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Marchantia polymorpha L.

Photo:

A. M. Franquinho Aguiar



Annotated catalogue of Madeiran Bryophytes

Cecília Sérgio, Manuela Sim-Sim & Mafalda Carvalho

Cover:
Typical bryophytic habitat
inside Laurisilva
of Madeira

Photo:
Manuela Sim-Sim



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Dezembro 2006
FUNCHAL - MADEIRA
Editado pela Câmara Municipal do Funchal

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ANNOTATED CATALOGUE OF MADEIRAN BRYOPHYTES

BY CECÍLIA SÉRGIO ¹, MANUELA SIM-SIM ² & MAFALDA CARVALHO ¹

With 7 figures

ABSTRACT. Investigations over the past twenty years justify an updating of the distribution of bryophytes from the Madeiran Archipelago. Each species distribution matches its occurrence on the different geographic units (islands) of the Archipelago. In this paper, 610 bryophyte taxa are listed for Madeira, based on a critical assessment of literature data. For different islands, literature references are chronologically listed. In addition, two lists (mosses and liverworts-hornworts) of known synonyms are provided. This annotated catalogue can be used as a checklist for the known bryophyte taxa in Madeira. Some comments are presented for particular taxa.

As a final result, 531 bryophyte taxa (352 mosses and 179 liverworts-hornworts) are considered to be present in Madeira. Seventy-six taxa (55 mosses and 21 liverworts-hornworts) are excluded or their occurrence considered as very improbable. The species diversity and endemisms are also presented for each island. The regional spectrum of the mosses and liverworts-hornworts is established for each island. The present version includes only records published up to December 2005.

KEY WORDS: Catalogue, Bryophytes, Madeira Archipelago.

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RESUMO. Com o desenvolvimento de novos estudos em particular efectuados durante os últimos 20 anos, tornou-se necessário a actualização do conhecimento dos briófitos do Arquipélago da Madeira. Neste catálogo estão referenciadas todas as ocorrências das diferentes espécies indicadas para cada ilha.

Nesta publicação são listados, 610 taxa de briófitos da Madeira, tendo como base uma revisão crítica dos diferentes dados bibliográficos. Para cada taxon são apresentadas as diferentes referências para cada ilha (que serve de unidade geográfica) organizadas por ordem cronológica. São ainda listados, em dois anexos, os diferentes sinónimos referidos para o Arquipélago da Madeira, para cada briófito (musgos e hepáticas / antocerotas). Como resultado final podemos referir a presença de 531 taxa (352 musgos e 179 hepáticas e antocerotas) no Arquipélago da Madeira, embora estejam referidos 76 taxa (55 musgos e 21 hepáticas e antocerotas) cuja existência é bastante duvidosa e são para excluir ou foram recentemente sinonimizados da brioflora Madeirense. Os dados sobre a diversidade de espécies endémicas são ainda apresentados. O presente catálogo pode ser usado como uma check-list de todos os taxa de briófitos presentes ou referidos no Arquipélago da Madeira e inclui dados publicados até Dezembro de 2005.

PALAVRAS-CHAVE: Catálogo, Briófitos, Arquipélago da Madeira.

INTRODUCTION

The Madeiran Archipelago comprises two main groups: The group of Madeira, Desertas and Porto Santo islands which are situated in the Atlantic Ocean, at latitudes 33° 10' and 33° 20' N and the longitudes 16° 10' and 17° 20' W, and the Selvagens group, at latitudes 30° 01' and 30° 08' N and longitudes 15° 50' and 16° 02' W. The largest island is Madeira (728 Km²) about 980 Km away from Lisbon and about 700 Km west off the Atlantic coast of Morocco. The maximum altitude is 1861 m, on the island of Madeira. The climate is mild with few extreme temperatures, more than 3000 mm annual rainfall, and a nearly constant humidity level of 75-90% throughout the year.

BOWDICH (1825) made the earliest recorded bryophyte collections from Madeira during the autumn of 1823. Afterwards, several botanists and naturalists have noted the importance of Madeira flora and published different important works. We highlight the works by Persson and Luisier (1907 to 1956) during a large period of the last century, as they were in fact the promoters of bryology in the Madeiran Archipelago.

More than twenty years ago, EGGERS (1982) published a detailed account of the distribution of bryophytes from all the Macaronesian Archipelagos. Investigations over past years justify an updating of the information for the different Islands that make up the Madeiran Archipelago.

The present paper consists of an annotated catalogue that can be used as a checklist of the known bryophyte taxa in Madeira. The European Committee for Conservation of Bryophytes (ECCB) is set about producing an updated Red List of European bryophytes. For this action it would be useful to have regional checklists. At the same time, the European projects EuroMoss and SynBioSys aim to produce a standard list of European plants, (<http://www.synbiosys.alterra.nl/eu/speciesviewframe.htm>) including bryophytes.

All European countries and the Macaronesian region were considered in the work of SCHUMACKER & VÁÑA (2000) concerning liverworts and hornworts. In the same year, GROLLE & LONG (2000) presented an important checklist with liverworts in Europe, which included the Madeiran Archipelago. Afterwards, SÖDERSTRÖM *et al.* (2002) published a liverwort and hornwort checklist for all European countries, including the Macaronesian region. For mosses, only HEDENÄS (1992a) published a flora of Madeiran pleurocarpous mosses (Isobryales, Hypnobryales, Hookeriales). However, SJÖGREN (2001) updated the distribution of Azorean bryophytes considering also Madeira and the Canary islands.

The present paper is the first bibliographic revision of a Madeiran mosses, liverworts and hornworts checklist, given that total distribution has never been treated as a whole before. The present list is an essential step for the chorological approach to the Madeiran species, which are also important at the Macaronesian level.

The main objective of this work is to present a new checklist and provide an updated distribution of Madeiran bryophytes.

The importance of checklists has been established; they are one of the most vital tools for the advancement of biodiversity knowledge, conservation actions and phytogeographic approaches.

This catalogue of Madeira bryophytes has been compiled as a contribution to the European Bryophyte list and may be integrated into the general checklist of Mediterranean countries, which is also being prepared. Therefore the aim of this catalogue is to update the known distribution of all species occurring in the Madeiran territory.

METHODOLOGY AND CATALOGUE ORGANISATION

The list of all the accepted taxon names is presented in alphabetic order, and all the literature on bryophytes of Madeira was reviewed. In this catalogue, an alphabetic list of current family and generic affiliations is provided, first for mosses, and then for liverworts and hornworts, both with a synonym list.

The incorrect or dubious species to Madeira are also listed, printed in plain instead of bold format. The Madeiran endemic taxa are indicated with the symbol ●● and the Macaronesian endemic taxa with the symbol ●.

The delimitation and nomenclature of classes, families and genera mainly follows BUCK & GOFFINET (2000) for mosses. Some additions result from more recent works (see OCHYRA *et al.*, 2003). For liverworts and hornworts, new suprageneric classification was recently proposed (FREY & STECH, 2005) however in this work we follow that of GROLLE & LONG (2000).

The taxa nomenclature generally follows CORLEY *et al.* (1981) and CORLEY & CRUNDWELL (1991) for mosses and GROLLE & LONG (2000) for liverworts and hornworts. Some modifications were based on recent works such as the ones by FRISVOLL (1983, 1988) for some *Racomitrium* groups; HEDENÅS (1992a) for pleurocarpous mosses; ZANDER (1993) for some Pottiaceae genera; BLOM (1996) for *Schistidium apocarpum* complex and RAO (2001) for Cryphaeaceae. Some other recent criteria, new names and new combinations are cited in the notes.

Only the relevant synonyms were considered, particularly those most used by Portuguese and Madeiran authors. Some general criteria are listed according to the Index Muscorum (WIJK *et al.*, 1959-1969) and according to the identification keys for liverworts and hornworts of Europe and Macaronesia (SCHUMACKER & VÁÑA, 2000). We have also used the W3MOST of the Missouri Botanical Garden (<http://mobot.mobot.org/W3T/Search/most.html>). The authors of species names are cited as proposed by BRUMMITH & POWELL (1992).

The names of the islands in which taxa were recorded are abbreviated (see the abbreviations list and Fig. 1). Island abbreviations are listed for each taxon in order of importance and all the literature references are chronologically listed. Reports without a

precise indication of locality but including a particular geographic area, such as the Desert Islands, were indicated as (DG).

Whenever the source information included distribution maps for a species, it was also added, before the islands distribution: Wmap – World's distribution map; Eurmap – distribution map for Europe; PI/Macmap – distribution map for the Iberian Peninsula including Macaronesia; Afr/Macmap – distribution map for Africa and Macaronesia; Madmap – distribution map for Madeira; PSmap – distribution map for Porto Santo.

It should be noted that all the available publications, including regional data, have been consulted for this paper. They are cited with the name of the author who indicated the location of the taxon. Many records correspond to the same locality however, published by different authors on successive dates, so they frequently do not correspond to the number of localities or areas and do not reflect the rarity of the species.

The studied bibliography contains approximately 314 entries that support the acceptance of the species listed in this catalogue. The resulting list contains 608 taxa based on 15,952 records, 10,363 for mosses and 5,589 for liverworts-hornworts.

Data from existing check-lists, as in the cases of liverworts or hornworts (SÖDERSTRÖM *et al.*, 2002), general distribution publications (DÜLL, 1983, 1984, 1985, 1992), floras, text books (as BROTHÉRUS, 1924, 1925) and the Red List of Europe (ECCB, 1995), were not included whenever a locality, a map or a particular note are referenced. Also, we did not include information from general floras or textbooks, except for particular taxa (e. g. original description), locality information, or revised specimens (e. g. MÜLLER, 1951-1958; PATON, 1999).

According to HEDENÄS (1992a), some taxa have been considered dubious in Madeira, although other authors sometimes referred to them.

One of the difficulties found during the elaboration of this catalogue was that the taxonomic criteria of taxa delimitation presented in different literature reports were not always described. In general, most of the older works do not consider the infra-specific categories, which makes their inclusion in a taxonomic category impossible, according to recent criteria. In specific cases, for taxa requiring a taxonomic revision of all material, it was difficult to provide an accurate distribution. In these cases, a note was added.

When an infra-specific taxon is referred to, we interpreted it as meaning the species is present in the region.

This document is not a nomenclatural work, however we integrate two lists of synonyms in alphabetic order.

Additional criteria for the information presented in this catalogue are as follows:

- It has been assumed that if one plant species is synonymised with another, then distribution data from both can also be merged.
- We have made no judgement on the quality of the records. All records have been accepted as a rule, excluding the ones indicated in the notes.

- Synonyms are listed in alphabetic order and the valid taxa to which they apply are also indicated.
- The present version includes only records published up to December 2005.

Abbreviations used:

Regions - different islands (Fig.1):

M: Madeira

PS: Porto Santo

DG: Ilhas Desertas

IS: Ilhas Selvagens

Other abbreviations:

? Endemic Macaronesian taxon

?? Endemic Madeira taxon

Distribution maps:

Wmap: World distribution map

Eurmap: Europe

PI/macmap: Iberian Peninsula and Macaronesia

Afr/Macmap: Africa and Macaronesia

Madmap: Madeira

PSmap: Porto Santo

(?) Critical endemic taxon

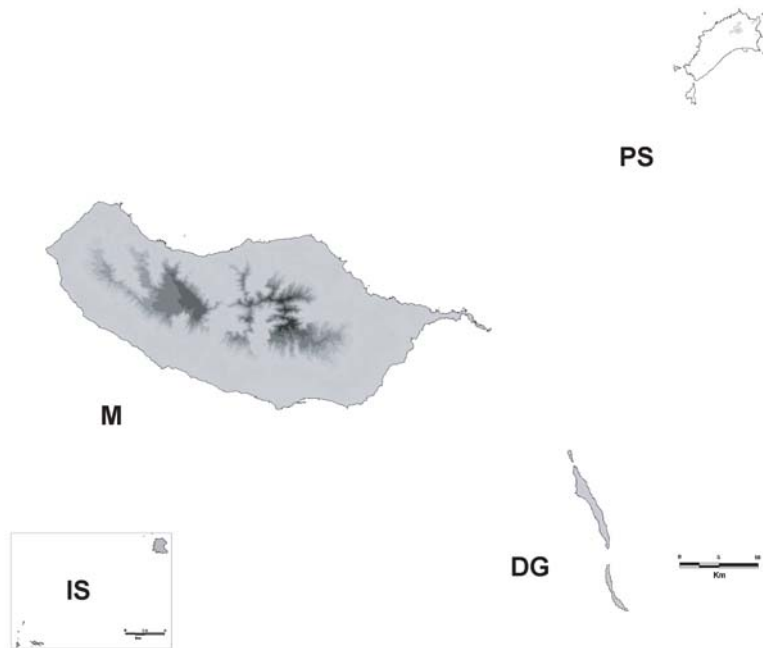


Fig. 1 - Madeira Archipelago and geographic units (Islands). M – Madeira, PS – Porto Santo and DG – Deserta Grande (latitudes from 33° 10' and 33° 20' N and the longitudes 16° 10' and 17° 20' W); IS – Selvagens group (latitudes from 30° 01' and 30° 08' N and the longitudes 15° 50' and 16° 02' W).

BIODIVERSITY ANALYSIS

The total number of taxa recorded (mosses and liverworts-hornworts) in different islands can be summarised as follows (Fig. 2). The greatest diversity of taxa is achieved on the island of Madeira. The lowest diversity occurs on the Selvagens. Figure 3 shows the percentages of the two groups (mosses and liverworts-hornworts) that are generally quite distinct among the different islands. In fact, there are a higher percentage of mosses than liverworts-hornworts in all regions except the island of Porto Santo.

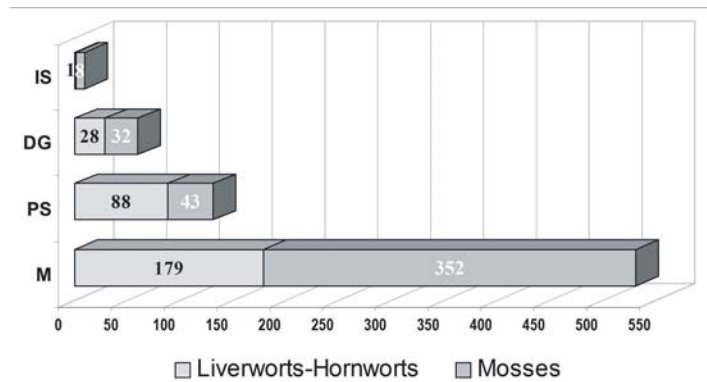


Fig. 2 - The total number of taxa recorded (mosses and liverworts-hornworts) for each islands. M: Madeira; PS: Porto Santo; DG: Deserta Grande Island; IS: Selvagens Islands. The total number in Madeira Archipelago is 350 mosses and 179 liverworts-hornworts.

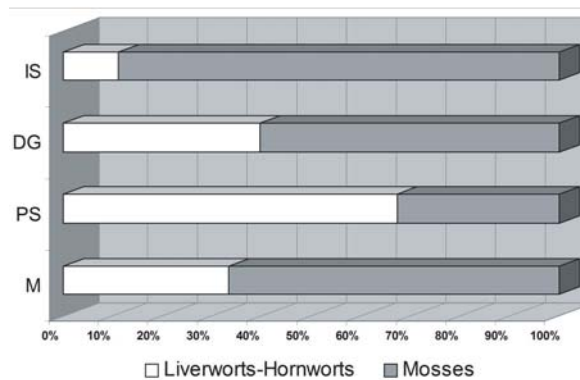


Fig. 3 - The percentage of the two groups (mosses and liverworts-hornworts) in each island. M: Madeira; PS: Porto Santo; DG: Deserta Grande Island; IS: Selvagens Islands.

In this paper, 610 taxa (410 mosses and 200 liverworts-hornworts) are listed for Madeira (with 24 varieties and 3 subspecies of mosses and 4 varieties and 3 subspecies of liverworts-hornworts), based on a recent critical assessment of literature data. The bryophytes to be excluded or of very improbable occurrence correspond to 72 taxa (51 mosses and 21 liverworts-hornworts). The Madeiran endemic taxa comprise 10 mosses and 4 liverworts-hornworts, about 2,5% of the total Madeiran bryoflora. Macaronesian endemic taxa comprise 31 mosses (10 endemic to Madeira) and 15 liverworts-hornworts (four endemic to Madeira), corresponding to about 8% of the total Macaronesian bryoflora.

As a final result, 531 bryophyte taxa (352 mosses and 179 liverworts-hornworts) are considered to be present in Madeira. The total known species are included in 198 genera (135 mosses, 70 liverworts and 3 hornworts), in 83 families (49 mosses, 33 liverworts and 1 hornwort).

The genera with most Macaronesian endemic species are *Cyrtohypnum*, *Echinodium*, *Fissidens* and *Alophozia* and *Nobregaea* two endemic monotypic genus. For liverworts are *Aphanolejeunea*, *Frullania*, *Plagiochila* and *Radula*.

We believe that the present catalogue represents a new and useful base line, essential for the knowledge of Madeiran bryophyte species, since it provides information concerning the chorological distribution and the occurrence in different islands, together with recent bibliographic references. It is also of great importance at the Macaronesian level, and a useful tool for the compilation of Macaronesian or European checklists.

It is worth emphasizing that distribution data based only on bibliographic references are not enough to provide a correct overview of the biodiversity composition of the Madeiran Archipelago.

Recent fieldwork on selected habitats of Madeira, and further revision of important herbarium collections will improve and complete our knowledge about bryophytes distribution in the Macaronesian Archipelago.



Fig. 4 - An example of a rich bryophytic vegetation in an area of *Laurisilva* in Madeira Island (Photograph by M. Sim-Sim).



Fig. 5 - Original illustration of *Amphidium curvipes* from Adalbert Geheeb: *Bryologica atlantica Die Laubmoose der atlantischen Inseln* (Photograph available World Wide Bryology, <http://www.britishbryologicalsociety.org.uk/>).

PHYLUM: Bryophyta**Sphagnopsida (Engl.) Ochyra****Shagnaceae Dumort.***Shagnum* L.**Andreaeopsida (Limpr.) Rothm.****Andreaeaceae Dumort.***Andreaea* Hedw.**Polytrichopsida Ochyra,****Żarnowiec & Bednarek-Ochyra****Polytrichaceae Schwägr.***Alophosia* Cardot*Atrichum* P. Beauv.*Pogonatum* P. Beauv.*Polytrichum* Hedw.**Bryopsida (Limpr.) Rothm.****Diphysciaceae M. Fleisch***Diphyscium* Morh**Encalyptaceae Schimp.***Encalypta* Hedw.**Funariaceae Schwägr.***Entosthodon* Schwägr.*Funaria* Hedw.*Funariella* Sérgio*Physcomitrium* (Brid.) Brid.**Gigaspermaceae Lindb.***Oedipodiella* Dixon**Grimmiaceae Arn.***Grimmia* Hedw.*Racomitrium* Brid.*Schistidium* Bruch & Schimp.**Ptychomitriaceae Schimp.***Campylostelium* Bruch & Schimp.*Glyphomitrium* Brid.*Ptychomitrium* Fürnr.**Archidiaceae Schimp.***Archidium* Brid.**Bryoxiphiaceae Besch.***Bryoxiphium* Mitt.**Fissidentaceae Schimp.***Fissidens* Hedw.*Octodiceras* Brid.**Dicranaceae Schimp.***Campylopus* Brid.*Dicranella* (Müll.Hal.) Schimp.*Dicranum* Hedw.*Paraleucobryum* (Limpr.) Loeske**Leucobryaceae Schimp.***Leucobryum* Hampe**Ditrichaceae Limpr.***Ceratodon* Brid.*Cheilothela* Lindb.*Ditrichum* Hampe*Pleuridium* Rabenh.*Rhamphidium* Mitt.**Rhabdoweisiaceae Limpr.***Amphidium* Schimp.*Dichodontium* Schimp.*Dicranoweisia* Lindb. ex Milde*Rhabdoweisia* Bruch & Schimp.**Pottiaceae Schimp.***Acaulon* Müll. Hal.*Aloina* Kindb.*Anoetangium* Schwägr.*Barbula* Hedw.*Bryoerythrophyllum* P. C. Chen*Crossidium* Jur.*Dialytrichia* (Schimp.) Limpr.*Didymodon* Hedw.*Eucladium* Bruch & Schimp.*Gymnostomum* Nees & Hornsch*Gyroweisia* Schimp.*Hymenostylium* Brid.*Leptobarbula* Schimp.*Leptodontium* (Müll. Hal.) Lindb.*Leptophascum* J. Guerra & M. J.

Cano

Microbryum Schimp.*Phascum* Hedw.

Pleurochaete Lindb.
Pottia (Reichenb.) Fürnr.
Pseudocrossidium Williams
Pterygoneurum Jur.
Syntrichia Brid.
Timmia (De Not.) Limpr.
Tortella (Lindb.) Limpr.
Tortula Hedw.
Trichostomum Bruch.
Weissia Hedw.

Ephemeraceae Schimp.

Ephemerum Hampe

Cinclidotaceae K. Saito

Cinclidotus P. Beauv.

Meesiaceae Schimp.

Leptobryum Wilson

Orthotrichaceae Arn.

Orthotrichum Hedw.

Ulota Morh.

Zygodon Hook. & Taylor

Hedwigiaceae Schimp.

Hedwigia P. Beauv.

Bartramiaceae Schwägr.

Anacolia Schimp.

Bartramia Hedw.

Philonotis Brid.

Bryaceae Schwägr.

Anomobryum Schimp.

Brachymenium Schwägr.

Bryum Hedw.

Epipterygium Lindb.

Microbryum Schimp.

Orthodontium Schwägr.

Mniaceae Schwägr.

Mnium Hedw.

Plagiomnium T. J. Kop.

Pohlia Hedw.

Rhizomnium T. J. Kop.

Daltoniaceae Schimp.

Daltonia Hook. & Taylor

Hookeriaceae Schimp.

Hookeria A. J. E. Sm.

Tetrastichium (Mitt.) Cardot

Pilotrichaceae Kindb.

Cyclodictyon Mitt.

Amblystegiaceae (Broth.) Fleisch.

Amblystegium Schimp.

Cratoneuraceae Mönk.

Cratoneuron (Sull.) Spruce

Helodiaceae

Palustriella Ochyra

Hylocomiaceae (Broth.) M. Fleisch.

Hylocomium Bruch & Schimp.

Pleurozium Mitt.

Rhytidiadelphus (Limpr.) Warnst.

Leskeaceae Schimp.

Lescuraea Bruch & Schimp.

Pterigynandraceae Schimp.

Habrodon Schimp.

Heterocladium Bruch & Schimp.

Pterigynandrum Hedw.

Thuidiaceae Schimp.

Cyrtohypnum Hampe

Thuidium Bruch & Schimp.

Campyliaceae (Kanda) W. R. Buck

Hygrohypnum Lindb.

Sanionia Loeske

Brachytheciaceae G. Roth.

Brachythecium Schimp.

Cirriphyllum Grout

Eurhynchium Bruch & Schimp.

Homalothecium Bruch & Schimp.

Isothecium Brid.

Nobregaea Hedenäs

Platyhypnidium M. Fleisch.

Rhynchostegiella (Schimp.) Limpr.

Rhynchostegium Schimp.

Scleropodium Bruch & Schimp.

Scorpiurium Schimp.

Fabroniaceae (Broth.) Fleisch.

Fabronia Raddi

Plagiotheciaceae (Broth.) Fleisch.

Plagiothecium Bruch & Schimp.

Fontinalaceae Schimp.

Fontinalis Hedw.

Hypnaceae Schimp.

Andoa Ochyra

Calliergonella Loeske

Ctenidium (Schimp.) Mitt.

Hyocomium Bruch & Schimp.

Hypnum Hedw.

Isopterygiopsis Z. Iwats.

Pseudotaxiphyllum Z. Iwats.

Sematophyllaceae Broth.

Sematophyllum Mitt.

Myuriaceae M. Fleisch.

Myurium Schimp.

Cryphaeaceae D. Mohr

Cryphaea D. Mohr.

Leucodontaceae Schimp.

Antitrichia Brid.

Leucodon Schwägr.

Pterogonium Sw.

Neckeraceae Schimp.

Homalia (Brid.) Bruch & Schimp.

Neckera Hedw.

Thamnobryum Nieuwl.

Echinodiaceae Broth.

Echinodium Jur.

Leptodontaceae Schimp.

Leptodon Morh.

Anomodontaceae Kindb.

Anomodon Hook & Taylor



Fig. 6 - *Bryoxiphium madeirense* an endemic moss from Madeira (Photograph by T. Hallingbäck).

***Acaulon muticum* (Hedw.) Müll. Hal.**

M: SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995.

***Acaulon triquetrum* (Spruce) Müll. Hal.**

Madmap: FONTINHA, 1995.

M: NÓBREGA, 1990; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995.

***Aloina aloides* (Schultz) Kindb.**

Madmap: FONTINHA, 1995.

PSmap: FONTINHA & SÉRGIO, 1998.

M: DÜLL, 1984; DÜLL, 1992; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995.

PS: FONTINHA & SÉRGIO, 1998.

***Aloina ambigua* (Bruch & Schimp.) Limpr.**

Madmap: SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995.

M: LUISIER, 1936; LUISIER, 1938b; PEREIRA, 1967; EGGERS, 1982; DÜLL, 1984; DÜLL, 1992; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SJÖGREN, 2001.

PS: LUISIER, 1939; COSTA & PERSSON, 1941.

DG: LUISIER, 1956.

***Aloina rigida* (Hedw.) Limpr.**

Madmap: NÓBREGA, 1990; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995.

M: HOLL, 1830; LUISIER, 1917; LUISIER, 1927; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; NÓBREGA, 1990; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SJÖGREN, 2001.

***Alophosia azorica* (Renauld & Cardot) Cardot •**

Wmap: SMITH, 1971.

PI/Macmap: CASAS *et al.*, 1989.

M: LUISIER, 1938b; LUISIER, 1939; BUCH & PERSSON, 1941; BARROS, 1942; TAVARES, 1965; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; SMITH, 1971; EGGERS, 1982; DÜLL, 1984; CASAS *et al.*, 1989; SÉRGIO *et al.*, 1992; ECCB, 1995; SJÖGREN, 2001.

According to SÉRGIO *et al.*, 1992, this Macaronesian endemic species is considered rare in Madeira Island.

***Amblystegium fluviatile* (Hedw.) Bruch. & Schimp.**

M: ADE & KOPPE, 1942; LUISIER, 1942; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; DÜLL, 1992; HEDENÄS, 1992a.

***Amblystegium humile* (P. Beauv.) Crundw.**

M: HEDENÄS, 1992a; SJÖGREN, 2001.

Amblystegium riparium* (Hedw.) Schimp.*Madmap:** HÜBSCHMANN, 1971.**M:** BUCH, 1833; MITTEN, 1870; BRITTEN, 1904; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; ARMITAGE, 1918; LUISIER, 1920; LUISIER, 1927; LUISIER, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; HEDENÄS, 1992a; SJÖGREN, 2001.***Amblystegium tenax* (Hedw.) C. E. O. Jens.****M:** GEHEEB & HERZOG, 1910; LUISIER, 1920; LUISIER, 1927; LUISIER, 1942; PERSSON, 1939; ADE & KOPPE, 1942; BARROS, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; NÓBREGA, 1990; DÜLL, 1992; HEDENÄS, 1992a; SJÖGREN, 2001.***Amblystegium varium* (Hedw.) Lindb.****M:** MITTEN, 1865; MITTEN, 1870; SCHIMPER, 1868; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; LUISIER, 1917; LUISIER, 1920; LUISIER, 1927; LUISIER, 1938b; ADE & KOPPE, 1942; LUISIER, 1942; TAVARES, 1965; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; DÜLL, 1992; HEDENÄS, 1992a; SÉRGIO *et al.*, 1992; SJÖGREN, 2001.According to SÉRGIO *et al.*, 1992 this Macaronesian endemic species is considered endangered in Madeira Island.***Amphidium curvipes* (Müll.Hal.) Broth. •****Wmap:** SÉRGIO, 1984.**M:** HOLL, 1830; MÜLLER, 1849-1851; SCHIMPER, 1868; MITTEN, 1870; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; PERSSON, 1939; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; SÉRGIO, 1973b; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; SÉRGIO, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; SÉRGIO *et al.*, 1992; ECCB, 1995; SIM-SIM *et al.*, 2004b.***Amphidium mougeotii* (Bruch & Schimp.) Schimp.****PI/Macmap:** CASAS *et al.*, 1989.**M:** WINTER, 1914; ADE & KOPPE, 1942; LUISIER, 1943; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; CASAS *et al.*, 1989; SJÖGREN, 2001.***Anacolia webbii* (Mont.) Schimp.****Madmap:** NÓBREGA, 1990; SÉRGIO *et al.*, 1992.**PI/Macmap:** CASAS *et al.*, 1985.

M: MITTEN, 1870; GEHEEB & HERZOG, 1910; LUISIER, 1910; LUISIER, 1919; LUISIER, 1927; LUISIER, 1932; LUISIER, 1938b; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; CASAS *et al.*, 1985; DÜLL, 1985; NÓBREGA, 1990; SÉRGIO *et al.*, 1992; ECCB, 1995.

DG: HOLMEN & RASMUSSEN, 1971b; LUISIER, 1956.

***Andoa berthelotiana* (Mont.) Ochyra •**

Wmap: HOLMEN & RASMUSSEN, 1971b; ZIPPEL, 1998.

Madmap: SÉRGIO & FONTINHA, 1994b.

PI/Macmap: CASAS *et al.*, 1989.

M: SCHIMPER, 1868; MITTEN, 1870; GEHEEB, 1886; CARDOT, 1897; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; LUISIER, 1920; LUISIER, 1927; LUISIER, 1938b; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; BARROS, 1942; LUISIER, 1945b; TAVARES, 1965; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; ANDO, 1973; SÉRGIO, 1973b; SJÖGREN, 1975; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; CASAS *et al.*, 1989; DÜLL, 1992; HEDENÄS, 1992a; SÉRGIO *et al.*, 1992; SÉRGIO & FONTINHA, 1994b; ECCB, 1995; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

***Andraeaea alpestris* (Thed.) Schimp.**

PI/Macmap: CASAS *et al.*, 1996.

M: LUISIER, 1936; LUISIER, 1938b; BARROS, 1942; PEREIRA, 1967; EGGERS, 1982; DÜLL, 1984; DÜLL, 1992; CASAS *et al.*, 1996.

***Andraeaea heinemannii* Hampe & Müll. Hal.**

Madmap: SÉRGIO & FONTINHA, 1994a.

PI/Macmap: CASAS *et al.*, 1996.

M: EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; DÜLL, 1992; SÉRGIO *et al.*, 1992; SÉRGIO & FONTINHA, 1994a; NIEUWKOOP & ARTS, 1995; CASAS *et al.*, 1996.

According to SÉRGIO *et al.* (1992) this species is considered insufficiently known in Madeira Island.

***Andraeaea rothii* F. Weber & D. Mohr**

PI/Macmap: CASAS *et al.*, 1996.

M: CASAS *et al.*, 1996.

***Andraeaea rupestris* Hedw.**

PI/Macmap: CASAS *et al.*, 1996.

M: PERSSON, 1939; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; DÜLL, 1992; CASAS *et al.*, 1996; SJÖGREN, 2001.

***Anoetangium aestivum* (Hedw.) Mitt.**

M: MITTEN, 1865; MITTEN, 1870; GEHEEB, 1886; DIXON, 1909; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; PERSSON, 1939; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; DÜLL, 1992; SIM-SIM *et al.*, 2004b.
The Madeiran records probably belong to *A. aestivum* var. *madeirense*.

***Anoetangium aestivum* (Hedw.) Mitt. var. *madeirense* (Geh.) Düll. •**

M: GEHEEB & HERZOG, 1910; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; ADE & KOPPE, 1942; PEREIRA, 1967; HÜBSCHMANN, 1971; SÉRGIO *et al.*, 1992; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; DÜLL, 1992.

This taxon was considered rare in Madeira Island (SÉRGIO *et al.*, 1992).

***Anoetangium angustifolium* Mitt. •**

M: SCHIMPER, 1868; MITTEN, 1870; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; PERSSON, 1939; ADE & KOPPE, 1942; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; SÉRGIO, 1973b; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SÉRGIO *et al.*, 1992; SJÖGREN, 2001.

According to SÉRGIO *et al.*, 1992 this species is considered rare in Madeira Island. The taxonomic position of this taxon needs to be investigated.

***Anomobryum julaceum* (P. Gaertn., B. Mey. & Scherb.) Schimp.**

M: MITTEN, 1870; CARDOT, 1897; SCHIFFNER, 1902; DIXON, 1909; GEHEEB & HERZOG, 1910; WINTER, 1914; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1931; LUISIER, 1938b; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; SJÖGREN, 2001.

***Antitrichia californica* Sull.**

PI/Macmap: CASAS *et al.*, 1985.

M: LUISIER, 1956; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; CASAS *et al.*, 1985; DÜLL, 1985; KOPPE & DÜLL, 1986; HEDENÄS, 1992a; NIEUWKOOP, 1993.

***Antitrichia curtispindula* (Hedw.) Brid.**

Madmap: NÓBREGA, 1990.

PI/Macmap: CASAS *et al.*, 1989.

M: MITTEN, 1870; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; ARMITAGE, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1932; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; EGGERS, 1982;

Schwab & Haustein, 1984; Düll, 1985; Casas *et al.*, 1989; Nóbrega, 1990; Hedenäs, 1992a; Nieuwkoop, 1993.

***Archidium alternifolium* (Hedw.) Mitt.**

M: Nieuwkoop & Arts, 1995; Sjögren, 2001.

***Astomum crispum* (Hedw.) Hampe**

Madmap: Fontinha, 1995.

M: Sérgio & Fontinha, 1994b; Fontinha, 1995.

***Atrichum angustatum* (Brid.) Bruch & Schimp. var. *rhystophyllum* (Müll.Hal.) P. W. Richards & E. C. Wallace**

M: Luisier, 1953; Holmen & Rasmussen, 1971a; Sérgio, 1973b; Eggers, 1982; Düll, 1984; Düll, 1992; Sérgio *et al.*, 1992; Sjögren, 2001; Sim-Sim *et al.*, 2004b.

Sérgio *et al.*, 1992, consider this species vulnerable in Madeira Island.

***Atrichum undulatum* (Hedw.) P. Beauv.**

M: Buch, 1833; Schimper, 1868; Mitten, 1870; Cardot, 1897; Schiffner, 1902; Britten, 1904; Geheeb & Herzog, 1910; Luisier, 1919; Luisier, 1927; Luisier, 1932; Holmen & Rasmussen, 1971a; Holmen & Rasmussen, 1971b; Hübschmann, 1971; Sérgio, 1973b; Eggers, 1982; Düll, 1984; Schwab & Haustein, 1984; Koppe & Düll, 1986; Sjögren, 2001; Sim-Sim *et al.*, 2004b.

***Barbula convoluta* Hedw.**

M: Düll, 1984; Koppe & Düll, 1986; Sjögren, 2001.

***Barbula semilimbata* Dixon & Luisier (••)**

Madmap: Nóbrega, 1990.

M: Luisier, 1936; Luisier, 1937; Luisier, 1938b; Barros, 1942; Pereira, 1967; Holmen & Rasmussen, 1971a; Eggers, 1982; Nóbrega, 1990.

Although this species is an endemism from Madeira Island. But studying the type material we can assume that it is a form of *Ceratodon purpureus*.

Ceratodon purpureus (Hedw.) Brid., Bryologia Universa 1: 480. 1826. (*Dicranum purpureum* Hedw. Species Muscorum Frondosorum 136. 36. 1801). *Barbula semilimbata* Dixon & Luisier Brotéria, Ciências Naturais 6: 94. 1937, **Syn. nov.**

***Barbula unguiculata* Hedw.**

M: Luisier, 1947; Holmen & Rasmussen, 1971a; Hübschmann, 1971; Eggers, 1982; Düll, 1984; Koppe & Düll, 1986; Sjögren, 2001.

Bartramia pomiformis* Hedw.*PI/Macmap:** CASAS *et al.*, 1992.**M:** LUISIER, 1937; LUISIER, 1938b; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; CASAS *et al.*, 1992; HODGETTS, 1992.***Bartramia stricta* Brid.****Madmap:** SÉRGIO & FONTINHA, 1994b.**PI/Macmap:** CASAS *et al.*, 1992.**M:** SCHIMPER, 1868; MITTEN, 1870; DIXON, 1909; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; ARMITAGE, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1932; LUISIER, 1938b; PERSSON, 1939; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; CASAS *et al.*, 1992; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001.***Blindia acuta* (Hedw.) Bruch & Schimp. var. *madeirensis* (Geh. & Herzog) Perss. •****Wmap:** BARTLETT & VITT, 1986.**PI/Macmap:** CASAS *et al.*, 1996.**M:** GEHEEB & HERZOG, 1910; LUISIER, 1910; LUISIER, 1917; LUISIER, 1918; LUISIER, 1927; LUISIER, 1936; LUISIER, 1938b; PERSSON, 1939; BARROS, 1942; TAVARES, 1965; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; BARTLETT & VITT, 1986; KOPPE & DÜLL, 1986; DÜLL, 1992; SÉRGIO *et al.*, 1992; CASAS *et al.*, 1996; SJÖGREN, 2001.***Brachymenium canariense* Schimp.****M:** GEHEEB & HERZOG, 1910; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985.

This taxon was invalid described (article 32.1 (c) Tokyo code).

Brachymenium notarisii* (Mitt.) A. J. Shaw •*Madmap:** SÉRGIO *et al.*, 1992; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995.**M:** MITTEN, 1865; MITTEN, 1870; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1925; LUISIER, 1927; LUISIER, 1931; LUISIER, 1938b; PERSSON, 1939; ADE & KOPPE, 1942; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; SHAW, 1987; ARTS, 1988A; SÉRGIO *et al.*, 1992; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; ECCB, 1995; SJÖGREN, 2001.***Brachymenium philonotula* Broth.****M:** LUISIER, 1907; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1925; LUISIER, 1927; LUISIER, 1931; LUISIER, 1938b; TAVARES, 1965; HOLMEN & RASMUSSEN, 1971a; OCHI, 1972; EGGERS, 1982;

DÜLL, 1985.

Since OCHI (1972) does not indicate this species to Madeira, we admit that a revision of the herbarium material may demonstrate its conspecificity with *Brachymenium exile* (Dozy & Molk.) Bosch & Sande Lac.

***Brachythecium albicans* (Hedw.) Schimp.**

M: LUISIER, 1909a; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1917; LUISIER, 1920; LUISIER, 1927; LUISIER, 1945b; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; DÜLL, 1992; HEDENÄS, 1992a; SJÖGREN, 2001.

Brachythecium mildeanum (Schimp.) Milde

M: LUISIER, 1909a; LUISIER, 1909b; LUISIER, 1917; LUISIER, 1920; LUISIER, 1927; LUISIER, 1945b; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985.

HEDENÄS (1992a) have not observed any correctly identified specimen from Madeira Island.

***Brachythecium percurrens* Hedenäs ••**

M: DÜLL, 1992; HEDENÄS, 1992c; ECCB, 1995; FONTINHA *et al.*, 2001; SIM-SIM *et al.*, 2004b.

***Brachythecium plumosum* (Hedw.) Schimp.**

M: SCHIMPER, 1868; MITTEN, 1870; LUISIER, 1909b; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1920; LUISIER, 1927; BUCH & PERSSON, 1941; BARROS, 1942; LUISIER, 1945b; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; HEDENÄS, 1992a; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

***Brachythecium rivulare* Schimp.**

M: MITTEN, 1870; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; ARMITAGE, 1918; LUISIER, 1920; LUISIER, 1927; ADE & KOPPE, 1942; LUISIER, 1945b; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; HEDENÄS, 1992a; SJÖGREN, 2001.

***Brachythecium ruderale* Bruch & Schimp. (••)**

M: SCHIMPER, 1868; EGGERS, 1982; DÜLL, 1985; HEDENÄS, 1992a; SÉRGIO *et al.*, 1992.

According to HEDENÄS (1992a) this taxon is a *nom. nud.* and is distinct from *B. ruderale* (Brid.) W. R. Buck. Its taxonomic position should be considered uncertain until further investigation.

***Brachythecium rutabulum* (Hedw.) Schimp.**

M: DIXON, 1909; GEHEEB & HERZOG, 1910; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1920; LUISIER, 1927; BUCH & PERSSON, 1941; LUISIER, 1945b; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; HEDENÄS, 1992a; SJÖGREN, 2001.

***Brachythecium rutabulum* (Hedw.) Schimp. & *G. var. atlanticum* Hedenäs • •**

M: DÜLL, 1992; HEDENÄS, 1992c; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

***Brachythecium salebrosum* (F. Weber & D. Mohr) Schimp.**

M: LUISIER, 1945b; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985.

Since HEDENÄS (1992a) did not observe any material from Madeira Island, we admit that all reports need to be revised, according to recent taxonomic criteria.

***Brachythecium velutinum* (Hedw.) Schimp.**

M: BOWDICH, 1825; BUCH, 1833; BRITTEN, 1904; LUISIER, 1917; LUISIER, 1945b; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; HEDENÄS, 1992a; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

***Bryoerythrophyllum campylocarpum* (Müll.Hal.) Crum.**

M: DÜLL, 1984; SÉRGIO & NÓBREGA, 1985; KOPPE & DÜLL, 1986; DÜLL, 1992; SÉRGIO *et al.*, 1992; ECCB, 1995.

According to SÉRGIO *et al.* 1992, this species is endangered in Madeira Island.

***Bryoerythrophyllum inaequalifolium* (Taylor) R. H. Zander**

M: SJÖGREN, 2001.

SJÖGREN (2001) reported this species without any locality information.

***Bryoerythrophyllum recurvirostrum* (Hedw.) Chen.**

M: DÜLL, 1984; KOPPE & DÜLL, 1986.

***Broxiphium madeirense* A. Löve & D. Löve • •**

Wmap: LÖVE & LÖVE, 1953.

Madmap: NÓBREGA, 1990.

M: LUISIER, 1937; LUISIER, 1938b; PERSSON, 1939; LUISIER, 1941; BARROS, 1942; LUISIER, 1947; LÖVE & LÖVE, 1953; LÖVE & LÖVE, 1955; LUISIER, 1956; TAVARES, 1965; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; NÓBREGA, 1990; DÜLL, 1992; SÉRGIO *et al.*, 1992; ECCB, 1995; FONTINHA *et al.*, 2001.

***Bryum alpinum* With.**

M: SCHIMPER, 1868; MITTEN, 1870; CARDOT, 1897; DIXON, 1909; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1931; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; OCHI, 1972; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; SJÖGREN, 2001.

The reports of var. *meridionale* Schimp. and subsp. *atlanticum* (Solms) Podp. are included in the broad sense of *Bryum alpinum*.

***Bryum argenteum* Hedw.**

Madmap: FONTINHA, 1995.

PSmap: FONTINHA & SÉRGIO, 1998.

M: SCHIFFNER, 1902; LUISIER, 1909a; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1931; TAVARES, 1965; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SJÖGREN, 2001.

PS: COSTA & PERSSON, 1941; FONTINHA & SÉRGIO, 1998.

DG: FONTINHA *et al.*, 1997.

The reports of var. *lanatum* Schimp. are included in the broad sense of *Bryum argenteum*.

***Bryum caespiticium* Hedw.**

Madmap: SÉRGIO & FONTINHA, 1994b.

M: BUCH, 1833; CARDOT, 1897; BRITTEN, 1904; LUISIER, 1927; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

IS: EGGERS, 1982; NÓBREGA, 1955.

***Bryum caespiticium* Hedw. var. *atlanticum* Cardot (●)**

M: CARDOT, 1897; GEHEEB & HERZOG, 1910; LUISIER, 1917; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1931; LUISIER, 1938b; EGGERS, 1982; DÜLL, 1985.

The type material of this species needs to be studied and its taxonomic position should be clarified.

***Bryum canariense* Brid.**

Madmap: SÉRGIO & FONTINHA, 1994b.

M: SCHIMPER, 1868; MITTEN, 1870; CARDOT, 1897; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1931; LUISIER, 1938b; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; OCHI, 1972; EGGERS, 1982; SCHWAB & HAUSTEIN,

1984; DÜLL, 1985; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001.

PS: COSTA & PERSSON, 1941.

IS: EGGERS, 1982; NÓBREGA, 1955.

Several authors do not differentiate from *B. canariense* Brid. var. *provinciale* (Philib.) Husn. from the type variety.

***Bryum canariense* Brid. var. *provinciale* (H. Philib.) Husn.**

M: DÜLL, 1985; KOPPE & DÜLL, 1986.

***Bryum capillare* Hedw.**

Madmap: FONTINHA, 1995.

M: MITTEN, 1870; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1917; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1931; LUISIER, 1938b; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; OCHI, 1972; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; DÜLL, 1992; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

DG: HOLMEN & RASMUSSEN, 1971b; EGGERS, 1982.

The report of *Bryum rufifolium* (Dixon) Demaret & R. Wilczec (SIM-SIM *et al.*, 2004b) is included in the broad sense of *B. capillare*.

Bryum cellulare Hook. ex Schwägr.

M: DÜLL, 1985.

This species is an insufficiently known taxon to Madeira Island.

***Bryum dichotumum* Hedw.**

Madmap: SÉRGIO & FONTINHA, 1994a; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995.

PSmap: FONTINHA & SÉRGIO, 1998.

M: SCHIMPER, 1868; MITTEN, 1870; DIXON, 1909; GEHEEB & HERZOG, 1910; ARMITAGE, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1931; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; DÜLL, 1992; SÉRGIO & FONTINHA, 1994a; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SJÖGREN, 2001.

PS: COSTA & PERSSON, 1941; FONTINHA & SÉRGIO, 1998.

DG: SÉRGIO & NÓBREGA, 1985; SÉRGIO & FONTINHA, 1994; FONTINHA *et al.*, 1997.

This species belongs to a very polymorphic group and the herbarium material referred as *B. atropurpureum*, *B. bicolor* and *Bryum dunense* A. J. E. Sm. & Whitehouse, is nowadays included in the synonymy of *B. dichotumum*.

***Bryum donianum* Grev.**

M: MITTEN, 1865; MITTEN, 1870; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910;

WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1931; LUISIER, 1938b; PERSSON, 1939; ADE & KOPPE, 1942; LUISIER, 1943; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; OCHI, 1972; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; DÜLL, 1992; SÉRGIO *et al.*, 1992; SJÖGREN, 2001.

***Bryum erythrocarpum* Schwägr. complex**

M: HOLL, 1830; DIXON, 1909; GEHEEB & HERZOG, 1910; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1931; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; KOPPE & DÜLL, 1986.

All the material of this group needs to be revised, using recent taxonomic criteria. The majority of reports was included in *Bryum atrovirens* Vill. ex Brid.

Bryum funckii Schwägr.

M: DÜLL, 1985.

The type variety and the var. *gracilentum* (C. Müell. ex Braithw.) Düll, were only referred to Madeira Island by DÜLL (1985). However, the identity of this taxon needs to be confirmed.

***Bryum gemmiparum* De Not.**

Madmap: FONTINHA, 1995.

M: GEHEEB, 1886; LUISIER, 1909a; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1931; PEREIRA, 1967; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SJÖGREN, 2001.

***Bryum mildeanum* Jur.**

M: DIXON, 1909; DÜLL, 1985; SJÖGREN, 2001.

Although DIXON (1909) refers this species to Madeira Island, EGGERS (1982) does not mention it.

***Bryum muehlenbeckii* Bruch & Schimp.**

M: OCHI, 1973; EGGERS, 1982; DÜLL, 1985.

***Bryum platyloma* Schwägr.**

M: SCHWAEGRICHEN, 1811-1816, MONTAGNE, 1839-1841; CARDOT, 1897; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1931; LUISIER, 1938b; ADE & KOPPE, 1942; HÜBSCHMANN, 1971; OCHI, 1972; OCHI, 1973; SYED, 1973; EGGERS, 1982; WILCZEK & DEMARET, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; SÉRGIO *et al.*, 1992.

PS: COSTA & PERSSON, 1941.

***Bryum pseudotriquetrum* (Hedw.) P. Gaertn., B. Mey. & Scherb.**

M: MITTEN, 1870; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1931; BUCH & PERSSON, 1941; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; OCHI, 1972; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; SJÖGREN, 2001.

***Bryum pseudotriquetrum* (Hedw.) P. Gaertn., B. Mey. & Scherb. var. *bimum* (Schreb. ap. Hedw.) Lilj.**

M: LUISIER, 1936; LUISIER, 1938b; ADE & KOPPE, 1942; LUISIER, 1943; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986.

This variety belongs to a very polymorphic group and *Bryum coenosum* Luisier. (LUISIER, 1936), is nowadays included in this taxon.

***Bryum radiculosum* Brid.**

M: SCHIMPER, 1868; DIXON, 1909; GEHEEB & HERZOG, 1910; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1931; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; OCHI, 1972; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; NORDHORN-RICHTER, 1986; SJÖGREN, 2001.

***Bryum rubens* Mitt.**

Madmap: HÜBSCHMANN, 1971.

M: PERSSON, 1939; LUISIER, 1943; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; SJÖGREN, 2001.

***Bryum ruderale* Crundw. & Nyholm**

M: DÜLL, 1985; SÉRGIO & NÓBREGA, 1985; SJÖGREN, 2001.

***Bryum sauteri* Bruch & Schimp.**

M: NIEUWKOOP & ARTS, 1995; SJÖGREN, 2001.

***Bryum torquescens* De Not.**

Madmap: FONTINHA, 1995.

M: LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; ADE & KOPPE, 1942; SYED, 1973; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SJÖGREN, 2001.

DG: SÉRGIO & NÓBREGA, 1991.

***Bryum versicolor* Bruch & Schimp.**

M: DÜLL, 1985.

This species is indicated by DÜLL (1985) to Madeira Island, however its occurrence is uncertain.

***Calliergonella cuspidata* (Hedw.) Loeske**

Madmap: NÓBREGA, 1990.

M: DIXON, 1909; GEHEEB & HERZOG, 1910; WINTER, 1914; ARMITAGE, 1918; LUISIER, 1920; LUISIER, 1927; BUCH & PERSSON, 1941; BARROS, 1942; LUISIER, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; NÓBREGA, 1990; HEDENÄS, 1992a; SJÖGREN, 2001.

***Campylopus flexuosus* (Hedw.) Brid.**

M: HOLL, 1830; LUISIER, 1917; LUISIER, 1927; LUISIER, 1937; BUCH & PERSSON, 1941; BARROS, 1942; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; FRAHM, 1985; KOPPE & DÜLL, 1986; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

PS: LUISIER, 1956.

DG: LUISIER, 1956.

The var. *menezesianum* described by LUISIER (1910), was later included in *C. flexuosus* var. *fayalensis* Cardot, by several authors. We include in the broad sense of *C. flexuosus*.

***Campylopus fragilis* (Brid.) Bruch & Schimp.**

M: SCHIMPER, 1868; MITTEN, 1870; DIXON, 1909; GEHEEB & HERZOG, 1910; WINTER, 1914; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; SÉRGIO, 1973b; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; FRAHM, 1985; KOPPE & DÜLL, 1986; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

PS: COSTA & PERSSON, 1941; EGGERS, 1982.

***Campylopus incrassatus* Müll.Hal.**

M: LUISIER, 1927; LUISIER, 1930; LUISIER, 1939; PERSSON, 1939; ADE & KOPPE, 1942; BARROS, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; FRAHM, 1976a; FRAHM, 1981; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; FRAHM, 1985; KOPPE & DÜLL, 1986; FRAHM & ISOVIITA, 1988; DÜLL, 1992; SÉRGIO *et al.*, 1992; ECCB, 1995; SJÖGREN, 2001.

According to SÉRGIO *et al.* (1992) this species is considered rare in Madeira Island.

***Campylopus introflexus* (Hedw.) Brid.**

M: NIEUWKOOP & ARTS, 1995.

***Campylopus pilifer* Brid.**

PI/Macmap: CASAS *et al.*, 1989.

Wmap: GRADSTEIN & SIPMAN, 1978.

M: MITTEN, 1870; CARDOT, 1897; DIXON, 1909; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; LUISIER, 1936; LUISIER, 1938b; PERSSON, 1939; ADE & KOPPE, 1942; TAVARES, 1965; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SJÖGREN, 1975; GRADSTEIN & SIPMAN, 1978; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; FRAHM, 1985; KOPPE & DÜLL, 1986; CASAS *et al.*, 1989; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001.

PS: LUISIER, 1910; LUISIER, 1918; LUISIER, 1930; COSTA & PERSSON, 1941; EGGERS, 1982; CASAS *et al.*, 1989.

DG: HOLMEN & RASMUSSEN, 1971b; EGGERS, 1982.

***Campylopus pyriformis* (Schultz) Brid.**

M: MITTEN, 1870; CARDOT, 1897; GEHEEB & HERZOG, 1910; LUISIER, 1910; LUISIER, 1917; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; EGGERS, 1982; DÜLL, 1984; FRAHM, 1985; KOPPE & DÜLL, 1986; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

***Campylostelium strictum* Solms**

PI/Macmap: CASAS *et al.*, 1989.

M: LUISIER, 1937; LUISIER, 1938b; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; CASAS *et al.*, 1989; SÉRGIO *et al.*, 1992; ECCB, 1995.

According to SÉRGIO *et al.*, 1992 this species is considered endangered in Madeira Island.

***Ceratodon purpureus* (Hedw.) Brid.**

M: MITTEN, 1870; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1927; ADE & KOPPE, 1942; TAVARES, 1965; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SJÖGREN, 2001.

Many reports have been placed generically under *C. purpureus s. l.*, but some can correspond to the subsp. *stenocarpus*.

***Ceratodon purpureus* (Hedw.) Brid. subsp. *stenocarpus* (Bruch & Schimp.) Dixon**

M: GEHEEB & HERZOG, 1910; LUISIER, 1917; LUISIER, 1918; LUISIER, 1927; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; BURLEY & PRITCHARD, 1990.

Cheilothela chloropus (Brid.) Broth.

M: WINTER, 1914; EGGERS, 1982; DÜLL, 1984; SJÖGREN, 2001.

It is an uncertain species in Madeira as there is no information about the place of occurrence.

***Cinclidotus fontinaloides* (Hedw.) P. Beauv.**

Madmap: NÓBREGA, 1990.

M: LUISIER, 1907; LUISIER, 1909a; LUISIER, 1909b; LUISIER, 1917; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; LUISIER, 1943; LUISIER, 1953; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; NÓBREGA, 1990; NIEUWKOOP, 1993.

***Cirriphyllum crassinervium* (Taylor) M. Loeske & Fleisch.**

M: GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1920; LUISIER, 1927; PERSSON, 1939; ADE & KOPPE, 1942; LUISIER, 1945b; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; NÓBREGA, 1990; HEDENÄS, 1992a.

Cirriphyllum reichenbachianum (Huebener) Wijk et Margad.

M: KOPPE & DÜLL, 1986.

The report of its occurrence in Ribeiro Frio is needs to be revised; moreover HEDENÄS (1992a) does not refer this taxon to Madeira Island.

***Cratoneuron filicinum* (Hedw.) Spruce**

M: BUCH & PERSSON, 1941; ADE & KOPPE, 1942; LUISIER, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; HEDENÄS, 1992a; HODGETTS, 1992.

Cratoneuron filicinum (Hedw.) Spruce var. *atrovirens* (Brid.) Ochyra

M: SCHIMPER, 1868; GEHEEB & HERZOG, 1910; LUISIER, 1917; LUISIER, 1920; LUISIER, 1927; EGGERS, 1982; DÜLL, 1985.

The material included in this variety needs to be revised. Besides HEDENÄS (1992a) does not refer it to Madeira Island.

***Crossidium crassinerve* (De Not.) Jur.**

M: MITTEN, 1870; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1918; LUISIER, 1919; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984.

PS: COSTA & PERSSON, 1941; EGGERS, 1982.

Some reports as *Tortula chloronotos* Schultz can corresponds to *Aloina aloides*.

***Crossidium squamiferum* (Viv.) Jur.**

M: SCHIMPER, 1868; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; Luisier, 1938b; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984.

Cryphaea heteromalla (Hedw.) D. Mohr

M: DÜLL, 1985; SJÖGREN, 2001.

Although this species is referred to Madeira, its presence was not confirmed by HEDENÄS (1992a).

Ctenidium molluscum (Hedw.) Mitt.

M: DÜLL, 1985; SJÖGREN, 2001.

The report of its occurrence in Madeira is still uncertain, and HEDENÄS (1992a) does not refer this taxon in its Flora.

***Cyclodictyon laetevirens* (Hook. & Taylor) Mitt.**

PI/Macmap: CASAS *et al.*, 1992.

M: SCHIMPER, 1868; MITTEN, 1870; GEHEEB & HERZOG, 1910; LUISIER, 1920; LUISIER, 1925; LUISIER, 1927; LUISIER, 1938a; LUISIER, 1938b; PERSSON, 1939; LUISIER, 1945a; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; CASAS *et al.*, 1992; HEDENÄS, 1992a; SÉRGIO *et al.*, 1992; ECCB, 1995; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

***Cyrtohypnum atlanticum* (Hedenäs) Hedenäs & Sérgio •**

Madmap: HEDENÄS & SÉRGIO, 1992.

M: HEDENÄS, 1991; DÜLL, 1992; HEDENÄS, 1992a; HEDENÄS & SÉRGIO, 1992; ECCB, 1995; TOWN, 2001.

For TOWN (2001) this taxon is included in the genus *Pelekium* Mitt. This species is however doubtfully distinct from the American *P. muricatum* (Hampe) Touw.

***Cyrtohypnum minutulum* (Hedw.) Buck & Crum.**

M: MITTEN, 1870; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; LUISIER, 1920; LUISIER, 1927; ADE & KOPPE, 1942; LUISIER, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; BUCK, 1990; HEDENÄS, 1992a; SÉRGIO *et al.*, 1992.

All the records need to be revised, and we admit that some could belong to *C. atlanticum*. For TOWN (2001) this taxon is included in the genus *Pelekium* Mitt. [*P. minutulum* (Hedw.) Town].

***Cyrtohypnum montei* Hedenäs • •**

M: DÜLL, 1992; HEDENÄS, 1992a; ECCB, 1995; TOWN, 2001.

This species is known only from the type locality. Although the site was surveyed, we were not able to find new samples. For TOWN (2001) this taxon is synonym of *Thuidiopsis sparsa* (Hook. f. & Wilson) Broth.

***Daltonia splachnoides* (Sm. ex Sm. & Sowerby) Hook. & Taylor**

M: LUISIER, 1938a; LUISIER, 1938b; PERSSON, 1939; LUISIER, 1945a; TAVARES, 1965; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; NÓBREGA, 1990; HEDENÄS, 1992a; SÉRGIO *et al.*, 1992; ECCB, 1995; CHURCH *et al.*, 2001.

SJÖGREN (2001) considered the occurrence of this species in Madeira doubtful. As the material of the Azores included in *D. splachnoides* corresponds to *D. stenophylla*.

***Daltonia stenophylla* Mitt.**

M: SJÖGREN, 2001.

All the Madeiran herbarium specimens of *Daltonia* need to be revised.

***Dialytrichia fragilifolia* (Bizot J. Roux) F. Lara**

M: SÉRGIO & SIM-SIM, 1984.

***Dialytrichia mucronata* (Brid.) Broth.**

Madmap: SÉRGIO & FONTINHA, 1994b.

PI/Macmap: CASAS *et al.*, 1985.

M: LUISIER, 1937; LUISIER, 1938b; LUISIER, 1943; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; SÉRGIO & SIM-SIM, 1984; CASAS *et al.*, 1985; KOPPE & DÜLL, 1986; NÓBREGA, 1990; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001.

***Dichodontium flavescens* (Dicks. ex With.) Lindb.**

M: LUISIER, 1943; EGGERS, 1982; DÜLL, 1984.

***Dichodontium pellucidum* (Hedw.) Schimp.**

Madmap: HÜBSCHMANN, 1971.

M: LUISIER, 1910; LUISIER, 1917; LUISIER, 1918; LUISIER, 1927; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; NÓBREGA, 1990; DÜLL, 1992.

***Dicranella campylophylla* Taylor**

M: HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; DÜLL, 1992.

This species was reported in only one bibliographic reference, without locality. So its presence is considered dubious.

***Dicranella heteromalla* (Hedw.) Schimp.**

M: DIXON, 1909; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1927; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973b; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

***Dicranella howei* Renaud & Cardot**

Madmap: SÉRGIO & FONTINHA, 1994b.

M: LUISIER, 1909a; LUISIER, 1909b; LUISIER, 1917; LUISIER, 1918; LUISIER, 1927; LUISIER, 1938b; PERSSON, 1939; PEREIRA, 1967; CRUNDWELL & NYHOLM, 1977; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; DÜLL, 1992; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001.

***Dicranella humilis* R. Ruthe**

M: GEHEEB & HERZOG, 1910; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982.

***Dicranella rufescens* (With.) Schimp.**

M: LUISIER, 1937; LUISIER, 1938b; LUISIER, 1947; PEREIRA, 1967; EGGERS, 1982; DÜLL, 1984.

***Dicranella varia* (Hedw.) Schimp.**

M: GEHEEB & HERZOG, 1910; LUISIER, 1927; LUISIER, 1938b; PERSSON, 1939; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986.

***Dicranoweisia cirrata* (Hedw.) Lindb. ex Milde**

M: LUISIER, 1947; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; NÓBREGA, 1990; SJÖGREN, 2001.

***Dicranum canariense* Hampe ex Müll. Hal.**

Madmap: HÜBSCHMANN, 1971.

M: CARDOT, 1897; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1927; LUISIER, 1938b; PERSSON, 1939; ADE & KOPPE, 1942; LUISIER, 1947; HÜBSCHMANN, 1971; SÉRGIO, 1973b; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1984; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

***Dicranum flagellare* Hedw.**

M: GEHEEB & HERZOG, 1910; LUISIER, 1918; LUISIER, 1927; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; DÜLL, 1992; SJÖGREN, 2001.

***Dicranum fuscescens* Turner**

M: SÉRGIO & FONTINHA, 1991; HODGETTS, 1992.

***Dicranum montanum* Hedw.**

M: DÜLL, 1984; DÜLL, 1992.

This is an uncertain species for Madeira Island, moreover there is no information about the locality of occurrence.

***Dicranum scoparium* Hedw.**

M: GEHEEB & HERZOG, 1910; LUISIER, 1918; LUISIER, 1927; BARROS, 1942; TAVARES, 1965; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; SJÖGREN, 2001.

***Dicranum scottianum* Turner**

M: SCHIMPER, 1868; MITTEN, 1870; GEHEEB, 1886; GEHEEB & HERZOG, 1910; HOLMEN &

RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; NIEUWKOOP, 1993.

***Didymodon acutus* (Brid.) K. Saito**

M: LUISIER, 1936; LUISIER, 1938b; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; SJÖGREN, 2001.

***Didymodon fallax* (Hedw.) R. H. Zander**

M: MITTEN, 1870; GEHEEB & HERZOG, 1910; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; DÜLL, 1992.

***Didymodon insulanus* (De Not.) M. Hill**

Madmap: SÉRGIO & FONTINHA, 1994b.

M: DIXON, 1909; GEHEEB & HERZOG, 1910; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HÜBSCHMANN, 1971; SÉRGIO, 1973b; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001.

***Didymodon luridus* Hornsch.**

Madmap: FONTINHA, 1995.

PSmap: FONTINHA & SÉRGIO, 1998.

M: PEREIRA, 1967; DÜLL, 1984; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SJÖGREN, 2001.

PS: COSTA & PERSSON, 1941; LUISIER, 1943; LUISIER, 1956; EGGERS, 1982; FONTINHA & SÉRGIO, 1998.

DG: LUISIER, 1956.

***Didymodon rigidulus* Hedw.**

Madmap: SÉRGIO & FONTINHA, 1994b.

M: PEREIRA, 1967; DÜLL, 1984; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001.

PS: COSTA & PERSSON, 1941; EGGERS, 1982.

***Didymodon tophaceus* (Brid.) Lisa**

Madmap: FONTINHA, 1995.

M: GEHEEB & HERZOG, 1910; LUISIER, 1917; LUISIER, 1918; LUISIER, 1927; LUISIER, 1938b; PERSSON, 1939; LUISIER, 1943; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SJÖGREN, 2001.

PS: COSTA & PERSSON, 1941; LUISIER, 1943; LUISIER, 1956; EGGERS, 1982.

DG: LUISIER, 1956; FONTINHA *et al.*, 1997; JIMÉNEZ *et al.*, 2005.

***Didymodon vinealis* (Brid.) R. H. Zander**

Madmap: FONTINHA, 1995.

M: SCHIFFNER, 1902; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; FONTINHA, 1995; SJÖGREN, 2001.

***Diphyscium foliosum* (Hedw.) D. Mohr**

PI/Macmap: CASAS *et al.*, 1989.

M: HOLL, 1830; MITTEN, 1870; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1917; LUISIER, 1919; LUISIER, 1927; LUISIER, 1932; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; SÉRGIO, 1973b; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; CASAS *et al.*, 1989; DÜLL, 1992; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

Ditrichum difficile (Duby) M. Fleisch.

M: LUISIER, 1939; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; DÜLL, 1992; SÉRGIO *et al.*, 1992; ECCB, 1995.

According to SÉRGIO *et al.*, 1992 this species is considered endangered in Madeira Island. However, we admit that its occurrence in Madeira needs to be confirmed.

***Ditrichum flexicaule* (Schwägr.) Hampe**

M: GEHEEB & HERZOG, 1910; LUISIER, 1917; LUISIER, 1918; LUISIER, 1927; LUISIER, 1939; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; DÜLL, 1992.

***Ditrichum punctulatum* Mitt.**

M: KINDBERG, 1888; GEHEEB & HERZOG, 1910; LUISIER, 1917; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; LUISIER, 1939; PERSSON, 1939; LUISIER, 1943; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; SÉRGIO, 1973b; FRAHM, 1976b; EGGERS, 1982; DÜLL, 1984; FRAHM, 1985; KOPPE & DÜLL, 1986; FRAHM, 1987; DÜLL, 1992; SÉRGIO *et al.*, 1992; ECCB, 1995.

According to SÉRGIO *et al.*, 1992, this species is considered vulnerable in Madeira Island.

***Ditrichum subulatum* Hampe**

M: GEHEEB & HERZOG, 1910; LUISIER, 1917; LUISIER, 1918; LUISIER, 1927; LUISIER, 1938b; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; SJÖGREN, 2001.

Echinodium prolixum* (Mitt.) Broth. •*Wmap:** HOLMEN & RASMUSSEN, 1971b.**M:** BUCH, 1833; MITTEN, 1865; SCHIMPER, 1868; MITTEN, 1870; CARDOT, 1897; BRITTEN, 1904; LUISIER, 1909b; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1917; LUISIER, 1919; LUISIER, 1927; LUISIER, 1938a; LUISIER, 1938b; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; BARROS, 1942; TAVARES, 1965; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; SÉRGIO, 1973b; SJÖGREN, 1975; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; CHURCHILL, 1986; KOPPE & DÜLL, 1986; HEDENÄS, 1992a; SÉRGIO *et al.*, 1992; ECCB, 1995; ZIPPEL, 1998; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.***Echinodium renauldii* (Cardot) Broth. (•)****M:** SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1985; SJÖGREN, 2001.Although DÜLL (1985) and EGGERS (1982) have reported this species to Azores and Madeira, HEDENÄS (1992a) confirmed it only to Azores, where it was considered endemic by SJÖGREN (2001). CHURCHILL (1986), revised the genus *Echinodium* worldwide, and this species was not reported to Madeira Island.***Echinodium setigerum* (Mitt.) Jur. • •****M:** MITTEN, 1865; MITTEN, 1870; GEHEEB, 1886; GEHEEB & HERZOG, 1910; LUISIER, 1910; LUISIER, 1917; LUISIER, 1919; LUISIER, 1927; LUISIER, 1938a; LUISIER, 1938b; PERSSON, 1939; BARROS, 1942; TAVARES, 1965; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; CHURCHILL, 1986; KOPPE & DÜLL, 1986; NÓBREGA, 1990; DÜLL, 1992; HEDENÄS, 1992a; SÉRGIO *et al.*, 1992; ECCB, 1995; FONTINHA *et al.*, 2001.According to SÉRGIO *et al.*, 1992 this species is considered vulnerable in Madeira Island.***Echinodium spinosum* (Mitt.) Jur. •****M:** MITTEN, 1865; MITTEN, 1870; GEHEEB, 1886; CARDOT, 1897; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; LUISIER, 1917; LUISIER, 1919; LUISIER, 1927; LUISIER, 1938a; LUISIER, 1938b; PERSSON, 1939; ADE & KOPPE, 1942; BARROS, 1942; TAVARES, 1965; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; CHURCHILL, 1986; OCHYRA, 1987; KOPPE & DÜLL, 1986; NÓBREGA, 1990; DÜLL, 1992; HEDENÄS, 1992a; SÉRGIO *et al.*, 1992; ECCB, 1995; SIM-SIM *et al.*, 2004b.See information about the Lectotype *Echinodium madeirense* Jur. in OCHYRA (1987).***Encalypta vulgaris* Hedw.****M:** LUISIER, 1953; LUISIER, 1956; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; NÓBREGA, 1990; SÉRGIO *et al.*, 1992; NIEUWKOOP, 1993.***Entosthodon attenuatus* (Dicks.) Bryhn****PI/Macmap:** CASAS *et al.*, 1996.

M: SCHIMPER, 1868; MITTEN, 1870; CARDOT, 1897; BRITTEN, 1904; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1931; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; CASAS *et al.*, 1996; SJÖGREN, 2001.

***Entosthodon convexus* (Spruce) Brugués**

PI/Macmap: CASAS *et al.*, 1996.

M: SCHIMPER, 1868; GEHEEB & HERZOG, 1910; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1931; LUISIER, 1938b; EGGERS, 1982; KOPPE & DÜLL, 1986; CASAS *et al.*, 1996; SJÖGREN, 2001.

***Entosthodon fascicularis* (Hedw.) Müll. Hal.**

M: NÓBREGA, 1990.

***Entosthodon krausei* Besch. •**

Madmap: FONTINHA, 1995.

M: GEHEEB & HERZOG, 1910; LUISIER, 1917; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1931; LUISIER, 1938b; PERSSON, 1939; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; NÓBREGA, 1990; SÉRGIO *et al.*, 1992; FONTINHA, 1995.

According to SÉRGIO *et al.*, 1992 this species is considered extinct in Madeira Island. However, FONTINHA (1995) reported it for the “Ilhéu dos Desembarcadouros”. As LOSADA-LIMA *et al.* (2001) for the Canary Islands, we consider that *Funaria fritzei* Geh. belongs to the synonymy of *E. krausei*.

***Entosthodon obtusus* (Hedw.) Lindb.**

PI/Macmap: CASAS *et al.*, 1996.

M: LUISIER, 1936; PEREIRA, 1967; EGGERS, 1982; DÜLL, 1985; CASAS *et al.*, 1996; SJÖGREN, 2001.

***Entosthodon pulchellus* (H. Philib.) Brugués**

Madmap: SÉRGIO & FONTINHA, 1994b.

PI/Macmap: CASAS *et al.*, 1996.

M: LUISIER, 1936; LUISIER, 1938b; DÜLL, 1985; SÉRGIO & NÓBREGA, 1985; NÓBREGA, 1990; SÉRGIO & FONTINHA, 1994b; CASAS *et al.*, 1996; SJÖGREN, 2001.

***Ephemerum serratum* (Hedw.) Hampe**

Madmap: SÉRGIO & FONTINHA, 1994a.

M: SÉRGIO & FONTINHA, 1994a.

Epipterygium tozeri* (Grev.) Lindb.*Madmap:** FONTINHA, 1995.**PI/Macmap:** CASAS *et al.*, 1996.**M:** SCHIMPER, 1868; MITTEN, 1870; CARDOT, 1897; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1931; LUISIER, 1938b; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973b; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; CASAS *et al.*, 1996; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.**DG:** HOLMEN & RASMUSSEN, 1971b; EGGERS, 1982; CASAS *et al.*, 1996.***Eucladium verticillatum* (Brid.) Bruch & Schimp.****Madmap:** SÉRGIO & FONTINHA, 1994b.**M:** SCHIMPER, 1868; DIXON, 1909; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; ADE & KOPPE, 1942; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001.The reports of var. *angustifolium* Jur., are included in the broad sense of *Eucladium verticillatum*.***Eurhynchium hians* (Hedw.) Sande Lac.****M:** MITTEN, 1870; SCHIFFNER, 1902; LUISIER, 1909a; LUISIER, 1909b; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1917; LUISIER, 1920; LUISIER, 1927; PERSSON, 1939; BUCH & PERSSON, 1941; LUISIER, 1945b; HÜBSCHMANN, 1971; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; HEDENÄS, 1992a; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.For some authors this taxon is included in the genus *Oxyrrhynchium* [*O. hians* (Hedw.) Loeske].***Eurhynchium meridionale* (Schimp.) De Not.****Wmap:** HOLMEN & RASMUSSEN, 1971b.**Madmap:** SÉRGIO & FONTINHA, 1994b.**M:** CARDOT, 1897; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1920; LUISIER, 1927; LUISIER, 1938a; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; HEDENÄS, 1992a; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001.**DG:** HOLMEN & RASMUSSEN, 1971b; EGGERS, 1982.For some authors this taxon is included in the genus *Plasteurhynchium* [*P. meridionale* (Schimp.) M. Fleisch.].

Eurhynchium praelongum* (Hedw.) Schimp.*Madmap:** SÉRGIO & FONTINHA, 1994b.**M:** MITTEN, 1870; CARDOT, 1897; LUISIER, 1909a; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1920; LUISIER, 1927; LUISIER, 1938b; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; LUISIER, 1942; LUISIER, 1945b; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; HEDENÄS, 1992a; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.For some authors this taxon is included in the genus *Kindbergia* [*K. praelonga* (Hedw.) Ochyra].***Eurhynchium praelongum* (Hedw.) Schimp. var. *stokesii* (Turner) Dixon****Madmap:** HÜBSCHMANN, 1971.**M:** SCHIMPER, 1868; CARDOT, 1897; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; WINTER, 1914; ARMITAGE, 1918; LUISIER, 1920; LUISIER, 1938b; ADE & KOPPE, 1942; LUISIER, 1945b; HÜBSCHMANN, 1971; SÉRGIO, 1973b; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1985.**PS:** COSTA & PERSSON, 1941; EGGERS, 1982.***Eurhynchium pumilum* (Wilson) Schimp.****Madmap:** SÉRGIO & FONTINHA, 1994b.**M:** MITTEN, 1870; GEHEEB & HERZOG, 1910; LUISIER, 1920; LUISIER, 1927; LUISIER, 1938b; BUCH & PERSSON, 1941; LUISIER, 1945b; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; HEDENÄS, 1992a; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001.***Eurhynchium schleicheri* (R. Hedw.) Milde****M:** DÜLL, 1992; HEDENÄS, 1992a.***Eurhynchium speciosum* (Brid.) Jur.****M:** DÜLL, 1985; KOPPE & DÜLL, 1986; HEDENÄS, 1992a; SJÖGREN, 2001.For some authors this taxon is included in the genus *Oxyrrhynchium* [*O. speciosum* (Brid.) Warnst.].***Eurhynchium striatum* (Hedw.) Schimp.****M:** LUISIER, 1953; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; BLOCKEEL *et al.*, 1999.BLOCKEEL *et al.* (1999) confirmed its presence in Madeira.***Fabronia ciliaris* (Brid.) Brid.****M:** DÜLL, 1985.

Its presence in Madeira was not recognized.

***Fabronia pusilla* Raddi**

Madmap: HÜBSCHMANN, 1971.

PI/Macmap: CASAS *et al.*, 1985.

M: MITTEN, 1870; GEHEEB & HERZOG, 1910; LUISIER, 1910; LUISIER, 1920; LUISIER, 1927; LUISIER, 1938b; LUISIER, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; CASAS *et al.*, 1985; DÜLL, 1985; NÓBREGA, 1990; HEDENÁS, 1992a.

PS: LUISIER, 1956; EGGERS, 1982; CASAS *et al.*, 1985.

***Fissidens adianthoides* Hedw.**

M: LUISIER, 1943; LUISIER, 1946; EGGERS, 1982; DÜLL, 1984; SJÖGREN, 2001.

This species is considered insufficiently known in Madeira Island.

***Fissidens asplenioides* Hedw.**

M: MITTEN, 1870; CARDOT, 1897; CARDOT, 1905; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1925; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; LUISIER, 1946; TAVARES, 1965; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973b; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; ARTS, 1988b; DÜLL, 1992; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

***Fissidens bryoides* Hedw.**

M: BUCH, 1833; SCHIMPER, 1868; BRITTEN, 1904; GEHEEB & HERZOG, 1910; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; PERSSON, 1939; ADE & KOPPE, 1942; LUISIER, 1943; LUISIER, 1946; LUISIER, 1953; BIZOT & PIERROT, 1966; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; DÜLL, 1984; BRUGGEMAN-NANNENGA, 1985; KOPPE & DÜLL, 1986; SJÖGREN, 2001.

PS: COSTA & PERSSON, 1941; EGGERS, 1982.

All the references of *F. curnovii* are included in this species, which is considered a synonym of *Fissidens bryoides* var. *caespitans* Schimp.

***Fissidens coacervatus* Brugg.-Nann. •**

Madmap: SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995.

M: BRUGGEMAN-NANNENGA, 1985; SÉRGIO *et al.*, 1992; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; ECCB, 1995; SJÖGREN, 2001.

PS: BRUGGEMAN-NANNENGA, 1985.

According to SÉRGIO *et al.* (1992), the distribution of this species is considered insufficiently known in Madeira Island.

***Fissidens crassipes* Bruch & Schimp.**

M: PERSSON, 1939; LUISIER, 1943; LUISIER, 1946; HOLMEN & RASMUSSEN, 1971a; BRUGGEMAN-NANNENGA, 1982; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; SJÖGREN, 2001.

***Fissidens crassipes* Bruch & Schimp. subsp. *warnstorffi* (Fleisch.) Brugg.-Nann.**

M: WINTER, 1914; LUISIER, 1917; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; PERSSON, 1939; LUISIER, 1946; BRUGGEMAN-NANNENGA, 1982.

***Fissidens curvatus* Hornsch.**

Madmap: SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995.

PI/Macmap: CASAS *et al.*, 1985.

M: GEHEEB & HERZOG, 1910; LUISIER, 1917; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; PERSSON, 1939; LUISIER, 1946; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; CASAS *et al.*, 1985; KOPPE & DÜLL, 1986; SÉRGIO *et al.*, 1992; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SJÖGREN, 2001.

PS: COSTA & PERSSON, 1941; LUISIER, 1956; EGGERS, 1982; CASAS *et al.*, 1985.

DG: LUISIER, 1956; EGGERS, 1982; CASAS *et al.*, 1985.

BRUGGEMAN-NANNENGA & PURCELL (1995) showed that *F. algarvicus* Solms is a synonym of *F. curvatus*.

***Fissidens dubius* P. Beauv.**

M: LUISIER, 1943; LUISIER, 1946; EGGERS, 1982; DÜLL, 1984; SJÖGREN, 2001.

***Fissidens goesii* Luisier (•)**

PS: LUISIER, 1936; PEREIRA, 1967; EGGERS, 1982; DÜLL, 1992.

DIXON has studied this dubious taxon and concluded that the material was very immature and in very bad condition. This specimen is kept at the BM and was observed by SÉRGIO in 1999, who concluded that the material was extremely immature. According to SÉRGIO & NÓBREGA (1985a), *Fissidens goesii* Luisier can be included in the synonymy of *Fissidens viridulus*. We admit that a new observation of type material is necessary.

***Fissidens incurvus* Starke ex Röhl.**

M: DIXON, 1909; GEHEEB & HERZOG, 1910; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; BUCH & PERSSON, 1941; LUISIER, 1946; PEREIRA, 1967; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986.

IS: EGGERS, 1982, NÓBREGA, 1955.

We have included *Fissidens incurvus* Stark. var. *tamarindifolius* Turner in the broad sense of *Fissidens incurvus*.

***Fissidens limbatus* Sull.**

M: LUISIER, 1943; LUISIER, 1947; BRUGGEMAN-NANNENGA, 1978; EGGERS, 1982. **M:** DÜLL, 1984; KOPPE & DÜLL, 1986.

***Fissidens luisierii* P. de la Varde •**

M: SCHIMPER, 1868; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; WINTER, 1914; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938a; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; LUISIER, 1946; TAVARES, 1965; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973b; SJÖGREN, 1975; SÉRGIO *et al.*, 1997; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; ARTS, 1988b; DÜLL, 1992; SÉRGIO *et al.*, 1997; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

All the references of *F. serrulatus* Broth. of Madeira Island were included in this species.

***Fissidens microstictus* Dixon & Luisier • •**

M: LUISIER, 1937; LUISIER, 1938b; PERSSON, 1939; LUISIER, 1946; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; NÓBREGA, 1990; DÜLL, 1992; SÉRGIO *et al.*, 1992; FONTINHA *et al.*, 2001.

As only the type material is known, the study of this species is suggested. According to SÉRGIO *et al.*, 1992 this species is considered extinct in Madeira Island, but the material gathered by NÓBREGA in 1990 needs to be revised.

***Fissidens monguillonii* Thér.**

M: LUISIER, 1946; EGGERS, 1982; DÜLL, 1984; BRUGGEMAN-NANNENGA, 1985.

***Fissidens nobreganus* Luisier & P. de la Varde • •**

M: LUISIER, 1953; LUISIER, 1956; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; NÓBREGA, 1990; DÜLL, 1992; SÉRGIO *et al.*, 1992; ECCB, 1995; FONTINHA *et al.*, 2001.

***Fissidens ovatifolius* R. Ruthe**

M: DÜLL, 1984; DÜLL, 1992; SJÖGREN, 2001.

Although it was referred by DÜLL (1984) to Madeira Island, no locality is known.

***Fissidens papillosus* Lac.**

M: SÉRGIO, 2001b.

BRUGGEMAN-NANNENGA & PURCELL (1995) a synonym of *F. serratus* Mitt.

***Fissidens perssonii* P. de la Varde •**

M: P. de la Varde in PERSSON, 1939; LUISIER, 1946; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; BRUGGEMAN-NANNENGA, 1985; SÉRGIO *et al.*, 1992.

According to SÉRGIO *et al.*, 1992 this species is considered insufficiently known in Madeira Island.

***Fissidens polyphyllus* Wilson ex Bruch & Schimp.**

M: LUISIER, 1946; LUISIER, 1953; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; SIM-SIM *et al.*, 2004b.

Fissidens pusillus* (Wilson) Milde*Madmap:** SÉRGIO & FONTINHA, 1994b.**M:** LUISIER, 1939; LUISIER, 1943; LUISIER, 1946; EGGERS, 1982; DÜLL, 1984; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001.***Fissidens rivularis* Bruch & Schimp.****Madmap:** HÜBSCHMANN, 1971.**M:** PERSSON, 1939; LUISIER, 1943; LUISIER, 1946; LUISIER, 1947; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; BRUGGEMAN-NANNENGA, 1985; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.***Fissidens serrulatus* Brid.****M:** MITTEN, 1870; CARDOT, 1897; LUISIER, 1938b; HOLMEN & RASMUSSEN, 1971b.See note under *Fissidens luisieri* P. de la Varde.***Fissidens sublineaeifolius* (P. de la Varde) Brugg.-Nann. •****M:** BRUGGEMAN-NANNENGA, 1982; DÜLL, 1992; SÉRGIO *et al.*, 1992; SJÖGREN, 2001.According to SÉRGIO *et al.* (1992) species distribution in Madeira Island is considered insufficiently known.***Fissidens taxifolius* Hedw.****Madmap:** SÉRGIO & FONTINHA, 1994b.**M:** SCHIMPER, 1868; MITTEN, 1870; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; LUISIER, 1946; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973b; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.The reports of subsp. *pallidicaulis* (Mitt.) Moenk. are included in a broad sense to *F. taxifolius*.***Fissidens viridulus* (Sw.) Wahlenb.****Madmap:** FONTINHA, 1995.**M:** BUCH, 1833; MITTEN, 1870; BRITTEN, 1904; DIXON, 1909; GEHEEB & HERZOG, 1910; LUISIER, 1910; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; PERSSON, 1939; LUISIER, 1946; EGGERS, 1982; DÜLL, 1984; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995.**PS:** SÉRGIO & NÓBREGA, 1985.**DG:** SÉRGIO & NÓBREGA, 1991.

***Fissidens viridulus* (Sw.) Wahlenb. var. *tenuifolius* (Boulay) A. J. E. Sm.**

M: DÜLL, 1984; KOPPE & DÜLL, 1986.

The reports of var. *tenuifolius* may correspond to the broad sense of *F. viridulus*.

***Fontinalis antipyretica* Hedw.**

M: MITTEN, 1870; CARDOT, 1897; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1919; LUISIER, 1927; LUISIER, 1932; BUCH & PERSSON, 1941; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; DÜLL, 1992; HEDENÄS, 1992a; SJÖGREN, 2001.

***Funaria hygrometrica* Hedw.**

Madmap: FONTINHA, 1995.

M: HOLL, 1830; BUCH, 1833; SCHIMPER, 1868; MITTEN, 1870; BRITTEN, 1904; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; LUISIER, 1917; LUISIER, 1918; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1931; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SJÖGREN, 2001.

DG: HOLMEN & RASMUSSEN, 1971b; EGGERS, 1982.

The reports of var. *muralis* Huebener are included in the broad sense of *F. hygrometrica*.

***Funaria muehlenbergii* Turner**

M: HOLL, 1830; MITTEN, 1870; GEHEEB & HERZOG, 1910; LUISIER, 1917; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1931; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; SJÖGREN, 2001.

The herbarium material referred as *F. muehlenbergii* needs to be confirmed.

***Funariella curviseta* (Schwägr.) Sérgio**

M: SCHIMPER, 1868; EGGERS, 1982; DÜLL, 1985.

SCHIMPER (1868) has reported this species to Madeira. However, the occurrence was erroneously recorded, as the locality is in the vicinity of Lisbon and not in Madeira Island. The specimen material was revised by us at the BM. So, CASAS *et al.* (1989) do not assign its occurrence to Madeira.

***Glyphomitrium daviesii* (With.) Brid. •**

M: LUISIER, 1910; LUISIER, 1917; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; EGGERS, 1982; DÜLL, 1984; SÉRGIO *et al.*, 1992; SJÖGREN, 2001.

According to SÉRGIO *et al.*, 1992, this species is considered endangered in Madeira Island.

***Grimmia arenaria* Hampe**

M: Greven, 1995a.

***Grimmia austrofunalis* Müll. Hal.**

M: GREVEN, 1995a; GREVEN, 1997.

GREVEN refers that the European plants of *Grimmia austrofunalis* probably correspond to a “forme” of *G. trichophylla*.

***Grimmia decipiens* (Schultz) Lindb.**

M: ADE & KOPPE, 1942; LUISIER, 1943; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; GREVEN, 1995a.

***Grimmia donniana* Sm.**

M: LUISIER, 1930; ADE & KOPPE, 1942; EGGERS, 1982; DÜLL, 1984; GREVEN, 1995a.

***Grimmia funalis* (Schwägr.) Bruch & Schimp.**

M: GREVEN, 1995a; NIEUWKOOP & ARTS, 1995.

***Grimmia hartmanii* Schimp. subsp. *bullata* Luisier (●)**

M: LUISIER, 1947; EGGERS, 1982; DÜLL, 1984; DÜLL, 1992; SÉRGIO *et al.*, 1992; GREVEN, 1995b.

The study of the type material revealed that the plants are not a *Grimmia* but a muticous form of *Schistidium apocarpum* Greven *s. l.* (GREVEN, 1995b).

***Grimmia laevigata* (Brid.) Brid.**

Madmap: SÉRGIO & FONTINHA, 1994b.

M: GEHEEB & HERZOG, 1910; LUISIER, 1910; LUISIER, 1917; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; SÉRGIO & FONTINHA, 1994b; GREVEN, 1995a; SJÖGREN, 2001.

***Grimmia lisae* De Not.**

M: DIXON, 1909; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; ADE & KOPPE, 1942; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; GREVEN, 1995a; SJÖGREN, 2001.

***Grimmia montana* Bruch & Schimp.**

M: DÜLL, 1984; KOPPE & DÜLL, 1986; GREVEN, 1995a; SJÖGREN, 2001.

***Grimmia orbicularis* Wilson**

M: GREVEN, 1995a.

Grimmia ovalis* (Hedw.) Lindb.*Madmap:** HÜBSCHMANN, 1971.**M:** SCHIMPER, 1868; GEHEEB & HERZOG, 1910; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; GREVEN, 1995a.***Grimmia pilosissima* Herzog****M:** GREVEN, 1995a.***Grimmia pulvinata* (Hedw.) Sm.****Madmap:** HÜBSCHMANN, 1971.**M:** GEHEEB & HERZOG, 1910; LUISIER, 1917; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; GREVEN, 1995a; SJÖGREN, 2001.***Grimmia ramondii* (Lam. & DC.) Margad.****M:** ADE & KOPPE, 1942; LUISIER, 1943; EGGERS, 1982; DÜLL, 1984; GREVEN, 1995a.***Grimmia torquata* Hornsch. ex Grev.****M:** LUISIER, 1953; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; GREVEN, 1995a.***Grimmia trichophylla* Grev.****Madmap:** SÉRGIO & FONTINHA, 1994b.**M:** MITTEN, 1870; DIXON, 1909; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; SÉRGIO & FONTINHA, 1994b; GREVEN, 1995a.***Gymnostomum aeruginosum* Sm.****M:** ADE & KOPPE, 1942; LUISIER, 1943; EGGERS, 1982; DÜLL, 1984.**PS:** LUISIER, 1956; EGGERS, 1982.***Gymnostomum calcareum* Nees & Hornsch.****Madmap:** FONTINHA, 1995.**M:** DIXON, 1909; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SJÖGREN, 2001.

Gymnostomum viridulum* Brid.*Madmap:** FONTINHA, 1995.**Wmap:** WHITEHOUSE & CRUNDWELL, 1991.**M:** BRITTEN, 1904; KOPPE & DÜLL, 1986; WHITEHOUSE & CRUNDWELL, 1991; DÜLL, 1992; WHITEHOUSE & CRUNDWELL, 1992; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SJÖGREN, 2001.***Gyroweisia reflexa* (Brid.) Schimp.****Madmap:** HÜBSCHMANN, 1971.**M:** MITTEN, 1870; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; LUISIER, 1943; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; SÉRGIO *et al.*, 1994a.**DG:** HOLMEN & RASMUSSEN, 1971b; EGGERS, 1982.***Gyroweisia tenuis* (Hedw.) Schimp.****M:** EGGERS, 1982; DÜLL, 1984; DÜLL, 1992; SJÖGREN, 2001.***Habrodon perpusillus* (De Not.) Lindb.****M:** LUISIER, 1943; EGGERS, 1982; DÜLL, 1985; NÓBREGA, 1990; DÜLL, 1992; HEDENÄS, 1992a.***Hedwigia ciliata* (Hedw.) P. Beauv.****PI/Macmap:** CASAS *et al.*, 1996.**M:** MITTEN, 1870; CARDOT, 1897; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1932; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; CASAS *et al.*, 1996.Some herbarium material of *H. ciliata* was recently revised and included in *H. stellata*. CASAS *et al.* (1996) have published its distribution in the Iberian Peninsula and Macaronesia.***Hedwigia stellata* Hedenäs****PI/Macmap:** CASAS *et al.*, 1996.**M:** CASAS *et al.*, 1996.See note under *H. ciliata*.***Heterocladium heteropterum* Bruch & Schimp.****M:** LUISIER, 1938b; PERSSON, 1939; BUCH & PERSSON, 1941; LUISIER, 1942; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; SÉRGIO, 1973b; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; NÓBREGA, 1990; SJÖGREN, 2001.**PS:** LUISIER, 1956.

DG: LUISIER, 1956.

IS: LUISIER, 1942.

DÜLL (1985) and EGGERS (1982) refer this species to Azores, Madeira (including Selvagens) and Canarias. However, HEDENÄS (1992) refers that all the material observed corresponds to *H. wulfsbergii*. For some authors this taxon is only the variety rank.

***Heterocladium heteropterum* Bruch & Schimp. var. *wulfsbergii* I. Hagen**

M: DÜLL, 1985; HEDENÄS, 1992a.

See note under *H. heteropterum*.

***Homalia lusitanica* Schimp.**

Madmap: SÉRGIO & FONTINHA, 1994b.

PI/Macmap: CASAS *et al.*, 1992.

Wmap: HE, 1997.

M: MITTEN, 1865; MITTEN, 1870; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1917; LUISIER, 1919; LUISIER, 1927; LUISIER, 1938a; LUISIER, 1938b; PERSSON, 1939; ADE & KOPPE, 1942; BARROS, 1942; LUISIER, 1953; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; DÜLL-HERMANS, 1986; KOPPE & DÜLL, 1986; DIRKSE, 1987; NÓBREGA, 1990; CASAS *et al.*, 1992; DÜLL, 1992; HEDENÄS, 1992a; SÉRGIO *et al.*, 1992; SÉRGIO & FONTINHA, 1994b; HE, 1997; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

***Homalia trichomanoides* (Hedw.) Schimp.**

M: LUISIER, 1910; LUISIER, 1917; LUISIER, 1919; LUISIER, 1927; LUISIER, 1938a; LUISIER, 1953; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; DÜLL, 1992.

Although EGGERS (1982) and LUISIER refer its occurrence in Madeira. DÜLL (1985) reports it to the Azores and Madeira, and HEDENÄS (1992a) assigns it only to the Azores, but SJÖGREN (2001) does not report it for this region.

***Homalia webbiana* (Mont.) Schimp.**

Madmap: SÉRGIO & FONTINHA, 1994b.

Wmap: HE, 1997.

M: CARDOT, 1905; GEHEEB & HERZOG, 1910; LUISIER, 1956; TAVARES, 1965; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; NÓBREGA, 1990; HEDENÄS, 1992a; SÉRGIO *et al.*, 1992; SÉRGIO & FONTINHA, 1994b; ECCB, 1995; HE, 1997; SI, 1997; SJÖGREN, 2001.

PS: LUISIER, 1953; LUISIER, 1956; EGGERS, 1982; HE, 1997.

DG: LUISIER, 1956.

According to DÜLL (1985), this species occur only in Canarias. HEDENÄS (1992) has not

observed any herbarium material from Madeira Island. However in S herbarium there is material labelled as *H. maderensis* that can be a modification of *Homalia webbiana*.

***Homalothecium aureum* (Spruce) H. Rob.**

Wmap: HOFMANN, 1998.

M: LUISIER, 1945b; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; HEDENÄS, 1992a; HOFMANN, 1998.

Homalothecium lutescens (Hedw.) H. Rob.

M: DÜLL, 1985; DÜLL, 1992; HOFMANN, 1998.

DÜLL (1985) refers this species to the Azores, Canarias and Madeira, but EGGERS (1982) reported it only to Canarias. HEDENÄS (1992) has not observed any herbarium material from Madeira Island, however HOFMANN (1998) indicates its presence but without examining any plant material.

***Homalothecium sericeum* (Hedw.) Schimp.**

Madmap: SÉRGIO & FONTINHA, 1994b.

M: BUCH, 1833; SCHIMPER, 1868; MITTEN, 1870; GEHEEB, 1886; BRITTEN, 1904; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1927; LUISIER, 1938b; PERSSON, 1939; ADE & KOPPE, 1942; LUISIER, 1942; LUISIER, 1945b; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; HEDENÄS, 1992a; SÉRGIO *et al.*, 1992; SÉRGIO & FONTINHA, 1994b; HOFMANN, 1998; SJÖGREN, 2001.

PS: COSTA & PERSSON, 1941; LUISIER, 1945b; LUISIER, 1956; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984.

DG: LUISIER, 1956; HOLMEN & RASMUSSEN, 1971b; EGGERS, 1982.

***Hookeria lucens* (Hedw.) Sm.**

Madmap: CASAS *et al.*, 1992.

PI/Macmap: CASAS *et al.*, 1992.

M: BUCH, 1833; SCHIMPER, 1868; MITTEN, 1870; BRITTEN, 1904; GEHEEB & HERZOG, 1910; LUISIER, 1920; LUISIER, 1927; LUISIER, 1938a; LUISIER, 1938b; ADE & KOPPE, 1942; BARROS, 1942; LUISIER, 1945a; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1985; HEDENÄS, 1992a; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

***Hylocomium splendens* (Brid.) Schimp.**

M: DÜLL, 1992; HEDENÄS, 1992a; SJÖGREN, 2001.

Species known only in one locality according HEDENÄS (1992a).

***Hymenostylium recurvirostrum* (Hedw.) Dixon**

M: DÜLL, 1984; DÜLL, 1992; NIEUWKOOP & ARTS, 1995.

***Hycomium armoricum* (Brid.) Wijk & Margad.**

PI/Macmap: CASAS *et al.*, 1985.

M: CASAS *et al.*, 1985; SÉRGIO & NÓBREGA, 1985; NÓBREGA, 1990; DÜLL, 1992; HEDENÄS, 1992a; SJÖGREN, 2001.

***Hypnum cupressiforme* Hedw.**

Madmap: SÉRGIO & FONTINHA, 1994b.

M: BUCH, 1833; MONTAGNE, 1839-1841; MITTEN, 1870; BRITTEN, 1904; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; ARMITAGE, 1918; LUISIER, 1920; LUISIER, 1927; LUISIER, 1938b; ADE & KOPPE, 1942; LUISIER, 1945b; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973b; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; HEDENÄS, 1992a; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

PS: COSTA & PERSSON, 1941; EGGERS, 1982.

***Hypnum jutlandicum* Holmen & E. Warncke**

M: DIXON, 1909; ARMITAGE, 1918; LUISIER, 1945b; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; SÉRGIO, 1973b; EGGERS, 1982; DÜLL, 1985; HEDENÄS, 1992a; SJÖGREN, 2001.

***Hypnum lacunosum* (Brid.) Hofmm. ex Brid.**

M: WINTER, 1914; LUISIER, 1920; LUISIER, 1927; LUISIER, 1945b; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986.

***Hypnum mamillatum* (Brid.) Loeske**

M: DIXON, 1909; ARMITAGE, 1918; LUISIER, 1945b; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; DÜLL, 1992; SJÖGREN, 2001.

According to ANDO (1986) this species occurs in the north of Macaronesia, although in 1987 he admits that the Macaronesian specimens need to be confirmed. HEDENÄS (1992a) has not observed any Macaronesian material of this taxon as well as *H. andoi* A. J. E. Sm.

***Hypnum resupinatum* Taylor**

Madmap: SÉRGIO & FONTINHA, 1994b.

M: PERSSON, 1939; ADE & KOPPE, 1942; LUISIER, 1945b; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; HEDENÄS, 1992a; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001.

***Hypnum uncinulatum* Jur.**

M: MITTEN, 1865; SCHIMPER, 1868; MITTEN, 1870; CARDOT, 1897; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1920; LUISIER, 1927; LUISIER, 1938b; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; LUISIER, 1945b; LUISIER, 1956; TAVARES, 1965; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; SJÖGREN, 1975; ANDO & TOWNSEND, 1980; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; HEDENÄS, 1992a; SÉRGIO *et al.*, 1992; SIM-SIM *et al.*, 2004b.

The endemic species of Madeira, *Ectropothecium costae* Luisier & P. de la Varde, is presently regarded as a synonym of *Hypnum uncinulatum* by HEDENÄS, 1992a.

***Isopterygiopsis pulchella* (Hedw.) Z. Iwats.**

M: HODGETTS, 1992.

The revision of the herbarium specimen reported (*comm.* HODGETTS, 1992) needs to be studied as is the only locality of the species (Ribeiro Frio).

***Isothecium algarvicum* W. E. Nicholson & Dixon**

M: DÜLL, 1985; KOPPE & DÜLL, 1986; DÜLL, 1992; HEDENÄS, 1992a; HEDENÄS, 1992b; DIRKSE *et al.*, 1993; HEDENÄS, 1993; NIEUWKOOP, 1993.

First reported to Madeira as *Thamnium canariense* Renauld & Cardot, it was later included in *Isothecium atlanticum* Hedenäs, that is presently regarded as a synonym of *Isothecium algarvicum*. See also note under *Pterigynandrum filiforme*.

***Isothecium myosuroides* Brid.**

M: GEHEEB & HERZOG, 1910; LUISIER, 1917; LUISIER, 1920; LUISIER, 1927; LUISIER, 1938a; LUISIER, 1938b; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; HEDENÄS, 1992a; ZIPPEL, 1998; SJÖGREN, 2001.

***Leptobarbula berica* (De Not.) Schimp.**

M: LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; APPLEYARD *et al.*, 1985; KOPPE & DÜLL, 1986; SJÖGREN, 2001.

***Leptobryum pyriforme* (Hedw.) Wilson**

M: LUISIER, 1936; LUISIER, 1938b; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; NÓBREGA, 1990; SJÖGREN, 2001.

***Leptodon longisetus* Mont. •**

Wmap: ZIPPEL, 1998.

M: WINTER, 1914; LUISIER, 1919; LUISIER, 1927; LUISIER, 1938a; LUISIER, 1938b; PERSSON, 1939;

HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; NÓBREGA, 1990; HEDENÄS, 1992a; SÉRGIO *et al.*, 1992; ECCB, 1995.

For some authors (ENROTH, 1992) this taxon is included in the genus *Cryptoleptodon* [*C. longisetus* (Mont.) Enroth].

***Leptodon smithii* (Hedw.) F. Weber & D. Mohr**

Madmap: HÜBSCHMANN, 1971.

PI/Macmap: CASAS *et al.*, 1992.

M: HOLL, 1830; LUISIER, 1917; LUISIER, 1919; LUISIER, 1927; LUISIER, 1938a; LUISIER, 1938b; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; NÓBREGA, 1990; CASAS *et al.*, 1992; HEDENÄS, 1992a; NIEUWKOOP, 1993.

PS: LUISIER, 1956.

***Leptodontium flexifolium* (With.) Hampe**

M: SÉRGIO, 2001a.

***Leptophascum leptophyllum* (Müll. Hal.) J. Guerra & M. J. Cano**

M: SÉRGIO *et al.*, 1994a; SJÖGREN, 2001.

DG: SÉRGIO *et al.*, 1994a.

***Lescurea mutabilis* (Brid.) Lindb. ex I. Hagen**

M: LUISIER, 1942.

HEDENÄS (1992a) did not confirm its occurrence in Madeira Island, as no herbarium material could be studied.

***Leucobryum glaucum* (Hedw.) Ångstr.**

PI/Macmap: CASAS *et al.*, 1996.

M: GEHEEB & HERZOG, 1910; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; BARROS, 1942; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; EGGERS, 1982; DÜLL, 1984; CASAS *et al.*, 1996; SJÖGREN, 2001.

Most of the material reported as *Leucobryum glaucum* (Hedw.) Ångstr. may correspond to *L. juniperoideum* (Brid.) Müll. Hal. (CASAS *et al.*, 1996).

***Leucobryum juniperoideum* (Brid.) Müll. Hal.**

Eurmap: PILOUS, 1962.

PI/Macmap: CASAS *et al.*, 1996.

M: MITTEN, 1870; CARDOT, 1897; SCHIFFNER, 1902; CARDOT, 1905; LUISIER, 1909b; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1917; LUISIER, 1927; PILOUS, 1962; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN,

1984; KOPPE & DÜLL, 1986; CASAS *et al.*, 1996; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b. According to PILOUS (1962), *L. madeirense* Schiffn. is a synonym of *L. juniperoideum*. However, new studies on Madeira material are necessary, including the adjustment with *L. albidum* auct.

***Leucodon canariensis* (Brid.) Schwägr. •**

M: SCHIMPER, 1868; MITTEN, 1870; GEHEEB, 1886; CARDOT, 1897; LUISIER, 1909b; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1919; LUISIER, 1927; LUISIER, 1932; LUISIER, 1938b; PERSSON, 1939; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; HEDENÄS, 1992a; SÉRGIO *et al.*, 1992; SJÖGREN, 2001.

***Leucodon sciuroides* (Hedw.) Schwägr.**

M: HOLL, 1830; MITTEN, 1870; GEHEEB & HERZOG, 1910; LUISIER, 1917; LUISIER, 1919; LUISIER, 1927; LUISIER, 1932; TAVARES, 1965; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; NÓBREGA, 1990; HEDENÄS, 1992a; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

***Leucodon treleasei* (Cardot) Paris •**

Madmap: SÉRGIO & FONTINHA, 1994b.

M: CARDOT, 1897; BRITTEN, 1904; LUISIER, 1907; LUISIER, 1909a; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; ARMITAGE, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1932; LUISIER, 1938b; PEREIRA, 1967; EGGERS, 1982; DÜLL, 1992; HEDENÄS, 1992a; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001.

***Microbryum davallianum* (Sm.) R.H. Zander**

M: Luisier, 1947; Holmen & Rasmussen, 1971a; Eggers, 1982; Düll, 1984; Sérgio & Fontinha, 1994b; Fontinha, 1995.

PS : Luisier, 1939; Luisier, 1953; Luisier, 1956 ; Eggers, 1982

DG: Luisier, 1956.

***Microbryum starkeanum* (Hedw.) R.H. Zander**

M: Geheeb & Herzog, 1910; Winter, 1914; Luisier, 1918; Luisier, 1919; Luisier, 1927; Luisier, 1930; Luisier, 1938b; Holmen & Rasmussen, 1971a; Düll, 1984; Sérgio & Fontinha, 1994b; Fontinha, 1995.

DG: Sérgio & Nóbrega, 1991.

***Microcampylopus laevigatum* (Thér.) Giese & Frahm**

M: LUISIER, 1936; LUISIER, 1938b; LUISIER, 1939; LUISIER, 1947; PEREIRA, 1967; HOLMEN &

RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; GIESE & FRAHM, 1985; DÜLL, 1992; SÉRGIO *et al.*, 1992; SJÖGREN, 2001.

According to SÉRGIO *et al.* (1992), this species is considered vulnerable in Madeira Island.

***Mnium hornum* Hedw.**

M: KOPONEN, 1980; EGGERS, 1982.

Even though it is reported to Madeira, there is no locality reference.

***Myurium hochstetteri* (Schimp.) Kindb. •**

M: MITTEN, 1870; GEHEEB, 1886; CARDOT, 1897; SCHIFFNER, 1902; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1919; LUISIER, 1927; LUISIER, 1938a; LUISIER, 1938b; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; BARROS, 1942; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; SJÖGREN, 1975; MASCHKE, 1976; LONG, 1978; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; DÜLL, 1992; HEDENÄS, 1992a; SÉRGIO *et al.*, 1992; CRUNDWELL *et al.*, 1994; SJÖGREN, 2001.

***Neckera cephalonica* Jur. & Unger**

M: GEHEEB, 1886; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1917; LUISIER, 1919; LUISIER, 1927; LUISIER, 1938a; LUISIER, 1938b; PERSSON, 1939; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; NÓBREGA, 1990; HEDENÄS, 1992a; SÉRGIO *et al.*, 1992; SJÖGREN, 2001.

***Neckera complanata* (Hedw.) Huebener**

M: PERSSON, 1939; LUISIER, 1943; LUISIER, 1947; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; HEDENÄS, 1992a; SJÖGREN, 2001.

***Neckera crispa* Hedw.**

M: BUCH, 1833; MITTEN, 1870; BRITTEN, 1904; GEHEEB & HERZOG, 1910; LUISIER, 1919; LUISIER, 1927; LUISIER, 1938a; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; DÜLL, 1992; HEDENÄS, 1992a; SJÖGREN, 2001.

***Neckera intermedia* Brid.**

Wmap: ZIPPEL, 1998.

M: SCHIMPER, 1868; MITTEN, 1870; GEHEEB, 1886; CARDOT, 1905; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; LUISIER, 1917; LUISIER, 1919; LUISIER, 1927; LUISIER, 1938a; LUISIER, 1938b; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; BARROS, 1942; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; SÉRGIO, 1973b; SJÖGREN, 1975; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; HEDENÄS, 1992a; SÉRGIO *et al.*, 1992; ZIPPEL, 1998; SJÖGREN, 2001;

SIM-SIM *et al.*, 2004b.

PS: LUISIER, 1956.

***Neckera pumila* Hedw.**

M: LUISIER, 1947; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; HEDENÄS, 1992a; ZIPPEL, 1998.

According to HEDENÄS 1992a, the species seems to be very rare in Madeira, even if any locality is referred in this work.

***Nobregaea latinervis* Hedenäs • •**

M: LUISIER, 1943; DÜLL, 1992; HEDENÄS, 1992a; ECCB, 1995; FONTINHA *et al.*, 2001.

Species known only in one locality (the type locality).

***Octodiceras fontanum* (Bach. Pyl.) Lindb.**

PI/Macmap: CASAS *et al.*, 1989.

M: LUISIER, 1946; LUISIER, 1947; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; CASAS *et al.*, 1989.

***Oedipodiella australis* (Wager & Dixon) Dixon**

Madmap: SÉRGIO & FONTINHA, 1994b.

M: SÉRGIO & FONTINHA, 1994a; SÉRGIO & FONTINHA, 1994b.

***Orthodontium gracile* (Wilson) Schwägr. ex Bruch & Schimp.**

M: LUISIER, 1956; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; NÓBREGA, 1990; DÜLL, 1992; SÉRGIO *et al.*, 1992; ECCB, 1995.

According to SÉRGIO *et al.*, 1992, this species is considered endangered in Madeira Island.

***Orthodontium pellucens* (Hook.) Bruch & Schimp.**

M: LUISIER, 1953; LUISIER, 1956; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; NÓBREGA, 1990; SÉRGIO *et al.*, 1992.

Until 1953, it was reported only for two localities. We recommend that all the recent material (NÓBREGA, 1990) should to be revised.

***Orthotrichum affine* Brid.**

M: ADE & KOPPE, 1942; LUISIER, 1943; EGGERS, 1982; DÜLL, 1985.

***Orthotrichum cupulatum* Brid.**

Madmap: SÉRGIO & FONTINHA, 1994b.

M: EGGERS, 1982; DÜLL, 1985; SÉRGIO & FONTINHA, 1994b.

***Orthotrichum diaphanum* Brid.**

M: LUISIER, 1930; LUISIER, 1938b; LUISIER, 1943; LUISIER, 1947; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; SJÖGREN, 2001.

PS: LUISIER, 1956.

***Orthotrichum lyellii* Hook. & Taylor**

Madmap: HÜBSCHMANN, 1971.

M: DIXON, 1909; GEHEEB & HERZOG, 1910; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; ZIPPEL, 1998.

***Orthotrichum lyellii* Hook. & Taylor var. *crispatum* Schiffn.**

Madmap: HÜBSCHMANN, 1971.

M: MONTAGNE, 1839-1841; HÜBSCHMANN, 1971; DÜLL, 1990.

Further investigation is needed to ascertain its taxonomic position since the first report corresponds to *Ptychomitrium crispatum* (Hedw.) Jaeger.

***Orthotrichum pallens* Bruch ex Brid.**

M: SÉRGIO & NÓBREGA, 1985; DÜLL, 1992.

The material needs to be revised, because the group has been largely modified at the European position.

***Orthotrichum rupestre* Schwägr.**

M: HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; Koppe & Düll, 1986.

***Orthotrichum rupestre* Schwägr. var. *sturmii* (Hoppe & Hornsch.) Jur.**

M: GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1917; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; ADE & KOPPE, 1942; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985.

***Orthotrichum tenellum* Brid.**

M: MITTEN, 1870; LUISIER, 1938b; ADE & KOPPE, 1942; LUISIER, 1947; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; SJÖGREN, 2001.

***Palustriella commutata* (Hedw.) Ochyra**

M: LUISIER, 1953; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; HEDENÄS, 1992a.

HEDENÄS (1992a) has considered it rare for this island.

***Palustriella falcata* (Brid.) Hedenäs**

M: LUISIER, 1942; NÓBREGA, 1990; DÜLL, 1992; HEDENÄS, 1992a.

According to HEDENÄS (1992a), this species seems to be rare in Madeira Island.

***Paraleucobryum longifolium* (Hedw.) Loeske**

M: LUISIER, 1943; EGGERS, 1982; DÜLL, 1984; CHURCH *et al.*, 2001.

***Phascum cuspidatum* Hedw.**

M: PEREIRA, 1967; EGGERS, 1982; DÜLL, 1984.

DG: EGGERS, 1982.

***Philonotis arnellii* Husnot**

M: NIEUWKOOP & ARTS, 1995.

***Philonotis fontana* (Hedw.) Brid.**

M: BUCH, 1833; MITTEN, 1870; BRITTEN, 1904; LUISIER, 1909b; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1919; LUISIER, 1927; LUISIER, 1932; ADE & KOPPE, 1942; TAVARES, 1965; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; SJÖGREN, 2001.

Philonotis hastata (Duby) Wijk & Margad.

M: DÜLL, 1985; KOPPE & DÜLL, 1986; DÜLL, 1992; SJÖGREN, 2001.

The report of its occurrence in Madeira can be considered uncertain.

***Philonotis marchica* (Hedw.) Brid.**

M: CARDOT, 1897; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1932; PERSSON, 1939; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973b; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

***Philonotis rigida* Brid.**

Madmap: SÉRGIO & FONTINHA, 1994b.

PI/Macmap: CASAS *et al.*, 1989.

Wmap: RAEYMACKERS, 1983.

M: HOLL, 1830; MÜLLER, 1849-1851; SCHIMPER, 1868; MITTEN, 1870; CARDOT, 1897; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1932; LUISIER, 1938b; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN,

1971; SÉRGIO, 1973b; SJÖGREN, 1975; EGGERS, 1982; RAEYMACKERS, 1983; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; CASAS *et al.*, 1989; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

DG: HOLMEN & RASMUSSEN, 1971b.

***Physcomitrium pyriforme* (Hedw.) Hampe**

Madmap: HÜBSCHMANN, 1971.

PI/Macmap: CASAS *et al.*, 1996.

M: LUISIER, 1910; LUISIER, 1917; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1931; LUISIER, 1938b; LUISIER, 1947; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; NÓBREGA, 1990; CASAS *et al.*, 1996; SJÖGREN, 2001.

***Plagiomnium affine* (Blandow) T. J. Kop.**

Wmap: KOPONEN, 1971.

Madmap: SÉRGIO & FONTINHA, 1994b.

M: MITTEN, 1870; GEHEEB & HERZOG, 1910; LUISIER, 1919; LUISIER, 1927; LUISIER, 1931; PERSSON, 1939; BUCH & PERSSON, 1941; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; KOPONEN, 1971; SÉRGIO, 1973b; SJÖGREN, 1975; KOPONEN, 1980; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; DÜLL, 1992; SÉRGIO & FONTINHA, 1994b; SIM-SIM *et al.*, 2004b.

***Plagiomnium elatum* (Bruch & Schimp.) T. J. Kop.**

M: WINTER, 1914; LUISIER, 1927; LUISIER, 1931; PERSSON, 1939; PEREIRA, 1967; EGGERS, 1982.

According to WINTER (1914), this species needs to be removed from the flora lists of Madeira. In fact, according to KOPONEN & SÉRGIO (2001), the reports of this species may correspond to *P. undulatum* var. *madeirense*.

***Plagiomnium ellipticum* (Brid.) T. J. Kop.**

M: NIEUWKOOP, 1993.

The material from Nieuwkoop herbarium needs to be revised as it may correspond to *P. undulatum* var. *madeirense*.

***Plagiomnium medium* (Bruch & Schimp.) T. J. Kop.**

M: SIM-SIM *et al.*, 2004b.

This species belongs to a very polymorphic group and the herbarium material referred as *P. medium* needs to be confirmed.

***Plagiomnium rostratum* (Schrader) T. J. Kop.**

M: MITTEN, 1870; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1919; LUISIER, 1927;

LUISIER, 1931; PERSSON, 1939; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; KOPONEN, 1980; EGGERS, 1982; DÜLL, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; SJÖGREN, 2001.

***Plagiomnium undulatum* (Hedw.) T. J. Kop.**

Madmap: HÜBSCHMANN, 1971.

M: MITTEN, 1870; CARDOT, 1897; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; ARMITAGE, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1931; LUISIER, 1938b; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; SJÖGREN, 1975; KOPONEN, 1980; SCHWAB & HAUSTEIN, 1984; SJÖGREN, 2001.

***Plagiomnium undulatum* (Hedw.) T. J. Kop. var. *madeirense* T. J. Kop. & Sérgio • •**

Madmap: KOPONEN & SÉRGIO, 2001.

M: EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; KOPONEN & SÉRGIO, 2001; SIM-SIM *et al.*, 2004b.

***Plagiothecium denticulatum* (Hedw.) Schimp.**

M: HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986.

Reported for one locality by SCHWAB (1975); HEDENÄS (1992) has not observed any Madeiran herbarium material.

Plagiothecium laetum Schimp. in Bruch & Schimp.

M: DÜLL, 1985.

DÜLL (1985) refers the occurrence of this species in Azores, Madeira and Canarias but HEDENÄS (1992a) does not confirm its presence in Madeira.

***Plagiothecium nemorale* (Mitt.) A. Jaege**

M: MITTEN, 1870; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1920; LUISIER, 1927; PERSSON, 1939; ADE & KOPPE, 1942; LUISIER, 1945b; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; NÓBREGA, 1990; HEDENÄS, 1992a; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

Plagiothecium succulentum (Wilson) Lindb.

M: ADE & KOPPE, 1942; LUISIER, 1943; LUISIER, 1945b; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; DÜLL, 1992; SJÖGREN, 2001.

Reported for different localities, but HEDENÄS (1992) has not observed any Madeiran herbarium material.

***Platyhypnidium riparioides* (Hedw.) Dixon.**

M: LUISIER, 1909a; LUISIER, 1909b; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1920; LUISIER, 1927; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; LUISIER, 1945b; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; HEDENÄS, 1992a; SJÖGREN, 2001.

The reports of *Rhynchostegium riparioides* fo. *atlanticum* (Brid.) Düll are included in the broad sense of *P. riparioides*.

***Pleuridium acuminatum* Lindb.**

M: EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; SJÖGREN, 2001.

***Pleuridium subulatum* (Hedw.) Rabenh.**

M: DIXON, 1909; GEHEEB & HERZOG, 1910; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1927; LUISIER, 1938b; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; NÓBREGA, 1990.

***Pleurochaete squarrosa* (Brid.) Lindb.**

M: SCHIFFNER, 1902; EGGERS, 1982; DÜLL, 1984; SJÖGREN, 2001.

The report of its occurrence in Madeira was not supported by herbarium specimens, so its presence is considered uncertain.

***Pleurozium schreberi* (Brid.) Mitt.**

M: NÓBREGA, 1990; DÜLL, 1992; HEDENÄS, 1992a; SJÖGREN, 2001.

Species known in only one locality, situated on the northern side of Madeira Island, at c. 1.000 m a. s. l. (HEDENÄS, 1992a).

***Pogonatum aloides* (Hedw.) P. Beauv.**

PI/Macmap: CASAS *et al.*, 1992.

M: MÜLLER, 1862; SCHIMPER, 1868; MITTEN, 1870; GEHEEB, 1886; CARDOT, 1897; BRITTEN, 1904; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1932; LUISIER, 1938b; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; SÉRGIO, 1973b; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; CASAS *et al.*, 1992; SJÖGREN, 2001.

The report of its occurrence in Madeira is considered uncertain.

***Pogonatum nanum* (Hedw.) P. Beauv.**

PI/Macmap: CASAS *et al.*, 1992.

M: BUCH, 1833; MITTEN, 1870; DIXON, 1909; GEHEEB & HERZOG, 1910; ARMITAGE, 1918;

LUISIER, 1919; LUISIER, 1927; LUISIER, 1932; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; CASAS *et al.*, 1992; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

***Pogonatum urnigerum* (Hedw.) P. Beauv.**

PI/Macmap: CASAS *et al.*, 1992.

M: HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; EGGERS, 1982; DÜLL, 1984; CASAS *et al.*, 1992; SJÖGREN, 2001.

***Pohlia annotina* (Hedw.) Lindb.**

M: HOLL, 1830; LUISIER, 1917; LUISIER, 1927; DÜLL, 1985; KOPPE & DÜLL, 1986; NORDHORN-RICHTER, 1986; SJÖGREN, 2001.

Pohlia atropurpurea (Wahlenb.) Lindb.

M: DÜLL, 1985; DÜLL, 1992.

The report of its occurrence in Madeira is considered uncertain.

***Pohlia elongata* Hedw.**

M: DIXON, 1909; LUISIER, 1927; LUISIER, 1931; LUISIER, 1938b; LUISIER, 1939; ADE & KOPPE, 1942; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973b; EGGERS, 1982; DÜLL, 1985; SÉRGIO & NÓBREGA, 1985; KOPPE & DÜLL, 1986; NORDHORN-RICHTER, 1986; DÜLL, 1992.

***Pohlia elongata* Hedw. subsp. *polymorpha* (Hoppe & Hornsch.) Nyh.**

M: LUISIER, 1939; EGGERS, 1982.

Pohlia longicollis (Hedw.) Lindb.

M: HOLL, 1830; LUISIER, 1917; LUISIER, 1927; EGGERS, 1982; SIM-SIM *et al.*, 2004b.

The first and only report of its occurrence in Madeira (Holl, 1830) was not supported by herbarium specimens, so its presence is considered uncertain.

***Pohlia nutans* (Hedw.) Lindb.**

M: SJÖGREN, 2001.

***Pohlia proligera* (Kindb.) Broth.**

M: GEHEEB & HERZOG, 1910; LUISIER, 1917; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1931; LUISIER, 1938b; PERSSON, 1939; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; NORDHORN-RICHTER, 1986; DÜLL, 1992; SJÖGREN, 2001.

***Polytrichum commune* Hedw.**

M: MITTEN, 1870; CARDOT, 1897; DIXON, 1909; GEHEEB & HERZOG, 1910; ARMITAGE, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1932; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; DÜLL, 1992; HODGETTS, 1992.

***Polytrichum commune* Hedw. var. *humile* Sw.**

M: DÜLL, 1984.

The reports of this species are not confirmed by any herbarium specimen, therefore its presence in Madeira is considered uncertain.

***Polytrichum commune* Hedw. var. *perigoniale* (Michx.) Hampe**

M: DÜLL, 1984; DÜLL, 1992; SJÖGREN, 2001.

This variety is only known in one locality (DÜLL, 1992).

***Polytrichum formosum* Hedw.**

M: MITTEN, 1870; CARDOT, 1897; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1919; LUISIER, 1927; LUISIER, 1932; BUCH & PERSSON, 1941; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

***Polytrichum juniperinum* Hedw.**

Madmap: SÉRGIO & FONTINHA, 1994b.

M: SCHIMPER, 1868; MITTEN, 1870; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; ARMITAGE, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1932; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

***Polytrichum piliferum* Hedw.**

M: SCHIMPER, 1868; CARDOT, 1897; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; ARMITAGE, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1932; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

***Pottia lanceolata* (Hedw.) Müll. Hal.**

Madmap: SÉRGIO & FONTINHA, 1994b.

M: LUISIER, 1947; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; SÉRGIO & FONTINHA, 1994b.

IS: EGGERS, 1982, NÓBREGA, 1955.

Pottia truncata* (Hedw.) Bruch & Schimp.*Madmap:** FONTINHA, 1995.**M:** LUISIER, 1939; EGGERS, 1982; DÜLL, 1984; FONTINHA, 1995; SJÖGREN, 2001.***Pseudephemerum nitidum* (Hedw.) Reim.****M:** DÜLL, 1984; SJÖGREN, 2001.

Although it is referred to Madeira, there is not any locality reference or herbarium specimen, so its presence in Madeira is considered uncertain.

Pseudocrossidium hornschuchianum* (Schultz) R. H. Zander*M:** DÜLL, 1984; SJÖGREN, 2001.

Not being confirmed by any herbarium specimen it is considered as uncertain in Madeira.

Pseudocrossidium revolutum* (Brid.) R. H. Zander*Madmap:** FONTINHA & SÉRGIO, 1998.**PSmap:** FONTINHA & SÉRGIO, 1998.**M:** LUISIER, 1947; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; SJÖGREN, 2001.**PS:** COSTA & PERSSON, 1941; FONTINHA & SÉRGIO, 1998.***Pseudotaxiphyllum elegans* (Brid.) Z. Iwats.****Madmap:** HÜBSCHMANN, 1971.**M:** WINTER, 1914; LUISIER, 1917; LUISIER, 1920; LUISIER, 1927; PERSSON, 1939; ADE & KOPPE, 1942; LUISIER, 1945b; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; HEDENÄS, 1992a; DIRKSE *et al.*, 1993; SJÖGREN, 2001.***Pseudotaxiphyllum laetevirens* (T. J. Kop. & Düll) Hedenäs****M:** PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; LUISIER, 1943; LUISIER, 1945b; HÜBSCHMANN, 1971; SJÖGREN, 1975; DÜLL, 1985; KOPPE & DÜLL, 1986; HEDENÄS, 1992c; ECCB, 1995; SJÖGREN, 2001.

According to PERSSON (1939), it was first reported as *Isopterygium laetevires* Dix. & Luisier but not described. It was recently reported to Spain (GUERRA *et al.*, 2001) and Portugal (SÉRGIO *et al.*, 2005).

Pterigynandrum filiforme* Hedw.*M:** LUISIER, 1945b; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; NÓBREGA, 1990; DÜLL, 1992; HEDENÄS, 1992a.

Some material reported as *Pterigynandrum filiforme*, could be mistaken for *Isothecium algarvicum* (HEDENÄS, 1992). Therefore, the different material needs to be revised.

Pterogonium gracile* (Hedw.) Sm.*Madmap:** SÉRGIO & FONTINHA, 1994b.**M:** MITTEN, 1870; CARDOT, 1897; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1919; LUISIER, 1927; LUISIER, 1932; PERSSON, 1939; BARROS, 1942; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; NÓBREGA, 1990; HEDENÄS, 1992a; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001.***Pterygoneurum ovatum* (Hedw.) Dixon****PI/Macmap:** CASAS *et al.*, 1989.**M:** LUISIER, 1943; LUISIER, 1956; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; CASAS *et al.*, 1989.***Ptychomitrium azoricum* (Cardot) Paris (●)****M:** LUISIER, 1918; LUISIER, 1919; LUISIER, 1930; EGGERS, 1982; DÜLL, 1984; SÉRGIO *et al.*, 1992.According to recent taxonomic criteria, this species was included in *Ptychomitrium polyphyllum* (SJÖGREN, 2001).***Ptychomitrium nigrescens* (Kunze) Wijk & Margad.****Madmap:** FONTINHA, 1995.**M:** HOLL, 1830; SCHIMPER, 1868; MITTEN, 1870; CARDOT, 1897; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; PERSSON, 1939; BARROS, 1942; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SÉRGIO *et al.*, 1992; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.***Ptychomitrium polyphyllum* (Sw.) Bruch & Schimp.****Wmap:** HOLMEN & RASMUSSEN, 1971b.**PI/Macmap:** CASAS *et al.*, 1989.**M:** HOLL, 1830; MONTAGNE, 1839-1841; MITTEN, 1865; SCHIMPER, 1868; MITTEN, 1870; CARDOT, 1897; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; TAVARES, 1965; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; CASAS *et al.*, 1989; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.See note under *Ptychomitrium azoricum*.***Racomitrium aciculare* (Hedw.) Brid.****PI/Macmap:** CASAS *et al.*, 1992.

M: MITTEN, 1870; DIXON, 1909; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; CASAS *et al.*, 1992; SJÖGREN, 2001.

Racomitrium affine (F. Weber & D. Mohr) Lindb.

M: DÜLL, 1984.

There is not any locality reference or herbarium specimen, so its presence in Madeira is considered uncertain.

***Racomitrium aquaticum* (Schrad.) Brid.**

PI/Macmap: CASAS *et al.*, 1992.

M: LUISIER, 1937; LUISIER, 1938b; LUISIER, 1947; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; CASAS *et al.*, 1992; SJÖGREN, 2001.

***Racomitrium elongatum* Frisvoll**

PI/Macmap: CASAS *et al.*, 1992.

M: MITTEN, 1870; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; EGGERS, 1982; FRISVOLL, 1983; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; CASAS *et al.*, 1992; SJÖGREN, 2001.

***Racomitrium fasciculare* (Hedw.) Brid.**

M: LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; DÜLL, 1992; SJÖGREN, 2001.

***Racomitrium heterostichum* (Hedw.) Brid.**

PI/Macmap: CASAS *et al.*, 1992.

M: DIXON, 1909; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; FRISVOLL, 1988; CASAS *et al.*, 1992; DÜLL, 1992; SJÖGREN, 2001.

***Racomitrium lanuginosum* (Hedw.) Brid.**

M: BUCH, 1833; BRITTEN, 1904; LUISIER, 1936; LUISIER, 1938b; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; SJÖGREN, 2001.

***Rhabdoweisia fugax* (Hedw.) Bruch & Schimp.**

M: PERSSON, 1939; LUISIER, 1943; LUISIER, 1947; LUISIER, 1956; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; NÓBREGA, 1990; SJÖGREN, 2001.

***Rhamphidium purpuratum* Mitt.**

Madmap: SÉRGIO & FONTINHA, 1994b.

Eurmap: ARTS, 1989.

M: MITTEN, 1870; CARDOT, 1897; GEHEEB & HERZOG, 1910; LUISIER, 1917; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; TAVARES, 1965; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; SÉRGIO, 1973b; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; ARTS, 1989; NÓBREGA, 1990; DÜLL, 1992; SÉRGIO *et al.*, 1992; SÉRGIO & FONTINHA, 1994b; ECCB, 1995; SJÖGREN, 2001.

***Rhizomnium punctatum* (Hedw.) T. J. Kop.**

M: BUCH, 1833; BRITTEN, 1904; LUISIER, 1917; LUISIER, 1931; LUISIER, 1938b; PERSSON, 1939; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; SÉRGIO, 1973b; SJÖGREN, 1975; KOPONEN, 1980; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

***Rhynchostegiella curviseta* (Brid.) Limpr.**

M: GEHEEB & HERZOG, 1910; LUISIER, 1910; LUISIER, 1920; LUISIER, 1927; BARROS, 1942; LUISIER, 1945b; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; DÜLL, 1992; SJÖGREN, 2001.

As HEDENÄS (1992) did not confirm the occurrence of this species in Madeira, we suggest that the herbarium material reported by different authors needs to be revised.

***Rhynchostegiella durieui* (Mont.) P. Allorge & Perss.**

Eurmap: SÉRGIO & HEBRARD, 1982.

M: SÉRGIO & HEBRARD, 1982; DÜLL, 1985; DÜLL, 1992; HEDENÄS, 1992c; ECCB, 1995; SJÖGREN, 2001.

***Rhynchostegiella jacquinii* (Garov.) Limpr.**

M: DÜLL, 1986; DÜLL, 1992; HEDENÄS, 1992a.

See note under *Rhynchostegiella teneriffae*.

***Rhynchostegiella litorea* (De Not.) Limpr.**

Madmap: SÉRGIO & FONTINHA, 1994b.

M: GEHEEB & HERZOG, 1910; LUISIER, 1920; LUISIER, 1927; LUISIER, 1938b; LUISIER, 1945b;

HOLMEN & RASMUSSEN, 1971a; KOPPE & DÜLL, 1986; HEDENÄS, 1992a; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001.

PS: COSTA & PERSSON, 1941.

***Rhynchostegiella macilenta* (Renauld & Cardot) Cardot •**

Madmap: SÉRGIO & FONTINHA, 1994b.

M: DÜLL, 1992; HEDENÄS, 1992c; SÉRGIO & FONTINHA, 1994b; ECCB, 1995.

***Rhynchostegiella teneriffae* (Mont.) Dirkse & Bouman**

M: MITTEN, 1870; LUISIER, 1920; LUISIER, 1938b; PERSSON, 1939; LUISIER, 1943; LUISIER, 1945b; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985.

We included the reports as *R. teesdalei*, also as synonym of *Rhynchostegiella jacquinii* (Garov.) Limpr.

***Rhynchostegiella tenella* (Dicks.) Limpr.**

M: LUISIER, 1910; BARROS, 1942; DÜLL, 1985; DÜLL, 1986; KOPPE & DÜLL, 1986; HEDENÄS, 1992a.

PS: EGGERS, 1982.

***Rhynchostegium confertum* (Dicks.) Schimp.**

Madmap: SÉRGIO & FONTINHA, 1994b.

M: MITTEN, 1865; SCHIMPER, 1868; MITTEN, 1870; CARDOT, 1897; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1920; LUISIER, 1927; LUISIER, 1938b; BUCH & PERSSON, 1941; LUISIER, 1945b; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; DÜLL, 1986; KOPPE & DÜLL, 1986; DÜLL, 1992; HEDENÄS, 1992a; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001.

PS: COSTA & PERSSON, 1941.

***Rhynchostegium megapolitanum* (F. Weber & D. Mohr) Schimp.**

Madmap: FONTINHA, 1995.

M: GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1917; LUISIER, 1920; LUISIER, 1927; LUISIER, 1938b; LUISIER, 1945b; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; DÜLL, 1992; HEDENÄS, 1992a; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SJÖGREN, 2001.

***Rhynchostegium murale* (Hedw.) Schimp.**

M: LUISIER, 1945b; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; SIM-SIM *et al.*, 2004b.

This species was reported for the first time to Madeira by Luisier. However, HEDENÄS (1992) refers that no herbarium material was observed. It is recently found (SIM-SIM *et al.*, 2004b) but the material needs revision.

***Rhytidiadelphus loreus* (Hedw.) Warnst.**

M: BARROS, 1942; LUISIER, 1945b; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; DÜLL, 1992; HEDENÄS, 1992a; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

***Rhytidiadelphus squarrosus* (Hedw.) Warnst.**

M: GEHEEB & HERZOG, 1910; LUISIER, 1920; LUISIER, 1927; LUISIER, 1938b; BUCH & PERSSON, 1941; LUISIER, 1945b; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; NÓBREGA, 1990; HEDENÄS, 1992a; SJÖGREN, 2001.

See note under the next species.

***Rhytidiadelphus subpinnatus* (Lindb.) T. J. Kop.**

M: EGGERS, 1982; DÜLL, 1985; NÓBREGA, 1990; HEDENÄS, 1992.

According to HEDENÄS (1992) this is a dubious species from the north of Macaronesia and no Madeiran material was correctly identified. All the reports may correspond to *Rhytidiadelphus squarrosus*.

***Rhytidiadelphus triquetrus* (Hedw.) Warnst.**

M: LUISIER, 1945b; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; DÜLL, 1992; HEDENÄS, 1992a.

***Sanionia uncinata* (Hedw.) Loeske**

M: DÜLL, 1985.

According to DÜLL (1985), this species occurs in Azores, Madeira and Canarias, but HEDENÄS (1992) does not confirm it for Madeira, as no herbarium material could be studied.

***Schistidium agassizii* Sull. & Lesq.**

M: DÜLL, 1984; SJÖGREN, 2001.

***Schistidium apocarpum* (Hedw.) Bruch & Schimp.**

Madmap: HÜBSCHMANN, 1971.

M: GEHEEB & HERZOG, 1910; LUISIER, 1917; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; DÜLL, 1992; BLOM, 1996; SJÖGREN, 2001.

***Schistidium rivulare* (Brid.) Podp.**

M: DÜLL, 1992.

***Schistidium strictum* (Turner) Loeske ex Mart**

M: BLOM, 1996.

***Scleropodium ceaspitans* (Müll. Hal.) L. Koch**

M: GEHEEB & HERZOG, 1910; HOLMEN & RASMUSSEN, 1971a.

According to HEDENÄS (1992), this species was reported only to Canarias. The material of GEHEEB & HERZOG (1910) should be revised, and may correspond to another species.

***Scleropodium purum* (Hedw.) Limpr.**

M: CARDOT, 1897; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1920; LUISIER, 1927; LUISIER, 1938b; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; LUISIER, 1945b; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SJÖGREN, 1975; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; NÓBREGA, 1990; HEDENÄS, 1992a; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

***Scleropodium touretii* (Brid.) L. Koch**

Wmap: HOLMEN & RASMUSSEN, 1971b; ZIPPEL, 1998.

Madmap: SÉRGIO & FONTINHA, 1994b.

M: MITTEN, 1870; CARDOT, 1897; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; ARMITAGE, 1918; LUISIER, 1920; LUISIER, 1927; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; LUISIER, 1945b; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; SJÖGREN, 1975; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; HEDENÄS, 1992a; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

PS: COSTA & PERSSON, 1941; LUISIER, 1945b.

DG: HOLMEN & RASMUSSEN, 1971b; EGGERS, 1982.

***Scorpiurium circinatum* (Brid.) M. Fleisch. & Loeske**

Madmap: FONTINHA, 1995.

PI/Macmap: CASAS *et al.*, 1989.

M: DIXON, 1909; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1920; LUISIER, 1927; PERSSON, 1939; ADE & KOPPE, 1942; LUISIER, 1945b; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; CASAS *et al.*, 1989; HEDENÄS, 1992a; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SJÖGREN, 2001.

PS: COSTA & PERSSON, 1941.

DG: HOLMEN & RASMUSSEN, 1971b; LUISIER, 1956; SÉRGIO & NÓBREGA, 1991.

***Scorpiurium deflexifolium* (Solms.) M. Fleisch. & Loeske**

PI/Macmap: CASAS *et al.*, 1996.

M: LUISIER, 1945b; EGGERS, 1982; DÜLL, 1985; HEDENÄS, 1992a; CASAS *et al.*, 1996; HUTTUNEN *et al.*, 2004.

Scorpiurium sendtneri (Schimp.) M. Fleisch.

M: EGGERS, 1982; DÜLL, 1985.

HEDENÄS, 1992a does not refer this species to Madeira. After the revision of the herbarium material, we may consider that this report could correspond to *Isothecium algarvicum*.

***Sematophyllum substrumulosum* (Hampe) E. Britton**

PI/Macmap: CASAS *et al.*, 1985.

M: MITTEN, 1865; MITTEN, 1870; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1917; LUISIER, 1920; LUISIER, 1927; LUISIER, 1938b; PERSSON, 1939; ADE & KOPPE, 1942; BARROS, 1942; LUISIER, 1945b; HOLMEN & RASMUSSEN, 1971a; SJÖGREN, 1975; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; CASAS *et al.*, 1985; DÜLL, 1985; KOPPE & DÜLL, 1986; HEDENÄS, 1992a; SÉRGIO *et al.*, 1992; SIM-SIM & SÉRGIO, 1998; ZIPPEL, 1998; SJÖGREN, 2001.

***Sphagnum denticulatum* Brid.**

M: LUISIER, 1936; LUISIER, 1938b; BARROS, 1942; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; SJÖGREN, 2001.

Sphagnum capillifolium (Ehrh.) Hedw.

M: DÜLL, 1984; DÜLL, 1992; SJÖGREN, 2001.

There is no locality to back the report for Madeira, and so the species has to be considered as uncertain in this region.

***Sphagnum compactum* Lam. & DC.**

PI/Macmap: CASAS *et al.*, 1996.

M: MITTEN, 1870; CARDOT, 1897; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1918; LUISIER, 1927; LUISIER, 1938b; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; DANIELS & EDDY, 1985; CASAS *et al.*, 1996; SJÖGREN, 2001.

Sphagnum rubellum Wilson

M: DÜLL, 1992.

We could not find any locality to support this report, so we admit that its occurrence in Madeira is uncertain.

Sphagnum squarrosum Crome

M: DÜLL, 1984; SJÖGREN, 2001.

Although DÜLL (1984) referred the species for Madeira, CASAS *et al.* (1996) did not revised any material from Madeira.

Sphagnum subnitens Russow & Warnst.

M: LUISIER, 1936; LUISIER, 1938b; BUCH & PERSSON, 1941; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; SJÖGREN, 2001.

Splachnum vasculosum Hedw.

M: BUCH, 1833.

The presence of this species in Madeira is dubious as only an old bibliographic reference is available.

Syntrichia bogotensis (Hampe) R. H. Zander

M: GALLEGO *et al.*, 2005.

Syntrichia fragilis (Taylor) Ochyra

M: DÜLL, 1984; SÉRGIO & NÓBREGA, 1985; SÉRGIO *et al.*, 1992; GALLEGO *et al.*, 2005.

Syntrichia laevipila Brid.

Madmap: SÉRGIO & FONTINHA, 1994b.

M: PERSSON, 1939; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; NIEUWKOOP & ARTS, 1995; SJÖGREN, 2001; GALLEGO *et al.*, 2005.

Syntrichia montana Nees

M: DÜLL, 1984; DÜLL, 1992.

We could not find any locality to support this report, so we admit that its occurrence in Madeira is uncertain.

Syntrichia norvegica F. Weber

M: LUISIER, 1939; EGGERS, 1982; DÜLL, 1984; GALLEGO *et al.*, 2005.

Syntrichia princeps (De Not.) Mitt.

M: GEHEEB & HERZOG, 1910; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; GALLEGO *et al.*, 2005.

Syntrichia ruralis (Hedw.) F. Weber & D. Mohr

M: DÜLL, 1984; KOPPE & DÜLL, 1986; DÜLL, 1992; NIEUWKOOP & ARTS, 1995; SJÖGREN, 2001;

GALLEGO *et al.*, 2005.

DÜLL (1992) have indicated to Madeira, *T. ruralis* var. *callicolens* (W. A. Kramer) Düll.

***Syntrichia ruralis* (Hedw.) F. Weber & D. Mohr var. *ruraliformis* (Besch.) T. Durand**

M: DÜLL, 1984; KOPPE & DÜLL, 1986; DÜLL, 1992; GALLEGO *et al.*, 2005.

***Tetrastichium fontanum* (Mitt.) Cardot.**

M: MITTEN, 1865; MITTEN, 1870; SCHIFFNER, 1902; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; LUISIER, 1917; LUISIER, 1920; LUISIER, 1927; LUISIER, 1938a; LUISIER, 1938b; PERSSON, 1939; BUCH & PERSSON, 1941; BARROS, 1942; LUISIER, 1945a; TAVARES, 1965; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; HEDENÄS, 1992a; SÉRGIO *et al.*, 1992; ECCB, 1995; SJÖGREN, 2001.

***Tetrastichium virens* (Card.) S. P. Churchill**

M: GEHEEB & HERZOG, 1910; LUISIER, 1917; LUISIER, 1920; LUISIER, 1927; LUISIER, 1938a; LUISIER, 1938b; BARROS, 1942; LUISIER, 1945a; TAVARES, 1965; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; DIRKSE, 1988; CHURCHILL, 1989; NÓBREGA, 1990; HEDENÄS, 1992a; SÉRGIO *et al.*, 1992; ECCB, 1995; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

***Thamnobryum alopecurum* (Hedw.) Gangulee**

Madmap: SÉRGIO & FONTINHA, 1994b.

M: BUCH, 1833; SCHIMPER, 1868; MITTEN, 1870; GEHEEB, 1886; CARDOT, 1897; KINDBERG, 1902; BRITTEN, 1904; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; LUISIER, 1919; LUISIER, 1927; LUISIER, 1938a; LUISIER, 1938b; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; SÉRGIO, 1973b; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984; DÜLL, 1985; KOPPE & DÜLL, 1986; HEDENÄS, 1992b; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001.

***Thamnobryum fernandesii* Sérgio • •**

Wmap: SÉRGIO, 1981.

M: LUISIER, 1953; HOLMEN & RASMUSSEN, 1971a; FURNESS & GILBERT, 1980; SÉRGIO, 1981; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; OCHYRA, 1991; DÜLL, 1992; HEDENÄS, 1992b; HODGETTS & BLOCKEEL, 1992; SÉRGIO *et al.*, 1992; ECCB, 1995; FONTINHA *et al.*, 2001.

First reported as *T. angustifolium*. According to SÉRGIO *et al.* (1992), this species is considered vulnerable in Madeira Island. In 1991, Ochyra has included this taxon in the monospecific genus *Crassiphyllosum*.

Thamnobryum maderense* (Kindb.) Hedenäs*Wmap:** JIMÉNEZ *et al.*, 2000.**M:** KINDBERG, 1902; DÜLL, 1992; HEDENÄS, 1992b; ECCB, 1995; JIMÉNEZ *et al.*, 2000; SJÖGREN, 2001; STECH *et al.*, 2001; SIM-SIM *et al.*, 2004b.According to STECH *et al.* (2001) this taxon should be regarded as a variety of *T. alopecurum*, supported by molecular data.***Thuidium tamariscinum* (Hedw.) Schimp.****PI/Macmap:** CASAS *et al.*, 1992.**M:** MITTEN, 1870; CARDOT, 1897; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; LUISIER, 1920; LUISIER, 1927; BUCH & PERSSON, 1941; LUISIER, 1942; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; CASAS *et al.*, 1992; HEDENÄS, 1992a; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.***Timmiella barbuloidea* (Brid.) Moenk.****Madmap:** SÉRGIO & FONTINHA, 1994b.**M:** SCHIMPER, 1868; MITTEN, 1870; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001.**DG:** HOLMEN & RASMUSSEN, 1971b.***Tortella flavovirens* (Bruch) Broth.****Madmap:** FONTINHA, 1995.**PSmap:** FONTINHA & SÉRGIO, 1998.**M:** DIXON, 1909; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; LUISIER, 1947; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; DÜLL, 1984; KOPPE & DÜLL, 1986; MAY, 1986; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.**PS:** COSTA & PERSSON, 1941; FONTINHA & SÉRGIO, 1998.**DG:** HOLMEN & RASMUSSEN, 1971b; EGGERS, 1982.**IS:** EGGERS, 1982; NÓBREGA, 1955.***Tortella humilis* (Hedw.) Jenn.****M:** HOLL, 1830; LUISIER, 1917; LUISIER, 1927.***Tortella nitida* (Lindb.) Broth.****Madmap:** SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995.**M:** MITTEN, 1870; CARDOT, 1897; GEHEEB & HERZOG, 1910; LUISIER, 1917; LUISIER, 1918;

LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; PERSSON, 1939; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; DÜLL, 1984; KOPPE & DÜLL, 1986; MAY, 1986; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SJÖGREN, 2001.

DG: HOLMEN & RASMUSSEN, 1971b; EGGERS, 1982.

***Tortella tortuosa* (Hedw.) Limpr.**

Madmap: SÉRGIO & FONTINHA, 1994b.

M: BUCH, 1833; BRITTEN, 1904; LUISIER, 1939; LUISIER, 1947; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; SÉRGIO & FONTINHA, 1994b.

***Tortula atrovirens* (Sm.) Lindb.**

Madmap: FONTINHA, 1995.

M: PEREIRA, 1967; EGGERS, 1982; DÜLL, 1984; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SJÖGREN, 2001.

PS: COSTA & PERSSON, 1941.

DG: FONTINHA *et al.*, 1997.

IS: EGGERS, 1982, NÓBREGA, 1955.

Some reports is published as *T. revolvens* (Schimp.) G. Roth.

***Tortula bolanderi* (Lesq. & James) M. A. Howe.**

M: DÜLL, 1984; DÜLL, 1992; SÉRGIO *et al.*, 1994a; ECCB, 1995.

***Tortula canescens* Mont.**

M: LUISIER, 1938b; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; SJÖGREN, 2001.

***Tortula cuneifolia* (With.) Turner**

M: LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984; SJÖGREN, 2001.

***Tortula marginata* (Bruch & Schimp.) Spruce**

M: MITTEN, 1870; GEHEEB & HERZOG, 1910; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; PERSSON, 1939; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SJÖGREN, 2001.

***Tortula muralis* Hedw.**

Madmap: FONTINHA, 1995.

M: MITTEN, 1870; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910;

WINTER, 1914; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; TAVARES, 1965; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SJÖGREN, 2001.

PS: COSTA & PERSSON, 1941.

IS: EGGERS, 1982, NÓBREGA, 1955.

***Tortula muralis* Hedw. var. *aestiva* Brid. ex Hedw.**

M: GEHEEB & HERZOG, 1910; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; PEREIRA, 1967; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986.

***Tortula solmsii* (Schimp.) Limpr.**

Eurmap: LONG & HILL, 1982.

Madmap: SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995.

M: LUISIER, 1909a; LUISIER, 1909b; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1917; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; PERSSON, 1939; ADE & KOPPE, 1942; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; LONG & HILL, 1982; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SÉRGIO *et al.*, 1992; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; ECCB, 1995; SJÖGREN, 2001.

***Tortula subulata* Hedw.**

M: LUISIER, 1947; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1984.

***Tortula vahliana* (Schultz) Mont.**

M: DÜLL, 1984; DÜLL, 1992.

We could not find any locality to support this report, so we admit that its occurrence in Madeira has to be considered uncertain.

***Trichostomum brachydontium* Bruch**

Madmap: SÉRGIO & FONTINHA, 1994b.

M: SCHIMPER, 1868; MITTEN, 1870; CARDOT, 1897; CARDOT, 1905; DIXON, 1909; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; DÜLL, 1984; SCHWAB & HAUSTEIN, 1984; SÉRGIO, 1985b; KOPPE & DÜLL, 1986; DÜLL, 1992; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.

PS: COSTA & PERSSON, 1941.

DG: HOLMEN & RASMUSSEN, 1971b; EGGERS, 1982.

***Trichostomum brachydontium* Bruch var. *cuspidatum* (Braithw.) L. I. Saviz**

M: ADE & KOPPE, 1942; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; SIM-SIM *et al.*, 2004b.

All the material needs to be revised.

***Trichostomum brachydontium* Bruch var. *littorale* (Mitt.) C. O. E. Jens.**

M: DIXON, 1909; GEHEEB & HERZOG, 1910; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; ADE & KOPPE, 1942; LUISIER, 1947; TAVARES, 1965; SÉRGIO, 1973b; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986.

***Trichostomum contortum* (Kunze) Sérgio (••)**

M: HOLL, 1830; MÜLLER, 1849-1851; LUISIER, 1917; LUISIER, 1927; SÉRGIO, 1985b; NÓBREGA, 1990; SÉRGIO *et al.*, 1992; VÁÑA, 1992.

The taxonomic position of this species needs to be revised.

***Trichostomum crispulum* Bruch.**

Madmap: SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995.

PSmap: FONTINHA & SÉRGIO, 1998.

M: DIXON, 1909; GEHEEB & HERZOG, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; LUISIER, 1938b; ADE & KOPPE, 1942; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; DÜLL, 1984; KOPPE & DÜLL, 1986; DÜLL, 1992; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SJÖGREN, 2001.

PS: FONTINHA & SÉRGIO, 1998.

DG: LUISIER, 1947; LUISIER, 1956; EGGERS, 1982.

***Trichostomum crispulum* Bruch. var. *elatum* Schimp.**

M: ADE & KOPPE, 1942; EGGERS, 1982; DÜLL, 1984.

All the material needs to be revised.

***Trichostomum tenuirostre* (Hook. & Taylor) Lindb.**

M: DÜLL, 1984; SÉRGIO & NÓBREGA, 1985; HODGETTS, 1992.

***Ulota calvescens* Wilson**

M: MITTEN, 1870; DIXON, 1909; MITTEN, 1865; SCHIMPER, 1868; GEHEEB, 1886; SCHIFFNER, 1902; LUISIER, 1909b; GEHEEB & HERZOG, 1910; LUISIER, 1910; WINTER, 1914; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1919; LUISIER, 1927; LUISIER, 1930; LUISIER, 1931; LUISIER, 1938b; PERSSON, 1939; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; KOPPE & DÜLL, 1986; SÉRGIO *et al.*, 1992; ZIPPEL, 1998; SJÖGREN, 2001.

Ulota crispa* (Hedw.) Brid.*Madmap:** HÜBSCHMANN, 1971.**M:** ADE & KOPPE, 1942; LUISIER, 1943; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1985; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.***Weissia condensata* (Voit) Lindb.****M:** DÜLL, 1984; DÜLL, 1992.

As no locality to support this report was found, we admit that its occurrence in Madeira is uncertain.

Weissia controversa* Hedw.*Madmap:** FONTINHA, 1995.**M:** SCHIMPER, 1868; MITTEN, 1870; CARDOT, 1897; DIXON, 1909; LUISIER, 1909b; GEHEEB & HERZOG, 1910; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; LUISIER, 1936; LUISIER, 1938b; ADE & KOPPE, 1942; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SJÖGREN, 2001.**PS:** COSTA & PERSSON, 1941.***Weissia controversa* Hedw. var. *crispata* (Nees & Hornsch.) Nyholm****M:** DIXON, 1909; GEHEEB & HERZOG, 1910; LUISIER, 1917; ARMITAGE, 1918; LUISIER, 1918; LUISIER, 1927; LUISIER, 1930; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1984; KOPPE & DÜLL, 1986; DÜLL, 1990.***Weissia triumphans* (De Not.) M. O. Hill****Madmap:** SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995.**M:** SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995.***Zygodon conoideus* (Dicks.) Hook. & Taylor****M:** LUISIER, 1939; PERSSON, 1939; LUISIER, 1947; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1985; SJÖGREN, 2001.***Zygodon forsteri* (Dicks.) Mitt.****Wmap:** MATCHAM & O'SHEA, 2005.**Eurmap:** ECCB, 1995.**PI/Macmap:** CASAS *et al.*, 1985.**M:** LUISIER, 1939; LUISIER, 1956; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; CASAS *et al.*, 1985; DÜLL, 1985; NÓBREGA, 1990; DÜLL, 1992; SÉRGIO *et al.*, 1992; ECCB, 1995; CHURCH *et al.*, 2001.

According to SÉRGIO *et al.* (1992), this species is considered rare in Madeira Island. Now, *Z. forsteri* is included in the genus *Codonoblepharum* Schwägr. [*Codonoblepharum forsteri* (Dicks.) Goffinet, see MATCHAM & O'SHEA, 2005].

***Zygodon rupestris* Schimp. ex Lorentz.**

M: DÜLL, 1985; KOPPE & DÜLL, 1986; NIEUWKOOP, 1993.

***Zygodon viridissimus* (Dicks.) Brid.**

M: LUISIER, 1937; LUISIER, 1938b; PERSSON, 1939; BUCH & PERSSON, 1941; LUISIER, 1947; PEREIRA, 1967; HOLMEN & RASMUSSEN, 1971a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1985; SJÖGREN, 2001.

PS: LUISIER, 1956.

Mosses to be excluded, uncertain occurrence on the bryoflora of Madeira Archipelago, or taxa with taxonomic problems.

Barbula semilimbata Dixon & Luisier
Brachymenium canariense Schimp.
Brachymenium philonotula Broth.
Brachythecium mildeanum (Schimp.) Milde
Brachythecium ruderale Bruch & Schimp.
Brachythecium salebrosum (F. Weber & D. Mohr) Schimp.
Bryoerythrophyllum inaequalifolium (Taylor) R. H. Zander
Bryum caespiticium Hedw. var. *atlanticum* Cardot
Bryum cellulare Hook. ex Schwägr.
Bryum funckii Schwägr.
Bryum versicolor Bruch & Schimp.
Cheilothela chloropus (Brid.) Broth.
Cirriphyllum reichenbachianum (Huebener) Wijk et Margad.
Cratoneuron filicinum (Hedw.) Spruce var. *atrovirens* (Brid.) Ochyra
Cryphaea heteromalla (Hedw.) D. Mohr
Ctenidium molluscum (Hedw.) Mitt.
Daltonia splachnoides (Sm. ex Sm. & Sowerby) Hook. & Taylor
Dicranella campylophylla Taylor
Ditrichum difficile (Duby) M. Fleisch.
Echinodium renauldii (Cardot) Broth.
Fabronia ciliaris (Brid.) Brid.
Fissidens goesii Luisier
Funariella curviseta (Schwägr.) Sérgio

Grimmia hartmanii subsp. *bullata* Luisier
Homalia trichomanooides (Hedw.) Schimp.
Homalothecium lutescens (Hedw.) H. Rob.
Hypnum mamillatum (Brid.) Loeske
Lescuraea mutabilis (Brid.) Lindb. ex I. Hagen
Orthotrichum lyellii Hook. & Taylor var. *crispatum* Schiffn.
Philonotis hastata (Duby) Wijk & Margad.
Plagiomnium elatum (Bruch & Schimp.) T. J. Kop.
Plagiomnium ellipticum (Brid.) T. J. Kop.
Plagiomnium medium (Bruch & Schimp.) T. J. Kop.
Plagiothecium laetum Schimp. in Bruch & Schimp.
Plagiothecium succulentum (Wilson) Lindb.
Pleurochaete squarrosa (Brid.) Lindb.
Pohlia atropurpurea (Wahlenb.) Lindb.
Pohlia longicollis (Hedw.) Lindb.
Polytrichum commune Hedw. var. *humile* Sw.
Pseudephemerum nitidum (Hedw.) Reim.
Pseudocrossidium hornschuchianum (Schultz) R. H. Zander
Racomitrium affine (F. Weber & D. Mohr) Lindb.
Rhynchostegiella jacquinii (Garov.) Limpr.
Rhynchostegium murale (Hedw.) Schimp.
Rhytidiadelphus subpinnatus (Lindb.) T. J. Kop.
Sanionia uncinata (Hedw.) Loeske
Scleropodium ceaspitans (Müll.Hal.) L. Koch
Scorpiurium sendtneri (Schimp.) M. Fleisch.
Sphagnum capillifolium (Ehrh.) Hedw.
Sphagnum rubellum Wilson
Sphagnum squarrosum Crome
Splachnum vasculosum Hedw.
Syntrichia montana Nees
Tortula vahliana (Schultz) Mont.
Trichostomum contortum (Kunze) Sérgio

Mosses – Listed taxa and synonyms

Acrocladium cordifolium (Hedw.) Rich. & Wallace. = *Calliergonella cuspidata*
Acrocladium cuspidatum (Hedw.) Lindb. = *Calliergonella cuspidata*
Allorgea berthelotiana (Mont.) Ando = *Andoa berthelotiana*
Aloina aloides var. *ambigua* (Bruch & Schimp.) Craig. in Grout = *Aloina ambigua*

Aloina ericifolia (Neck.) Lindb. = *Aloina ambigua*
Amblystegiella confervoides (Schimp.) Loeske = *Nobregaea latinervis*
Amblystegium confervoides Brid. = *Nobregaea latinervis*
Amblystegium fallax Schimp. = *Cratoneuron filicinum* var. *atrovirens*
Amblystegium madeirense (Mitt.) Jaeg. = *Amblystegium varium*
Amblystegium riparium var. *longifolium* (Schulze) Schimp.
 = *Amblystegium riparium*
Amphoridium curvipes Müll.Hal. = *Amphidium curvipes*
Andreaea angustata Lindb. ex Limpr. = *Andreaea heinemannii*
Andreaea blyttii subsp. *angustata* (Lindb. ex Limpr.) Schultze-Motel
 = *Andreaea heinemannii*
Andreaea rupestris var. *alpestris* (Thed.) Sharp. = *Andreaea alpestris*
Anisothecium campylophyllum (Taylor) Mitt. = *Dicranella campylophylla*
Anisothecium rigidulum (Hedw.) C. Jeans. = *Dicranella humilis*
Anisothecium rigidulum var. *madeirense* Cardot = *Dicranella varia*
Anisothecium rufescens (With.) Lindb. = *Dicranella rufescens*
Anisothecium varium (Hedw.) Mitt. = *Dicranella varia*
Anoetangium compactum Schwägr. = *Anoetangium aestivum*
Anoetangium compactum var. *madeirense* Geh.
 = *Anoetangium aestivum* var. *madeirense*
Anoetangium madeirense Geh. = *Anoetangium aestivum* var. *madeirense*
Anomobryum filiforme (Dicks.) Husn. = *Anomobryum julaceum*
Anomobryum filiforme var. *juliforme* (Solms) Husn. = *Anomobryum julaceum*
Anomobryum julaceum var. *concinatum* (Spruce) Lindb.
 = *Anomobryum julaceum*
Anomobryum juliforme Solms. = *Anomobryum julaceum*
Astrodonium canariense (Brid.) Schwägr. = *Leucodon canariensis*
Astrodonium treleasei Cardot = *Leucodon treleasei*
Atrichum angustatum (Brid.) Bruch & Schimp. var. *muelleri* (Schimp.) Barth. =
Atrichum angustatum var. *rhystophyllum*
Barbula acuta (Brid.) Brid. = *Didymodon acutus*
Barbula caespitosa Schwägr. = *Tortella humilis*
Barbula cylindrica (Taylor) Schimp. = *Didymodon insulanus*
Barbula fallax Hedw. = *Didymodon fallax*
Barbula lurida Hornsch. = *Didymodon luridus*
Barbula marginata Bruch & Schimp. = *Tortula marginata*
Barbula membranifolia Hook. = *Crossidium squamiferum*
Barbula revoluta Brid. = *Pseudocrossidium revolutum*
Barbula rigida Brid. = *Aloina rigida*

- Barbula rigidula* (Hedw.) Milde = *Didymodon rigidulus*
Barbula semilimbata Dixon & Luisier = *Ceratodon purpureus* **syn. nov**
Barbula tophacea (Brid.) Mitt. = *Didymodon tophaceus*
Barbula vinealis Brid. = *Didymodon vinealis*
Barbula vinealis var. *cylindrica* (Taylor) Boulay = *Didymodon insulanus*
Bartramia rigida Brid. = *Philonotis rigida*
Bartramia webbii Mont. = *Anacolia webbii*
Blindia madeirensis Geh. & Herzog = *Blindia acuta* var. *madeirensis*
Brachythecium cardotii H. Winter = *Rhynchostegium megapolitanum*
Brachythecium illecebrum auct. = *Scleropodium touretii*
Brachythecium plumosum var. *homomallum* Bruch & Schimp.
= *Brachythecium plumosum*
Brachythecium purum Dixon. = *Scleropodium purum*
Bryum alpinum subsp. *atlanticum* (Solms in Jaeg.) Podp. = *Bryum alpinum*
Bryum alpinum var. *meridionale* Schimp. = *Bryum alpinum*
Bryum annotinum Hedw. = *Pohlia annotina*
Bryum argenteum var. *lanatum* (P. Beauv.) Hampe = *Bryum argenteum*
Bryum atropurpureum Web. & Mohr = *Bryum dichotumum*
Bryum atrovirens Vill. ex Brid. = *Bryum erythrocarpum* complex
Bryum barnesii J. B. Wood = *Bryum dichotumum*
Bryum bicolor Dicks. = *Bryum dichotumum*
Bryum bimum (Schreb. ap. Hedw.) Turner
= *Bryum pseudotriquetrum* var. *bimum*
Bryum capillare var. *meridionale* Schimp. = *Bryum capillare*
Bryum capillare var. *platyloma* (Schwägr.) Schimp. = *Bryum platyloma*
Bryum coenosum Luisier = *Bryum pseudotriquetrum* var. *bimum*
Bryum creberimum Taylor = *Bryum capillare*
Bryum dunense A. J. E. Sm. & H. Whitehouse = *Bryum dichotumum*
Bryum erythrocarpum var. *murale* Wils. ex Hunt. = *Bryum radiculosum*
Bryum erythrocarpum var. *rubens* (Mitt.) Podp. = *Bryum rubens*
Bryum fontanum (B. Pyl.) Lindb. = *Philonotis fontana*
Bryum julaceum Schrad. = *Anomobryum julaceum*
Bryum murale Wils. ex Hunt. = *Bryum radiculosum*
Bryum murorum (Schimp.) Berk. = *Bryum radiculosum*
Bryum notarisii Mitt. = *Brachymenium notarisii*
Bryum obovatum Mitt. = *Bryum donianum*
Bryum pachyloma Cardot = *Bryum donianum*
Bryum ruffolium (Dixon) Demaret & R. Wilczec = *Bryum capillare*
Bryum serrulatum Cardot = *Bryum canariense*

Bryum teneriffae Hampe ex Müll. Hal. = *Bryum capillare*
Bryum validicostatum Cardot & Dixon = *Bryum capillare*
Bryum ventricosum Lindb. = *Bryum pseudotriquetrum*
Calliergonella cuspidata var. *fluitans* H. von Klinggr.
= *Calliergonella cuspidata*
Camptothecium aureum (Spruce) Bruch & Schimp. = *Homalothecium aureum*
Campylium serratum Cardot & H. Winter = *Eurhynchium praelongum*
Campylopodium euphorocladum (Müll. Hal.) Besch.
= *Microcampylopus laevigatum*
Campylopodium euphorocladum var. *laevigatum* (Thér.) Luisier
= *Microcampylopus laevigatum*
Campylopodium leiotheca Dixon & Luisier = *Microcampylopus laevigatum*
Campylopus atroluteus (Müll. Hal.) Par. = *Campylopus incrassatus*
Campylopus azoricus Mitt. = *Campylopus pyriformis*
Campylopus bartramiaceus (Müll. Hal.) Par. sensu Mac.
= *Campylopus incrassatus*
Campylopus brevipilus var. *marginatulus* (Geh.) Thér. = *Ditrichum punctulatum*
Campylopus calvatus (Mitt. in Dixon) Luisier = *Campylopus incrassatus*
Campylopus dixonii Luisier = *Campylopus incrassatus*
Campylopus eximius Reichardt = *Campylopus incrassatus*
Campylopus flexuosus var. *menezesianum* Luisier = *Campylopus flexuosus*
Campylopus fragilis var. *brunnescens* H. Winter = *Campylopus fragilis*
Campylopus fragilis var. *gracilis* Schiffn. = *Campylopus fragilis*
Campylopus fragilis var. *laetevirens* (Müll. Hal.) Corb. = *Campylopus fragilis*
Campylopus madeirensis Geh. = *Ditrichum punctulatum*
Campylopus paradoxus Wils in Hardy = *Campylopus flexuosus*
Campylopus pilifer var. *tullgrenii* (Renauld et Cardot) Thér.
= *Campylopus pilifer*
Campylopus polytrichoides De Not. = *Campylopus pilifer*
Campylopus polytrichoides var. *flavescens* Luisier = *Campylopus pilifer*
Campylopus polytrichoides var. *tullgrenii* Renauld & Cardot
= *Campylopus pilifer*
Campylopus pyriformis var. *azoricus* (Mitt.) Corley = *Campylopus pyriformis*
Campylopus tullgrenii Renauld & Cardot = *Campylopus pilifer*
Catharinea angustata var. *rhystophylla* (Müll. Hal.) Dixon
= *Atrichum angustatum* var. *rhystophyllum*
Catharinea rhystophylla Müll. Hal. = *Atrichum angustatum* var. *rhystophyllum*
Catharinea undulata (Hedw.) F. Weber & D. Mohr = *Atrichum undulatum*
Ceratodon chloropus (Brid.) Brid. = *Cheilothela chloropus*

- Ceratodon conicus* (Hampe ex Müll.Hal.) Lindb.
 = *Ceratodon purpureus* subsp. *stenocarpus*
Ceratodon corsicus Bruch & Schimp.
 = *Ceratodon purpureus* subsp. *stenocarpus*
Ceratodon purpureus fo. *cuspidatus* (Warnst.) Podp. = *Ceratodon purpureus*
Ceratodon purpureus fo. *graefii* Hedw. = *Ceratodon purpureus*
Ceratodon purpureus var. *conicus* (Hampe) Husn.
 = *Ceratodon purpureus* subsp. *stenocarpus*
Ceratodon purpureus var. *flavisetus* Limpr. = *Ceratodon purpureus*
Ceratodon purpureus var. *xanthopus* Sull & Lesq. ex. Lesq. & James
 = *Ceratodon purpureus*
Ceratodon stenocarpus Bruch & Schimp. non Müll.Hal.
 = *Ceratodon purpureus* subsp. *stenocarpus*
Ceratodon stenocarpus var. *corsicus* (Bruch & Schimp.) Podp.
 = *Ceratodon purpureus* subsp. *stenocarpus*
Cinclidotus fontinaloides var. *madeirensis* Cardot = *Cinclidotus fontinaloides*
Cinclidotus mucronatus (Brid.) Mach. = *Dialytrichia mucronata*
Cirriphyllum illecebrum auct. non (Hedw.) L. Koch. = *Scleropodium touretii*
Codonoblepharum forsteri (Dicks.) Goffinet = *Zygodon forsteri*
Crassiphyllum fernandesii (Sérgio) Ochyra. = *Thamnobryum fernandesii*
Cratoneuron commutatum (Hedw.) Roth. = *Palustriella commutata*
Cratoneuron commutatum var. *falcatum* (Brid.) Moenk. = *Palustriella falcata*
Cratoneuron falcatum Brid. = *Palustriella falcata*
Cratoneuron filicinum var. *fallax* (Brid.) Roth.
 = *Cratoneuron filicinum* var. *atrovirens*
Cratoneuron glaucum Broth. = *Palustriella commutata*
Crossidium chloronotos auct. = *Crossidium crassinerve*
Crossomitrium fontanum (Mitt.) Jaeg. = *Tetrastichium fontanum*
Cryptoleptodon longisetus (Mont.) Enroth = *Leptodon longisetus*
Ctenidium berthelotianum (Mont.) Mitt. = *Andoa berthelotiana*
Ctenidium molluscum var. *robustum* (Mol.) Boulay = *Ctenidium molluscum*
Desmatodon convolutus (Brid.) Grout. = *Tortula atrovirens*
Dialytrichia mucronata var. *fragilifolia* (Jur.) Limpr. = *Dialytrichia fragilifolia*
Dichodontium pellucidum var. *flavescens* (With.) Moore
 = *Dichodontium flavescens*
Dicranella canariense Hampe ex Müll.Hal. = *Dicranum canariense*
Dicranella rubra var. *madeirensis* Cardot = *Dicranella varia* ?
Dicranella varia var. *madeirensis* Cardot & Luisier = *Dicranella howei*
Dicranum erythrodontium Hampe in Müll.Hal. = *Dicranum canariense*

- Dicranum flexuosum* Hedw. = *Campylopus flexuosus*
Dicranum scottianum var. *canariense* (Müll.Hal.) Corb. = *Dicranum canariense*
Dicranum viridulum Sw. = *Fissidens viridulus*
Didymodon nicholsonii Culm. = *Didymodon luridus*
Didymodon trifarius (Hedw.) Roehl. = *Didymodon luridus*
Didymodon vinealis var. *flaccida* (Bruch & Schimp.) R. H. Zander
= *Didymodon insulanus*
Diphyscium foliosum var. *acutifolium* (Lindb. ex Braithw.) Dixon
= *Diphyscium foliosum*
Diphyscium sessile (Schmid.) Lindb. = *Diphyscium foliosum*
Ditrichum flexifolium (Hook.) Hampe. = *Ditrichum difficile*
Ditrichum punctulatum fo. *brevifolia* Hampe = *Ditrichum punctulatum*
Ditrichum pusillum (Hedw.) Hampe = *Ditrichum punctulatum*
Ditrichum strictum (Hook. & Wilson) Hampe = *Ditrichum punctulatum* ?
Dryptodon patens (Hedw.) Brid. = *Grimmia ramondii*
Echinodium madeirense Jur. = *Echinodium spinosum*
Echinodium prolixum fo. *flagellifera* Broth. = *Echinodium prolixum*
Echinodium setigerum var. *integrifolium* Luisier = *Echinodium setigerum*
Ectropothecium costae Luisier & P. de la Varde = *Hypnum uncinulatum*
Entosthodon curvisetus (Schwägr.) Müll.Hal. = *Funariella curviseta*
Entosthodon fritzei Geh. = *Entosthodon krausei*
Entosthodon templetonii (Sm.) Schwägr. = *Entosthodon attenuatus*
Eucladium verticillatum var. *angustifolium* Jur. = *Eucladium verticillatum*
Eucladium verticillatum var. *dalmaticum* Par. = *Eucladium verticillatum*
Eucladium verticillatum var. *setaceum* Schimp. = *Eucladium verticillatum*
Eurhynchium canariense Jaeg. = *Eurhynchium meridionale*
Eurhynchium circinatum (Brid.) Bruch & Schimp. = *Scorpiurium circinatum*
Eurhynchium circinatum var. *leskeoides* Brid. = *Scorpiurium circinatum*
Eurhynchium confertum (Dicks.) Milde = *Rhynchostegium confertum*
Eurhynchium hians var. *rigidum* Boulay = *Eurhynchium hians*
Eurhynchium praelongum var. *atrovirens* (Sw.) Bruch & Schimp.
= *Eurhynchium praelongum*
Eurhynchium praelongum var. *laxirete* Renaud & Cardot = *Eurhynchium hians*
Eurhynchium stokesii Bruch et Schimp.
= *Eurhynchium praelongum* var. *stokesii*
Eurhynchium stokesii fo. *major* (Turner) Schimp.
= *Eurhynchium praelongum* var. *stokesii*
Eurhynchium swartzii (Turner) Hook. = *Eurhynchium hians*
Fissidens adianthoides subsp. *subtaxifolius* Lindb. = *Fissidens adianthoides*

- Fissidens algarvicus* Solms. = *Fissidens curvatus*
Fissidens atlanticus Renauld & Cardot = *Fissidens asplenioides*
Fissidens bambergeri Schimp. ex Milde = *Fissidens limbatus* var. *bambergeri*
Fissidens barretoii Dixon & Luisier = *Fissidens taxifolius* subsp. *pallidicaulis*
Fissidens bryoides subsp. *curnovii* (Mitt.) Dixon = *Fissidens bryoides*
Fissidens bryoides subsp. *viridulus* (Sw.) Lindb. = *Fissidens viridulus*
Fissidens bryoides var. *caespitans* Schimp. = *Fissidens bryoides*
Fissidens bryoides var. *gigantea* Schimp. = *Fissidens bryoides*
Fissidens bryoides var. *hedwigii* Limpr. = *Fissidens viridulus*
Fissidens bryoides var. *inconstans* (Schimp.) R. Ruthe = *Fissidens viridulus*
Fissidens crassipes var. *submarginatus* Fleisch. & Warnst.
 = *Fissidens crassipes* subsp. *warnstorffi*
Fissidens cristatus Mitt. = *Fissidens dubius*
Fissidens cristatus var. *angustatus* Wilson = *Fissidens dubius*
Fissidens cristatus var. *mucronatus* (Breidl.) Podp. = *Fissidens dubius*
Fissidens fontanus (B. Pyl.) Steud. = *Octodiceras fontanum*
Fissidens fritzei Geh. = *Fissidens curvatus*
Fissidens herzogii R. Ruthe = *Fissidens bryoides*
Fissidens impar fo. *pseudoinconstans* P. de la Varde = *Fissidens viridulus*
Fissidens impar Mitt. = *Fissidens viridulus*
Fissidens inconstans Schimp. = *Fissidens bryoides*
Fissidens julianus (Sav.) Schimp. = *Octodiceras fontanum*
Fissidens minutulus Sull. = *Fissidens limbatus*
Fissidens mouretii Corb. = *Fissidens crassipes* subsp. *warnstorffi*
Fissidens pallidicaulis Mitt. = *Fissidens taxifolius* subsp. *pallidicaulis*
Fissidens pallidicaulis var. *major* Luisier
 = *Fissidens taxifolius* subsp. *pallidicaulis*
Fissidens taxifolius subsp. *pallidicaulis* var. *major* Luisier
 = *Fissidens taxifolius* subsp. *pallidicaulis*
Fissidens taxifolius var. *longisetus* Nog. = *Fissidens taxifolius*
Fissidens taxifolius var. *major* (Luisier) P. de la Varde
 = *Fissidens taxifolius* subsp. *pallidicaulis*
Fissidens warnstorffii Fleisch. = *Fissidens crassipes* subsp. *warnstorffi*
Fontinalis antipyretica var. *azorica* Cardot = *Fontinalis antipyretica*
Fontinalis antipyretica var. *gracilis* (Lindb.) Schimp. = *Fontinalis antipyretica*
Funaria attenuata (Dicks.) Lindb. = *Entosthodon attenuatus*
Funaria calcarea Wahlenb. = *Funaria muehlenbergii*
Funaria convexa Spruce = *Entosthodon convexus*
Funaria fontanesii Schwägr. = *Funaria muehlenbergii*

Funaria fritzei Geh. = *Entosthodon krausei*
Funaria hygrometrica var. *patula* Bruch & Schimp.
= *Funaria hygrometrica* var. *muralis*
Funaria mediterranea Limpr. non Lindb. = *Entosthodon pulchellus*
Funaria obtusa (Hedw.) Lindb. = *Entosthodon obtusus*
Funaria pulchella Philib. = *Entosthodon pulchellus*
Glyphomitrium azoricum Cardot = *Ptychomitrium azoricum*
Glyphomitrium nigricans (Bruch & Schimp.) Mitt. = *Ptychomitrium nigrescens*
Glyphomitrium nigricans var. *pulvinare* (Mitt.) Cardot
= *Ptychomitrium nigrescens*
Glyphomitrium polyphyllum (Sw.) Mitt. ex Lindb. = *Ptychomitrium polyphyllum*
Glyphomitrium pulvinare Mitt. = *Ptychomitrium nigrescens*
Gollania angustifolia Dixon & Luisier = *Andoa berthelotiana*
Gollania berthelotiana (Mont.) Broth. = *Andoa berthelotiana*
Grimmia acicularis Hedw. = *Racomitrium aciculare*
Grimmia apocarpa Hedw. = *Schistidium apocarpum*
Grimmia azorica Renauld & Cardot = *Grimmia trichophylla*
Grimmia britanica A. J. E. Sm. = *Grimmia austrofunalis*
Grimmia campestris Burchell ex Hook. = *Grimmia laevigata*
Grimmia canadensis H. Winter = *Grimmia ovalis*
Grimmia commutata Huebener = *Grimmia ovalis*
Grimmia curvata (Brid.) De Sloover = *Grimmia ramondii*
Grimmia decipiens var. *robusta* (Ferg.) Braithw = *Grimmia austrofunalis*
Grimmia fragilis Schimp. = *Grimmia donniana*
Grimmia hartmanii subsp. *bullata* Luisier = *Schistidium apocarpum*
Grimmia leucophaea Grev. = *Grimmia laevigata*
Grimmia patens (Hedw.) Bruch & Schimp. = *Grimmia ramondii*
Grimmia robusta Ferg. = *Grimmia austrofunalis*
Grimmia sardoia De Not. = *Grimmia lisae*
Grimmia trichophylla subsp. *azorica* Renauld & Cardot = *Grimmia trichophylla*
Grimmia trichophylla subsp. *lisae* (De Not.) Bottini = *Grimmia lisae*
Grimmia trichophylla var. *brachycarpa* De Not. = *Grimmia lisae*
Grimmia trichophylla var. *eutrichophylla* Loeske = *Grimmia trichophylla*
Grimmia trichophylla var. *meridionalis* Schimp. = *Grimmia lisae*
Grimmia trichophylla var. *subincurva* H. Winter = *Grimmia trichophylla*
Gymnostomum calcareum var. *muticum* Boulay = *Gymnostomum calcareum*
Gymnostomum luisieri (Sérgio) Sérgio ex Crundw. = *Gymnostomum viridulum*
Gymnostomum rupestre Schleich. = *Gymnostomum aeruginosum*
Haplodontium notarisii (Mitt.) Broth. = *Brachymerium notarisii*

Hedwigia albicans Hedw. = *Hedwigia ciliata*
Heterocladium heteropterum var. *flaccidum* Bruch & Schimp.
= *Heterocladium heteropterum*
Heterocladium wulfsbergii I. Hagen
= *Heterocladium heteropterum* var. *wulfsbergii*
Homalia maderensis ??? = *Homalia webbiana*
Homalia subrecta (Mitt.) Jaeg. = *Homalia lusitanica*
Homalothecium barbelloides (Gard., Dixon & Par.) Luisier
= *Homalothecium sericeum*
Homalothecium mandonii (Mitt.) Geh. = *Homalothecium sericeum*
Homalothecium sericeum var. *mandonii* (Mitt.) Renauld & Cardot
= *Homalothecium sericeum*
Homalothecium sericeum var. *meridionale* Schimp. = *Homalothecium sericeum*
Homalothecium sericeum var. *sublaeve* Geh. = *Homalothecium sericeum*
Hookeria laetevirens Hook. et Taylor = *Cyclodictyon laetevirens*
Hygroamblystegium fallax (Brid.) Loeske
= *Cratoneuron filicinum* var. *atrovirens*
Hygroamblystegium fluviatile (Hedw.) Loeske. = *Amblystegium fluviatile*
Hygroamblystegium irriguum (Hook. & Wilson ex Wilson) Loeske.
= *Amblystegium tenax*
Hygroamblystegium irriguum var. *spinifolium* Moenkem.
= *Amblystegium tenax*
Hygroamblystegium madeirense (Mitt.) F. Koppe = *Amblystegium varium*
Hylocomium berthelotianum (Mont.) Geh. = *Andoa berthelotiana*
Hylocomium squarrosus (Hedw.) Bruch & Schimp.
= *Rhytidiadelphus squarrosus*
Hymenostomum contortum Kunze = *Trichostomum contortum*
Hycomium madeirense Schimp. = *Andoa berthelotiana*
Hyophila contorta (Kunze) Jaeg. = *Trichostomum contortum*
Hypnum alopecurum Hedw. = *Thamnobryum alopecurum*
Hypnum andoi A. J. E. Sm. = *Hypnum mamillatum*
Hypnum berthelotianum Mont. in Webb. & Berthelot. = *Andoa berthelotiana*
Hypnum canariense (Mitt.) Jaeg. = *Hypnum uncinulatum*
Hypnum canariensis Brid. = *Leucodon canariensis*
Hypnum casurum L. Buch = *Echinodium prolixum*
Hypnum cupressiforme subsp. *resupinatum* (Taylor ex Spruce) Hartm.
= *Hypnum resupinatum*
Hypnum cupressiforme var. *elatum* Bruch & Schimp. = *Hypnum lacunosum*
Hypnum cupressiforme var. *ericetorum* Bruch & Schimp.
= *Hypnum jutlandicum*

- Hypnum cupressiforme* var. *filiforme* Brid. = *Hypnum mamillatum*
Hypnum cupressiforme var. *imbricatum* Boulay = *Hypnum cupressiforme*
Hypnum cupressiforme var. *lacunosum* Brid. = *Hypnum lacunosum*
Hypnum cupressiforme var. *mamillatum* Brid. = *Hypnum mamillatum*
Hypnum cupressiforme var. *resupinatum* (Taylor ex Spruce) Schimp.
 = *Hypnum resupinatum*
Hypnum cupressiforme var. *uncinulatum* Bruch & Schimp.
 = *Hypnum uncinulatum*
Hypnum cuspidatum Hedw. = *Calliergonella cuspidata*
Hypnum hochstetteri Schimp. = *Myurium hochstetteri*
Hypnum intricatum Schwägr. = *Brachythecium velutinum*
Hypnum paivanum Schimp. = *Hypnum uncinulatum*
Hypnum pilaceum L. Buch = *Leucodon treleasei*
Hypnum praelongum Hedw. = *Eurhynchium praelongum*
Hypnum pseudocupressiforme Müll.Hal. = *Hypnum uncinulatum*
Hypnum purum Linn. = *Scleropodium purum*
Hypnum riparium Hedw. = *Amblystegium riparium*
Hypnum riparium var. *longifolium* Bruch & Schimp. = *Amblystegium riparium*
Hypnum surrectum Mitt. = *Rhynchostegium confertum*
Hypnum tenellum Dicks. = *Rhynchostegiella tenella*
Hypnum velutinum Hedw. = *Brachythecium velutinum*
Isopterygium elegans (Brid.) Lindb. = *Pseudotaxiphyllum elegans*
Isopterygium elegans var. *laetevirens* Koppe & Düll.
 = *Pseudotaxiphyllum laetevirens*
Isopterygium laetevirens Dixon & Luisier = *Pseudotaxiphyllum laetevirens*
Isopterygium pulchellum (Hedw.) Jaeg. & Sauerb. = *Isopterygiopsis pulchella*
Isothecium atlanticum Hedenäs = *Isothecium algarvicum*
Isothecium myosuroides var. *bornmuelleri* (Schiffn.) Corb. & Negri.
 = *Isothecium myosuroides*
Isothecium myosuroides var. *brevinerve* Lindb. = *Isothecium myosuroides*
Lepidopilum fontanum Mitt. = *Tetrastichium fontanum*
Lepidopilum virens Cardot. = *Tetrastichium virens*
Leptodietyum riparium (Hedw.) Warnst. = *Amblystegium riparium*
Leptodietyum riparium var. *inundatum* Schimp. = *Amblystegium riparium*
Leptodietyum riparium var. *longifolium* Schulze = *Amblystegium riparium*
Lescurea striata (Schwägr.) Bruch & Schimp. = *Lescurea mutabilis*
Leskea prolixa Mitt. = *Echinodium prolixum*
Leskea sericea Hedw. = *Homalothecium sericeum*
Leskea setigera Mitt. = *Echinodium setigerum*

- Leskea spinosa* Mitt. = *Echinodium spinosum*
Leucobryum madeirense Schiffn. = *Leucobryum juniperoideum*
Leucodon canariensis var. *treleasei* (Cardot) Fleisch. = *Leucodon treleasei*
Leucodon morensis Schwägr. = *Leucodon sciuroides*
Leucodon sciuroides var. *morensis* (Schwägr.) De Not. = *Leucodon sciuroides*
Leucodon sciuroides var. *teneriffae* Renaud & Cardot = *Leucodon sciuroides*
Leucodon treleasei var. *latifolium* Cardot = *Leucodon treleasei*
Macromitrium nigrescens Kunze. = *Ptychomitrium nigrescens*
Macromitrium tenerum Kunze. = *Ptychomitrium nigrescens*
Mielichhoferia notarisii Mitt. = *Brachymenium notarisii*
Mnium affine Blandow = *Plagiomnium affine*
Mnium australe Besch. = *Plagiomnium undulatum*
Mnium longirostrum Brid. = *Plagiomnium rostratum*
Mnium punctatum Hedw. = *Rhizomnium punctatum*
Mnium rostratum Schrad. = *Plagiomnium rostratum*
Mnium rugicum Lauer. = *Plagiomnium affine*
Mnium serpyllifolium Neck. ex J. St. Hilaire = *Rhizomnium punctatum*
Mnium undulatum Hedw. = *Plagiomnium undulatum*
Mnium undulatum var. *australe* Besch. = *Plagiomnium undulatum*
Myurium hebridarium Schimp. = *Myurium hochstetteri*
Neckera besseri (Lobarz.) Jur. = *Homalia webbiana*
Neckera elegans Jur. = *Neckera intermedia*
Neckera elegans var. *laevifolia* Schiffn. = *Neckera intermedia*
Neckera intermedia var. *laevifolia* Schiffn. = *Neckera intermedia*
Neckera laevifolia Schiffn. = *Neckera intermedia*
Neckera laeviuscula Geh. in Herz. = *Neckera intermedia*
Neckera lucens (Hedw.) Sm = *Hookeria lucens*
Neckera pennata Hedw. = *Neckera cephalonica*
Neckera pennata var. *cephalonica* Jur. & Unger. = *Neckera cephalonica*
Neckera subrecta Mitt. = *Homalia lusitanica*
Oedycladium hebridarum (Schimp.) Cardot. = *Myurium hochstetteri*
Orthodicranum flagellare (Hedw.) Loeske. = *Dicranum flagellare*
Orthodicranum scottianum (Turner) Roth = *Dicranum scottianum*
Orthodicranum scottianum subsp. *canariense* (Müll.Hal.) Podp.
= *Dicranum canariense*
Orthodontium gaumei Allorge & Thér. = *Orthodontium pellucens*
Orthothecium durieui (Mont.) Besch. = *Rhynchostegiella durieui*
Orthotrichum paivanum Schimp. = *Ulota calvescens*
Orthotrichum sturmii Hornsch. = *Orthotrichum rupestre* var. *sturmii*

- Oxyrhynchium swartzii* (Turner) Warnst. = *Eurhynchium hians*
Oxyrrhynchium hians (Hedw.) Loeske = *Eurhynchium hians*
Oxyrrhynchium pallidirostrum (A. Br.) Koope = *Eurhynchium pumilum*
Oxyrrhynchium praelongum (Hedw.) Warnst. = *Eurhynchium praelongum*
Oxyrrhynchium praelongum var. *laxirete* Renault & Cardot
= *Eurhynchium hians*
Oxyrrhynchium praelongum var. *stokesii* (Turner) Podp.
= *Eurhynchium praelongum* var. *stokesii*
Oxyrrhynchium pumilum (Wilson) Loeske = *Eurhynchium pumilum*
Oxyrrhynchium rusciforme (Bruch & Schimp.) Warnst.
= *Platyhypnidium riparioides*
Oxyrrhynchium serratum (Cardot & H. Winter) F. Koppe
= *Eurhynchium praelongum*
Oxystegus cylindricus (Bruch. ex Brid.) Hilp. = *Trichostomum tenuirostre*
Oxystegus tenuirostris (Hook. et Taylor) A. J. E. Sm.
= *Trichostomum tenuirostre*
Pelekium minutulum (Hedw.) Town = *Cyrtohypnum minutulum*
Phascum leptophyllum Müll. Hal. = *Leptophascum leptophyllum*
Philonotis fontana fo. *aristinervis* Loeske. = *Philonotis fontana*
Philonotis laxa Limpr. = *Philonotis marchica*
Philonotis marchica var. *laxa* Limpr. = *Philonotis marchica*
Philonotis obtusata Müll. Hal. = *Philonotis hastata*
Plagiothecium argyrophyllum Geh. = *Tetrastichium virens*
Plagiothecium elegans (Brid.) Schimp. = *Pseudotaxiphyllum elegans*
Plagiothecium neglectum Moenk. = *Plagiothecium nemorale*
Plagiothecium silvaticum Bruch & Schimp. = *Plagiothecium nemorale*
Plagiothecium silvaticum var. *neglectum* Moenk. = *Plagiothecium nemorale*
Plasteurhynchium canariense (Jaeg.) Fleisch. = *Eurhynchium meridionale*
Plasteurhynchium meridionale (Schimp.) Fleisch. = *Eurhynchium meridionale*
Platydictya confervoides (Brid.) H. Crum = *Rhynchostegium confertum*
Platyhypnum rusciforme (Bruch & Schimp.) Fleisch.
= *Platyhypnidium riparioides*
Pleuropus sericeus (Hedw.) Dixon = *Homalothecium sericeum*
Pogonatum piliferum (Dozy & Molkenboer) Town = *Polytrichum piliferum*
Pogonatum subaloides (Müll. Hal.) Jaeg. = *Pogonatum aloides*
Pogonatum subrotundum Lindb. = *Pogonatum nanum*
Pohlia camptotrachela (Renault et Cardot) Broth. = *Pohlia annotina*
Pohlia maderensis (Dixon & Luisier) Holmen & Rasmussen = *Pohlia elongata*
Pohlia prolifera var. *tenella* (Schiffn.) Herz. = *Pohlia prolifera*

- Polytrichum attenuatum* Menz. ex Brid. = *Polytrichum formosum*
Polytrichum commune var. *minus* Weis. = *Polytrichum commune*
Polytrichum commune var. *uliginosum* Huebener = *Polytrichum commune*
Polytrichum nanum Müll. Hal. = *Pogonatum nanum*
Polytrichum piliferum var. *flavipillum* Luisier = *Polytrichum piliferum*
Polytrichum subaloides var. *minus* Jaeg. = *Pogonatum aloides*
Polytrichum undulatum Hedw. = *Atrichum undulatum*
Pottia commutata Limpr. = *Pottia davalliana*
Pottia davalliana (Sm.) C. O. E. Jens. = *Microbryum davallianum*
Pottia davalliana var. *conica* (Schleich. ex Schwägr.) Chamb.
= *Microbryum davallianum*
Pottia holtii Müll. Hal. = *Trichostomum contortum*
Pottia minutula (Schleich. ex Schwägr.) Ehrh. ex Hampe
= *Microbryum davallianum*
Pottia rufescens (Schultze) Warsnt. = *Pottia davalliana*
Pottia starckeana (Hedw.) Müll. Hal. = *Microbryum starckeanum*
Pottia starckeana subsp. *minuluta* (Schleich. ex Schwägr.)
= *Microbryum davallianum*
Pseudolepidopilum virens (Cardot) Luisier = *Tetrastichium virens*
Pseudoleskeella teneriffae H. Winter = *Heterocladium heteropterum*
Pseudoscleropodium purum (Hedw.) Fleisch. ex Broth. = *Scleropodium purum*
Pterigynandrum filiforme var. *robusta* (Schimp. ex Braithw.) Crum & Anders. =
Pterigynandrum filiforme
Pterogonium ornithopodioides (F. Weber & D. Mohr) Lindb.
= *Pterogonium gracile*
Pterogonium smithii Schwägr. = *Leptodon smithii*
Pterygoneurum cavifolium (Ehrh.) Jur. = *Pterygoneurum ovatum*
Pterygophyllum lucens (Hedw.) Brid. = *Hookeria lucens*
Ptychomitrium crispatum (Hedw.) Jaeg. = *Orthotrichum lyellii* var. *crispatum*
Ptychomitrium nigricans (Kunze) Bruch & Schimp. = *Ptychomitrium nigrescens*
Ptychomitrium polyphyllum var. *procerum* (Schimp.) Cardot
= *Ptychomitrium polyphyllum*
Ptychomitrium procerum Schimp. = *Ptychomitrium polyphyllum*
Racomitrium canescens (Hedw.) Brid. = *Racomitrium elongatum*
Racomitrium canescens var. *ericoides* (Brid.) Hampe = *Racomitrium elongatum*
Racomitrium canescens var. *intermedium* Vent. = *Racomitrium elongatum*
Racomitrium ericoides Hedw. = *Racomitrium elongatum*
Racomitrium hypnoides Lindb. = *Racomitrium lanuginosum*
Racomitrium patens (Hedw.) Huebener = *Grimmia ramondii*

Racomitrium protensum (R. Braun) Huebener = *Racomitrium aquaticum*
Rhabdoweisia curvipes Müll. Hal. = *Amphidium curvipes*
Rhabdoweisia striata (Schrad.) Lindb. = *Rhabdoweisia fugax*
Rhaphidostegium substrumulosum (Hampe) Cardot
= *Sematophyllum substrumulosum*
Rhaphidostegium welwitschii Bott. = *Sematophyllum substrumulosum*
Rhynchostegiella algiriana (P. Beauv.) Warnst. = *Rhynchostegiella litorea*
Rhynchostegiella algiriana var. *meridionalis* (Boulay) Corb.
= *Rhynchostegiella litorea*
Rhynchostegiella pallidirostra (Brid.) Loeske. = *Eurhynchium pumilum*
Rhynchostegiella pseudosurrecta Cardot & H. Winter
= *Rhynchostegium confertum*
Rhynchostegiella surrecta (Mitt.) Broth. = *Rhynchostegium confertum*
Rhynchostegiella teesdalei (Schimp.) Limpr. = *Rhynchostegiella teneriffae*
Rhynchostegiella tenella var. *litorea* (De Not.) Mönk.
= *Rhynchostegiella litorea*
Rhynchostegiella tenella var. *meridionalis* Boulay = *Rhynchostegiella litorea*
Rhynchostegiella tenella var. *tenella* fo. *meridionalis* (Brizi) Podp.=
Rhynchostegiella litorea
Rhynchostegium megapolitanum var. *meridionale* Schimp.
= *Rhynchostegium megapolitanum*
Rhynchostegium riparioides (Hedw.) Cardot. = *Platyhypnidium riparioides*
Rhynchostegium riparioides (Hedw.) Cardot. fo. *atlanticum* (Brid.)
= *Platyhypnidium riparioides*
Rhynchostegium rusciforme Bruch & Schimp.
= *Platyhypnidium riparioides*
Rhynchostegium surrectum (Mitt.) Jaeg. = *Rhynchostegium confertum*
Rhynchostegium teesdalei Bruch & Schimp. = *Rhynchostegiella teneriffae*
Rhynchostegium welwitschii Schimp. = *Sematophyllum substrumulosum*
Rhynchostegium winteri Cardot in H. Winter = *Scleropodium purum*
Schistidium alpicola (Hedw.) Limpr. = *Schistidium agassizii*
Schistidium apocarpum var. *confertum* (Funck) H. Möller
= *Schistidium apocarpum*
Sciaromium spinosum (Mitt.) in Godm. = *Echinodium spinosum*
Sciaromnium prolixum (Mitt.) Par. = *Echinodium prolixum*
Scleropodium caespitosum Bruch & Schimp. = *Scleropodium caespitans*
Scleropodium illecebrum (Brid. non Hedw.) Schimp. = *Scleropodium touretii*
Scleropodium purum var. *canariense* (Hampe) Corb. = *Scleropodium purum*
Sematophyllum auricomum Mitt. = *Sematophyllum substrumulosum*

- Sphagnum auriculatum* Schimp. = *Sphagnum denticulatum*
Sphagnum capillifolium var. *schimperi* (Röll) Düll. = *Sphagnum capillifolium*
Sphagnum denticulatum var. *inundatum* (Russ.) Hill = *Sphagnum denticulatum*
Sphagnum inundatum Russ. = *Sphagnum denticulatum*
Sphagnum lescurii Sull. = *Sphagnum denticulatum*
Sphagnum lescurii var. *inundatum* (Russ.) Düll. = *Sphagnum denticulatum*
Sphagnum lescurii var. *rufescens* Nees & Hornsch. = *Sphagnum denticulatum*
Sphagnum obesum (Wilson) Warnst. = *Sphagnum denticulatum*
Sphagnum plumulosum Röll. = *Sphagnum subnitens*
Sphagnum rigidum (Nees & Hornsch.) Schimp. = *Sphagnum compactum*
Sphagnum subsecundum var. *inundatum* (Russ.) Eddy
 = *Sphagnum denticulatum* s. lat.
Stereodon canariense (Mitt.) Jaeg. = *Hypnum uncinulatum*
Stereodon cupressiformis (L.) Brid. = *Hypnum cupressiforme*
Stereodon cupressiformis var. *compressus* Brid. = *Hypnum cupressiforme*
Stereodon cupressiformis var. *elatus* Bruch & Schimp. = *Hypnum lacunosum*
Stereodon cupressiformis var. *ericetorum* Schimp. = *Hypnum cupressiforme*
Stereodon cupressiformis var. *filiformis* Brid. = *Hypnum cupressiforme*
Stereodon cupressiformis var. *lauri* Brid. = *Hypnum cupressiforme*
Stereodon cupressiformis var. *longisetus* Brid. = *Hypnum cupressiforme*
Stereodon cupressiformis var. *resupinatus* (Wilson) Schimp.
 = *Hypnum resupinatum*
Stereodon cupressiformis var. *uncinatum* Schimp. = *Hypnum cupressiforme*
Stereodon pseudocupressiformis (Müll. Hal.) Geh. in Herz.
 = *Hypnum uncinulatum*
Syntrichia pagorum (Milde) Amann. = *Syntrichia laevipila*
Thamnum alopecurum (Hedw.) Bruch & Schimp. = *Thamnobryum alopecurum*
Thamnum alopecurum var. *protensum* Turner = *Thamnobryum alopecurum*
Thamnum canariense Renauld & Cardot = *Isothecium algarvicum*
Thamnum maderense Lindb. = *Thamnobryum maderense*
Thamnobryum alopecurum var. *protensum* Turner = *Thamnobryum alopecurum*
Thamnobryum canariense (Renauld & Cardot) Long = *Isothecium algarvicum*
Thuidium atlanticum Hedenäs = *Cyrtohypnum atlanticum*
Thuidium minutulum (Hedw.) Bruch & Schimp. = *Cyrtohypnum minutulum*
Thuidium minutulum var. *implexum* Luisier = *Cyrtohypnum montei*
Timmiella barbula (Schwägr.) Limpr. = *Timmiella barbuloidea*
Timmiella barbula var. *minor* Schimp. = *Timmiella barbuloidea*
Timmiella barbuloidea var. *minor* Luisier = *Timmiella barbuloidea*
Tortella cirrifolia (Mitt.) Broth. = *Tortella nitida*

- Tortella limbata* (Schiffner) Geh. in Herz. = *Trichostomum brachydontium* ?
Tortella nitida var. *irrigata* (Lindb.) Irel. = *Tortella nitida*
Tortella squarrosa (Brid.) Limpr. = *Pleurochaete squarrosa*
Tortella tortuosa var. *laetemarginata* Luisier = *Tortella tortuosa*
Tortula aestiva (Brid. ex Hedw.) P. Beauv. = *Tortula muralis* var. *aestiva*
Tortula fragilis Taylor = *Syntrichia fragilis*
Tortula intermedia (Brid.) De Not. = *Syntrichia montana*
Tortula laevipila (Brid.) Schwägr. = *Syntrichia laevipila*
Tortula laevipila var. *laevipilaeformis* (De Not.) Amann. = *Syntrichia laevipila*
Tortula muelleri Hook. & Wilson = *Syntrichia princeps*
Tortula muralis fo. *incana* (Bruch & Schimp.) Sap. = *Tortula muralis*
Tortula norvegica (F. Web.) Wahlenb. & Lindb. = *Syntrichia norvegica*
Tortula pagorum (Milde) De Not. = *Syntrichia laevipila*
Tortula perlimbata Geh. ex Cardot in Luisier = *Tortula solmsii*
Tortula princeps De Not. = *Syntrichia princeps*
Tortula ruraliformis (Besch.) Grout. = *Syntrichia ruralis* var. *ruraliformis*
Tortula ruralis (Hedw.) P. Gaertn., B. Mey. & Scherb. = *Syntrichia ruralis*
Tortula solmsii fo. *perlimbata* (Cardot) Düll = *Tortula solmsii*
Tortula solmsii var. *minor* Roth. = *Tortula solmsii*
Trichostomum barbula Schimp. = *Timmiella barbuloidea*
Trichostomum brachydontium var. *densum* Bruch & Schimp.
= *Trichostomum brachydontium* var. *cuspidatum*
Trichostomum brachydontium var. *nigroviride* (Renauld et Cardot) Luisier
= *Trichostomum brachydontium*
Trichostomum cirrifolia (Mitt.) Broth. = *Tortella nitida*
Trichostomum crispulum var. *brevifolium* (Müll. Hal.) Bruch & Schimp.
= *Trichostomum crispulum*
Trichostomum crispulum var. *madeirense* Geh. = *Trichostomum crispulum*
Trichostomum flavovirens Bruch ex Müll. Hal. = *Tortella flavovirens*
Trichostomum flavovirens var. *laevis* Luisier = *Tortella flavovirens*
Trichostomum lanuginosum (Hedw.) Brid. = *Racomitrium lanuginosum*
Trichostomum limbatum Schiffn. = *Trichostomum brachydontium*
Trichostomum littorale Mitt. = *Trichostomum brachydontium* var. *littorale*
Trichostomum mutabile Bruch. = *Trichostomum brachydontium*
Trichostomum mutabile fo. *latifolia* Herzog. = *Trichostomum brachydontium*
Trichostomum mutabile subsp. *cuspidata* (Braithw.) Herz.
= *Trichostomum brachydontium* var. *cuspidatum*
Trichostomum mutabile var. *cuspidatum* (Schimp.) Limpr.
= *Trichostomum brachydontium* var. *cuspidatum*

- Trichostomum mutabile* var. *densum* Schimp. = *Trichostomum brachydontium*
Trichostomum mutabile var. *eu-mutabile* Herzog.
= *Trichostomum brachydontium*
Trichostomum mutabile var. *littorale* Herzog. = *Trichostomum brachydontium*
Trichostomum mutabile var. *nigroviride* Renault & Cardot
= *Trichostomum brachydontium*
Trichostomum polyphyllum Sw. = *Ptychomitrium polyphyllum*
Ulota calvescens fo. *propagulifera* Broth. = *Ulota calvescens*
Ulota ulophylla Broth. = *Ulota crispa*
Ulota vittata Mitt. = *Ulota calvescens*
Webera elongata (Hedw.) Schwägr. = *Pohlia elongata*
Webera longicollis Hedw. = *Pohlia longicollis*
Webera luisierii Dixon in Luisier = *Pohlia elongata* ssp. *polymorpha*
Webera maderensis Dixon & Luisier = *Pohlia elongata*
Webera proligera Lindb. ex Limpr. = *Pohlia proligera*
Webera proligera var. *tenella* Lindb. = *Pohlia proligera*
Webera sessilis (Schmid.) Lindb. = *Diphyscium foliosum*
Webera tozeri Schimp. = *Eipterygium tozeri*
Weissia calcarea Müll. Hal. = *Gymnostomum calcareum*
Weissia calcarea var. *mutica* Boulay = *Gymnostomum calcareum*
Weissia controversa fo. *gymnostoma* Cardot = *Weissia controversa*
Weissia controversa var. *cylindrica* Schimp. = *Weissia controversa*
Weissia controversa var. *stenocarpa* Nees & Hornsch.
= *Weissia controversa* var. *crispata*
Weissia crispata (Hedw.) Mitt. = *Weissia controversa* var. *crispata*
Weissia longifolia Mitt. = *Astomum crispum*
Weissia reflexa Brid. = *Gyroweisia reflexa*
Weissia viridula Hedw. = *Weissia controversa*
Weissia viridula var. *cylindrica* Schimp. = *Weissia controversa*
Zygodon baumgartneri Malta = *Zygodon rupestris*
Zygodon curvipes Müll. Hal. = *Amphidium curvipes*
Zygodon madeirensis Dixon & Luisier = *Zygodon forsteri*
Zygodon viridissimus subsp. *baumgartneri* (Malta) Düll = *Zygodon rupestris*
Zygodon viridissimus var. *orientalis* Mitt. = *Zygodon viridissimus*
Zygodon viridissimus var. *rupestris* Hartm. = *Zygodon rupestris*

PHYLUM: Marchantiophyta**Marchantiopsida Stotler & Stotl.-Crand.****Targioniaceae Dumort.***Targionia* L.**Aytoniaceae Cavers***Plagiochasma* Lehm. et Lindenb.*Reboulia* Raddi*Mannia* Opiz*Asterella* P. Beauv.**Conocephalaceae Müll. Frib. ex Grolle***Conocephalum* Hill**Lunulariaceae H. Klinggr.***Lunularia* Adans.**Cleveaceae Cavers***Athalamia* Falconer**Marchantiaceae (Bisch.) Lindl.***Preissia* Corda*Marchantia* L.*Dumortiera* Nees**Exorothecaceae Müll. Frib. ex Grolle***Exorotheca* Mitt.**Corsiniaceae Engler***Corsinia* Raddi**Ricciaceae Rchb.***Riccia* L.**Jungermanniiopsida Stotler & Stotl.-Crand.****Metzgeriaceae H. Klinggr.***Metzgeria* Raddi**Aneuraceae H. Klinggr.***Aneura* Dumort.*Riccardia* Gray**Pelliaceae H. Klinggr.***Pellia* Raddi**Pallaviciniaceae Mig.***Pallavicinia* Gray**Blasiaceae H. Klinggr.***Blasia* L.**Fossombroniaceae Hazslinszky***Fossombronia* Raddi**Lophoziaceae Cavers***Anastrophyllum* (Spruce) Steph.*Lophozia* (Dumort.) Dumort.*Gymnocolea* (Dumort.) Dumort.*Jamesoniella* (Spruce). F. Lees*Tritomaria* Schiffn. ex Loeske**Jungermanniaceae Rchb.***Jungermannia* L.*Nardia* Gray**Gymnomitriaceae H. Klinggr.***Marsurpella* Dumort.**Acrobolbaceae E. A. Hodgs.***Acrobolbus* Nees*Tylimanthus* Mitt.**Arnelliaceae Nakai***Southbya* Spruce*Gongylanthus* Nees**Plagiochilaceae (Jörg.) Müll. Frib.***Plagiochila* (Dumort.) Dumort.**Geocalycaceae H. Klinggr.***Lophocolea* (Dumort.) Dumort.*Chiloscyphus* Corda *Geocalyx* Nees*Heteroscyphus* Schiffn.*Leptoscyphus* Mitt.*Saccogyna* Dumort.**Scapaniaceae Mig.***Diplophyllum* (Dumort.) Dumort.*Scapania* (Dumort.) Dumort.**Adelanthaceae (Jörg.) Grolle***Adelanthus* Mitt.**Cephaloziellaceae Douin***Cephaloziella* (Spruce) Schiffn.**Cephaloziaceae Mig.***Cephalozia* (Dumort.) Dumort.*Cladopodiella* H. Buch*Nowellia* Mitt.

Hygrobrella Spruce

Odontoschisma (Dumort.) Dumort.

Lepidoziaceae Limpr.

Telaranea Spruce ex Schiffn.

Kurzia G. Martens

Lepidozia (Dumort.) Dumort.

Bazzania Gray

Calypogeiaceae (Müll. Frib.) Arnell

Calypogeia Raddi

Radulaceae (Dumort.) Müll. Frib.

Radula Dumort.

Porellaceae Cavers

Porella L.

Frullaniaceae Lorch

Frullania Raddi

Jubulaceae H. Klinggr.

Jubula Dumort.

Lejeuneaceae Casares-Gil

Marchesinia Gray

Drepanolejeunea (Spruce) Schiffn.

Harpalejeunea (Spruce) Schiffn.

Lejeunea Lib.

Microlejeunea Steph.

Cololejeunea (Spruce) Schiffn.

Acanthocoleus R. M. Schuster

Aphanolejeunea A. Evans

Colura (Dumort.) Dumort.

Antocerotopsida

Anthocerotaceae Dumort.

Anthoceros L.

Phaeoceros Prosk.

Phymatoceros Stotler *et al.*



Fig. 7 - **A.** *Plagiochila maderensis* on boulder in the levada margin in Madeira (Photograph by M. Sim-Sim). **B.** *Anthoceros caucasicus* near a small waterfall in Madeira (Photograph by M. Stech).

Acanthocoleus aberrans* (Lindenb. & Gottsche) Kruijt*Madmap:** SJÖGREN, 1975.**M:** MITTEN, 1865; MITTEN, 1870; PERSSON, 1939; VANDEN BERGHEN, 1950; TAVARES, 1965; GROLLE, 1966a; JONES, 1970; HOLMEN & RASMUSSEN, 1971a; SÉRGIO, 1973a; SJÖGREN, 1975; GROLLE, 1976; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KRUIJT, 1985; KOPPE & DÜLL, 1986; KRUIJT, 1988; SÉRGIO *et al.*, 1992; REINER-DREHWALD, 1993; SÉRGIO & FONTINHA, 1994b; ECCB, 1995; GROLLE & LONG, 2000; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.***Acrobolbus wilsonii* Nees****Eurmap:** ECCB, 1995.**M:** GROLLE & PERSSON, 1966; EGGERS, 1982; SÉRGIO *et al.*, 1992; ECCB, 1995; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.***Adelanthus decipiens* (Hook.) Mitt.****M:** HOLMEN & RASMUSSEN, 1971a; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; SÉRGIO *et al.*, 1992; FONTINHA, 1995; INFANTE, 2000; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.***Aneura pinguis* (L.) Dumort.****M:** SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SIM-SIM *et al.*, 2004b.***Anthoceros agrestis* Paton****M:** DÜLL, 1983; SÉRGIO & FONTINHA, 1994b; SCHUMACKER & VÁÑA, 2000; SÖDERSTRÖM *et al.*, 2002.**PS:** COSTA & PERSSON, 1941.***Anthoceros caucasicus* Steph.****Wmap:** SÉRGIO, 1987.**PI/Macmap:** CASAS *et al.*, 1989.**M:** STEPHANI, 1900-1918; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; GROLLE, 1976; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; SÉRGIO, 1987; CASAS *et al.*, 1989; HÄSSEL de MENÉNDEZ, 1990; SÉRGIO *et al.*, 1992; ECCB, 1995; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.***Anthoceros punctatus* L.****M:** FORSTER, 1787; GOTTSCHKE, 1868; MITTEN, 1870; SCHIFFNER, 1902; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; FONTINHA *et al.*, 1997;

SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

PS: COSTA & PERSSON, 1941; EGGERS, 1982.

DG: FONTINHA *et al.*, 1997

***Aphanolejeunea azorica* (V. Allorge & Ast) Bernecker & Pocs**

M: SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; SÉRGIO *et al.*, 1992; ECCB, 1995; GROLLE & LONG, 2000; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

***Aphanolejeunea madeirensis* (Schiffn.) Grolle •**

M: SCHIFFNER, 1902; SJÖGREN, 1975; GROLLE, 1976; EGGERS, 1982; DÜLL, 1983; SÉRGIO *et al.*, 1992; ECCB, 1995; GROLLE & LONG, 2000; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

***Aphanolejeunea microscopica* (Taylor) A. Evans**

Eurmap, Macmap: SCHUMACKER *et al.*, 1988.

Madmap: SJÖGREN, 1975.

M: ALLORGE & PERSSON, 1938; PERSSON, 1939; BUCH & PERSSON, 1941; HOLMEN & RASMUSSEN, 1971a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SCHUMACKER *et al.*, 1988a; SÉRGIO *et al.*, 1992; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

***Aphanolejeunea sintenisii* Steph.**

M: DÜLL, 1983; ECCB, 1995; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

***Asterella africana* (Mont.) A. Evans**

Eurmap: ECCB, 1995.

M: GOTTSCHKE, 1868; MITTEN, 1870; LUISIER, 1909b; PERSSON, 1939; ADE & KOPPE, 1942; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SÉRGIO *et al.*, 1992; SÉRGIO & FONTINHA, 1994b; ECCB, 1995; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

***Athalamia spathysii* (Lindenb.) S. Hatt.**

M: DÜLL, 1983; SÖDERSTRÖM *et al.*, 2002.

According to SÖDERSTRÖM *et al.* (2002), the taxon is referred to Madeira, although its occurrence is not confirmed.

***Bazzania azorica* Buch & H. Perss. (•)**

M: SÉRGIO *et al.*, 1992; SJÖGREN, 2001.

According to GROLLE *comm.*, the material collected by Schwab corresponds to *Bazzania trilobata*.

***Bazzania trilobata* (L.) Gray**

PI/Macmap: CASAS *et al.*, 1996.

M: BUCH, 1833; BRITTEN, 1904; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; CASAS *et al.*, 1996; SCHUMACKER & VÁŇA, 2000; SÖDERSTRÖM *et al.*, 2002.

Blasia pusilla L.

M: HOLL, 1830; EGGERS, 1982; SCHUMACKER & VÁŇA, 2000; SÖDERSTRÖM *et al.*, 2002.

The report to Madeira is unreliable as only one locality is referred and the herbarium material was not revised.

***Calypogeia arguta* Nees & Mont.**

Afr/Macmap: BISCHLER, 1970.

PI/Macmap: CASAS *et al.*, 1992.

M: GOTTSCHKE, 1868; MITTEN, 1870; PERSSON, 1939; BUCH & PERSSON, 1941; BISCHLER, 1970; HOLMEN & RASMUSSEN, 1971a; SÉRGIO, 1973a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; CASAS *et al.*, 1992; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: COSTA & PERSSON, 1941; EGGERS, 1982; CASAS *et al.*, 1992.

***Calypogeia azorica* Bischl. •**

M: MÜLLER & SCHAFER-VERWIMP, 1999; GROLLE & LONG, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

***Calypogeia azurea* Stotler & Crotz**

M: GOTTSCHKE, 1868; MITTEN, 1870; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁŇA, 2000.

The distribution of *C. azurea* is probably not fully known, as it was reported for other localities, mostly under its old name *C. trichomanis* auct. The species *C. trichomanis* (L.) Corda is a synonym of *C. fissa*.

***Calypogeia fissa* (L.) Raddi**

Afr/Macmap: BISCHLER, 1970.

M: ARMITAGE, 1910; ARMITAGE, 1918; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; BISCHLER, 1970; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: SCHWAB & HAUSTEIN, 1984.

Calypogeia integristipula Steph.

M: DÜLL, 1983; SJÖGREN, 2001.

SÖDERSTRÖM *et al.* (2002) do not refer this taxon to Madeira.

Calypogeia muelleriana (Schiffn.) Müll. Frib.

Afr/Macmap: BISCHLER, 1970.

M: BISCHLER, 1970; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

Calypogeia sphagnicola (Arnell & J. Perss.) Warnst. & Loeske

Afr/Macmap: BISCHLER, 1970.

M: BISCHLER, 1970; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

Cephalozia bicuspidata (L.) Dumort.

M: GOTTSCHKE, 1868; ARMITAGE, 1910; ARMITAGE, 1918; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; VÁŇA, 1988; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

PS: PERSSON, 1939.

According to SÖDERSTRÖM *et al.* (2002) var. *lammersiana* (Huebener) Breidl. occurs in Madeira.

Cephalozia catenulata (Huebener.) Lindb.

M: PERSSON, 1939; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁŇA, 2000; SÖDERSTRÖM *et al.*, 2002.

Cephalozia connivens (Dicks.) Lindb.

M: MITTEN, 1870; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

Cephalozia crassifolia (Lindenb. & Gottsche) Fulford

M: EGGERS, 1982; DÜLL, 1983; SÉRGIO *et al.*, 1992; ECCB, 1995; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

Cephalozia lunulifolia (Dumort.) Dumort.

M: EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

***Cephaloziella baumgartneri* Schiffn.**

M: DÜLL, 1983; KOPPE & DÜLL, 1986; SCHUMACKER & VÁŇA, 2000; CHURCH *et al.*, 2001; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

***Cephaloziella dentata* (Raddi) Steph.**

M: EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SCHUMACKER & VÁŇA, 2000; CHURCH *et al.*, 2001; SÖDERSTRÖM *et al.*, 2002.

***Cephaloziella divaricata* (Sm.) Schiffn.**

M: MITTEN, 1870; PERSSON, 1939; ADE & KOPPE, 1942; GROLLE, 1971; HOLMEN & RASMUSSEN, 1971a; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

PS: PERSSON, 1939.

According to SÖDERSTRÖM *et al.* (2002) var. *asperifolia* (Taylor) Macvicar occurs in Madeira.

***Cephaloziella granatensis* (J. B. Jack ex Steph.) Fulford**

M: NIEUWKOOP & ARTS, 1995; GROLLE & LONG, 2000; SCHUMACKER & VÁŇA, 2000; SÖDERSTRÖM *et al.*, 2002.

***Cephaloziella hampeana* (Nees) Schiffn.**

M: PERSSON, 1939; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

***Cephaloziella rubella* (Nees) Warnst.**

M: SÉRGIO *et al.*, 1994c; MÜLLER & SCHAFFER-VERWIMP, 1999; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

***Cephaloziella stellulifera* (Taylor ex Spruce) Schiffn.**

M: SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁŇA, 2000; SÖDERSTRÖM *et al.*, 2002.

***Cephaloziella turneri* (Hook.) Müll. Frib.**

M: PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

***Chiloscyphus pallescens* (Ehrh. ex Hoffm.) Dumort.**

M: SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; SÖDERSTRÖM *et al.*, 2002.

***Chiloscyphus polyanthos* (L.) Corda**

M: MITTEN, 1870; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

***Cladopodiella fluitans* (Nees) H. Buch**

M: DÜLL, 1983; SÖDERSTRÖM *et al.*, 2002.

According to SÖDERSTRÖM *et al.* (2002), the taxon is referred to Madeira Island, although its occurrence is not confirmed.

***Cladopodiella francisci* (Hook.) Buch ex Jörg.**

M: PERSSON, 1939; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

***Cololejeunea calcarea* (Libert) Schiffn.**

Wmap: ZIPPEL, 1998.

M: PERSSON, 1939; HOLMEN & RASMUSSEN, 1971a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; SJÖGREN, 2001.

SÖDERSTRÖM *et al.* (2002) do not refer this taxon to Madeira.

***Cololejeunea minutissima* (Sm.) Schiffn.**

PI/Macmap: CASAS *et al.*, 1985.

Madmap: SJÖGREN, 1975.

M: MITTEN, 1870; PERSSON, 1939; BUCH & PERSSON, 1941; HOLMEN & RASMUSSEN, 1971a; SÉRGIO, 1973a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; CASAS *et al.*, 1985; KOPPE & DÜLL, 1986; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

PS: COSTA & PERSSON, 1941; EGGERS, 1982; CASAS *et al.*, 1985.

***Cololejeunea rossettiana* (C. Massal.) Schiffn.**

M: EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁŇA, 2000.

According to SÖDERSTRÖM *et al.*, (2002), the taxon was reported to Madeira, however its occurrence in this island was subsequently rejected.

***Cololejeunea schaeferi* Grolle •**

M: GROLLE, 1985; SÉRGIO *et al.*, 1992; GROLLE & LONG, 2000; SCHUMACKER & VÁŇA, 2000; SÖDERSTRÖM *et al.*, 2002.

***Colura calyptrifolia* (Hook.) Dumort.**

M: DÜLL, 1983; SJÖGREN, 1975; SÉRGIO *et al.*, 1992; SCHUMACKER & VÁŇA, 2000; SÖDERSTRÖM

et al., 2002.

According to SÉRGIO *et al.* (1992), this species is considered vulnerable in Madeira Island.

***Conocephalum conicum* (L.) Dumort.**

M: BUCH, 1833; GOTTSCHKE, 1868; BRITTEN, 1904; LUISIER, 1909b; ARMITAGE, 1910; ARMITAGE, 1918; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: PERSSON, 1939.

***Corsinia coriandrina* (Spreng.) Lindenb.**

Madmap: SÉRGIO & FONTINHA, 1994b.

PI/Macmap: CASAS *et al.*, 1992.

M: RADDI, 1821; SCHIFFNER, 1902; ARMITAGE, 1910; ARMITAGE, 1918; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; CASAS *et al.*, 1992; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; BOISSELIER-DUBAYLE & BISCHLER, 1998; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

PS: PERSSON, 1939; COSTA & PERSSON, 1941; EGGERS, 1982; CASAS *et al.*, 1992; VÁŇA, 1992.

***Diplophyllum albicans* (L.) Dumort.**

M: GOTTSCHKE, 1868; MITTEN, 1870; LUISIER, 1909b; ARMITAGE, 1910; ARMITAGE, 1918; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; SÉRGIO, 1973a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

***Drepanolejeunea hamatifolia* (Hook.) Schiffn.**

Wmap: ZIPPEL, 1998.

Madmap: SJÖGREN, 1975.

M: MITTEN, 1870; ALLORGE & PERSSON, 1938; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SÉRGIO *et al.*, 1992; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: SJÖGREN, 1975.

Dumortiera hirsuta* (Sw.) Nees*Eurmap:** TAVARES, 1965; HÜBSCHMANN 1971.**PI/Macmap:** CASAS *et al.*, 1989.**Wmap:** HOLMEN & RASMUSSEN, 1971b.**M:** GOTTSCHKE, 1868; ALLORGE & PERSSON, 1938; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; MÜLLER, 1951-1958; TAVARES, 1965; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; CASAS *et al.*, 1989; SÉRGIO *et al.*, 1992; SCHUMACKER & VÁÑA, 2000; CHURCH *et al.*, 2001; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.**PS:** PERSSON, 1939.***Exormotheca pustulosa* Mitt.****Afr/Macmap:** BISCHLER, 1976.**PI/Macmap:** CASAS *et al.*, 1996.**Madmap:** SÉRGIO *et al.*, 1992; SÉRGIO & FONTINHA, 1994b.**M:** MITTEN, 1870; SCHIFFNER, 1902; ALLORGE & PERSSON, 1938; PERSSON, 1939; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; BISCHLER, 1976; GROLLE, 1976; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SÉRGIO *et al.*, 1992; PEROLD, 1994; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; ECCB, 1995; CASAS *et al.*, 1996; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.**PS:** COSTA & PERSSON, 1941; EGGERS, 1982; CASAS *et al.*, 1996.**DG:** HOLMEN & RASMUSSEN, 1971b; CASAS *et al.*, 1996; FONTINHA *et al.*, 1997; SIM-SIM *et al.*, 2000.***Fossombronia angulosa* (Dicks.) Raddi****M:** MITTEN, 1870; LUISIER, 1909b; ARMITAGE, 1910; ARMITAGE, 1918; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; SÉRGIO, 1973a; SÉRGIO, 1974; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.**PS:** COSTA & PERSSON, 1941; EGGERS, 1982.***Fossombronia caespitiformis* De Not. ex Rabenh.****M:** ARMITAGE, 1910; ARMITAGE, 1918; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; SÉRGIO, 1974; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.***Fossombronia echinata* Macvicar****M:** PERSSON, 1939; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; SÉRGIO, 1974; EGGERS,

1982; DÜLL, 1983; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.
PS: COSTA & PERSSON, 1941; EGGERS, 1982.

***Fossombronia husnotii* Corb.**

M: SÉRGIO, 1974; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.
DG: FONTINHA *et al.*, 1997.

***Fossombronia pusilla* (L.) Nees**

M: GOTTSCHKE, 1868; ARMITAGE, 1910; ARMITAGE, 1918; SÉRGIO, 1974; EGGERS, 1982; DÜLL, 1983; SÉRGIO & FONTINHA, 1994b; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

Frullania azorica* Sim-Sim *et al.

Wmap: ZIPPEL, 1998.

PI/Macmap: CASAS *et al.*, 1989.

Madmap: SIM-SIM & SÉRGIO, 1992; SIM-SIM, 1995.

M: SÉRGIO, 1985a; BISANG *et al.*, 1989; CASAS *et al.*, 1989; SÉRGIO *et al.*, 1992; SÉRGIO & FONTINHA, 1994b; SIM-SIM, 1995; SIM-SIM *et al.*, 1995; SIM-SIM, 1999; GROLLE & LONG, 2000; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

PS: SÉRGIO, 1985a; CASAS *et al.*, 1989; SIM-SIM, 1995; SIM-SIM *et al.*, 1995.

DG: SÉRGIO, 1985a; CASAS *et al.*, 1989; SIM-SIM *et al.*, 1995.

***Frullania dilatata* (L.) Dumort.**

PI/Macmap: CASAS *et al.*, 1985.

Madmap: SIM-SIM & SÉRGIO, 1992; SIM-SIM, 1995.

M: BUCH, 1833; GOTTSCHKE, 1868; BRITTEN, 1904; LUISIER, 1909b; ARMITAGE, 1910; LUISIER, 1910; ARMITAGE, 1918; PERSSON, 1939; COSTA & PERSSON, 1941; ADE & KOPPE, 1942; GROLLE, 1970; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973a; SJÖGREN, 1975; VANDEN BERGHEN, 1976; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; CASAS *et al.*, 1985; KOPPE & DÜLL, 1986; SIM-SIM & SÉRGIO, 1992; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SIM-SIM, 1995; SCHUMACKER & VÁŇA, 2000; SÖDERSTRÖM *et al.*, 2002.

PS: PERSSON, 1939; COSTA & PERSSON, 1941; EGGERS, 1982; CASAS *et al.*, 1985; SIM-SIM & SÉRGIO, 1992; SIM-SIM, 1995.

DG: SIM-SIM & SÉRGIO, 1992; SIM-SIM, 1995.

***Frullania ericoides* (Nees) Mont.**

Madmap: SIM-SIM & SÉRGIO, 1992; SÉRGIO & FONTINHA, 1994b; SIM-SIM, 1995.

M: GOTTSCHKE, 1868; GROLLE, 1968a; GROLLE, 1970; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL,

1983; SÉRGIO, 1985a; KOPPE & DÜLL, 1986; SÉRGIO *et al.*, 1992; SIM-SIM & SÉRGIO, 1992; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SIM-SIM, 1995; SIM-SIM, 1999; GROLLE & LONG, 2000; SCHUMACKER & VÁÑA, 2000; SÖDERSTRÖM *et al.*, 2002.

PS: SÉRGIO, 1985a; SIM-SIM & SÉRGIO, 1992; SIM-SIM, 1995.

DG: SIM-SIM & SÉRGIO, 1992; SIM-SIM, 1995.

Frullania fragilifolia* (Taylor) Gottsche *et al.

M: SCHUMACKER & VÁÑA, 2000.

Although referred to Madeira Island by the above-cited authors, its presence in Madeira Island is very uncertain.

***Frullania microphylla* (Gottsche) Pearson**

PI/Macmap: CASAS *et al.*, 1996.

Madmap: SJÖGREN, 1975; SIM-SIM & SÉRGIO, 1992; SIM-SIM, 1995.

M: BUCH & PERSSON, 1941; SÉRGIO, 1973a; SJÖGREN, 1975; VANDEN BERGHEN, 1976; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SÉRGIO *et al.*, 1992; SIM-SIM & SÉRGIO, 1992; SIM-SIM, 1995; CASAS *et al.*, 1996; GROLLE & LONG, 2000; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

PS: COSTA & PERSSON, 1941; PEREIRA, 1967; GROLLE, 1970; SJÖGREN, 1975; EGGERS, 1982; SIM-SIM & SÉRGIO, 1992; SIM-SIM, 1995; CASAS *et al.*, 1996; SIM-SIM, 1999.

DG: SIM-SIM & SÉRGIO, 1992; SIM-SIM, 1995; CASAS *et al.*, 1996; SIM-SIM *et al.*, 2000.

***Frullania polysticta* Lindenb. •**

Wmap: HOLMEN & RASMUSSEN, 1971b; ZIPPEL, 1998.

PI/Macmap: CASAS *et al.*, 1996.

Madmap: SJÖGREN, 1975; SIM-SIM & SÉRGIO, 1992; SIM-SIM, 1995.

M: GOTTSCHKE, 1868; MITTEN, 1870; ARMITAGE, 1910; ARMITAGE, 1918; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; TAVARES, 1965; GROLLE, 1970; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; HATTORI, 1972; SÉRGIO, 1973a; SJÖGREN, 1975; GROLLE, 1976; VANDEN BERGHEN, 1976; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SÉRGIO *et al.*, 1992; SIM-SIM & SÉRGIO, 1992; SIM-SIM, 1995; ECCB, 1995; CASAS *et al.*, 1996; SIM-SIM, 1999; GROLLE & LONG, 2000; SCHUMACKER & VÁÑA, 2000; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: BUCH & PERSSON, 1941; COSTA & PERSSON, 1941; PEREIRA, 1967; EGGERS, 1982; SIM-SIM & SÉRGIO, 1992; SIM-SIM, 1995; CASAS *et al.*, 1996.

DG: SIM-SIM *et al.*, 2000.

***Frullania sergiae* Sim-Sim *et al.* • •**

DG: SIM-SIM *et al.*, 2000; GROLLE & LONG, 2000; SIM-SIM *et al.*, 2000; FONTINHA *et al.*, 2001; SÖDERSTRÖM *et al.*, 2002.

***Frullania tamarisci* (L.) Dumort.**

Madmap: SIM-SIM & SÉRGIO, 1992; SIM-SIM, 1995.

Wmap: HOLMEN & RASMUSSEN, 1971b.

M: HOLL, 1830; BUCH, 1833; MONTAGNE, 1839-1841; GOTTSCHKE, 1868; BRITTEN, 1904; PERSSON, 1939; TAVARES, 1965; GROLLE, 1970; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HATTORI, 1972; SÉRGIO, 1973a; SJÖGREN, 1975; VANDEN BERGHEN, 1976; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SIM-SIM & SÉRGIO, 1992; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SIM-SIM, 1995; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: PERSSON, 1939; SIM-SIM & SÉRGIO, 1992.

DG: HOLMEN & RASMUSSEN, 1971b; EGGERS, 1982; SIM-SIM & SÉRGIO, 1992; SIM-SIM, 1995; SIM-SIM, *et al.*, 2000.

The reports of var. *sardoa* (De Not.) De Not. are included in the broad sense of *Frullania tamarisci*.

***Frullania teneriffae* (F. Weber) Nees**

Wmap: HOLMEN & RASMUSSEN, 1971b.

Eurmap, Macmap: SCHUMACKER *et al.*, 1988.

Madmap: SIM-SIM & SÉRGIO, 1992; SIM-SIM, 1995.

M: HOLL, 1830; GOTTSCHKE, 1868; MITTEN, 1870; SCHIFFNER, 1902; LUISIER, 1909b; ARMITAGE, 1910; ARMITAGE, 1911; ARMITAGE, 1918; VERDOORN, 1932; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; SIM-SIM, 1999; TAVARES, 1965; GROLLE, 1970; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; HATTORI, 1972; SÉRGIO, 1973a; SJÖGREN, 1975; VANDEN BERGHEN, 1976; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SCHUMACKER *et al.*, 1988c; SÉRGIO *et al.*, 1992; SIM-SIM & SÉRGIO, 1992; SIM-SIM, 1995; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: PERSSON, 1939; COSTA & PERSSON, 1941; SJÖGREN, 1975; EGGERS, 1982; SIM-SIM & SÉRGIO, 1992; SIM-SIM, 1995.

DG: SIM-SIM *et al.*, 2000.

***Geocalyx graveolens* (Schrad.) Nees**

M: EGGERS, 1982; DÜLL, 1983; SÉRGIO *et al.*, 1992; CHURCH *et al.*, 2001; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

***Gongylanthus ericetorum* (Raddi) Nees**

M: ARMITAGE, 1910; ARMITAGE, 1918; ALLORGE & PERSSON, 1938; PERSSON, 1939; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; FONTINHA,

1995; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

PS: COSTA & PERSSON, 1941; EGGERS, 1982.

DG: HOLMEN & RASMUSSEN, 1971b; EGGERS, 1982.

***Gymnocolea inflata* (Huds.) Dumort.**

M: SÉRGIO *et al.*, 1994c; SÖDERSTRÖM *et al.*, 2002.

***Harpalejeunea molleri* (Steph.) Grolle**

Eurmap: BISANG *et al.*, 1986; LECOINTE *et al.*, 1988.

PI/Macmap: CASAS *et al.*, 1992.

Madmap: SJÖGREN, 1975.

M: GOTTSCHKE, 1868; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; BISANG *et al.*, 1986; KOPPE & DÜLL, 1986; LECOINTE *et al.*, 1988; GROLLE, 1989; CASAS *et al.*, 1992; SÉRGIO *et al.*, 1992; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: SJÖGREN, 1975; CASAS *et al.*, 1992.

***Heteroscyphus denticulatus* (Mitt.) Schiffn. •**

M: MITTEN, 1870; SCHIFFNER, 1902; ALLORGE & PERSSON, 1938; PERSSON, 1939; HOLMEN & RASMUSSEN, 1971a; GROLLE, 1976; EGGERS, 1982; DÜLL, 1983; SÉRGIO, 1985c; KOPPE & DÜLL, 1986; SÉRGIO *et al.*, 1992; SÉRGIO & FONTINHA, 1994b; ECCB, 1995; GROLLE & LONG, 2000; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

PS: COSTA & PERSSON, 1941; EGGERS, 1982.

***Hygrobrella laxifolia* (Hook.) Spruce**

M: SÉRGIO *et al.*, 1994b.

***Jamesoniella autumnalis* (DC.) Steph.**

M: DÜLL, 1983; SÖDERSTRÖM *et al.*, 2002.

According to DÜLL (1983), this taxon exists in Madeira, however SÖDERSTRÖM *et al.* (2002) do not confirm its occurrence in this island.

***Jubula hutchinsiae* (Hook.) Dumort.**

Madmap: SIM-SIM *et al.*, 2002.

M: MITTEN, 1870; SCHIFFNER, 1902; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; TAVARES, 1965; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973a; VANDEN BERGHEN, 1976; GUERKE, 1978; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SÉRGIO *et al.*, 1992; SÉRGIO & FONTINHA, 1994b; SJÖGREN, 2001; SIM-SIM *et al.*, 2002; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

***Jubula hutchinsiae* (Hook.) Dumort. var. *integrifolia* Lind. •**

Madmap: SIM-SIM *et al.*, 2002.

M: HÜBSCHMANN, 1971; SÉRGIO, 1973a; VANDEN BERGHEN, 1976; SIM-SIM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

***Jungermannia atrovirens* Dumort.**

M: MITTEN, 1870; LUISIER, 1909b; PERSSON, 1939; TAVARES, 1965; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

***Jungermannia callithrix* Lindenb. & Gottsche**

M: SCHUMACKER, 1999; GROLLE & LONG, 2000; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

PS: SCHUMACKER, 1999.

See note under *J. hyalina*.

***Jungermannia gracillima* Sm.**

M: ARMITAGE, 1910; ARMITAGE, 1918; PERSSON, 1939; ADE & KOPPE, 1942; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

***Jungermannia hyalina* Lyell**

M: GOTTSCHKE, 1868; MITTEN, 1870; ARMITAGE, 1910; ARMITAGE, 1918; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; SCHUMACKER & VÁŇA, 2000; SÖDERSTRÖM *et al.*, 2002.

PS: PERSSON, 1939; SCHWAB & HAUSTEIN, 1984.

The occurrence of *J. hyalina* in Madeira Island is doubtful, since the majority of the specimens correspond to *J. callithrix*.

***Jungermannia leiantha* Grolle**

M: ADE & KOPPE, 1942; TAVARES, 1965; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; SCHUMACKER & VÁŇA, 2000; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

***Jungermannia pumila* With.**

M: GOTTSCHKE, 1868; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

***Kurzia pauciflora* (Dicks.) Grolle**

M: EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

***Lejeunea canariensis* (Steph.) Steph. •**

M: BLOCKEEL *et al.*, 1999; GROLLE & LONG, 2000; SÖDERSTRÖM *et al.*, 2002.

***Lejeunea cavifolia* (Ehrh.) Lindb.**

M: MITTEN, 1870; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁŇA, 2000; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

***Lejeunea eckloniana* Lindenb.**

Wmap: ZIPPEL, 1998.

Madmap: SJÖGREN, 1975; SÉRGIO, 1978.

M: ALLORGE & PERSSON, 1938; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; SÉRGIO, 1973a; SJÖGREN, 1975; SÉRGIO, 1978; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; SÉRGIO *et al.*, 1992; DIRKSE *et al.*, 1993; SÉRGIO & FONTINHA, 1994b; SCHUMACKER & VÁŇA, 2000; CHURCH *et al.*, 2001; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: COSTA & PERSSON, 1941; EGGERS, 1982.

The material reported as *Lejeunea holtii* Spruce needs to be studied and the taxonomic position in Madeira should be clarified.

***Lejeunea flava* (Sw.) Nees subsp. *moorei* (Lindb.) R. M. Schust.**

Madmap: SJÖGREN, 1975.

M: HOLL, 1830; SCHIFFNER, 1902; ALLORGE & PERSSON, 1938; PERSSON, 1939; ADE & KOPPE, 1942; TAVARES, 1965; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SÉRGIO *et al.*, 1992; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: COSTA & PERSSON, 1941; PEREIRA, 1967; EGGERS, 1982; SCHWAB & HAUSTEIN, 1984.

Lejeunea hibernica* Bischl. *et al. ex Grolle

M: SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SÉRGIO *et al.*, 1992; SÉRGIO & FONTINHA, 1994b; ECCB, 1995; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

According to SÖDERSTRÖM *et al.* (2002), this species is considered rare in Madeira Island.

***Lejeunea lamacerina* (Steph.) Schiffn.**

Madmap: SJÖGREN, 1975.

M: GOTTSCHKE, 1868; SCHIFFNER, 1902; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; TAVARES, 1965; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; SÉRGIO, 1973a; SJÖGREN, 1975; GROLLE, 1976; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL,

1986; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: COSTA & PERSSON, 1941; PEREIRA, 1967; EGGERS, 1982.

***Lejeunea mandonii* (Steph.) Müll. Frib.**

M: GOTTSCHKE, 1868; PERSSON, 1939; ADE & KOPPE, 1942; ARNELL, 1956; HOLMEN & RASMUSSEN, 1971a; SJÖGREN, 1975; GROLLE, 1976; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SÉRGIO *et al.*, 1992; ECCB, 1995; SCHUMACKER & VÁŇA, 2000; CHURCH *et al.*, 2001; SÖDERSTRÖM *et al.*, 2002.

PS: SJÖGREN, 1975.

According to SÉRGIO *et al.* (1992), this taxon needs to be revised following updated taxonomic criteria.

***Lejeunea patens* Lindb.**

M: HOLL, 1830; ALLORGE & PERSSON, 1938; PERSSON, 1939; HOLMEN & RASMUSSEN, 1971a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; Schwab & Haustein, 1984; KOPPE & DÜLL, 1986; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

***Lepidozia cupressina* (Sw.) Lindenb.**

PI/Macmap: CASAS *et al.*, 1985.

M: PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; EGGERS, 1982; DÜLL, 1983; CASAS *et al.*, 1985; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

According to SÖDERSTRÖM *et al.* (2002), the occurrence of the subspecies *pinnata* (Hook.) Pócs, is confirmed to Madeira Island.

***Lepidozia reptans* (L.) Dumort.**

M: GOTTSCHKE, 1868; MITTEN, 1870; PERSSON, 1939; BUCH & PERSSON, 1941; HOLMEN & RASMUSSEN, 1971a; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

***Leptoscyphus cuneifolius* (Hook.) Mitt.**

M: PERSSON, 1939; GROLLE, 1962; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1983; SÉRGIO *et al.*, 1992; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

According to SÖDERSTRÖM *et al.* (2002), this species is considered vulnerable in Madeira Island.

***Lophocolea bidentata* (L.) Dumort.**

M: BUCH, 1833; MITTEN, 1870; BRITTEN, 1904; LUISIER, 1909b; ARMITAGE, 1910; ARMITAGE,

1918; PERSSON, 1939; BUCH & PERSSON, 1941; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b. SÖDERSTRÖM *et al.* (2002) confirmed the occurrence of var. *rivularis* (Raddi) Warnst. in Madeira Island.

Lophocolea fragrans* (Moris & De Not.) Gottsche *et al.

M: PERSSON, 1939; ADE & KOPPE, 1942; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SCHUMACKER *et al.*, 1988b; SÉRGIO *et al.*, 1992; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

According to SÉRGIO *et al.* (1992), this species is rare in Madeira Island.

***Lophocolea heterophylla* (Schrad.) Dumort.**

M: GOTTSCHKE, 1868; ARMITAGE, 1910; ARMITAGE, 1918; PERSSON, 1939; ADE & KOPPE, 1942; MÜLLER, 1951-1958; TAVARES, 1965; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: COSTA & PERSSON, 1941; EGGERS, 1982.

***Lophocolea minor* Nees**

M: PERSSON, 1939; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; SCHUMACKER & VÁŇA, 2000; SÖDERSTRÖM *et al.*, 2002.

***Lophozia bantriensis* (Hook.) Steph.**

M: SÉRGIO & VÁŇA, 1994; SÖDERSTRÖM *et al.*, 2002.

***Lophozia bicrenata* (Schmid. ex Hoffm.) Dumort.**

M: NIEUWKOOP & ARTS, 1995; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

***Lophozia heterocolpos* (Thed. ex C. Hartm.) M. Howe**

M: PERSSON, 1939; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1983; DIRKSE *et al.*, 1993; SCHUMACKER & VÁŇA, 2000; SÖDERSTRÖM *et al.*, 2002.

***Lophozia sudetica* (Nees ex Huebener.) Grolle**

M: ADE & KOPPE, 1942; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁŇA, 2000; SÖDERSTRÖM *et al.*, 2002.

***Lunularia cruciata* (L.) Lindb.**

M: HOLL, 1830; GOTTSCHKE, 1868; MITTEN, 1870; LUISIER, 1909b; ARMITAGE, 1910; ARMITAGE,

1918; PERSSON, 1939; ADE & KOPPE, 1942; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; BOISSELIER-DUBAYLE *et al.*, 1995; FONTINHA, 1995; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

PS: COSTA & PERSSON, 1941; EGGERS, 1982.

DG: HOLMEN & RASMUSSEN, 1971b; EGGERS, 1982.

***Mannia androgyna* (L.) A. Evans**

PI/Macmap: CASAS *et al.*, 1996.

Madmap: SÉRGIO & FONTINHA, 1994b.

M: GOTTSCHKE, 1868; COSTA & PERSSON, 1941; ADE & KOPPE, 1942; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SÉRGIO *et al.*, 1992; SÉRGIO & FONTINHA, 1994b; CASAS *et al.*, 1996; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

PS: COSTA & PERSSON, 1941; PEREIRA, 1967; EGGERS, 1982; CASAS *et al.*, 1996.

DG: FONTINHA *et al.*, 1997; SÉRGIO & NÓBREGA, 1991.

***Mannia fragans* (Balbis) Frye & L. Clark**

M: HÜBSCHMANN, 1971; EGGERS, 1982; SCHUMACKER & VÁŇA, 2000; SÖDERSTRÖM *et al.*, 2002.

***Marchantia paleacea* Bertol.**

M: EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SÉRGIO *et al.*, 1992; CASAS *et al.* (1992); SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

After BISCHLER-CAUSSE (1993), this taxon was not referred to Madeira, and SÖDERSTRÖM *et al.* (2002) considered as uncertain its occurrence on Madeira Island.

***Marchantia polymorpha* L.**

M: RADDI, 1821; HOLL, 1830; BUCH, 1833; GOTTSCHKE, 1868; MITTEN, 1870; BRITTEN, 1904; LUISIER, 1909b; ARMITAGE, 1910; LUISIER, 1910; ARMITAGE, 1918; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; BISCHLER-CAUSSE, 1993; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

PS: SCHWAB & HAUSTEIN, 1984.

***Marchantia polymorpha* L. subsp. *montivagans* Bischl. & Boisselier**

M: MÜLLER, 1951-1958; EGGERS, 1982; DÜLL, 1983; BISCHLER-CAUSSE, 1993; SÖDERSTRÖM *et al.*, 2002.

The revision of *Marchantia* species from Europe and Africa (BISCHLER-CAUSSE, 1993), confirmed the presence of this taxon in Madeira Island, but without reference to any locality.

***Marchantia polymorpha* subsp. *ruderalis* Bischl. & Boisselier**

M: MÜLLER, 1951-1958; BISCHLER-CAUSSE, 1993; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

See note under subsp. *montivagans* Bischl. et Boisselier.

***Marchesinia mackaii* (Hook.) Gray.**

PI/Macmap: CASAS *et al.*, 1989.

M: ALLORGE & PERSSON, 1938; BUCH & PERSSON, 1941; COSTA & PERSSON, 1941; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; CASAS *et al.*, 1989; SÉRGIO & FONTINHA, 1994b; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: COSTA & PERSSON, 1941; SJÖGREN, 1975; EGGERS, 1982; CASAS *et al.*, 1989.

***Marsupella adusta* (Nees emend. Limpr.) Spruce**

M: PERSSON, 1939; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; SÉRGIO *et al.*, 1992; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

According to SÉRGIO *et al.* (1992) and SÖDERSTRÖM *et al.* (2002), this species is considered extinct in Madeira Island.

***Marsupella emarginata* (Ehrh.) Dumort.**

M: GOTTSCHKE, 1868; ARMITAGE, 1910; ARMITAGE, 1918; PERSSON, 1939; ADE & KOPPE, 1942; TAVARES, 1965; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

***Marsupella funckii* (F. Weber. & D. Mohr) Dumort.**

M: HOLMEN & RASMUSSEN, 1971a; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

***Marsupella profunda* Lindb.**

Eurmap: ECCB, 1995.

PI/Macmap: CASAS *et al.*, 1989.

Madmap: SÉRGIO & FONTINHA, 1994a.

M: EGGERS, 1982; DÜLL, 1983; SÉRGIO & NÓBREGA, 1985; CASAS *et al.*, 1989; PATON, 1990;

SÉRGIO *et al.*, 1992; SÉRGIO & FONTINHA, 1994a; ECCB, 1995; VÁÑA, 1999; SCHUMACKER & VÁÑA, 2000; CHURCH *et al.*, 2001; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

SÉRGIO *et al.* (1992) considered this species as endangered in Madeira Island. However, after recent collections it seems more frequent.

***Marsupella sprucei* (Limpr.) Bernet**

M: PERSSON, 1939; TAVARES, 1965; HOLMEN & RASMUSSEN, 1971a; SÉRGIO, 1973a; GROLLE, 1975; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁÑA, 2000; SÖDERSTRÖM *et al.*, 2002.

***Metzgeria conjugata* Lindb.**

M: SÉRGIO, 1973a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁÑA, 2000; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

***Metzgeria fruticulosa* (Dicks.) A. Evans**

Madmap: SJÖGREN, 1975.

M: PERSSON, 1939; ADE & KOPPE, 1942; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; SÉRGIO, 1973a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁÑA, 2000; SÖDERSTRÖM *et al.*, 2002.

PS: SJÖGREN, 1975.

***Metzgeria furcata* (L.) Dumort.**

Madmap: SJÖGREN, 1975.

M: BUCH & PERSSON, 1941; ADE & KOPPE, 1942; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: COSTA & PERSSON, 1941; EGGERS, 1982.

***Metzgeria leptoneura* Spruce**

Madmap: SJÖGREN, 1975.

M: PERSSON, 1939; MÜLLER, 1951-1958; TAVARES, 1965; HOLMEN & RASMUSSEN, 1971a; SÉRGIO, 1973a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; SÉRGIO *et al.*, 1992; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

PS: SJÖGREN, 1975.

***Metzgeria temperata* Kuwah.**

PImap: INFANTE, 2000.

M: EGGERS, 1982; DÜLL, 1983; INFANTE, 2000; SCHUMACKER & VÁÑA, 2000; SÖDERSTRÖM *et al.*, 2002.

Microlejeunea capillaris Gottsche var. *maderensis* Gottsche

M: GOTTSCHÉ, 1868.

The revision of the Madeira material reported by GOTTSCHÉ (1868) is essential, since the type variety occurs only in Tropical America.

Microlejeunea ulicina (Taylor) A. Evans

Madmap: SJÖGREN, 1975.

M: SCHIFFNER, 1902; ALLORGE & PERSSON, 1938; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: SJÖGREN, 1975.

Nardia geoscyphus (De Not.) Lindb.

M: ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

PS: PERSSON, 1939.

Nardia scalaris Gray

M: GOTTSCHÉ, 1868; MITTEN, 1870; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: PERSSON, 1939.

Nowellia curvifolia (Dicks.) Mitt.

PI/Macmap: CASAS *et al.*, 1985.

Wmap: GROLLE, 1968b.

M: GOTTSCHÉ, 1868; MITTEN, 1870; ALLORGE & PERSSON, 1938; PERSSON, 1939; GROLLE, 1968b; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1983; CASAS *et al.*, 1985; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

Odontoschisma denudatum (Mart.) Dumort.

M: EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

Odontoschisma prostratum (Sw.) Trevis

M: SCHUMACKER, 1999; GROLLE & LONG, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

Odontoschisma sphagni (Dicks.) Dumort.

M: PERSSON, 1939; BUCH & PERSSON, 1941; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁŇA, 2000.

After SÖDERSTRÖM *et al.* (2002), the occurrence of this taxon in Madeira Island was rejected, as the majority of the reports correspond to *O. prostratum*.

Oxymitra incrassata (Brot.) Sérgio et Sim-Sim

M: SÖDERSTRÖM *et al.*, 2002.

Without any locality information, the occurrence of this taxon in Madeira Island can be rejected.

Pallavicinia lyellii (Hook.) Carruth.

M: MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1983; ECCB, 1995; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

Pellia endiviifolia (Dicks.) Dumort.

M: MÜLLER, 1951-1958; HÜBSCHMANN, 1971; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SCHUMACKER & VÁŇA, 2000; SÖDERSTRÖM *et al.*, 2002.

Pellia epiphylla (L.) Corda

M: GOTTSCHÉ, 1868; PERSSON, 1939; BUCH & PERSSON, 1941; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

Phaeoceros carolinianus (Michx.) Prosk.

M: EGGERS, 1982; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

Phaeoceros laevis (L.) Prosk.

M: RADDI, 1821; MITTEN, 1870; LUISIER, 1909b; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

PS: COSTA & PERSSON, 1941; EGGERS, 1982.

DG: HOLMEN & RASMUSSEN, 1971b; EGGERS, 1982.

Phymatoceros bulbiculosus (Brot.) Stotler, W. T. Doyle & Crand.-Stotl.

Madmap: SÉRGIO & FONTINHA, 1994b.

PI/Macmap: CASAS *et al.*, 1996.

M: ARMITAGE, 1910; ARMITAGE, 1918; PERSSON, 1939; ADE & KOPPE, 1942; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; CASAS *et al.*, 1996; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: COSTA & PERSSON, 1941; EGGERS, 1982; CASAS *et al.*, 1996.

DG: HOLMEN & RASMUSSEN, 1971b; EGGERS, 1982.

The new genus *Phymatoceros* was recently proposed (STOTLER *et al.*, 2005).

***Plagiochasma rupestre* (J. R. Forst. & G. Forst.) Steph.**

Afr/Macmap: BISCHLER, 1978.

Madmap: SÉRGIO & FONTINHA, 1994b.

PI/Macmap: CASAS *et al.*, 1985.

M: FORSTER, 1787; MONTAGNE, 1839-1841; SCHIFFNER, 1902; LUISIER, 1909b; ARMITAGE, 1910; ARMITAGE, 1918; PERSSON, 1939; ADE & KOPPE, 1942; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; SÉRGIO, 1973a; GROLLE, 1976; BISCHLER, 1978; EGGERS, 1982; DÜLL, 1983; BISCHLER & SÉRGIO, 1984; SCHWAB & HAUSTEIN, 1984; CASAS *et al.*, 1985; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

DG: HOLMEN & RASMUSSEN, 1971b; SÉRGIO & NÓBREGA, 1991; FONTINHA *et al.*, 1997.

***Plagiochila bifaria* (Sw.) Lindenb.**

Wmap: ZIPPEL, 1998.

Madmap: SIM-SIM *et al.*, 2003a.

PSmap: SIM-SIM *et al.*, 2003a.

M: SÉRGIO, 1973a; SJÖGREN, 1975; EGGERS, 1982; GROLLE & SCHUMACKER, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; HEINRICHS *et al.*, 1998; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2003a; FIGUEIREDO *et al.* 2005; SIM-SIM *et al.*, 2004b.

PS: SCHWAB & HAUSTEIN, 1984.

See not under *P. spinulosa*.

***Plagiochila exigua* (Taylor) Taylor**

Eurmap: BISANG *et al.*, 1986.

Madmap: SJÖGREN, 1975; SIM-SIM *et al.*, 2003a.

M: ALLORGE & PERSSON, 1938; PERSSON, 1939; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; BISANG *et al.*, 1986; KOPPE & DÜLL, 1986; SÉRGIO *et al.*, 1992; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2003a; SIM-SIM *et al.*, 2004b.

***Plagiochila maderensis* Gottsche ex Steph. •**

M: GOTTSCHÉ, 1868; STEPHANI, 1900-1918; RYCROFT *et al.*, 2004; FIGUEIREDO *et al.*, 2005; SIM-SIM *et al.*, 2005b (*in press*).

As a result of recent investigations about the genus *Plagiochila* in Europe and neotropical America, this species was recognized in Madeira and Canary Islands.

***Plagiochila porelloides* (Torrey ex Nees) Lindenb.**

Madmap: SIM-SIM *et al.*, 2003a; SIM-SIM *et al.*, 2003b.

M: PERSSON, 1939; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁÑA, 2000; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2003a; SIM-SIM *et al.*, 2003b.

The taxon was referred as doubtful for Madeira Island by SÖDERSTRÖM *et al.* (2002), however its occurrence was recently confirmed (SIM-SIM *et al.*, 2004).

***Plagiochila punctata* (Taylor) Taylor**

Wmap: ZIPPEL, 1998.

Madmap: SIM-SIM *et al.*, 2003a.

PImap: INFANTE, 2000.

M: PERSSON, 1939; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; SÉRGIO, 1973a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; INFANTE, 2000; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2003a; SIM-SIM *et al.*, 2004b.

PS: COSTA & PERSSON, 1941; PEREIRA, 1967; SJÖGREN, 1975.

***Plagiochila repanda* Dumort.**

M: HOLL, 1830.

Without the revision of the material from HOLL (1830) it is not possible to confirm the occurrence of *Plagiochila repanda* Dumort. in Madeira Island.

***Plagiochila retrorsa* Gottsche**

Madmap: SIM-SIM *et al.*, 2003a.

M: GROLLE & LONG, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2003a; SIM-SIM *et al.*, 2004b; FIGUEIREDO *et al.*, 2005.

***Plagiochila spinulosa* (Dicks.) Dumort**

Eurmap: GROLLE & SCHUMACKER, 1982.

M: HOLL, 1830; GOTTSCHÉ, 1868; MITTEN, 1870; LUISIER, 1909b; ARMITAGE, 1910; ARMITAGE, 1918; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; GROLLE, 1966b; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; GROLLE &

SCHUMACKER, 1982; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SCHUMACKER & VÁÑA, 2000; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: SJÖGREN, 1975; GROLLE & SCHUMACKER, 1982.

This taxon was recently collected by SIM-SIM *et al.* (2005). Although several specimens of *Plagiochila* from Azores, Canary Islands and Madeira, housed in Portuguese, Spanish and German herbaria were previously identified as *P. spinulosa*, their conspecificity either with *P. bifaria*, *P. maderensis* or *P. stricta* was confirmed.

***Plagiochila stricta* Lindenb.**

Madmap: SIM-SIM *et al.*, 2003a.

M: GOTTSCHKE, 1868; STEPHANI, 1900-1918; GROLLE & SCHUMACKER, 1982; EGGERS, 1982; SIM-SIM *et al.*, 2003a; SIM-SIM *et al.*, 2004a; HEINRICHS *et al.* 2004; FIGUEIREDO *et al.* 2005; SIM-SIM *et al.*, 2004b; SIM-SIM *et al.*, 2005a.

See note under *Plagiochila spinulosa*. *Plagiochila castellanis* Gottsch. ex Steph. and *P. mandonii* Gottsche ex Steph. were excluded from the synonymy of *P. spinulosa* and considered as conspecific with *P. stricta* (HEINRICHS *et al.*, 2004). See not under *P. spinulosa*.

***Plagiochila virginica* A. Evans**

Madmap: SIM-SIM *et al.*, 2003a.

M: NIEUWKOOP & ARTS, 1995; ECCB, 1995; GROLLE & LONG, 2000; SCHUMACKER & VÁÑA, 2000; HEINRICHS *et al.*, 2002; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2003a.

***Porella arboris-vitae* (With.) Grolle**

M: HOLL, 1830; GOTTSCHKE, 1868; MITTEN, 1870; ARMITAGE, 1910; ARMITAGE, 1918; ADE & KOPPE, 1942; HÜBSCHMANN, 1971; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; SCHUMACKER & VÁÑA, 2000; SÖDERSTRÖM *et al.*, 2002.

According to SÖDERSTRÖM *et al.* (2002), the taxon was referred to Madeira Island, however its occurrence was then rejected (comm. S. Fontinha), and the majority of the reports correspond to *P. canariensis*.

***Porella canariensis* (F. Weber) Underw.**

Wmap: ZIPPEL, 1998; FONTINHA, 2005.

Madmap: FONTINHA, 2005.

M: MITTEN, 1870; MONTAGNE, 1839-1841; SCHIFFNER, 1902; ARMITAGE, 1910; ARMITAGE, 1918; PERSSON, 1939; BUCH & PERSSON, 1941; TAVARES, 1965; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SÉRGIO *et al.*, 1992; SCHUMACKER & VÁÑA, 2000; FREITAS, 2001; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b; FONTINHA, 2005.

PS: COSTA & PERSSON, 1941; FONTINHA, 2005.

DG: FONTINHA *et al.*, 1997; FONTINHA, 2005.

***Porella cordaeana* (Huebener) Moore**

Wmap: FONTINHA, 2005.

Madmap: FONTINHA, 2005.

M: HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁŇA, 2000; SÖDERSTRÖM *et al.*, 2002; FONTINHA, 2005.

***Porella inaequalis* (Gottsche ex Steph.) Perss. • •**

Wmap: PERSSON, 1955.

Madmap: FONTINHA, 2000; FONTINHA, 2005.

M: PERSSON, 1955; GROLE, 1976; EGGERS, 1982; DÜLL, 1983; GROLE, 1983; SÉRGIO *et al.*, 1992; ECCB, 1995; FONTINHA, 2000; GROLE & LONG, 2000; SCHUMACKER & VÁŇA, 2000; FONTINHA *et al.*, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b; FONTINHA, 2005.

According to SÉRGIO *et al.* (1992), this endemic species was considered rare in Madeira Island.

***Porella obtusata* (Taylor) Trevis**

Wmap: FONTINHA, 2005.

Madmap: FONTINHA, 2005.

M: NEES, 1838; LUISIER, 1909b; ARMITAGE, 1910; ARMITAGE, 1918; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b; FONTINHA, 2005.

***Porella pinnata* L.**

Wmap: PERSSON, 1955.

M: ADE & KOPPE, 1942; PERSSON, 1955; HOLMEN & RASMUSSEN, 1971a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SÉRGIO *et al.*, 1992; SÖDERSTRÖM *et al.*, 2002.

According to SÖDERSTRÖM *et al.* (2002), the taxon was referred to Madeira Island, however its occurrence was then rejected (FONTINHA, 2005), and the majority of the reports correspond to *P. inaequalis*.

***Porella platyphylla* (L.) Preiff.**

M: BUCH, 1833; BRITTEN, 1904; DÜLL, 1983; KOPPE & DÜLL, 1986; SCHUMACKER & VÁŇA, 2000; SÖDERSTRÖM *et al.*, 2002.

According to SÖDERSTRÖM *et al.* (2002), the taxon was referred to Madeira Island, however its occurrence was then rejected (FONTINHA, 2005), and the majority of the reports correspond to *P. canariensis*.

Preissia quadrata (Scop.) Nees

M: HÜBSCHMANN, 1971; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁŇA, 2000; SÖDERSTRÖM *et al.*, 2002.

Although SÖDERSTRÖM *et al.* (2002) referred this taxon to Madeira Island, its occurrence was denied. In fact, CASAS *et al.* (1992) do not assign its occurrence to Madeira. The material studied corresponds to *Marchantia paleacea*.

Radula aquilegia (Hook. f. & Taylor) Gottsche *et al.*

Madmap: SJÖGREN, 1975; LUIS *et al.*, 2005.

M: MITTEN, 1870; PERSSON, 1939; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; BOUMAN & DIRKSE, 1990; SÉRGIO *et al.*, 1992; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b; LUIS *et al.*, 2005.

Radula carringtonii J. B. Jack

Madmap: SJÖGREN, 1975; LUIS *et al.*, 2005.

Wmap: YAMADA, 1995.

M: PERSSON, 1939; BUCH & PERSSON, 1941; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; SÉRGIO, 1973a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; BOUMAN & DIRKSE, 1990; SÉRGIO *et al.*, 1992; ECCB, 1995; YAMADA, 1995; SCHUMACKER & VÁŇA, 2000; CHURCH *et al.*, 2001; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b; LUIS *et al.*, 2005.

PS: SJÖGREN, 1975; SCHWAB & HAUSTEIN, 1984.

Radula complanata (L.) Dumort.

M: HOLL, 1830; BUCH, 1833; GOTTSCHKE, 1868; MITTEN, 1870; BRITTEN, 1904; ADE & KOPPE, 1942; CASTLE, 1967; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; SÖDERSTRÖM *et al.*, 2002.

According to SÖDERSTRÖM *et al.* (2002), the taxon was referred to Madeira Island, however after LUIS *et al.* (2005), its occurrence in this island was rejected. The majority of reports correspond to *R. lindenbergiana*.

Radula holtii Spruce

Madmap: LUIS *et al.*, 2005.

M: HOLMEN & RASMUSSEN, 1971a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; BOUMAN & DIRKSE, 1990; SÉRGIO *et al.*, 1992; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; LUIS *et al.*, 2005.

Radula jonesii Bouman *et al.* •

Madmap: LUIS *et al.*, 2005.

M: BOUMAN & DIRKSE, 1990; ECCB, 1995; GROLLE & LONG, 2000; SÖDERSTRÖM *et al.*, 2002; LUIS *et al.*, 2005.

According to SÖDERSTRÖM *et al.* (2002) and LUIS *et al.* (2005), this species is considered vulnerable in Macaronesia.

***Radula lindenbergiana* Gottsche ex C. Hartm.**

Madmap: LUIS *et al.*, 2005.

M: SCHIFFNER, 1902; ARMITAGE, 1910; ARMITAGE, 1918; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; CASTLE, 1967; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; BOUMAN & DIRKSE, 1990; SÉRGIO & FONTINHA, 1994b; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b; LUIS *et al.*, 2005.

PS: COSTA & PERSSON, 1941; PEREIRA, 1967; SJÖGREN, 1975; EGGERS, 1982; LUIS *et al.*, 2005.

***Radula nudicaulis* Steph.**

Madmap: LUIS *et al.*, 2005.

M: PERSSON, 1939; TAVARES, 1965; CASTLE, 1967; HOLMEN & RASMUSSEN, 1971a; SÉRGIO, 1973a; GROLLE, 1976; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; BOUMAN & DIRKSE, 1990; SÉRGIO *et al.*, 1992; ECCB, 1995; GROLLE & LONG, 2000; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b; LUIS *et al.*, 2005.

According to SÉRGIO *et al.* (1992) and LUIS *et al.* (2005), this species is considered rare in Madeira Island.

***Radula wichurae* Steph. •**

Madmap: LUIS *et al.*, 2005.

M: CASTLE, 1959; HOLMEN & RASMUSSEN, 1971a; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; BOUMAN & DIRKSE, 1990; SÉRGIO *et al.*, 1992; ECCB, 1995; GROLLE & LONG, 2000; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b; LUIS *et al.*, 2005.

PS: BUCH & PERSSON, 1941; COSTA & PERSSON, 1941; EGGERS, 1982; BOUMAN & DIRKSE, 1990.

According to SÉRGIO *et al.* (1992) and LUIS *et al.* (2005), this species is considered endangered in Madeira Island.

***Reboulia hemisphaerica* (L.) Raddi**

M: RADDI, 1821; BOWDICH, 1825; HOLL, 1830; ARMITAGE, 1910; ARMITAGE, 1918; PERSSON, 1939; ADE & KOPPE, 1942; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

***Riccardia chamedryfolia* (With.) Grolle**

M: ARMITAGE, 1910; ARMITAGE, 1918; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

***Riccardia incurvata* Lindb.**

M: SÉRGIO & FONTINHA, 1994b.

This species was referred, for the first time, for the Madeira Island by SÉRGIO & FONTINHA, (1994b), however the material needs to be revised.

***Riccardia latifrons* (Lindb.) Lindb.**

M: SÉRGIO & NÓBREGA, 1985; SÖDERSTRÖM *et al.*, 2002.

***Riccardia multifida* (L.) Gray**

M: PERSSON, 1939; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: PERSSON, 1939.

***Riccardia palmata* (Hedw.) Carruth.**

M: ALLORGE & PERSSON, 1938; PERSSON, 1939; BUCH & PERSSON, 1941; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

***Riccia atlantica* Sérgio & Perold • •**

Madmap: SÉRGIO & FONTINHA, 1994b.

M: SÉRGIO & PEROLD, 1992; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; ECCB, 1995; GROLLE & LONG, 2000; SCHUMACKER & VÁÑA, 2000; FONTINHA *et al.*, 2001; SÖDERSTRÖM *et al.*, 2002.

DG: FONTINHA *et al.*, 1997; FONTINHA *et al.*, 2001.

***Riccia atromarginata* Levier**

M: SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995.

***Riccia bifurca* Hoffm.**

M: PERSSON, 1939; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1983; JOVET-AST, 1986; CHURCH *et al.*, 2001; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001;

SÖDERSTRÖM *et al.*, 2002.

PS: PERSSON, 1939.

Riccia cavernosa Hoffm.

Madmap: SÉRGIO & FONTINHA, 1994b.

PImap: INFANTE, 2000.

M: SÉRGIO & NÓBREGA, 1985; SÉRGIO & FONTINHA, 1994b; INFANTE, 2000; SCHUMACKER & VÁŇA, 2000; SÖDERSTRÖM *et al.*, 2002.

Riccia ciliata Hoffm.

M: ADE & KOPPE, 1942; EGGERS, 1982; DÜLL, 1983; JOVET-AST, 1986; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; SCHUMACKER & VÁŇA, 2000; SÖDERSTRÖM *et al.*, 2002.

PS: COSTA & PERSSON, 1941; PEREIRA, 1967; EGGERS, 1982.

Riccia ciliifera Link ex Lindenb.

M: DÜLL, 1983; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

PS: COSTA & PERSSON, 1941; PEREIRA, 1967; EGGERS, 1982.

Riccia crozalsii Levier

M: EGGERS, 1982; DÜLL, 1983; JOVET-AST, 1986; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

Riccia crystallina L. emend. Raddi

M: HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1983; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

Riccia glauca L.

M: ARMITAGE, 1910; ARMITAGE, 1918; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁŇA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

PS: COSTA & PERSSON, 1941; EGGERS, 1982.

The presence of this taxon on Madeira Island is uncertain, since there is only the report of two old localities and no herbarium material was found. It is first reported as *Riccia commutata* now synonym of *R. warnstorffii*.

Riccia gougetiana Durieu & Mont.

M: DÜLL, 1983; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SCHUMACKER & VÁŇA, 2000; SÖDERSTRÖM *et al.*, 2002.

DG: FONTINHA *et al.*, 1997.

***Riccia lamellosa* Raddi**

Madmap: SÉRGIO & FONTINHA, 1994b.

M: PERSSON, 1939; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1983; JOVET-AST, 1986; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SCHUMACKER & VÁÑA, 2000; SÖDERSTRÖM *et al.*, 2002.

Riccia ligula Steph.

M: PERSSON, 1939; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1983; JOVET-AST, 1986; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

PS: COSTA & PERSSON, 1941; EGGERS, 1982.

The presence of this taxon in Madeira Island is uncertain, since there is only the report of two old localities and no herbarium material was found.

***Riccia macrocarpa* Levier**

PI/Macmap: CASAS *et al.*, 1992.

Wmap: SÉRGIO, 1992.

M: SÉRGIO, 1992; SCHUMACKER & VÁÑA, 2000; SÖDERSTRÖM *et al.*, 2002.

PS: CASAS *et al.*, 1992; SÉRGIO, 1992.

***Riccia nigrella* DC.**

PI/Macmap: CASAS *et al.*, 1992.

Madmap: SÉRGIO & FONTINHA, 1994b.

M: PERSSON, 1939; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; EGGERS, 1982; DÜLL, 1983; JOVET-AST, 1986; KOPPE & DÜLL, 1986; PEROLD & VOLK, 1988; CASAS *et al.*, 1992; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SCHUMACKER & VÁÑA, 2000; CHURCH *et al.*, 2001; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

PS: COSTA & PERSSON, 1941; EGGERS, 1982; CASAS *et al.*, 1992.

DG: SÉRGIO & NÓBREGA, 1991; CASAS *et al.*, 1992.

***Riccia sorocarpa* Bisch.**

M: EGGERS, 1982; DÜLL, 1983; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

PS: COSTA & PERSSON, 1941; PEREIRA, 1967; EGGERS, 1982.

DG: EGGERS, 1982.

IS: NÓBREGA, 1955.

***Riccia subbifurca* Warnst. ex Crozals**

M: PERSSON, 1939; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL,

1983; JOVET-AST, 1986; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

PS: COSTA & PERSSON, 1941; PEREIRA, 1967; EGGERS, 1982.

DG: SÉRGIO & NÓBREGA, 1991.

***Riccia trabutiana* Steph.**

Madmap: SÉRGIO & FONTINHA, 1994a; SÉRGIO & FONTINHA, 1994b.

M: SÉRGIO & FONTINHA, 1994a; SÉRGIO & FONTINHA, 1994b; SÖDERSTRÖM *et al.*, 2002.

***Riccia warnstorffii* Limpr. ex Warnst.**

M: ARMITAGE, 1910; ARMITAGE, 1918; EGGERS, 1982; DÜLL, 1983; JOVET-AST, 1986; SÉRGIO & FONTINHA, 1994b; FONTINHA, 1995; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

***Saccogyna viticulosa* (L.) Dumort.**

PI/Macmap: CASAS *et al.*, 1985.

M: GOTTSCHKE, 1868; MITTEN, 1870; ARMITAGE, 1910; LUISIER, 1910; ARMITAGE, 1918; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; CASAS *et al.*, 1985; KOPPE & DÜLL, 1986; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: COSTA & PERSSON, 1941; EGGERS, 1982; CASAS *et al.*, 1985.

***Scapania compacta* (A. Roth) Dumort.**

M: BUCH, 1833; GOTTSCHKE, 1868; MITTEN, 1870; BRITTEN, 1904; ARMITAGE, 1910; ARMITAGE, 1918; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: COSTA & PERSSON, 1941; EGGERS, 1982.

***Scapania curta* (Mart.) Dumort.**

M: HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: PERSSON, 1939.

***Scapania gracilis* Lindb.**

M: BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL,

1986; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: PERSSON, 1939; SCHWAB & HAUSTEIN, 1984.

Scapania mucronata H. Buch

M: DÜLL, 1983; SÖDERSTRÖM *et al.*, 2002.

This taxon is considered uncertain to Madeira Island, since there is only one report, and no herbarium material was found.

***Scapania nemorea* (L.) Grolle**

M: GOTTSCHKE, 1868; MITTEN, 1870; LUISIER, 1909b; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; HOLMEN & RASMUSSEN, 1971b; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: PERSSON, 1939.

***Scapania subalpina* (Nees ex Lindenb.) Dumort.**

M: HOLMEN & RASMUSSEN, 1971a; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁÑA, 2000; SÖDERSTRÖM *et al.*, 2002.

***Scapania umbrosa* (Schrad.) Dumort.**

M: SÉRGIO & NÓBREGA, 1985; SCHUMACKER & VÁÑA, 2000; SÖDERSTRÖM *et al.*, 2002.

***Scapania undulata* (L.) Dumort.**

M: HOLL, 1830; GOTTSCHKE, 1868; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; SÉRGIO, 1973a; SJÖGREN, 1975; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

PS: PERSSON, 1939.

***Southbya nigrella* (De Not.) Henriq.**

M: SÉRGIO & FONTINHA, 1994b.

***Southbya tophacea* (Spruce) Spruce**

M: GOTTSCHKE, 1868; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁÑA, 2000; SÖDERSTRÖM *et al.*, 2002.

***Targionia hypophylla* L.**

M: HOLL, 1830; GOTTSCHKE, 1868; MITTEN, 1870; SCHIFFNER, 1902; ARMITAGE, 1910; LUISIER,

1910; ARMITAGE, 1918; PERSSON, 1939; BUCH & PERSSON, 1941; ADE & KOPPE, 1942; HOLMEN & RASMUSSEN, 1971a; HOLMEN & RASMUSSEN, 1971b; HÜBSCHMANN, 1971; EGGERS, 1982; DÜLL, 1983; KOPPE & DÜLL, 1986; SÉRGIO & FONTINHA, 1994b; BOISSELIER-DUBAYLE & BISCHLER, 1999; SCHUMACKER & VÁÑA, 2000; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002.

PS: COSTA & PERSSON, 1941; EGGERS, 1982.

DG: HOLMEN & RASMUSSEN, 1971b; EGGERS, 1982; SIM-SIM *et al.*, 2000.

The older reports can eventually correspond to *T. lorbeeriana*.

***Targionia lorbeeriana* Müll. Frib.**

M: HÜBSCHMANN, 1971; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; SCHWAB & HAUSTEIN, 1984; KOPPE & DÜLL, 1986; BOISSELIER-DUBAYLE & BISCHLER, 1999; SÖDERSTRÖM *et al.*, 2002.

***Telaranea europaea* Engel & Merr.**

M: TAVARES, 1965; HOLMEN & RASMUSSEN, 1971a; SÉRGIO, 1973a; EGGERS, 1982; DÜLL, 1983; SÉRGIO *et al.*, 1992; ECCB, 1995; SCHUMACKER & VÁÑA, 2000; CHURCH *et al.*, 2001; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

According to ENGEL & SMITH MERRIL (2004), *T. nematodes* (Gottsche ex Austin) M. Howe from Europe and Macaronesia correspond to *T. europaea*. However, as no Madeiran material was studied, its revision is required in order to confirm the identity of different records.

***Tritomaria exsecta* (Schmidel) Loeske**

M: MITTEN, 1870; PERSSON, 1939; MÜLLER, 1951-1958; HOLMEN & RASMUSSEN, 1971a; EGGERS, 1982; DÜLL, 1983; SCHUMACKER & VÁÑA, 2000; SÖDERSTRÖM *et al.*, 2002.

Since there is the report of only one old locality: Poiso, leg. Persson, we believe that it should be considered critical or an even extinct.

***Tylimanthus madeirensis* Grolle & Perss. • •**

Wmap: SÉRGIO, 1984.

Madmap: SÉRGIO *et al.*, 1992.

M: GROLLE & PERSSON, 1966; SÉRGIO, 1973a; GROLLE, 1976; JONES, 1980; EGGERS, 1982; DÜLL, 1983; GROLLE, 1983; SÉRGIO, 1984; SÉRGIO *et al.*, 1992; ECCB, 1995; GROLLE & LONG, 2000; SCHUMACKER & VÁÑA, 2000; FONTINHA *et al.*, 2001; SJÖGREN, 2001; SÖDERSTRÖM *et al.*, 2002; SIM-SIM *et al.*, 2004b.

According to SÉRGIO *et al.* (1992), this endemic species is considered vulnerable in Madeira Island.

Hepatics (liverworts and hornworts) to be excluded, uncertain occurrence on the bryoflora of Madeira Archipelago, or taxa with taxonomic problems

Athalamia spathysii (Lindenb.) S. Hatt.
Bazzania azorica Buch & H. Perss.
Blasia pusilla L.
Calypogeia integristipula Steph.
Cladopodiella fluitans (Nees) H. Buch
Cololejeunea calcarea (Libert) Schiffn.
Cololejeunea rossettiana (C. Massal.) Schiffn.
Jamesoniella autumnalis (DC.) Steph.
Jungermannia hyalina Lyell
Microlejeunea capillaris Gottsche var. *maderensis* Gottsche
Odontoschisma sphagni (Dicks.) Dumort.
Oxymitra incrassata (Brot.) Sérgio et Sim-Sim
Plagiochila repanda Dumort.
Porella arboris-vitae (With.) Grolle
Porella pinnata L.
Porella platyphylla (L.) Preiff.
Preissia quadrata (Scop.) Nees
Radula complanata (L.) Dumort.
Riccia glauca L.
Riccia ligula Steph.
Scapania mucronata H. Buch

Hepatics – Listed taxa and synonyms

Alicularia geocyphus De Not. = *Nardia geocyphus*
Alicularia scalaris (Gray) Corda = *Nardia scalaris*
Aneura sinuata (Hook.) Dumort. = *Riccardia chamedryfolia*
Anthoceros crispulus auct. = *Anthoceros agrestis*
Anthoceros dichotomus Raddi = *Phymatoceros bulbiculosus*
Anthoceros husnotii Steph. = *Anthoceros punctatus*
Anthoceros laevis L. = *Phaeoceros laevis*
Anthoceros mandonii Steph. = *Anthoceros caucasicus*
Aphanolejeunea teotonii V. Allorge & Jovet-Ast = *Aphanolejeunea sintenisii*
Aplozia crenulata (Mitt.) Lindb. = *Jungermannia gracillima*
Aplozia riparia (Taylor) Dumort. = *Jungermannia atrovirens*
Aspiromitus madeirense Steph. = *Anthoceros caucasicus*

Aytonia rupestris J. R. Forst. et G. Forst. = *Plagiochasma rupestre*
Cephalozia bicuspidata var. *lammersiana* (Huebener) Breidl.
 = *Cephalozia bicuspidata*
Cephalozia hibernica Spruce ex Pears. = *Cephalozia crassifolia*
Cephalozia lammersiana (Huebener) Spruce = *Cephalozia bicuspidata*
Cephaloziella byssacea (A. Roth) Warnst. = *Cephaloziella divaricata*
Cephaloziella divaricata var. *asperifolia* (Taylor) Macvic.
 = *Cephaloziella divaricata*
Cephaloziella divaricata var. *scabra* M. Howe = *Cephaloziella divaricata*
Cephaloziella starkei auct. = *Cephaloziella divaricata*
Cheilolejeunea boaventurae Steph. = *Lejeunea eckloniana*
Chiloscyphus denticulatus Mitt. = *Heteroscyphus denticulatus*
Chiloscyphus minor (Nees) J. J. Engel et R. M. Schust. = *Lophocolea minor*
Chiloscyphus polyanthos var. *rivularis* (Schrad.) Nees
 = *Chiloscyphus polyanthos*
Cololejeunea azorica V. Allorge & S. Jovet-Ast = *Aphanolejeunea azorica*
Cololejeunea madeirensis Schiffn. = *Aphanolejeunea madeirensis*
Cololejeunea microscopica (Taylor) Schiffn. = *Aphanolejeunea microscopica*
Corsinia marchantioides Raddi = *Corsinia coriandrina*
Dicranolejeunea johnsoniana (Mitt.) Grolle = *Acanthocoleus aberrans*
Eucalyx hyalinus (Lyell) Breidl. = *Jungermannia hyalina*
Fegatella conica (L.) Corda = *Conocephalum conicum*
Fimbriaria africana Mont. = *Asterella africana*
Fossombronia caespitifformis var. *subcristata* Schiffn.
 = *Fossombronia caespitifformis*
Frullania bryhnii Müll. Frib. = *Frullania polysticta*
Frullania cesatiana var. *musciicola* (Steph.) Bisang, et al. = *Frullania azorica*
Frullania dilatata var. *anomala* Corb. = *Frullania dilatata*
Frullania dilatata var. *microphylla* (Wallroth) Nees = *Frullania dilatata*
Frullania germana (Taylor) Gottsche = *Frullania teneriffae*
Frullania hispanica Nees = *Frullania tamarisci*
Frullania hutchinsiae (Hook.) Nees = *Jubula hutchinsiae*
Frullania microphylla var. *deciduiifolia* Grolle = *Frullania microphylla*
Frullania nervosa Mont. = *Frullania tamarisci*
Frullania squarrosa Nees = *Frullania ericoides*
Frullania tamarisci var. *nervosa* Mont. = *Frullania tamarisci*
Grimaldia dichotoma auct. = *Mannia androgyna*
Grimaldia fragrans (Balbis) Corda = *Mannia fragrans*
Gymnomitrium adustum Nees = *Marsupella adusta*

Haplozia crenulata (Mitt.) Müll. Frib. = *Jungermannia gracillima*
Haplozia lanceolata (Nees) Müll. Frib. = *Jungermannia leiantha*
Harpalejeunea ovata (Hook.) Schiffn. = *Harpalejeunea molleri*
Jubula hutchinsiae var. *warburgii* Schiffn. = *Jubula hutchinsiae*
Jungermannia albicans L. = *Diplophyllum albicans*
Jungermannia asperifolia Raddi = *Cephaloziella divaricata*
Jungermannia bicuspidata L. = *Cephalozia bicuspidata*
Jungermannia bidentata L. = *Lophocolea bidentata*
Jungermannia blasia Hook. = *Blasia pusilla*
Jungermannia complanata L. = *Radula complanata*
Jungermannia curvifolia Dicks. = *Nowellia curvifolia*
Jungermannia dilatata L. = *Frullania dilatata*
Jungermannia exsecta Schmidel = *Tritomaria exsecta*
Jungermannia flava Sw. = *Lejeunea flava* subsp. *moorei*
Jungermannia lanceolata auct. sensu Schrad. non L. = *Jungermannia leiantha*
Jungermannia resupinata Hook. = *Scapania compacta*
Jungermannia resupinata L. = *Scapania undulata*
Jungermannia riparia Taylor = *Jungermannia atrovirens*
Jungermannia serpyllifolia Dicks. = *Lejeunea patens*
Jungermannia spinulosa Dicks. = *Plagiochila spinulosa*
Jungermannia tamarisci L. = *Frullania tamarisci*
Jungermannia tamariscifolia L. = *Frullania tamarisci*
Jungermannia teneriffae F. Web. = *Frullania teneriffae*
Jungermannia trilobata L. = *Bazzania trilobata*
Jungermannia tristis Nees = *Jungermannia atrovirens*
Leiocolea bantriensis (Hook.) Jorg. = *Lophozia bantriensis*
Lejeunea capillaris var. *maderensis* Gottsche
= *Microlejeunea capillaris* var. *maderensis*
Lejeunea flava (Sw.) Nees = *Lejeunea flava* subsp. *moorei*
Lejeunea hamatifolia (Hook.) Dumort. = *Drepanolejeunea hamatifolia*
Lejeunea johnsoniana Mitt. = *Acanthocoleus aberrans*
Lejeunea macvicarii Pears. = *Lejeunea mandonii*
Lejeunea minutissima Sm. = *Cololejeunea minutissima*
Lejeunea ovata Taylor = *Harpalejeunea molleri*
Lejeunea serpyllifolia Dicks. = *Lejeunea cavifolia*
Lejeunea ulicina (Taylor) Gottsche *et al.* = *Microlejeunea ulicina*
Lepidozia cupressina subsp. *pinnata* (Hook.) Pócs = *Lepidozia cupressina*
Lepidozia pinnata (Hook.) Dumort. = *Lepidozia cupressina*
Leptoscyphus cuneifolius subsp. *fragilis* (Jack & Steph.)
= *Leptoscyphus cuneifolius*

- Lophocolea bidentata* var. *rivularis* (Raddi) Warnst. = *Lophocolea bidentata*
Lophocolea cuspidata (Nees) Limpr. = *Lophocolea bidentata*
Lophozia alpestris auct. = *Lophozia sudetica*
Lunularia vulgaris Mich. = *Lunularia cruciata*
Madotheca canariensis (F. Weber) Nees = *Porella canariensis*
Madotheca canariensis var. *subsquarrosa* Schiffn. = *Porella canariensis*
Madotheca cordaeana (Huebener) Dumort. = *Porella cordaeana*
Madotheca laevigata (Schrad.) Dumort. = *Porella arboris-vitae*
Madotheca obtusata Taylor = *Porella obtusata*
Madotheca thuja Dumort. = *Porella obtusata*
Marchantia alpestris (Nees) Burgeff
= *Marchantia polymorpha* subsp. *montivagans*
Marchantia conica L. = *Conocephalum conicum*
Marchantia polymorpha var. *alpestris* Nees
= *Marchantia polymorpha* subsp. *montivagans*
Marchantia polymorpha var. *aquatica* Nees = *Marchantia polymorpha*
Marchantia polymorpha var. *mamillata* I. Hagen
= *Marchantia polymorpha* subsp. *ruderalis*
Marchesinia johnsoniana (Mitt.) Herz. = *Acanthocoleus aberrans*
Marsupella emarginata fo. *depauperata* Perss. = *Marsupella emarginata*
Marsupella ustulata Spruce = *Marsupella sprucei*
Metzgeria furcata fo. *ulvula* Nees = *Metzgeria furcata*
Metzgeria hamata Lindb. = *Metzgeria leptoneura*
Microlejeunea diversiloba auct. non (Spruce) Müll. Frib. = *Lejeunea hibernica*
Microlejeunea hamatifolia (Hook.) Schiffn = *Drepanolejeunea hamatifolia*
Microlejeunea mandonii Steph. = *Lejeunea mandonii*
Mylia cuneifolia (Hook.) Mitt. = *Leptoscyphus cuneifolius*
Nardia hyalina (Lyell) Carrington = *Jungermannia hyalina*
Pellia fabbronia Raddi = *Pellia endiviifolia*
Phaeoceros bulbiculosus (Brot.) Prosk. = *Phymatoceros bulbiculosus*
Phaeoceros laevis subsp. *carolinianus* (Michx.) Prosk.
= *Phaeoceros carolinianus*
Phragmicoma mackaii (Hook.) Dumort. = *Marchesinia mackaii*
Plagiochasma aitonii Lindb. & N. ab E. = *Plagiochasma rupestre*
Plagiochila castellonis Gottsche ex Steph. = *Plagiochila stricta*
Plagiochila corniculata auct. = *Plagiochila exigua*
Plagiochila dubia Lindb. & Gottsche = *Plagiochila virginica*
Plagiochila killarniensis Pears. = *Plagiochila bifaria*
Plagiochila mandonii Gottsche ex Steph. = *Plagiochila stricta*

Plagiochila owenii (Steph.) Macvic. = *Plagiochila punctata*
Plagiochila spinulosa var. *macaronesiana* P. & V. Allorge = *Plagiochila bifaria*
Plagiochila tridenticulata auct. = *Plagiochila exigua*
Plectocolea crenulata (Sm.) A. Evans = *Jungermannia gracillima*
Plectocolea hyalina (Lyell) Mitt. = *Jungermannia hyalina*
Prionolobus turneri (Hook.) Schiffn. = *Cephaloziella turneri*
Radula bornmülleri Schiffn. = *Radula lindenbergiana*
Radula limbata Schiffn. = *Radula wichurae*
Radula physoloba Mont. = *Radula aquilegia*
Reboulia maderensis Raddi = *Reboulia hemisphaerica*
Riccardia sinuata (Hook.) Trev. = *Riccardia chamedryfolia*
Riccia atromarginata var. *glabra* Levier ex Müll. Frib. = *Riccia trabutiana*
Riccia bischoffii Huebener = *Riccia ciliifera*
Riccia commutata J.B. Jack ex Levier = *Riccia warnstorffii*
Riccia glauca fo. *ciliata* L. = *Riccia glauca*
Riccia glauca var. *ciliata* L. = *Riccia glauca*
Riccia glauca var. *commutata* Jack ex Levier = *Riccia warnstorffii*
Riccia insularis Levier = *Riccia sorocarpa*
Riccia minutissima Steph. = *Riccia bifurca*
Saccogyna viticulosa var. *minor* Nees = *Saccogyna viticulosa*
Sarcoscyphus ehrhertii Corda = *Marsupella emarginata*
Scapania dentata (Dumort.) Dumort. = *Scapania undulata*
Scapania nemorosa (L.) Dumort. = *Scapania nemorea*
Scapania nemorosa var. *purpurascens* (Hook.) Gottsche = *Scapania nemorea*
Scapania nemorosa var. *maderensis* Gottsche = *Scapania nemorea*
Scapania undulata var. *dentata* (Dumort.) K. Müll = *Scapania undulata*
Solenostoma crenulatum (Sm.) Mitt. = *Jungermannia gracillima*
Solenostoma hyalina (Lyell) Mitt. = *Jungermannia hyalina*
Solenostoma lanceolata sensu Steph. = *Jungermannia leiantha*
Solenostoma triste (Nees) Müll. Frib. = *Jungermannia atrovirens*
Southbya stillicidiorum (De Not.) Lindb. = *Southbya tophacea*
Sedgwickia hemispherica Bowdich = *Reboulia hemisphaerica*
Targionia michelii Raddi = *Targionia hypophylla*
Trigonanthus connivens Dicks. = *Cephalozia connivens*

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