The Typification and Nomenclature of the Genera and Species of the Subtribe Archontophoenicinae (Arecaceae) in New Caledonia

DONALD R. HODEL AND CELIO E. MOYA LÓPEZ

We reviewed the nomenclature and typification of the three genera, *Actinokentia*, *Chambeyronia*, and *Kentiopsis*, and the eight currently accepted species comprising the subtribe Archontophoenicinae (Arecaceae) in New Caledonia (Hodel and Pintaud 1998). We did this in preparation for a molecular-based taxonomic reassessment of this subtribe on the Island. We followed the rules set forth in Turland et al. (2018) and frequently refer to specific article numbers (Art.) upon which we based our findings. We made no taxonomic changes at this time and accepted the species as presented in the major on-line taxonomic databases (Tropicos, IPNI, The Plant List, Govaerts et al. 2021). Unless otherwise noted, all specimens were seen as high-resolution digital images (without designation as such in the text). Co-author Hodel took the photographs of living plants in habitat in New Caledonia in 1995 and 1996 and scanned the original transparencies to present here.

Type species: *Actinokentia divaricata* Dammer.

*Actinokentia divaricata* Dammer, Bot. Jahrb. Syst. 39: 21 (1906). Fig. 1.

When he described *Actinokentia divaricata*, Dammer (1906) cited five different specimens in the protologue: *Pancher 765*, *Balansa 1969*, *Balansa 1969a*, *Balansa 770*, and *Balansa 770a*, creating syntypes (Art. 9.6). Later, in treating *A. divaricata*, Beccari (1920) noted that he studied the specimens of *Pancher 765* at P, which are not clearly labeled as being part of a single specimen, thus creating syntypes (Art. 9.6). Beccari’s action is considered the first-step lectotype; here we designate P 00065056 (Fig. 2) as the second-step lectotype because it is the most diagnostic for the species and the remaining seven specimens at P as isolectotypes.
1. *Actinokentia divaricata* with striking red, newly unfolding leaf, Me Maoya, Nodela, March 1996.
Although identified as a type at P, we have excluded P 00065062 because the label reads “Pancher 770” rather than Pancher 765.

When Brongniart and Gris (1864) described *Kentia divaricata*, they cited *Vieillard 1281*, which was previously cited as type for *Kentia oliviformis* Brongn. & Gris (1864), a name that they then ought to have adopted (Art. 52.1). Because they did not do so, the name *Kentia divaricata* is superfluous and illegitimate, and must be rejected and, therefore, the name *Kentiopsis divaricata* is also superfluous and illegitimate and cannot serve as a basionym (Art. 6.10). Thus, the correct author citation is not *Actinokentia divaricata* (Brongn.) Dammer but rather *A. divaricata* Dammer.


Benthan and Hooker f. (1883) and Beccari (1885) transferred the superfluous and illegitimate name *Kentiopsis divaricata* to the genus *Drymophloeus*; thus, the new combinations are also illegitimate names.


Dammer (1906) listed “*Kentia polystemon* Planch. in herb.” as a synonym without providing a description or diagnosis, which renders it a *nomen nudum*.

The following designation “*Kentia polystemon*” Planch. ex Dammer (Bot. Jahrb. Syst. 39: 21 (1906) is a *nomen nudum* and not validly published (Art. 38.1(a)).


Type. New Caledonia. [Province Sud, commune Ngoye], “Auf den Bergen am Ngoye,” 200 m, fl., ft., 18 Nov. 1902, *Schlechter 15373* (holotype: B, destroyed; lectotype: Moore & Uhl
1984: 32] P, identified here, P 00065065 [Fig. 3]; isoelectotypes: BRU 0000006941550; HBG 522388; K 000736154).

Dammer (1906) provided a description of *Actinokentia schlechteri*, which validates it as a species, and designated **Schlechter 15373** as the type. In doing so he referred to multiple specimens without designating a particular one as the holotype, thus creating syntypes. Moore and Uhl (1984) designated the specimen at P as the lectotype, which we identify as P 00065065. The remaining three specimens at BRU, HBG and K as isoelectotypes.


Type. New Caledonia. [Province Nord], “au-dessus, de la terre. Forêt méso-hygrophile de montagne sur serpentine, pente d’une vallée latérale de la haute Ni,” 880 m, fl., fr., 25 Jun. 1951, **Hüerlimann 1712** (holotype: BH [n.v.]; isotypes: K 000736153; P 00065066 [Fig. 4], P 00065068; Z 000017011, Z 000017012, Z 000017013, Z 000017014, Z 000017014A).

Moore (1980), in the protologue of *Actinokentia huerlimannii*, designated **Hurlimann 1712** deposited at BH as a holotype, a decision that we maintain. Because of the current situation with the COVID-19 pandemic, we have been unable to review the holotype at BH, which, according to Reveal and Nixon (2013), consists of one box and two envelopes. Our decision might change when we review the collection at BH.


Type species: *Chambeyronia macrocarpa* Becc.

While he listed three species for the genus, Vieillard (1871) did not designate a type species for *Chambeyronia*. When Beccari (1920) attributed *C. macrocarpa* to Vieillard, he designated that species as the type for the genus.

*Chambeyronia lepidota* H. E. Moore, Gentes Herbarum 11: 291 (1978). **Fig. 5.**

Type: New Caledonia [Province Nord, commune Pouébo], “Wet forest, Roches de Ouaième, between Hienghène and Tao,” 900 m, fl., ft., 21 Jun. 1971, **Moore, Brinon, Schmid & Veillon 9960** (holotype: BH [n.v.] isotypes: NOU 006143, NOU 006144, NOU 006145, NOU 006146, NOU 006147, NOU 006148, NOU 006149, NOU 006150, NOU 006159; P 00065134, P00065135).

Moore (1978), in the protologue of *Chambeyronia lepidota*, designated **Moore, Brinon, Schmid & Veillon 9960** deposited at BH as a holotype, a decision that we maintain. Because of the current situation with the COVID-19 pandemic, we have been unable to
4. Isolectotype of Actinokentia huerlimannii, Hüerlimann 1712 at P, P 00065066. Note the exceptionally large bracteoles subtending the floral triads, a character that distinguishes this species from *A. divaricata*. 
5. *Chambeyronia lepidota*, Mt. Panié, 1400 m, June 1996.
review the holotype at BH, which, according to Reveal and Nixon (2013), consists of three boxes, two envelopes, and one packet. Our decision might change when we review the collection at BH.

Chambeyronia macrocarpa Becc., Palme Nuova Caledonia: 13 (1920). Fig. 6.

The nomenclature and typification of Chambeyronia macrocarpa is somewhat complex. When Beccari published *C. macrocarpa* (1920) he listed as synonyms Kentiopsis macrocarpa Vieill. ex Brongn. (1873) and Kentia lindenii Linden ex André (1877). Because these two synonyms have types, the name *C. macrocarpa* Becc. is superfluous and illegitimate (Art. 52.2). However, because Beccari (1920) designated a different type in the protologue, the name *C. macrocarpa* is treated and accepted as the name of a new taxon (Art. 7.5b).

Also, Beccari (1920) attributed the name to Vieillard (1873) but he did not adopt the “ex” citation in the protologue; therefore, the “ex” citation does not precede his author citation, the name is attributed solely to Beccari (Art. 46.10), and it is correctly cited as *C. macrocarpa* Becc., not *C. macrocarpa* “Vieill. ex Becc.” (Art. 46.4).

Because it was without a description, “Chambeyronia macrocarpa” Vieill. is a nomen nudum and not validly published (Art. 38.1(a)).


When Beccari (1920) validly published *Chambeyronia macrocarpa*, he created three syntypes (Art. 9.6) by citing three of Brongniart’s original five Balansa specimens (see below), 647, 1959, and 2911. Here we designate *Balansa 2911* as the lectotype because it best exemplifies the concept of *C. macrocarpa*. The specimen at P consists of five separate specimens, which are not clearly labeled as being part of a single specimen; thus, they are duplicates (Art. 8.3). We select P 00192699 (Fig. 7) as the lectotype and the four remaining specimens at P as isolectotypes.

*Chambeyronia macrocarpa* Beccari (1920) is not a replacement name (Art. 6.11) for *C. macrocarpa* Vieill. (1873) because the latter is a nomen nudum and not validly published.
7. Lectotype of *Chambeyronia macrocarpa*, *Balansa* 2911 at P, P 00192699.
Neither is it a later homonym (Art. 53.1) of *C. macrocarpa* Vieill. (1873) because it is not based on a different, previously and validly published type.

“*Chambeyronia macrocarpa*” (Brongn.) Vieill. ex Becc., in Palme Nuova Caledonia: 13. 1920, is an incorrect citation of authors.

Type: New Caledonia [Province Sud, commune Bourail], “Mont Nékou, au-Dessus du village de Nékou (circumscription de Bourail),” 500 m, fl., Mar. 1869, Balansa 771⁰ (lectotype: designated here, P 00192558; isolectotype: P 00192557).

When Brongniart (1873) validly published *Kentiopsis macrocarpa*, he created five syntypes (Art. 9.6) by citing five Balansa specimens, 647, 771⁰, 1956 (likely a mistake and probably 1959), 1958, and 2911. Here we designate 771⁰ as the lectotype of *K. macrocarpa*. Because the specimen at P consists of two separate specimens, which are not clearly labeled as being part of a single specimen, they are duplicates (Art. 8.3); thus, we select P 00192558 (*Fig. 8*) as the lectotype because it is the most diagnostic for the species and the remaining specimen at P as an isolectotype. While Brongniart cited Balansa 1956, this specimen could not be found at P but Balansa 1959 is at P, leading us to suspect that 1956 is a misprint and it should be 1959.

When Brongniart (1873) validly published *Kentiopsis macrocarpa*, he referred to the nomen nudum “*Kentia macrocarpa*, Vieill. ex Pancher in Herb.,” with a handwritten note by Vieillard on P [P00192634], but Brongniart did not adopt the “ex” citation in the protologue of *Kentiopsis macrocarpa*; therefore, the “ex” does precede his author citation and the name is attributed solely to Brongniart. (Art. 46.10).


The names *Kentia rubricaulis*, *K. lindenii*, and *Kentiopsis lucianii* also figure in the nomenclatural history of *Chambeyronia macrocarpa*. All were described from plants cultivated in Europe. Linden had introduced at least two of them from New Caledonia, *Kentia lindenii* in 1875 (André 1877) and seeds of *Kentiopsis lucianii* in 1877 (Rodigas 1882).

Type. [Cultivated], [1876], unknown locality.
The name *Kentia rubricaulis* first appeared in The Gardeners' Chronicle. n.s. 5 (1876); therefore, it has priority over *Kentia rubricaulis* Linden ex Salomon, Palmen 75 (1887) (Art. 11.3).

= *Kentia lindenii* hort. Linden ex André, Illust. Hortic. 24: 61 (1877). ‘*lindeni*’.
Type: New Caledonia. [Cultivated], [1875], unknown locality, *Linden s.n.*, (lectotype: designated here: [illustration], t. 276, in André [1877]).

Salomon (1887) was the first to list “*Cyphokentia macrocarpa* Brgt.” [Brongn.], “*Kentia lindeni* Rollis.,” “*Kentia luciani* Lind.,” and *Kentia rubricalis* Lind., all as synonyms of *Kentiopsis macrocarpa* Brongn. Two, “*Kentia lindeni* Hort.” and “*Kentia luciani* Rodigas” take priority over Beccari (1920) when he also cited them as synonyms of *Chambeyronia hookeri* Becc. (1920) (Art. 11.3)).

The name *Cyphokentia macrocarpa* first appeared in The Gardeners' Chronicle n.s. 9 (1878), where it was noted as synonymous with *Kentia lindenii*, and was published on April 6; therefore, it has priority over *Cyphokentia macrocarpa* (Brongn.) Rob., Garden 14: 345 (1878), which was published on October 19 (Art. 11.3).

“*Cyphokentia macrocarpa*” (Brongn.) Rob., in Garden 14: 345. 1878, illeg. name.

Attributing the name to Linden, André (1877) provided a brief description of "*Kentia lindeni* hort.,” which validates it as a species, and designated (without actually citing it) “plate 276” as the type. Here the citation error is corrected, because the description is on page 61, and the illustration becomes the lectotype designated here (Fig. 9). André (1877) listed *Cyphokentia macrocarpa* as a synonym of *Kentia lindenii*.

Type. New Caledonia. [Cultivated], [1877], unknown locality, *Linden s.n.*, (lectotype: designated here, [illustration], t. 451, in Rodigas [1882]).

Previously known as “*Kentia luciani*” and a nomen nudum, Rodigas (1882) provided a brief description of *Kentiopsis lucianii*, which validates it as a species, and designated (without actually citing it) “plate 451” as the type. Here the citation error is corrected, because the description is on page 77, and the illustration becomes the lectotype designated (Fig. 10).
9. Lectotype of *Kentia lindenii*, t. 276, in André (1877) (Courtesy of Biodiversity Heritage Library).
Because “Kentia luciani” Linden ex Rodigas (Gard. Chron., n.s., 9: 440. 1878) was published without a description, it is a *nomen nudum* and not validly published (Art. 38.1(a)).


= *Chambeyronia hookeri* Becc., Palme Nuova Caledonia: 13 (1920).

Beccari (1920) provided a diagnosis that distinguished *Chambeyronia hookeri* from *C. macrocarpa*, thus validating the name, and cited as the type “pro parte” of *Balansa 1958*, which is one of Brongniart’s original syntypes for *Kentioipsis macrocarpa*. He noted in the protologue that the specimens of Balansa (no. 1958) bear the following information, “Tronco alto 15-20 m. Spate 2, tubolose. Stami 30-40. Nelle foreste del M. Arago a circa 800 m. di altezza, 29 Novembre 1869,” this text appearing in French on specimen P 00065131, thus, we select it ([Fig. 11](#)) as the lectotype.

The name “*Kentia macrocarpa*” Brongn. “ex parte” (Palme Nuova Caledonia: 17 (1920) is a *nomen nudum* and not validly published (Art. 38.1(a)).


*Kentiopsis species diversa* Benth. & Hook. 3 (2): 887 (1883) is not validly published but Beccari (1920) cited it as a synonym of *Chambeyronia hookeri*.

*Chambeyronia hookeri* Becc., Palme Nuova Caledonia: 13 (1920) has priority over *C. hookeri* Becc., *Webbia* 5: 81, 85 (1921), the latter as it appears in Govaerts et al. 2021, IPNI, The Plant List, and Tropicos. (Art. 11.3). While the two references are primarily identical, differing only in their pagination, the 1920 reference was a stand-alone, preprint of the 1921 publication in *Webbia*.

Type species: *Kentiopsis oliviformis* (Brongn. & Gris) Brongn.

Brongniart (1873) listed three for the genus without designating one for the type. Beccari (1920) designated *Kentiopsis oliviformis* as the type species for the genus.
Fig. 12.
≡ Mackeea magnifica H. E. Moore, Gentes Herb. 11: 304 (1978).

Moore (1978), in the protologue of Mackeea magnifica, designated Mackee 26471 deposited at BH as a holotype, a decision that we maintain. Because of the current situation with the COVID-19 pandemic, we have been unable to review the holotype at BH, which, according to Reveal and Nixon (2013), consists of one box and one envelope. Our decision might change when we review the collection at BH.

Kentiopsis oliviformis (Brongn. & Gris) Brongn., Compt. Rend. Hebd. Séances Acad. Sci. 77(6): 398 (1873). Fig. 13.
Type. New Caledonia. [Province Nord, commune Canala], “circa Kanala vigens” [Canala], ft., 1855–1860, Vieillard 1281 (lectotype: designated here, P 00065170; isolectotypes: P 00065171, P 00065172, P 00065173).

Brongniart and Gris (1864a), without naming it, designated Vieillard 1281 at P as the type of Kentia oliviformis. In doing so they referred to multiple specimens without designating a particular one as the holotype, thus creating syntypes. Here we designate P 00065170 (Fig. 14), which best corresponds to the description of the species, as the lectotype, and the remaining three sheets at P as isolectotypes.


Kentiopsis piersoniorem Pintaud & Hodel, Principes 42(1): 45 (1998). Fig. 15.
15. *Kentiopsis piersoniorum*, Mt. Panié, 570 m, at the type locality, June 1996.
Because the specimen at P consists of four separate specimens, which are not clearly labeled as being part of a single specimen, they are syntypes; we select P 00064969 as the lectotype because it is the most diagnostic for the species and the remaining four specimens at BH and P as isolectotypes. Reveal and Nixon (2013) noted that the isotype (now isolectotypes) at BH consisted of one sheet and one envelope.

Kentiopsis pyriformis Pintaud & Hodel, Principes 42(1): 49 (1998). Fig. 16.

Because the specimen at P consists of 11 separate specimens, which are not clearly labeled as being part of a single specimen, they are syntypes; we select P 00064973 as the lectotype because it is the most diagnostic for the species and the remaining 29 specimens at BH, BRI, NOU, NY, K, and P as isolectotypes. Reveal and Nixon (2013) noted that the isotype (now isolectotypes) at BH consisted of one box and one envelope.

Acknowledgements

We thank Michael Grayum and Rafaël Govaerts for assistance with nomenclatural and typification matters; the following herbaria for making available digital images of their type specimens: BRI, BRU, HBG, K, MO, NOU, NY, P, and Z; and the Biodiversity Heritage Library for making available digital versions of critical and historic journals.

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Donald R. Hodel is the emeritus landscape horticulture advisor for the University of California Cooperative Extension in Los Angeles and specializes in the selection and management of palms and trees. drhodel@ucanr.edu

Celio E. Moya López is an independent researcher specializing in palm biology of the Cuban and Caribbean palms. celio.moya@gmail.com https://orcid.org/0000-0002-5033-483X

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PalmArbor: http://ucanr.edu/sites/HodelPalmsTrees/PalmArbor/ ISSN 2690-3245
Editor-In-Chief: Donald R. Hodel

Hodel Palms and Trees: http://ucanr.edu/sites/HodelPalmsTrees/