Nomenclature and typification of names in the endemic genus Pancheria (Cunoniaceae) from New Caledonia

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ABSTRACT

The taxonomic history of *Pancheria* Brongn. & Gris is described and problems concerning types, including some collected by Montrouzier, Labillardière and Vieillard, are discussed. All names validly published in Pancheria or published under other generic names but referable to Pancheria are reviewed to establish their correct orthography and authorship, and they are lectotypified where necessary. Invalidly published names are dealt with briefly. The names P. humboldtiana Guillaumin ex H.C.Hopkins & J.Bradford, sp. nov., and P. multijuga Guillaumin ex H.C.Hopkins & J.Bradford, sp. nov., are validated by the designation of holotypes. An index lists all names referable to *Pancheria* and indicates their synonymy. The geographical position of Balansa's collecting locality Mt Mi is discussed.

KEY WORDS Cunoniaceae, Pancheria, New Caledonia, nomenclature. typification.

RÉSUMÉ

Nomenclature et typification des noms dans le genre Pancheria (Cunoniaceae) endémique de Nouvelle-Calédonie.

L'histoire taxonomique de *Pancheria* Brongn. & Gris est récapitulée et tous les problèmes concernant les types, y compris quelques uns récoltés par Montrouzier, Labillardière et Vieillard, sont discutés. Tous les noms valablement publiés sous Pancheria, ou publiés dans d'autres genres mais devant être rapportés à Pancheria, sont discutés afin d'établir leurs orthographes correctes et leurs auteurs, et sont au besoin lectotypifiés. Les noms non valablement publiés sont brièvement pris en compte. Pancheria humboldtiana Guillaumin ex H.C.Hopkins & J.Bradford, sp. nov., et P. multijuga Guillaumin ex H.C.Hopkins & J.Bradford, sp. nov., sont établis ici par la désignation d'holotypes. Un index présente tous les noms qui se réfèrent à *Pancheria* et indique leur synonymie. La position géographique de la localité de récolte, Mt Mi, de Balansa est discutée.

MOTS CLÉS Cunoniaceae,

Pancheria, Nouvelle-Calédonie, nomenclature, typification.

INTRODUCTION

This is the third in a series of papers on Cunoniaceae from New Caledonia whose purpose is to establish the validity, authorship and orthography of names and to designate lectotypes where appropriate, in this case for the genus *Pancheria* Brongn. & Gris. All specific and infraspecific names referable to *Pancheria* are reviewed. Two names invalidly published by Guillaumin (1964) are validated here but names for completely new taxa will be published separately (Hopkins *et al.* in press).

Pancheria consists of some 26 species and is currently the largest genus endemic to New Caledonia (Jaffré et al. 2001). It occurs on the main island of Grande Terre and a few adjacent small islands, including Île des Pins and Îles Belep (including Île Art), and like other Cunoniaceae, is absent from the calcareous Loyalty Islands to the east. Pancheria species usually have whorled leaves, which are simple or imparipinnate (including trifoliolate), generally with toothed margins, and the flowers are organised into unisexual capitula (Bradford et al. 2004). *Pancheria* (tribe Cunonieae) has sometimes been confused with Codia J.R.Forst. & G.Forst. (tribe Codieae), which is also endemic to New Caledonia and has flowers in capitula, but the two are not closely related. Differences between them are given in Hopkins et al. (2007).

Many of the problems in the nomenclature and typification of names in Pancheria are similar to those in *Codia* and *Geissois* Labill. (Hopkins 2005, 2006), though some names and types are even more muddled. We discuss problems and specimens in detail in the hope that this will not need to be done again. Types and other collections have been studied at P, G, BM and K, with selected material from RO, and images of specimens have been received from B, FI and MPU. For some names there will be duplicates of type material in other herbaria, but identifying whole sheets or fragments as types must be done with attention not only to the collector's name and number, but also the date and place of collection, and by comparison with material designated here as a lectotype or an isolectotype. Images of types at P can be viewed via the SONNERAT website (http://coldb.mnhn.fr/colweb/TreeView.do).

The fact that *Pancheria* is dioecious is a further complication in typification. A survey of more than 1000 herbarium specimens of *Pancheria* at P and K in 2005 showed that almost all species appear to be strictly dioecious or at least do not present evidence of a sexual system other than dioecy. Exceptions to this were seen in *P. elegans* Brongn. & Gris, where capitula with male flowers are occasionally attached to the same stem as female capitula, and very rarely sheets in other species have male flowers and old fruits attached to the same stem. For this reason, where type material with a single number has separate male and female fragments, they are assumed to have come from different plants and material of only one sex is designated as a lectotype.

Several names treated as distinct by Guillaumin (1941, 1948) are put into synonymy here and three factors are significant in determining how many species can be recognised. Firstly, some species with variable adult foliage have been described more than once (Pancheria beauverdiana Pamp., P. billardierei (D.Don) Pamp., *P. ternata* Brongn. & Gris). Secondly, as in many Cunoniaceae, the foliage on juvenile and regrowth shoots of *Pancheria* can differ markedly from that on fertile shoots of adult plants and at least one name appears to be based on juvenile foliage (P. pinnata Pamp. var. pinnata). (In juveniles and regrowth shoots the leaves can be much larger than in the adults and/or the form of the blade may be different, e.g., compound in juveniles and simple in adults, or if compound in both, then with more pairs of leaflets in juveniles, and the stipules are often larger and more persistent on juvenile stems.) Thirdly, as in Cunonia L. (Pillon et al. 2009), rare specimens with leaf irregularities and/or intermediate morphology suggest that some species of *Pancheria* hybridize and a few names may perhaps be based on hybrids. However, as yet we have no molecular evidence to confirm hybridization in Pancheria nor to show whether suspected hybrids are ephemeral F₁ individuals or more persistent, fertile entities that can usefully be named. Two possible hybrid species are maintained, P. heterophylla Vieill. ex Guillaumin, which has some leaf irregularities, and *P. lanceolata* (Pamp.) Baker f., which has leaves intermediate between those of two other species but does not show irregularities. Both P. heterophylla and P. lanceolata are morphologically distinct and strik-

ingly different from their putative parents and each is known from a handful of collections. A third possible hybrid entity, "*P. alaternoides* var. *angustifolia*", is not maintained (see Invalidly published names).

The format of this paper is similar to previous ones dealing with names and types in Codia and Geissois (Hopkins 2005, 2006). Validly published names are treated alphabetically with names based on the same type treated together under the accepted name. This is followed by a brief account of invalid names, and finally an index lists all names referable to *Pancheria* and indicates their synonymy, although for P. billardierei and P. ternata Brongn. & Gris, variation and synonymy are not discussed in detail. The International Plant Names Index (IPNI) (http://www.ipni.org, consulted April 2006) listed 38 binomials for *Pancheria* and in addition, several varietal names are not included there. These names refer to some 23 species and descriptions of three new species are in press.

TAXONOMIC HISTORY OF PANCHERIA

The earliest collections of plants belonging to *Panche*ria were made during d'Entrecasteaux's voyage to the south-west Pacific in search of La Pérouse. The expedition landed at Balade in north-east New Caledonia in April 1793 and departed in May of the same year (Duyker 2003). Specimens collected during this short stay include several by Labillardière, one of which is the type of *Pancheria billardierei*, which was described by David Don in 1830 in the genus Callicoma Andrews, and is thus the earliest described species now belonging to Pancheria. Labillardière identified his plant as Codia montana J.R.Forst. & G.Forst., which had been described nearly 20 years earlier from material collected by the Forsters at the same locality, and a Labillardière sheet at P has material of both taxa on it. Other collections made by Labillardière in 1793 became the types of *P. pinnata* [var. *pinnata*], *P. pinnata* var. heterophylla and P. pulchella, all described by Pampanini. Labillardière's specimens of *Pancheria* are discussed in Appendix 1. Another collection of Pancheria from the d'Entrecasteaux expedition was made by de Lahaie, or Delahaye (*Lahaie 1349*,

s.loc., IV-V.1793, & fl., P! P00143052, also *P. bil-lardierei*).

The next collections of *Pancheria* were made by Montrouzier from Île Art and described by him under the name *Callicoma ternata*. Montrouzier was a missionary on Île Art in 1857 and he eventually spent over 50 years in the south-west Pacific (Beauvisage 1898). He was based in New Caledonia from 1853 onwards, visiting numerous localities including Balade, Canala, Ducos, Hienghène, Île des Pins, Lifou, Nouméa, Paita and Tiaré, and he died at Saint-Louis near Nouméa in 1897. His botanical collections were made mostly during his early years in New Caledonia since he later became more interested in zoology (Beauvisage 1898; Guillaumin 1911a; McKee 1966). Although some of Montrouzier's collections from Île Art have been lost (see discussion of *Callicoma ternata*), a few collections of Cunoniaceae made by him exist, including Montrouzier 117 (P. ternata, see discussion of C. ternata), Montrouzier 120 (P. alaternoides) and *Montrouzier 122 (P. elegans*), all in herb. Monsp. (i.e. Montpellier) according to Guillaumin & Beauvisage (1914: 89), as well as a Geissois and two species of *Codia.* The collection data for some of these specimens are not known to us but it is clear that Montrouzier collected plants in New Caledonian localities besides Île Art (Guillaumin & Beauvisage 1914; C. Tirel & P. Morat pers. comm. January 2006).

Overlapping with Montrouzier in the second half of 19th century were collectors whose specimens became the types of numerous species of *Pancheria*, notably Balansa, Deplanche, Pancher and Vieillard. Balansa's specimens usually have a unique number and a clear indication of the date and place of collection, and they cause few problems. However, collections by the other three are often less straightforward and their numbering systems have resulted in considerable confusion (see examples below).

The publication of names in *Pancheria* follows a pattern similar to that for the other genera of Cunoniaceae in New Caledonia, with major contributions or revisions as follows:

1) Brongniart & Gris (1862, repeated with minor amendments in 1864) established the generic name *Pancheria* and published seven species names (*P. alaternoides*, *P. elegans*, *P. ferruginea*, *P. obovata*, *P. pyrifolia*, *P. ternata* and *P. vieillardii*) based on

collections by Vieillard, Deplanche and Pancher; some were originally manuscript names proposed by Vieillard. Where Brongniart & Gris cited Vieillard material, they did not indicate a date of collection, but it is assumed to be 1855-1860, rather than 1861-1867, since their names were first published in 1862. The material studied by Brongniart & Gris is at P and the labels usually bear the name of the species in Brongniart's writing.

2) Pampanini (1905) published nine names in addition to the combination *Pancheria billardierei* (viz. *P. alaternoides* var. *lanceolata*, *P. beauverdiana*, *P. brunhesii*, *P. hirsuta*, *P. elliptica*, *P. obovata* var. *crassifolia*, *P. pinnata* [var. *pinnata*], *P. pinnata* var. *heterophylla*, *P. pulchella*) based on material collected by Labillardière, Vieillard and Deplanche. Again, some were originally manuscript names proposed by Vieillard. Pampanini's types at G, FI and RO were clearly labelled by him and the collection details on the labels were cited in full in his protologues. Difficulties in deciding whether sheets in other herbaria, especially those at P, are from the same gatherings as the ones studied by Pampanini are discussed below.

3) Schlechter (1906, 1908) published six names (Pancheria aemula, P. engleriana [var. engleriana], P. engleriana var. potamophila, P. fusca, P. insignis, P. rivularis) based on his own collections made in 1902-1903. The first set is at B where almost all are still extant; however, since Schlechter (1906) did not apparently state clearly that types or holotypes were at B, in most cases a lectotype is designated here. Schlechter's duplicates were widely distributed and a card index compiled by R. D. Hoogland at P indicates where some of them may be found, including at E, L, NSW, W, Z, and sometimes BO, but their status has not been verified and Hoogland's lists may not be complete.

4) Baker f. (1921) published the names of two new species (*Pancheria communis*, *P. rubrivenia*), as well as *Codia tinifolia* (now a synonym of *P. billardierei*), based on collections made by Compton in 1914. He indicated in the introduction to his account that Compton's specimens had been presented to BM, so where there is only one specimen of a given number at BM, it is a holotype.

5) Guillaumin (e.g., 1911a, b, 1941, 1948, 1964) made a major contribution to the taxonomy of

Pancheria in the 20th century. He validly published eight names (P. calophylla, P. confusa, P. gatopensis, P. heterophylla, P. phillyreoides, P. reticulata, P. robusta, P. sebertii) based on specimens collected by Vieillard, Balansa and others, and invalidly published several others, including P. alaternoides var. angustifolia, P. multijuga and P. humboldtiana based on specimens from the Franco-Swiss expedition of 1950-1952 (Guillaumin 1964). In his synoptic flora published in 1941, he recognised about 26 species in the genus but it is not possible to give an exact figure because of inconsistencies in the text and between the text and the key.

COLLECTIONS BY VIEILLARD, DEPLANCHE AND PANCHER

Inadequate label data, unusual numbering systems and mixed gatherings are well known problems among early collections from New Caledonia. In Cunoniaceae, difficulties occur when typifying names published by Pampanini (who worked mostly at G and FI) and Guillaumin (at P) based on collections by Vieillard, Deplanche and Pancher, since a single collection number often refers to several gatherings, and a single gathering can have more than one number. Possible duplicates of types may have some of the label data corresponding to that in the protologue but not all, or they may have two or more labels, sometimes with contradictory information; occasionally it is clear that the wrong label has been attached to a sheet.

1) Vieillard specimens are usually numbered and most original labels have a hand-written locality and a printed date of collection, either 1855-1860 or 1861-1867. Duplicates can have a printed date, a hand-written date of collection and/or distribution, or no date, and labels may have information copied onto them, by Mme Lenormand and others, introducing the possibility of errors and resulting in variations in the spelling of some localities (C. Tirel pers. comm.).

As explained in the introductory note to volumes of *Flore de la Nouvelle-Calédonie* (e.g., McPherson & Tirel 1987) Vieillard's numbers generally refer to a species rather than a single gathering, and so one number can include material collected in several different localities and/or on several different dates.

Among the specimens now at P, it is especially material that was originally at the Institut botanique de Caen (CN), where Vieillard was director of the Jardin botanique from 1871 to 1895 (Stafleu & Cowan 1986), that is problematical. Material and sometimes labels have been added to sheets at different times, so that a single sheet can have fragments that are clearly from different plants and sometimes from different species (e.g., *Vieillard 598*, see *Pancheria lanceolata*). Where collections under a single number appear to be mixed, we have continued the practice of labelling fragments "A", "B", "C", etc. to indicate which are likely to be from the same gathering. Two examples of the confusion caused by Vieillard's numbering system are given below.

2) Deplanche specimens generally indicate a locality and date, and have either his own collection number, or a Vieillard number (e.g., *Deplanche 591 Vieill.*?), or both (e.g., *Deplanche 369bis 2659 Vieill.*), and in a few instances, they have a *Mus. Néocal.* number (e.g., *Deplanche, Mus. Néocal.*, 2064 Vieill., no. 62). A few specimens (of Deplanche or Pancher?) have three collection numbers (e.g., *370bis Depl.*, no. 61, 2650 Vieill.). This labelling is presumably intended to show how different numbering systems corresponded with one another and/or it may indicate exchanges of material between collectors.

3) Pancher specimens at P usually have hand-written labels, often with fieldnotes and detailed botanical information, but only occasionally do they have a precise locality or date or both. Some specimens have a four digit number or a wood collection number or both (e.g., 4648¹, col. de bois no. 129³). Again a single number has sometimes been used for material of more than one species.

Material of *Vieillard 594* provides an example of the confusion caused by his numbering system. Three names are based on different sheets of *Vieillard 594*: *Pancheria pyrifolia* Brongn. & Gris (lectotype from Balade, dated 1855-1860, at P), *P. beauverdiana* Pamp. (holotype from Wagap, hand-written date 1868, at G) and *P. pulchella* Pamp. (syntype, now lectoparatype, from Wagap, s.dat., at G). Specimens of *Vieillard 594* from Wagap, whether dated or not, appear to have been collected during the period 1861-1867, rather than 1855-1860, but it is difficult to say which sheets at P and K are dupli-

cates of the types of Pampanini's names. At P, nine sheets numbered *Vieillard 594* probably represent six different gatherings, and Deplanche also used this number for a separate gathering (*Deplanche 594 Vieillard*, Pouebo, 1861-1867). A sheet labelled *Deplanche 369bis 2659 Vieill.* at P also appears to be material of *Vieillard 594*, from the type gathering of *P. pulchella*. All the material of *Vieillard 594* has simple leaves, rarely with a few compound ones as well, arranged in whorls of three, but although it is all superficially similar, it represents two species (*P. billardierei* and *P. beauverdiana*).

Vieillard 590 is a similar case. The lectotype of Pancheria ternata is from Balade (1855-1860, old fr., P) and sheets at P with this number but the locality Touho (1861-1868, old fr.) are morphologically similar. However, material at K labelled Vieillard 590 (Touho, Com. 16/4/68) is morphologically different from the sheets at P with similar label data and is closer to the type of *P. sebertii*. Sheets of *Vieillard 590* from Gatope and Wagap are syntypes, now lectoparatypes, of *P. confusa*, though some are mixed collections of *P. confusa* and *P. ternata*. Sheets at BM, K and P labelled "Gatope, Pauloitche" (spelling not clear or different on different sheets) have various dates and some fragments have galled or teratological flowers. These flowers appear almost bisexual, with exserted stamens that have densely hairy filaments and hairs on some anthers, and with two long but unswollen carpels that have hairy ovaries and styles. Normally in *Pancheria*, the flowers are clearly unisexual and the filaments, anthers and styles are glabrous. Similar unusual flowers are present on specimens at P with Pancher's labels (e.g., Pancher s.n., s.loc., P00143025; Pancher s.n., Rivière des Français, April 1864; [Pancher] 46461, 197B, s.loc., s.dat., P00479448 p.p.) and all the material with atypical flowers appears to be from a single gathering. According to McKee & McKee (1981), Deplanche mentioned in letters that Pancher may have appropriated some of his and Vieillard's collections.

NAMES PUBLISHED BY GUILLAUMIN IN 1964 WITHOUT INDICATION OF A TYPE Some of the problems concerning Guillaumin's names that were discussed in relation to *Codia* and

Geissois (Hopkins 2005, 2006) are also applicable to *Pancheria* and relate to variations in spelling for epithets and to invalid names, especially those in Guillaumin (1911a and 1964).

In 1964, Guillaumin published three new names in Pancheria (P. alaternoides var. angustifolia, P. humboldtiana, P. multijuga), each accompanied by a description in Latin and mention of several collections. However, since he gave no indication of types, the names were not validly published by him (see McNeill et al. 2006: Art. 37). For P. humboldtiana and *P. multijuga*, valid publication is made in the present paper by reference to Guillaumin's original publication and by our designating as the holotype one of the specimens which he cited. While the names and descriptions are Guillaumin's, names are attached to types, which are designated by us, and so authorship is given as "Guillaumin ex H.C.Hopkins & J.Bradford". In addition we cite the types as holotypes, rather than lectotypes (cf. Art. 37, Ex. 3). It seems unfortunate that Art. 46 Ex. 9 of the *Code* should say that such a name is attributable only to Guillaumin (presumably in the 1987 publication by McPherson & Tirel for *Balo*ghia pininsularis in Ex. 9) because McPherson & Tirel attributed both the name and description to Guillaumin, since their validation of the name was by designation of a type and nothing to do with a description. We are grateful to R. K. Brummitt for his advice on this point. We have chosen not to validate Guillaumin's third name, *Pancheria alaternoides* var. angustifolia (q.v. under Invalid names).

GENERIC NAME

Genus Pancheria Brongn. & Gris

Bulletin de la Société botanique de France 9: 74 (1862), nom. cons.

LECTOTYPE. — *Pancheria elegans* Brongn. & Gris (Fig. 1), designated by Brongniart & Gris (1868).

REMARKS

Brongniart & Gris's name commemorates Jean-Armand-Isidore Pancher, a French government botanist based in Nouméa from 1857 to 1869

and again from 1874 until he died in 1877 aged 63 (Stafleu & Cowan 1983). He made numerous collections of Cunoniaceae in New Caledonia including type material of four names of species in *Pancheria*.

Hutchinson (1967) mentioned *Pancheria elegans* as the type of the genus *Pancheria*, and Hoogland & MacKee (1988) ascribed the lectotypification to him. However, we do not know if Hutchinson's statement was his own choice or based on Brongniart & Gris (1868). Wilson (1985) argued that the latter authors had lectotypified the name *Pancheria* when they described and illustrated *P. elegans* in detail; although the type concept was not fully developed at that time, they used the word "type" in the introduction to their paper: "les types de ces nouveaux genres" (Brongniart & Gris 1868: 2). Lectotypification of the name *Pancheria* is therefore ascribed to Brongniart & Gris, and the syntype of *P. elegans* collected by Pancher is designated below as the lectotype of that species' name. Note that Wilson (1985) gave the date of publication for Brongniart & Gris's paper as 1869 but 1868 is printed in the journal and we have not found evidence for the later date.

Hoogland & MacKee (1988) proposed the conservation of the generic name *Pancheria* Brongn. & Gris, published in 1862, over *Pancheria* Montrouz., published in 1860. Although the name in *Flore de l'Île Art* (Montrouzier 1860) was spelled "*Panchezia*", this was considered a misprint since Montrouzier did not have the opportunity to correct the proofs of his work (Hoogland & MacKee 1988). *Pancheria* Montrouz. refers to a genus of Rubiaceae. *Pancheria* Brongn. & Gris was first listed as a conserved name in the Tokyo edition of the *Code* (Greuter *et al.* 1994: 236).

The orthographic variant *Panchera* was used by Post & Kuntze (1903) but has not been taken up by others.

VALIDLY PUBLISHED NAMES

1. Callicoma ternata Montrouz.

Flore de l'Île Art, Mémoires de l'Académie royale des sciences, belles-lettres et arts de Lyon, section des sciences,

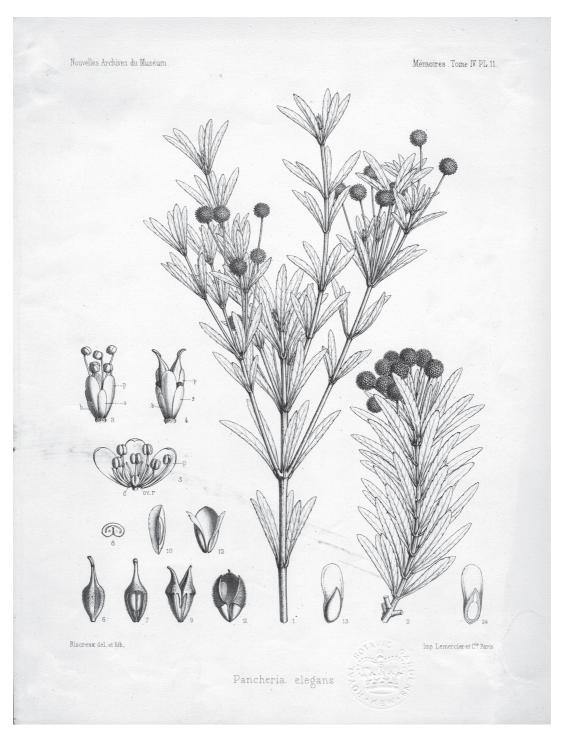


Fig. 1. — Pancheria elegans Brongn. & Gris (1-10, P. elegans; 11-14, P. ferruginea Brongn. & Gris). Reproduced from Brongniart & Gris (1869).

sér. 2, 10: 211 (1860). — Protologue: "Callicoma ternata (Mihi.) Frutex 3-5 pedalis. Folia verticillato-ternata, 3-5 pedatim palmata; lobis oblongis, serratis, apice acuminatis; medio petiolato, 2-3 poll. longo, 1 poll. lato; lateralibus sessilibus; petiolo communi subbi-pollicari, partiali 3-4 lineari. Stipulae interpetiolares, magnae. Pedunculi axillares et terminales nunc tricapitati, nunc tribus pedicellis tricapitatis stipati, folio breviores. Pedicelli bracteis 3 instructi, longi. Capitula globosa, Callicomae serratifoliae capitulis simillima. Cet arbuste fleurit en 9bre. Il croît sur les coteaux arides". — Type (as given in protologue): none. — Lectotype (here designated): [Île Art, 1857-1858], & fl., Mountrouzier 65 (G [image]! G00191249 [Fig. 2A]; isolecto-, Mountrouzier117, MPU [image]! MPU002485 [Fig. 2B]).

REMARKS

Montrouzier (1860) described Callicoma ternata in Flore de l'Île Art, and the protologue made no mention of a particular specimen. Although Guillaumin (1911a: 138) initially considered that the name might belong to a species of Geissois, presumably because the leaves were described as palmately compound, Guillaumin & Beauvisage (1914: 89) equated Callicoma ternata Montrouz. with Pancheria ternata Brongn. & Gris: "Le type du Callicoma ternata Montr., p. 211, manque dans les herbiers, mais il semble certain que c'est la même plante que le *P. ternata* Brong. [sic] & Gris." The combination of compound leaves in whorls of three, leaflets with toothed margins, and capitula, indicates that Montrouzier's plant was indeed a *Pancheria*. However, no known species of this genus has 5-foliolate palmately compound leaves although 5-foliolate imparipinnate leaves occur in several.

Whether *Callicoma ternata* Montrouz. is conspecific with *Pancheria ternata* Brongn. & Gris obviously depends on the characters of their types and the circumscription of the latter name. In most of the following discussion they are assumed to be conspecific and the generic name used depends upon the context.

The history of Montrouzier's collections from New Caledonia was discussed by Guillaumin & Beauvisage (1914: 75) who mentioned "trois herbiers du P. Montrouzier", one at the Faculté de Médecine, Lyon (now part of the herbarium at the Jardin botanique de Lyon, abbreviation: LYJB), one at the Institut botanique, Montpellier (now Université Montpel-

lier II, abbreviation: MPU) and one at the Muséum national d'Histoire naturelle, Paris (P). The material at Lyon was sent by Montrouzier in 1859 and probably accompanied the manuscript for his Flore (Guillaumin & Beauvisage 1914: 75); the specimens were exclusively from Ile Art and New Caledonia (i.e. Grande Terre). Some duplicates from amongst this material were sent by Beauvisage to Boissier in Geneva and others to Paris, in 1894 (indicated on specimen) or 1896 (Guillaumin & Beauvisage 1914: 75). The specimens at Montpellier were sent by Montrouzier in 1866 and came from numerous localities, such as Mexico, Europe, Africa, the Indian Ocean, Malesia, Australia and the Pacific, including New Caledonia and Île Art (Guillaumin & Beauvisage 1914: 75-77); some New Caledonian plants missing from among those sent to Lyon were represented at Montpellier. The third herbarium, at Paris, was sent by Montrouzier in 1868 and consisted of plants from Australia, Grande Terre and Île des Pins (Guillaumin & Beauvisage 1914: 77).

Neither Index Herbariorum's catalogue of collectors (Vegler 1976) nor the entry for Montrouzier in TL2 (Stafleu & Cowan 1981) indicate additional herbaria where Montrouzier material is likely to be found. However, a collection of *Castanospermum australe* A.Cunningham ex R.Mudie (sent by Montrouzier as seeds under the name *Vieillardia grandiflora* Montrouz.) is at MEL (J. Milne *in litt.* to V. Malécot, 15.III.2008) and others might perhaps be found at PH since Montrouzier became a corresponding member of the Academy in Philadelphia in 1867 (Beauvisage 1898), although he was not included by Mears (1981) in a list of collectors whose material is in PH.

Guillaumin & Beauvisage (1914: 89) listed four collections under the name *Pancheria ternata*: "63 in herb. Lugd.!, 65 in herb. Lugd.!, Boiss., 117 in herb. Monsp.". "Lugd." is an abbreviation for Lugdunum, the Roman name for Lyon; "Monsp." refers to Montpellier; and "Boiss." refers to Boissier's herbarium at G (Stafleu & Mennega 1993), though any material from New Caledonia is in the general herbarium, not G-BOISS. The specimen numbers were provided by Beauvisage and "!" indicates those sheets that had been compared in Paris with other material (Guillaumin & Beauvisage 1914: 77).

Montrouzier's specimens at Lyon no longer exist (P. Morat pers. comm. 2005), having been destroyed between 1955 and 1970. Enquiries in 2005 were unable to trace any material relevant to the names *Callicoma ternata* or *Pancheria ternata* at LY or LYJB (G. Guignard pers. comm. 2005).

The specimen at G ("Boiss.") comprises a single fragment attached to a piece of paper plus a separate label (Fig. 2A). The name *Callicoma ternata*, "Montrouzier", and the number "65" in red ink, are indicated on both the paper and the label, and show that the fragment was a duplicate of number 65 at Lyon. Beauvisage's signature is on the label with "Plantes de la Nlle Caledonie du R. P. Montrouzier. Don de la Faculté de medecine de Lyon, par le Dr. Beauvisage, en juin 1894" written beneath it. The locality of Île Art is not mentioned.

The specimen at MPU ("117 in herb. Monsp.") has two labels (Fig. 2B). That in the lower righthand corner has printed on it "Herb. Facult. Scient. Monspel.", Montrouzier's name and the date 1866; the number 117 is hand-written in red ink, and the name "Pancheria ternata Brongn. et Gris" has been hand-written (apparently not by Beauvisage), although the initials "GB" are below it in Beauvisage's hand. The hand-written label in the lower left-hand corner states "Pancheria ternata Br. et Gris" in one hand, apparently in pencil, and "117, Callicoma ternata Montrouzier, in Mém. Acad. Lyon, X, p. 211) [ex descriptione, quanvis foliola crenata nec serrata, et apice minime acuminata: cf. herb. Fac. med. Lugd. no 65]" in ink, written by Beauvisage, with his signature. Again, the locality Île Art is not mentioned.

So of the four sheets identified as *Pancheria ternata* by Guillaumin & Beauvisage (1914: 89), two have been traced, and no additional specimens were found at P in 2005 (pers. obs.) nor have any been located at other herbaria, such as MEL (J. Milne *in litt.* to V. Malécot, 27.III.2008) or PH (S. Helm pers. comm., 14.XI.2008).

It appears that Montrouzier's specimens were dispatched by him without numbers and at least some without names (V. Malécot pers. comm. 2008) and none of the data on the labels of *Montrouzier 65* and *117* were written by him. Equating the four specimens mentioned by Guillaumin & Beauvis-

age with the name *Pancheria ternata* Brongn. & Gris was presumably due to Guillaumin, since he worked at P and was familiar with the material studied by Brongniart & Gris. Guillaumin & Beauvisage (1914: 77) indicated that *Montrouzier* 63 and 65 at Lyon had been compared directly with material at P.

Although Guillaumin & Beauvisage stated that the type of *Callicoma ternata* was lacking amongst Montrouzier's collections (1914: 89, quoted above), it is unlikely that their use of the term "type" was equivalent to its current meaning. They may have meant merely that none of the specimens had been dispatched with a label bearing the name Callicoma ternata, rather than that none of them was the basis for Montrouzier's description (V. Malécot pers. comm. 2008). Guillaumin & Beauvisage clearly considered the four specimens they saw were sufficiently similar to Montrouzier's description be equated with the name C. ternata. Both Montrouzier 65 (G) and Montrouzier 117 (MPU) have capitula of male flowers and trifoliolate leaves in whorls of three, and the nodes in the inflorescence have large persistent, recurved bracts though the stipules between the petioles have fallen. The welldeveloped inflorescences resemble that described by Montrouzier for *C. ternata*, though the leaves are not an exact match with the protologue, as noted by Beauvisage on the label of *Montrouzier 117*.

In order to cite one of Montrouzier's collections as the lectotype of *Callicoma ternata* we must have evidence that it came from Île Art, rather than from Grande Terre or Île des Pins, where Montrouzier also collected. The only evidence of provenance is provided by Guillaumin & Beauvisage (1914: 89), who stated that all four of the specimens they studied came from Ile Art. However, we do not know what their proof of provenance was. They may have deduced that the specimens were from Île Art since those at Lyon were dispatched in 1859, apparently with the manuscript of the *Flore* and perhaps before Montrouzier had made collections elsewhere in New Caledonia, but if Beauvisage knew their origin with certainty, it is curious that he did not write it on the specimen labels. However, we must accept Guillaumin & Beauvisage's statement of provenance, and so Montrouzier 65 (G) is

designated as the lectotype of the name *Callicoma* ternata with *Montrouzier 117* as an isolectotype, since it is sufficiently similar to be part of the same gathering, even though it was sent to France at a later date, and since the number was assigned post-facto by Beauvisage.

As previously mentioned, Guillaumin & Beauvisage regarded *Callicoma ternata* Montrouz. as conspecific with *Pancheria ternata* Brongn. & Gris, and with *Montrouzier 65* as the lectotype for the former name, we concur. However, *Pancheria ternata* Brongn. & Gris is a complex species that shows a range of morphological variation correlating only partially with geography and ecology (Hopkins & Pillon pers. obs.).

Île Art has been little collected recently because of local political difficulties and the only recent collection of *Pancheria* that we have seen from this island is *MacKee 19323* (Fig. 2C), which matches Montrouzier's description in general but not in detail. The specimen has trifoliolate leaves in whorls of three but the stipules between the mature leaves have already fallen and the inflorescence structure is less well developed than that described by Montrouzier. While we identify *MacKee 19323* as *P. ternata*, the shape of its leaflets is not an exact match with collections from elsewhere in the New Caledonian archipelago, and neither is it an exact match with *Montrouzier 65* and *117*.

Montrouzier (1860) and Brongniart & Gris (1862) both used the epithet ternata for their plants but there is no evidence that Brongniart & Gris were taking up Montrouzier's name as a comb. nov., and the name Pancheria ternata has always been attributed to them alone. In their introduction to the Saxifragaceae-Cunonieae of New Caledonia, Brongniart & Gris (1862) described the taxonomic history of the group in the Pacific and mentioned similarities and differences between Pancheria, Callicoma and Codia, but they made no reference to either Montrouzier or to Callicoma ternata Montrouz. Indeed on p. 68 they stated that prior to their work based on the collections of Vieillard, Deplanche and Pancher, only three species of Cunoniaceae were already known in the Pacific, "le Codia montana de Forster, le Geissois racemosa de Labillardière et le Spiraeanthemum vitiense de M. Asa Gray". Thus

it appears that they independently used the same epithet as Montrouzier and the two names are not therefore based on the same type.

Montrouzier's name is older than that of Brongniart & Gris but it cannot be transferred to Pancheria because the name *P. ternata* is already occupied. Callicoma ternata Montrouz. could be given a new name, but if so, that name would merely become a synonym of *P. ternata* Brongn. & Gris. Thus, if the two names are considered to refer to the same species in the genus Pancheria, as here, the correct name is *P. ternata* Brongn. & Gris, and *C. ternata* Montrouz. is a taxonomic synonym (conforming to Art. 11.3 of the Code); if this species was assigned to the genus Callicoma, the correct name would be *C. ternata* Montrouz. However, if in the future, the plant from Île Art is considered to belong to a separate species of *Pancheria* from a more narrowly defined *P. ternata* on Grande Terre and Île des Pins, it would have to be given a new name because no combination based on Montrouzier's name would be possible in *Pancheria*.

2. Codia tinifolia Baker f.

Journal of the Linnean Society, Botany 45: 301 (1921). — Type (as given in protologue): "Tonine; scrub; 1200 ft. [Compton ...] 2374". — Holotype: Tonine, 12.XII.1914, σ fl., Compton 2374 (BM! BM000600402, 2 fragm. both σ; iso-, P!, fragm.).

REMARKS

Although described as a *Codia*, *Compton 2374* is *Pancheria billardierei*. *Codia tinifolia* was previously equated with *P. elliptica* by Guillaumin (1941: 255) and with *P. vieillardii* by Bradford (*in* Hopkins 2005).

3. Pancheria aemula Schltr.

Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie 39: 125 (1906). — Type (as given in protologue): "auf den Bergen bei Ou Hinna, ca. 200 m u. M. – n. 15642, bluhend in Januar 1903". — Lectotype (here designated): Ou-Hinna, 200 m, 5.I.1903, & fl., Schlechter 15642 (B [image]! B100068763; isolecto, BM!; G! × 2; K!; P! P00143084; + others n.v.?).

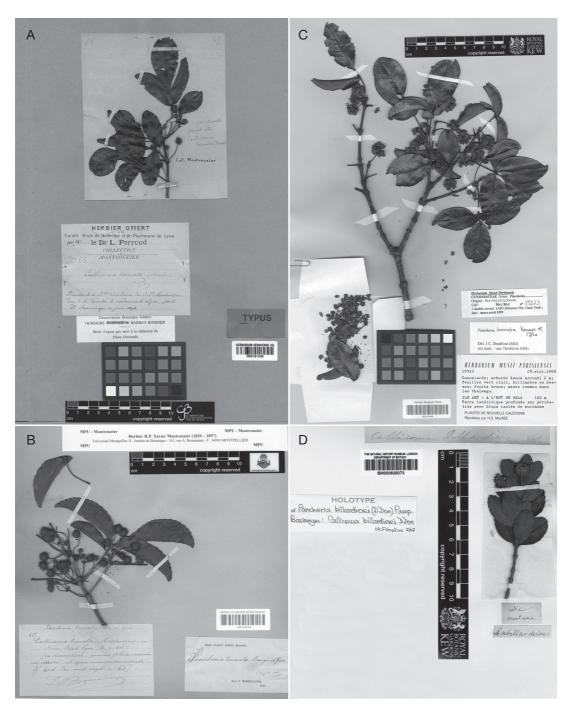


Fig. 2. — **A**, *Montrouzier* 65 (G00191249), lectotype of *Callicoma ternata* Montrouz.; **B**, *Montrouzier* 117 (MPU002485), isolectotype of *Callicoma ternata* Montrouz.; **C**, *MacKee* 19323 (P00479449), the only recent collection of *Pancheria ternata* Brongn. & Gris from Île Art; **D**, *Labillardière* s.n. (BM000926073), holotype of *Pancheria billardierei* (D.Don) Pamp. (basionym: *Callicoma billardierei* D.Don.). Photographs: A, Conservatoire et Jardin botaniques de la ville de Genève; B, Université Montpellier 2; C, D, Royal Botanic Gardens, Kew.

According to the protologue, *Pancheria aemula* has 3- or 5-foliolate leaves, although the isolectotype at K has 1-, 2- and 3-foliolate leaves. In all the sheets of *Schlechter 15642* seen, the leaflets are smaller and narrower than those of *Schlechter 15645*, the type of *P. rivularis*, which also has mostly 3- or 5-foliolate leaves, with a few 1-foliolate on some sheets. However, recent collections from the eastern slopes of Mts Ignambi and Panié (e.g., *Bradford & Hopkins 1081*, 1094, 1096, 1097, Hopkins & Bradford 6636, 6637, 6638, all at K, MO, NOU; *Pillon et al.* 86, 308, both at K, NOU, P) show there is no discontinuity between *P. aemula* and *P. rivularis*, and both these names are now placed in the synonymy of *P. beauverdiana* (q.v.).

Schlechter 15642 and some of the recent collections are quite variable in the number of leaflets per leaf and occasional leaf irregularities also occur, such as 2- or 4-foliolate leaves. Bifoliolate leaves can have either two equal lateral leaflets and no terminal one, or one normal lateral leaflet and the other fused with the terminal leaflet, making it asymmetric. These types of irregularities are thought to be associated with hybridization in some Cunoniaceae (Pillon et al. 2009).

4. Pancheria alaternoides Brongn. & Gris

Bulletin de la Société botanique de France 9: 75 (1862). — Types (as given in protologue): "prope Kanala (Vieillard, no. 598; Deplanche, no. 378). (Specim. masc.)". — Lectotype (here designated): Montagnes à Kanala, 1855-1860, & fl., Vieillard 598 (P! P00602389, label for "Herbier de l'Exposition coloniale"; isolecto-, P! P00602390, fragm. "A"). — Lectoparatype: Deplanche 378 (P! × 2: (i) P00602392 labelled 378 with 1 fragm. ("B"); (ii) P00602391 fragm. "B").

REMARKS

Three sheets at P appear to correspond to all the material cited in the protologue, viz. the lectotype, the lectoparatype, and one sheet which is a mixture of both isolectotype and lectoparatype material.

Another sheet at P, labelled "Vieillard no. 598, Kanala etc, 1861-67", is excluded from being a type by the date. Furthermore, it is not Pancheria

alaternoides but *P.* cf. reticulata (see discussion of the type of *P. lanceolata*). A sheet at BM (*Vieillard 598*, Kanala, s.dat., ex Herb. Hance no. 17166) has three fragments which match this sheet at P dated 1861-1867.

Although *Pancheria alaternoides* var. *lanceolata* was published in 1905, the name *P. alaternoides* var. *alaternoides* seems only to have been used in print by Guillaumin *et al.* (1965).

5. Pancheria beauverdiana Pamp.

Annali di Botanica (Rome) 2: 100 (1905). — Type (as given in protologue): "In collibus circa Wagap [Vieillard, – Herb. de La Nouvelle Caledonie, n. 594 (pr. p.)] – sub P. pirifolia Brogn. [sic] et Gris – specimen foem. – (D C)". — Holotype: In collibus circa Wagap, 1868 [hand-written], fr., Vieillard 594 (G! ex DC G00016977; iso-, K!).

REMARKS

The holotype at G has a single fragment for which the collection date was probably 1861-1867. The material has leaves in whorls of three, which are mostly simple, elliptic to rhombic, and narrowly cuneate at the base into a petiole c. 1 cm long. The largest leaf blade (c. 6 × 2.2 cm) has teeth almost to the base. Two leaves with longer petioles (c. 2.5 cm), each bearing a single, asymmetric, narrowly elliptic articulated leaflet, are remnants of 3-foliolate leaves, and these lateral leaflets also have teeth almost to their base. The stipules are ovate and abaxially hairy, and the capitula in fruit are c. 9 mm in diameter.

The remnants of the compound leaves in this specimen are similar in size, shape and the distribution of their teeth to the leaves of material previously identified by us as *Pancheria aemula* (in which the leaves are commonly 3-foliolate but can be a mixture of 1-5-foliolate). These features also distinguish the holotype of *P. beauverdiana* from *P. billardierei*, in which the juvenile foliage can be compound, but then the leaflets are broader and usually only distally toothed. The main difference between the holotype of *P. beauverdiana* and material previously determined as *P. aemula* is in the stipules, which are similar in shape but usually glabrous in *P. aemula*.

Despite this, *P. aemula*, and hence also *P. rivularis*, appear to be conspecific with *P. beauverdiana*, and the latter epithet has priority.

A sheet of *Vieillard 594* at P (in collibus circa Wagap, 1861-1867, P00143086) has three fragments with capitula in fruit, and the label has been annotated "*Pancheria beauverdiana* Pampan?", probably by Guillaumin. The leaves resemble some of the small distal leaves of the holotype and the stipules are also a reasonable match. However, the sheet at P has no larger simple leaves and no compound leaves, and so is it not certain that it is from the same gathering as the type.

The epithet *beauverdiana* refers to Gustave Beauverd (1867-1942), who was a Swiss botanist and artist (Stafleu & Mennega 1993) and curator of Herbier Boissier at the time when Pampanini was studying Cunoniacaeae in Geneva.

6. Pancheria billardierei (D.Don) Pamp.

Annali di Botanica (Rome) 2: 99 (1905) as "Billardieri". — Basionym: Callicoma billardierei, D.Don, Edinburgh New Philosophical Journal 9: 94 (1830), as "Billardieri". — Type (as given in protologue): "V. s. in Herb. Lamb. à D. Labillardière commun". — Holotype: s.loc., s.dat., old \$\fopen fl., Labillardière s.n. (BM! BM000926073 [Fig. 2D]; possible iso-, FI [image]! [labelled 1970.jpg] Herb. Webbianum 060062; G-DC [image]! G00134344 and G00134341; P! × 1 p.p., ex Herb. E. Cosson & Herb. Moquin-Tandon, quoad fragm. "B", non fragm. "A"); see Appendix 1.

Codia montana Labill. ex D.Don, Edinburgh New Philosophical Journal 9: 94 (1830), nom. inval., pro syn. sub Callicoma billardierei D.Don, non Codia montana J.R.Forst. & G.Forst. (1775).

REMARKS

According to McNeill *et al.* (2006: Art. 60, Ex. 15) the spelling of the epithet must be corrected from "*billardieri*" to "*billardierei*".

David Don published the name *Callicoma billar-dierei* with the name "*Codia montana* Labill. MSS" as a *nomen nudum* in synonymy under it, and he cited a specimen in Herb. Lambert. According to Miller (1970), Lambert's herbarium was dispersed after his death and some of Labillarière's specimens from the south Pacific were bought by Robert Brown

on behalf of the British Museum. A Labillardière specimen at BM (Fig. 2D) consists of one remounted fragment with three small labels, also remounted, indicating "Callicoma billardieri D.Don" (in David Don's hand), "Codia montana" (in Labillardière's hand) and "Labillardière" (writer unknown). Labillardière's writing was identified by comparison with samples in Burdet's Auxilium ad botanicorum graphicem (Burdet 1976 and http://www.ville-ge.ch/ musinfo/bd/cjb/auxilium/, consulted 23 February 2007) and David Don's by comparison with manuscripts at The Linnean Society of London, where he was librarian (Stafleu & Cowan 1976: 668). Thus although nothing is written on the sheet at BM to indicate that it came from Lambert's herbarium, the taxon name in David Don's hand confirms that this specimen is the holotype. All the possible isotypes have simple leaves and old female flowers (see Appendix 1).

Pancheria billardierei is one of the most common and widespread species in the genus. Until now, many specimens have been identified as *P. vieillardii*, but the epithet billardierei has priority. Guillaumin's account of Pancheria (Guillaumin 1941, 1948) included the names of a number of taxa that scarcely differed from one another, including *P. elliptica*, *P. obovata*, *P. pulchella* and *P. pyrifolia*, and these are also now put into the synonymy of *P. billardierei*.

7. *Pancheria brunhesii* Pamp.

Annali di Botanica (Rome) 2: 98, tab. 7 (1905), as "Brunhesi". — Types (as given in protologue): "Pic de Pouebo [Deplanche, – Herb de la Nouvelle Caledonie, 1861-67, n. 370bis] – specimen masc. – (B-B, DC)". — Lectotype (here designated): Pic de Pouébo, 1861-1867 [printed], 1867 [hand-written], σ fl., Deplanche 370bis (G! ex DC; isolecto-, G! ex B-B; K!; P! × 5, P00143090, P00602393, P00602394, + 2).

REMARKS

Pampanini (1905) did not explain the etymology of his new names but we have added a second "i" to this epithet as the upper case "B" in the protologue suggests that it commemorated someone with the family name Brunhes. The *International Plant Names*

Index (IPNI) does not list any other epithets based on this name (http://www.ipni.org, plant name search "brunhes%", 18 September 2007).

Two prominent French academics of the time were the geographer Jean Brunhes (1869-1930) and his brother, the geophysicist Bernard Brunhes (1867-1910).

Jean Brunhes was a lecturer at the University of Fribourg from 1896 to 1912, receiving his doctorate in geography from the University of Paris in 1902. Renato Pampanini received his doctorate from the same university in 1903 ("Essai sur la géographie botanique des Alpes et en particulier des Alpes sud-orientales"), and thus the two men would have known each other and shared an interest in geography (V. Malécot pers. comm. 2008).

8. Pancheria calophylla Guillaumin

Bulletin de la Société botanique de France 87: 249, 254 (1941). — Types (as given in protologue): "Forets au-dessus de Téné (Balansa 1080), Mt Pénari (Balansa 3508)". — Lectotype (here designated): Mt Pénari, 600 m, II.1872, buds and σ fl., Balansa 3508 (P! P00602395, with sketch of floral parts, label indicating "type" in Guillaumin's hand). — Lectoparatype: Balansa 1080 (P! P00143087, capitula in bud) is conspecific.

9. Pancheria communis Baker f.

Journal of the Linnean Society, Botany 45: 302 (1921). — Type (as given in protologue): "Plaine des Lacs, [...] Serpentine scrub. [Compton] 340". — Lectotype (here designated): Plaine des Lacs, 21.II.1914, & fl., Compton 340 p.p. (BM! BM000576289, quoad fragm. & fl., excl. fragm. fr.; isolecto-, P! P00602396, & fl.). — Lectoparatype: Compton 340 p.p. (BM!, BM000576289, fragm. fr.) is conspecific.

REMARKS

The sheet of *Compton 340* at BM has two fragments, one with male flowers and one with fruits. Since the fragments are unlikely to have come from the same plant, the twig with male flowers is designated as the lectotype and the one with fruits is a lectoparatype. The fragment at P has male flowers and so is an isolectotype.

10. Pancheria confusa Guillaumin

Bulletin de la Société botanique de France 87: 250 (1941). — Types (as given in protologue): "Nouvelle-Calédonie (Pancher 383 et sans no, Baudouin, Germain), au-dessus de la Ferme Modèle (Balansa 200, 1072), Prony (Franc 1746 serie A), Wagap (Vieillard 590), Gatope etc (Vieillard 590)". — Lectotype (here designated): à la base du Chapeau, au-dessus de la Ferme Modèle, 3.I.1869, fr., Balansa 1072 (P! P00143041, with field notes, locality and date; isolecto-, P! P00602397, without field notes). — Lectoparatypes: all are conspecific with the exception of some sheets of Vieillard 590, and material with this number can be P. confusa, P. ternata or a mixture of both.

REMARKS

Guillaumin (1941) stated that he was publishing this name to accommodate a number of collections that had been identified as *Pancheria ternata* Brongn. & Gris but which had opposite rather than ternate leaves.

11. Pancheria elegans Brongn. & Gris

Bulletin de la Société botanique de France 9: 75 (1862). — Types (as given in protologue): "Habitat in Nova Caledonia (Pancher, herb. expos. colon., n. 633), prope Kanala (Vieillard, n. 600). (Specim. masc. et fem.)". — Lectotype (here designated): s.loc., s.dat., fr., [Pancher] 633 (P! P00602408, with label for "Herbier de l'Exposition coloniale"; isolecto-, P! P00143088 with label "Donné par le Ministère de l'Algérie et des Colonies 1860", fragm. "B"; probable isolecto-, P! P00602411, fragm. "B"). — Lectoparatypes: Kanala, Vieillard 600 (P! P00602409, P00602410, fragm. "A", \$\sigma\$ fl., 1855-1860; \$G \times 2\$: (i) \$\sigma\$ fl., 1855-1860; (ii) \$\sigma\$ fl. + \$\varphi\$ fl., s.dat.), all conspecific.

Remarks

Although Brongniart & Gris (1862) stated that the specimen number 633 was collected by Pancher, his name is not on the sheet. The type material at P consists of three sheets. The lectotype and P00143088 each have single fragments of [Pancher] 633 ("B"), and the second sheet has two fragments with male flowers ("A") labelled "Vieillard 600, Kanala, 1855-60", which are lectoparatypes. The third sheet is a mixture of "A" (\$\sigma\$ fl. + label) and material with fruits, but latter has no label and so is not definitely an isolectotype.

Other sheets with the number *Vieillard 600* at BM, K and P are excluded from being types. Some with Vieillard labels have the locality Mt Dore, either on its own or on the same label as Kanala, and some have Deplanche labels (*Deplanche 600 Vieillard*) indicating "Baie de Tupiti, Rivière de Toon'du", or Kanala.

12. *Pancheria elliptica* Pamp.

Annali di Botanica (Rome) 2: 97 (1905). — Types (as given in protologue): "1. - 'Terrains pierreux, micacés, ferrugineux; haut sommet de Tiavé (sic) [Deplanche, Herb. de La Nouvelle Calédonie, 1861-67, n. 591 (Vieillard?) [pr. p.] – Mus. Neocal. n. 64]' – specimen masc. (B-B), specimen foem. (D C). 2. - 'Pouebo [Deplanche, – Herb. de La Nouvelle Calédonie, 1861-67, n. 369bis]' – sub *P. pirifolia* Brogn. (sic) et Gris (?) – specimen foem. – (DC)". — Lectotype (here designated): "Terrains pierreux micacés, ferrugineux; haut sommet de Tiaré", "Mus. Neocal. 64, sol ferrug., Tiaré", s.dat., ♀ fl., *Deplanche 591 Vieillard*? (G! ex DC, G00016979, single fragm.; isolecto-, K! [unlabelled, on sheet with o fragm. labelled *Deplanche 591 Vieill*?]; P! × 3, P00143091, P00602451, P00602452, fragm. ♀). — Lectoparatypes: Tiaré, ♂ fl., Deplanche 591 Vieillard? (G! ex B-B; K! [on sheet with unlabelled isolectotype]; P! P00602453, fragm. o); Pouébo, 1861-1867, old fr., Deplanche 369bis (G! ex DC; K!; P! P00602455), all conspecific.

Remarks

The protologue refers to three specimens at G. While the two sheets ex DC (the lectotype and lectoparatype - Deplanche 369bis) are straightforward, Deplanche 591 Vieillard? ex B-B is represented by two sheets, both with male flowers. The label of G00016980 states "Deplanche 591 Vieillard, Pancheria obovata, s.loc., 1861-67", and has a single fragment marked "a". The second sheet (no bar code, "Deplanche 591 Vieillard?, Pancheria, [...] Tiaré, 1861-67") has two fragments ("b") which are similar to one another but different from "a". Pampanini's label ["P. elliptica sp. n. (n. 591 Vieillard?) b, M, Pampanini III 1904"] indicates that it is the second of these sheets which is a syntype, now a lectoparatype. Other sheets at G (ex DC, G00016981) and K have material and labels matching "a".

At P, Vieillard 590, Tiaré, 1861-1867 (P00602454), has one fragment with female flowers, which is

probably part of the lectotype-gathering with the wrong label attached.

13. Pancheria engleriana Schltr. [var. engleriana]

Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie 39: 126, fig. 7 (1906). — Types (as given in protologue): "[...] Mt Mou bei Paita, ca. 1250 m u. M. – n. 14914 m, (masc.) bluhend im Oktober 1902; [...] Berge am Ngoye, ca. 1000 m u. M. – n. 15187 (masc.), 15188 (fem.), bluhend im November 1902". — Lectotype (here designated): Auf den Bergen am Ngoye, 1000 m, 1.XII.1902, & fl., Schlechter 15187 (B [image]! B100180509; isolecto-, BM!; G!; K! × 2; P! P00602412; + others n.v.?). — Lectoparatypes: Schlechter 14914 (BM!; G! × 2; K!; P! P00602414; + others n.v.? though not B [Robert Vogt pers. comm. May 2005]) and Schlechter 15188 (B [image]! B100180510; BM!; G! × 2; K!; P! P00602413; + others n.v.?) are conspecific.

14. *Pancheria engleriana* Schltr. var. *potamophila* Schltr.

Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie 39: 127 (1906). — Types (as given in protologue): "langs der Bache auf den Hugeln am Ngoye, ca. 50 m u. M. – n. 15134 (masc.), 15135 (fem.), bluhend im November 1902". — Lectotype (here designated): Langs der Bache auf den Hugeln am Ngoye, 50 m, 29.XI.1902, & fl., Schlechter 15134 (B [image]! B100068764; isolecto-, BM!; G! × 2; K!; P! P00602415; + others n.v.?). — Lectoparatype: Schlechter 15135 (BM!; G! × 2; K!; P! P00143078; + others n.v.? though not B [Robert Vogt pers. comm. May 2005]) (buds, fr., old fr.) is not conspecific.

REMARKS

Schlechter (1906) distinguished *Pancheria engleriana* var. *potamophila* (meaning river-loving) from var. *engleriana* by its somewhat larger leaves and longer peduncles; in addition var. *potamophila* was found at low altitude where as var. *engleriana* usually occurs above 700 m. Of the two syntypes, 15134 matches Schlechter's intentions more closely, and hence is designated as the lectotype, since its leaves are similar in shape to those of the syntypes of *P. engleriana* var. *engleriana* but some are slightly larger. However, this specimen falls within the range of morphological variation of *P. engleriana* over

its geographical range and thus *P. engleriana* var. *potamophila* becomes a synonym of *P. engleriana* var. *engleriana*.

The lectoparatype, *Schlechter 15135*, has leaves of a rather different shape and represents an undescribed species.

15. Pancheria ferruginea Brongn. & Gris

Bulletin de la Société botanique de France 9: 76 (1862). — Types (as given in protologue): "[...] Mont-d'Or (Pancher, in herb. expos. colon, n. 632); in montibus circa Kanala (Vieillard, n. 585). (Specim; masc. et fruct.)". — Lectotype (here designated): Montagnes de Kanala, 1855-1860, old fr., Vieillard 585 (P! P00602417, single fragm., label for "Herbier de l'Exposition coloniale"; isolecto-, P! × 2, P00143079, fragm. "A", P00602419, fragm. "A"). — Lectoparatype: Mt d'Or, & buds, Pancher 632 (P! × 2, 1 with label for "Herbier de l'Exposition coloniale" + P00602418, fragm. "B") = P. gatopensis.

REMARKS

Fragments of "C" (P00143080) on the same sheet as P00602419 have labels indicating "585, Deplanche, 1865" and "Institut botanique de Caen", and belong to a separate gathering of *Pancheria ferruginea*, by Deplanche using Vieillard's species number.

16. *Pancheria fusca* Schltr.

Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie 39: 127 (1906). — Basionym of Codia fusca (Schltr.) H.C.Hopkins, Adansonia, sér. 3, 27 (2): 248 (2005). — Type (as given in protologue): "auf den Abhangen der Berge am Ngoye, ca. 400 m u. M. – n. 15363, mit Knospen im November 1902". — Holotype: Ngoye, 400 m, XI.1902, fl. buds, Schlechter 15363 (B [image]! B100068765).

REMARKS

Although duplicates of most Schlechter collections of Cunoniaceae from New Caledonia were widely distributed, we have not found any material of *Schlechter 15363* besides the sheet at B, which is therefore the holotype. This specimen is a *Codia* with leaves in whorls of three and although the name *Codia fusca* was equated with *C. albifrons* (Brongn. ex Schinz & Guillaumin) Baker f. by Hopkins *et*

al. (2007), it is better regarded as belonging to a separate taxon.

17. *Pancheria gatopensis* Guillaumin

Bulletin de la Société botanique de France 87: 250 (1941). — Types (as given in protologue): see below. — Lectotype (here designated): Mt Mou, IV.1870, old fr., Balansa 2858 (P! P00131979, label with field notes; isolecto-, P! P00602425, without field notes).

Pancheria gatopensis Vieill. ex Guillaumin, Annales du Musée colonial de Marseille, sér. 2, 9: 136 (1911a) nom. inval., nom. nud. — Specimen cited: "Poindalou, Gatope [Vieillard 2655]".

Pancheria gatopensis Vieill. ex Engler, Die natürlichen Pflanzenfamilien 2, Aufl. 18a: 259 (1928), nom. inval., nom. nud. — Specimens cited: none.

REMARKS

Guillaumin (1911a) published the name "*P. gato-pensis* Vieill. mss." and mentioned the collection *Vieillard 2655*, which has been treated in several herbaria as the type. However, since the name was not validly published in 1911, this collection is not the type.

In 1928, Engler included the name "*P. gatopensis* Vieill." in his key to *Pancheria* but as he did not distinguish it morphologically from *P. vieillardii*, the name was not validly published by him either.

In 1941, Guillaumin published "*P. gatopensis* Vieill. mss. sp. nov." accompanied by a description in Latin. Although he stated that *P. gatopensis* "= *P. lanceolata* Vieill. mss., non *P. alaternoides* var. *lanceolata* Pampan.", this does not invalidate the name *P. gatopensis*, because the type of *P. lanceolata* (Pamp.) Baker f. does not in fact belong to the taxon he called *P. gatopensis*.

In the protologue, Guillaumin (1941) referred to specimens "cités comme *P. alaternoides* var. *lanceolata* auxquels il faut ajouter: Wagap, Poume (*Deplanche 62*) et l'échantillon (*Lecard [sic] sans no.*) signalé comme *P. ferruginea*". The specimens "cités comme *P. alaternoides* var. *lanceolata*" can not be those listed in Guillaumin (1941), as this name was specifically excluded from his concept of *P. gatopensis* in 1941, and so must be those he listed in 1911a, which were: "Poume, Wagap [*Vieillard*]

581, 589, 2064], baie Ouié [Balansa 195], Mt Mi [Balansa 1068], embouchure du Houailou [Balansa 2309a], Canala [Balansa 2309], Mt Mou [Balansa 2858], Poyo [Cribs 1211], Mt Koghi [Pancher]". Together with Deplanche 62 and Lécard s.n., they are all syntypes.

Since Guillaumin (1941) made no reference to *Vieillard 2655*, which he had cited in 1911a as *Pancheria gatopensis*, this collection is not a syntype, even though it is the material that Vieillard collected near Gatope and labelled "*P. gatopensis*". For this reason, the epithet "*gatopensis*" is attributed to Guillaumin alone, and not to "Vieill. ex Guillaumin".

Most of the lectoparatypes of *Pancheria gatopensis* at P are conspecific with the lectotype although the only Pancher sheet at P labelled Koghi ("Cougui") has the numbers 46481 and "coll. de bois no. 1293" and is a mixture of *P. gatopensis* and *P. ferruginea*.

18. Pancheria heterophylla Vieill. ex Guillaumin

Bulletin du Muséum national d'Histoire naturelle, sér. 2, 14: 453 (1943). — Type (as given in protologue): "Mont Mou, Vieillard 2252". — Lectotype (here designated): Mt Mou, 1861-1867 [printed], 1866 [written], \$\forall \text{fl.}, \text{Vieillard 2252} (P! P00602426, single fragm. with drawing of floral parts; isolecto-, P! P00143074, ex CN, 5 fragm.).

REMARKS

This species does not have the same type as *Pancheria pinnata* var. *heterophylla* Pamp. and so was a new species of Guillaumin, not a comb. et stat. nov.

This taxon is known by only a handful of collections from three localities (Mt Mou, Montagne des Sources and Rivière Blanche) in southern New Caledonia. Leaf irregularities, similar to those described in Pillon *et al.* (2009) for *Cunonia koghicola* H.C.Hopkins, J.Bradford & Pillon suggest this taxon is probably a hybrid, in which case *Pancheria hirsuta* is likely to be one of the parental taxa.

19. *Pancheria hirsuta* Vieill. ex Pamp.

Annali di Botanica (Rome) 2: 101 (1905). — Type (as given in protologue): "sommet du Mont-Mou [Vieillard,

– [...] 1861-67, n. 2652] – specimen foem. – D C)". — Holotype: Mt Mou, 1861-1867, ♀ fl./y.fr., *Vieillard 2652* (G ex DC, n.v. [not found July 2005, nor March 2007, apparently missing]; iso-, BM!, s.dat., ex Herb. Hance no. 17142; K!; P! × 2, P00143075, P00602427; possible iso-, P! P00602428, fragm. fr., non fl. ♂, nec st.).

REMARKS

Guillaumin (1911b) compared the characters of *Pancheria insignis* and *P. hirsuta*, and concluded that the two names refer to the same species. We agree, and the epithet *hirsuta* has priority.

20. *Pancheria humboldtiana* Guillaumin ex H.C.Hopkins & J.Bradford, sp. nov.

Pancheria humboldtiana Guillaumin, Mémoires du Muséum national d'Histoire naturelle, sér. B, botanique 15: 47 (1964), nom. inval., no indication of type. — Specimens cited: "Mt Humboldt: sommet S., 1500-1600 m, 23/IX/1951 (Baumann 15515, 15518)". — Holotype (here designated): Mt Humboldt, sommet S, 1500-1600 m, 23.IX.1951, old fr., Baumann-Bodenheim 15515 (P! P00143076; iso-, G!).

REMARKS

Guillaumin published the name *Pancheria humboldtiana* accompanied by a description in Latin and he mentioned two collections, but since his article failed to designate either of the specimens as a type, his name was invalidly published. Sheets at P of both the collections cited by Guillaumin have "*Pancheria humboldtiana* Guillaumin, AG" in Guillaumin's hand on the labels, and the label of *Baumann 15515* also states "type" in his writing. Guillaumin's name is validated here by reference to his description in 1964 and the designation of *Baumann 15515* as the holotype. *Baumann 15518* is conspecific.

21. Pancheria insignis Schltr.

Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie 40 Beibl. 92: 25 (1908). — Type (as given in protologue): "Mont Mou, ca. 1200 m u. M, (Franc n. 192, bluhend im Januar 1906)". — Lectotype (here designated): Mt Mou, 1200 m, I.1906, & fl., Franc 192 (B [image]! B100068766; isolecto-, K!).

Schlechter (1908) gave the type as *Franc 192* but in several herbaria similar material labelled Franc 172 has been placed in type folders. A sheet of *Franc* 172 at P is labelled "Pancheria insignis Schlechter! sp. nov. Determ. par Dr Schlechter" and like 192, it came from the summit of Mt Mou (1200 m, I.1906, of fl.). A sheet of Franc 172 at G also gives the locality Mt Mou while a sheet at K (ex Herb. G. Bonati) has no locality. Although it is possible that the number on the label of the lectotype at B is a mistake, it is clearly written and was correctly cited by Schlechter, and therefore Franc 172 is not part of the type. Other collections of this species by Franc with the number 172, e.g., 172 serie A, 172B serie A and 172A, at BM, K, G and P indicate the locality Prony.

Pancheria insignis is a synonym of *P. hirsuta* (Guillaumin 1911b).

22. Pancheria lanceolata (Pamp.) Baker f.

Journal of the Linnean Society, Botany 45: 302 (1921), with indirect reference to the basionym: Pancheria alaternoides Brongn. & Gris var. lanceolata Pamp., Annali di Botanica (Rome) 2: 95 (1905). — Types (as given in protologue of basionym): "In collibus circa Wagap [Vieillard, – Herb. de la Nouvelle Calédonie, 1861-67, n. 598, n. 581?] – specimen foem. – (B-B, DC)". — Lectotype (here designated): Wagap, [1861-1867], old fr., Vieillard 598 = 581? (G! ex DC; isolecto-, G! ex B-B; K!; P! × 3, P00143085, P00602423 fragm. "A", P00602420 fragm. "A").

REMARKS

Vieillard wrote the name *Pancheria lanceolata* on specimens but never published it. Most of the specimens at P with this name either in Vieillard's hand or copied onto his original labels are now identified as *P. gatopensis* (e.g., *Vieillard 2064*, Wagap, various dates, old fr. or of fl.; *Deplanche 2064* (*Vieill.*) and/or *Mus. Neocal. 62*, Pum(e), various dates, old fr. or of fl.) while *Pancher 4648¹*, "Cougui" (= Koghi) is a mixture of *P. gatopensis* and *P. ferruginea*.

Pampanini (1905) published the name *Panche*ria alaternoides var. lanceolata without reference to Vieillard's unpublished name and as neither of the two syntypes at G has "*P. lanceolata* Vieill. mss" marked on them, the epithet *lanceolata* must be ascribed to Pampanini alone.

Guillaumin (1911a: 135) invalidly published the name "*P. lanceolata* Vieill. mss." as a nomen nudum in synonymy under *P. alaternoides* var. *lanceolata* Pamp.

Baker (1921: 302) published the name "*P. lanceolata* Vieill." without reference to Pampanini or Guillaumin, and mentioned *Compton 2382*, as belonging to this taxon. This can be considered an indirect reference to *P. alaternoides* var. *lanceolata* Pamp., through Guillaumin's publication (1911a: 135), and hence Baker made a new combination, and the type of *P. lanceolata* is the same as for *P. alaternoides* var. *lanceolata*. However, *Compton 2382* is now identified as *P. gatopensis*.

Däniker (1932: 170) published the name "Pancheria lanceolata Pampanini [...] 1905" and mentioned "Pancheria lanceolata Vieill. mss.; Baker f. in Journ. of Linn. Soc. XLV (1921) 302" in synonymy.

Guillaumin (1941: 249) stated that *Pancheria alaternoides* var. *lanceolata* Pamp. did <u>not</u> correspond to *P. lanceolata* Vieill. mss., in contrast to his opinion in Guillaumin (1911a), and on p. 250, he gave the latter name as a synonym of his new species *P. gatopensis*. On p. 252 he mentioned two specimens that were identical to *P. lanceolata* but without mentioning an author. Guillaumin (1948) made no mention of either *P. lanceolata* or *P. alaternoides* var. *lanceolata*.

Although the lectotype of *Pancheria alaternoides* var. lanceolata, the basionym of P. lanceolata, appears to have two collection numbers, they refer to a single gathering and indicate that Vieillard thought his species 598 was possibly the same as his species number 581. However, three separate gatherings have the number 598. First, Vieillard 598 = 581? (Wagap, 1861-1867, P!), the lectotype of *P. alaternoides* var. *lanceolata*, has simple, shortly petiolate, lanceolate leaves ("A"). Second, Vieillard 598 (Kanala, 1855-1860) is the type of P. alaternoides (var. alaternoides), which is a separate, well-defined taxon with simple, almost sessile, elliptic leaves. Finally, a sheet at P labelled "Vieillard 598, Kanala etc, 1861-67" was determined (by Vieillard?) as P. alaternoides but it is

not; it has a mixture of simple leaves below and distinctly petiolate compound leaves above and is *P.* cf. *reticulata* ("B"). Two other sheets at P are mixtures of "A" and "B".

Although the type of *Pancheria lanceolata* was originally described as a variety of *P. alaternoides*, it is only superficially similar to that species since the former has narrower leaves with a distinct petiole and more of the margin is toothed than is typical in *P. alaternoides*. The type of *P. lanceolata* also has some similarities to *P. gatopensis* but in the latter the leaves are considerably broader, the peduncles much shorter, and the young stems, leaves and peduncles have dense indumentum. Pancheria lanceolata is possibly a hybrid, and if so, its parentage is likely to involve P. gatopensis and P. elegans, rather than P. alaternoides. Pancheria alaternoides is confined to the extreme south of Grande Terre, and even allowing for the lack of reliability and precision of Vieillard's locality data, the type of P. lanceolata appears to have come from further north, since Wagap is near the estuary of the Tiwaka river in northeastern Grande Terre. The few recent gatherings that are morphologically close to the type of P. lanceolata (Pillon & Barrabé 331, Cap Bocage; Thorne 28057, Tiebaghi; Thorne 28289, Col de Ho) are also from outside the geographical range of P. alaternoides.

Pancheria lanceolata can also be compared with material labelled by Guillaumin as "P. alaternoides var. angustifolia" (nom. inval.), but the leaves of P. lanceolata are larger, more ovate-elliptic, and have longer petioles. The two are not sympatric and specimens in the latter group are all from the south of Grande Terre.

23. *Pancheria minima* J.Bradford

Biodiversity & Conservation 13: 2262, figs 4, 5, 6 (2004). — Type (as given in protologue): "[...] Prov. du Nord, Piton dégagé sur crête ouest de la Roche Ouaïème. [...] 650 m [...] 19 avril 1966 [...] MacKee 14767 (holotype, MO-04955709!; isotypes, P)". — Lectotype (here designated): Roche Ouaïème, 650 m, 19.IV.1966, ♀ fl., MacKee 14767 (MO! MO-04955709 p.p., quoad fragm. ♀ in sinistro, excl. fragm. ♂ et aliis; isolecto-, P! × 2, p.p., P00602430 + P00507462, quoad fragm. ♀, excl. fragm. ♂).

REMARKS

The specimen cited in the protologue as the holotype "apparently consist[s] of multiple individuals" and has six fragments, some female and others male. Since it is almost certainly a mixed gathering, the female fragment on the left-hand side in Bradford & Jaffré (2004: fig. 4), with old flowers/young fruit, is designated as the lectotype and fragments with similar old flowers/young fruits on two duplicates at P are isolectotypes.

24. *Pancheria multijuga* Guillaumin ex H.C.Hopkins & J.Bradford, sp. nov.

Pancheria multijuga Guillaumin, Mémoires du Muséum national d'Histoire naturelle, sér. B, botanique 15: 48 (1964), nom. inval., no indication of type. Specimens cited (details abbreviated): Mtgne des Sources, 6.XII.1950, Hurlimann 294; Camp Bernier, 22.II.1951, Hurlimann 940; Mt Humboldt, 20.IX.1951, Baumann 15357, 15373, 15390, 15409. — Holotype (here designated): Mt Humboldt, sommet O, 1400 m, 20.IX.1951, fr., Baumann-Bodenheim 15390 (P! P00131971; iso-, G!).

REMARKS

Guillaumin published the name *Pancheria multijuga* with a description in Latin and although he cited six collections, he did not designate a type in print, and hence his name was not validly published. Specimens of all the collections he cited are at P and all have "*Pancheria multijuga* Guillaumin, AG" in Guillaumin's hand on the label in the right-hand corner; *Hurlimann 940* also has "type des fruits" written on the label. The name is validated here by reference to Guillaumin's description and our designation of a holotype. All the collections cited by Guillaumin are conspecific.

25. *Pancheria obovata* Brongn. & Gris [var. *obovata*]

Bulletin de la Société botanique de France 9: 75 (1862). — Type (as given in protologue): "[...] prope Balade (Vieillard, n. 591). (Specim. masc.)". — Lectotype (here designated): Montagnes de Balade, 1855-1860, & fl., Vieillard 591 (P! P00602533, with label for "Herbier de l'Exposition coloniale"; isolecto-, P! × 3, P00143073, + 1, + P00602534 p.p. quoad fragm. "A", excl. fragm. "B").

Fragment "B" on one of the sheets at P is *Vieillard* 639. A further sheet at P has Vieillard's initials and the number 639 in pencil, and appears to be part of the same gathering as "B". Several sheets at G and K with the number 591 are *Deplanche* 591 Vieillard, and are also excluded from the type.

26. *Pancheria obovata* Brongn. & Gris var. *crassifolia* Pamp.

Annali di Botanica (Rome) 2: 96 (1905). — Type (as given in protologue): "Wagap, [...] (Arbuste à feuilles charnes [sic]) [Coll. Vieillard, n. 2077] – specimen foem. – (B-B)". — Holotype: Wagap, [1861-1867], y.fr. and fr., Vieillard 2077 (G! ex B-B G00016982; iso-, K! p.p., ex Herb. Hookerianum, quoad fragm. "A", excl. fragm. "C"; P! × 7, P00131967, P00602536, P00602537, P00602538 + 3, inter quae 1 p.p., quoad fragm. "A", excl. fragm. "C"). A specimen at LYJB (Vieillard 2077, Wagap, s.dat.) is not definitely part of the type gathering.

Pancheria crassifolia Vieill. ex Pamp., loc. cit., nom. inval., nom. nud.

Pancheria crassifolia Vieill. ex Guillaumin, Annales du Musée colonial de Marseille, sér. 2, 9: 137 (1911a), nom. inval., pro syn. sub *P. obovata* var. crassifolia Pamp.

REMARKS

The holotype at G has narrowly elliptic leaves which are glaucous on the underside ("A"). At P, seven sheets have material labelled Vieillard 2077, most with the locality Wagap and dated 1861-1867, and an eighth lacks a collector's name and number but has material matching "A". Four of the sheets have material of "A" only, while others have fragments with thicker, ovate leaves and fruits ("B"), either alone or mounted with "A". However, on one sheet ex CN, material matching "A" and "B" are attached to the same stem, indicating that "B", with occasional 3-foliolate leaves, is the basal/juvenile foliage of "A", and from the same gathering. Other sheets at P and K have separate fragments of "A" and "C", which is probably Vieillard 594. Finally material on one sheet at P labelled *Vieillard 2077*, Wagap, 1861-1867, is neither "A" nor "B", though it may be "C", but in any case it has the wrong label and is not an isotype.

Pancheria obovata var. crassifolia is a synonym of *P. billardierei*. The leaf shape in the holotype is compatible with this name, and the waxy layer on the underside that causes the glaucous appearance is unusual in *Pancheria*, but occurs commonly in *P. billardierei* (e.g., *Bradford et al. 1058*, 1078, 1198, all K, MO, NOU).

27. Pancheria ouaiemensis J.Bradford

Biodiversity & Conservation 13: 2263, figs 7-11 (2004). — Type (as given in protologue): "[...] Prov. du Nord, Roche Ouaïème (massif du Ton Non). [...] 800-900 m [...] 10 janvier 1968 [...] MacKee 18267 (holotype, MO-04974207!; isotypes, P)". — Lectotype (here designated): Roche Ouaïème, 800-900 m, 10.I.1968, y.fr., MacKee 18267 (MO! MO-04974207 p.p., quoad fragm. veteribus fl. ♀ in sinistro, excl. fl. ♂ and fr.; isolecto-, P! P00507461 p.p., quoad fragm. veteribus fl. ♀ excl. fl. ♂ and fr.).

REMARKS

The specimen cited in the protologue as the holotype has three fragments and "likely consist[s] of multiple individuals"; one fragment has old female flowers, one has male flowers, and one has immature fruits. Since this material probably comes from more than one individual, the fragment on the left-hand side in Bradford & Jaffré (2004: fig. 7), with old female flowers, is designated as the lectotype, and a similar fragment on the sheet at P is an isolectotype.

28. *Pancheria phillyreoides* Brongn. & Gris ex Guillaumin

Bulletin de la Société botanique de France 87: 251 (1941), as "phylliuroides" and p. 253 as "phylliuroides". — Type (as given in protologue): "Colline au-dessus de Daaoui de Ero (Balansa 1066)". — Lectotype (here designated): Audessus de Da(a) oui de Ero, près de Bourail, 11.IV.1869, fr., Balansa 1066 p.p. (P! P00602432; isolecto-, K! p.p.; P! × 2, P00602431, P00602434, in exemplis omnibus quoad fragm. fr., excl. fragm. fl. σ). — Lectoparatype: Balansa 1066 p.p. (K! p.p., P! P00602433 + P! p.p. × 3, in exemplis omnibus quoad fragm. fl. σ).

Pancheria phylliraeoides Brongn. & Gris ex Guillaumin, Annales du Musée colonial de Marseille, sér. 2, 9: 137 (1911a), nom. inval., nom. nud. Specimen cited: "Près de Bourail [Balansa 1066]".

Material of *Balansa 1066* at P and K has either fruits or male flowers, or both but on separate fragments mounted on the same sheet. Only those fragments with fruits are designated as the lectotype and isolectotypes.

Various spellings have been used for the specific epithet. Guillaumin (1911a) invalidly published the name "Pancheria phylliraeoides" using the spelling written by Brongniart & Gris on what is now the lectotype at P. The label of this sheet also has the hand-written epithets "buxifolia" and "phylireoides" crossed out, while the isolectotype at K has the spelling "phyllireoides". When Guillaumin (1941) validly published this name he used two different spellings (see above), neither of which corresponded to the one used by Brongniart & Gris on specimen labels. In 1964, Guillaumin returned to the spelling "phylliraeoides".

The epithet is presumably based on the generic name "Phyllirea", which was a misspelling by Adanson (1763) of *Phillyrea* L. (1753) (Oleaceae) (Index Nominum Genericorum, http://ravenel. si.edu/botany/ing/, consulted 21 April 2006). The spelling "Phillyrea" was accepted for this genus by Greuter et al. (1993 and http://www.bgbm. fu-berlin.de/iapt/ncu/genera/default.htm, consulted 21 April 2006) and according to Art. 61.1 of the Vienna Code (McNeill et al. 2006 and http://ibot.sav.sk/icbn/main.htm, consulted 22 October 2008), only one orthographical variant of any one name is treated as validly published, viz. Phillyrea. Following Art. 60.8 and Rec. 60G Ex. 1, which refer to compound epithets including those derived from a generic name, the spelling of the specific epithet for this taxon is corrected here to "phillyreoides".

29. Pancheria pinnata Pamp. [var. pinnata]

Annali di Botanica (Rome) 2: 100 (1905). — Type (as given in protologue): "Austro-Caledonia – ex Herb. Labillardière – specimen masc. – (W)". — Holotype: s.loc., s.dat., & fl.?, Labillardière s.n. (FI [image]! [labelled 1971.jpg] Herb. Webbianum 060959; possible iso-, P! P00143089 p.p., quoad fragm. "B", excl. fragm. "A"); see Appendix 1.

REMARKS

As mentioned in the Introduction, this name appears to be based on juvenile foliage, of *Pancheria billardierei*. Further details of the holotype and possible isotype are given in Appendix 1. In the protologue, W refers to the Webb herbarium at FI, and the citation of the holotype includes the number of the jpg file supplied by FI; both of these considerations apply to other types based on Labillardière material at FI.

When publishing this name, Pampanini (1905) made no reference to "Pancheria pinnata Vieill. mss", in contrast to Guillaumin (1911a: 136), Baker (1921) and Engler (1928) who all invalidly published "Pancheria pinnata Vieill.", and elsewhere in this paper (i.e. Pampanini 1905), Pampanini referred to "Vieill. in sched. [nom. nud.]" when he was taking up a Vieillard name. Therefore this name must be attributed to Pampanini alone, and not to "Vieill. ex Pamp.".

Guillaumin made various references to *Pancheria* pinnata Pamp., for example "P. pinnata Pampan. = ? P. insignis Schltr." (Guillaumin 1911a: 137) and "P. pinnata Pampan., non Vieill. mss. = P. hirsuta Vieill. ex Pampan. = P. insignis Schltr. = P. robusta Brong. et Gris mss" (Guillaumin 1941: 251). The names P. pinnata Pamp. and P. pinnata Vieill. mss refer to different taxa, and it is the latter, invalidly published by Guillaumin and others, that is the same as P. hirsuta and P. insignis (see Invalidly published names).

Guillaumin (1941: 251) referred *Lécard 1*, *Lécard 4* (both s.loc.) and *Lécard s.n.* ("hauts plateaux") to *Pancheria pinnata* Pamp. The specimens at P are all sterile and none is conspecific with Pampanini's type; they belong to an undescribed species that is common on the Plateau de Dogny (Hopkins *et al.* in press).

30. *Pancheria pinnata* Pamp. var. *heterophylla* Pamp.

Annali di Botanica (Rome) 2: 101 (1905). — Type (as given in protologue): "Austro-Caledonia – ex Herb. Labillardière – specimen foem. – (W)". — Holotype: s.loc., s.dat., old fr., Labillardière s.n. (FI [image]! [labelled 1971-. jpg] Herb. Webbianum 060960); see Appendix 1.

The simple leaves and stipules on the holotype are a good match for *Pancheria billardierei*.

31. Pancheria pulchella Pamp.

Annali di Botanica (Rome) 2: 96 (1905). — Types (as given in protologue): "1. – 'In collibus circa Wagap [Vieillard, - ... n. 594 [pr. p.]), sub *P. pirifolia Brogn. (sic) et Gris* – specimen foem. – (D C). 2. – 'Austro-Caledonia [*Labillardière*]' – specimen masc. – ex Herb. Labillardiere – (W)". — Lectotype (here designated): Austro-Caledonia, s.dat., & fl., *Labillardière s.n.* (FI [image]! [labelled 1972.jpg] Herb. Webbianum 060961; isolecto-, K! ex Herb. Hookerianum; possible isolecto-, P! P00143089 p.p., quoad fragm. "A", non fragm. "B"); see Appendix 1. — Lectoparatype: Wagap, s.dat., & fl., *Vieillard 594 p.p.* (G! ex DC, G00016987).

REMARKS

The Labillardière specimen at FI is designated as the lectotype because *Vieillard 594* is an intractible muddle (see Taxonomic history of *Pancheria* and Appendix 1).

At G, a second sheet of *Vieillard 594* (Wagap, 1861-1867, ex B-B) is conspecific with the lectoparatype of *Pancheria pulchella* but it has fruits and is not sufficiently close to be from the same collection.

At P, material labelled *Vieillard 594* and apparently not belonging to the types of *Pancheria beauverdiana* and *P. pyrifolia* consists of at least seven sheets. None definitely matches the lectoparatype of *P. pulchella* and especially the sheets formerly at Caen are clearly from several gatherings. P00143095 has been labelled *P. pulchella* but it has fruit and is probably not a lectoparatype. P00131995 has two fragments with old fruits which match P00143095 but it is labelled "*Deplanche 369bis*, *2659 Vieill.*, 1861-67, Institut Botanique de Caen" while another sheet with a similar label (*Deplanche 369bis*, s.loc., 1861-67, Herb. Mus. Paris) is from a different gathering and is a lectoparatype of *P. elliptica*.

32. Pancheria pyrifolia Brongn. & Gris

Bulletin de la Société botanique de France 9: 75 (1862), as "pirifolia". — Type (as given in protologue): "cir-

ca Balade (Vieillard, n. 594). (Specim. fem. v. hermaphr.)". — Lectotype (here designated): Montages de Balade, 1855-1860, buds, *Vieillard 594* (P! P00143096; isolecto-, P! P00602459).

REMARKS

Brongniart & Gris (1862) originally used the spelling "pirifolia", changing it to "pyrifolia" in 1864. This latter spelling is in agreement with the correct spelling of Pyrus L., the generic name on which it is based, and which is now in accordance with the Code (R. K. Brummitt pers. comm. July 2005). The name was given in error as "pinifolia" by Baker (1921: 302).

Pampanini (1905: 96) mentioned *Vieillard 594* (Wagap, 1861-1867, Fem., G ex B-B, G ex DC, and CI [= Centrale Italiano at FI]) and *Deplanche 594 Vieillard* (Pouebo, 1861-1867, Fem., G ex DC) under *Pancheria pyrifolia*, and there are sheets of these at P and K, but they are excluded from being types of this name by the place and date of collection. Other material of *Vieillard 594 p.p.* includes the holotype of *P. beauverdiana* Pamp. and a lectoparatype of *P. pulchella* Pamp. Material of *Vieillard 594* (Wagap 1861-1867) is also at LYJB.

33. Pancheria reticulata Guillaumin

Bulletin de la Société botanique de France 87: 251 (1941). — Types (as given in protologue): "Mt Mi, vers 1000 m. (Balansa 1073), Yahoué (Brousmiche 501)". — Lectotype (here designated): Sommet du Mt Mi, 1000 m, 25.III.1869, old fr., Balansa 1073 (P! P00143094, with field notes and drawing of floral details; isolecto-, P! P00602436, lacking field notes). — Lectoparatype: Ponts d'Yahoué, 1.VII.1882, buds, Brousmiche 501 (P! P00602437), is conspecific.

34. Pancheria rivularis Schltr.

Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie 39: 129, fig. 8 (1906). — Type (as given in protologue): "[...] auf der Bergen bei Ou Hinna, ca. 100 m u. M. – n. 15645 (fem.), bluhend in Januar 1903)". — Lectotype (here designated): Ou-Hinna, 100 m, 5.I.1903, $\$ fl., Schlechter 15645 (B [image]! B100068768; isolecto-, BM!; K!; P! P00143093; + others n.v.?).

See *Pancheria aemula* and *P. beauverdiana* for discussion of leaf characters and synonymy.

35. Pancheria robusta Guillaumin

Bulletin de la Société botanique de France 87: 252 (1941). — Type (as given in protologue): "Mt Pénari (Balansa 3430)". — Lectotype (here designated): Mt Pénari, côte orientale, 600 m, 1871, fr., Balansa 3430 (P! P00143092, with locality and brief field notes; isolecto-, K!; P! × 2, P00602438, P00602439, without field notes).

REMARKS

The name *Pancheria robusta* was also published, but invalidly, by Guillaumin (1911a, b) when discussing the names *P. insignis* and *P. hirsuta* (see Invalidly published names); *P. robusta* Guillaumin (1941) is a separate taxon.

36. Pancheria rubrivenia Baker f.

Journal of the Linnean Society, Botany 45: 302 (1921). — Type (as given in protologue): "Tonine; mountain top scrub; 3500 ft; [Compton] 1935". — Holotype: Tonine, 3500 ft., 30.IX.1914, & fl., Compton 1935 (BM! BM000600406, 2 fragm., both &; iso-, P!, fragm. st.).

37. Pancheria sebertii Guillaumin

Bulletin du Muséum national d'Histoire naturelle 27: 122 (1921), as "Seberti". — Replaced name: Pancheria ternata auctt., sensu Pancher & Sebert, Notice sur les bois de la Nouvelle Calédonie: 206 (1874a) [and Revue maritime et coloniale 40: 592 (1874b [February]), n.v.], non Brongn. & Gris (1862), fide Guillaumin (1921). Specimens cited (1874a: 274, in table): Fournier & Sebert (sic) 6, Petit 6. — Lectotype (here designated): s.loc., nom. vern. "Hiramia" or "Iramia", s.dat., old fr., Sebert & Fournier 6 (P! P00143081). — Lectoparatype: Petit 6 (P! P00602441, st.) is conspecific.

REMARKS

Sebert was the principal author of "*Notice sur les bois de la Nouvelle Calédonie*" with the descriptive part written "en commun avec M. Pancher". Authorship

for names published in this book are usually, though not always, ascribed to Pancher & Sebert (http://www.ipni.org, author search, 2 February 2007). These authors identified *Fournier & Sebert (sic)* 6 and *Petit* 6 as *P. ternata* Brongn. & Gris and gave a brief description of the plant, its wood and its uses.

Guillaumin (1921) considered that Pancher & Sebert's plant was not identical to *Pancheria ternata* and so he named it as a new species, *P. sebertii*. He provided no description himself but his name is validated by reference to Pancher & Sebert's publication. Although Pancher & Sebert did not intend to describe a new plant, their publication complies with Art. 32-45 of the Code and the specimens they cited are the syntypes of Guillaumin's name. Sheets of these collections at P each have a label in Guillaumin's hand indicating "Pancheria seberti = Pancheria ternata Panch. et Seb. non Brongn. & Gris" and "type". The specimen labelled "Seb. et Fourn. 6" is chosen as the lectotype because it is fertile while *Petit 6* is sterile. A sterile specimen at BM labelled "No. 6, Pancheria ternata" could be an isolectotype, a lectoparatype, or neither.

Guillaumin (1921) mentioned two other collections as belonging to *Pancheria sebertii*, though they are not syntypes, *Franc 1843* from Prony and *Franc 226*. He stated that the latter had been identified by Schlechter as *P. ternata*, but this appears to be an error as it is *Franc 227* at P that was determined by Schlechter as *P. ternata* and redetermined by Guillaumin as *P. sebertii*.

Although the types of *Pancheria sebertii* and *P. ternata* are rather different from one another, both appear to belong to a complex species for which the oldest available name is *P. ternata* Brongn. & Gris. Variation in this complex will be discussed elsewhere.

38. *Pancheria ternata* Brongn. & Gris

Bulletin de la Société botanique de France 9: 76 (1862). — Type (as given in protologue): "Hab. in montibus, [...] prope Balade (Vieillard, no. 590). (Specim. fruct.)". — Lectotype (here designated): Montagnes de Balade, 1855-1860, old fr., Vieillard 590 (P! P00143082, with label for "Herbier de l'Exposition coloniale"; isolecto-, P! P00602440, with label for "Herb. Mus. Paris"; possible isolecto-, P! p.p. P00479448, ex CN, quoad fragm. inf., fl. \$\operatorname{9}\$.

The evidence that Brongniart & Gris's name *Pancheria ternata*, published in 1862, is not based on Montrouzier's name *Callicoma ternata*, published in 1860, is discussed above under the latter name. Both names appear to refer to the same species, for which *Pancheria ternata* Brongn. & Gris is the currently accepted name.

The lectotype and isolectotype of *Pancheria ternata* are in poor condition and not easy to interpret. A third sheet at P, P00479448, has two fragments; the lower one is *Vieillard 590* (Balade, 1855-1860) with leaves similar to those of the lectotype but with female flowers, not fruits, and it is possibly an isolectotype. The upper fragment is [*Pancher*] 4646¹ with galled/teratological flowers (see discussion of *Vieillard 590* under Taxonomic history of *Pancheria*).

39. Pancheria vieillardii Brongn. & Gris

Bulletin de la Société botanique de France 9: 75 (1862), as "Vieillardi". — Type (as given in protologue): "prope Kanala (Vieillard, n. 593)". — Lectotype (here designated): Montagnes de Kanala, 1855-1860, fr., Vieillard 593 (P! P00143083, "Herb. Mus. Paris", 2 fragm. [fr. + st.] + packet; isolecto-, P! × 2: (i) P00602457 "Herbier de l'Exposition coloniale", 2 fragm. [fr. + buds]; (ii) P00602458 "Institut Botanique de Caen").

INVALIDLY PUBLISHED NAMES

Among the invalidly published names in *Pancheria* are simple errors, where the wrong name has been used, and several manuscript names, especially of Vieillard and Brongniart & Gris. Other manuscript names have been written on specimens but never published and are not included. Names that were originally published invalidly but which have subsequently been validated are dealt with in the previous section.

1. Codia montana Labill. ex D.Don

Edinburgh New Philosophical Journal 9: 94 (1830), pro syn. sub Callicoma billardierei D.Don, non Codia montana J.R.Forst. & G.Forst. (1775); see Hopkins (2005).

REMARKS

In 1793, Labillardière collected material of both *Codia montana* J.R.Forst. & G.Forst. and *Pancheria billardierei* near Balade, but he confused the two under a single name and labelled some material of the latter, including the holotype of *P. billardierei*, as "*Codia montana*". Because of this, Don (1830) cited "*Codia montana* Labill. MSS" as a synonym of *P. billardierei* (q.v.).

2. *Pancheria alaternoides* Brongn. & Gris var. *angustifolia* Guillaumin

Mémoires du Muséum national d'Histoire naturelle, sér. B, botanique 15: 45 (1964), nom. inval., no indication of type. — Specimens cited (details abbreviated): Col de Plum, Baumann 5536 p.p., Guillaumin & Baumann 7881; Mt Dore, Guillaumin & Baumann 7870; Pouéta-Kouré, Hurlimann 24, Baumann 5570 [sic; should be 5750?]; Creek Pernod, Guillaumin 8344.

REMARKS

Guillaumin (1964) published the name of this variety with a description in Latin and mention of six collections, but since he did not designate in print that any of them was a type, the name was not validly published.

The specimens listed by Guillaumin (1964) have leaves that are intermediate between those of *Pancheria elegans* (leaves linear to very narrowly elliptic with teeth usually all round the margin) and *P. alaternoides* [var. *alaternoides*] (leaves elliptic with teeth usually only around the distal ½ of margin). These collections and a few similar ones appear to be hybrids between *P. elegans* and *P. alaternoides*, and all are from southern Grande Terre where the putative parents are sympatric. However, the material is neither uniform nor clearly distinct from the likely parents but spans the gap between them, so this variety is not considered worth recognising taxonomically and the name is not validated.

Differences in leaf shape between some of the specimens referred to by Guillaumin as "*P. alaternoides* var. *angustifolia*" and *P. lanceolata* are discussed under the latter.

3. *Pancheria alaternoides* Brongn. & Gris var. *subintegrifolia* Brongn. & Gris ex Guillaumin

Bulletin de la Société botanique de France 87: 250 (1941), pro syn. sub Pancheria elliptica Pamp.

4. Pancheria conferta Vieill. ex Guillaumin

Bulletin du Muséum national d'Histoire naturelle 26: 368 (1920), pro syn. sub Pancheria engleriana Schltr.

REMARKS

A specimen at K of *Vieillard 2653* (Kanala, 1861-1867), which is *Pancheria engleriana*, has "*Pancheria conferta* Vieill." written on it (by Brongniart?).

5. Pancheria crassifolia Vieill. ex Pamp.

Annali di Botanica (Rome) 2: 96 (1905), pro syn. sub *P. obovata* var. *crassifolia* Pamp.; Guillaumin, *Annales du Musée colonial de Marseille*, sér. 2, 9: 137(1911a), pro syn. sub *P. obovata* var. *crassifolia* Pamp.

REMARKS

See Pancheria obovata var. crassifolia.

6. Pancheria glabrosa Virot

in Birrell & Wright, New Zealand Journal of Science & Technology 27, sect. A: 72 (1945), nom. nud.

REMARKS

Birrell & Wright (1945) published a list of species common in xerophyllous scrub in the Nepoui Valley that had been identified for them by Virot, and they had no intention of publishing a new name. Virot (1956: 356) repeated the epithet by reprinting their table IV and although he indicated that the name was an error, he did not say what the correct name was.

7. *Pancheria gracilis* Schltr.

Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie 36: 20 (1905), nom. nud.

REMARKS

Schlechter (1905) attributed this name to Brongniart & Gris but they did not publish it and neither have we seen it as a manuscript name on specimens. Hoogland (unpublished note in files at P) thought the name was used in error for *Pancheria elegans*, probably because Schlechter was referring to a species growing along river courses.

8. *Pancheria humilis* Brongn. & Gris ex Guillaumin var. *fructescens* Brongn. & Gris ex Guillaumin

Annales du Musée colonial de Marseille, sér. 2, 9: 136 (1911a), nom. nud. Specimen cited: "M^t Koghi [Balansa 191]".

REMARK

This name refers to material of *Codia albifrons* (Brongn. ex Schinz & Guillaumin) Baker f. (Hopkins 2005).

9. Pancheria laevis Vieill. ex Guillaumin

Annales du Musée colonial de Marseille, sér. 2, 9: 137 (1911a), nom. nud. Specimens cited: Pancher 186, Vieillard 2658. — Notulae Systematicae (Paris) 2: 108 (1911b), nom. nud.

Remark

This name refers to material of *Codia nitida* Schltr. (Hopkins 2005).

10. Pancheria lucida Vieill. ex Guillaumin

Annales du Musée colonial de Marseille, sér. 2, 9: 137 (1911a), nom. nud. Specimen cited: Pancher s.n. — Notulae Systematicae (Paris) 2: 108 (1911b), nom. nud.

REMARKS

This name was said by Guillaumin (1911b) to refer to *Codia nitida* Schltr., but specimens of *Vieillard 2657* (sommet du Mont Mou, 1861-1867) at BM (BM000600405), K and P with this name written on them are *Pancheria phillyreoides*.

11. *Pancheria montana* Brongn. & Gris ex Guillaumin

Annales du Musée colonial de Marseille, sér. 2, 9: 136 (1911a), pro syn. sub Pancheria engleriana Schltr.

REMARKS

A sheet of *Balansa 194* (s.loc., 1868-1870) at K, which is *Pancheria engleriana*, has "*Pancheria montana* Br. & Gr. mss" written on it. At B, the lectotype and lectoparatype of *P. engleriana* (var. *engleriana*), *Schlechter 15187* and *15188*, also have "*Pancheria montana*" written on their labels, but the name is ascribed to Schlechter.

12. Pancheria pinnata Vieill. ex Guillaumin

Annales du Musée colonial de Marseille, sér. 2, 9: 136 (1911a, dated 1911, received at K c. 19 November 1912), pro syn. sub *Pancheria insignis.*— Notulae Systematicae (Paris) 2: 107 (1911b, dated 1 October 1911), pro syn. sub *P. hirsuta* Vieill. ex Pamp., non *P. pinnata* Pamp.

REMARKS

The name *Pancheria pinnata* Vieill. was invalidly published by Guillaumin (1911a) as a synonym of *P. insignis* and by Guillaumin (1911b) when he equated both *P. insignis* Schltr. and *P. pinnata* Vieill. mss with *P. hirsuta* Vieill. ex. Pamp. Although the exact date of publication of Guillaumin (1911a) is not known, Guillaumin (1911b) probably appeared first.

The name *Pancheria pinnata* Vieill. was also published by Baker (1921) and Engler (1928: 259). Baker published it as a nomen sub nudum, unlike the new names which he intended to publish in that work which had descriptions in Latin, and he referred to *Compton 306*, which is a specimen of *P. hirsuta*. Engler published the name in his key, but again invalidly, since he gave no characters to distinguish it from *P. hirsuta* and *P. insignis*.

13. *Pancheria robusta* Brongn. & Gris ex Guillaumin

Annales du Musée colonial de Marseille, sér. 2, 9: 136

(1911a), pro syn. sub *Pancheria insignis.* — *Notulae Systematicae* (Paris) 2: 107 (1911b), nom. nud., non *P. robusta* Guillaumin (1941).

REMARKS

A specimen of *Pancheria hirsuta* at K (*Balansa 2855*, 1868-1870) has "*Pancheria robusta* Br. & Gris mss" written on it. The name "*Pancheria robusta*" was subsequently validly published by Guillaumin (1941), based on *Balansa 3430*, to refer to a different plant.

14. Pancheria serrata Guillaumin

Bulletin du Muséum national d'Histoire naturelle 20: 94 (1914), nom. nud.

REMARKS

This name appears in a list of common names for "Chêne rouge", possibly in error for *Pancheria ternata* (R. D. Hoogland, unpublished note in files at P).

15. *Pancheria ternata* Brongn. & Gris var. *simplicifolis* Brongn. & Gris ex Guillaumin

Annales du Musée colonial de Marseille, sér. 2, 9: 137 (1911a), nom. nud. Specimen cited: "M^t Nékou [Balansa 1070]".

REMARKS

Balansa 1070 is a specimen of Pancheria brunhesii.

16. Pancheria undulata Vieill. ex Guillaumin

Bulletin de la Société botanique de France 87: 249 (1941), pro syn. sub *P. brunhesii* Pamp.

REMARKS

The name "Pancheria undulata Vieill." is written on a sheet of Deplanche 370bis (Pic de Pouébo, 1861-1867) at P, which is an isolectotype of P. brunhesii.

INDEX OF NAMES ASSOCIATED WITH THE GENUS *PANCHERIA*

New names in bold; names of accepted taxa underlined; validly published names that are synonyms in normal face; *invalidly published names in italics* (minor spelling variants are not included).

Callicoma billardierei D.Don, basionym of <u>Pancheria</u> billardierei (D.Don) Pamp.

Callicoma ternata Montrouz., syn. of <u>Pancheria ternata</u> Brongn. & Gris

Codia montana Labill. ex D.Don, nom. inval., pro syn. sub Callicoma billardierei D.Don, non Codia montana J.R.Forst. & G.Forst.

Codia tinifolia Baker f., syn. of <u>Pancheria billardierei</u> (D.Don) Pamp.

Pancheria aemula Schltr., syn. of <u>Pancheria beauverdiana</u> Pamp.

<u>Pancheria alaternoides</u> [var. alaternoides] Brongn. & Gris

Pancheria alaternoides Brongn. & Gris var. angustifolia Guillaumin, nom. inval.

Pancheria alaternoides Brongn. & Gris var. lanceolata Pamp., basionym of <u>Pancheria lanceolata</u> (Pamp.) Baker f.

Pancheria alaternoides Brongn. & Gris var. subintegrifolia Brongn. & Gris ex Guillaumin, nom. inval.

Pancheria beauverdiana Pamp.

Pancheria billardierei (D.Don) Pamp.

Pancheria brunhesii Pamp.

Pancheria calophylla Guillaumin

Pancheria communis Baker f.

Pancheria conferta Vieill. ex Guillaumin, nom. inval.

Pancheria confusa Guillaumin

Pancheria crassifolia Vieill. ex Pamp., nom. inval.

Pancheria elegans Brongn. & Gris

Pancheria elliptica Pamp., syn. of <u>Pancheria billardierei</u> (D.Don) Pamp.

Pancheria engleriana Schltr. [var. engleriana]

Pancheria engleriana Schltr. var. potamophila Schltr., syn. of <u>Pancheria engleriana</u> Schltr. var. <u>engleriana</u>

Pancheria ferruginea Brongn. & Gris

Pancheria fusca Schltr., basionym of <u>Codia fusca</u> (Schltr.) H.C.Hopkins

Pancheria gatopensis Guillaumin

Pancheria glabrosa Virot in Birrell & A.C.Wright, nom. inval.

Pancheria gracilis Schltr., nom. inval.

Pancheria heterophylla Vieill. ex Guillaumin

Pancheria hirsuta Vieill. ex Pamp.

Pancheria humboldtiana Guillaumin ex H.C.Hopkins & J.Bradford

Pancheria humilis Brongn. & Gris ex Guillaumin, nom. inval.

Pancheria insignis Schltr., syn. of <u>Pancheria hirsuta</u> Vieill. ex Pamp.

Pancheria laevis Vieill. ex Guillaumin, nom. inval.

Pancheria lanceolata (Pamp.) Baker f.

Pancheria lucida Vieill. ex Guillaumin, nom. inval.

Pancheria minima J.Bradford

Pancheria montana Brongn. & Gris ex Guillaumin, nom. inval.

Pancheria multijuga Guillaumin ex H.C.Hopkins & I.Bradford

Pancheria obovata Brongn. & Gris [var. obovata], syn. of Pancheria billardierei (D.Don) Pamp.

Pancheria obovata Brongn. & Gris var. crassifolia Pamp. syn. of <u>Pancheria billardierei</u> (D.Don) Pamp.

Pancheria ouaiemensis J.Bradford

<u>Pancheria phillyreoides</u> Brongn. & Gris ex Guillaumin Pancheria pinnata Pamp. [var. pinnata], ?syn. of <u>Pancheria</u> <u>billardierei</u> (D.Don) Pamp.

Pancheria pinnata Pamp. var. heterophylla Pamp., syn. of <u>Pancheria billardierei</u> (D.Don) Pamp.

Pancheria pinnata Vieill. ex Guillaumin, nom. inval., pro syn. sub Pancheria insignis Schltr., non Pancheria pinnata Pamp.

Pancheria pyrifolia Brongn. & Gris, syn. of <u>Pancheria</u> billardierei (D.Don) Pamp.

Pancheria pulchella Pamp., syn. of <u>Pancheria billardierei</u> (D.Don) Pamp.

Pancheria reticulata Guillaumin

Pancheria rivularis Schltr., syn. of <u>Pancheria beauverdi</u>ana Pamp.

Pancheria robusta Brongn. & Gris ex Guillaumin (1911a, b), nom. inval., non <u>Pancheria robusta</u> Guillaumin (1941)

Pancheria robusta Guillaumin

Pancheria rubrivenia Baker f.

Pancheria sebertii Guillaumin, syn. of <u>Pancheria ternata</u> Brongn. & Gris

Pancheria serrata Guillaumin, nom. inval.

Pancheria ternata Brongn. & Gris

Pancheria ternata Brongn. & Gris var. simplicifolis Brongn. & Gris ex Guillaumin, nom. inval.

Pancheria undulata Vieill. ex Guillaumin, nom. inval. Pancheria vieillardii Brongn. & Gris, syn. of <u>Pancheria</u> <u>billardierei</u> (D.Don) Pamp.

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APPENDIX 1

Material of Pancheria collected by Labillardière.

According to Staffeu & Cowan (1979), the main sets of Labillardière's material from the d'Entrecasteaux expedition are at FI, with an important set of duplicates at G. We have seen nine sheets or images with material of *Pancheria* collected by Labillardière though it is likely that others exist. Four names in Pancheria are based on Labillardière collections, viz. P. billardierei (D.Don) Pamp., P. pinnata var. pinnata Pamp., P. pinnata var. heterophylla Pamp., and P. pulchella Pamp. The hand-writing of Pampanini and Don on specimen labels indicate which sheets are the types for these names, but problems arise when trying to determine whether other sheets are part of the same gatherings and should therefore be cited as isotypes or isolectotypes. This difficulty arises partly because Labillardière's specimens were un-numbered, but is compounded by the fact that all four names probably refer to a single species, P. billardierei.

In all nine of the Labillardière sheets we have seen, the leaves appear to be in whorls of three per node and where the leaves are simple, they are generally elliptic, almost sessile to shortly petiolate, with the margin distally crenate. The stipules when present or visible are elliptic and persistent only at the distal node, except in Herb. Webb. 060959 where they also persist at lower nodes, and the abaxial surface is either hirsute or glabrous. The nine sheets must be from at least two gatherings, one male and one female, but could be from four or more. Unfortunately the images from FI do not allow us to compare details such as indumentum, which might help to refine our conclusions, but in any case, the difficulties of variation within individuals, where leaves may have different morphologies according to their position on the stem (as described under *Pancheria obovata* var. crassifolia) mean that we cannot be certain how many gatherings are involved.

1) **BM** – 1 sheet (BM000926073) with a single fragment (Fig. 2D): leaves simple, almost sessile; stipules and young stem not visible; capitula of old \circ flowers; original labels give the names *Codia montana* in Labillardière's writing and *Callicoma Bil*-

lardieri (sic) in David Don's. Holotype of Pancheria billardierei.

2) FI – 4 sheets. i) Herb. Webbianum 060959 [image labelled 1971.jpg] with a single fragment and a packet (contents not seen): leaves mostly 5-foliolate with lateral leaflets broadly ovate, some 3-foliolate, and some distal ones simple; stipules quite large, broad, persisting at several nodes. Holotype of *Pancheria pinnata* var. *pinnata*.

Both Pampanini's label on the specimen and his protologue indicate that the specimen has male flowers but they are not visible in the photograph though they could be in the packet. The material is probably from a sapling or coppice shoot that either exceptionally has flowers associated with juvenile foliage or, if the capitula are separate, they may have come from a different stem of the same or a different plant.

- ii) Herb. Webbianum 060960 [image labelled 1971-.jpg] with a single fragment: leaves simple, plus lower ones 3-foliolate according to Pampanini, though these not readily visible in the image; stipules only at distal node; capitula of old fruit. Holotype of *Pancheria pinnata* var. *heterophylla*.
- iii) Herb. Webbianum 060961 [image labelled 1972.jpg] with a single fragment: leaves simple; capitula with σ flowers. Syntype, now lectotype, of *Pancheria pulchella*.
- iv) Herb. Webbianum 060062 (sic in Pampanini 1905, should be 060962?) [image labelled 1970.jpg] with a single fragment: leaves simple; capitula of old 9 flowers; hand-written label gives the name Codia but not in Labillardière's writing. Mentioned by Pampanini (1905: 99) as belonging to P. billardièrei: "N. Caledonie [Billardiere (Labillardière)] sub Codia sp. ex Herb. Desfontaines specimen foem (W)." Probably an isotype of Pancheria billardièrei although the leaves here have a slightly longer petiole and are more cuneate at the base than in the specimen at BM.
- 3) **G-DC** − 1 sheet with two fragments: G00134344: leaves simple, elliptic, ± sessile, capitula of old ♀ flowers; original label states "*Codia* Forst." and "M.B.

Delesert 1815"; G00134341: leaves simple, lowest ones obovate-elliptic, shortly petiolate; capitula of old $\[Phi]$ flowers; original label states "Codia montana" in Labillardière's hand and "Labil."; specimen not mentioned by Pampanini (1905). Although leafshape is not identical in the two fragments, both have capitula with old $\[Phi]$ flowers, and both are potentially isotypes of Pancheria billardierei.

- 4) K−1 sheet (ex Herb. Hookerianum, 1867) with a single fragment: leaves simple, elliptic, ± sessile; young stems glabrous; capitula of ♂ flowers. Probably an isolectotype of *Pancheria pulchella*.
- 5) P − 2 sheets: i) ex Herb. E. Cosson, ex Herb. Moquin-Tandon, with two fragments: "A" is *Codia montana* J.R.Forst. & G.Forst. and "B" is a *Pancheria* with simple leaves and capitula of old ♀ flowers; original label gives the name *Codia montana* but not in Labillardière's writing. The leaves of fragment "B" are more cuneate at both the base and the apex than in the holotype of *P. billardierei*, but are similar to some of the leaves on Herb. Webb. 060062. Possibly an isotype of *Pancheria billardierei*.
- ii) Herb. Mus. Paris (P00143089) with two fragments: "A": leaves simple, shortly petiolate; young stems ± glabrous; capitula of σ flowers; "B": a mixture of pinnate and simple leaves but the stipules are persistent only at the distal node; young stem minutely hairy; capitula of σ flowers; printed label

for Herb. Mus. Paris states "Nouvelle Calédonie – Labillardière, Donné par M. Webb", with "A. *Pancheria Billardieri* Pampan." hand-written on it (by Guillaumin?). It is not clear whether fragments "A" and "B" are from the same or different gatherings; "A" is a possible match with the lectotype of *P. pulchella* and "B" could have come from the same plant as the holotype of *P. pinnata* var. *pinnata* but is not an exact match.

6) RO – 1 sheet (Herb. Cesatianum, Mus. Bot. R. Horti Romani) with a single fragment: leaves simple, shortly petiolate, conduplicate; stems glabrous; capitula of old fruit; original label gives the name *Codia montana* in Labillardière's writing; labels stamped "F. von Mueller"; mentioned by Pampanini (1905: 99) as belonging to *P. billardierei* – "Nouvelle Écosse [La Billardière] – sub *Codia montana* – specimen foem – (Herb. Cesatianum, Mus. Bot. R. Orti [sic] Romani)."

The leaves are comparable in shape with those of the holotype of *Pancheria billardierei* but they are about twice as long, and although both specimens are female, this sheet has old fruits while that at BM has old female flowers. The fruits on the sheet at RO are similar in age to those of the holotype of *P. pinnata* var. *heterophylla* but the leaves are larger than the simple leaves of the latter. The status of this sheet as an isotype of either name is uncertain.

APPENDIX 2

Note on the locality Mt Mi.

A syntype of *Pancheria gatopensis* (*Balansa 1068*) and the lectotype of *P. reticulata* (*Balansa 1073*) are cited by Guillaumin (1911a; 1941) as coming from Mont Mi, although the spelling on the specimen labels could be Mi or Ni. Other specimens of *Pancheria* collected by Balansa at around the same time, i.e. February to April 1869, include *1065* (*p.p.*), *1065a*, *1066* and *1070*, and are all from around Bourail.

Mont Mi is not listed in the Official Standard Names Gazetter (1974), nor by Tirel *et al.* (Tirel C., Lescot M., Morat P. & Veillon J.-M., website: *Index géoréférencé des localités de prospection bota-* nique en Nouvelle-Calédonie. Carnets des récoltes de H. S. MacKee. http://phanero.novcal.free.fr, consulted 27 October 2006), but "Mt Mi" is shown on the map accompanying Balansa's paper (1873) on the geography of New Caledonia and "Set Mi" appears on another 19th century map (Bouquet de la Grye "1862"). In both cases, the mountain is shown east of Bourail, in a position close to Mé Ori and Mt Adéo on current maps. Mont Mi is probably a former spelling for "Mé Wie", which is shown to the south-east of Mé Ori on the current topographic map (Institut géographique national 1996) and "Mé Ouié", which is stated in the Of-

ficial Standard Names Gazetter (1974) as being at latitude 21°31'S, longitude 165°43'E; these two spelling variants are listed as synonyms of one another by Tirel *et al.* (website consulted 23 January 2007).

The type of *Weinmannia ouaiemensis* (Guillaumin & Virot) Hoogland, *Virot 731* (P), is also reported as coming from Mont Mi ["Arête rocheuse

menant au Mt Mi (versant O.), point culminant du massif de la Roche Ouaïème, 1050 m"] (Guillaumin & Virot 1953: 29). However, in this case, the locality is part of the Ton Non massif in northeastern Grande Terre though it is not shown on the current topographic map (Institut géographique national 1994) and is clearly a different mountain from that visited by Balansa.