

Checklist of the bryophytes of Madagascar

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Abstract – This updated checklist of the bryophytes of Madagascar was compiled from the literature, herbarium and recent collections. A total of 1144 species and infraspecific taxa are recorded for Madagascar composed of 751 mosses, 390 liverworts and 3 hornworts. 28.67% of the species reported for the Island are endemics. Twenty-four taxa are newly recorded for Madagascar and two of them, *Fissidens cyathaeicola* Brugg.Nann. and *Taxithelium nepalense* (Schwägr.) Broth. are reported for the first time for the Sub-Saharan Africa region.

Hornworts / liverworts / mosses / Madagascar

INTRODUCTION

Madagascar is located in the Indian Ocean, between 11°57' and 25°39' latitude, 400 km from the eastern coast of Africa. It is the world's fourth largest island, with a total area of 590 000 km², the distance between Cap d'Ambre

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INTRODUCTION

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(North) and Cap Sainte Marie (South) is nearly 1570 km, and the distance from West to East is around 560 km (Ingram & Dawson, 2005). The island consists of a central plateau of volcanic origin which culminates to the north in peaks over 2800 meters. To the East, the plateau falls directly and abruptly onto a narrow coastal plain, while in the West it descends more slowly to a broader plain, along the Mozambique Channel.

The island is considered a biodiversity hot spot: 85% of the flora (Gautier & Goodman, 2003) and 90% of the fauna are endemics (Goodman, 2008). The tropical forests of Madagascar are among the highest priority areas in the world for biodiversity conservation (Myers *et al.*, 2000). Eighty percent of Madagascar's original forests have disappeared in the 1500-2000 years since the arrival of the first humans (Harper *et al.*, 2007). At present, only 12% of the surface of the island is covered by natural forest. These remnant forests are highly endangered by threat of deforestation. Cultivation involving slash and burn agriculture (locally called tavy) is the main cause of deforestation. Tavy consists of clearing and burning native forest. The burnt area is used for various plantations until the soils are impoverished, and then abandoned (Ingram & Dawson, 2005). The increasing population and the absence of resources and techniques to improve agricultural productivity and pasture lands threaten to destroy what remains of this unique biology (Sussman *et al.*, 1994).

The classification by Du Puy and Morat (1996) divides the primary vegetation of Madagascar into two formations: the evergreen and the deciduous formations.

The **evergreen formations** (East and Center) are: Coastal forest (East); Evergreen humid forest, low elevation (0-800 m); Evergreen humid forest, mid elevation (800-1800 m); Evergreen humid forest, lower montagne (1800-2000 m); Mountain, Schrubland (*Philipia*) (> 1800 m); Evergreen, sclerophyllous (*Uapaca*) woodland (800-2000 m) and Marshland (0-800 m)

The **deciduous formations** (West and South) are: Coastal forest (West); Deciduous, seasonally dry, western forest (0-800 m); Deciduous, dry, southern forest and schrubland (0-300 m).

The distribution of different vegetation formations in Madagascar is shown in Fig. 1.

The study on the flora of Madagascar has, for a long time, focused on vascular plants, with few studies being undertaken on bryophytes. Indeed, it was only during the 19th century that collectors first began to collect bryophytes in the Island (Dorr, 1997). There are more than 40 botanists that collected bryophytes on the island during the 19th century. The majority of which were French botanists and explorers. Collections through this period, by Cardot, Tixier, Cramers, Chénagon, and Perrier de la Bathie are mainly located at Paris herbarium (PC). Biographical data of bryophyte collectors are reported in Dorr (1997). The oldest collections are located at PC. From 1960, date of the independence of Madagascar, duplicates of the collections were hosted at the National Herbarium of Madagascar (TAN), of which more than a thousand samples still need to be identified. Nowadays, collections of Madagascan bryophytes are hosted in different herbaria around the world.

This article aims to provide a comprehensive list of bryophytes from Madagascar based on literature records and additional collections, as well as provide information on the type specimens for endemic species. We hope that this preliminary work will be helpful for other bryologists and will stimulate and facilitate future work on the bryoflora of Madagascar.

Madagascar

Remaining Primary Vegetation

David Du Puy & Justin Moat

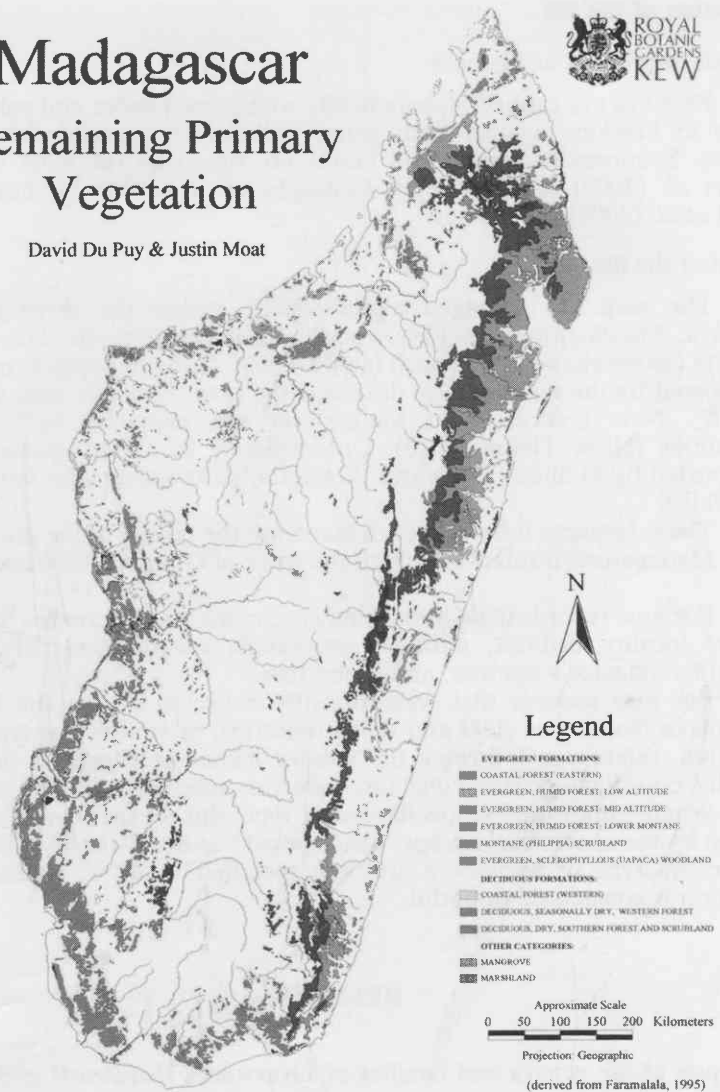


Fig. 1. Vegetation map of Madagascar (Du Puy & Morat, 1996) (reproduction with the permission of IRD).

METHODS

This checklist was compiled from the literature, data from various herbaria, and recent collections by the authors. This work was greatly facilitated by the ground work of O'Shea (2006) and Wigginton (2009) for their respective checklists of mosses, liverworts and hornworts for sub-Saharan Africa.

Presentation of the list

– Synopsis of families and genera

Families are ranked alphabetically within each order and sub order. The numbers in brackets against each genus indicate the number of taxa within the genus. Synopses of genera and family are based on the work of Crandall-Stotler *et al.* (2009) for liverworts, Renzaglia *et al.* (2009) for hornworts and Goffinet *et al.* (2009) for mosses.

– Format of the list

The taxa are arranged alphabetically within the three divisions of bryophytes: Marchantiophyta (liverworts), Anthocerotophyta (hornworts) and Bryophyta (mosses) and within each family. Scientific names appear in ***bold italic*** type followed by the authors who described the taxa. Endemic taxa are followed by “**End**”. New records from Madagascar are preceded by *. Herbarium abbreviations follow Thiers (2010). Uncompletely identified species that have been reported by O’Shea (2006) and Wigginton (2009) are taken into account in this checklist.

The references following each taxon are the record of the presence of the taxon in Madagascar, it refers mainly to the work of O’Shea (2006) and Wigginton (2009).

For new records from herbarium specimens, the references following the taxa are: locality, habitat, altitude, geographic coordinates, collection date, collector(s), collector’s number, and herbarium.

For new records that were recently collected during the BRYOLAT expedition in November 2009 and other fieldtrips, as well as for type specimen information, references following the species names are: locality, microhabitat, geographic coordinates, date, collector, collection number, and determinator.

When “unknown” is specified after type, this means that no information was given by the specimens, except “Madagascar” as main locality. “N.S.” is used when the holotype or herbarium are “not specified” and “#” is used when the information is considered doubtful.

RESULTS

Synopsis of the genera and families of Liverworts, Hornworts and Mosses

DIVISION MARCHANTIOPHYTA (LIVERWORTS)

CLASS MARCHANTIOPSIDA

Subclass Marchantiidae

ORDER MARCHANTIALES

Family **Aytoniaceae**

Asterella (2)

Plagiochasma (1)

Family **Cyathodiaceae**

Cyathodium (1)

Family **Dumortieraceae**

Dumortiera (1)

Family **Marchantiaceae**

Marchantia (2)

Family **Ricciaceae**

Riccia (5)

Family **Targioniaceae**

Targionia (2)

CLASS JUNGERMANNIOPSIDA

Subclass Pelliidae

ORDER FOSSOMBRONIALES

Family **Fossombroniaceae***Fossombronia* (1)

ORDER PALLAVICINIALES

Family **Pallaviciniaceae***Pallavicinia* (1)*Symphyogyna* (2)*Symphyogynopsis* (1)**Subclass Metzgeriidae**

ORDER PLEUROZIALES

Family **Pleuroziaceae***Pleurozia* (1)

ORDER METZGERIALES

Family **Aneuraceae***Aneura* (1)*Riccardia* (9)Family **Metzgeriaceae***Metzgeria* (6)**Subclass Jungermanniidae**

ORDER PORELLALES

Family **Frullaniaceae***Frullania* (38)Family **Lejeuneaceae***Acanthocoleus* (2)*Acrolejeunea* (3)*Archilejeunea* (4)*Brachiolejeunea* (1)*Bryopteris* (1)*Caudalejeunea* (4)*Ceratolejeunea* (6)*Cheilolejeunea* (14)*Cololejeunea* (54)*Colura* (9)*Diplasiolejeunea* (26)*Drepanolejeunea* (9)*Frullanoides* (1)*Haplolejeunea* (1)*Lejeunea* (22)*Lepidolejeunea* (1)*Leptolejeunea* (2)*Lopholejeunea* (12)*Marchesinia* (2)*Mastigolejeunea* (2)*Metalejeunea* (1)*Microlejeunea* (5)*Odontolejeunea* (1)*Otolejeunea* (3)*Prionolejeunea* (1)*Ptychanthus* (1)*Pycnolejeunea* (1)*Schiffneriolejeunea* (6)*Symbiezidium* (2)*Taxilejeunea* (3)*Thysananthus* (1)*Xylolejeunea* (1)Family **Porellaceae***Porella* (5)Family **Radulaceae***Radula* (11)

ORDER JUNGERMANNIALES

Family **Adelanthaceae***Adelanthus* (2)Family **Arnelliaceae***Gongylanthus* (1)Family **Balantiopsidaceae***Isotachis* (1)Family **Calypogeiaceae***Calypogeia* (7)*Mnioloma* (1)Family **Cephaloziaceae***Cephalozia* (1)*Iwatsukia* (1)Family **Cephaloziellaceae***Amphicephalozia* (1)*Cephaloziella* (2)*Cylindrocolea* (2)*Kymatocalyx* (3)Family **Herbertaceae***Herbertus* (2)Family **Jamesoniellaceae***Cryptochila* (1)*Cuspidatula* (1)*Denotarisia* (1)*Syzygiella* (3)Family **Jungermanniaceae***Gottschelia* (1)*Notoscyphus* (1)*Solenostoma* (4)Family **Lepidoziaceae***Amazoopsis* (1)*Bazzania* (11)*Kurzia* (2)*Lepidozia* (2)*Telaranea* (3)Family **Lophocoleaceae***Chiloscyphus* (8)*Clasmatocolea* (1)*Conoscyphus* (1)*Heteroscyphus* (2)*Leptoscyphus* (2)

Family **Mastigophoraceae***Mastigophora* (1)Family **Plagiochilaceae***Plagiochila* (21)Family **Scapaniaceae***Anastrophyllum* (1)*Andrewsianthus* (1)*Plicanthus* (2)Family **Schistochilaceae***Gottschea* (1)*Schistochila* (2)**DIVISION ANTHOCEROTOPHYTA (HORNWORTS)**

CLASS ANTHOCEROTOPSIDA

ORDER ANTHOCEROTALES

Family **Anthocerotaceae***Anthoceros* (1)*Dendroceros* (1)

ORDER NOTOTHYLADALES

Family **Notothyladaceae***Phaeoceros* (1)**DIVISION BRYOPHYTA (MOSS)****Superclass I**

CLASS SPHAGNOPSIDA

ORDER SPHAGNALES

Family **Sphagnaceae***Sphagnum* (16)**Superclass II**

CLASS ANDREAEOPSIDA

ORDER ANDREAEALES

Family **Andreaeaceae***Andreaea* (2)**Superclass III**

CLASS POLYTRICHOPSIDA

ORDER POLYTRICHALES

Family **Polytrichaceae***Atrichum* (1)*Pogonatum* (4)*Polytrichastrum* (1)*Polytrichum* (5)

CLASS BRYOPSIDA

SUBCLASS FUNARIIDAE

ORDER GIGASPERMALES

Family **Gigaspermaceae***Gigaspermum* (1)*Oedipodiella* (1)

ORDER FUNARIALES

Family **Funariaceae***Entosthodon* (4)*Funaria* (5)*Physcomitrium* (2)

SUBCLASS DICRANIDAE

ORDER GRIMMIALES

Family **Grimmiaceae***Grimmia* (3)*Bucklandiella* (1)Family **Ptychomitriaceae***Ptychomitrium* (2)

ORDER ARCHIDIALES

Family **Archidiaceae***Archidium* (2)

ORDER DICRANALES

Family **Bruchiaceae***Trematodon* (7)Family **Calymperaceae***Calymperes* (10)*Leucophanes* (3)*Mitthyridium* (2)*Octoblepharum* (2)*Syrrhopodon* (23)Family **Ditrichaceae***Ceratodon* (1)*Distichium* (1)*Ditrichum* (4)*Garckea* (1)*Pleuridium* (1)Family **Dicranaceae***Anisothecium* (1)*Aongstroemia* (2)*Dicranella* (6)*Dicranoloma* (3)*Dicranum* (1)*Holomitrium* (11)*Leptotrichella* (2)*Leucoloma* (55)*Microcampylopus* (1)*Pseudephemerum* (1)Family **Erpodiaceae***Erpodium* (2)Family **Eustichiaceae***Eustichia* (1)

- Family **Fissidentaceae**
Fissidens (40)
- Family **Leucobryaceae**
Atractylocarpus (1)
Campylopus (23)
Leucobryum (19)
Ochrobryum (1)
- Family **Rhachithecaceae**
Rhachithecium (1)
- Family **Rhabdoweisiaceae**
Oreoweisia (1)
- ORDER POTTIALES
 Family **Pottiaceae**
Anoetangium (3)
Barbula (6)
Bryoerythrophyllum (1)
Chionoloma (1)
Didymodon (1)
Gymnostomiella (1)
Gymnostomum (1)
Hymenostylium (1)
Hyophila (7)
Leptodontium (3)
Splachnobryum (2)
Streptopogon (2)
Tortella (1)
Tortula (4)
Trichostomum (6)
Weisiopsis (1)
Weissia (1)
- Family **Serpotortellaceae**
Serpotortella (2)
- SUBCLASS BRYIDAE
 Super order **Bryanae**
- ORDER SPLACHNALES
 Family **Meesiaceae**
Leptobryum (1)
- Family **Splachnaceae**
Brachymitrium (1)
Tayloria (4)
- ORDER BRYALES
 Family **Bryaceae**
Anomobryum (2)
Brachymerium (12)
Bryum (26)
Mniobryum (1)
Rhodobryum (3)
- Family **Mniaceae**
Epipterygium (1)
Mielichhoferia (2)
Plagiomnium (1)
Pohlia (4)
- Pseudopohlia* (1)
Schizymenium (2)
- ORDER BARTRAMIALES
 Family **Bartramiaceae**
Bartramia (2)
Breutelia (8)
Philonotis (7)
- ORDER ORTHOTRICHALES
 Family **Orthotrichaceae**
Cardotiella (4)
Groutiella (1)
Macrocoma (1)
Macromitrium (24)
Schlotheimia (31)
Ulota (1)
Zygodon (4)
- ORDER HEDWIGIALES
 Family **Hedwigiaceae**
Braunia (1)
Bryowijkia (1)
Hedwigia (1)
- Family **Rhacocarpaceae**
Rhacocarpus (1)
- ORDER RHIZOGONIALES
 Family **Rhizogoniaceae**
Pyrrhobryum (1)
- Seper order **Hypnanae**
- ORDER HYPNODENDRALES
 Family **Racopilaceae**
Powellia (2)
Racopilum (10)
- ORDER HOOKERIALES
 Family **Daltoniaceae**
Adelothecium (1)
Calypstrochaeta (1)
Daltonia (5)
Distichophyllum (2)
- Family **Hypopterygiaceae**
Hypopterygium (1)
Lopidium (1)
- Family **Leucomiaceae**
Leucomium (1)
- Family **Pilotrichaceae**
Callicostella (13)
Cyclodictyon (3)
Hookeriopsis (1)
Lepidopilidium (5)
Lepidopilum (3)
- ORDER HYPNALES
 Family **Amblystegiaceae**
Amblystegium (2)
Hygrohypnum (1)

Family **Anomodontaceae***Herpetineuron* (1)Family **Brachytheciaceae***Aerolindigia* (1)*Brachythecium* (2)*Eurhynchium* (2)*Helicodontium* (1)*Palamocladium* (1)*Rhynchostegiella* (1)*Rhynchostegium* (5)*Schimperella* (1)*Squamidium* (1)Family **Catagoniaceae***Catagonium* (1)Family **Cryphaeaceae***Cryphaea* (2)*Schoenobryum* (1)Family **Entodontaceae***Campylodontium* (1)*Entodon* (5)*Erythrodontium* (1)*Mesonodon* (1)Family **Fabroniaceae***Fabronia* (8)*Rhizofabronia* (1)Family **Hypnaceae***Ectropothecium* (12)*Gammiella* (1)*Glossadelphus* (3)*Hypnum* (2)*Mittenothamnium* (7)*Phyllocladon* (2)*Rhacopilopsis* (2)*Taxiphyllum* (1)*Vesicularia* (9)Family **Leptodontaceae***Leptodon* (1)Family **Leskeaceae***Pseudoleskea* (1)Family **Leucodontaceae***Leucodon* (2)*Pterogoniadelphus* (1)*Pterogonium* (2)Family **Meteoriaceae***Aerobryopsis* (1)*Barbella* (1)*Floribundaria* (4)*Papillaria* (5)*Trachypodopsis* (1)*Trachypus* (2)Family **Neckeraceae***Homaliodendron* (2)*Neckera* (2)*Neckeropsis* (4)*Orthostichella* (5)*Pilotrichella* (4)*Pinnatella* (1)*Porotrichum* (5)*Thamnobryum* (1)Family **Phyllogoniaceae***Phyllogonium* (1)Family **Prionodontaceae***Prionodon* (1)Family **Pterigynandraceae***Trachyphyllum* (2)Family **Pterobryaceae***Calypothecium* (2)*Hildebrandtiella* (3)*Jaegerina* (2)*Orthostichidium* (1)*Orthostichopsis* (5)*Pterobryopsis* (1)*Renauldia* (3)Family **Pylaisiadelphaceae***Isopterygium* (14)*Taxithelium* (7)*Wijkia* (4)Family **Regmatodontaceae***Regmatodon* (1)Family **Rigodiaceae***Rigodium* (1)Family **Rutenbergiaceae***Rutenbergia* (5)Family **Sematophyllaceae***Acanthorrhynchium* (1)*Acroporium* (5)*Clastobryophilum* (1)*Macrohymenium* (4)*Meiothecium* (3)*Radulina* (1)*Rhaphidorrhynchium* (3)*Sematophyllum* (11)*Trichosteleum* (10)*Warburgiella* (1)Family **Stereophyllaceae***Entodontopsis* (2)*Stereophyllum* (1)Family **Symphodontaceae***Symphodon* (1)Family **Thuidiaceae***Pelekium* (7)*Rauiella* (1)*Thuidium* (3)

Liverworts reported from Madagascar**Adelanthaceae***Adelanthus decipiens* (Hook.) Mitt. (Pócs & Geissler, 2002)*Adelanthus lindenbergianus* (Lehm.) Mitt. (Grolle, 1995)**Aneuraceae**

**Aneura pseudopinguis* (Herzog) Pócs – Ambavaniasy, réserve de Vohimana, bois mort oblique en décomposition, alt. 849 m, S 18°55'43.6" E 48°29'56.6", 15/04/2010, Reeb, Andriamananatenana & Bidault CRAE 106, TAN, det. Reeb & Andriamananatenana; Ambavaniasy, réserve de Vohimana, forêt ombrophile, tronc vertical d'arbre vivant, alt. 830 m, S 18°55'09.33" E 48°30'49.0", 16/04/2010, Reeb, Andriamananatenana & Bidault CRAE 120 TAN, det. Reeb & Andriamananatenana; Anjangoveratra, forêt du Makirovana, forêt ombrophile dense orientale, au dessus d'arbre mort horizontal, alt. 432 m, S 14°10'13.9" E 49°57'12.9", 04/05/2010, Reeb CR220, TAN, det. Reeb.

Riccardia amazonica (Spruce) Schiffn. ex Gradst. (Pócs & Geissler, 2002)*Riccardia erosa* (Steph.) E.W. Jones (Pócs & Geissler, 2002)*Riccardia longispica* (Steph.) Pearson (Grolle, 1995; Pócs & Geissler, 2002)*Riccardia multifida* (L.) Gray (Grolle, 1995)*Riccardia nudiflora* (Steph.) Grolle (Grolle, 1995)*Riccardia saccatiflora* (Steph.) S.W. Arnell (Grolle, 1995)*Riccardia* sp. (*Aneura caespitans* Steph.) (Grolle, 1995)*Riccardia* sp. (*Aneura corbieri* Steph.) (Grolle, 1995)*Riccardia* sp. (*Aneura dismieri* Steph.) (Grolle, 1995)**Arnelliaceae***Gongylanthus ericetorum* (Raddi) Nees (Grolle, 1995)**Aytoniaceae***Asterella coronata* (Steph.) H.A. Mill. (Grolle, 1995)*Asterella wilmsii* (Steph.) S.W. Arnell (Grolle, 1995)*Plagiochasma microcephalum* (Steph.) Steph. (Grolle, 1995)**Balantiopsidaceae***Isotachis aubertii* (Schwaegr.) Mitt. (Grolle, 1995; Pócs & Geissler, 2002)**Calypogeiaceae***Calypogeia annabonensis* Steph. (Pócs & Geissler, 2002)*Calypogeia arguta* Nees & Mont. (Grolle, 1995)*Calypogeia bidentula* (F. Weber) Nees (Grolle, 1995)**Calypogeia fissa* (L.) Raddi – Ankaratra, sur sol, alt. 2000 m, 27/03/1972, Cremers 1947, TAN.*Calypogeia longifolia* Steph. (Grolle, 1995; Pócs, 2005)*Calypogeia mascarenensis* Bischl. (Grolle, 1995)*Calypogeia microstipula* (Steph.) Steph. (Grolle, 1995)*Mnioloma fuscum* (Lehm.) R.M. Schust. (Grolle, 1995; Pócs & Geissler, 2002)

Cephaloziaceae

Cephalozia connivens (Dicks.) Lindb. subsp. *fissa* Vána (Grolle, 1995; Pócs, 1995; Pócs & Geissler, 2002)

Iwatsukia jishibae (Steph.) N. Kitag. (Pócs, 1995; Pócs & Geissler, 2002)

Cephaloziellaceae

Amphicephalozia geisslerae Pócs & Vána (Pócs & Vána, 2001; Pócs & Geissler, 2002) **End**, Type – Antsiranana, Manongarivo Special Reserve, NW Madagascar, alt. 1300-1350 m, 10/03/1999, *Geissler 19708/3*, holotype G, paratype EGR, G, PRC.

Cephaloziella kiaeri (Austin) S.W. Arnell (Grolle, 1995; Pócs & Geissler, 2002)

Cephaloziella sp. (Grolle, 1995)

Cylindrocolea atroviridis (Sim) Vána (Grolle, 1995)

Cylindrocolea madagascariensis (Steph.) R.M. Schust. (Grolle, 1995) **End**, Type – Imerina, *Hildebrandt*, herb (N.S.).

Kymatocalyx dominicensis (Spruce) Vána (Gradstein & Vána, 1999)

Kymatocalyx madagascariensis (Steph.) Gradst. & Vána (Grolle, 1995; Pócs, 1995; Gradstein & Vána, 1999; Pócs & Geissler, 2002)

Kymatocalyx rhizomatica (Herzog) Gradst. & Vána (Pócs & Geissler, 2002)

Cyathodiaceae

Cyathodium africanum Mitt. (Pócs & Geissler, 2002)

Dumortieraceae

**Dumortiera hirsuta* (Sw.) Nees – Anjozorobe, forêt ombrophile d'altitude, sur des terres humides, 02/1959, *Bosser 12648*, TAN; Marojejy National Park, Talus terreux ombragé, alt. 690 m, S 14°26'07.8" E 49°45'49.9", 27/11/2009, *Ah-Peng 349*, det. Ah-Peng; Ambavaniasy, réserve de Vohimana, forêt ombrophile d'altitude, au pied d'une cascade, alt. 849 m, S 18°55'43.6" E 48°29' 56.6" 15/04/2010, *Reeb, Andriamananatena & Bidault CRAE93*, TAN, det. Reeb; Anjangoveratra, forêt du Makirovana, sur falaise suintante, alt. 508 m, S 14°10'17.4" E 49°57'07.5", 07/05/2010, *Reeb CR302*, TAN, det. Reeb.

Fossombroniaceae

Fossombronia sp. (Pócs & Geissler, 2002)

Frullaniaceae

Frullania anderssonii Aongstr. (Grolle, 1995)

Frullania angulata Mitt. var. *angulata* (Grolle, 1995; Pócs & Geissler, 2002)

Frullania angulata var. *laciniata* Demaret *et* Vanden Berghen (Grolle, 1995)

Frullania apicalis Mitt. (Grolle, 1995; Pócs & Geissler, 2002)

Frullania apiculata (Reinw. *et al.*) Nees (Grolle, 1995; Pócs, 1995; Pócs & Geissler, 2002)

Frullania arecae (Spreng.) Gottsche (Grolle, 1995)

Frullania borbonica Lindenb. (Grolle, 1995)

Frullania bullata Steph. (Grolle, 1995)

Frullania caffraria Steph. (Grolle, 1995)

Frullania capensis Gottsche (Grolle, 1995)

Frullania depressa Mitt. (Grolle, 1995)

Frullania diptera (Lehm.) Drège (Grolle, 1995)

- **Frullania ecklonii* (Spreng.) Gottsche *et al.* – Ambatovory, Tananarive, vestige de forêt, sur un tronc d'arbre, 04/1957, *Bosser 11021*, TAN.
- Frullania ericoides* (Nees) Mont. (Grolle, 1995)
- Frullania gabonensis* Vanden Berghen (Grolle, 1995; Pócs, 1995)
- Frullania grossiclava* Steph. (Grolle, 1995; Pócs, 1995; Grolle, 2001; Pócs & Geissler, 2002)
- Frullania humbertii* Vanden Berghen (Grolle, 1995)
- Frullania imerinensis* Steph. (Grolle, 1995; Pócs & Geissler, 2002)
- Frullania lindenberghii* Lehm. (Grolle, 1995; Pócs, 1995; Grolle, 2001; Pócs & Geissler, 2002)
- Frullania longistipula* Steph. (Grolle, 1995) **End**, Type – Imerina, Ankadivavala, *Camboué 162*, holotype G.
- Frullania loricata* Pearson (Grolle, 1995; Pócs & Geissler, 2002)
- Frullania loricata* var. *laxa* Pearson (Grolle, 1995) **End**, Type – unknown.
- Frullania nodulosa* (Reinw. *et al.*) Gottsche *et al.* var. *nodulosa* (Grolle, 1995; Pócs, 1995)
- Frullania obscurifolia* Mitt. (Grolle, 1995; Pócs, 1995)
- Frullania purpurea* Steph. (Grolle, 1995; Pócs, 1995; Pócs & Geissler, 2002)
- Frullania repandistipula* Sande Lac. (Grolle, 1995)
- Frullania rigida* Steph. (Grolle, 1995) **End**, Type – unknown.
- Frullania schimperi* var. *laciniata* Vanden Berghen (Grolle, 1995) **End**, Type – *Onraedt 74M8078c*, holotype BR.
- Frullania schimperi* Nees var. *schimperi* (Grolle, 1995; Pócs & Geissler, 2002)
- Frullania serrata* var. *pertenuis* (Nees) Gottsche *et al.* (Grolle, 1995; Pócs, 1995)
- Frullania serrata* Gottsche var. *serrata* (Grolle, 1995)
- Frullania socotrana* Mitt. (Grolle, 1995)
- Frullania spongiosa* Steph. (Grolle, 1995; Pócs, 1995)
- Frullania trinervis* (Lehm.) Drège (Grolle, 1995)
- Frullania usambarana* Schiffn. *ex* Steph. (Grolle, 1995; Pócs, 1995)
- Frullania usambarana* var. *reducta* Vanden Berghen (Grolle, 1995)
- Frullania vanden-berghenii* Pócs (Grolle, 1995; Pócs, 1995)
- Frullania variegata* Steph. (Grolle, 1995; Pócs, 1995; Pócs & Geissler, 2002)

Herbertaceae

- Herbertus dicranus* (Taylor *ex* Gottsche *et al.*) Trevis. (Grolle, 1995; Pócs, 1995; Grolle, 2001; Hodgetts, 2008)
- Herbertus juniperoideus* (Sw.) Grolle (Grolle, 1995; Grolle, 2001; Pócs & Geissler, 2002; Hodgetts, 2008)

Jamesoniellaceae

- Cryptochila grandiflora* (Lindenb. *et* Gottsche) Grolle (Grolle, 1995)
- Cuspidatula contracta* (Reinw. *et al.*) Steph. (Pócs, 1995)
- Denotarisia linguifolia* (De Not.) Grolle (Pócs & Geissler, 2002)
- Syzygiella purpurascens* (Steph) Feldberg *et al.* (Grolle, 1995; Pócs, 1995; Pócs & Geissler, 2002)
- Syzygiella concreta* (Gottsche) Spruce (Grolle, 1995; Pócs & Geissler, 2002)
- Syzygiella geminifolia* (Mitt.) Steph. (Grolle, 1995; Pócs, 1995; Pócs & Geissler, 2002)

Jungermanniaceae

Gottschelia schizopleura (Spruce) Grolle (Grolle, 1995; Pócs, 1995; Pócs & Geissler, 2002)

Notoscyphus lutescens (Lehm. *et* Lindenb.) Mitt. (Grolle, 1995; Pócs & Geissler, 2002)

Solenostoma borgenii (Gottsche) Steph. (Grolle, 1995)

Solenostoma onraedtii (Vàña) Vàña *et al.* (Grolle, 1995)

Solenostoma renauldii (Vàña) Vàña *et al.* (Grolle, 1995)

Solenostoma sphaerocarpum (Hook.) Steph. (Grolle, 1995)

Lejeuneaceae

Acanthocoleus aberrans (Lindenb. *et* Gottsche) Kruijt (Kruijt, 1988; Grolle, 1995)

Acanthocoleus madagascariensis (Steph.) Kruijt (Grolle, 1995; Pócs, 1995; Pócs & Geissler, 2002)

Acrolejeunea aulacophora (Mont.) Steph. (Grolle, 1995)

Acrolejeunea emergens (Mitt.) Steph. var. *emergens* (Grolle, 1995; Pócs & Geissler, 2002)

Acrolejeunea pycnoclada (Taylor) Schiffn. (Grolle, 1995)

Archilejeunea alata Steph. (Grolle, 1995)

Archilejeunea brevilobula Steph. (Grolle, 1995) **End**, Type – Oriental coast, Sakara, holotype G.

Archilejeunea helenae Pócs *et* Gyarmati (Pócs & Sass-Gyarmati, 2006) **End**, Type – Mananara-Nord Biosphere Reserve, lowland rainforest on the East slopes of Mahavoho Hill, epiphyllous on relatively rigid leathery leaf, alt. 250-350 m, S 16°27' E 49°46.9-47.5', 14-16/08/1998, Pócs & Szabó 9878/FM, holotype EGR.

Archilejeunea nobilis (Gottsche) Steph. (Grolle, 1995) **End**, Type – unknown.

Brachiolejeunea phyllorhiza (Nees) Kruijt *et* Gradst. (Grolle, 1995)

Bryopteris gaudichaudii Gottsche (Grolle, 1995; Pócs, 1995)

Caudalejeunea grolleana Gradst. (Grolle, 1995) **End**, Type – Nosy Be, Lokobe natural reserve, on bark in primary forest, alt. 100 m, 15/07/1971, Onraedt M5119, holotype BR, isotype JE.

Caudalejeunea hanningtonii (Mitt.) Schiffn. (Grolle, 1995)

Caudalejeunea lewallei Vanden Berghen (Grolle, 1995)

Caudalejeunea recurvistipula (Gottsche) Schiffn. (Grolle, 1995)

Ceratolejeunea andringitrae Pócs (Pócs, 2011a) **End**, Type – Ihorombe Region in former Fianarantsoa Province, Andringitra National Park, Montane rainforest on the West side of Korokoro River, around Camp II, epiphyll, alt. 750-1000 m, S 22°13' E 47°1-2', 20-23/09/1994, Pócs & A. Szabó 9472/AF, holotype EGR, isotypes MO, TAN.

Ceratolejeunea belangeriana (Gottsche) Steph. (Bonner, 1953; Grolle, 1995; Pócs & Geissler, 2002; Pócs, 2011a)

Ceratolejeunea diversicornua Steph. (Pócs, 2011a)

Ceratolejeunea cornuta (Lindenb.) Schiffn. (Grolle, 1995; Pócs, 2011a)

Ceratolejeunea papuliflora Steph. (Bonner, 1953; Grolle, 1995; Pócs, 2011a)

Ceratolejeunea saroltae Pócs (Pócs, 2011a) **End**, Type – Toamasina Province, Maromizaha forest, Mossy montane rainforest with bamboo (*Nastus* sp.), undergrowth on the summit ridge of Mt. Maromizaha, south of the Andasibe National Park, on twigs, alt. 1080-1214 m, Sarolta Pócs 9890/BJ, 26/09/1998, holotype EGR, paratype EGR.

- Cheilolejeunea cordigera* (Steph.) Grolle (Grolle, 1995; Pócs & Geissler, 2002)
- Cheilolejeunea cordistipula* (Steph.) Grolle ex E.W. Jones (Grolle, 1995; Malombe, 2007)
- Cheilolejeunea decursiva* (Sande Lac.) R.M. Schust. (Grolle, 1995; Pócs & Geissler, 2002; Malombe, 2007)
- Cheilolejeunea intertexta* (Lindenb.) Steph. (Grolle, 1995; Pócs & Geissler, 2002; Malombe, 2007)
- Cheilolejeunea krakammae* (Lindenb.) R.M. Schust. (Grolle, 1995; Pócs & Geissler, 2002; Malombe, 2007)
- Cheilolejeunea montagnei* (Gottsche) R.M. Schust. (Grolle, 1995; Pócs & Geissler, 2002; Malombe, 2007)
- Cheilolejeunea pluriplacata* (Pearson) R.M. Schust. (Grolle, 1995; Malombe, 2007)
- Cheilolejeunea pocsii* E.W. Jones (Grolle, 1995; Malombe, 2007)
- Cheilolejeunea serpentina* (Mitt.) Mizut. (Grolle, 1979; Grolle, 1995; Pócs, 1995; Pócs & Geissler, 2002; Malombe, 2007)
- Cheilolejeunea surrepens* (Mitt.) E.W. Jones (Grolle, 1995; Pócs & Geissler, 2002)
- Cheilolejeunea trapezia* (Nees) Kachroo et R.M. Schust. (Malombe, 2007)
- Cheilolejeunea trifaria* (Reinw. et al.) Mizut. (Grolle, 1995; Pócs & Geissler, 2002)
- Cheilolejeunea usambarana* (Steph.) Grolle (Malombe, 2007)
- Cheilolejeunea xanthocarpa* (Lehm. & Lindenb.) Malombe (Pócs, 1995; Malombe, 2007)
- Cololejeunea adnata* Tixier (Tixier, 1985; Grolle, 1995) **End**, Type – Tamatave, Foulpointe, forêt d'Analalava, alt. 100 m, 05/12/1975, *Tixier 7637*, holotype PC.
- Cololejeunea andapania* Tixier (Tixier, 1985; Grolle, 1995) **End**, Type – Diégo-Suarez, massif de l'Anjanaharibe, Ouest d'Andapa, Haute Andramota, bassin de la rivière Lokoho, forêt ombrophile sur gneiss et granite, alt. 700 m, 10/12/1950, *Humbert, Capuron & Cour 1/E*, holotype PC.
- Cololejeunea androphylla* var. *madecassa* Tixier (Grolle, 1995) **End**, Type – Antananarive, Mandialaza, alt. 1200 m, *Tixier 7670*, holotype PC.
- Cololejeunea ankaiana* Tixier (Tixier, 1985; Grolle, 1995) **End**, Type – Route de Tamatave, Moramanga - Anosibeana, alt. 1000 m, 18/4/1978, *Tixier s.n.*, holotype PC.
- Cololejeunea appressa* (A. Evans) Benedix (Grolle, 1995; Pócs & Geissler, 2002)
- Cololejeunea auriculata* (E.W. Jones) R.M. Schust. (Tixier, 1985; Grolle, 1995; Pócs & Geissler, 2002)
- Cololejeunea bidentula* (Steph.) E.W. Jones (Grolle, 1995)
- Cololejeunea bolombensis* (Steph.) Vanden Berghen (Tixier, 1985; Grolle, 1995; Pócs & Geissler, 2002)
- Cololejeunea borbonica* Tixier (Grolle, 1995)
- Cololejeunea camusii* Tixier (Tixier, 1985; Grolle, 1995) **End**, Type – Antananarivo, Ambatoloana, Andasibe, alt. 1200 m, 10/11/1976, *Tixier 9593*, holotype PC.
- Cololejeunea capuronii* Tixier (Grolle, 1995) **End**, Type – Massif de l'Anjanaharibe, à l'Ouest d'Andapa, Andramonta (pente et sommet nord), alt. 500-700 m, *Humbert, Capuron & Cours s.n.*, holotype PC.
- Cololejeunea cardiocarpa* (Mont.) A. Evans (Tixier, 1985; Grolle, 1995)
- Cololejeunea cristata* (Steph.) R.M. Schust. (Tixier, 1985; Grolle, 1995)

- Cololejeunea cuneata* (Lehm. *et* Lindenb.) Herzog (Grolle, 1995; Pócs, 1995)
Cololejeunea decemplicata (Steph.) Tixier (Grolle, 1995)
Cololejeunea deroinii Tixier (Tixier, 1993; Grolle, 1995) **End**, Type – Diégo-Suarez (Antsiranana), Massif du Marojejy, rive gauche de la rivière Manantenina, alt. 350 m, *Deroin & Badré 5*, holotype PC.
Cololejeunea diplasiolejeuneoides Tixier (Tixier, 1985; Grolle, 1995) **End**, Type – Tamatave, Périnet, forêt d'Antaniditra, alt. 950 m, 6/7/1977, *Tixier 10637*, holotype PC.
Cololejeunea disciflora Tixier (Grolle, 1995) **End**, Type – Antananarivo, Carion, Angavobe, alt. 1600 m, *Tixier 10834*, holotype PC.
Cololejeunea distalopapillata (E.W. Jones) R.M. Schust. (Tixier, 1985; Grolle, 1995; Pócs & Geissler, 2002)
Cololejeunea dolichodonta Tixier (Tixier, 1985; Grolle, 1995) **End**, Type – Fianarantsoa, Ambatofinandrahana, alt. 1650 m, 21/3/1978, *Tixier 11394*, holotype PC.
Cololejeunea duvignaudii E.W. Jones (Tixier, 1985; Grolle, 1995; Pócs & Geissler, 2002)
Cololejeunea duvignaudii var. *papillata* Tixier (Grolle, 1995)
Cololejeunea elegans Steph. (Tixier, 1985; Grolle, 1995; Pócs & Geissler, 2002)
Cololejeunea falcata var. *madecassa* Tixier (Grolle, 1995) **End**, Type – Tamatave, Périnet, alt. 917 m, *Tixier 10160*, holotype PC.
Cololejeunea floccosa (Lehm. *et* Lindenb.) Schiffn. (Grolle, 1995)
Cololejeunea floccosa var. *trivittata* Tixier (Grolle, 1995)
Cololejeunea furcibulata (Berrie *et* E.W. Jones) R.M. Schust. (Grolle, 1995)
Cololejeunea hildebrandii (Austin) Steph. (Tixier, 1985; Grolle, 1995)
Cololejeunea leloutrei (E.W. Jones) R.M. Schust. (Grolle, 1995; Pócs & Geissler, 2002)
Cololejeunea leloutrei var. *microbulata* Tixier (Tixier, 1985; Grolle, 1995) **End**, Type – Tananarive, Ambatolampy, station de Manjakatempo, alt. 1700 m, 27/10/1976, *Tixier 9385*, holotype PC.
Cololejeunea leloutrei var. *ugulurica* Pócs *ex* Tixier (Grolle, 1995)
Cololejeunea lemuriana Tixier (Tixier, 1985; Grolle, 1995)
Cololejeunea marginata (Lehm. *et* Lindenb.) Schiffn. (Grolle, 1995; Pócs & Geissler, 2002)
Cololejeunea microscopica (Taylor) Schiffn. var. *exigua* (A. Evans) Bernecker *et* Pocs (Grolle, 1995; Pócs & Bernecker, 2009)
Cololejeunea minutissima (Sm.) Schiffn. (Grolle, 1995)
Cololejeunea moramangae Tixier (Grolle, 1995; Pócs & Bernecker, 2009)
Cololejeunea mocambiquensis S.W. Arnell (Grolle, 1995)
Cololejeunea obliqua (Nees *et* Mont.) Schiffn. (Grolle, 1995; Pócs & Geissler, 2002)
Cololejeunea obtusifolia (E.W. Jones) Tixier (Grolle, 1995; Pócs & Geissler, 2002)
Cololejeunea peraffinis var. *serrulata* Benedix (Pócs & Geissler, 2002)
Cololejeunea plagiochiliana Tixier (Grolle, 1995) **End**, Type – Périnet, *Benoist s.n.*, holotype PC.
Cololejeunea platyneura (Spruce) A. Evans (Grolle, 1995; Pócs & Geissler, 2002)
Cololejeunea praeruptorum Tixier (Tixier, 1985; Grolle, 1995) **End**, Type – Mandialaza, forêt de l'Angavo, 19/12/1975, *Tixier 7670*, holotype PC.

- Cololejeunea pteroporum* Tixier (Tixier, 1985; Grolle, 1995) **End**, Type – Diégo-Suarez, station de roussettes, alt. 900 m, 06/11/1975, *Tixier 7463*, holotype PC.
- Cololejeunea raduliloba* Steph. (Tixier, 1985; Grolle, 1995)
- Cololejeunea saltuum* Tixier (Tixier, 1985; Grolle, 1995) **End**, Type – Fianarantsoa, Ranomafana, forêt du pk 24, alt. 1200 m, 30/12/1976, *Tixier 10038*, holotype PC.
- Cololejeunea sambiroana* Tixier (Tixier, 1985; Grolle, 1995) **End**, Type – Sambirano, forêt d'Anjozobe, alt. 300m, 22/08/1977, *Tixier 10744*, holotype PC.
- Cololejeunea selangorensis* Tixier (Tixier, 1985; Grolle, 1995)
- Cololejeunea subinflata* Tixier (Tixier, 1985; Grolle, 1995) **End**, Type – Antananarivo, Manjakandriana, lac Mantasoa, 19/04/1979, *Tixier 8158*, holotype PC.
- Cololejeunea succinea* Tixier (Tixier, 1985; Tixier, 1979a) **End**, Type – Diégo-Suarez, Montagne d'Ambre, station des Roussettes, forêt de montagne, 03/11/1975, *Tixier 7395*, holotype PC.
- Cololejeunea tamatavensis* Tixier (Tixier, 1985; Grolle, 1995) **End**, Type – Foulpointe, forêt d'Analalava, alt. 100 m, 05/12/1975, *Tixier 7230*, holotype PC.
- Cololejeunea tanzaniae* Pócs (Grolle, 1995; Pócs & Geissler, 2002)
- Cololejeunea vidaliana* Tixier (Grolle, 1995)
- Cololejeunea zenkeri* (Steph.) E.W. Jones (Pócs & Geissler, 2002)
- Colura benoistii* Jovet-Ast (Grolle, 1995)
- Colura bicornis* Jovet-Ast (Grolle, 1995; Pócs, 1995) **End**, Type – Route de Moramanga à Anosibe, pk 29, forêt marécageuse, sur feuille de palmier, 15/09/1953, *Millot & Bosser 6319*, herb (N.S.)
- Colura digitalis* (Mitt.) Steph. (Pócs, 1995; Pócs & Geissler, 2002)
- Colura heimii* Jovet-Ast (Grolle, 1995)
- Colura humbertii* Jovet-Ast (Grolle, 1995)
- Colura inornata* Jovet-Ast (Grolle, 1995; Pócs, 1995) **End**, Type – Route de Moramanga à Anosibe, pk 29, forêt marécageuse, sur feuille de palmier, 15/09/1953, *Millot & Bosser 6323*, herb (N.S.)
- Colura obesa* Jovet-Ast (Grolle, 1995)
- Colura obvoluta* Jovet-Ast (Jovet-Ast, 1983; Grolle, 1995)
- Colura tenuicornis* (A. Evans) Steph. (Grolle, 1995)
- Diplasiolejeunea andringitrae* Pócs et Schafer-Verwimp (Pócs & Schaefer-Verwimp, 2006) **End**, Type – Monts d'Andringitra, Nature Reserve, montane rainforest, West side of Korokoro River, around Camp II, alt. 750-1000 m, S 22°13' E 47°1-2', 20-23/9/1994, *Pócs et al., 9472/AM*, holotype EGR.
- Diplasiolejeunea aulae* E.W. Jones (Grolle, 1995)
- Diplasiolejeunea auriculata* Tixier (Grolle, 1995) **End**, Type – Fianarantsoa, forêt de Tsarafidy, *Tixier 8908*, holotype PC.
- Diplasiolejeunea cavifolia* Steph. (Grolle, 1995; Pócs & Geissler, 2002)
- Diplasiolejeunea cobrensis* Gottsche ex Steph. (Grolle, 1995; Pócs & Geissler, 2002)
- Diplasiolejeunea cobrensis* Pócs subsp. *antsirananae* (Pócs, 2001; Pócs & Geissler, 2002) **End**, Type – Province d'Antsiranana, Réserve Spéciale de

Manongarivo, on the rain forest covered north ridge leading to the 1869 m high summit of Manongarivo massif, epiphyllous, alt. 850-950 m, N 13°59' E 48°26', 3/1999, *Geissler 19549/8*, holotype G.

Diplasiolejeunea comorensis Tixier (Grolle, 1995)

Diplasiolejeunea cornuta Steph. (Grolle, 1995; Pócs, 1995)

Diplasiolejeunea ensifera Tixier (Grolle, 1995) **End**, Type – Antananarivo, Andasibe, alt. 1400 m, *Tixier 9626*, holotype PC.

Diplasiolejeunea hamata Tixier (Grolle, 1995) **End**, Type – Fianarantsoa, Vohiparara, *Tixier 11373*, holotype PC.

Diplasiolejeunea insignis Tixier (Grolle, 1995) **End**, Type – Tananarive, Carion, Angavokely, alt. 1800 m, 27/01/1977, *Tixier 10258*, holotype PC.

Diplasiolejeunea jonesii Tixier (Grolle, 1995) **End**, Type – Tamatave, Antaniditra, Vohiparara, alt. 1100 m, 30/12/1976, *Tixier 10157*, holotype PC.

Diplasiolejeunea kraussiana (Lindenb.) Steph. (Grolle, 1995)

Diplasiolejeunea lemuriana Tixier (Grolle, 1995) **End**, Type – Fianarantsoa, Ranomafana, alt. 1200 m, 30/12/1976, *Tixier 10171*, holotype PC.

Diplasiolejeunea magnistipulata Tixier (Tixier, 1985; Grolle, 1995)

Diplasiolejeunea ornata Pócs *et* Schäfer-Verwimp (Pócs & Schaefer-Verwimp, 2006) **End**, Type – Province de Toamasina, Mananara - Nord Biosphere Reserve, Lowland rain forest on the NW slope of Behafotra Hill, alt. 250-300 m, S 16°27.2' E 49°47.7', 16/08/1998, *Pócs & Szabó 9877/CH*, holotype EGR.

Diplasiolejeunea palustrium Tixier (Grolle, 1995) **End**, Type – Tamatave, Périnet, Antaniditra, alt. 1000 m, 06/07/1977, *Tixier 10636*, holotype PC.

Diplasiolejeunea phyllarthonii Tixier (Grolle, 1995) **End**, Type – Tamatave, Manohitaly (route du Chrome), alt. 1200 m, 03/03/1978, *Tixier 11632*, holotype PC.

Diplasiolejeunea ramicola Tixier (Grolle, 1995) **End**, Type – Antananarivo, Ambatoloana, 1400 m, *Tixier 9629*, holotype PC.

Diplasiolejeunea ranomafanae Pócs & Schäfer-Verwimp (Pócs & Schaefer-Verwimp, 2006) **End**, Type – Ranomafana National Park, on the summit ridge of Mont Vatolampy near the telecom aerial, 2.3 km W of Ambatolahy village, alt. 1200 m, S 21°15.10' E 47°24.44', 30/07/2004, *Pócs 04128/AK*, holotype EGR.

Diplasiolejeunea runssorensis Steph. (Grolle, 1995)

Diplasiolejeunea subcornuta Tixier (Grolle, 1995)

Diplasiolejeunea symoensii Vanden Berghen (Grolle, 1995)

Diplasiolejeunea utriculata Steph. (Grolle, 1995)

Diplasiolejeunea villaumei Steph. (Grolle, 1995)

Diplasiolejeunea zakiae Tixier (Tixier, 1977; Pócs & Geissler, 2002)

Drepanolejeunea cambouena Steph. (Grolle, 1995; Pócs, 2011b)

Drepanolejeunea cultrella (Mitt.) Steph. (Pócs & Geissler, 2002)

Drepanolejeunea geisslerae Pócs (Pócs, 2001; Pócs & Geissler, 2002) **End**, Type – Antsiranana, Réserve Spéciale de Manongarivo, NW Madagascar, abundant on palm stem, alt. 950-1050 m, N 13°59' E 48°26', 03/1999, *Geissler 19559*, holotype G.

Drepanolejeunea madagascariensis (Steph.) Grolle (Grolle, 2001; Pócs & Geissler, 2002)

- Drepanolejeunea mascarena* (S.W. Arnell) R.L. Zhu *et* Grolle (Zhu & Grolle, 2003)
- Drepanolejeunea pentadactyla* (Mont.) Steph. (Mizutani, 1975; Pócs, 2011b)
- Drepanolejeunea physaefolia* (Gottsche) Steph. (Grolle, 1995; Pócs, 1995; Pócs & Geissler, 2002)
- Drepanolejeunea pocsii* Grolle (Pócs & Geissler, 2002)
- Drepanolejeunea trematodes* (Nees) Bischl. (Grolle, 1995; Pócs & Geissler, 2002)
- Frullanoides tristis* (Steph.) Van Slageren (Grolle, 1995)
- Haplolejeunea sticta* Grolle (Grolle, 1995; Pócs & Geissler, 2002)
- Lejeunea alata* Gottsche (Grolle, 1995; Pócs & Geissler, 2002)
- Lejeunea alata* var. *patriciae* Pócs (Pócs, 2001; Pócs & Geissler, 2002) **End**, Type – Province d'Antsiranana, Réserve Spéciale de Manongarivo, on the rain forest covered north ridge leading to the 1869 m high summit of Manongarivo massif, epiphyllous, N 13°59' E 48°26', 12/03/1999, *Geissler 19856/I*, holotype G.
- Lejeunea amaniensis* E.W. Jones (Grolle, 1995)
- Lejeunea anisophylla* Mont. (Grolle, 1985; Pócs & Geissler, 2002; Pócs, 2011b)
- Lejeunea capensis* Gottsche (Grolle, 1995)
- Lejeunea confusa* E.W. Jones (Pócs & Geissler, 2002)
- Lejeunea ecarinata* (Steph.) Steph. (Grolle, 1995)
- Lejeunea eckloniana* Lindenb. (Grolle, 1995; Pócs & Geissler, 2002)
- Lejeunea flava* (Sw.) Nees (Grolle, 1995)
- Lejeunea flavovirens* Aongstr. (Grolle, 1995; Pócs & Geissler, 2002)
- Lejeunea isophylla* E.W. Jones (Grolle, 1995)
- Lejeunea julacea* Steph. (Grolle, 1995; Pócs, 2011b) **End**, Type – *Forsyth-Major B 473*, holotype G.
- Lejeunea leucosis* Besch. & Spruce (Grolle, 1995; Pócs, 2010a)
- Lejeunea masoalae* Pócs (Pócs, 2010a) **End**, Type – West side of Masoala Peninsula, above Antongil Bay, montane rainforest on the summit ridge SE of Ambanizana village, alt. 660-720 m, S 15°37' E 50°05', 09/09/1994, *Pócs 9448/AN*, holotype EGR, isotype MO, TAN.
- Lejeunea obtusata* Gottsche (Grolle, 1995)
- Lejeunea papilionacea* Steph. (Grolle, 1995; Zhu & Grolle, 2001)
- Lejeunea phyllobola* Nees *et* Mont. (Pócs, 1995)
- Lejeunea tabularis* (Spreng.) Gottsche *et al.* (Grolle, 1995; Pócs & Geissler, 2002)
- Lejeunea tuberculosa* Steph. (Grolle, 1995; Pócs & Geissler, 2002)
- Lejeunea villaumei* (Steph.) Grolle (Grolle, 1995; Pócs & Geissler, 2002)
- Lejeunea vojtkoi* Pócs (Pócs, 2010a) **End**, Type – 10 km North of Fianarantsoa, on decaying wood in montane forest, alt. 1230-1360 m, S 21°15' E 47°14', 22/09/1994, *Vojtkó 9461/AY*, holotype EGR.
- Lejeunea vulgariformis* Gottsche (Grolle, 1995; Pócs, 2010a)
- Lepidolejeunea bidentula* (Steph.) R.M. Schust. var. *bidentula* (Piippo, 1986; Grolle, 1995; Zhu & So, 2001)
- Leptolejeunea epiphylla* (Mitt.) Steph. (Pócs & Geissler, 2002)
- **Leptolejeunea vitrea* (Nees) Schiffn. – Anjzorobe, épiphyllous, alt. 300 m, 22/07/1977, *Tixier 10743*, TAN.
- Lopholejeunea borbonica* Steph. (Grolle 1995, Pócs & Geissler, 2002)
- Lopholejeunea erugata* B. Thiers (Grolle, 1995) **End**, Type – 1896, *Forsyth-Major*, holotype G.

- Lopholejeunea eulopha* (Taylor) Schiffn. (Grolle, 1995; Pócs & Geissler, 2002; Zhu & Gradstein, 2005)
- Lopholejeunea grandicrista* Steph. (Grolle, 1995; Pócs & Geissler, 2002)
- Lopholejeunea leioptera* Gyarmati (Sass-Gyarmati, 2001; Pócs & Geissler, 2002)
End, Type – Fianarantsoa, alt. 1590 m, S 22°11'00" E 46°53'00", 19/09/1994, *Magill & Pócs 12855*, holotype MO.
- Lopholejeunea lepidoscypha* Kiaer *et* Pearson (Grolle, 1995) **End**, Type – Ankaratra, 1877, *Borgen s.n.*, holotype BM.
- Lopholejeunea multilacera* Steph. (Grolle 1995)
- Lopholejeunea nigricans* (Lindenb.) Schiffn. (Grolle, 2001; Zhu & Gradstein, 2005)
- Lopholejeunea onraedtii* Vanden Berghen (Grolle, 2001) **End**, Type – Route de Moramanga, Tamatave, 17 km from Moramanga, forêt primaire humide et dégradée, alt. 800 m, 01/1970, *Onraedt 70M2030*, holotype BR.
- Lopholejeunea subfusca* (Nees) Schiffn. (Grolle, 1995; Pócs & Geissler, 2002; Zhu & Gradstein, 2005)
- Lopholejeunea tixieriana* Vanden Berghen (Grolle, 1995) **End**, Type – Antanidetra, 07/1977, *Tixier 10720*, holotype BR.
- Lopholejeunea utriculata* Steph. (Grolle, 1995) **End**, Type – unknown.
- Marchesinia excavata* (Mitt.) Schiffn. (Pócs & Geissler, 2002)
- Marchesinia madagassa* Steph. (Grolle, 1995)
- Mastigolejeunea auriculata* (Wilson) Schiffn. (Grolle, 1995)
- Mastigolejeunea rhodesica* (Vanden Berghen) E.W. Jones (Grolle, 1995)
- Metalejeunea cucullata* (Reinw. *et al.*) Grolle (Grolle, 1995)
- Microlejeunea africana* Steph. (Grolle, 1995)
- Microlejeunea fissistipula* Steph. (Grolle, 1995; Pócs & Geissler, 2002) **End**, Type – unknown.
- Microlejeunea inflata* Steph. (Grolle, 1995; Pócs & Geissler, 2002)
- Microlejeunea oblongistipula* (Gottsche) Pearson (Grolle, 1995)
- Microlejeunea papulosa* (Gottsche) Pearson (Grolle, 1995) **End**, Type – unknown.
- Odontolejeunea lunulata* (F. Weber) Schiffn. (Grolle, 1995; Pócs, 1995; Pócs & Geissler, 2002)
- Otolejeunea moniliata* Grolle (Grolle, 1985; Grolle, 1995) **End**, Type – Partie nord du massif du Morojeje, alt. 1450 m, *Guillaumet 4133/7*, holotype JE, isotypes PC, BR.
- Otolejeunea rabenorii* Tixier (Grolle, 1995) **End**, Type – Toamasina, route de Lakato, épiphyllie en forêt dense à graminées, 02/06/1979, *Tixier 12591*, holotype PC.
- Otolejeunea subana* Pócs (Pócs, 2004) **End**, Type – Toamasina Province, Mantadia Forest Reserve, North of Andasibe (Périnet), submontane rainforest, alt. 1030 m, S 18°52'20" E 48°28'26", 02/10/1994, *Pócs & Szabó 9485/R*, holotype EGR.
- Prionolejeunea grata* (Gottsche) Schiffn. (Grolle, 1995; Pócs & Geissler, 2002)
- Ptychanthus africanus* Steph. (Grolle, 1995; Ahonen *et al.*, 2005)
- Pycnolejeunea contigua* (Nees) Grolle (Grolle, 1995; He, 1999)
- Schiffneriolejeunea madagascariensis* (Steph.) Gradst. (Grolle, 1995) **End**, Type – unknown.
- Schiffneriolejeunea pappeana* (Nees) Gradst. (Grolle, 1995; Pócs & Geissler, 2002)

- Schiffneriolejeunea pappeana* var. *bidentata* Gradst. et Vanden Berghen (Grolle, 1995)
- Schiffneriolejeunea pappeana* var. *integra* Gradst. et Vanden Berghen (Grolle, 1995)
- Schiffneriolejeunea parviloba* (Steph.) Gradst. (Pócs & Geissler, 2002)
- Schiffneriolejeunea polycarpa* (Nees) Gradst. (Grolle, 1995; Pócs & Geissler, 2002)
- Symbiezidium barbiflorum* (Lindenb. et Gottsche) A. Evans (Sass-Gyarmati & Pócs, 2002)
- Symbiezidium madagascariense* Steph. (Gradstein & Van Beek, 1985; Grolle, 1995; Pócs, 1995)
- Taxilejeunea conformis* (Mont. et Nees) Steph. (Grolle, 1995; Pócs & Geissler, 2002)
- Taxilejeunea furcicornuta* Grolle (Grolle, 1995)
- Taxilejeunea sikorae* Steph. (Grolle, 1995) **End**, Type – unknown.
- Thysananthus spathulistipus* (Reinw. et al.) Lindenb. (Grolle, 1995; Pócs & Geissler, 2002) – Marojejy National Park, alt. 650 m, 24/11/2009, *Ah-Peng 349*, det. Ah-Peng, Bardat.
- Xylolejeunea grolleana* (Pócs) X.-L.He et Grolle (Pócs, 1999; He & Grolle, 2001)
- Lepidoziaceae**
- Amazoopsis diplopoda* (Pócs) J.J. Engel et G.L.S. Merr. (Grolle, 1995; Pócs, 1995)
- Bazzania curvidens* Steph. (Grolle, 1995) **End**, Type – Alakaty forest, 30/11/1889, Perrot, herb (N.S.).
- Bazzania deciduifolia* Onr. (Onraedt, 1977; Grolle, 1995) **End**, Type – Province de Fianarantsoa, forêt d'Ambatofitorahana, *Onraedt 71M5364*, holotype NAM, isotypes BR, JE.
- Bazzania decrescens* (Lehm. et Lindenb.) Trevis. (Grolle, 1995)
- Bazzania decrescens* subsp. *pumila* (Mitt.) Pócs (Pócs 1995)
- Bazzania decrescens* var. *ambahatrae* Pócs (Pócs & Geissler, 2002) **End**, Type – Manongarivo massif, alt. 1300-1400 m, *Pócs & Geissler PG 19742*, holotype EGR.
- Bazzania mascarena* (Steph.) Herzog (Grolle, 1995)
- Bazzania nitida* (F. Weber) Grolle (Grolle, 1995; Pócs, 1995; Pócs & Geissler, 2002)
- Bazzania orbanii* Pócs (Pócs, 2010b) **End**, Type – SW Madagascar, Toliara Province, Isalo National Park, "Piscine naturelle", a deep pool of a brook in a sandstone gorge, shaded by *Pandanus pulcher* trees, on soil, alt. 800 m, *Orbán 9455/J*, holotype EGR, isotypes MO, TAN.
- Bazzania perrotana* (Steph.) E.W. Jones (Jones, 1975; Grolle, 1995)
- Bazzania praerupta* (Reinw. et al.) Trevis. (Grolle, 1995; Pócs, 1995)
- Bazzania reflexa* (Gottsche) Steph. (Grolle, 1995) **End**, Type – unknown.
- Kurzia capillaries* (Sw.) Grolle subsp. *capillaris* (Pócs, 1995; Pócs & Geissler, 2002)
- Kurzia capillaris* (Renauld ex Steph.) Pócs subsp. *stephanii* (Grolle, 1995; Pócs, 1995; Pócs & Geissler, 2002)
- Lepidozia africana* Steph. (Grolle, 1995)
- Lepidozia succida* Mitt. (Grolle, 1995; Pócs, 1995)
- Telaranea bischleriana* Pócs (Pócs, 2006)

- Telaranea coactilis* (Spruce) J.J. Engel *et* G.L.S. Merr. (Engel & Merrill, 2004)
Telaranea nematodes (Gottsche *ex* Austin) M. Howe (Grolle, 1995)

Lophocoleaceae

- Chiloscyphus coadunatus* (Sw.) J.J. Engel *et* R.M. Schust. (Grolle, 1995; Pócs & Geissler, 2002)
Chiloscyphus concretus (Mont.) J.J. Engel *et* R.M. Schust. (Grolle, 1995; Pócs & Geissler, 2002)
Chiloscyphus difformis (Nees) J.J. Engel *et* R.M. Schust. (Pócs & Geissler, 2002)
Chiloscyphus lucidus (Spreng. *ex* Lehm.) J.J. Engel *et* R.M. Schust. (Grolle, 1995; Pócs & Geissler, 2002)
Chiloscyphus madagascariensis (Gottsche) J.J. Engel *et* R.M. Schust. (Grolle, 1995) **End**, Type – unknown.
Chiloscyphus martianus (Nees) J.J. Engel *et* R.M. Schust. (Grolle, 1995; Pócs & Geissler, 2002)
Chiloscyphus muricatus (Lehm.) J.J. Engel *et* R.M. Schust. (Grolle, 1995; Pócs & Geissler, 2002)
Chiloscyphus regularis Steph. (Grolle, 1995)
Clasmatocolea vermicularis (Lehm.) Grolle (Engel, 1980)
Conoscyphus trapezioides (Sande Lac.) Schiffn. (Grolle, 1995; Pócs, 1995; Pócs & Geissler, 2002)
Heteroscyphus dubius (Gottsche) Schiffn. (Grolle, 1995)
Heteroscyphus splendens (Lehm. *et* Lindenb.) Grolle (Pócs, 1995; Pócs & Geissler, 2002)
Leptoscyphus expansus (Lehm.) Grolle (Grolle, 1995)
Leptoscyphus infuscatus (Mitt.) E.W. Jones (Pócs & Geissler, 2002)

Marchantiaceae

- Marchantia debilis* Goebel (Grolle, 1995)
Marchantia pappeana Lehm. subsp. *pappeana* (Grolle, 1995)

Mastigophoraceae

- Mastigophora diclados* (Brid. *ex* F. Weber) Nees (Grolle, 1995; Pócs & Geissler, 2002)

Metzgeriaceae

- Metzgeria consanguinea* Schiffn. (So, 2004)
Metzgeria furcata (L.) Dumort. (So, 2004)
Metzgeria leptoneura Spruce (Grolle, 1995; So, 2004)
Metzgeria madagassa Steph. (Grolle, 1995; So, 2004)
Metzgeria nudifrons Steph. (So, 2004)
Metzgeria quadrifaria Steph. (So, 2004)

Pallaviciniaceae

- **Pallavicinia lyellii* (Hook.) – Ambavaniasy, réserve de Vohimana, forêt ombrophile d'altitude, jonction sol-racine au pied d'une micro falaise, alt. 870 m, S 18°55'19.5" E 48°30'05.7", 14/04/2010, Reeb, Andriamananatena & Bidault CRAE 40 & CRAE 48, TAN, det. Reeb & Andriamananatena; Ambavaniasy, réserve de Vohimana, bord de chemin vers relais du naturaliste, terre tassée, alt. 790 m, S 18°55'14.95" E 48°30'49.58", 16/04/2010 Reeb, Andriamananatena & Bidault CRAE 155, TAN, det Reeb & Andriamananatena.

Symphyogyna brasiliensis Nees *et* Mont. (Grolle, 1995)

**Symphyogyna* aff. *podophylla* (Thunb.) Mont. *et* Nees. – Ambavaniasy, réserve de Vohimana, grande cascade microfalaise à 3 m du bord, face verticale, alt. 849 m, S 18°55'43.6" E 48°29'56.6", 15/04/2010, Reeb, Andriamananatenana & Bidault CRAE 87, TAN, det. Reeb & Andriamananatenana.

Symphyogynopsis gottscheana (Mont. *et* Nees) Grolle (Grolle, 1995)

Plagiochilaceae

Plagiochila angusta Lindenb. (Grolle, 1995; Pócs & Geissler, 2002)

Plagiochila barteri Mitt. var. *barteri* (Grolle, 1995; Pócs & Geissler, 2002)

Plagiochila boivinii Steph. (Grolle, 1995)

Plagiochila boryana Gottsche *ex* Steph. (Grolle, 1995)

Plagiochila cambuena Steph. (Grolle, 1995)

Plagiochila drepanophylla Sande Lac. (Grolle, 1995)

Plagiochila fracta Pócs, *nom. inval.* (Pócs & Geissler, 2002; Heinrichs *et al* 2005)

Plagiochila granditexta Steph. (Grolle, 1995) **End**, Type – *Hildebrandt*, herb (N.S.).

Plagiochila incerta Gottsche (Grolle, 1995; Pócs & Geissler, 2002)

Plagiochila integerrima Steph. (Grolle, 1995)

Plagiochila kiaeri Gottsche (Grolle, 1995; Pócs & Geissler, 2002)

Plagiochila paucidentata Mont. *et* Gottsche (Grolle, 1995; Pócs & Geissler, 2002)

Plagiochila pectinata Willd. *ex* Lindenb. (Grolle, 1995; Pócs & Geissler, 2002)

Plagiochila punctata (Taylor) Taylor (Grolle, 1995; Pócs & Geissler, 2002; Heinrichs *et al.*, 2005)

Plagiochila repanda (Schwaegr.) Lindenb. (Grolle, 1995)

Plagiochila repanda var. *perrotana* (Steph.) Vanden Berghen (Grolle, 1995)

Plagiochila rodriguezii Steph. (Grolle, 1995)

Plagiochila squamulosa var. *crispulo-caudata* (Gottsche) Vanden Berghen (Grolle, 1995)

Plagiochila squamulosa var. *sinuosa* (Mitt.) Vanden Berghen (Grolle, 1995)

Plagiochila stricta Lindenb. (Lindner *et al.*, 2004)

Plagiochila terebrans Nees *et* Mont. *ex* Lindenb. (Grolle, 1995; Pócs & Geissler, 2002)

Pleuroziaceae

Pleurozia gigantea (F. Weber) Lindb. (Pócs & Geissler, 2002)

Porellaceae

Porella abyssinica var. *hoehnelii* (Steph.) Pócs (Grolle, 1995)

Porella cucullistipula Steph. (Grolle, 1995)

Porella madagascariensis (Nees *et* Mont.) Trevis. (Grolle, 1995)

Porella montantii (Steph.) E.W. Jones (Grolle, 1995)

Porella triquetra (Steph.) E.W. Jones (Grolle, 1995)

Radulaceae

Radula ankefinensis Gottsche *ex* Steph. (Grolle, 1995; Grolle, 2001; Pócs & Geissler, 2002)

Radula appressa Mitt. (Grolle, 1995; Pócs, 1995; Pócs & Geissler, 2002)

Radula boryana (F. Weber) Mont. (Grolle, 1995; Grolle, 2001; Pócs & Geissler, 2002)

Radula comorensis Steph. (Pócs & Geissler, 2002)

- Radula fulvifolia* (Hook.f. *et* Taylor) Gottsche *et al.* (Grolle, 2001)
Radula madagascariensis Gottsche (Yamada, 1975; Grolle, 1995; Pócs, 1995; Grolle, 2001)
Radula marojezica E.W. Jones (Grolle, 1995) **End**, Type – Province Antsiranana, Parc National de Marojejy, *Pócs 90114/BN*, holotype E, isotype and paratype EGR.
Radula quadrata Gottsche (Grolle, 1995)
Radula silvestris Gottsche (Grolle, 1995)
Radula stenocalyx Mont. (Grolle, 1995; Pócs, 1995; Grolle, 2001; Pócs & Geissler, 2002)
Radula voluta Taylor *ex* Gottsche *et al.* (Grolle, 1995; Pócs, 1995; Grolle, 2001; Pócs & Geissler, 2002)

Ricciaceae

- Riccia atromarginata* var. *jovet-astiae* Rauh & Buchloh (Grolle, 1995)
Riccia cavernosa Hoffm. (Grolle, 1995)
Riccia crinita Taylor (Grolle, 1995)
Riccia perssonii Sultan Khan (Perold, 1995)
 **Riccia purpurascens* Lehm. – Makirovana, Talus vertical en bord de rizière, Ambodimanga au pied de Makirovana, alt. 41 m, S 14°11'13.6" E 49°59'09.2", 03/05/2010, *Reeb CR 203*, det. Reeb & Bardat.

Scapaniaceae

- Anastrophyllum piligerum* (Nees) Steph. (Grolle, 1995; Pócs, 1995; Pócs & Geissler, 2002)
Andrewsianthus aberrans (Nees *et* Mont.) Grolle (Pócs, 1995)
Plicanthus birmensis (Steph.) R.M. Schust. (Grolle, 1995)
Plicanthus hirtellus (F. Weber) R.M. Schust. (Grolle, 1995; Pócs & Geissler, 2002)

Schistochilaceae

- Gottschea neesii* (Mont.) R.M. Schust. (Grolle, 1995; Pócs, 1995; Pócs & Geissler, 2002)
Schistochila alata (Lehm.) Schiffn. (Grolle, 1995; Pócs, 1995; Pócs & Geissler, 2002)
Schistochila piligera Steph. (Grolle, 1995; Pócs, 1995; Pócs & Geissler, 2002) **End**, Type – *Camboué*, herb (N.S.).

Targioniaceae

- Targionia hypophylla* L. (Grolle, 1995)
 **Targionia dioica* Schiffn. – Biosphere Reserve and National Park, Mananara-Nord, Toamasina, alt. 220 m, 17/08/1998, *Pócs & Szabó 9878/CY*, EGR.

Hornworts reported from Madagascar

Anthocerotaceae

- Anthoceros* sp. (Grolle, 1995)
 **Dendroceros* cf. *africanus* Steph. – Réserve Spéciale Angavokely, alt. 1750 m, 11/2009, *Bardat JB MAD 147*, det. Bardat.

Notothyladaceae

- Phaeoceros carolinianus* (Michx.) Prosk. (Grolle, 1995)

Mosses reported from Madagascar**Amblystegiaceae**

Amblystegium chalaropelma Müll.Hal. ex Renaud (Crosby *et al.*, 1983) **End**,
Type – Zone du plateau central, Imerina Oriental, *Hildebrandt 2076*,
herb. (N.S.).

Amblystegium riparium (Hedw.) Bruch, Schimp. *et* W.Guembel (Crosby *et al.*,
1983)

Hygrohypnum causequei (Renaud & Cardot) Cardot (Crosby *et al.*, 1983) **End**,
Type – Entre Tananarive et Betafo, 1894, *Causseque*, holotype PC.

Andreaeaceae

Andreaea subulata Harv. (Crosby *et al.*, 1983)

Andreaea tsaratananae Thér. (Crosby *et al.*, 1983)

Anomodontaceae

Herpetineuron toccoae (Sull. *et* Lesq.) Cardot (Touw, 1993)

Archidiaceae

**Archidium ohioense* Schimp. ex Müll.Hal. – Beza mahafaly, Betioky, Riverine
forest adjacent to Sakamena river, open ground on forest floor, alt. 130 m,
S 23°39' E 44°38', 18/05/1987, *Phillipson 1818*, TAN.

**Archidium subulatum* Müll.Hal. – Beloha Tsihombe, dalle de gneiss, 10/04/1971,
Cornet & Cremers 2014, TAN.

Bartramiaceae

Bartramia gigantea Bory (Crosby *et al.*, 1983)

Bartramia longifolia Hook. (Crosby *et al.*, 1983)

Breutelia diffracta Mitt. (Crosby *et al.*, 1983)

Breutelia gnaphalea P. Beauv. (Crosby *et al.*, 1983)

Breutelia madagassa Thér. var. *madagassa* (Crosby *et al.*, 1983) **End**, Type –
Mont Tsaratanana, alt. 1200 m, 04/1924, *Perrier de la Bathie*, holotype PC.

Breutelia microdonta (Mitt.) Broth. (Crosby *et al.*, 1983; Virtanen, 1997)

Breutelia perrieri Thér. (Crosby *et al.*, 1983)

Breutelia sciuroides Thér. (Crosby *et al.*, 1983)

Breutelia stuhlmannii Broth. (De Sloover, 1975; Crosby *et al.*, 1983)

Breutelia viguieri Cardot (Crosby *et al.*, 1983) **End**, Type – Ambatolampy,
ruisselet près du sommet du Tsiafajavona, alt. 2575 m, 28/11/1912, *Viguier*
1688ter, holotype PC.

Philonotis byssiformis Müll.Hal. (Crosby *et al.*, 1983) **End**, Type – Zone inférieure
des forêts, Nosy Be, *Hildebrandt*, holotype PC.

Philonotis hastata (Duby) Wijk *et* Margad. (Crosby *et al.*, 1983)

Philonotis mauritiana Aongstr. (Crosby *et al.*, 1983)

Philonotis mauritiana var. *stricta* Renaud *et* Cardot (Crosby *et al.*, 1983) **End**,
Type – Plateau central, environs de Tananarive, *Camboué*; Entre
Tananarive et Betafo, *Caussèque*. Fianarantsoa, *Besson*; Ambositra,
Soula; Mont Ambohijanahary, PC, holotype (N.S.).

Philonotis perpusilla Cardot (Crosby *et al.*, 1983) **End**, Type – Zone de savane
occidentale, Marovoay, *Mathieu*, herb (N.S.).

Philonotis perrieri Thér. (Crosby *et al.*, 1983)

Philonotis sparsifolia (Hampe) A. Jaeger (Crosby *et al.*, 1983)

Brachytheciaceae

Aerolindigia capillacea (Hornsch.) M. Menzel (Crosby *et al.*, 1983)

Brachythecium borgenii (Hampe) A. Jaeger (Crosby *et al.*, 1983)

Brachythecium decurrens Cardot (Crosby *et al.*, 1983)

Eurhynchium spinulinerve Kiaer *ex* Cardot (Crosby *et al.*, 1983)

Eurhynchium striatum (Schreb. *ex* Hedw.) Schimp. (Crosby *et al.*, 1983)

Helicodontium fabroniopsis Müll. Hal. (Crosby *et al.*, 1983) **End**, Type – Zone supérieure des forêts, troncs d'arbres à Andrangoloaka, *Sikora*, herb (N.S.).

Palamocladium leskeoides (Hook.) E. Britton (Crosby *et al.*, 1983; Hofmann, 1997)

Rhynchostegiella microtheca (Renauld *et* Cardot) Broth. (Crosby *et al.*, 1983)

Rhynchostegium angustifolium Renauld & Cardot (Crosby *et al.*, 1983) **End**, Type – Zone moyenne des forêts, forêt d'Analamazaotra, *Camboué & Campenon*, herb (N.S.).

Rhynchostegium comorae (Müll.Hal.) A. Jaeger (Crosby *et al.*, 1983)

Rhynchostegium distans Besch. (Crosby *et al.*, 1983)

Rhynchostegium nervosum (Renauld) Cardot (Crosby *et al.*, 1983) **End**, Type – Zone du Plateau central, monts Ankaratra, *Borgen 61*, lectotype BM, isolectotype THR.

Rhynchostegium pseudodistans Cardot (Crosby *et al.*, 1983)

Schimperella rhynchostegioides Thér. (Crosby *et al.*, 1983) **End**, Type – Mont Tsaratanana, alt. 1200 m, 04/1924, *Perrier de la Bathie 176 p.p.*, lectotype PC.

Squamidium brasiliense (Hornsch.) Broth. (Crosby *et al.*, 1983; Allen & Crosby, 1986; Delgadillo, 1995)

Bruchiaceae

Trematodon curvicollis Cardot (Crosby *et al.*, 1983) **End**, Type – Entre Savondronina et Ranomafana, *Besson*, holotype PC.

Trematodon decaryi Thér. (Crosby *et al.*, 1983) **End**, Type – Vallée de l'Anony, sur talus humide, 05/08/1921, *Decary*, holotype PC.

Trematodon lacunosus Renauld & Cardot (Crosby *et al.*, 1983) **End**, Type – Entre Savondronina et Ranomafana, 1892, *Besson*, PC.

Trematodon longicollis Michx. (Crosby *et al.*, 1983)

Trematodon platybasis Müll.Hal. (Crosby *et al.*, 1983) **End**, Type – Alasora, Ambohipo, Tananarive, alt. 1250 m, *Camboué*, holotype PC.

Trematodon reticulatus Müll.Hal. *ex* Geh. (Crosby *et al.*, 1983) **End**, Type – Zone moyenne des forêts, à l'Est d'Ambatondrazaka, *Rutemberg*, herb (N.S.).

Trematodon viguieri Cardot (Crosby *et al.*, 1983)

Bryaceae

Anomobryum filiforme var. *madagassum* Renauld *et* Cardot (Crosby *et al.*, 1983) **End**, Type – Zone de plateau central, Imerina, *Camboué*, herb (N.S.).

Anomobryum julaceum (P. Gaertn., B. Mey. *et* Scherb.) Schimp. var. *julaceum* (Ochi, 1972; Crosby *et al.*, 1983)

Brachymenium acuminatum Harv. (Ochi, 1972; Crosby *et al.*, 1983; Delgadillo, 1995)

Brachymenium apiculatum P. Beauv. (Crosby *et al.*, 1983)

Brachymenium capitulatum (Mitt.) Kindb. (Crosby *et al.*, 1983)

- Brachymenium exile* (Dozy et Molck.) Bosch et Sande Lac. (Ochi, 1972; Crosby et al., 1983; Delgadillo, 1995)
- Brachymenium leptophyllum* (Bruch et Schimp. ex Müll.Hal.) Bruch & Schimp. ex A. Jaeger (Crosby et al., 1983)
- Brachymenium madagassum* Hampe (Ochi, 1972; Crosby et al., 1983) **End**, Type – Plateau central, 1869, *Borgen*, holotype PC.
- Brachymenium nepalense* Hook. (Ochi, 1972; Crosby et al., 1983; Pócs & Geissler, 2002)
- Brachymenium nigrescens* Besch. (Ochi, 1972; Crosby et al., 1983)
- Brachymenium notarisii* (Mitt.) A.J. Shaw (Crosby et al., 1983)
- Brachymenium philonotula* Broth. (Ochi, 1972; Crosby et al., 1983)
- Brachymenium pulchrum* Hook. (Ochi, 1972; Crosby et al., 1983; Tixier, 1995)
- Brachymenium rigidum* Broth. et Paris (Crosby et al., 1983)
- Bryum albo-marginatum* Cardot (Ochi, 1972; Crosby et al., 1983) **End**, Type – Mont Tsaratanana, alt. 1200-2400 m, 4/1924, *Perrier de la Bathie s. n.*, holotype PC#
- Bryum alpinulum* var. *levieri* Renaud et Cardot (Crosby et al., 1983) **End**, Type – Zone inférieure des forêts, forêt de Fito, *Perrot*, holotype FI#
- Bryum alpinum* Huds. ex With. var. *alpinum* (Ochi, 1972; Ochi, 1973; Crosby et al., 1983)
- Bryum apiculatum* Schwaegr. (Ochi, 1972; Crosby et al., 1983)
- Bryum arachnoideum* Müll.Hal. (Ochi, 1972; Crosby et al., 1983)
- Bryum argenteum* Hedw. var. *argenteum* (Ochi, 1972; Crosby et al., 1983; Pócs & Geissler, 2002)
- Bryum aubertii* (Schwaegr.) Brid. (Ochi, 1972; Crosby et al., 1983)
- Bryum billardierei* Schwaegr. var. *billardierei* (Ochi, 1972; Mohamed, 1979; Crosby et al., 1983)
- Bryum caespiticium* Hedw. var. *caespiticium* (Pócs & Geissler, 2002)
- Bryum capillare* Hedw. var. *capillare* (Ochi, 1972; Crosby et al., 1983)
- Bryum coronatum* Schwaegr. (Ochi, 1972; Crosby et al., 1983; Pócs & Geissler, 2002)
- Bryum dichotomum* Hedw. (Crosby et al., 1983)
- Bryum erythrocaulon* (Schwäegr.) Brid. (Mohamed, 1979; Crosby et al., 1983)
- Bryum huillense* Welw. et Duby (Ochi, 1972; Crosby et al., 1983; Pócs & Geissler, 2002)
- Bryum imerinanus* O'Shea (O'Shea, 2008)
- Bryum leptospeiron* Müll.Hal. (Crosby et al., 1983)
- Bryum megalacrion* Schwaegr. (Ochi, 1972; Crosby et al., 1983)
- Bryum neelgheriense* var. *wichurae* (Broth.) Mohamed (Pócs & Geissler, 2002)
- Bryum paradoxum* Schwaegr. (Ochi, 1972; Crosby et al., 1983; Delgadillo, 1995)
- Bryum perrieri* Thér. (Crosby et al., 1983) **End**, Type – Forêt du centre, alt. 2000 m, *Perrier de la Bathie 12127p.p.*, holotype PC.
- Bryum pseudotriquetrum* (Hedw.) P. Gaertn., B. Mey. et Scherb. var. *pseudotriquetrum* (Crosby et al., 1983)
- Bryum purpureonigrum* Duby (Crosby et al., 1983) **End**, Type – unknown.
- Bryum savondroniticus* O'Shea (Crosby et al., 1983; O'Shea, 2008) **End**, Type – Between Savondronina and Ranomafana, *Besson*, herb (N.S.).
- Bryum subargenteum* Hampe (Ochi, 1972; Crosby et al., 1983)
- Bryum viguieri* Thér. (Ochi, 1972; Crosby et al., 1983)

- Bryum voeltzkowii* Broth. (Ochi, 1972; Mohamed, 1979; Crosby *et al.*, 1983)
Mniobryum perlaxum Thér. et P. de la Varde (Crosby *et al.*, 1983) **End**, Type – Totohaza, 05/1931, Grainville, holotype PC.
Rhodobryum commersonii (Schwaegr.) Brid. (Crosby *et al.*, 1983; Pócs & Geissler, 2002)
Rhodobryum giganteum (Schwaegr.) Paris (Crosby *et al.*, 1983; Ochi, 1972)
Rhodobryum ontariense (Kindb.) Paris (Crosby *et al.*, 1983)
- Calymperaceae**
Calymperes afzelii Sw. (Crosby *et al.*, 1983; Pócs & Geissler, 2002)
Calymperes erosum Müll.Hal. (Crosby *et al.*, 1983)
Calymperes hispidum Renaud et Cardot (Crosby *et al.*, 1983; Ellis, 1988)
Calymperes loucoubense Besch. (Crosby *et al.*, 1983) **End**, Type – Zone inférieure des forêts, Nosy Be, Lokobe, 1879, Marie, holotype BM.
Calymperes palisotii Schwaegr. (Crosby *et al.*, 1983)
Calymperes pallidum Mitt. (Crosby *et al.*, 1983; Delgadillo, 1995)
 Calymperes sanctae-mariae* var. **mayottense Besch. – Mananjary, tronc de Pandanus, 14/07/1972, Cornet & Cremers 2250, TAN.
Calymperes taitense (Sull.) Mitt. (Crosby *et al.*, 1983; Orbán, 1995)
Calymperes tenerum Müll.Hal. (Crosby *et al.*, 1983)
Calymperes venezuelanum (Mitt.) Broth. ex Pittier (Orbán, 2000)
Leucophanes hildebrandtii Müll.Hal. (Crosby *et al.*, 1983; Salazar Allen, 1993)
Leucophanes renaudii Cardot (Crosby *et al.*, 1983; Salazar Allen, 1993; Pócs & Geissler, 2002)
Leucophanes rodriguezii Müll.Hal. (Salazar Allen, 1993)
Mitthyridium fasciculatum (Hook. et Grev.) H. Rob. var. **fasciculatum** (Reese, 1991)
Mitthyridium subflavum (Renaud & Cardot) H. Rob. (Müller, 1897; Crosby *et al.*, 1983)
Octoblepharum africanum (Broth.) Cardot (Crosby *et al.*, 1983)
Octoblepharum albidum Hedw. (Crosby *et al.*, 1983; Pócs & Geissler, 2002)
Syrrhodon africanus (Mitt.) Paris var. **africanus** (Crosby *et al.*, 1983)
Syrrhodon africanus var. **mandrakensis** (Tixier) W.D. Reese (Tixier, 1992; Pócs & Geissler, 2002)
Syrrhodon albidus (E.B. Bartram) L.T. Ellis subsp. **integrifolius** (Pócs & Geissler, 2002)
Syrrhodon apertifolius Besch. (Ellis, 1995)
Syrrhodon armatissimus W.D. Reese (Reese, 1991; Orbán, 1995)
Syrrhodon armatus (Bizot et Onr.) Orbán and W.D. Reese subsp. **insularus** (Orbán, 1977)
Syrrhodon asper Mitt. (Een, 1993)
Syrrhodon cuneifolius Thér. (Orbán, 1981; Crosby *et al.*, 1983; Pócs & Geissler, 2002) **End**, Type – Massif de l'Ankaizina, alt. 1200 m, 04/1923, Decary, holotype PC.
Syrrhodon dimorphophyllus L.T. Ellis (Ellis, 2005)
Syrrhodon gardneri (Hook.) Schwaegr. (Orbán, 1981; Crosby *et al.*, 1983; Ellis, 2002; Pócs & Geissler, 2002)
Syrrhodon gaudichaudii Mont. (Orbán, 1981; Crosby *et al.*, 1983; Ellis, 2005)
Syrrhodon graminifolius Renaud et Cardot (Orbán, 1981; Crosby *et al.*, 1983)

- Syrrhopodon hispidocostatus* Renauld et Cardot in Renauld (Orbán, 1978; Orbán, 1981; Crosby et al., 1983; Pócs & Geissler, 2002; Ellis, 2003; Ellis, 2005)
Syrrhopodon involutus Schwaegr. (Orbán, 1981; Crosby et al., 1983)
Syrrhopodon mauritianus Müll.Hal. ex Aongstr. (Orbán, 1981; Crosby et al., 1983)
Syrrhopodon parasiticus (Sw. ex Brid.) Besch. (Crosby et al., 1983)
Syrrhopodon pottioides Orbán (Orbán, 1995)
Syrrhopodon prolifer var. *acanthoneuros* (Müll.Hal.) Müll.Hal. (Orbán, 1981; Crosby et al., 1983; Ellis, 2003)
Syrrhopodon prolifer Schwaegr. var. *prolifer* (Orbán, 1981; Crosby et al., 1983; Delgadillo, 1995)
Syrrhopodon pulcher W.D. Reese (Orbán, 1995)
Syrrhopodon spiralis Renauld et Cardot (Ellis, 2005)
Syrrhopodon tixieri W.D. Reese (Tixier, 1992) **End**, Type – Ranomafana, Fianarantsoa, route de Mananjary, pk 24, corticole, alt. 900 m, *Tixier 10152*, holotype PC, paratype MO.
Syrrhopodon vardei L.T. Ellis (Ellis, 2005)

Catagoniaceae

- Catagonium nitens* (Brid.) Cardot subsp. *nitens* (Crosby et al., 1983)

Cryphaeaceae

- Cryphaea jamesonii* Taylor (Crosby et al., 1983; Rao, 2001)
Cryphaea rutenbergii Müll.Hal. (Crosby et al., 1983; Rao, 2001)
Schoenobryum concavifolium (Griff.) Manuel (Crosby et al., 1983; O'Shea, 2003)

Daltoniaceae

- Adelothecium bogotense* Hampe (Crosby et al., 1983; Delgadillo, 1995)
Calypstrochaeta asplenioides (Brid.) Crosby (Crosby et al., 1983)
Daltonia angustifolia Dozy et Molk. var. *angustifolia* (Crosby et al., 1983)
Daltonia cardotii Bizot et Onr. (Crosby et al., 1983)
Daltonia forsythii Cardot (Crosby et al., 1983) **End**, Type – Zone moyenne des forêts, forêt d'Ambohimitombo, alt. 1350 m, 1895, *Forsyth Major*, holotype PC.
Daltonia latimarginata Besch. (Crosby et al., 1983)
Daltonia latimarginata var. *madagassa* Renauld (Crosby et al., 1983)
 **Distichophyllum mascarenicum* Besch. – Marojejy National Park, scattered elfin forest, soil bank above the stream, S 14°26' E 49°45', alt. 1050 m, *Magill, Pócs & La Farge 9971*, TAN.
Distichophyllum rakotomariae Crosby (Crosby et al., 1983; Touw, 1993) **End**, Type – Montagne d'Ambre, Diégo-Suarez, alt. 900-1100 m, *M.R. & C.A Crosby 6883*, holotype MO, isotypes PC, TAN.

Dicranaceae

- Anisothecium madagassum* Thér. (Crosby et al., 1983) **End**, Type – Montagne d'Ambre, forêt, alt. 1000-1200 m, 10/1926, *Perrier de La Bathie*, holotype PC.
Aongstroemia filiformis (P. Beauv.) Wijk et Margad. (Crosby et al., 1983; Delgadillo, 1995)
Aongstroemia julacea (Hook.) Mitt. (Crosby et al., 1983)
Dicranella acroclada Cardot (Crosby et al., 1983)

- Dicranella borbonica* var. *madagascariensis* Thér. (Crosby *et al.*, 1983) **End**, Type – Montagne d'Ambre, Forêt du versant oriental, 1899, Girod, holotype PC.
- Dicranella madagassa* Renauld (Crosby *et al.*, 1983)
- Dicranella pervilleana* Besch. (Crosby *et al.*, 1983)
- Dicranella polii* Renauld et Cardot (Crosby *et al.*, 1983)
- Dicranella subsubulata* (Hampe ex Müll.Hal.) A. Jaeger (Crosby *et al.*, 1983)
- Dicranoloma billardierei* (Brid. ex Anon.) Paris (Crosby *et al.*, 1983)
- Dicranoloma billardieri* var. *patentifolium* (Renauld et Paris) Thér. (Crosby *et al.*, 1983)
- Dicranoloma billardieri* var. *scopareolum* (Müll.Hal.) Thér. (Crosby *et al.*, 1983)
- Dicranum johnstonii* Mitt. (Pócs & Geissler, 2002)
- Holomitrium borbonicum* Besch. (Crosby *et al.*, 1983)
- Holomitrium borbonicum* var. *hamatum* (Müll.Hal.) Thér. (Crosby *et al.*, 1983)
- Holomitrium camptocarpum* P. de la Varde (Crosby *et al.*, 1983) **End**, Type – Pentas orientales du massif de Marojejy, à l'Ouest de la rivière Manantenina, affluent de la Lokoho, sylvie à lichens sur gneiss et quartzite, alt. 1400 m, 15/12/1948, *Humbert*, holotype PC.
- Holomitrium cylindraceum* var. *cucullatum* (Besch.) Wijk et Margad. (Crosby *et al.*, 1983)
- Holomitrium cylindraceum* (P. Beauv.) Wijk & Margad. var. *cylindraceum* (Crosby *et al.*, 1983)
- Holomitrium cylindraceum* var. *obtusifolium* (Besch.) Wijk et Margad. (Crosby *et al.*, 1983)
- Holomitrium gracilisetum* Thér. (Crosby *et al.*, 1983) **End**, Type – Ankaizina, alt. 1200-1500 m, 04/1933, *Decary*, holotype PC.
- Holomitrium hillieri* Thér. (Crosby *et al.*, 1983) **End**, Type – Forêt de Manongarivo, entre Nosy Be et Analalava, alt. 600 m, S 13°55'00" E 48°24'00", 1909, *Perrier de la Bathie*, holotype PC.
- Holomitrium lepervanchei* Thér. (Crosby *et al.*, 1983)
- Holomitrium rhyparodictyon* P. de la Varde (Crosby *et al.*, 1983) **End**, Type – Pente orientale du massif de Marojejy, sylvie à lichens et végétation éricoïde des sommets, affluent de la Lokoho, alt. 1500 m, 17/12/1948, *Humbert*, holotype PC.
- Holomitrium subglobosum* Thér. (Crosby *et al.*, 1983) **End**, Type – Ifanadina, forêt, herb (N.S.).
- Leptotrichella minuta* (Hampe) Ochyra (Crosby *et al.*, 1983)
- Leptotrichella pallidiseta* (Brid.) Ochyra (Crosby *et al.*, 1983) **End**, Type – unknown.
- Leucoloma albocinctum* Renauld et Cardot (Crosby *et al.*, 1983; La Farge, 2002c)
- Leucoloma allorgei* Thér. (Crosby *et al.*, 1983; La Farge, 2002c) **End**, Type – Befotaka, 20/08/1926, *Decary*, holotype PC.
- Leucoloma ambreanum* Renauld et Cardot (Crosby *et al.*, 1983; La Farge, 2002c) **End**, Type – Montagne d'Ambre, près de Diégo-Suarez, 1890, *Chénagon*, holotype PC.
- Leucoloma bifidum* (Brid.) Brid. (Crosby *et al.*, 1983)
- Leucoloma boivinianum* Besch. var. *boivinianum* (Crosby *et al.*, 1983)

- Leucoloma boivinianum* var. *brevifolium* Renauld (Crosby *et al.*, 1983) **End**, Type – Betsileo, entre Savondronina et Ranomafana, 1892, *Besson*, holotype PC.
- Leucoloma breviperculatum* Dixon (Crosby *et al.*, 1983; La Farge, 2002c) **End**, Type – Vohémar, 1814, *Thompson 30*, holotype BM.
- Leucoloma brotheri* Renauld (Crosby *et al.*, 1983; La Farge, 2002c)
- **Leucoloma caespitulans* (Müll.Hal.) A. Jaeger – Montagne des Français, bois mort, alt. 400 m, 25/08/1973, *Cremers 2657*, TAN.
- Leucoloma candidum* Broth. (Crosby *et al.*, 1983; La Farge, 2002c) **End**, Type – Sainte Marie, East Madagascar, 1904, *Voeltzkow*, holotype BR.
- Leucoloma capillifolium* Renauld (Crosby *et al.*, 1983; La Farge, 2002c) **End**, Type – Sainte Marie, Sahasifotro, troncs d'arbres, 1894, *Darbould*, lectotype PC.
- Leucoloma chrysobasilare* (Müll.Hal.) A. Jaeger var. *chrysobasilare* (Crosby *et al.*, 1983)
- Leucoloma cirrosulum* Renauld (Crosby *et al.*, 1983; La Farge, 2002c) **End**, Type – Forêt d'Analamazaotra, 1891, *Camboué & Campenon*, holotype PC.
- Leucoloma crosbyi* La Farge-England (La Farge-England, 1992; La Farge, 2002a; La Farge, 2002c) **End**, Type – Diégo-Suarez, Montagne d'Ambre, Parc National, 10 km along trail between Petit Lac and Grand Lac, S 12°34' E 49°12', 1972, *M.R. & C.A Crosby 7167, 13.xi.* holotype MO, isotypes ALTA, TAN.
- Leucoloma cuneifolium* (Hampe ex Müll.Hal. et Geh.) C.H. Wright (Crosby *et al.*, 1983; La Farge, 2002b; La Farge, 2002c)
- Leucoloma decaryi* Thér. (Crosby *et al.*, 1983; La Farge, 2002c) **End**, Type – Massif d'Ankaizina, 10/06/1923, *Decary*, holotype PC.
- Leucoloma delicatulum* Renauld (Crosby *et al.*, 1983; La Farge, 2002c)
- Leucoloma dichelymoides* (Müll.Hal.) A. Jaeger (Crosby *et al.*, 1983; La Farge, 2002a)
- Leucoloma fontinaloides* Dixon (Crosby *et al.*, 1983; La Farge, 2002a; La Farge, 2002c) **End**, Type – Ambohimomba forest, Tanala, 05/01/1895, *Forsyth-Major 473 b*, holotype BM.
- Leucoloma fuscifolium* Besch. (Crosby *et al.*, 1983)
- Leucoloma fuscifolium* var. *crispatulum* Renauld (Crosby *et al.*, 1983)
- Leucoloma garnieri* Paris & Renauld (Crosby *et al.*, 1983; La Farge, 2002c) **End**, Type – Ad radices arboris “Jisy”, Dictae secus rivulum “Pleurs des Bœufs”, 24/08/1904, *Savelli*, lectotype PC.
- Leucoloma garnieri* f. *aquaticum* Thér. (Crosby *et al.*, 1983; La Farge, 2002c) **End**, Type – Massif de l'Andringitra, 1921, *Perrier de la Bathie*, holotype PC.
- Leucoloma grandidieri* Renauld et Cardot (Crosby *et al.*, 1983; La Farge-England, 1992; La Farge, 2002a; La Farge, 2002c) **End**, Type – Forêt d'Analamazaotra, 1891, *Camboué & Campenon*, lectotype PC.
- Leucoloma grimmioides* P. de la Varde (Crosby *et al.*, 1983; La Farge, 2002b; La Farge, 2002c)
- Leucoloma humberitii* P. de la Varde (Crosby *et al.*, 1983; La Farge, 2002b; La Farge, 2002c) **End**, Type – Pentas orientales du massif de Marojejy, à l'ouest de la rivière Manantenina, affluent de la Lokoho sylvie à lichens sur gneiss et quartzite, alt. 1400 m, 15/12/1948, *Humbert*, holotype PC.
- Leucoloma incrassatum* Thér. (Crosby *et al.*, 1983; La Farge, 2002c) **End**, Type – Massif de l'Ikongo, rochers humides en forêt, *Decary*, holotype PC.

- Leucoloma lepervancheri* Besch. (La Farge, 2002a; La Farge, 2002c)
- Leucoloma longifolium* (Brid.) Wijk *et* Margad. (Crosby *et al.*, 1983; La Farge, 2002c)
- Leucoloma madagascariense* La Farge (La Farge, 2002a; La Farge, 2002c) **End**, Type – Province Tamatave, Andasibe (Périnet), Reserve Forestière, montane rainforest with shady, wet habitats along stream leading to lac vert, Canopy reaching 25 m, mostly closed, with tall palms and bamboo, alt. 920-980 m, S 18°54'00" E 48°25'3", 16/03/1990, *La Farge-England* 5788, holotype ALTA, isotypes MO, TAN.
- Leucoloma marojeziense* La Farge (La Farge, 2002a; La Farge, 2002b; La Farge, 2002c) **End**, Type – Province Diégo-Suarez, Tahirin-javaboahary Marojejy, north of Manantenina and Loko River Valley, slopes of the Marojejy massif above Mandena village, S 14°26' E 49°44', *La Farge-England* 6298, holotype ALTA, isotypes MO, TAN.
- Leucoloma membranaceum* La Farge (La Farge, 2002a)
- Leucoloma ochrobasilare* Ren. (Crosby *et al.*, 1983; La Farge, 2002c)
- Leucoloma ochrobasilare* (Thér.) La Farge subsp. *longifolium* (Crosby *et al.*, 1983; La Farge, 2002a; La Farge, 2002c) **End**, Type – Mont Tsaratanana, forêt à sous bois herbacé, alt. 1200-2400 m, 04/1924, *Perrier de la Bathie*, holotype PC.
- Leucoloma ochrobasilare* Renauld subsp. *ochrobasilare* (Crosby *et al.*, 1983; La Farge, 2002a)
- Leucoloma oncophorellum* Müll.Hal. (Crosby *et al.*, 1983; La Farge, 2002c) **End**, Type – lectotype PC.
- Leucoloma perrieri* Thér. (Crosby *et al.*, 1983; La Farge, 2002c) **End**, Type – Forêt à l'Est de Tananarive, 11/1927, *Perrier de la Bathie*, holotype PC, isotype FH.
- Leucoloma persecundum* Besch. (Crosby *et al.*, 1983)
- Leucoloma persecundum* var. *perrotii* Renauld (Crosby *et al.*, 1983; La Farge, 2002c) **End**, Type – Environs d'Andevoranto, 1895, *Perrot*, lectotype BM.
- Leucoloma pumilum* C.H. Wright (Crosby *et al.*, 1983) **End**, Type – Sur le Plateau central, à Alaby, près de Maritandrano, *Rutenberg*, herb (N.S.).
- Leucoloma pusillum* Cardot (Crosby *et al.*, 1983; La Farge, 2002c) **End**, Type – Diégo-Suarez, zone inférieure des forêts, sur écorces, *Chénagon*, lectotype PC.
- Leucoloma rutenbergii* (Geh.) C.H. Wright (Crosby *et al.*, 1983; La Farge, 2002c) **End**, Type – Ambatondrazaka, Analamazaotra, *Rutenberg*, lectotype PC.
- Leucoloma rutenbergii* var. *abbreviatum* Renauld (Crosby *et al.*, 1983) **End**, Type – Forêt d'Alakaty, *Perrot*; Forêt d'Analamazaotra, *Camboué & Campenon*; holotype (N.S.).
- Leucoloma rutenbergii* var. *elatum* Renauld (Crosby *et al.*, 1983; La Farge, 2002c)
- Leucoloma rutenbergii* var. *perrotii* Renauld (Crosby *et al.*, 1983; La Farge, 2002c) **End**, Type – Environs d'Andevoranto, 1895, *Perrot*, holotype PC, isotypes BR, FH.
- Leucoloma sanctae-mariae* Besch. (Crosby *et al.*, 1983; La Farge, 2002a; La Farge, 2002c)
- Leucoloma seychellense* Besch. (Crosby *et al.*, 1983; La Farge, 2002a; La Farge, 2002c)
- Leucoloma sinuosulum* Müll.Hal. *ex* Besch. (Crosby *et al.*, 1983)

- Leucoloma squarrosulum* (Geh.) Wright (Crosby *et al.*, 1983) **End**, Type – Forêt de Vondrozona, 11/1877, *Rutenberg*, holotype PC.
- Leucoloma subchrysobasilare* Renaud (Crosby *et al.*, 1983; La Farge, 2002a; La Farge, 2002c) **End**, Type – In montibus Ankaratra, 1877, *Borgen*, lectotype PC.
- Leucoloma talazaccii* Renaud *et* Cardot (Crosby *et al.*, 1983; La Farge, 2002a; La Farge, 2002c) **End**, Type – Ambondrombe, 1894, *Talazac*, holotype PC, isotypes BR, PC, S.
- Leucoloma thraustum* Hampe *ex* Besch. (Crosby *et al.*, 1983; La Farge, 2002a; La Farge, 2002c) **End**, Type – Alamazantraskoven, *Borchgrevink*, lectotype BM.
- Leucoloma thuretii* Besch. (Crosby *et al.*, 1983; La Farge, 2002a; La Farge, 2002c) **End**, Type – Côte Est, près de la cascade de Simiang, *Bernier*, lectotype BM.
- Leucoloma tuberculosum* Renaud (Crosby *et al.*, 1983; La Farge, 2002a; La Farge, 2002c) **End**, Type – Forêt d'Analamazaotra, 1891, *Camboué & Campenon*, holotype PC.
- Leucoloma villaumei* Thér. (Crosby *et al.*, 1983; La Farge, 2002c) **End**, Type – Betsileo, *Villaume*, holotype PC.
- Microcampylopus laevigatus* (Thér.) Giese & J.-P. Frahm (Crosby *et al.*, 1983; Giese & Frahm, 1985)
- Pseudephemerum nitidum* (Hedw.) Reimers (Crosby *et al.*, 1983)

Ditrichaceae

- Ceratodon purpureus* (Reichardt) Burley subsp. *convolutus* (Crosby *et al.*, 1983; Burley & Pritchard, 1990; Een, 1993)
- Distichium capillaceum* (Hedw.) Bruch, Schimp. *et* W. Guembel var. *capillaceum* (Crosby *et al.*, 1983)
- Ditrichum difficile* (Duby) M. Fleisch. (Crosby *et al.*, 1983; Delgadillo, 1995)
- Ditrichum luteum* Dixon *et* Thér. (Crosby *et al.*, 1983) **End**, Type – Mont Tsaratanana, *Perrier de la Bathie*, holotype PC.
- Ditrichum madagassum* (Renaud *et* Cardot) Paris (Crosby *et al.*, 1983) **End**, Type – Andrangoloaka, 1891, *Sikora*, holotype PC.
- Ditrichum pallidum* (Hedw.) Hampe (Crosby *et al.*, 1983)
- Garckea flexuosa* (Griff.) Margad. *et* Nork. (Crosby *et al.* 1983)
- Pleuridium nervosum* (Hook.) Mitt. (Tixier, 1979b; Crosby *et al.*, 1983)

Entodontaceae

- Campylodontium flavescens* var. *viride* Cardot (Crosby *et al.*, 1983) **End**, Type – Plateau central, environs de Tananarive, *Sibree*, holotype BM#
- Entodon corbieri* Renaud *et* Cardot (Crosby *et al.*, 1983; Tixier, 1995) **End**, Type – Montagne d'Ambre, près de Diégo-Suarez, *Leloutre*, holotype CHE#
- Entodon felicis* Renaud *et* Cardot (Crosby *et al.*, 1983) **End**, Type – Fianarantsoa (zone du Plateau central), *Félix*, holotype PC.
- Entodon felicis* var. *julaceus* Renaud *et* Cardot (Crosby *et al.*, 1983) **End**, Type – Plateau central, Ambohimahatsara, près d'Ambositra, *Berthieu*, herb (N.S.).
- Entodon madagassus* Geh. (Crosby *et al.*, 1983) **End**, Type – Ambatondrazaka, *Borgen 100*, holotype PC.

Entodon rutenbergii Geh. (Crosby *et al.*, 1983) **End**, Type – Mont Ankaratra, Borgen 101, holotype PC.

Erythrodontium lacoutourei Renaud *et* Cardot (Crosby *et al.*, 1983) **End**, Type – Fianarantsoa, 1905, *Villaume*, holotype BM#

Mesonodon flavescens (Hook.) W.R. Buck (Crosby *et al.*, 1983)

Erpodiaceae

Erpodium beccarii Müll.Hal. *ex* Venturi var. *beccarii* (Tixier, 1979b; Crosby *et al.*, 1983)

Erpodium madagassum Paris *et* Renaud (Crum, 1972; Crosby *et al.*, 1983) **End**, Type – Antsirabe, vallée de la rivière Andrantsay, *Galinon*, PC, holotype (N.S.).

Eustichiaceae

Eustichia longirostris (Brid.) Brid. (Crosby *et al.*, 1983)

Fabroniaceae

Fabronia campenonii Renaud *et* Cardot (Crosby *et al.*, 1983) **End**, Type – Forêt d'Amperifery, alt. 1300 m, 06/1890, *Campenon*, holotype PC.

Fabronia crassiretis Renaud *et* Cardot (Crosby *et al.*, 1983)

Fabronia fastigiata Renaud *et* Cardot (Crosby *et al.*, 1983) **End**, Type – Zone du Plateau central, Fianarantsoa, 1891, *Besson*, holotype PC.

Fabronia fastigiata var. *asperula* Renaud *et* Paris (Crosby *et al.*, 1983) **End**, Type – Zone moyenne des forêts, cercle militaire des Bariï, secteur d'Ivondro, 18/11/1900, *Croll*, holotype PC.

Fabronia garnieri (Paris *et* Renaud) Renaud *et* Paris (Crosby *et al.*, 1983) **End**, Type – Betafo, rive de la Mania, 1902, holotype PC.

Fabronia lachenaudii Renaud (Crosby *et al.*, 1983) **End**, Type – District de Fihanonana, 3/1901, *Ab indig. Coll 30*, holotype PC.

Fabronia motelayi Renaud *et* Cardot (Crosby *et al.*, 1983) **End**, Type – Tananarive, dans les jardins de la Résidence, sur les troncs, 15/04/1897, *Dorr*, holotype PC.

Fabronia villaumii Renaud *et* Cardot (Crosby *et al.*, 1983) **End**, Type – Fianarantsoa, 1905, *Villaume 722*, holotype PC.

Rhizofabronia persoonii var. *sphaerocarpa* (Dusén) Bizot *ex* Ochrya (Crosby *et al.*, 1983; Touw, 1993)

Fissidentaceae

Fissidens angustifolius Sull. (Bruggeman-Nannenga, 2009; Bruggeman-Nannenga & Arts, 2010)

Fissidens aristifer Brugg.-Nann. (Bruggeman-Nannenga, 2009)

Fissidens asplenioides Hedw. (Crosby *et al.*, 1983; Bruggeman-Nannenga & Arts, 2010)

Fissidens bogosicus Müll.Hal. *in* Venturi (Crosby *et al.*, 1983; Bruggeman-Nannenga & Arts, 2010)

Fissidens borgenii Hampe (Bruggeman-Nannenga, 1993)

Fissidens crispulus Brid. (Crosby *et al.*, 1983; Bruggeman-Nannenga & Arts, 2010)

**Fissidens cryptarum* Müll.Hal. – Tampolo Tamatave, littoral forest base of tree, earthen insect nest, ant or termit, S 17°16' E 49°24', 26/10/1972, *M.R. & C.A Crosby 6700, 6702, 6697, TAN.*

Fissidens cryptoneuron P. de la Varde (Crosby *et al.*, 1983)

- Fissidens curvatus* Hornsch. var. *curvatus* (Crosby *et al.*, 1983; Bruggeman-Nannenga & Arts, 2010)
- **Fissidens cyathaeicola* Brugg.Nann. – Marojejy National Park, On tree fern 220 m up trail from camp Mantella, alt. 464 m, 24/11/2009, *Wilding 4*, det. Bruggeman-Nannenga; Marojejy National Park, on tree fern 300 m up trail from camp Mantella, alt. 465 m, 24/11/09, *Wilding 6*, det. Bruggeman-Nannenga.
- Fissidens darntyi* Schimp. (Crosby *et al.*, 1983)
- Fissidens ellipticus* Besch. (Crosby *et al.*, 1983)
- Fissidens flaccidus* Mitt. (Bruggeman-Nannenga, 2009)
- Fissidens grainvillei* Thér. (Crosby *et al.*, 1983) **End**, Type – Kiangara, sur écorces, en très petite quantité, 1931, *Grainville*, holotype PC.
- Fissidens hookerioides* Bizot et Onr. (Crosby *et al.*, 1983) **End**, Type – Tananarive, domaine des Frères de Soavimbahoaka, sur latérite ombragée, alt. 1400 m, 06/07/1971, *Onraedt 71M5137*, holotype PC.
- Fissidens hymenodon* Besch. (Crosby *et al.*, 1983)
- Fissidens inclusus* Bizot et Dury ex Pócs (Bruggeman-Nannenga, 2009)
- Fissidens intramarginatus* (Hampe) A. Jaeger (Bizot, 1974; Crosby *et al.*, 1983; Bruggeman-Nannenga & Arts, 2010)
- Fissidens leucocinctus* Hampe (Crosby *et al.*, 1983; Bruggeman-Nannenga & Arts, 2010)
- Fissidens madecassus* Müll.Hal. (Crosby *et al.*, 1983; Bruggeman-Nannenga, 2009; Bruggeman-Nannenga & Arts, 2010)
- Fissidens mariei* (Besch.) Broth. (Crosby *et al.*, 1983) **End**, Type – Nosy Be, forêt de Lokobe, 04/1879, *Marie*, holotype PC.
- Fissidens motelayi* Renauld et Cardot (Crosby *et al.*, 1983) **End**, Type – Andriba, 1897, *Dorr*, holotype PC.
- Fissidens ovatus* Brid. (Crosby *et al.*, 1983; Bruggeman-Nannenga & Arts, 2010)
- Fissidens pellucidus* Hornsch. var. *pellucidus* (Crosby *et al.*, 1983; Delgadillo, 1995; Bruggeman-Nannenga, 2010)
- Fissidens planifrons* Besch. (Crosby *et al.*, 1983; Bruggeman-Nannenga & Arts, 2010)
- Fissidens platyneuros* Renauld et Cardot (Crosby *et al.*, 1983) **End**, Type – Andevoranto, 1895, *Perrot*, holotype PC.
- Fissidens plumosus* Hornsch. (Bruggeman-Nannenga & Arts, 2010)
- Fissidens pocsii* Bizot et Dury ex Pócs (Bruggeman-Nannenga, 2009; Bruggeman-Nannenga & Arts, 2010)
- Fissidens punctulatus* Sande Lac. (Bruggeman-Nannenga & Arts, 2010)
- Fissidens ramulosus* Mitt. (Crosby *et al.*, 1983; Bruggeman-Nannenga & Arts, 2010)
- Fissidens reflexus* Hampe (Crosby *et al.*, 1983; Bruggeman-Nannenga, 2009)
- Fissidens rosulatus* P. de la Varde (Crosby *et al.*, 1983) **End**, Type – Tananarive, sur talus, 20/01/1907, *Rotereau*, holotype PC.
- Fissidens rufescens* Hornsch. (Bruggeman-Nannenga, 2009)
- Fissidens sciophyllus* f. *sciophyllus* Mitt. (Crosby *et al.* 1983; Bruggeman-Nannenga, 1993; Bruggeman-Nannenga & Arts, 2010)
- Fissidens scleromitrius* (Besch.) Broth. (Bescherelle, 1891; Crosby *et al.*, 1983)
- Fissidens serratus* Müll.Hal. var. *serratus* (Crosby *et al.*, 1983; Delgadillo, 1995; Bruggeman-Nannenga, 2010)

Fissidens submarginatus Bruch *ex* C. Krauss (Crosby *et al.*, 1983; Bruggeman-Nannenga & Arts, 2010)

Fissidens subplanifrons Bizot *et* Onraedt *ex* Brugg.-Nann (Bruggeman-Nannenga, 2009)

Fissidens subundatus Dury (Crosby *et al.*, 1983)

Fissidens zollingeri Mont. (Crosby *et al.*, 1983; Bruggeman-Nannenga & Arts, 2010)

Funariaceae

Entosthodon borbonicus Besch. (Crosby *et al.*, 1983)

Entosthodon marginatulus Müll. Hal. *ex* Geh. (Crosby *et al.*, 1983) **End**, Type – Zone moyenne des forêts, forêt à l'Est d'Ambatondrazaka, *Rutenberg*, herb (N.S.).

**Entosthodon mauritianus* Schimp. *ex* Besch. – Befotaka forêt, S 18°56'47" E 47°06'03", 16/08/1926, *Decary* 77, holotype MO.

Entosthodon renauldii Thér. (Crosby *et al.*, 1983) **End**, Type – Zone du Plateau central, pays Betsileo, 2/1905, *Villaume*, holotype PC, isotype PC, BM.

Funaria decaryi Thér. (Crosby *et al.*, 1983) **End**, Type – Ambovombe, Fort-Dauphin, *Decary*, holotype S.

Funaria delicatula Thér. (Crosby *et al.*, 1983) **End**, Type – Environ de Tananarive, *Perrier de la Bathie*, holotype PC.

Funaria hygrometrica var. *calvescens* (Schwaegr.) Kindb. (Crosby *et al.*, 1983; Pócs & Geissler, 2002)

Funaria imerinensis Cardot (Crosby *et al.*, 1983) **End**, Type – Zone du Plateau central, Imerina, dans un gazon de *Webera decurrens* Ren. & Card, *Villaume*, holotype PC.

Funaria subleptopoda Hampe (Crosby *et al.*, 1983) **End**, Type – Imerina, 2/9/1847, *Borgen*, holotype PC.

Physcomitrium coarctatum Cardot (Crosby *et al.*, 1983)

Physcomitrium dilatatum Renauld *et* Cardot (Crosby *et al.*, 1983) **End**, Type – Environ de Tananarive, in terra, *Camboué*, holotype PC.

Gigaspermaceae

Gigaspermum repens (Hook.) Lindb. (Tixier, 1979b; Crosby *et al.*, 1983)

**Oedipodiella australis* (Wager & Dixon) Dixon – Morondava, forêt, alt. 20 m, 11/04/1979, *Tixier 12114*, TAN.

Grimmiaceae

Grimmia elatior Bruch *ex* Bals.-Criv. *et* De Not. (Crosby *et al.*, 1983)

Grimmia elongata Kaulf. (Crosby *et al.*, 1983)

Grimmia longirostris Hook. (Muñoz, 1998)

Bucklandiella membranaceum (Mitt.) Paris (Crosby *et al.*, 1983)

Hedwigiaceae

**Braunia secunda* (Hook.) Bruch *et* Schimp. – Station forestière de Manjakatempo, rocher, alt. 2600 m, 22/08/1971, *Cremers 1705*, TAN; Ankaratra, sur rocher, 27/03/1972, *Cremers 1957*, TAN; Ankaratra, sur rocher, basaltique, 08/1955, *Bosser 8208*, TAN.

Bryowijkia madagassa Touw (Touw, 1993)

Hedwigia ciliata (Hedw.) Ehrh. *ex* P. Beauv. var. *ciliata* (Crosby *et al.*, 1983)

Hypnaceae

- Ectropothecium chenagonii* Renaud et Cardot (Crosby *et al.*, 1983)
Ectropothecium chenagonii var. *hamatulum* Renaud & Cardot (Crosby *et al.*, 1983) **End**, Type – Entre Vinanitelo et Ikongo, 1892, *Besson*, holotype PC.
Ectropothecium intertextum Renaud et Cardot (Crosby *et al.*, 1983)
Ectropothecium mauritianum Renaud et Cardot (Crosby *et al.*, 1983)
Ectropothecium occultum Renaud et Cardot (Crosby *et al.*, 1983)
Ectropothecium ovalifolium (Besch.) W.R. Buck (Crosby *et al.*, 1983) **End**, Type – Zone inférieure des forêts, Nosy Be, forêt de Lokobe, *Marie*, herb (N.S.).
Ectropothecium paillotii Renaud et Cardot (Crosby *et al.*, 1983)
Ectropothecium perrieri Thér. (Crosby *et al.*, 1983) **End**, Type – Massif de l'Andringitra, alt. 1600 m, 1921, *Perrier de la Bathie*, holotype PC.
Ectropothecium perrotii Renaud et Cardot (Crosby *et al.*, 1983)
Ectropothecium regulare (Brid.) A. Jaeger (Crosby *et al.*, 1983)
Ectropothecium seychellarum Besch. (Crosby *et al.*, 1983)
Ectropothecium tamatavense Broth. (Crosby *et al.*, 1983)
Gammiella ceylonensis (Broth.) B.C. Tan et W.R. Buck (Crosby *et al.*, 1983)
Glossadelphus guineensis (Broth. et Paris) Crosby, B.H. Allen et Magill (Crosby *et al.*, 1983)
Glossadelphus semiscabrus (Renaud et Cardot) Crosby *et al.* (Crosby *et al.*, 1983) **End**, Type – Zone inférieure des forêts, environs d'Andevoranto, 1895, *Perrot*, holotype PC.
Glossadelphus viridis (Renaud et Cardot) Crosby *et al.* (Crosby *et al.*, 1983) **End**, Type – Diégo-Suarez, Montagne d'Ambre, *Chénagon*, holotype PC.
Hypnum jutlandicum Holmen et E. Warncke (Crosby *et al.*, 1983)
Hypnum macrogynum Besch. (Crosby *et al.*, 1983)
Mittenothamnium horridulum (Broth.) Cardot (Crosby *et al.*, 1983)
Mittenothamnium lacouturei (Renaud et Cardot) Cardot (Crosby *et al.*, 1983) **End**, Type – Betsileo, province d'Ambositra, 1906, *Villaume*, holotype BM#
Mittenothamnium limosum (Besch.) Cardot (Crosby *et al.*, 1983)
Mittenothamnium madagassum (Besch.) Cardot (Crosby *et al.*, 1983; Een, 1997)
Mittenothamnium microthamnioides (Geh.) Wijk et Margad. (Crosby *et al.*, 1983; Een, 1997)
Mittenothamnium microthamnioides var. *glauculum* (Cardot) Wijk et Margad. (Crosby *et al.*, 1983) **End**, Type – Forêt de Manongarivo, *Drouhard*, holotype PC#
Mittenothamnium reptans (Hedw.) Cardot (Crosby *et al.*, 1983)
Phyllodon scutellifolius (Besch.) W.R. Buck (Crosby *et al.*, 1983; O'Shea & Buck, 2001) **End**, Type – Nosy Komba, associé à *Hookeria nossiana*, 08/1879, *Marie s.n.*, holotype BM.
Phyllodon truncatulus (Welw. et Duby) W.R. Buck (Crosby *et al.*, 1983)
Rhacopilopsis trinitensis (Müll.Hal.) E. Britton ex Dixon (Crosby *et al.*, 1983)
Rhacopilopsis variegata (Welw. et Duby) M.C. Watling et O'Shea (Buck, 1993; Watling & O'Shea, 2000)
Taxiphyllum taxirameum (Mitt.) M. Fleisch. (Crosby *et al.*, 1983)

Vesicularia alboviridis var. *rufula* (Renauld *et* Cardot) Cardot (Crosby *et al.*, 1983) **End**, Type – Zone inférieure des forêts, Diégo-Suarez, *Chénagon*, holotype PC.

Vesicularia ayresii (Besch.) Broth. (Crosby *et al.*, 1983)

Vesicularia combae (Renauld *et* Cardot) Broth. (Crosby *et al.*, 1983) **End**, Type – Zone inférieure des forêts, Nosy Komba, *Marie*, holotype PC#

Vesicularia crassiramea (Renauld *et* Cardot) Broth. (Crosby *et al.*, 1983)

Vesicularia crassiramea var. *laxifolia* (Renauld *et* Cardot) Cardot (Crosby *et al.*, 1983) **End**, Type – Zone des savanes occidentales, cercle de Maintirano, holotype PC.

Vesicularia galerulata (Duby) Broth. (Crosby *et al.*, 1983)

Vesicularia galerulata var. *subpiligera* (Renauld *et* Paris) Wijk *et* Margad. (Crosby *et al.*, 1983) **End**, Type – Zone du Plateau central, Betafo, rive droite de la Mania, 1901, *Galison*, holotype PC.

Vesicularia hygrobium (Besch.) Broth. (Crosby *et al.*, 1983)

Vesicularia immunda (Renauld) Cardot (Crosby *et al.*, 1983) **End**, Type – Zone du Plateau central, Imerina oriental, *Hildebrandt*, herb (N.S.).

Hypopterygiaceae

Hypopterygium tamarisci (Sw. *ex* Sw.) Brid. *ex* Müll.Hal. (Crosby *et al.*, 1983; Kruijer 1997; Kruijer, 2002)

Lopidium struthiopteris (Brid.) M. Fleisch. (Crosby *et al.*, 1983; Kruijer, 1997; Kruijer, 2002)

Leptodontaceae

Leptodon fuciformis (Brid.) Enroth (Crosby *et al.*, 1983)

Leskeaceae

Pseudoleskea obtusiuscula Renauld *et* Cardot (Crosby *et al.*, 1983) **End**, Type – Zone du Plateau central, Fianarantsoa, troncs d'arbres, 1904, *Villaume*, holotype BM!, isotype PC.

Leucobryaceae

Atractylocarpus madagascariensis (Thér.) Padberg *et* J.-P. Frahm (Crosby *et al.*, 1983)

Campylopus arctocarpus (Besch.) J.-P. Frahm subsp. *madecassus* (Crosby *et al.*, 1983, Frahm, 1985)

Campylopus arcuatus (Brid.) A. Jaeger (Crosby *et al.*, 1983; Frahm, 1985)

Campylopus aureonitens (Müll.Hal.) A. Jaeger (Crosby *et al.*, 1983; Frahm, 1985)

Campylopus cambouei Renauld *et* Cardot (Crosby *et al.*, 1983; Frahm, 1985)

Campylopus catarractilis (Müll.Hal.) Paris (Frahm, 1985)

Campylopus crateris Besch. (Crosby *et al.*, 1983; Frahm, 1985)

Campylopus decaryi Thér. (Crosby *et al.*, 1983; Frahm, 1985)

Campylopus filifolius (Hornsch.) Mitt. (Crosby *et al.*, 1983; Een, 1993)

Campylopus flaccidus Renauld *et* Cardot (Crosby *et al.*, 1983; Frahm, 1985)

Campylopus flexuosus (Hedw.) Brid. var. *flexuosus* (Crosby *et al.*, 1983; Frahm, 1985)

Campylopus hildebrandtii (Müll.Hal.) A. Jaeger (Crosby *et al.*, 1983)

Campylopus jamesonii (Hook.) A. Jaeger (Crosby *et al.*, 1983; Frahm, 1985)

Campylopus julaceus (Renauld *et* Cardot) J.-P. Frahm subsp. *arbogastii* (Crosby *et al.*, 1983; Frahm, 1985)

- Campylopus nanophyllus* Müll.Hal. ex Broth. (Crosby *et al.*, 1983)
Campylopus nivalis (Brid.) Brid. var. *nivalis* (Frahm, 1985)
Campylopus perpusillus Mitt. (Crosby *et al.*, 1983; Frahm, 1985)
Campylopus pilifer Brid. subsp. *pilifer* (Crosby *et al.*, 1983; Frahm, 1985)
Campylopus pseudobicolor Müll.Hal. ex Renauld & Cardot (Crosby *et al.*, 1983; Frahm, 1985)
Campylopus robillardei Besch. (Crosby *et al.*, 1983; Frahm, 1985; Pócs & Geissler, 2002)
Campylopus schmidii (Müll.Hal.) A. Jaeger (Crosby *et al.*, 1983; Frahm, 1985)
Campylopus smaragdinus (Brid.) A. Jaeger (Crosby *et al.*, 1983; Frahm, 1985)
Campylopus thwaitesii (Mitt.) A. Jaeger (Crosby *et al.*, 1983; Frahm, 1985)
Campylopus trachyblepharon (Renauld et Cardot) J.-P. Frahm subsp. *comatus* (Crosby *et al.*, 1983; Frahm, 1985)
Leucobryum acutifolium (Mitt.) Cardot (Crosby *et al.*, 1983)
Leucobryum boivinianum Besch. (Crosby *et al.*, 1983)
Leucobryum boryanum Besch. (Crosby *et al.*, 1983)
Leucobryum boryanum var. *minus* Cardot (Crosby *et al.*, 1983) **End**, Type – Pays Betsileo, sineloco, *Montaul*, herb (N.S.).
Leucobryum cambouei Cardot (Crosby *et al.*, 1983) **End**, Type – *Camboué*, herb (N.S.).
Leucobryum comorensense Müll.Hal. (Crosby *et al.*, 1983; Pócs & Geissler, 2002)
Leucobryum cucullatum Broth. (Crosby *et al.*, 1983)
Leucobryum cucullatum var. *rutenbergii* (Geh.) Cardot (Crosby *et al.*, 1983)
Leucobryum galinonii Cardot et Paris (Crosby *et al.*, 1983) **End**, Type – Betafo, rive droite de la Mania, *Galidon*, holotype PC#
Leucobryum heterodictyon Besch. (Bescherelle, 1891; Crosby *et al.*, 1983) **End**, Type – Sainte Marie, *Marie Edouard Auguste*, holotype PC.
Leucobryum heterodictyon var. *microphyllum* (Cardot) Wijk et Margad. (Crosby *et al.*, 1983) **End**, Type – Ile Sainte Marie, *Marie*, holotype PC#
Leucobryum isleanum Besch. (Crosby *et al.*, 1983)
Leucobryum isleanum var. *molle* (Müll.Hal.) Cardot (Crosby *et al.*, 1983)
Leucobryum madagassum Besch. (Crosby *et al.*, 1983)
Leucobryum mayottense Cardot (Crosby *et al.*, 1983)
Leucobryum parvulum Cardot (Crosby *et al.*, 1983, Pócs & Geissler, 2002) **End**, Type – holotype PC.
Leucobryum perrotii Renauld et Cardot (Crosby *et al.*, 1983, Pócs & Geissler, 2002)
Leucobryum pseudomadagassum Cardot (Crosby *et al.*, 1983) **End**, Type – Zone supérieure des forêts, Imerina, Andrangoloaka, *Hildebrandt*, holotype PC.
Leucobryum sanctae-mariae Cardot (Crosby *et al.*, 1983, Pócs & Geissler, 2002) **End**, Type – Ile Sainte Marie, *Marie*, holotype PC.
Ochrobryum sakalavum Cardot et Paris (Crosby *et al.*, 1983; Allen, 1992; Pócs & Geissler, 2002) **End**, Type – cercle de Maintirano, poste d'Ampoza, près du village de Tahotofoly, sur bois pourri, holotype PC!
- Leucodontaceae**
Leucodon canariensis (Brid.) Schwaegr. (Crosby *et al.*, 1983)
Leucodon rutenbergii Müll.Hal. ex Geh. (Crosby *et al.*, 1983)

Pterogoniadelphus assimilis (Müll.Hal.) Ochyra *et* Zijlstra (Crosby *et al.*, 1983)

Pterogonium gracile (Hedw.) Sm. (Crosby *et al.*, 1983)

Pterogonium gracile var. *madagassum* (Geh.) M. Fleisch. (Crosby *et al.*, 1983)

Leucomiaceae

Leucomium strumosum (Hornsch.) Mitt. (Crosby *et al.*, 1983; Allen, 1987; Pócs & Geissler, 2002)

Meteoriaceae

Aerobryopsis capensis (Müll.Hal.) M. Fleisch. (Crosby *et al.*, 1983)

Barbella capillicaulis (Renauld *et* Cardot) Cardot var. *capillicaulis* (Crosby *et al.*, 1983)

Floribundaria floribunda (Dozy *et* Molk.) M. Fleisch. (Crosby *et al.*, 1983)

Floribundaria floribunda var. *madagassa* (Renauld *et* Cardot) Renauld *et* Cardot (Crosby *et al.*, 1983) **End**, Type – Forêt d’Ambohimombo, *Forsyth Major*, FH; Fianarantsoa, plateau d’Ikongo, entre Savondronina *et* Ranomafana, *et* entre Vinanitelo *et* Ikongo, *Besson*, holotype (N.S.).

Floribundaria floribundula (Müll.Hal.) M. Fleisch. (Crosby *et al.*, 1983)

Floribundaria vaginans (Welw. *et* Duby) Broth. (Crosby *et al.*, 1983)

Papillaria africana (Müll.Hal.) A. Jaeger (Crosby *et al.*, 1983)

Papillaria africana var. *gracilis* (Renauld *et* Cardot) Wijk *et* Margad. (Crosby *et al.*, 1983) **End**, Type – Diégo-Suarez, 1890, *Chenagon*; Entre Vinanitelo *et* Ikongo, 1892, *Besson*. Betsileo, sine loco, *Rev. Montaut*; Entre Savondronina *et* Ranomafana, 1892, *Besson*, holotype (N.S.).

Papillaria borchgrevinkii Kiaer (Crosby *et al.*, 1983)

Papillaria flaccidula Cardot (Crosby *et al.*, 1983) **End**, Type – Zone moyenne des forêts, forêt d’Analamazaotra, *Camboué*, herb (N.S.).

Papillaria perichaetialis (Hampe) A. Jaeger (Crosby *et al.*, 1983) **End**, Type – Analamazaotra, 1871, *Borchgrewink 17*, holotype BM.

Trachypodopsis serrulata (P. Beauv.) M. Fleisch. var. *serrulata* (Van Zanten, 1959; Crosby *et al.*, 1983; Pócs & Geissler, 2002)

Trachypus appendiculatus (Renauld *et* Cardot) Broth. (Van Zanten, 1959; Crosby *et al.*, 1983)

Trachypus bicolor var. *viridulus* (Mitt.) Zanten (Van Zanten, 1959; Crosby *et al.*, 1983)

Meesiaceae

Leptobryum pyriforme (Hedw.) Wilson (Crosby *et al.*, 1983)

Mniaceae

Epipterygium diversifolium Renauld *et* Cardot (Crosby *et al.*, 1983) **End**, Type – Zone des savanes occidentales, cercle de Maintirano, 1901, *Collecteur indigène*, holotype PC.

Mielichhoferia cardotii A.J. Shaw *et* H.A. Crum (Crosby *et al.*, 1983) **End**, Type – Zone de plateau central, Ambohipo, *Camboué*, herb (N.S.).

Mielichhoferia madagassa var. *gracilis* Thér. (Crosby *et al.*, 1983) **End**, Type – Mont Angavokely, alt. 1800 m, 1924, *Drouhard*, holotype PC.

Plagiomnium rynchophorum (Hook.) T.J. Kop. var. *rynchophorum* (Koponen, 1981; Crosby *et al.*, 1983)

Pohlia baronii Wijk *et* Margad. (Crosby *et al.*, 1983)

Pohlia elongata Hedw. var. *elongata* (Crosby *et al.*, 1983; Delgadillo, 1995)

- Pohlia heribaudii* var. *madagassa* (Renauld et Cardot) Wijk et Margad. (Crosby et al., 1983)
Pohlia lacouturei (Thér.) O'Shea (Crosby et al., 1983) **End**, Type – Pays des Betsileo, sur gneiss en décomposition, *Villaume & Lacouture*, herb (N.S.).
Pseudopohlia microstoma (Harv.) Mizush. (Crosby et al., 1983)
Schizymenium commixtum (Thér.) A.J. Shaw (Crosby et al., 1983) **End**, Type – Mont Tsaratanana, forêt à sous-bois herbacé, alt. 1200-2400 m, *Perrier de la Bathie*, holotype PC.
Schizymenium madagassum (Renauld et Cardot ex Cardot) A.J. Shaw (Crosby et al., 1983) **End**, Type – Mont Angavokely, Est Antananarivo, alt. 1800 m, 1924, *Drouhard*, holotype PC.

Neckeraceae

- Homaliodendron exiguum* (Bosch et Sande Lac.) M. Fleisch. (Crosby et al., 1983)
Homaliodendron piniforme (Brid.) Enroth (Crosby et al., 1983; Enroth, 1993)
Neckera remota Bruch et Schimp. ex Müll.Hal. (Crosby et al., 1983)
Neckera valentiniana Besch. (Crosby et al., 1983)
Neckeropsis boiviniana (Besch.) Cardot (Crosby et al., 1983)
 **Neckeropsis disticha* (Hedw.) Kindb. – Brickaville, large trees next to shallow rive, S 18°55' E 48°34', alt. 450 m, 23/10/1972, *M.R. & C.A Crosby 6754*, TAN.
Neckeropsis lepineana (Mont.) M. Fleisch. (Crosby et al., 1983)
Neckeropsis madecassa (Besch.) M. Fleisch. (Crosby et al., 1983)
Orthostichidium pentastichum (Brid.) B.H. Allen et Magill. (Crosby et al., 1983; Allen & Magill, 2007)
Orthostichella rigida (Müll.Hal.) B.H. Allen et Magill. (Allen & Magill, 2007)
Orthostichella versicolor (Müll.Hal.) B.H. Allen et Magill. (Crosby et al., 1983; Allen & Magill, 2007)
Orthostichella longinervis (Renauld et Cardot) B.H. Allen et Magill. (Allen & Magill, 2007)
Orthostichella welwitschii (Duby) B.H. Allen et Magill. (Allen & Magill, 2007)
Pilotrichella flexilis (Hedw.) Aongstr. (Crosby et al., 1983; Allen & Magill, 2003)
Pilotrichella flexilis f. *nudiramulosa* (Müll.Hal.) B.H. Allen et Magill (Allen & Magill, 2003)
Pilotrichella mascarenica (Müll.Hal.) A. Jaeger (Crosby et al., 1983; Allen & Magill, 2003)
Pilotrichella pseudo-imbricata (Müll.Hal.) A. Jaeger (Crosby et al., 1983)
Pinnatella minuta (Mitt.) Broth. (Crosby et al., 1983; Enroth, 1994)
Porotrichum elongatum (Welw. et Duby) A. Gepp (De Sloover, 1983)
Porotrichum madagassum Kiaer ex Besch. (De Sloover, 1983)
Porotrichum stipitatum (Mitt.) W.R. Buck (De Sloover, 1983)
Porotrichum usagarum Mitt. (De Sloover, 1983)
Porotrichum variifolioides (De Sloover) Enroth (De Sloover, 1983)
Thamnobryum malgachum (Cardot) O'Shea (Crosby et al., 1983) **End**, Type – Zone moyenne des forêts, forêt de Manongarivo, 1909, *Drouhard*, holotype PC.

Orthotrichaceae

- Cardotiella appendiculata* (Renauld et Cardot) Vitt (Crosby et al., 1983; Goffinet, 1996)

- Cardotiella elimbata* (Thér.) Goffinet (Crosby *et al.*, 1983; Goffinet, 1996) **End**, Type – Farafangana, sur souche d'arbre, en forêt, *Decary*, holotype PC, isotype S.
- Cardotiella renauldii* (Broth.) Vitt. (Crosby *et al.*, 1983; Goffinet, 1996) **End**, Type – holotype PC.
- Cardotiella subappendiculata* (Broth.) Vitt (Crosby *et al.*, 1983)
- Groutiella laxotorquata* (Besch.) Wijk *et* Margad. (Crosby *et al.*, 1983)
- Macrocoma tenuis* (Hook. *et* Grev.) Vitt subsp. *tenuis* (Crosby *et al.*, 1983)
- Macromitrium adelphinum* Cardot (Crosby *et al.*, 1983) **End**, Type – Forêt d'Amperifery, *Campenon*, herb (N.S.).
- Macromitrium ancistrophyllum* Cardot (Crosby *et al.*, 1983) **End**, Type – Zone supérieure des forêts, Ankeramadinika, *Borgen 202*, holotype BM.
- Macromitrium anomodictyon* Cardot (Crosby *et al.*, 1983) **End**, Type – District d'Andramasina, entre Tsinjoarivo & Ambohimasina, dans un petit bois, sur branche d'arbre, alt. 1700 m, 02/12/1912, *Viguié 1932*, holotype PC.
- Macromitrium calocalyx* Geh. (Crosby *et al.*, 1983) **End**, Type – Zone moyenne des forêts, forêt à l'est d'Ambatondrazaka, *Rutenberg*, herb (N.S.).
- Macromitrium fasciculare* Mitt. (Crosby *et al.*, 1983)
- Macromitrium fasciculare* var. *angustifolium* P. de la Varde (Crosby *et al.*, 1983) **End**, Type – Sommet oriental du Massif de Marojejy, à l'Ouest de la Haute Manténina, affluent de la Lokoho, gneiss et quartzite, alt. 1850 m, 26/3/1949, *Humbert*, holotype PC.
- Macromitrium fimbriatum* (P.Beauv.) Schwaegr. (Crosby *et al.*, 1983)
- Macromitrium mauritianum* Schwaegr. (Crosby *et al.*, 1983)
- Macromitrium nanothecium* Cardot (Crosby *et al.*, 1983) **End**, Type – Zone supérieure des forêts, Andrangoloaka, *Hildebrandt*, holotype FH.
- Macromitrium nanothecium* var. *sublaeve* Thér. (Crosby *et al.*, 1983) **End**, Type – Fort-Dauphin, sur écorce, *Decary*, holotype PC!
- Macromitrium onraedtii* Bizot (Bizot, 1974; Crosby *et al.*, 1983) **End**, Type – Entre Foulpointe et Andondabe, au Nord de Tamatave, sur un arbre d'une forêt sur sable, 12/05/1972, *Cremers 2165*, holotype PC.
- Macromitrium orthostichum* Nees *ex* Schwägr. (Crosby *et al.*, 1983)
- Macromitrium proximum* Thér. (Crosby *et al.*, 1983) **End**, Type – Mont Tsaratanana, alt. 1200 m, 04/1924, *Perrier de la Bathie*, holotype PC.
- Macromitrium rhizomatosum* Müll.Hal. (Crosby *et al.*, 1983) **End**, Type – Nosy Be, *Pervillé 789*, holotype PC.
- Macromitrium sanctae-mariae* Renauld *et* Cardot (Crosby *et al.*, 1983) **End**, Type – Sainte Marie, 1893, *Darbould*, holotype PC.
- Macromitrium sclerodictyon* Cardot (Crosby *et al.*, 1983)
- Macromitrium semipapillosum* Thér. *et* P. de la Varde (Crosby *et al.*, 1983) **End**, Type – 1922, *Carrougeau*, holotype PC.
- Macromitrium serpens* (Bruch *ex* Hook. & Grev.) Brid. (Crosby *et al.*, 1983)
- Macromitrium soulae* Renauld *et* Cardot (Crosby *et al.*, 1983) **End**, Type – Ambositra, Betsileo, 1890, *Soula*, holotype PC.
- Macromitrium subpungens* Hampe *ex* Müll.Hal. (Crosby *et al.*, 1983)
- Macromitrium subpungens* var. *madagassum* Cardot (Crosby *et al.*, 1983) **End**, Type – Zone inférieure des forêts, Maroantsetra dans la baie d'Antongil, *Mathieu*, herb (N.S.).

- Macromitrium subtortum* (Hook. et Grev.) Schwaegr. (Crosby et al., 1983) **End**, Type – unknown.
- Macromitrium sulcatum* (Hook.) Brid. var. *sulcatum* (Crosby et al., 1983; Ellis & Wilbraham, 2008)
- Macromitrium urceolatum* Müll.Hal. ex Geh. (Crosby et al., 1983)
- Schlotheimia acutifolia* Renaud et Paris (Crosby et al., 1983) **End**, Type – Forêt d'Ambositantely, 1901, *Collecteur indigène*, holotype PC.
- Schlotheimia acutifolia* var. *angustifolia* Thér. (Crosby et al., 1983) **End**, Type – Mont Tsaratanana, forêt à sous bois herbacé, alt. 1200-2400 m, *Perrier de la Bathie*, holotype PC.
- Schlotheimia badiella* Besch. (Crosby et al., 1983)
- Schlotheimia badiella* var. *helicophylla* Besch. (Crosby et al., 1983)
- Schlotheimia boiviniana* Besch. (Crosby et al., 1983)
- Schlotheimia conica* Renaud et Cardot (Crosby et al., 1983) **End**, Type – Environs de la forêt d'Ambatovory, alt. 1400 m, 1889, *Camboué*, holotype PC.
- Schlotheimia excorugata* Müll.Hal. ex Cardot (Crosby et al., 1983)
- Schlotheimia fornicata* Duby (Crosby et al., 1983)
- Schlotheimia fornicata* var. *apiculata* P. de la Varde (Crosby et al., 1983) **End**, Type – Pentes orientale du massif de Marojejy, à l'ouest de la rivière Manantenina, affluent de la Lokoho, sylvie à lichens sur gneiss et quartzite, alt. 1400 m, 15/12/1948, *Humbert*, holotype PC.
- Schlotheimia fornicata* var. *microtheca* P. de la Varde (Crosby et al., 1983) **End**, Type – Vallée de la Lokoho Nord-Est, mont Beondroka, au nord de Maroambihy, rochers de la crête (gneiss et quartzite), alt. 1400 m, 17/03/1949, *Humbert*, holotype PC.
- Schlotheimia foveolata* Renaud et Cardot (Crosby et al., 1983) **End**, Type – Zone inférieure des forêts, Ile de Sainte Marie sur les bords de la rivière Fitarihana, 1893, *Darbould*, holotype PC.
- Schlotheimia foveolata* var. *torquescens* Cardot (Crosby et al., 1983) **End**, Type – Zone du Plateau central, Imerina, environ de Tananarive, *Camboué & Sibree*, holotype BM.
- Schlotheimia gauthieri* Thér. (Crosby et al., 1983)
- Schlotheimia malacophylla* Besch. (Crosby et al., 1983)
- Schlotheimia microcarpa* Geh. (Crosby et al., 1983)
- Schlotheimia microphylla* Besch. (Crosby et al., 1983)
- Schlotheimia nossi-beana* Müll.Hal. (Crosby et al., 1983) **End**, Type – Nosy Be, 1841, *Pervillé*, holotype PC.
- Schlotheimia nossi-beana* var. *linealis* (Geh.) Thér. (Crosby et al., 1983) **End**, Type – Nosy Be, *Boivin*, holotype PC.
- Schlotheimia pauli* Renaud et Cardot (Crosby et al., 1983) **End**, Type – Antsahambavy, 1902, *Dalincourt*, holotype PC.
- Schlotheimia perrieri* Thér. (Crosby et al., 1983) **End**, Type – Mont Tsaratanana, alt. 1200m, 4/1924, *Perrier de la Bathie*, holotype PC.
- Schlotheimia perrotii* Renaud et Cardot (Crosby et al., 1983) **End**, Type – Andevoranto, 1895, *Perrot*, holotype PC.
- Schlotheimia perrotii* var. *brevisetata* Thér. (Crosby et al., 1983) **End**, Type – Andevoranto, herb (N.S.).
- Schlotheimia robillardii* Duby (Crosby et al., 1983)
- Schlotheimia robusta* Thér. (Crosby et al., 1983)

- Schlotheimia semidiaphana* (Renauld *et* Cardot) Cardot (Crosby *et al.*, 1983) **End**, Type – Plateau d'Ikongo, 1892, *Besson 294*, holotype PC.
- Schlotheimia squarrosa* Brid. (Crosby *et al.*, 1983; Delgadillo, 1995)
- Schlotheimia subfornicata* Thér. (Crosby *et al.*, 1983)
- Schlotheimia tenuiseta* Geh. (Crosby *et al.*, 1983) **End**, Type – Ambatondrazaka, herb (N.S.).
- Schlotheimia trichophora* Renauld *et* Cardot (Crosby *et al.*, 1983) **End**, Type – Entre Ankeramadinika et la forêt d'Analamazaotra, 1891, *Camboué & Campenon*, holotype PC.
- Schlotheimia trichophora* var. *stenophylla* (Renauld *et* Cardot) Thér. (Crosby *et al.*, 1983) **End**, Type – Zone du Plateau central, pays de Betsileo, *Villaume*, holotype BM.
- Schlotheimia trypanoclada* Geh. (Crosby *et al.*, 1983) **End**, Type – Zone du Plateau central, Alabe, près de Marotandrano, *Rutenberg*, holotype PC.
- Ulota fulva* Brid. (Crosby *et al.*, 1983)
- Zygodon laxifolius* Thér. (Crosby *et al.*, 1983) **End**, Type – Massif d'Andringitra, alt. 1600 m, 1921, *Perrier de la Bathie*, holotype PC.
- Zygodon leptocarpus* Thér. (Crosby *et al.*, 1983) **End**, Type – Massif d'Andringitra, alt. 1600 m, 1921, *Perrier de la Bathie*, holotype PC.
- Zygodon reinwardtii* var. *madacassus* Cardot (Crosby *et al.*, 1983) **End**, Type – NW Madagascar, *Pervillé*, holotype PC.
- Zygodon reinwardtii* (Hornsch.) A. Braun var. *reinwardtii* (Crosby *et al.*, 1983)

Phyllogoniaceae

Phyllogonium viscosum (P. Beauv.) Mitt. (Crosby *et al.*, 1983)

Pilotrichaceae

- Callicostella africana* Mitt. (Crosby *et al.*, 1983)
- Callicostella brevipes* (Broth.) Broth. (Crosby *et al.*, 1983)
- Callicostella constricta* (Müll.Hal.) Kindb. (Crosby *et al.*, 1983)
- Callicostella fissidentella* (Besch.) Kindb. (Crosby *et al.*, 1983)
- Callicostella lacerans* (Müll.Hal.) A. Jaeger (Crosby *et al.*, 1983)
- Callicostella leptocladula* (Broth.) Broth. (Crosby *et al.*, 1983)
- Callicostella papillata* var. *brevifolia* M. Fleisch. (Crosby *et al.*, 1983)
- Callicostella papillata* (Mont.) Mitt. var. *papillata* (Crosby *et al.*, 1983; Pócs & Geissler, 2002)
- Callicostella parvocellulata* Mitt. (Crosby *et al.*, 1983)
- Callicostella perrotii* (Renauld *et* Cardot *ex* Paris) Broth. (Crosby *et al.*, 1983)
- Callicostella pusilla* Demaret *et* P. de la Varde (Crosby *et al.*, 1983)
- Callicostella seychellensis* (Besch.) Kindb. (Crosby *et al.*, 1983; Pócs & Geissler, 2002)
- Callicostella tristis* (Müll.Hal.) Broth. (Pócs & Geissler, 2002)
- Cyclodictyon aubertii* (P. Beauv.) Kuntze (Crosby *et al.*, 1983)
- Cyclodictyon laetevirens* (Hook. *et* Taylor) Mitt. (Crosby *et al.*, 1983)
- Cyclodictyon vallis-gratiae* (Müll.Hal.) Kuntze (Crosby *et al.*, 1983; Pócs & Geissler, 2002)
- Hookeriopsis diversifolia* (Renauld *et* Cardot) Broth. *ex* Cardot *in* Grandid. (Crosby *et al.*, 1983)
- Lepidopilidium attenuatum* Thér. (Crosby *et al.*, 1983) **End**, Type – Forêt d'Andasibe, sur l'Onive, 02/1925, *Perrier de la Bathie*, holotype PC.

Lepidopilidium chenagonii (Renauld et Cardot) Cardot (Crosby et al., 1983) **End**, Type – Zone inférieure des forêts, montagne d'Ambre, près Diégo-Suarez, *Chénagon*, herb (N.S.).

Lepidopilidium corbieri (Renauld et Cardot) Cardot (Crosby et al., 1983) **End**, Type – Zone inférieure des forêts, montagne d'Ambre, *Leloutre*, holotype CHE.

Lepidopilidium parvulum Cardot (Crosby et al., 1983) **End**, Type – NW, *Pervillé*, herb (N.S.).

Lepidopilidium subrevolutum (Renauld et Cardot) Cardot (Crosby et al., 1983)

Lepidopilum hirsutum var. *tuberculatum* Thér. (Crosby et al., 1983) **End**, Type – Andasibe, sur l'Onive, forêt à sous-bois herbacé, alt. 800-1400 m, 02/1925, *Perrier de la Bathie*, holotype PC.

Lepidopilum lastii Mitt. (Crosby et al., 1983; Churchill, 1988)

Lepidopilum verrucipes Cardot (Crosby et al., 1983; Churchill, 1988)

Polytrichaceae

Atrichum androgynum (Müll.Hal.) A. Jaeger (Crosby et al., 1983; De Sloover, 1986)

Pogonatum belangeri (Müll.Hal.) A. Jaeger (Hyvönen, 1989; Pócs & Geissler, 2002)

Pogonatum capense (Hampe) A. Jaeger (Crosby et al., 1983; Hyvönen, 1989; De Sloover, 1986; Pócs & Geissler, 2002)

Pogonatum convolutum (Hedw.) P. Beauv. (Crosby et al., 1983; Hyvönen, 1989; De Sloover, 1986; Pócs & Geissler, 2002)

Pogonatum gracilifolium Besch. (Crosby et al., 1983)

Polytrichastrum formosum (Hedw.) G.L. Sm. (Crosby et al., 1983)

Polytrichum commune Hedw. var. *commune* (Crosby et al., 1983; De Sloover, 1986)

Polytrichum glabrum Schrad. (Crosby et al., 1983)

Polytrichum juniperellum Geh. (Crosby et al., 1983) **End**, Type – Plateau central, Ambohimaro, Ambatomainty près Tananarive, *Rutenberg*, herb (N.S.).

Polytrichum subformosum var. *parvisetum* (Müll.Hal.) Cardot (Crosby et al., 1983) **End**, Type – Plateau central, Imerina, bords du lac d'Ambohipo, *Camboué*, PC. Analamainty, *Campenon*, PC, holotype (N.S.).

Polytrichum subpilosum P. Beauv. (Crosby et al., 1983; De Sloover, 1986)

Pottiaceae

Anoetangium impressum Hampe (Crosby et al., 1983)

Anoetangium madagassum Renauld et Paris (Crosby et al., 1983) **End**, Type – Pays des Betsileo, *Villaume*, herb (N.S.).

Anoetangium rufoviride Besch. (Crosby et al., 1983)

Barbula bolleana (Müll.Hal.) Broth. (Crosby et al., 1983)

Barbula eubryum Müll.Hal. (O'Shea et al., 1997)

Barbula indica (Hook.) Spreng. var. *indica* (Crosby et al., 1983)

Barbula jananicus O'Shea (O'Shea, 2008) **End**, Type – Janjanina, carton de Mahaiza, herb (N.S.).

Barbula omissa Thér. (Sim & Dixon, 1922)

Barbula subobtusa Thér. (Crosby et al., 1983) **End**, Type – Vondrozo, forêt sur rocher humide au bord d'une cascade, 11/09/1924, *Decary*, holotype PC.

Bryoerythrophyllum campylocarpum (Müll.Hal.) H. A. Crum (Sollman, 2009)

- Chionoloma bombayense* (Müll.Hal.) P. Sollm. (Crosby et al., 1983)
- Didymodon subrevolutus* (Hampe) Broth. (Crosby et al., 1983) **End**, Type – 1869, Borgen, holotype PC.
- Gymnostomiella tuberculosa* (Renauld et Paris) Arts et P. Sollm. (Crosby et al., 1983)
- Gymnostomum madagascariense* O’Shea (O’Shea, 2008) **End**, Type – Desvaux, herb (N.S.).
- Hymenostylium subcrispulum* Thér. (Crosby et al., 1983) **End**, Type – Mont Tsaratanana, forêt à sous bois herbacé, alt. 1200-2400 m, 04/1924, Perrier de la Bathie, holotype PC#
- Hyophila acuminata* Broth. et P. de la Varde (Crosby et al., 1983)
- Hyophila angustifolia* Paris et Renauld (Crosby et al., 1983) **End**, Type – Rive de la Mania, 08/1901, Galinon, holotype PC.
- Hyophila involuta* (Hook.) A. Jaeger (Crosby et al., 1983)
- Hyophila lanceolata* Renauld et Cardot (Crosby et al., 1983)
- Hyophila parietalis* Cardot (Crosby et al., 1983) **End**, Type – Zone des savanes occidentales, Marovoay, Mathieu, herb (N.S.).
- Hyophila potieri* var. *atroviridis* Renauld et Cardot (Crosby et al., 1983) **End**, Type – Plateau central, Ambohibeloma, Imerina, Camboué, holotype PC#
- Hyophila sakalavensis* Paris et Renauld (Crosby et al., 1983)
- Leptodontium flexifolium* (With.) Hampe (Sollman, 2006)
- Leptodontium pungens* (Mitt.) Kindb. (De Sloover, 1987)
- Leptodontium viticulosoides* (P. Beauv.) Wijk et Margad. var. *viticulosoides* (Zander, 1972; Crosby et al., 1983; De Sloover, 1987; Delgadillo, 1995)
- Splachnobryum gracile* Besch. (Crosby et al., 1983)
- Splachnobryum obtusum* (Brid.) Müll.Hal. (Crosby et al., 1983; Arts, 1996; Arts, 2001)
- Streptopogon calymperes* Müll.Hal. ex Geh. (Crosby et al., 1983)
- Streptopogon erythrodontus* (Taylor) Wilson (Crosby et al., 1983; Delgadillo, 1995)
- Tortella humilis* (Hedw.) Jenn. (Crosby et al., 1983)
- Tortula madagassa* Dixon (Crosby et al., 1983) **End**, Type – unknown.
- Tortula muralis* var. *madagascariensis* Thér. (Crosby et al., 1983) **End**, Type – Andrahomana, sur rocher gréseux, Decary, herb (N.S.).
- Tortula omissa* Thér. (Crosby et al., 1983) **End**, Type – Imerimandroso, sur écorce, associé à *Bryum truncorum* Brid. Decary, holotype PC.
- Tortula subrufa* Cardot (Crosby et al., 1983) **End**, Type – Fianarantsoa, 1905, Villaume s.n., holotype PC, isotype PC.
- Trichostomum brachydontium* Bruch var. *brachydontium* (Crosby et al., 1983)
- Trichostomum pennequinii* Renauld et Paris (Crosby et al., 1983) **End**, Type – Cercle des Bara, secteur d’Ivondro, 1900, Lespagnol et Croll, holotype PC.
- Trichostomum perrieri* Thér. (Crosby et al., 1983) **End**, Type – Massif granitique de l’Andringitra, alt. 1600 m, 1921, Perrier de la Bathie, holotype PC.
- Trichostomum sporophyllum* (Renauld et Cardot) Cardot (Crosby et al., 1983) **End**, Type – Ambohibeloma, 1906, Camboué, holotype PC.
- Trichostomum tenuirostre* (Hook. et Taylor) Lindb. var. *tenuirostre* (Crosby et al., 1983)

Trichostomum villaumei Thér. (Crosby *et al.*, 1983) **End**, Type – Fianarantsoa, 1905, *Villaume*, holotype PC.

Weisiopsis plicata (Mitt.) Broth. (Crosby *et al.*, 1983)

Weissia ayresii Schimp. (Crosby *et al.*, 1983)

Prionodontaceae

Prionodon ciliatus Besch. (Crosby *et al.*, 1983)

Pterobryaceae

Calyptothecium bescherellei (Renauld) Broth. (Crosby *et al.*, 1983) **End**, Type – Mont Ankaratra, *Borgen*, holotype BM!

Calyptothecium planifrons (Renauld et Paris) Argent (Argent, 1973; Crosby *et al.*, 1983; Delgadillo, 1995)

Hildebrandtiella endotrichelloides Müll.Hal. (Crosby *et al.*, 1983)

Hildebrandtiella longiseta Renauld et Cardot (Crosby *et al.*, 1983) **End**, Type – Diégo-Suarez, 1890, *Chénagon*, holotype PC.

Hildebrandtiella rotundifolia Renauld (Crosby *et al.*, 1983)

Jaegerina solitaria var. *nossi-beana* Besch. (Crosby *et al.*, 1983) **End**, Type – Zone inférieure des forêts, Nosy Be, *Pervillé*, herb (N.S.).

Jaegerina stolonifera (Müll.Hal.) Müll.Hal. subsp. *stolonifera* (Argent, 1973; Crosby *et al.*, 1983)

Orthostichidium involutifolium (Mitt.) Broth. subsp. *involutifolium* (Crosby *et al.*, 1983)

Orthostichopsis longinervis (Renauld et Cardot) Broth. (Crosby *et al.*, 1983) *Syn: Renauld*

Orthostichopsis madagassa Dixon (Crosby *et al.*, 1983) **End**, Type – unknown. *Wiedemann*

Orthostichopsis scaberula (Renauld et Cardot) M. Fleisch (Crosby *et al.*, 1983) **End**, Type – Zone moyenne des forêts, entre Vinanitelo et Ikongo, sur les rameaux grêles des arbres, 1892, *Besson*, holotype PC# *Müll*

Orthostichopsis subimbricata (Hampe) Broth. (Argent, 1973; Crosby *et al.*, 1983)

Orthostichopsis subimbricata var. *flageyi* (Renauld et Cardot) Cardot (Crosby *et al.*, 1983) **End**, Type – Zone inférieure des forêts, Diégo-Suarez, *Chénagon*; Zone supérieure, Andrangoloaka, *Sikora*, herb (N.S.). *PC: M*

Pterobryopsis longissima Dixon (Crosby *et al.*, 1983) **End**, Type – unknown.

Renauldia hildebrandtielloides Müll.Hal. (Argent, 1973; Crosby *et al.*, 1983) **End**

Renauldia patentissima (Hampe) Broth. (Argent, 1973; Crosby *et al.*, 1983) **End**, Type – 1892, *Besson*, holotype PC.

Renauldia patentissima var. *mutica* Thér. (Crosby *et al.*, 1983) **End**, Type – Montagne d'Ambre, alt. 1000 m, 9/1926, *Perrier de la Bathie*, holotype PC.

Pterygynandraceae

Trachyphyllum borgenii (Renauld et Cardot) Broth. (Buck, 1979; Crosby *et al.*, 1983; O'Shea, 1999) **End**, Type – Mont Ankaratra, lectotype BM, isolectotypes H, NY

Trachyphyllum inflexum (Harv.) A. Gepp (Buck, 1979; Crosby *et al.*, 1983)

Ptychomitriaceae

Ptychomitrium crispatum (Hedw.) A. Jaeger (Crosby *et al.*, 1983)

Ptychomitrium deltorii (Thér.) Broth. (Crosby *et al.*, 1983)

Pylaisiadelphaceae

- Isopterygium ambreanum* Renauld et Cardot (Crosby et al., 1983) **End**, Type – Diégo-Suarez, sur les écorces, 1890, *Chénagon*, holotype PC.
- Isopterygium antisihanakense* Cardot (Crosby et al., 1983) **End**, Type – Zone moyenne des forêts, pays d'Antsihanaka, *Perrot*, herb (N.S.).
- Isopterygium argillicola* (Renauld et Cardot) Broth. (Crosby et al., 1983) **End**, Type – Entre Tananarive et Betafo, *Caussègue*, holotype PC.
- Isopterygium argyroleucum* Besch. (Crosby et al., 1983)
- Isopterygium austrodenticulatum* (Renauld et Cardot) Broth. (Crosby et al., 1983) **End**, Type – Andriba, 1897, *Dorr*, holotype PC.
- Isopterygium combae* Besch. (Crosby et al., 1983) **End**, Type – Zone inférieure des forêts, Nosy Be et Nosy Komba, *Marie*, herb (N.S.).
- Isopterygium gracile* Renauld et Cardot (Crosby et al., 1983)
- Isopterygium intortum* (P. Beauv.) A. Jaeger (Crosby et al., 1983)
- Isopterygium intortum* var. *chenagonii* Renauld et Cardot (Crosby et al., 1983) **End**, Type – Zone inférieure des forêts, Diégo-Suarez, *Chénagon*, herb (N.S.).
- Isopterygium leptoblastum* (Müll.Hal.) A. Jaeger (Crosby et al., 1983)
- Isopterygium luteonitens* (Paris) Paris (Crosby et al., 1983) **End**, Type – Zone du Plateau central, bords gramineux du lac d'Ambhipo, *Camboué*, herb (N.S.).
- Isopterygium meylanii* Cardot (Crosby et al., 1983) **End**, Type – Zone du Plateau central, Imerina, *Villaume*, holotype G.
- Isopterygium podorrhizum* Renauld et Cardot (Crosby et al., 1983) **End**, Type – Zone du Plateau central, Ambatomanga, dans un gazon d'*Ectropothecium regulare*, alt. 1200-1300 m, 1894, *Talazac*, herb (N.S.).
- Isopterygium subleptoblastum* Müll.Hal. (Crosby et al., 1983)
- Taxithelium argyrophyllum* Renauld et Cardot (Crosby et al., 1983) **End**, Type – Zone inférieure des forêts, sur les troncs pourrissants à Diégo-Suarez, *Chénagon*, holotype PC.
- Taxithelium confusum* Cardot (Crosby et al., 1983) **End**, Type – Ile Sainte Marie, *Boivin*, herb (N.S.).
- Taxithelium glaucophyllum* Besch. (Crosby et al., 1983) **End**, Type – Zone inférieure des forêts, Nosy Be, forêt de Lokobe, *Marie*, herb (N.S.).
- Taxithelium hirtellum* Paris et Renauld (Crosby et al., 1983) **End**, Type – Zone des savanes orientales, Maintirano, *Paris 66*, holotype PC.
- **Taxithelium nepalense* (Schwägr.) Broth. – Forêt d'Ankara, Sambirano, sur sol, sur calcaire, alt. 200 m, 21/08/1977, *Tixier 10746*, TAN.
- Taxithelium nossianum* Besch. (Crosby et al., 1983)
- Taxithelium planulum* Besch. (Crosby et al., 1983)
- Wijkia bessonii* (Renauld et Cardot) H.A. Crum (Crosby et al., 1983) **End**, Type – Zone moyenne des forêts, plateau d'Ikongo, *Besson*, herb (N.S.).
- Wijkia madagassa* (Thér.) H.A. Crum (Crosby et al., 1983) **End**, Type – Vallée de l'Anony, sous-bois, 05/08/1921, *Decary*, holotyp PC.
- Wijkia rutenbergii* (Müll.Hal.) H.A. Crum (Crosby et al., 1983) **End**, Type – Massif d'Ankaizina, herb (N.S.).
- Wijkia rutenbergii* var. *eflagellaris* (Cardot) H.A. Crum (Crosby et al., 1983)

Racopilaceae

Powellia elliptica (Renauld) Zanten (Crosby *et al.*, 1983; Zanten, 2003) **End**, Type – Entre Fianarantsoa et Mananjary, 1880, *Besson*, holotype PC.

Powellia pocsii Zanten (Zanten, 2003)

Racopilum africanum Mitt. (Crosby *et al.*, 1983)

Racopilum cardotii Renauld (Crosby *et al.*, 1983) **End**, Type – Zone inférieure des forêts, Diégo-Suarez, 1890, *Chénagon*, PC; Andevoranto, 1896, *Perrot*, PC; holotype (N.S.).

Racopilum madagassum Renauld (Crosby *et al.*, 1983)

Racopilum madagassum var. *grandistipulaceum* Thér. et Renauld (Crosby *et al.*, 1983) **End**, Type – Zone du Plateau central, pays Betsileo, *Villaume*, holotype BM#

Racopilum marginatum Dixon (Crosby *et al.*, 1983)

Racopilum mauritianum Müll.Hal. ex Besch. (Crosby *et al.*, 1983)

Racopilum microdictyon Besch. (Crosby *et al.*, 1983)

Racopilum perrieri Thér. (Crosby *et al.*, 1983) **End**, Type – Entre la Sahambana et l'Ihosi, Forêt d'Analamanara, alt. 1300 m, 06/1919, *Perrier de la Bathie*, holotype PC.

Racopilum plicatum Renauld et Cardot (Crosby *et al.*, 1983)

Racopilum tomentosum (Hedw.) Brid. (Crosby *et al.*, 1983)

Regmatodontaceae

Regmatodon orthostegius Mont. (Crosby *et al.*, 1983; Eakin, 1998)

Rhabdoweisiaceae

Oreowesia erosa (Müll.Hal.) Kindb. (Crosby *et al.*, 1983)

Rhachithecaceae

Rhachithecium perpusillum (Thwaites et Mitt.) Broth. (Crosby *et al.*, 1983)

Rhacocarpaceae

Rhacocarpus purpurascens (Brid.) Paris (Crosby *et al.*, 1983; Frahm, 1996; Delgadillo, 1995)

Rhizogoniaceae

Pyrrhobryum spiniforme (Hedw.) Mitt. (Crosby *et al.*, 1983; Frahm *et al.*, 2003; Delgadillo, 1995)

Rigodiaceae

Rigodium toxarion (Schwaegr.) A. Jaeger var. *toxarion* (Crosby *et al.*, 1983; Zomlefer, 1993)

Rutenbergiaceae

Rutenbergia borbonica Besch. (Crosby *et al.*, 1983)

Rutenbergia cirrata Renauld et Cardot (Crosby *et al.*, 1983) **End**, Type – Forêt d'Analamazoatra, *Camboué* 295, holotype PC.

Rutenbergia limbata (Hampe) Besch. (Crosby *et al.*, 1983) **End**, Type – Forêt d'Analamazoatra, *Borchgrevink*, herb (N.S.).

Rutenbergia madagassa Geh. et Hampe (Crosby *et al.*, 1983) **End**, Type – Ambatondrazaka, herb (N.S.).

Rutenbergia madagassa var. *flagelliformis* Renauld *et* Cardot (Crosby *et al.*, 1983) **End**, Type – Zone du Plateau central, Ambohimahatsara près d'Ambositra, 1892, *Berthieu*, holotype PC.

Sematophyllaceae

Acanthorrhynchium papillatum (Harv.) M. Fleisch. (Crosby *et al.*, 1983; Tixier, 1995)

Acroporium depressum Thér. (Crosby *et al.*, 1983) **End**, Type – Mont Tsaratanana, forêt à sous-bois herbacé, alt. 1200-2400 m, *Perrier de la Bathie*, holotype PC.

Acroporium laevifolium (Renauld) Broth. (Crosby *et al.*, 1983) **End**, Type – Ankeramadinika, zone supérieure des forêts, 11/1897, *Dorr*, holotype PC.

Acroporium megasporum (Duby) M. Fleisch. (Crosby *et al.*, 1983)

Acroporium megasporum var. *densum* (Renauld *et* Cardot) Wijk *et* Margad. (Crosby *et al.*, 1983) **End**, Type – Forêt entre Fianarantsoa et Mananjary, 1892, *Benson*, holotype PC.

Acroporium stellatum (Renauld *et* Cardot) Broth. (Crosby *et al.*, 1983) **End**, Type – Zone inférieure des forêts, forêt à l'Est de Mahambo, environ d'Andevorante, au milieu de touffes de *Schlotheimia perrotii*, 1890-1896, *Perrot*, holotype PC.

Clastobryophilum bogoricum (Bosch *et* Sande Lac.) M. Fleisch. (Crosby *et al.*, 1983)

Macrohymenium acidodon (Mont.) Dozy *et* Molk. (Eakin, 1976; Crosby *et al.*, 1983; Eén, 1997)

Macrohymenium muelleri Dozy *et* Molk. (Eakin, 1976)

Macrohymenium rufum Müll.Hal. (Eakin, 1976)

Macrohymenium strictum Bosch. *et* Sande Lac. (Eakin, 1976)

Meiothecium crassirete (Renauld *et* Cardot) Cardot (Crosby *et al.*, 1983) **End**, Type – holotype PC.

Meiothecium madagascariense (Brid.) Broth. (Crosby *et al.*, 1983; Eén, 1997)

Meiothecium undulatum (Renauld *et* Cardot) O'Shea (Crosby *et al.*, 1983) **End**, Type – Zone moyenne des forêts, forêt d'Analamazaotra, *Camboué*, herb (N.S.).

Radulina borbonica (Bel.) W.R. Buck (Crosby *et al.*, 1983)

Rhaphidorrhynchium angustissimum (Geh.) Broth. (Crosby *et al.*, 1983) **End**, Type – Forêt de Vondrozona, *Rutenberg*, herb (N.S.).

Rhaphidorrhynchium cambouei (Renauld *et* Cardot) Broth. (Crosby *et al.*, 1983) **End**, Type – Zone du Plateau central, Ankadivavala, *Campenon*, herb (N.S.).

Rhaphidorrhynchium rubricaula (Besch.) Broth. (Crosby *et al.*, 1983)

Sematophyllum coppeyi (Cardot) Broth. (Crosby *et al.*, 1983) **End**, Type – Forêt de Manongarivo, 1909, *Drouhard*, holotype PC.

Sematophyllum dixonii (Thér.) O'Shea (Crosby *et al.*, 1983) **End**, Type – Vallée de l'Anony, Imerimandroso, Ambatondrazaka, Amparafaravola, 300 km NE, alt. 600 m, 05/08/1921, *Decary & Waterlot*, holotype PC.

Sematophyllum dubium (Renauld) Broth. (Crosby *et al.*, 1983) **End**, Type – Ankeramadinika, 11/1897, *Dorr*, holotype PC.

Sematophyllum nanopyxis (Geh.) O'Shea (Crosby *et al.*, 1983) **End**, Type – Zone des forêts, forêt de Vondrozona, *Rutenberg*, herb (N.S.).

- Sematophyllum obtusifolium* (Renauld et Cardot) Broth (Crosby et al., 1983)
Sematophyllum rigescens (Cardot) O'Shea (Crosby et al., 1983) **End**, Type – Zone inférieure des forêts, forêt de Fito, district de Tamatave, Perrot, holotype FH#
- Sematophyllum sinuosulum* (Besch.) Broth. (Crosby et al., 1983)
Sematophyllum sinuosulum var. *latifolium* (Cardot) Thér. (Crosby et al., 1983) **End**, Type – Zone du Plateau central, province d'Imamo, Camboué, holotype G#
- Sematophyllum subpinnatum* (Brid.) E. Britton (Crosby et al., 1983)
Sematophyllum subrugifolium Dixon (Crosby et al., 1983) **End**, Type – unknown.
Sematophyllum subscabrellum Renauld et Cardot (Crosby et al., 1983) **End**, Type – Andevoranto, au milieu d'autres mousses, 1895, Perrot, holotype PC.
- Trichosteleum debettei* var. *laevisetum* Cardot (Crosby et al., 1983) **End**, Type – unknown.
- Trichosteleum heterophyllum* Bizot et Onr. (Crosby et al., 1983) **End**, Type – Nord Maromandia, au Sud de Diégo-Suarez, sur sol caillouteux, au bord d'un marigot permanent, sous forêt, alt. 50 m, 13/08/1973, Cremers 2735, holotype BR, isotypes BR, TAN, PC.
- Trichosteleum leviusculum* Renauld et Cardot (Crosby et al., 1983)
Trichosteleum microdontum (Besch.) Renauld (Crosby et al., 1983)
Trichosteleum microdontum var. *megapterum* Renauld et Cardot (Crosby et al., 1983) **End**, Type – Zone moyenne des forêts, forêt d'Analamazaotra, Camboué & Campenon, herb (N.S.).
- Trichosteleum permixtum* Cardot (Crosby et al., 1983) **End**, Type – Diégo-Suarez, Chénagon, holotype PC.
- Trichosteleum perrotii* (Renauld et Cardot) Renauld et Cardot (Crosby et al., 1983)
Trichosteleum perrotii var. *eurydictyon* Renauld et Cardot (Crosby et al., 1983) **End**, Type – Zone inférieure des forêts, île de Sainte-Marie, Mahavelona ou Foulpointe, Darbould, herb (N.S.).
- Trichosteleum pervilleanum* (Müll.Hal. ex Geh.) W.R. Buck (Crosby et al., 1983)
Trichosteleum trachypyxis (Geh.) Renauld et Cardot (Crosby et al., 1983) **End**, Type – Zone moyenne des forêts, forêt à l'est d'Ambatondrazaka, Rutenberg, herb (N.S.).
- Warburgiella leptorrhyncha* (A. Jaeger) Broth. (Crosby et al., 1983)
- Serpotortellaceae**
Serpotortella chenagonii (Renauld et Cardot) W.D. Reese et R.H. Zander (Crosby et al., 1983)
Serpotortella cyrtophylla (Besch.) W.D. Reese et R.H. Zander (Reese & Zander, 1987)
- Sphagnaceae**
Sphagnum capense Hornsch. (Eddy, 1985)
Sphagnum ceylonicum Mitt. ex Warnst. (Eddy, 1985)
Sphagnum cuspidatum Müll.Hal. (Eddy, 1985)
Sphagnum cuspidatum Hoffm. var. *cuspidatum* (Eddy, 1985)
 **Sphagnum davidii* Warnst. – Massif de l'Ankaratra, S 19°20' E 47°20', alt. 2100 m, 24/10/1972, M.R. & C.A. Crosby 6636, TAN.

- Sphagnum ericetorum* Brid. (Eddy, 1985)
Sphagnum magellanicum (Warnst.) A. Eddy subsp. *grandirete* (Eddy, 1985) **End**,
 Type – Andevoranto, Androrangobe, 1901, holotype PC.
Sphagnum perichaetiale Hampe (Eddy, 1985)
Sphagnum perrieri Thér. (Crosby *et al.*, 1983) **End**, Type – Massif de l'Andringitra,
 alt. 1600-2500 m, 1921, *Perrier de la Bathie*, holotype PC.
Sphagnum planifolium var. *angustilimbatum* (Warnst.) A. Eddy (Eddy, 1985)
Sphagnum planifolium Müll.Hal. var. *planifolium* (Eddy, 1985)
Sphagnum rutenbergii Müll.Hal. (Eddy, 1985)
Sphagnum strictum (Müll.Hal.) A. Eddy subsp. *pappeanum* (Eddy, 1985)
Sphagnum truncatum var. *bordasii* (Besch.) A. Eddy (Eddy, 1985)
Sphagnum tumidulum Besch. var. *tumidulum* (Eddy, 1985)
Sphagnum violascens Müll.Hal. (Eddy, 1985)

Splachnaceae

- Brachymitrium moritzianum* (Müll.Hal.) A.K. Kop. (Koponen & Weber, 1972;
 Crosby *et al.*, 1983)
Tayloria indica Mitt. (Crosby *et al.*, 1983)
Tayloria isleana (Besch.) Broth. (Crosby *et al.*, 1983)
Tayloria orthodonta (P.Beauv.) Wijk *et* Margad. (Crosby *et al.*, 1983; Pócs &
 Geissler, 2002)
Tayloria solitaria (Hedw.) T.J. Kop *et* W. Weber (Crosby *et al.*, 1983; Pócs &
 Geissler, 2002)

Stereophyllaceae

- Entodontopsis nitens* (Mitt.) W.R. Buck *et* Ireland (Crosby *et al.*, 1983)
Entodontopsis tenuinervis (Broth.) W.R. Buck *et* Ireland (Crosby *et al.*, 1983)
Stereophyllum radiculosum (Hook.) Mitt. (Crosby *et al.*, 1983)

Symphyodontaceae

- Symphyodon pygmaeus* (Broth.) S. He *et* Snider (Crosby *et al.*, 1983; He & Snider,
 2000)

Thuidiaceae

- Pelekium chenagonii* (Müll.Hal. *ex* Renauld *et* Cardot) Touw (Touw, 1976; Crosby
et al., 1983)
Pelekium gratum (P. Beauv.) Touw (Touw, 1976; Crosby *et al.*, 1983; Touw, 2001)
Pelekium intricatum (A. Jaeger) Touw (Pócs & Geissler, 2002)
Pelekium investe (Mitt.) Touw (Touw, 1976; Crosby *et al.*, 1983; Touw, 2001; Pócs
 & Geissler, 2002)
Pelekium ramusculosum (Mitt.) Touw (Touw, 1976; Crosby *et al.*, 1983)
Pelekium varians (Welw. *et* Duby) Touw (Touw, 1976; Crosby *et al.*, 1983)
Pelekium versicolor (Müll.Hal.) Touw (Touw, 1976; Crosby *et al.*, 1983; Touw,
 2001)
Raiiella praelonga (Schimp. *ex* Besch.) Wijk *et* Margad. (Touw, 1976; Crosby *et*
al., 1983)
Thuidium aculeoserratum Renauld *et* Cardot (Touw, 1976; Crosby *et al.*, 1983)
Thuidium assimile (Mitt.) A. Jaeger (Touw, 1976; Crosby *et al.*, 1983)
Thuidium pseudoinvolvens (Müll.Hal.) A. Jaeger (Touw, 1976; Crosby *et al.*, 1983)

Note on *Riccardia*:

According to Grolle 1995, three species of the genus *Aneura*: *A. caespitans* Steph., *A. corbieri* Steph and *A. dismieri* Steph. were placed on the name of *Riccardia* sp. The attribution of those species to the genus *Riccardia* has not been revised. But since the revision of the genus *Riccardia* from Africa and Madagascar is now in a progress, most of the morphological and reproductive characters of those three species seem to fit with those of *Riccardia*. We decided to keep the name used by Grolle (1995) and Wigginton (2009).

CONCLUSION

In total 1144 bryophyte species and infraspecific taxa, including 751 mosses, 390 liverworts and 3 hornworts are reported from Madagascar (Table 1). The following families: Dicranaceae (83 species and infraspecific taxa), Orthotrichaceae (66 species and infraspecific taxa) and Bryaceae (44 species and infraspecific taxa) are the most speciose for mosses and the Lejeuneaceae (203 species and infraspecific taxa), Frullaniaceae (38 species and infraspecific taxa) and Plagiochilaceae (21 species and infraspecific taxa) for liverworts. The lack of reported hornwort taxa undoubtedly represents a significant bias in historic collecting effort especially since more than 5 hornwort taxa are reported for Réunion Island, a landmass both a fraction of the age and size of Madagascar (Ah-Peng *et al.*, 2010). Future floristic exploration in Madagascar should target such little known groups as they are likely to harbour a wealth of unknown diversity.

In this checklist, 13 mosses, 10 liverworts and one species of hornwort are newly recorded for Madagascar. The majority of these new records are reported from collections in the National Herbarium of Madagascar (TAN) and from recent collections by the authors. Two species: *Fissidens cyathaeicola* Brugg.Nann. and *Taxithelium nepalense* (Schwägr.) Broth. are reported for the first time for the Sub-Saharan Africa region.

The bryoflora of Madagascar displays remarkably high levels of endemism, 33.82% of mosses and 18.97% of liverworts are unique to the island, providing ample support for its status as a global hotspot of biodiversity. The moss

Table 1. Summary of the bryoflora of Madagascar

	<i>Mosses</i>	<i>Liverworts</i>	<i>Hornworts</i>	<i>Total</i>
Taxa	751	390	3	1144
Genera	186	86	3	275
Families	59	30	2	91
Endemics	254	74	0	328
Endemicity (%)	33.82%	18.97%		28.67%

families with the largest number of endemic species are the Dicranaceae (41/83), Orthotrichaceae (38/66) and Sematophyllaceae (22/40). Of the 74 endemic liverwort species recorded on the island, 59 belong to the family Lejeuneaceae, of which the most important is the epiphyllous genus *Cololejeunea* which has radiated throughout Madagascar and the neighbouring islands (Pócs, 1997). The number of endemics should be regarded with caution as many of the species were described a long time ago and have yet to form part of a recent revision: this figure will need to be continuously updated.

To help in further research e.g. taxonomic revision, we listed the type specimens of endemic species including specimen information and host herbarium. Unfortunately a few proportion (18) of type specimens are poorly detailed, often providing only "Madagascar" as the type location, we did not manage to identify the host herbarium of 56 endemic species.

Since much of the original bryological exploration of Madagascar took place during the late 1800's (Dorr, 1997) it is not known what proportion, if any, of the recorded taxa have been lost due to anthropogenic destruction of habitats for farming and logging. Many of the sites which were frequented by early bryologists have been lost due to such activities. New inventories of intact and unexplored habitats on the island should prove invaluable for verifying many of the old records presented in this checklist and will undoubtedly reveal many new and interesting records for the island.

Much work remains to be done to improve knowledge on the diversity and distribution of bryophytes in Madagascar. For example, collections of bryophytes in the National Herbarium of Madagascar (TAN) need to be revised and fully identified. More fieldwork to collect bryophytes in poorly investigated areas should be planned, especially in areas such as the dry forests.

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