode BISH1014754!).

– "*Planchonella sandwicensis* var. *molokaiense*" Lauener in Notes Roy. Bot. Gard. Edinburgh 38: 496. 1980, not validly published (*ICN* Art. 41.1).

Distribution. – Hawaii Islands; believed to originally occur in dry to mesic forest between 250 and 1000 m in elevation (Havran & al., 2021).

Planchonella spectabilis (Miq.) Dubard in Ann. Mus. Colon. Marseille, sér 2, 10: 61. 1912 ≡ *Sapota spectabilis* Miq., Fl. Ned. Ind., Eerste Bijv.: 580. 1861 ≡ *Sideroxylon spectabile* (Miq.) Burck in Ann. Jard. Bot. Buitenzorg 5: 10. 1885 ≡ *Boerlagia spectabilis* (Miq.) Pierre, Not. Bot.: 33. 1890 ≡ *Boerlagella spectabilis* (Miq.) H.J.Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 7: 251. 1925 – Lectotype (designated by Swenson & al. in Taxon 69: 1010. 2020): Sumatra in sylvis prope Tobing, [seed], *Teysmann s.n*. (L barcode L 0006114!; isolectotypes: P barcode P00648149!, U barcode U 0253816!).

= *Sideroxylon longipetiolatum* King & Prain in Ann. Roy. Bot. Gard., Calcutta 9(1): 50. 1901 ≡ *Planchonella longipetiolata* (King & Prain) H.J.Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 7: 218. 1925 ≡ *Pouteria longipetiolata* (King & Prain) Baehni in Candollea 9: 378. 1942 – Lectotype (inadvertently designated by Baehni in Candollea 9: 379. 1942): Andamans, near Port Blair, [without date], *Kurtz s.n*. (not located).

Distribution. – Unclear distribution, but known from Andaman Islands, Christmas Island (Australia), India, Indonesia (Java and Sumatra), and Myanmar.

Planchonella sphaerocarpa (Baill.) Dubard in Ann. Mus. Colon. Marseille, sér. 2, 10: 63. 1912 ≡ *Sideroxylon sphaerocarpum* Baill. in Bull. Mens. Soc. Linn. Paris 2: 891. 1890 ≡ *Pouteria sphaerocarpa* (Baill.) Baehni in Candollea 9: 289. 1942 ≡ *Pyriluma sphaerocarpa* (Baill.) Aubrév., Fl. Nouv.-Calédonie & Dépend. 1: 84. 1967 – Lectotype (designated by Baehni in Candollea 9: 289. 1942): Nouvelle Calédonie, forêts couronnent le Nékou, au-dessus de Bourail, vers 650 m alt, 5 Apr 1869, [fr.], *Balansa 1326* (P barcode P00291423!; isolectotypes: G barcode G00439354! [fragm.], K barcode K000009063!, L barcode L 0790565!, P barcodes P00291421!, P00291422! & P00639333! [fragm.]).

Distribution. – New Caledonia; occurring in humid forest, usually on schist.

Planchonella stellibacca (J.F.Maxwell) Swenson in Taxon 62: 762. 2013 ≡ *Pouteria stellibacca* J.F.Maxwell in Nat. Hist. Bull. Siam Soc. 50: 90. 2002 – Holotype: Thailand, Nakhon Nayok Province, Muang District, Khao Yai National Park, Klong Sai area, 14°24′N, 101°23′E, 760 m alt., 8 Mar 2001, [bd.], *P. Charoenchai 1024* (CMU n.v.; isotypes: A barcode 00139343!, BKF n.v., CAS n.v., L barcode L 0281613!).

Distribution. – Thailand and Borneo (Brunei, Kalimantan, Sabah), Indonesia.

Planchonella tahitensis (Nadeaud) Pierre ex Dubard in Ann. Mus. Colon. Marseille, ser. 2, 10: 50. 1912 ≡ *Sideroxylon tahitense* Nadeaud in J. Bot. (Morot) 11: 111. 1897 ≡ *Pouteria tahitensis* (Nadeaud) Govaerts in Govaerts & al., World Checklist Bibliogr. Sapotaceae: 264. 2002 – **Lectotype (designated here):** [Society Islands], Tahiti, Pinai [vallée Tipaerui], 8 a 900 m alt., 1896, [fl.], *Nadeaud s.n*. (P barcode P00646408!).

= *Bassia amicorum* A.Gray in Proc. Amer. Acad. Arts 5: 327. 1862 ≡ *Madhuca amicorum* (A.Gray) J.F.Macbr. in Contr. Gray Herb., n.s., 53: 18. 1918 ≡ *Burckella amicorum* (A.Gray) H.J.Lam in Bull. Bernice P. Bishop Mus. 154: 35. 1938 – **Lectotype (designated here):** Tonga, Tongatabu, 1838–1842, *U.S. South Pacific Exploring Expedition under the command of Capt. Wilkes, 1838–42 s.n*. (US barcode 00113204!; isolectotype: P barcode P00708605!).

= *Sapota vitiensis* A.Gray in Proc. Amer. Acad. Arts 5: 328. 1862 ≡ *Sideroxylon vitiense* (A.Gray) Benth. & Hook.f. ex Drake, Ill. Fl. Ins. Pacif.: 229. 1892 ≡ *Lucuma vitiensis* (A.Gray) Gillespie in Bull. Bernice P. Bishop Mus. 74: 12. 1930 ≡ *Planchonella grayana* H.St.John in Bull. Bernice P. Bishop Mus. 120: 38. 1934 [nom. nov] ≡ *Planchonella costata* var. *vitiensis* (A.Gray) H.J.Lam in Blumea 5: 7. Jun 1942 ≡ *Pouteria costata* var. *vitiensis* (A. Gray) Baehni in Candollea 9: 305. Dec 1942 – Lectotype (inadvertently designated by Van Royen in Blumea 8: 378. 1957): Feejee Islands, Ovalao [Fiji Islands, Ovalau], 1838–1842, *U.S. South Pacific Exploring Expedition under the command of Capt. Wilkes, 1838–42, s.n*. (US barcode 00113250!; isolectotypes: GH barcode 00075864!, K barcode K000009097!, P barcode P00646399!).

= *Sideroxylon tannaense* Guillaumin in J. Arnold Arbor. 13: 14. 1932 – **Lectotype (designated here):** New Hebrides [Vanuatu], Tanna Island, Lenakel, 200 m alt., 6 Mar 1928, [fl.], *S.F. Kajewski 104* (P barcode P00646394!; isolectotypes: A barcode 0075973!, BRI barcode BRI-AQ0022594!, K barcode K000777994!, NY barcode 00296995!)

= *Planchonella grayana* var. *florencei* Fosberg in Micronesica 25: 196. 1992 – Holotype: Tahiti, Basse vallée de Papenoo, flanc gauche, environ à 4 km de la côte, 17°32′S, 149°26′W, 290 m alt., 17 Oct 1982, [fl.], *J. Florence 3967* (BISH barcode BISH1005008!; isotypes: K barcode K001328582!, L barcode L.4414482!, NY barcode 04205540!, P barcode P04535993!, PAP!, S No. S13-18900!, US barcodes 02704781! & 02704782!).

Distribution. – Widespread in the Pacific, from Vanuatu in the west across Fiji and Cook Islands to the Society Islands in the east; a variable species found in many habitats (Swenson & al., 2013).

Note. – *Sideroxylon tahitense* was described from Tahiti based on at least three different collections made in 1896 by Jean Nadeaud, one with young flowers (25 April), one with open flowers (8 May), and one when the flowers most likely had fallen to the ground (12 June) (Nadeaud, 1897). Lam (1942) thought that the original material from 1896 was lost and selected a neotype from 1897 (*Nadeaud s.n*., P00646400). However, in the Paris Herbarium, the species is represented by no less than 20 sheets collected in 1896, of which 7 are sterile, 10 have the label information "*Nadeaud*: Tahiti 1896", 2 being collected on 12 June, and a single sheet

annotated "Pinai 8 a 900 m, *Nadeaud*: Tahiti 1896". The latter three belong to the original material even if it remains unclear if it represents one or two gatherings. We have selected the better-preserved material as the lectotype (P00646408).

Gray (1862) described *Bassia amicorum* based on poor material containing parts of two different species; leaves of *Planchonella tahitensis* and flowers of either a species of *Burckella* Pierre, *Madhuca* Buch.-Ham. ex J.F.Gmel., or *Palaquium* Blanco. The protologue describes a glabrous corolla with 6 lobes and 18 stamens. *Burckella* and *Madhuca* have usually hirsute or barbate corolla, the former with 8 corolla lobes and 16–18 stamens, the latter with 8–12 corolla lobes and 8–12 stamens (Pennington, 1991), neither matching the description of *B. amicorum*. *Palaquium* has a 6-lobed corolla with a variable number of stamens (10, 13, 18, 24, or more), which best fits the description, but the flower cannot be identified to a species. We therefore attach the name *B. amicorum* to the leaves, which corresponds to *P. tahitensis* and select the best-preserved material (US 00113204) as lectotype.

Sideroxylon tannaense was described by Guillaumin (1932) based on material collected in Vanuatu (*S.F. Kajewski 104*) (known as New Hebrides at the time). Several syntypes of this name exist. Since Guillaumin worked in the Paris Herbarium (Morat, 2010) and that material is the best-preserved specimen, we selected it as the lectotype (P00646394).

Planchonella tenuipes (K.Krause) H.J.Lam in Nova Guinea 14: 564. 1932 ≡ *Sideroxylon tenuipes* K.Krause in Bot. Jahrb. Syst. 58: 476. 1923 ≡ *Pouteria tenuipes* (K.Krause) Baehni in Candollea 9: 298. 1942 – Lectotype (designated by Van Royen in Blumea 8: 401. 1957): New Guinea, Kaiser-Wilhelmsland, Bismar[c]k Geb., 300 m, 29 Oct 1908, [bud], *R. Schlechter 18523* (P barcode P00648152!; isolectotypes: BR barcode BR00000051 99181!, L barcode L 0790566!, P barcodes P00648151! & P00648153!).

Distribution. – New Guinea.

Planchonella teysmanniana (Burck) Dubard in Ann. Mus. Colon. Marseille, sér. 2, 10: 59. 1912 ≡ *Sideroxylon teysmannianum* Burck in Ann. Jard. Bot. Buitenzorg 5: 19. 1885 – **Lectotype (designated here):** New Guinea, Ins. Gebeh, *Teysmann s.n.* [*Herb. Bog. 7486*] (BO No. 092449!; isolectotype: MEL barcode MEL 2467334!).

Distribution. – Gebe Island (Indonesia) and New Guinea.

Note. – Burck (1885) cited the original material as "In Ins. Gebeh (*Teysmann* in Herb. Hort. Bogor No. *7486*)", a collection number appearing only on the Bogor material, but the two identified specimens are otherwise similar in label information, phenology, and how they have been pruned, pressed, and dried. We have selected the specimen that clearly states the Bogor Herbarium number as lectotype.

Planchonella thiensis Aubrév., Fl. Nouv.-Calédonie & Dépend. 1: 155. 1967. – **Lectotype (designated here):** Nouvelle Calédonie, Foret de Thi, Aug 1949, [bud], *Sarlin 82* (P barcode P00291274!; isolectotype: P barcode P00291275!).

Distribution. – New Caledonia; occurring in humid forest on ultramafic substrate.

Note. – Aubréville (1967) described *Planchonella thiensis* based on two sheets of *Sarlin 82* in the Paris Herbarium. We selected the specimen with more flowers (P00291274) as the lectotype.

Planchonella thyrsoidea C.T.White in J. Arnold Arbor. 31: 109. 1950 ≡ *Pouteria thyrsoidea* (C.T.White) T.D.Penn., Gen. Sapotac.: 202. 1991 – Lectotype (inadvertently designated by Van Royen in Blumea 8: 359. 1957): New Guinea, Manus, foothills, [fl.], *H. Hebblethwaite NGF 562* (A barcode 00961361!; isolectotypes: BRI barcode BRI-AQ0022585!, K barcode K001327246!, L barcodes L 0043185! & L 0043186!).

Distribution. – Solomon Islands and the islands northeast of New Guinea; occurring in well-drained to swampy rainforest, on alluvial as well as calcareous soils (Vink, 2002).

Planchonella torricellensis (K.Schum.) H.J.Lam in Nova Guinea 14: 562. 1932 ≡ *Rapanea torricellensis* K.Schum. in Schumann & Lauterbach, Fl. Schutzgeb. Südsee, Nachtr.: 346. 1905 ≡ *Pouteria torricellensis* (K.Schum.) Baehni in Candollea 9: 379. 1942 – **Lectotype** (first-step designated by Van Royen in Blumea 8: 350. 1957 [B†]; **second-step designated here**): Neu-Guinea, Torricelli Geb., 1000 m, Apr 1902, [fl.], *R. Schlechter 14461* (K barcode K000792020!; isolectotypes: BM barcode BM000997167!, BO No. 0091085!, BR barcode BR 0000005416844!, L barcode L 0006397!).

= *Sideroxylon forbesii* S.Moore in J. Bot. 61 (Suppl.): Jun 1923 ≡ *Planchonella forbesii* (S.Moore) H.J.Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 7: 217. 1925 ≡ *Pouteria forbesii* (S.Moore) Baehni in Candollea 9: 408. 1942 ≡ *Krausella forbesii* (S.Moore) H.J.Lam in Boissiera 7: 92. 1943 – **Lectotype (designated here):** New Guinea, Sogeri Region, Mt. Wori-Wori, alt. 5000 ft, 1885–6, [fl.], *H.O. Forbes 756* (BM barcode BM000057904!; isolectotypes: BM barcode BM000057905!, E barcode E00249998!, FI barcode FI008988!, K barcode K000792031!, L barcodes L 0790582! & L 0920150!, MEL barcode MEL 586807!, P barcode P04569056!).

= *Sideroxylon patentinervium* K.Krause in Bot. Jahrb. Syst. 58: 474. Nov 1923 ≡ *Krausella patentinervia* (K.Krause) Erlee in Blumea 8: 448. 1957 – Lectotype (designated by Herrmann-Erlee & Lam in Blumea 8: 448. 1957): Kaiser-Wilhelmsland [New Guinea], in den Wäldern des Kani-Gebirges, 1000 m alt., 31 Oct 1907, [fl.], *R. Schlechter 16746* (P barcode P00648136!).

= *Sideroxylon polyneurum* K.Krause in Bot. Jahrb. Syst. 58: 475. Nov 1923 ≡ *Krausella polyneura* (K.Krause) H.J. Lam in Nova Guinea 14: 567. 1932 ≡ *Pouteria multinervis* T.D.Penn., Gen. Sapotac.: 202. 1991 ≡ *Planchonella*

polyneura (K.Krause) Swenson in Taxon 62: 762. 2013 – Lectotype (designated by Herrmann-Erlee & Lam in Blumea 8: 449. 1957): Deutsch-Neuguinea, Sepikgebiet, [without date], [fl.], *Ledermann 9054* (K barcode K000792025!; isolectotypes: B†, SING barcode 0051852!).

= *Sideroxylon acutum* K.Krause in Bot. Jahrb. Syst. 58: 479. Nov 1923 – **Lectotype (designated here):** Kaiser-Wilhelmsland [Papua New Guinea], Minjem-Tor, 28 Feb 1908, [fl.], *R. Schlechter 17370* (P barcode P00648154!).

= *Planchonella paludosa* H.J.Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 8: 469. 1927 – **Lectotype (designated here):** New Guinea, Rouffaer River, 100 m alt., Nov 1926, [fl.], *D. van Leeuwen 11113* (L barcode L 0006399!; isolectotypes: BO Nos. 0091083!, 0091084! & 0091087!, BRI barcode BRI-AQ0022579!, K barcode K001327245!).

= *Planchonella samoensis* Christoph. in Bull. Bernice P. Bishop Mus. 154: 35. 1938 – Lectotype (designated by Smith, Fl. Vit. Nova 2: 763. 1981): Samoa, Island of Savaii, Salailua-lataitai, 18 Sep 1931, [fl.], *E. Christophersen 2628* (BISH barcode BISH1005002!; isolectotypes: BISH barcodes BISH1005001! & BISH 1005003!, BRI No. BRI-AQ35071!, US barcode 02704724!, WELT No. SP082000!).

– "*Planchonella samoensis*" H.J.Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 7: 218. 1925, not validly published (*ICN* Art. 41.1).

– "*Sideroxylon samoense*" H.J.Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 7: 218. 1925, pro syn., not validly published.

– "*Sideroxylon samoense*" Christoph. in Bull. Bernice P. Bishop Mus. 154: 35. 1938, pro syn., not validly published.

Distribution. – Widespread, from the Lesser Sunda Islands, Seram Island in Indonesia, New Guinea to Vanuatu and Samoa.

Planchonella ulfii Munzinger in Phytotaxa 201: 72. 2015 – Holotype: Nouvelle Calédonie, Province Nord, sommet des roches de la Ouaième, 900 m alt., 4 Nov 2010, [fl.], *J. Munzinger, V. Hequet, H. Vandrot, J.-P. Butin, P. Birnbaum & I. Rounds 6150* (P barcode P00641006!; isotypes: NOU barcode NOU034143!, S No. S22-226!).

Distribution. – New Caledonia; restricted to low-growing, evergreen forest on volcanic-sedimentary substrate.

Planchonella umbonata (P.Royen) A.C.Sm., Fl. Vit. Nova 2: 756. 1981 ≡ *Planchonella costata* var. *umbonata* P.Royen in Blumea 8: 379, 432. 1957 – Holotype: Fiji, Viti Levu, Namosi, Valley of Wainambua Creek, south of Mt. Naitarandamu, 250–350 m alt., 1–5 Oct 1953, *A.C. Smith 8807* (L barcode L 0006351!; isotypes: BISH barcode BISH1004987!, GH barcode 02502714!, K barcode K000009098!, P barcode P00641551!, S No. S05-9384!, US barcode 00113308!).

Distribution. – Fiji; occurring in dense, evergreen forest.

Planchonella wakere (Pancher & Sebert) Pierre, Not. Bot.: 36. 1890 ≡ *Chrysophyllum wakere* Pancher & Sebert in Rev. Marit. Colon. 40: 579. 1874 ≡ *Sideroxylon wakere* (Pancher & Sebert) Baill. in Bull. Mens. Soc. Linn. Paris 2: 882. 1890 ≡ *Pouteria wakere* (Pancher & Sebert) Baehni in Candollea 9: 335. 1942 ≡ *Bureavella wakere* (Pancher & Sebert) Aubrév. in Adansonia, n.s., 3: 332. 1963 ≡ *Xantolis wakere* (Pancher & Sebert) Baehni in Boissiera 11: 23. 1965 – Lectotype (designated by Herrmann-Erlee & Van Royen in Blumea 8: 480. 1957): Nouvelle Calédonie, [without date], [fr.], *Sébert & Fournier 25* (P barcode P00290185!; isolectotypes: BM barcode BM001015926!, P barcode P00369030!).

= *Sideroxylon brousmichei* Baill. in Bull. Mens. Soc. Linn. Paris 2: 885. 1890 ≡ *Planchonella brousmichei* (Baill.) Dubard in Ann. Mus. Colon. Marseille, sér. 2, 10: 44. 1912 ≡ *Pouteria brousmichei* (Baill.) Baehni in Candollea 9: 340. 1942 – Lectotype (inadvertently designated by Baehni in Candollea 9: 341. 1942): Nelle Calédonie, Mar 1868, [fl.], *Montrouzier s.n.* (P barcode P00290284!; isolectotypes: G barcode G00439353! [fragm.], P barcode P00290283!).

= *Chrysophyllum longipes* Baill. in Bull. Mens. Soc. Linn. Paris 2: 900. 1891 ≡ *Pouteria longipes* (Baill.) Baehni in Candollea 9: 330. 1942 ≡ *Planchonella longipes* (Baill.) Aubrév. in Adansonia, n.s., 2: 185. 1962 – Lectotype (inadvertently designated by Baehni in Candollea 9: 331. 1942): Nouvelle Calédonie, Canala, dans les terrains ferrugineux, Nov 1869, [bud], *Balansa 1824* (P barcode P00288499!; isolectotypes: G barcode G00439352! [fragm.], L barcode L 0006435!, P barcode P00288500!).

– "*Planchonella linguiformis*" Pierre, Not. Bot.: 36. 1890, nom. nud. (*ICN* 38.1), not validly published.

Distribution. – New Caledonia; found in moist evergreen forest, restricted to ultramafic substrates.

Planchonella velutina (Elmer) H.J.Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 7: 215. 1925 ≡ *Sideroxylon velutinum* Elmer in Leafl. Philipp. Bot. 5: 1834. 1913 ≡ *Pouteria velutina* (Elmer) Baehni in Candollea 9: 380. 1942 ≡ *Xantolis velutina* (Elmer) Baehni in Boissiera 11: 23. 1965 – **Lectotype** (inadvertently designated by Van Royen in Blumea 8: 412. 1957: *A.D.E. Elmer 13130* [PNH†]; **second-step designated here**): Philippine Islands, Island of Palawan, Mt. Pulgar, Apr 1911, [fl.], *A.D.E. Elmer 13130* (G barcode G00439346!; isolectotypes: A barcode 00075963!, BISH barcode BISH1005021!, BO No. 0092610!, E barcode E00259999!, FI barcode FI018989!, GH barcode 00075962!, HGB barcode HBG-510731!, K barcode K000792036!, L barcode L 0006402!, MO barcode MO-345899 [No. 706775]!, NY barcode 00296997!, P barcode P00648155!, U barcode U 0111086!, US barcode 00113336!).

= *Sideroxylon sarcocarpum* Merr. in Philipp. J. Sci., C, 11: 29. 1916 ≡ *Planchonella velutina* var. *sarcocarpa* (Merr.) H.J.Lam in Bull. Jard. Bot. Buitenzorg, sér. 3, 7: 215.

1925 ≡ *Pouteria velutina* var. *sarcocarpa* (Merr.) Baehni in Candollea 9: 381. 1942 – **Lectotype** (inadvertently designated by Van Royen in Blumea 8: 412. 1957: *Ramos 23415* [PNH†]; **second-step designated here**): Philippines, Province of Sorsogon, Luzon, Jul-Aug 1915, *Ramos 23415* (P barcode P00648156!; isolectotypes: A barcode 00075959!, BISH barcodes BISH1005018! & BISH1005019!, BM barcode BM000057927!, BO No. 0092611!, K barcode K000792033!, L barcode L 0006400!, NY barcode 00296993!, SING barcode 0260925!).

– "*Pouteria velutina* var. *typica*" Baehni in Candollea 9: 381. 1942, not validly published (*ICN* Art. 26).

Distribution. – Philippines.

Distribution. – Solomon Islands; occurring in lowland tropical rainforest.

Planchonella villamilii (Merr.) Swenson in Taxon 62: 762. 2013 ≡ *Sideroxylon villamilii* Merr. in Philipp. J. Sci., C, 10: 59. 1915 ≡ *Pouteria villamilii* (Merr.) Baehni in Candollea 9: 318. 1942 ≡ *Bureavella villamilii* (Merr.) Aubrév. in Adansonia, n.s., 3: 331. 1963 – **Lectotype** (inadvertently designated by Herrmann-Erlee & Van Royen in Blumea 8: 485. 1957: *FB 19762* [PNH†]; **second-step designated here**): Philippines, Luzon, Province of Laguna, Jun 1913, [fl.], *A. Villamil, Forest Bureau 19762* (US barcode 00113337!).

Distribution. – Philippines.

Note. – *Sideroxylon villamilii* was described on material collected by A. Villamil in June 1913 (*FB 19762*) and September 1913 (*FB 20604*), with *FB 19762* selected as the type by Merrill (1915). Baehni (1942) incorrectly cited the second collection (*FB 20604*) as the type, a mistake corrected by Herrmann-Erlee & Van Royen (1957) when they inadvertently lectotypified the name on the specimen presumably present in PNH before the herbarium was destroyed during World War II. We have lectotypified the name on the only material we have been able to locate (US barcode 00113337).

Planchonella vitiensis Gillespie in Bull. Bernice P. Bishop Mus. 74: 11. 1930 ≡ *Pouteria vitiensis* (Gillespie) O.Deg., Naturalist's S. Pacif. Exped. Fiji: 294. 1949 – **Lectotype** (inadvertently designated by Van Royen in Blumea 8: 381. 1957 [BISH]; **second-step designated here**): Fiji, Ovalau, Rocky Knobs, mountains 3 miles N.W. of Levuka, 150 m alt., 1 Feb 1928, [fr.], *J.W. Gillespie 4546* (BISH barcode BISH1005006!; isolectotypes: A barcode 00075797!, BISH barcode BISH1005007!, BO No. 0092855!, BRI barcode BRI-AQ0022586!, K barcode K000777977!, L barcode L 0006403! [fragm.], P barcode P00641550!, US barcode 00113348!).

Distribution. – Fiji.

Planchonella vrieseana (Pierre ex Burck) Dubard in Ann. Mus. Colon. Marseille, sér. 2, 10: 59. 1912 ≡ *Sideroxylon vrieseanum* Pierre ex Burck in Ann. Jard. Bot. Buitenzorg 5: 18. 1885 ≡ *Siderocarpus vrieseanus* (Pierre ex Burck) Pierre, Not. Bot.: 31. 1890 ≡ *Pouteria vrieseana* (Pierre ex Burck) Baehni in Candollea 9: 336. 1942 ≡ *Xantolis vrieseana* (Pierre ex Burck) Baehni in Boissiera 11: 23. 1965 – **Lectotype (designated here):** [Indonesia], Batjan [Bacan Island], [without date], [fr.], *Teysmann s.n.* (P barcode P00648159!; isolectotypes: BO No. 0092630!, MEL barcodes MEL 2467817! & MEL 2467817!, P barcodes P00648158! & P00648160!, U barcode U 0079972!).

Distribution. – Indonesia, Maluku Islands.

Note. – *Sideroxylon vrieseanum* was described by Burck (1885) based on a manuscript by J.B.L. Pierre and material collected by Teysmann (*Teysmann s.n.*) in "Batjan", now Bacan Island in the Moluccas, Indonesia. The name was inadvertently lectotypified by Van Royen (1957) on a specimen in the Leiden Herbarium from Batjan (*de Vriese 42*), annotated as *Teysmann 5881*, believed being part of the original material with the number allocated to the sheet upon transport between Utrecht and Bogor (Van Royen, 1957: 331). However, comparison of *Teysmann s.n.* and *de Vriese 42* shows materials in two different phenological states. Burck's (1885) protologue, based on *Teysmann s.n.*, describes calyx, ovary, fruit, and seeds (no corolla), whereas Pierre's (1890) transfer of the species to *Siderocarpus*, based on *de Vriese 42*, includes features of corolla, stamens, and staminodes. Given these phenological differences, the lectotype *de Vriese 42* (L 0006434) inadvertently selected by Van Royen (1957) must be superseded since evidently it is not part of the original material and not fully in conformity with the protologue (*ICN*, Art. 9.3 and 9.19; Turland & al., 2018). We have therefore selected the best-preserved specimen of *Teysmann s.n.* (P00648159) that best matches the original description, a specimen once part of Pierre's herbarium.

Planchonella whitmorei (Vink) Swenson in Taxon 62: 762. 2013 ≡ *Pouteria whitmorei* Vink in Blumea 47: 142. 2002 – Holotype: Solomon Islands, South Vella Lavella Island, Oula River area, 14 Aug 1968, [fr.], *C. Kotali & collectors BSIP 11182* (L barcode L 0329655!; isotypes: K barcode K001327257!, SING barcode 0262273!).

Planchonella xylocarpa (C.T.White) Swenson, Bartish & Munzinger in Cladistics 23: 222. 2007 ≡ *Pouteria xylocarpa* C.T.White in J. Arnold Arbor. 31: 111. 1950 ≡ *Bureavella xylocarpa* (C.T.White) Aubrév. in Adansonia, n.s., 3: 332. 1963 – Lectotype (inadvertently designated by Herrmann-Erlee & Van Royen in Blumea 8: 472. 1957): [Papua New Guinea], New Britain, Namtambu, Broken Bay, May 1945, [fl.], *K. Mair NGF 1883* (BRI barcodes BRI-AQ022604!; isolectotypes: A barcode 00075840!, K barcode K000792021!, L barcode L 0006437!, LAE n.v., MEL barcode MEL 2467314!, NSW barcodes NSW703813! & NSW703824!).

= *Planchonella ripicola* P.Royen in Blumea 8: 372, 432. 1957 – **Lectotype (designated here):** [New Guinea, Sorong District, Roefei River north of the town, about 1 km from

the sea, 20 Mar 1954], [fr.], *P. van Royen 3098* (L barcode L 0006389!; isolectotypes: A barcode 00061551!, BO No. 0092894!, CANB barcode CANB41024!, K barcode K000792024!, L barcode L 0006388!, SING barcode 0261231!).

Distribution. – Australia, New Guinea, Solomon Islands.

Note. – The type of *Planchonella ripicola* (*P. van Royen 3098*) was deposited with two sheets in the Leiden Herbarium of which one is labelled (L 0006389) and one is unlabelled, with just the collection number and a type label (L 0006388). The two sheets were presumably intended to form one specimen, but their labelling is not clear enough to fulfil the requirements of Art. 8.3 of the *ICN* (Turland & al., 2018), and we have inferred label data from the labelled sheet to the lectotype, which is a more complete specimen.

■ REMAINING PROBLEMS

Searching for type specimens and material useful for molecular analysis of *Planchonella* in many herbaria yielded several collections that cannot be matched to any described species. Some have been possible to sequence, some have not amplified; some have been collected in several phenological states, others with incomplete flower and/or fruit; and yet others have been recovered in the phylogeny addressing complexities. A few species of *Planchonella*, even without analyses, are better classified in other genera and need to be transferred. Our purpose here is to draw intention to some of these problems that hopefully can be dealt with in the near future, especially when more complete material is available.

Undescribed species. — Our result lends clear support for four lineages meriting species status, one from the Indonesian archipelago (Q4), a second from Borneo (Q6), a third from New Guinea (Q11), and a fourth from the Maluku Islands (Q15). Other lineages not discussed herein or identified from before are listed below.

Planchonella "Havel 17408" is a species from Papua New Guinea with several fascicles borne in close proximity along shoots, without or with some scattered leaves. It is characterised by almost woolly, chestnut-brown indumentum along primary and secondary leaf veins, pedicels, and both surfaces of the sepals. It is known from two gatherings, *Havel & School 17408* (BRI, CANB, K, SING) from Central District and *Croft & al. NGF 68799* (BO, CANB, K) from Fergusson Island north of the eastern tip of Milne Bay. DNA has been extracted from both collections, but never amplified. However, the plant has all flowering features matching the genus *Planchonella* and merit species recognition.

Planchonella "Munzinger 6490" (Fig. 5), a Fijian specimen, first placed among *Planchonella* species from Fiji by Swenson & al. (2014), but with ampler sample it is here recovered as sister to *P. calcarea*, *P. micronesica*, and the new species from the Maluku Islands (Q15), lineages restricted to rather small islands. *Planchonella* "Munzinger 6490" is known from three collections (*Munzinger & al. 6490* [NOU, P, S, SUVA], *Smith 9419* [K, S], *Smith 9635* [K, S]), the former from Vanua Levu, the two latter from Viti Levu. The plants are superficially similar to *P. brevipes*, but differ in that the lower blade surface is covered by very tiny, bright, round dots of unclear origin (possibly trichome scars), a feature not present in *P. brevipes*. Available material has either buds or young fruit, which is suboptimal for describing the species.

Planchonella "Pillon 150" is known from a single specimen (*Pillon & al. 150* [NOU, P, S]) collected on the ultramafic mountain Boulinda, Grande Terre, New Caledonia. It was sequenced and placed with strong support in a *Planchonella* clade restricted to New Caledonia of which most species have ridged fruits. It was placed near *P. kaalaensis* (Swenson & al., 2013), but its closest relative is probably *P. ulfii* (Swenson & al., 2020). Its known morphology is similar to *P. kaalaensis*, especially in its brown, tomentulose lower leaf surface and villous to woolly sepals, but the leaves are broadly elliptic, not linear to oblanceolate as in *P. kaalaensis*. Few but incomplete flowers are from July and fruit is unknown. We are confident that this plant merits species status, likely as a micro-endemic species, but it is also likely threatened by open-cast mining, which generally threats unique ultramafic ecosystems (Lannuzel & al., 2022).

Planchonella "Ridsdale 487" (Fig. 3) is known from three collections, *Wood 15144* (BRI, K) from Borneo, *Ridsdale & al. 401* (K, L, PNH) and *Ridsdale & al. 487* (K, L), the latter two gathered in Luzon, the Philippines, of which the former has parts of fruit husks (flowers unknown). It was collected on ultrabasic soil along a watercourse on the east coast at 50 m altitude. Obtained ETS and ITS sequences, analysed in a Bayesian framework, placed the sample between *P. malaccensis* and *P. pomifera*, and its foliage is certainly similar to *P. malaccensis*. We believe this represents an undescribed species from the Philippines, possibly endemic to Luzon, but more fertile material is needed before it can be described.

Planchonella "Takeuchi 25495" is strongly embedded in a clade of large-leaved species of which several most likely are undescribed or which species limits are unclear (Fig. 5). *Takeuchi & al. 25495* (A, G, L, LAE, MO, P, S) was first identified as *P. cyclopensis* (Swenson & al., 2013, 2014), but herein, compared with *P. orkor*, it became obvious that it has been misidentified and instead represents an undescribed species. We can envision a majestic forest tree with 17–20 × 9–13 cm large leaves, pronounced secondary and oblique tertiary venation, all veins on the lower surface covered in hispid, Y-shaped trichomes that also are dispersed in a lower density on the blade itself. It does resemble the obovate-leaved *P. cyclopensis*, but has broadly elliptic leaves with much more prominent leaf venation on the lower blade. It is only known from West Sepik Province (Papua New Guinea) with dropped flowers. It certainly deserves species recognition but since corolla, fruit, and seeds are unknown, more fertile material is needed before it can be described.

Species to be transferred to *Pleioluma*. — Our effort has been to cover all names previously or currently (powo.science.kew.org) accepted in *Planchonella*. The process has identified a handful of species that are better transferred or studied in a context of *Pleioluma*. The species below are excluded from *Planchonella*.

Planchonella nebulicola H.J.Lam is a species described from two syntype collections, both from New Guinea, *Ledermann 11668* from the Schrader Mountains (2070 m alt.) and *Ledermann 11337* from Hunstein Peak (1300 m alt.). Neither of these have been located. Van Royen (1957) cited *Womersley 5339*, which has been located in two herbaria (CANB, K), material that clearly belongs to the genus *Pleioluma*, which prompt us to exclude it from *Planchonella*.

Planchonella papuanica Pierre ex Dubard, transferred to *Chrysophyllum* by Van Royen (1957), was described from New Guinea based on a collection made by the Italian naturalist Odoardo Beccari (*Beccari 350*), deposited in herbaria in Florence, Harvard, and Paris (A, FI, P) (not located at A; B. Franzone, in email). The flowers are poorly preserved, but are female, lack staminodes, and possess five reduced stamens inserted in the base of the corolla tube (Vink, 1958). *Chrysophyllum* can be dismissed because it is a genus restricted to the New World (Faria & al., 2017; Swenson & al., 2023a). The foliage has an areolate higher leaf venation and the above floral character combination is present in several species of *Pleioluma*, a frequently gynodioecious genus, well-represented in New Caledonia and New Guinea (Swenson & al., 2018). We therefore believe that this species is best accommodated in *Pleioluma*.

Sideroxylon peekelii K.Krause, or *Planchonella peekelii*, as outlined above (Q14), has to be transferred to *Pleioluma*, and a neotype designated because the neotype designated by Van Royen (1957: 402) is in serious conflict with the protologue (*ICN*, Art. 9.19; Turland & al., 2018) since molecular analysis embeds it in *P. myrsinodendron*, a species with non-areolate higher leaf venation, stamens inserted just below corolla tube orifice, and verrucose area around the persistent style, features at odd with *P. peekelii*, which has an areolate higher leaf venation and stamens inserted below the middle of the corolla tube. The first author has visited many herbaria (BM, BO, BRI, CANB, K, MEL, P, SING) and no additional material corresponding to the protologue of *S. peekelii* has been located. We suggest therefore that Lam's (1932) illustration in *Nova Guinea* 14 of the original material, before it got lost during World War II, be chosen as the neotype in a future treatment of *Pleioluma*.

Palaquium sussu Engl. was described on material (*Kärnbach s.n.*) from New Guinea (Engler, 1895), deposited in the Berlin Herbarium, which was destroyed in World War II. The species was transferred to *Planchonella* by Lam (1932) and a neotype and isoneotypes (*Clemens 888*), distributed in several herbaria (CANB, G, K, L, S, SING), was designated by Van Royen (1957). However, a cursory inspection of the leaves revealed an areolate higher-order leaf venation characteristic for *Pleioluma*. Even if material appropriate for molecular analysis is lacking, *Planchonella sussu* (Engl.) H.J.Lam is excluded from *Planchonella* and should be transferred to *Pleioluma*.

Species to be transferred to *Sideroxylon*. — Material of *Planchonella yunnanensis* C.Y.Wu, endemic to south-central China, has been impossible to obtain for phylogenetic analysis. *Flora of China* places it in *Sinosideroxylon* (Engl.) Aubrév. (Wu & Raven, 1996), a genus united with *Sideroxylon* by Pennington (1991). *Planchonella yunnanensis* has 5-merous flowers with rather round sepals, equally long corolla lobes and tube, stamens and staminodes inserted at the same level at the corolla tube orifice, and a basal seed scar. These characters do not match *Planchonella*, but perfectly match the morphology of *Sideroxylon* sensu Pennington (1991), even if *Xantolis* Raf. is somewhat similar, a genus with pointed sepals and a ventral (axial) seed scar.

Excluded species. — *Planchonella erringtonii* Dubard was described from a single, sterile specimen (*Errington de la Croix 13*) collected in the Malacca Peninsula and housed in the Paris Herbarium (Dubard, 1911). It was later transferred to *Pouteria* by Baehni (1942), a genus not native to the Old World (Faria & al., 2017; Swenson & al., 2023a) and excluded from *Planchonella* by Van Royen (1957). Type material has not been located, but the protologue describes a large-leaved (17–27 × 4.3–9.0 cm) specimen with transverse tertiaries and ferruginous indumentum on the lower leaf surface. *Planchonella malaccensis* has a similar morphology, but in the absence of type material of *P. erringtonii* it is uncertain if they are conspecific. In any event, if this proves to be the case, the name *P. malaccensis* (1882) has priority over *P. erringtonii* (1911).

Chrysophyllum rhodoneurum Hassk. was described by Hasskarl (1855) and placed in synonymy of *Planchonella duclitan* by Lam (1925; see also https://powo.science.kew.org). From the protologue it is clear that sepals, corolla, ovary, and fruit were available to Hasskarl. However, identified type specimens (L.2654767, P04609802, U.1731213) are all sterile, but bear a brownish-red tomentum on the lower leaf surface, especially along the secondary veins, which is reflected in the name. Such indumentum is not present in any specimens of *P. duclitan* across its distribution. Therefore, *C. rhodoneurum* is excluded as a synonym of *P. duclitan*, but in the absence of fertile material the identity of this taxon remains unclear, and it is uncertain if the material even represents *Planchonella*.

■ AUTHOR CONTRIBUTIONS

US conceived the study, visited [not visited] and obtained material for DNA analysis in many herbaria (BM, BO, BRI, CANB, [E], K, MEL, [MO], P, S, SING, UPS), aligned the matrices, produced the figures, and wrote the bulk of the text, assisted by BL. US and BL prepared the nomenclatural section. SN and US performed the analyses. PWKH obtained GenBank accession numbers for ETS and ITS, checked species distribution, and organised various things at the Bogor Herbarium and Garden. BC has been the reliable staffer in the laboratory and submitted *RPB2* sequences to GenBank.

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Appendix 1. List of voucher specimens for material included in this molecular phylogenetic analysis of *Planchonella* (Sapotaceae, Chrysophylloideae). Sequences published here have the prefix OR, PP, or PQ; sequences which failed to amplify are abbreviated "NS".

Taxon, origin, collector(s) name(s) and number (herbaria), ETS accession, ITS accession, *RPB2* accession.

ROOT. ***Sahulia suboppositifolia*** (H.J.Lam) Swenson, New Guinea, *R. Pullen 7499* (L), MN796273, MN796264, MN796281. INGROUP. ***Chrysophyllum bakhuizenii*** P.Royen, Papua New Guinea, *C.E. Carr 14159* (isotype of *C. bakhuizenii*) (BM), OR965781, OR996128, PP994706. ***Chrysophyllum bakhuizenii*** P.Royen, Papua New Guinea, *W. Takeuchi & al. 18997* (S), HE860150, HE860076, HE995600. ***Planchonella amieuana*** (Guillaumin) Aubrév., New Caledonia, *V. Dumontet, C. Zongo & P. Maituku 510* (NOU, P, S), HE860168, EF025090, HE995612. ***Planchonella aneityensis*** (Guillaumin) H.J.Lam ex P.Royen, Vanuatu, Espiritu Santo, *J. Munzinger, P. Lowry & M. Tuiwawa 3665* (NOU, P, S), HE860169, HE860083, HE995724. ***Planchonella annamensis*** Pierre ex Dubard, Thailand, *D.J. Middleton & al. 3762* (L), MH193998, MH194061, MH194110. ***Planchonella annamensis*** Pierre ex Dubard, Vietnam, Bach Ma National Park, *N.T. Cuong & al. 406* (P), OR965782, OR996129, PP994692. ***Planchonella annamensis*** Pierre ex Dubard, Vietnam, Rao An, *D.D. Soejarto & al. 11130* (L), MH193999, MH194062, NS. ***Planchonella anteridifera*** (Lane-Poole) H.J.Lam, Papua New Guinea, *W. Takeuchi & D. Ama 17902* (LAE, S), HE860170, EF025109, HE995751. ***Planchonella arnhemica*** (F.Muell. ex Benth.) P.Royen, Australia, *R.K. Harwood 1170* (S), HE860171, AY552107, HE995663. ***Planchonella asterocarpon*** (P.Royen) Swenson, Bartish & Munzinger, Australia, *I.V. Bartish & A. Ford 25* (BRI, S), HE860172, DQ154078, HE995664. ***Planchonella australis*** (R.Br.) Pierre, Australia, *A.G. Floyd s.n.* (S), HE860173, AY552148, HE995613. ***Planchonella baillonii*** (Zahlbr.) Dubard, New Caledonia, Goro, *J. Munzinger & G. Dagostini 2119* (MO, NOU, P, S), HE860174, HE860084, HE995725. ***Planchonella baillonii*** (Zahlbr.) Dubard, New Caledonia, Dumbéa, *H.S. MacKee 9914* (P), MH194000, AY552141, MH194111. ***Planchonella* "Bangun 685"**, Indonesia, Maluku Islands, *T.J.F. Bangun & al. 685* (MO, S), OR965783, OR996130, NS. ***Planchonella* "Bangun 685"**, Indonesia, Maluku Islands, *I. Gushilman & al. 530* (MO, S), OR965784, OR996131, PP994727. ***Planchonella* "Bangun 685"**, Indonesia, Maluku Islands, *S.A. Lasut & al. 13* (MO, S), OR965785, OR996132, PP994705. ***Planchonella brevipes*** A.C.Sm., Fiji, Viti Levu, *J. Munzinger 6514 & al.* (NOU, P, SUVA, S), HE860212, HE860107, HE995737. ***Planchonella calcarea*** (Hosok.) P.Royen, Caroline Islands, Palau, *C. Costion 3352* (PTBG), MH194002, MH194064, MH194113. ***Planchonella cauliflora*** Munzinger & Swenson, New Caledonia, *J. Munzinger, D.I. & C. Létocart & R. Amice 3495* (NOU, P, S), HE860175, HE860085, HE995666. ***Planchonella chartacea*** (F.Muell. ex Benth.) H.J. Lam, Australia, Queensland, *I.V. Bartish & L. Jessup 1* (BRI, S), HE860176, HE862231, HE995665. ***Planchonella chartacea*** (F.Muell. ex Benth.) H.J. Lam, Australia, Queensland, *I.V. Bartish & A. Ford 16* (BRI, S), MH194003, DQ154064, MH194114. ***Planchonella chartacea*** (F.Muell. ex Benth.) H.J. Lam, Australia, Queensland, Pin Gin Hill, *B. Gray 1907* (MEL), OR965786, OR996133, PP994694. ***Planchonella chartacea*** (F.Muell. ex Benth.) H.J. Lam, Australia, Queensland, *T.S. Risley 104* (BRI), OR965787, OR996134, PP994693. ***Planchonella chartacea*** (F.Muell. ex Benth.) H.J.Lam, Bougainville,

Appendix 1. Continued.

L.A. Craven & R. Schodde 226 (BRI), OR965788, OR996135, PP994695. ***Planchonella chartacea*** (F.Muell. ex Benth.) H.J.Lam, Indonesia, Maluku Islands, *T.J.F. Bangun 539* (MO, S), OR965789, OR996136, NS. ***Planchonella chartacea*** (F.Muell. ex Benth.) H.J.Lam, Papua New Guinea, East Sepik District, *R. Robbins 2510* (CANB), OR965791, OR996138, PP994704. ***Planchonella chartacea*** (F.Muell. ex Benth.) H.J.Lam, Papua New Guinea, Gulf District, *R. Schodde & L.A. Craven 4239* (BRI), OR965790, OR996137, PP994696. ***Planchonella chartacea*** (F.Muell. ex Benth.) H.J.Lam, Papua New Guinea, Sepik District, *R.D. Hoogland & L.A. Craven 10921* (BRI), OR965792, OR996139, PP994698. ***Planchonella chartacea*** (F.Muell. ex Benth.) H.J.Lam, Singapore, *H.K. Lua & al. 2020-149* (SING), OR965793, OR996140, PP994736. ***Planchonella cinerea*** (Pancher ex Baill.) P.Royen, New Caledonia, *J.-M. Veillon 7878* (P), MH194004, AY552144, MH194115. ***Planchonella clemensii*** (Lecomte) P.Royen, China, Hainan, *F.C. How 73783* (S), HE860177, HE860086, HE995692. ***Planchonella clemensii*** (Lecomte) P.Royen, Vietnam, *U. Swenson & al. 2069* (S), OR965794, OR996141, PP994726. ***Planchonella contermina*** Pierre ex Dubard, New Caledonia, *J. Munzinger & V. Dumontet 2285* (NOU, P, S), MH194005, DQ154065, MH194116. ***Planchonella costata*** (Endl.) Pierre, New Zealand (cultivated in Edinburgh), *B.S. Robertson 9* (E), HE860178, MH194065, HE995726. ***Planchonella costata*** (Endl.) Pierre, Norfolk Island, *R.D. Hoogland 11355* (CANB), MW924257, MW843537, NS. ***Planchonella cotinifolia*** (A.DC.) Dubard, Australia, Queensland, *L. Jessup 5280* (BRI), MH194006, MH194066, MH194117. ***Planchonella crassinervia*** Dubard, New Caledonia, *J. Munzinger 2275* (NOU, P, S), HE860180, DQ154067, HE995667. ***Planchonella dothioensis*** (Aubrév.) Swenson, Bartish & Munzinger, New Caledonia, *J. Munzinger 995* (MO, NOU, P, S), HE860183, AY552138, HE995668. ***Planchonella duclitan*** (Blanco) Bakh.f., Christmas Island, *B.A. Mitchell 201* (MEL), OR965795, OR996142, PP994699. ***Planchonella duclitan*** (Blanco) Bakh.f., Indonesia (type of *Sideroxylon celebicum* Pierre ex Burck), *Teysmann s.n.* (MEL), OR965796, OR996143, NS. ***Planchonella duclitan*** (Blanco) Bakh.f., Philippines, Camiguin Island, *R. Fuentes & L. Fernando 37140* (L), HE860184, HE860089, NS. ***Planchonella duclitan*** (Blanco) Bakh.f., Philippines, Luzon, *E.D. Merrill 3413* (BM), OR965797, OR996144, NS. ***Planchonella duclitan*** (Blanco) Bakh.f., Taiwan, *W.-P. Leu 2138* (E), OR965798, OR996145, PP994700. ***Planchonella eerwah*** (F.M.Bailey) P.Royen, Australia, *A.G. Floyd s.n.* (S), EU661400, AY552147, HE995669. ***Planchonella endlicheri*** (Montrouz.) Guillaumin, New Caledonia, *J. Munzinger & P.P. Lowry 2038* (K, MPU, P, S), HE860185, DQ154068, HE995614. ***Planchonella ericiflora*** Munzinger & Swenson, New Caledonia, *J. Munzinger & al. 4197* (NOU, P, S), HE860186, HE860090, HE995660. ***Planchonella euphlebia*** (F.Muell.) Francis, Australia, *I.V. Bartish & A. Ford 18* (BRI, MO, S), HE860187, DQ154069, HE995727. ***Planchonella forbesii*** (S.Moore) H.J.Lam, Indonesia, West Papua, *K. Armstrong 317* (E, S), HE860154, HE860078, HE995686. ***Planchonella garberi*** Christoph., Samoa (cultivated in McBryde Garden, Kauai), *U. Swenson, C. Havran & V. Ulfsson 1606* (CAU, S), MH194009, MH194069, MH194119. ***Planchonella garberi*** Christoph., Solomon Islands, *Henderson 478* (K), OR965799, OR996146, NS. ***Planchonella garberi*** Christoph., Vanuatu, Efaté, *L. Ramon 230* (P), OR965800, OR996147, PP994701. ***Planchonella garberi*** Christoph., Vanuatu, Maewo Island, *P. Curry 510* (K), OR965801, OR996148, PQ008011 + PQ008012. ***Planchonella garberi*** Christoph., Futuna, *J. Munzinger 5330* (NOU, P, S), HE860203, HE860100, HE995733. ***Planchonella garcinioides*** (K.Krause) Swenson, Indonesia, Sumatra, *Deden & al. 116a* (K), OR965802, OR996149, NS. ***Planchonella garcinioides*** (K.Krause) Swenson, Papua New Guinea, East Sepik District, *W. Takeuchi & al. 17286* (S), HE860226, EF025104, HE995675. ***Planchonella garcinioides*** (K.Krause) Swenson, Papua New Guinea, Morobe Province, *J.S. Womersley 19367* (BRI), OR965804, OR996151, PP994702. ***Planchonella garcinioides*** (K.Krause) Swenson, Papua New Guinea, Morobe Province, *T.G. Hartley 12270* (CANB), OR965803, OR996150, PP994697. ***Planchonella garcinioides*** (K.Krause) Swenson, Papua New Guinea, Morobe Province, *W. Takeuchi 7085* (CANB), OR965805, OR996152, PP994703. ***Planchonella glauca*** Swenson & Munzinger, New Caledonia, *U. Swenson, G. McPherson & A. Mouly 625* (S), HE860189, AY552104, HE995728. ***Planchonella grandifolia*** (Wall.) Pierre, Thailand, *J.F. Maxwell 91-362* (L), MH194010, MH194070, NS. ***Planchonella guillauminii*** H.J.Lam, Vanuatu, Aneityum Island, *M. Bennett 13* (K), OR965806, OR996153, NS. ***Planchonella kaalaensis*** Aubrév., New Caledonia, *U. Swenson & J. Munzinger 706* (S), HE860196, HE860097, HE995694. ***Planchonella koumaciensis*** Aubrév., New Caledonia, *U. Swenson & J. Munzinger 710* (MO, NOU, P, S), MH194050, EF025096, MH194160. ***Planchonella kuebiniensis*** Aubrév., New Caledonia, *J. Munzinger & D. Létocart 2057* (NOU, P, S), HE860198, DQ154070, HE995670. ***Planchonella laetevirens*** (Baill.) Pierre ex Dubard, New Caledonia, *J. Munzinger, M. Pignal & P. Lowry 2001* (NOU, P, S), HE860199, DQ154071, HE995618. ***Planchonella latihila*** Munzinger & Swenson, New Caledonia, *J. Munzinger & G. Dagostini 2394* (NOU, P, S), MH194011, EF025097, MH194120. ***Planchonella lauracea*** (Baill.) Dubard, New Caledonia, *G. McPherson & J. Munzinger 18070* (MO, S), HE860201, AY552146, HE995731. ***Planchonella leptostylidifolia*** Guillaumin, New Caledonia, *G. Dagostini 850* (NOU, P, S), MH194012, DQ154072, MH194121. ***Planchonella lifuana*** (Baill.) Pierre ex Dubard, New Caledonia, Loyalty Islands, Lifou, *J. Munzinger 3317* (NOU, P, S), MH194013, EF025098, MH194122. ***Planchonella linggensis*** (Burck) Pierre, Alofi, *J. Munzinger & J.Y. Meyer 5507* (S), OR965807, OR996154, PP994707. ***Planchonella linggensis*** (Burck) Pierre, Indonesia, Papua, *A.M. Polak 1214* (L), MH194015, MH194071, MH194124. ***Planchonella linggensis*** (Burck) Pierre, Indonesia, Papua, *A.M. Polak 987* (L), MH194016, MH194072, MH194125. ***Planchonella linggensis*** (Burck) Pierre, Indonesia, Sulawesi, *E.L. Bynum* 7065 (K), OR965808, OR996155, PP994734. ***Planchonella linggensis*** (Burck) Pierre, New Caledonia, Lifou, *Balansa 1828* (BM), OR965809, NS, NS. ***Planchonella linggensis*** (Burck) Pierre, New Caledonia, *unknown collector* (P00208707), MH194014, AY552140, MH194123. ***Planchonella linggensis*** (Burck) Pierre, Philippines, Palawan, *A.C. Podzorski 553* (BRI), OR965810, OR996156, NS. ***Planchonella linggensis*** (Burck) Pierre, Philippines, Palawan, *M. Stone & al. 30* (K), OR965811, OR996157, PP994708. ***Planchonella linggensis*** (Burck) Pierre, Papua New Guinea, *W. Takeuchi & al. 21108* (LAE, S), HE860204, HE860101, HE995695. ***Planchonella longipetiolata*** (King & Prain) H.J.Lam, Bangladesh, *Prain s.n.* (MEL), NS, OR996197, NS. ***Planchonella luteocostata*** Munzinger & Swenson, New Caledonia, *J. Munzinger, T. Jaffré & F. Roumagnac 2375* (NOU, S), EU661401, EF025099, HE995755. ***Planchonella maclayana*** (F.Muell.) Swenson, Papua New Guinea, Madang Province, *R. Pullen 1218* (CANB), OR965812, OR996158, PP994709. ***Planchonella maclayana*** (F.Muell.) Swenson, Papua New Guinea, Madang Province, *Regaldo & Katik 1102* (L), HE860239, HE860118, HE995698. ***Planchonella maclayana*** (F.Muell.) Swenson, Papua New Guinea, Umboi Island, *B. Conn & P. Katik 66020* (BRI), OR965813, OR996159, NS. ***Planchonella maclayana*** (F.Muell.) Swenson, Papua New Guinea, East Sepik Province, *W. Takeuchi, J. Wiakabu & D. Ama 22164* (CANB), OR965814, OR996160, NS. ***Planchonella maclayana*** (F.Muell.) Swenson, Solomon Islands, Fauro Island, *Whitmore's Collectors 5697* (K), OR965815, OR996161, NS. ***Planchonella macrantha*** (Merr.) Swenson, Indonesia, Papua, *R.P. Mangold 2236* (L), MH194060, MH194109, MH194168. ***Planchonella macrantha*** (Merr.) Swenson, Indonesia, Papua, *R.P. Mangold 2238* (CANB), OR965816, OR996162, NS. ***Planchonella macrantha*** (Merr.) Swenson, Philippines, Mindoro, *M. Ramos 39560* (P), OR965817, OR996163, NS. ***Planchonella maingayi*** (C.B.Clarke) P.Royen, Malaysia, Pahang, *K. Hisham & al. 52101* (SING), OR965818, OR996164, NS. ***Planchonella maingayi*** (C.B.Clarke) P.Royen, Malaysia (cult. in Singapore Botanical Garden), *P. Wilkie & A.T. Gwee 507* (E), HE860205, HE860102, HE995620. ***Planchonella malaccensis*** (C.B. Clarke) Swenson, Borneo, Sarawak, *B. Jugah 24666* (K), OR965819, OR996165, PP994732. ***Planchonella malaccensis*** (C.B.Clarke) Swenson, Malaysia (cult. in Singapore Botanical Garden), *U. Swenson & al. 1017* (S, SING), HE860240, HE860119, HE995679. ***Planchonella mandjeliana*** Munzinger & Swenson, New Caledonia, *J. Munzinger & Y. Pillon 2861* (NOU, P, S), HE860206, EF025100, HE995680. ***Planchonella membranacea*** H.J.Lam, Fiji, Viti Levu, *A.C. Smith 4609* (S), HE860207, DQ154074, HE995621. ***Planchonella micronesica*** (Kaneh.) Kaneh. ex. H.J.Lam, Caroline Islands, Kosrae, *K.R. Wood & al. 13609* (PTBG, S), MH194017, MH194126, MH194073. ***Planchonella microphylla*** Pierre ex Dubard, New Caledonia, *J. Munzinger & G. Dagostini 2163* (NOU, P, S), MH194018, DQ154075, MH194127. ***Planchonella mindanaensis*** H.J.Lam, Philippines, *M.S. Clemens 1015* (PNH), HE860208, HE860103, HE995622. ***Planchonella minutiflora*** Munzinger & Swenson, New Caledonia, *H.S. MacKee 16639* (NOU, P, S), HE860209, HE860104, HE995734. ***Planchonella* "Munzinger 6490"**, Fiji, Vanua Levu, *J. Munzinger 6490* (NOU, SUVA), HE860211, HE860106, HE995736. ***Planchonella* "Munzinger 6979"**, Papua New Guinea, *J. Munzinger & al. 6979* (LAE, MPU, P, S), MH194059, MH194108, MH194167. ***Planchonella myrsinifolia*** subsp. ***howeana*** (F.Muell.) Jessup, Lord Howe Island, *J.Le Cussan 1210* (BRI), HE860194, DQ377521, HE995681. ***Planchonella myrsinifolia*** subsp. ***myrsinifolia*** (F.Muell.) Swenson, Bartish & Munzinger, Australia, *I.V. Bartish & L. Jessup 11* (BRI, S), HE860179, DQ154066, HE995701. ***Planchonella myrsinodendron*** (F.Muell.) Swenson, Bartish & Munzinger, Australia, *I.V. Bartish & L. Jessup 2* (BRI, S), MH194019, DQ154077, MH194128. ***Planchonella myrsinodendron*** (F.Muell.) Swenson, Bartish & Munzinger, Papua New Guinea, Morobe Province, *T.G. Hartley 11357* (BRI), OR965820, OR996166, PP994711. ***Planchonella myrsinodendron*** (F.Muell.) Swenson, Bartish & Munzinger, Solomon Islands, Alite Island, *R. Mauriasi & al. 18070* (K), OR965821, OR996167, PP994712. ***Planchonella obovata*** (R.Br.)

Appendix 1. Continued.

Pierre, Australia, Queensland, Cape York, *B. Gray 5180* (L), MH194020, MH194076, MH194131. ***Planchonella obovata*** (R.Br.) Pierre, Australia, Queensland, Daintree NP, *P.I. Forster 26371 & al*. (MEL), OR965822, OR996168, PP994713. ***Planchonella obovata*** (R.Br.) Pierre, Bonin Island (cult. in Waimea Valley Garden), *C. Havran, U. Swenson & V. Ulfsson 5006* (CAU, S), MH194023, MH194077, MH194132. ***Planchonella obovata*** (R.Br.) Pierre, Bonin Island, *H. Kanai & M. Ono 764277* (P), OR965823, OR996169, PP994714. ***Planchonella obovata*** (R.Br.) Pierre, Borneo, Brunei, *H.H. Osman & al. 15690* (K), OR965825, OR996171, PP994715. ***Planchonella obovata*** (R.Br.) Pierre, Borneo, Kalimantan, *T.G. Laman & al. 532* (CANB), OR965824, OR996170, PP994690. ***Planchonella obovata*** (R.Br.) Pierre, Caroline Islands (type of *Sideroxylon glomeratum* Volkens), *G. Volkens 533* (BM), OR965826, OR996172, PP994725. ***Planchonella obovata*** (R.Br.) Pierre, Indonesia, Nusa Kambangan, *unknown collector* (MEL 2467764), OR965827, OR996172, PP994716. ***Planchonella obovata*** (R.Br.) Pierre, Malaysia, Selangor, *C.L. Lim 56641* (K), OR965828, OR996174, PP994735. ***Planchonella obovata*** (R.Br.) Pierre, Malaysia (cult. in Singapore Botanical Garden), *A.K. Nura 66* (S), MH194021, MH194074, MH194129. ***Planchonella obovata*** (R.Br.) Pierre, Malaysia (cult. in Singapore Botanical Garden), *A.K. Nura 70* (S), MH194022, MH194075, MH194130. ***Planchonella obovata*** (R.Br.) Pierre, New Britain (Papua New Guinea), *O. Gideon 57238* (BRI), OR965829, OR996175, NS. ***Planchonella obovata*** (R.Br.) Pierre, Palau (cultivated in McBryde Garden, Kauai), *U. Swenson, C. Havran & D. Lorence 1607* (CAU, S), MH194024, MH194078, MH194133. ***Planchonella obovata*** (R.Br.) Pierre, Papua New Guinea, island near Kui, *A.N. Millar 22899* (BRI), OR965834, OR996178, PP994717. ***Planchonella obovata*** (R.Br.) Pierre, Papua New Guinea, Vanimo, *K. Kumul & P.J. Eddowes 36001* (BRI), OR965835, OR996179, PP994718. ***Planchonella obovata*** (R.Br.) Pierre, Philippines, Batan Island, *G. Madulid & al. 23857* (K), OR965830, OR996176, NS. ***Planchonella obovata*** (R.Br.) Pierre, Philippines (type of *Sideroxylon attenuatum* A.DC.), *Cuming 1243* (MEL), OR965831, NS, NS. ***Planchonella obovata*** (R.Br.) Pierre, Philippines, Luzon (type of *Planchonella merrillii* Dubard), *A.D.E. Elmer 6071* (P), OR965832, NS, NS. ***Planchonella obovata*** (R.Br.) Pierre, Philippines, Palawan, *A.C. Podzorski 2017* (K), OR965833, OR996177, PP994719. ***Planchonella obovata*** (R.Br.) Pierre, Seychelles, *S. Hansen s.n*. (S), MH194025, MH194079, MH194134. ***Planchonella obovata*** (R.Br.) Pierre, Seychelles, *C. Morel 125* (S, SEY), MH194026, MH194080, MH194135. ***Planchonella obovata*** (R.Br.) Pierre, Solomon Islands, Malaupaina Island, *R. Mauriasi & al. 17954* (K), OR965836, OR996180, PP994720. ***Planchonella obovata*** (R.Br.) Pierre, Taiwan, *K.-F. Chung & A. Anderberg 1166* (HAST, S), EU661402, DQ154076, HE995739. ***Planchonella obovata*** (R.Br.) Pierre, Thailand, *P. Wilkie & M. Stankovic 934* (E, S), OR965837, OR996181, PP994728. ***Planchonella obovata*** (R.Br.) Pierre, Vietnam, *U. Swenson & D.V. Truong 2111* (S), MW924258, MW843538, MZ340470. ***Planchonella orkor*** (Vink) Swenson, Indonesia, Papua, *A.M. Polak 1365* (L), HE860181, HE860087, HE995693. ***Planchonella orkor*** (Vink) Swenson, Papua New Guinea, *R.D. Hoogland 9170* (CANB), OR965838, OR996182, PP994730. ***Planchonella peekelii*** (K.Krause) H.J.Lam, Papua New Guinea, New Britain (neotype), *R.S. Haas 158* (BRI), OR965839, OR996183, NS. ***Planchonella petaloides*** H.J.Lam, Indonesia, Maluku Islands, *M. Merello & al. 3531* (MO, S), OR965840, OR996184, PP994729. ***Planchonella petaloides*** H.J.Lam, Indonesia, Maluku Islands, *M Merello & al. 3554* (MO, S), OR965841, OR996185, PP994710. ***Planchonella pinifolia*** (Baill.) Dubard, New Caledonia, *H.S. MacKee 13886* (P), MH194027, AY552111, MH194136. ***Planchonella pohlmaniana*** (F.Muell.) Pierre ex Dubard, Australia, *I.V. Bartish & A. Ford 22* (BRI, S), HE860216, DQ154079, HE995672. ***Planchonella polyneura*** (K.Krause) Swenson, Papua New Guinea, *J. Munzinger & al. 7010* (LAE, MPU, S), MH194028, MH194081, MH194137. ***Planchonella pomifera*** (Pierre) Dubard, Indonesia, Papua (lectotype of *Beauvisagea pomifera*), *O. Beccari 533* (FI), MN796270, MN796261, NS. ***Planchonella pomifera*** (Pierre) Dubard, Indonesia, Maluku Islands, *M. Merello & al. 3351* (MO, S), OR965842, OR996186, PP994722. ***Planchonella pomifera*** (Pierre) Dubard, Indonesia, Maluku Islands, *R. Mahroji & al. 48* (MO, S), OR965843, OR996187, PP994721. ***Planchonella pomifera*** (Pierre) Dubard, Indonesia, Papua, *McDonald & Ismail 3750* (L), MN796275, MN796266, MN796283. ***Planchonella pomifera*** (Pierre) Dubard, Indonesia, Papua, *P. Royen 3506* (CANB), OR965844, OR996188, NS. ***Planchonella povilana*** Swenson & Munzinger, New Caledonia, *U. Swenson & J. Munzinger 732* (A, BRI, MO, NOU, P, S), MH194029, EF025102, MH194138 ***Planchonella pronyensis*** Guillaumin, New Caledonia, *J. Munzinger 2051* (NOU), HE860217, DQ154080, HE995623. ***Planchonella pullenii*** (Vink) Swenson, Papua New Guinea, *W. Takeuchi & al. 21157* (LAE, S), NS, HE860120, HE995630. ***Planchonella reticulata*** (Baill.) Pierre ex Dubard, New Caledonia, *J. Munzinger, M. Pignal & P.P. Lowry 2004* (NOU, P, S), MH194030, MH194082, MH194139. ***Planchonella rheophytopsis*** P.Royen, New Caledonia, *G. Dagostini 818* (NOU), MH194031, DQ154082, MH194140. ***Planchonella* "Ridsdale 487"**, Philippine Islands, Luzon, *B. Ridsdale & al. 487* (K), OR965845, OR996189, NS. ***Planchonella ridsdalei*** (Vink) Swenson, Philippine Islands, Mindoro, *C.E. Ridsdale 1732* (K), OR965846, OR996190, PP994723. ***Planchonella roseoloba*** Munzinger & Swenson, New Caledonia, *J. Munzinger 2311* (NOU, P, S), HE860218, DQ154090, HE995673. ***Planchonella rufocostata*** Munzinger & Swenson, New Caledonia, *J. Munzinger, J.-N. Labat & J.P. Butin 2583* (NOU, S), HE860219, DQ154089, HE995684. ***Planchonella saligna*** S.Moore, New Caledonia, *J. Munzinger, D. Létocart & G. Gâteblé 2218* (MPU, NOU, P, S), HE860220, DQ154083, HE995624. ***Planchonella sandwicensis*** (A.Gray) Pierre, Hawaii, Oahu, Kualoa Ranch, *C. Havran, U. Swenson, V. Ulfsson & R. Pender 5010* (CAU, S), MH194046, MH194097, MH194155. ***Planchonella serpentinicola*** Swenson & Munzinger, New Caledonia, *U. Swenson & J. Munzinger 715* (S), HE860195, EF025091, MH194158. ***Planchonella skottsbergii*** Guillaumin, New Caledonia, *J. Munzinger, G. Gâteblé & R. Amice 2391* (NOU, P, S), HE860224, DQ154085, HE995674. ***Planchonella smithii*** (P.Royen) A.C.Sm., Fiji, Vanua Levu, *J. Munzinger 6495* (NOU, S, SUVA), HE860225, HE860111, HE995743. ***Planchonella smithii*** (P.Royen) A.C.Sm., Vanuatu, Aneityum Island, *J.I. Wheatley 709* (K), OR965847, OR996191, PP994733. ***Planchonella* "Soepadmo 41348"**, Borneo, Sabah, *Soepadmo & al. 41348* (E), OR965848, OR996192, PP994731. ***Planchonella spathulata*** (Hillebr.) Pierre, Hawaii, Big Island, *U. Swenson & V. Ulfsson 1618* (CAU, S), MT601851, MT601248, MT732567. ***Planchonella spectabilis*** (Miq.) Dubard, Christmas Island, *D.J. & B.P. Du Puy 39* (CANB), NS, OR996198, NS. ***Planchonella spectabilis*** (Miq.) Dubard, Christmas Island, *B.A. Mitchell 128A* (CANB), NS, OR996199, NS. ***Planchonella spectabilis*** (Miq.) Dubard, Indonesia, Java, *P. Wilkie 817* (S), NS, OR996200, NS. ***Planchonella spectabilis*** (Miq.) Dubard, Indonesia, Sumatra, *Teysmann s.n*. (L), MN796271, MN796262, MN796279. ***Planchonella sphaerocarpa*** (Baill.) Dubard, New Caledonia, *F. Tronchet, J. Munzinger & A. Oddi 389* (MO, P), EU661403, AY552139, HE995625. ***Planchonella stellibacca*** (J.F.Maxwell) Swenson, Thailand, *A. Boonkongchart & S. Chongko 146* (L), HE860241, HE860121, HE995700. ***Planchonella tahitensis*** (Nadeaud) Pierre ex Dubard, French Polynesia, Tahiti, *J.Y. Meyer & R. Taputuarai 3051* (PAP), HE860228, EF025105, HE995744. ***Planchonella* "Takeuchi 25495"**, Papua New Guinea, *W. Takeuchi, D. Ama & Gambia 25495* (LAE, S), HE860182, HE860088, HE995752. ***Planchonella teysmanniana*** (Burck) Dubard, Papua New Guinea, *W. Takeuchi 7166* (L), MH194053, MH194103, MH194163. ***Planchonella thiensis*** Aubrév., New Caledonia, *J. Munzinger & al. 2625* (S), HE860229, EF025106, HE995676. ***Planchonella thyrsoidea*** C.T.White, Papua New Guinea, Mount Wilhelm, *J. Munzinger 7008* (MPU, S), OR965849, OR996193, PP994724. ***Planchonella thyrsoidea*** C.T.White, Papua New Guinea, Wanang CA, *T.J.S. Whitfeld PA-2E-0072* (LAE, MIN, S), HE860230, HE860112, HE995745. ***Planchonella torricellensis*** (K.Schum.) H.J.Lam, Papua New Guinea, *L.A. Craven & R. Schodde 1045* (CANB, S), OR965850, OR996194, PP994691. ***Planchonella torricellensis*** (K.Schum.) H.J.Lam, Samoa, Savai'i, *M.L. Bristol 2195* (L), MH194054, MH194104, NS. ***Planchonella torricellensis*** (K.Schum.) H.J.Lam, Samoa, Upolu, *M.L. Bristol 2394* (L), MH194055, MH194105, MH194164. ***Planchonella torricellensis*** (K.Schum.) H.J.Lam, Vanuatu, Tanna Island, *J.I. Wheatley 844* (K), OR965851, OR996195, NS. ***Planchonella torricellensis*** (K.Schum.) H.J.Lam, Wallis and Futuna, Alofi, *Munzinger 5473* (NOU, S), HE860231, HE860113, HE995746. ***Planchonella torricellensis*** (K.Schum.) H.J.Lam, Wallis and Futuna, Futuna, *Munzinger 5284* (NOU), HE860232, HE860114, HE995747. ***Planchonella ulfii*** Munzinger, New Caledonia, *J. Munzinger 6150* (NOU), HE860210, HE860105, HE995735. ***Planchonella umbonata*** (P.Royen) A.C.Sm., Fiji, Taveuni, *A.C. Smith 8298* (K), HE860233, DQ154086, HE995627. ***Planchonella velutina*** (Elmer) H.J.Lam, Philippines, Luzon, *J.S. Burley 97* (L), MH194057, MH194107, NS. ***Planchonella villamilii*** (Merr.) Swenson, Philippines, Mindoro, *C.E. Ridsdale, M.J.E. Coode & E. Reynoso 1188* (L), MH194007, MH194067, NS. ***Planchonella vitiensis*** Gillespie, Fiji, Ovalau, *A.C. Smith 7700* (S), HE860234, DQ154088, HE995628. ***Planchonella wakere*** (Pancher & Sebert) Pierre, New Caledonia, *J. Munzinger 1069* (MO, P, S), MH194058, AY552149, MH194166. ***Planchonella whitmorei*** (Vink) Swenson, Solomon Islands, *Kotali & collectors 11182* (isotype of *Pouteria whitmorei*) (K), OR965852, OR996196, NS. ***Planchonella xylocarpa*** (C.T.White) Swenson, Bartish & Munzinger, Australia, *I.V. Bartish & A. Ford 31* (BRI, S), OR965853, DQ154049, HE995629. ***Planchonella xylocarpa*** (C.T.White) Swenson, Bartish & Munzinger, Papua New Guinea, *W. Takeuchi, A. Towati & D. Ama 17284* (LAE, S), HE860236, EF025107, HE995677.