Blumea 70, 2026: 195–199
www.ingentaconnect.com/content/nhn/blumea

RESEARCH ARTICLE

https://doi.org/10.3767/blumea.2026.70.02.07

Dibridsonia parvifolia (*Rubiaceae*), a new species from Mt Mariveles, Bataan, Luzon, Philippines

A.H. Arriola[1*], C.D.D. Lastimosa[1], M.A.M. Marcial[1], M.L.C. Amador[1], G.A.D. Deguinio[1], C.J.M. Dimaculangan[1], S.L. Vidallon[2], R. Mahyuni[3]

Keywords

Dibridsonia
Malesia
Philippine endemic
Vanguerieae

Abstract *Dibridsonia parvifolia*, a new species of *Vanguerieae* is herein described and illustrated. Morphologically, *D. parvifolia* resembles *D. culionensis* and *D. conferta*, however, *D. parvifolia* is well distinguished by a combination of the following characters that includes having small leaf blades, absence of pit-domatia in the axils of secondary veins, corolla throat with white moniliform hairs which occurrence extends toward the tips of the corolla lobes, fruits obovoid, 11–15 by 8–10 mm, displaying more than five costae visible externally, two locules and two compressed pyrenes.

Citation: Arriola AH, Lastimosa CDD, Marcial MAM, et al. 2026. *Dibridsonia parvifolia* (*Rubiaceae*), a new species from Mt Mariveles, Bataan, Luzon, Philippines**.** Blumea 70 (2): 195–199. https://doi.org/10.3767/blumea.2026.70.02.07.
Effectively published online: 20 March 2026.
Editor: P.C. van Welzen
Desk-top editor: L. Alonso-Moreno

INTRODUCTION

In the two decades following the re-circumscription of the genus *Canthium* Lam. by Lantz & Bremer (2004) to include only species bearing supra-axillary spines, extensive taxonomic investigations have been undertaken to resolve the generic placement of various spineless '*Canthium*' species. Employing a comprehensive molecular analysis using multiple cpDNA and nrDNA datasets and supported by morphological characters, studies such as Lantz & Bremer (2004), Alejandro et al. (2014) and Verstraete et al. (2018) have yielded well-supported phylogenetic lineages and clarified evolutionary relationships, culminating in several taxonomic revisions. Notably, these studies have resulted in novel generic combinations, documentation of new distributional records, and the establishment of new genera, including *Kanapia* Arriola & Alejandro (Arriola et al. 2016), *Bridsonia* Verstraete & A.E.van Wyk (Verstraete et al. 2018), *Canthiumera* K.M.Wong & Mahyuni (Wong et al. 2018), and *Dibridsonia* K.M.Wong (Wong et al. 2018).

Dibridsonia is a newly recognized genus of *Vanguerieae* to accommodate some spineless *Canthium* species distributed in Borneo, Malay Peninsula and the Philippines. The genus is characterized by the following distinguishing characteristics: short umbellate cymes, presence of a continuous band of exserting dense moniliform hairs at the corolla throat, erect to spreading anthers, style length equal to the corolla tube, a plano-obovoid, verrucose pyrene with sloping shoulders. Currently *Dibridsonia* is represented by three species: *D. conferta* (Korth.) K.M.Wong, *D. culionensis* (Elmer) K.M.Wong and *D. oblongifolia* (Quisumb. & Merr.) K.M.Wong (Wong et al. 2018).

An interesting species of *Vanguerieae* was collected during a field exploration in the Mount Mariveles. Initial morphological assessment of our material revealed features of *Dibridsonia* and observation of herbarium sheets from various herbaria (BO, CAHUP, PNH and USTH), protologues of previously described species, and digitized image specimens from online databases such as GBIF (https://www.gbif.org/), Global Plants on JSTOR (https://plants.jstor.org/), and Kew Data Portal (https://data.kew.org/), revealed that our material resembles *D. conferta* and *D. culionensis*. For instance, our material revealed characters of *D. conferta* including features of leaf blades and clustered inflorescences while, the absence of pit-domatia resembles it with *D. culionensis.* Further meticulous examination revealed that our material is distinct from the two recognized species in numerous vegetative and reproductive characters (Table 1). A detailed description of the new species is provided and the taxonomic key from Wong et al. (2018) is herein modified to include the new species. A line drawing is provided to facilitate identification.

[1] Department of Natural Sciences, College of Arts and Sciences, University of the East, 2219 C.M. Recto Avenue, Manila, Philippines.
* Corresponding author e-mail: axel.arriola@ue.edu.ph.
[2] The Graduate School, University of Santo Tomas, Espana, Manila, Philippines and College of Arts and Sciences, Cavite State University- Carmona Campus (CvSU), Cavite, Philippines.
[3] Herbarium Bogoriense, Research Center of Biosystematic and Evolution, BRIN, KST Soekarno, Jln Raya Jakarta – Bogor km 46., Cibinong 16911, Bogor, Indonesia.

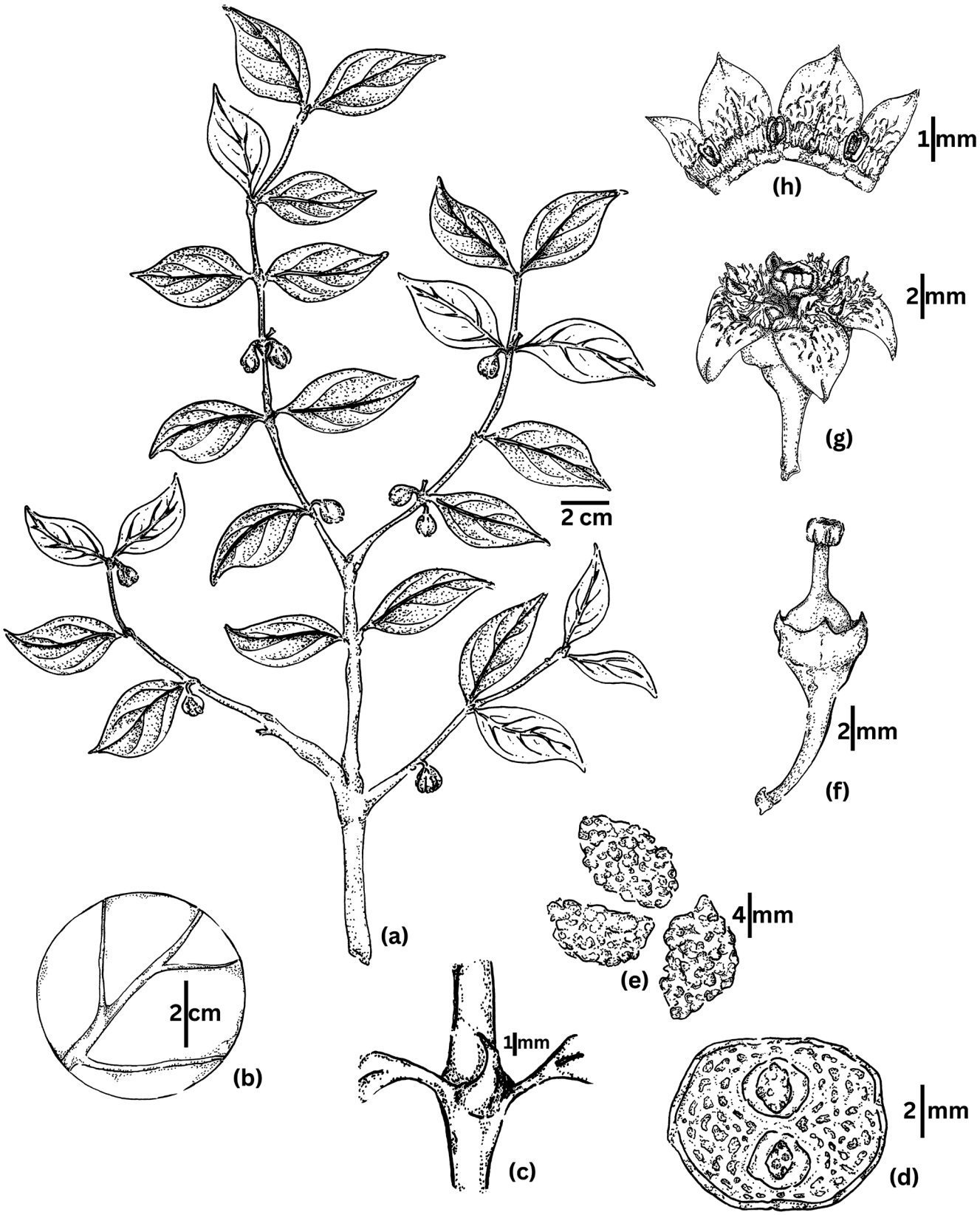

Fig. 1 *Dibridsonia parvifolia* Last., Marcial & Arriola sp. nov. **a**. Fruiting branch. **b**. Part of the leaf blade (abaxial side) showing the absence of pit-domatia in the axils of secondary veins. **c**. Stipules. **d**. Fruit cross section. **e**. Pyrenes. **f**. Flower (pistillate part). **g**. Flower, oblique view. **h**. Corolla cut open, showing the elaborated hairs and three stamens. Drawn by C.J.M. Dimaculangan from the holotype.

TAXONOMY

Dibridsonia parvifolia Last., Marcial & Arriola, sp. nov. – Figs. 1, 2

Dibridsonia parvifolia sp. nov. is well characterized by its 2.5–5 by 0.8–2 cm leaf blades, absence of pit-domatia in the axils of secondary veins, corolla throat with white moniliform hairs of which the occurrence extends towards the tips of the corolla lobes, fruits obovoid, 11–15 by 8–10 mm in size, displaying more than five costae visible externally, two locules and two compressed pyrenes. Type: *A. Arriola 23-104* (holo UE [UE000689]; iso HNUL [HNUL0021428], USTH [USTH019535]), Philippines, Province of Bataan, Barangay Alas-asin, Mount Mariveles, 14.5331° N, 120.4667° E, c. 600 m asl, 2 May 2023.

Small tree c. 2.5 m high; young stem 1–2 mm in diameter, brown with yellow tinge, glabrous, phyllotaxy opposite, decussate, supra-axillary spines absent. *Stipules* triangular-ovate, 2–3 mm long, persistent, glabrous throughout; keel present, extending up to the apex, colleters present, 4–5. *Leaves*: petioles 5–7 mm long, glabrous throughout; blade ovate, 2.5–5 by 0.8–2 cm, coriaceous, glabrous on both sides, apex acuminate to caudate, base cuneate, adaxially dark green, abaxially pale green, venation pinnate, secondary veins 3–4 pairs, domatia absent. *Inflorescences* umbellate with 1–2 flowers (rarely 3–4 before anthesis), peduncle subsessile; bracts very small. *Pedicel* 1–1.3 mm long, glabrous. *Calyx* tube <1 mm long, glabrous on both sides, lobes broadly triangular with an apiculate apex. *Corolla* tube 1–1.5 mm long, glabrous on both sides; lobes 5, pale green, broadly triangular, 1.5–2.5 mm long, apex acute, glabrous outside, with white moniliform hairs which the occurrence extends towards the tips. Stamens 5; *anthers* erect, brown to light brown, arranged alternately with corolla lobes. *Ovary* bilocular; style <1.5 mm long; stigmatic lobes c. 0.5 mm long. *Fruits* obovoid, 11–15 by 8 –10 mm, > 5 costae on the outside, green when young, turning bright yellow to orange when mature, pyrenes with sloping shoulders forming a short ridge-like apical crest, verrucose. *Seeds* 1 per locule, oblong-obovoid, c. 8 mm long.

Distribution — Endemic to Mount Mariveles (Philippines, Province of Bataan, Mariveles)

Phenology, Habitat and Ecology — Thriving along forest trails. Altitude: c. 600 m. Flowering: March and April; fruiting: April to June.

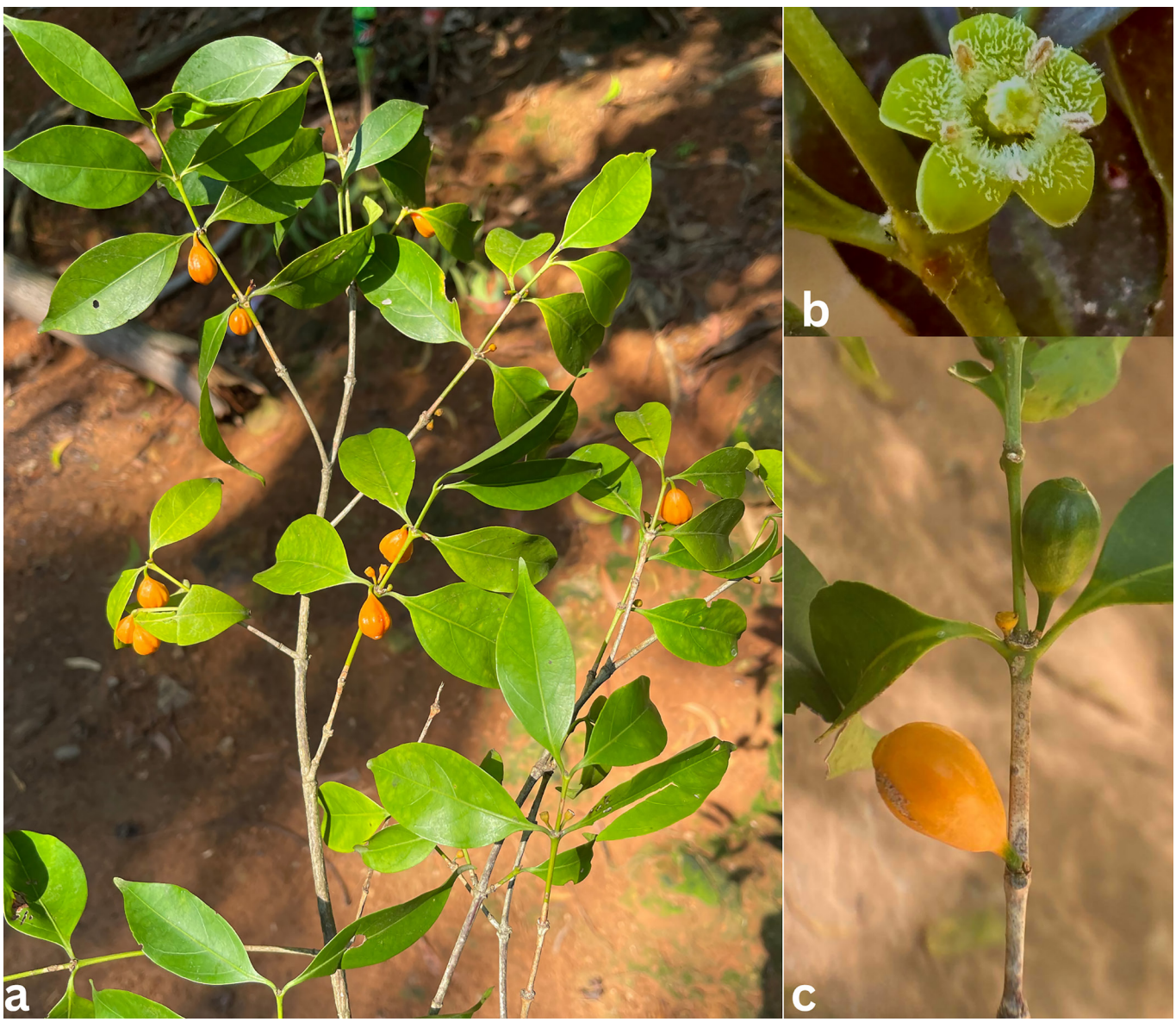

Fig. 2 *Dibridsonia parvifolia* Last., Marcial & Arriola sp. nov. **a**. Fruiting branch. **b**. Flower. **c**. Fruit. Photos by A.H. Arriola.

Table 1 Morphological comparison among *Dibridsonia parvifolia* sp. nov., *D. culionensis* and *D. conferta*.

Characters	*D. parvifolia*	*D. culionensis**	*D. conferta***
Leaf blade			
Size (cm)	2.5–5 by 0.8–2	7–10 by 2–3	5–9 by 1.5–4
Pit-domatia	absent	absent	present
Petiole length (mm)	5–7	10	3–5 (–8)
Pedicel length (mm)	1–1.3	c. 4	3–5
Calyx			
Length (mm)	<1	-	≤ 1
Lobe shape	broadly triangular, with an apiculate tip	-	broadly triangular, acute
Corolla			
Tube length (mm)	1–1.5	-	2–3
Lobe length (mm)	1.5–2.5	-	1–1.5
Fruit			
Shape	obovoid	subglobose	subglobose
Size (mm)	11–15 by 8–10	c. 8 by 5	<10 by 5–7
Stalk length (mm)	1–1.3	c. 4	3–5
Ribbed/Lobes	>5	4–5	inconspicuous
Locules	2	5	2
Pyrenes	2	4–5	1–2
Seed			
Length (mm)	c. 8	5	6

*Based on protologue and digital herbarium sheets. Ramos BS 41299 [K005367415], E.D. Merrill BA 615 [MO207811], Ramos BS 41299 [US1261882], Ramos BS 41203 [US1261913].

**Based on Wong et al. (2018) and several collections. Wiriadinata, Girmansyah, Ayu Septania, Hoover HW12632 [BO1887805, BO1320479], Patris 18469 [BO1887808], Edano BS 76255 [CAHUP76255], Salvoza PNH 3727 [PNH07-0102233], Valbuena & Lopez PNH 91894 [PNH07-0102234].

Etymology — *Dibridsonia parvifolia* is the currently known species of the genus with the smallest leaf size, therefore the specific epithet “parvifolia”.

Conservation Status — *Dibridsonia parvifolia* has a highly restricted geographic range and is known only from its type locality. Individuals of *D. parvifolia* were also observed thriving along the forest margin near areas undergoing land conversion for roads at the time of publication of this paper. Given its limited distribution and ongoing threats to its habitat, *D. parvifolia* is assigned a preliminary conservation status of “Critically Endangered’ in accordance with the IUCN Red List Categories and Criteria (IUCN 2024).

Notes —*Dibridsonia parvifolia* sp. nov. shows resemblance to *D. conferta* especially the ovate leaf blades, crowded, tightly packed flowers on a very short peduncle forming umbellate inflorescence (while in some flowering branches it shows a one-flowered inflorescence) and a bright yellow to orange fruit. However, unlike *D. conferta*, the flowers of *D. parvifolia* exhibit white moniliform hairs at the throat that extend towards the tips of the corolla lobes. The fruits are comparatively larger with distinctly elongated base and a prominent ribs. Moreover, examination of the axils of the secondary veins reveals the absence of pit-domatia, a feature present in *D. conferta* (Table 1). Similarly, *D. parvifolia* approaches *D. culionensis* in several overlapping characters such as the absence of pit-domatia in the axils of secondary veins and the presence of costate fruits. However, *D. parvifolia* differs from *D. culionensis* in having smaller leaf blades, with a higher number of secondary veins, obovoid fruits with more than five ribs, two locules and two compressed pyrenes (Table 1).

AN UPDATED TAXONOMIC KEY TO THE SPECIES OF *Dibridsonia*

1. Leaves drying dark brown, blades 4.5–7 cm wide, with 5–7 pairs of secondary veins that loop conspicuously near the leaf margin. Fruit stalk 10–18 mm long..... ***D. oblongifolia***
1. Leaves drying pale greenish brown, blades <4 cm wide, with 3–4 pairs of secondary veins that fade near the leaf margin. Fruit stalk not exceeding 5 mm long 2

2. Pit-domatia present in the axils of secondary veins..... ..... ***D. conferta***
2. Pit-domatia absent in the axils of secondary veins 3

3. Leaves with 3 pairs of secondary veins flat to raised on the upper leaf surface. Fruits subglobose, with 4–5 costae on the outside; locules 5 ..... ***D. culionensis***
3. Leaves with 4 pairs of secondary veins impressed on the upper leaf. Fruits obovoid, with more than 5 costae on the outside; locules 2 ..... ***D. parvifolia*** sp. nov.

Acknowledgements The authors gratefully acknowledge BO, CAHUP, PNH, and USTH for granting access to their Vanguerieae collections.

REFERENCES

Alejandro GLD, Magdaleno CMM, Pacia JAT, et al. 2014. Generic affiliation of Canthium species placed under Pyrostria group B sensu Bridson (Vanguerieae, Rubiaceae) inferred from morphology and molecular data. Botanical Studies 55: 65 (1–8). https://doi.org/10.1186/s40529-014-0065-3

Arriola AH, Paraguison LD, Alejandro GJ. 2016. Kanapia (Vanguerieae): a new endemic genus of Philippine Rubiaceae. Plant Systematics and Evolution 302: 911–920. https://doi.org/10.1007/s00606-016-1307-5

IUCN Standards and Petitions Committee. 2024. Guidelines for Using the IUCN Red List Categories and Criteria. Version 16. Prepared by the Standards and Petitions Committee. https://www.iucnredlist.org/documents/RedListGuidelines.pdf. Last accessed 7 Jan. 2026.

Lantz H, Bremer B. 2004. Phylogeny inferred from morphology and DNA data: characterizing well-supported groups in Vanguerieae (Rubiaceae). Botanical Journal of the Linnean Society 146: 257–283.

Verstraete B, Steyn HM, van Wyk AE. 2018. Taxonomic status of some geofrutex members of Vanguerieae (Rubiaceae): notes on Eriosemopsis and Pygmaeothamnus and the description of a new genus Bridsonia. Botanical Journal of the Linnaean Society 186: 47–65. https://doi.org/10.1093/botlinnean/box076

Wong KM, Mahyuni R, Ng XY, et al. 2018. Flora of Singapore precursors, 8. Systematy of the new Southeast Asian genera Canthiumera and Dibridsonia (Rubiaceae: Vanguerieae), with notes on plant architecture and reproductive ecology. Reinwardtia 17: 101–124.