

## Abstract

# Bryophyte flora of the Huon Peninsula, Papua New Guinea. LXXIII. Sematophyllaceae (Musci) 2. *Brotherella*, *Clastobryum*, *Clastobryopsis*, *Heterophyllum*, *Isocradiella*, *Isocradiellopsis*, *Meiotheciella*, *Meiothecium*, *Papillidiopsis*, *Rhaphidostichum* and *Wijkia*

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In part 2 of this revision, we continue to report on the accepted species of the genera in the Sematophyllaceae. A total of 11 genera, *Brotherella* Loeske ex M. Fleischer, *Clastobryopsis* M. Fleischer, *Clastobryum* Dozy & Molk., *Heterophyllum* (Schimp.) Kindb., *Isocradiella* Dixon, *Isocradiellopsis* B.C. Tan, T.J. Kop. & D.H. Norris, *Meiotheciella* B.C. Tan, W.B. Schofield & H.P. Ramsay, *Meiothecium* Mitt., *Papillidiopsis* W.R. Buck & B.C. Tan, *Rhaphidostichum* M. Fleischer and *Wijkia* Crum, and 30 species, one subspecies, and 4 varieties are treated and confirmed to be present in the study areas, including the Solomon Islands. *Isocradiellopsis* is described as an endemic genus new to science, while *Isocradiella* and *Heterophyllum* are two new generic records for the island. *Clastobryum flagelliferum* B.C. Tan, T.J. Kop. & D.H. Norris and *Isocradiellopsis timodanii* B.C. Tan are two new species to science, *Heterophyllum affine* subsp. *solomonensis* B.C. Tan, T.J. Kop. & D.H. Norris is described as a new subspecies for the Malesian moss flora. *Clastobryum conspicuum* var. *capillaripila* B.C. Tan, T.J. Kop. & D.H. Norris is a new variety described for science. Six species are newly recorded for Papua New Guinea. Five new combinations are proposed, and 12 new synonyms discovered (indexed). Lectotypes are proposed for *Clastobryopsis heteroclada* M. Fleischer, *Meiothecium attenuatum*

Broth., *M. tenellum* Broth. & Paris, *Rhaphidostegium loriforme* Broth. & Geheeb in Broth., *R. luzonense* Broth., *Sematophyllum ramulinum* Thwaites & Mitt. in Mitt. and *S. revolutum* Broth. & Geheeb. Keys to the species in each genus are presented and a short description of the species morphology based primarily on the New Guinean materials and comparative taxonomic notes for each taxon are provided. The distribution of the species in Western Melanesia and their total range are given. Several new records are given also to the floras of Solomon and Fiji.

Key words: *Brotherella*, *Clastobryum*, *Clastobryopsis*, distribution, *Heterophyllum*, Huon Peninsula, *Isoclediella*, *Isoclediellopsis*, *Meiotheciella*, *Meiothecium*, Musci, nomenclature, *Papillidiopsis*, Papua New Guinea, revision, *Rhaphidostichum*, Sematophyllaceae, Solomons, taxonomy, Western Melanesia, *Wikia*.

## Abstract 2

# Bryophyte flora of the Huon Peninsula, Papua New Guinea. LXXIV. *Cololejeunea* (Lejeuneaceae, Hepaticae)

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Together with the previously reported nine *Aphanolejeunea* A. Evans species, 63 species (69 taxa) of *Cololejeunea* (Spruce) Schiffn. are now reported from Western Melanesia (New Guinea and Solomon Islands), of which 12 taxa are new to science: *C. altimontana* Pócs, *C. flavovittata* Pócs, *C. kolombangarae* Pócs and its subsp. *sepikense* Pócs, *C. magnifica* Pócs, *C. stellaris* Pócs, *C. streimannii* Pócs and its subsp. *solomonensis* Pócs, *C. subalpina* Pócs, *C. timoi* Pócs, *C. touwii* Pócs, and *C. zantenorum* Pócs. The *Cololejeunea trichomanis* (Gottsche) Steph. – *C. cordiflora* Steph. complex is clarified and the new combinations of *Cololejeunea angustibracteata* (Schiffn.) Pócs and *C. trichomanis* subsp. *cordiflora* (Steph.) Pócs are made. *C. androphylla* E.W. Jones is synonymised with *C. wightii* Steph., *C. arfakiana* Eggers & Pócs with *C. quadridentata* (S. Hatt.) Grolle, *C. floccosa* (Lehm. & Lindenb.) Schiffn. var. *auriculata* Tixier with *C. floccosa* (Lehm. & Lindenb.) Schiffn. var. *aurita* Benedix, *C. indica* Pandé & Misra and *C. spinosa* (Horik.) Pandé & Misra with *C. haskarliana* (Lehm. & Lindenb.) Schiffn., *C. inuena* (Steph.) Hatt. with *C. obliqua* (Nees & Mont.) Schiffn. and *C. serrulata* Steph. with *C. trichomanis* (Gottsche) Steph. subsp. *cordiflora* (Steph.) Pócs. Two new subgenera of the genus *Cololejeunea* are introduced: *Metzgeriopsis* (K. I. Goebel) Pócs and *Incalejeunea* Tixier ex Pócs. Most of the new species occur in the high altitude montane rain forests, moss forests or even at tree line forests. Five species are new for Western Melanesia, 20 taxa (30,4 %) endemic to Western Melanesia. The taxa fall into nine distribution types, of which endemics are the largest group, followed by SE Asian element with 15 taxa (21,7 %), Palearctic with nine taxa (11,6 %), Asian-Oceanian with eight taxa (11,6 %), and Malesian and Palearctic with six taxa (8,7 % each). Illustrations are provided for the new taxa as well as for some few other critical taxa. Altitudinal ranges of 17 taxa on the Huon Peninsula are mapped.

Key words: *Aphanolejeunea*, *Chondriolejeunea*, *Cololejeunea*, Huon Peninsula, Indonesia, *Metzgeriopsis*, new taxa, Papua New Guinea, Solomon Islands, Western Melanesia