

# STUDIES ON COLOMBIAN CRYPTOGAMS IV A CATALOGUE OF THE HEPATICAE OF COLOMBIA

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## INTRODUCTION

- The main purpose of this catalogue is to provide a complete listing of the species of liverworts hitherto known from Colombia and to summarize our present knowledge of species distribution within the country. It was prepared parallel to a catalogue of the mosses (*Musci*), which is being published elsewhere (Florschütz & Waard in press). The data were extracted from the available literature and from unpublished determinations of collections from U and COL, made in Colombia by A.M. Cleef (Utrecht), T. van der Hammen (Amsterdam), H. Bischler (Paris) and others. While the first author is responsible for the taxonomy and nomenclature of the taxa, the second author is responsible for the data on species distribution and collecting.
- The literature on Colombian liverworts is rather scattered and as a primary source of information the bibliography on Latin American liverworts by Fulford (1963) is indispensable. Additional references relevant to Colombia were listed by Robinson (1967a), who also provided a short survey of bryological collecting in the area. Apparently the oldest Colombian liverwort collections are from Mt. Quindío, where Humboldt & Bonpland in 1800–01 gathered a few specimens described by Hooker (1819–20) and Kunth (1822), e.g. *Jungermannia crispata* Hook. (= *Porella crispata* (Hook.) Trevis. and *J. subrotunda* Kunth (= *Symbiezidium subrotundum* (Kunth) Trevis.). Most of the Colombian liverwort species listed by Kunth (l.c.) are now considered to be exclusively northern temperate in distribution, e.g. *Jungermannia serpyllifolia* Dicks. (= *Lejeunea patens* Lindb.) and *J. tamarisci* L. (= *Frullania tamarisci* (L.) Raddi), but the specimens on which these questionable records were based have not yet been revised.
- While the *Synopsis Hepaticarum* (Gott sche, Lindenberg & Nees 1844–47) incorporated the few early 19th century records, the first major work on Colombian liverworts was by Gott sche (1864) on the Lindig, Cuervo & Schlim collections. Many new taxa were described in this paper, some of which are bound to remain

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obscure because the holotype material was destroyed by fire with the bombing of the Berlin herbarium in 1945, while type material kept in BOG (Bogotá) was burned in 1948.

- Later 19th century collections e.g. those made by Wallis, were studied by Jack & Stephani (1892) and by Stephani, who incorporated previous records and many new ones in his 6-volume treatise of the world's liverwort species (Stephani 1898–1924). Unfortunately the citation of species distribution in this work is rather imprecise and sometimes incorrect as later authors have pointed out.
- More recent floristic papers include those by Herzog (1934, 1955) on the Troll, Killip and A. C. Smith collections, by Bischler (1962a,b) on her own collections, and by Robinson (1967a) on the Cuatrecasas and King collections. Important additional records were published by Bischler (1962–69) in her taxonomic revisions of South American *Calypogeia*, *Microlejeunea*, *Drepanolejeunea* and *Leptolejeunea*, and by Fulford (1963–1976) in the volumes of the *Manual of the leafy Hepaticae of Latin America* so far published. Finally, recent ecological studies in the area by Winkler (1970, 1976) and Gradstein, Cleef and Fulford (1977) have added to our knowledge of the Colombian liverwort flora.
- The data available show that our floristic knowledge of the country is still very incomplete. Most of the liverwort collecting was done in the Eastern Cordillera, especially in the Department of Cundinamarca including the vicinity of Bogotá. Fewer collections are available from the Central Cordillera and from the isolated Sierra Nevada de Santa Marta, whereas the Western Cordillera on the edge of the Pacific coast remains nearly unexplored. The same is true for the vast lowland rainforest areas on the Pacific, Caribbean and Amazonian sides of the Cordilleras, where some collecting was done by e.g. Schultes and Idrobo (Amazonia), Winkler (Chocó) and by Hélène Bischler to whom we owe the single most extensive hepatological exploration of the country. A complete list of liverwort collectors and departments explored by them is provided below.
- Several collectors have explored the Amazonian frontier areas now belonging to Venezuela, Brazil, Ecuador or Peru, e.g. Martius, Spruce and von Luetzelburg. Published records from these explorations have been incorporated in our species list only if it could be ascertained that the collections were actually made in Colombia. Thus, the bulk of the Amazonian records by Spruce (1884–85) was not included, although part of his specimens from the headwaters of the Río Negro possibly came from the Colombian side of the river. It is obvious that species recorded from areas in adjacent countries may also occur in Colombia and therefore we anticipate to include some of the frontier area records in future supplements of this catalogue.
- The species list documents published records by author, year, page of publication and illustration if provided; it is also indicated whether the record constituted a new taxon and/or whether it was published under a different name. Previously unpublished records are cited (in *italics*) if they constitute the first record for the

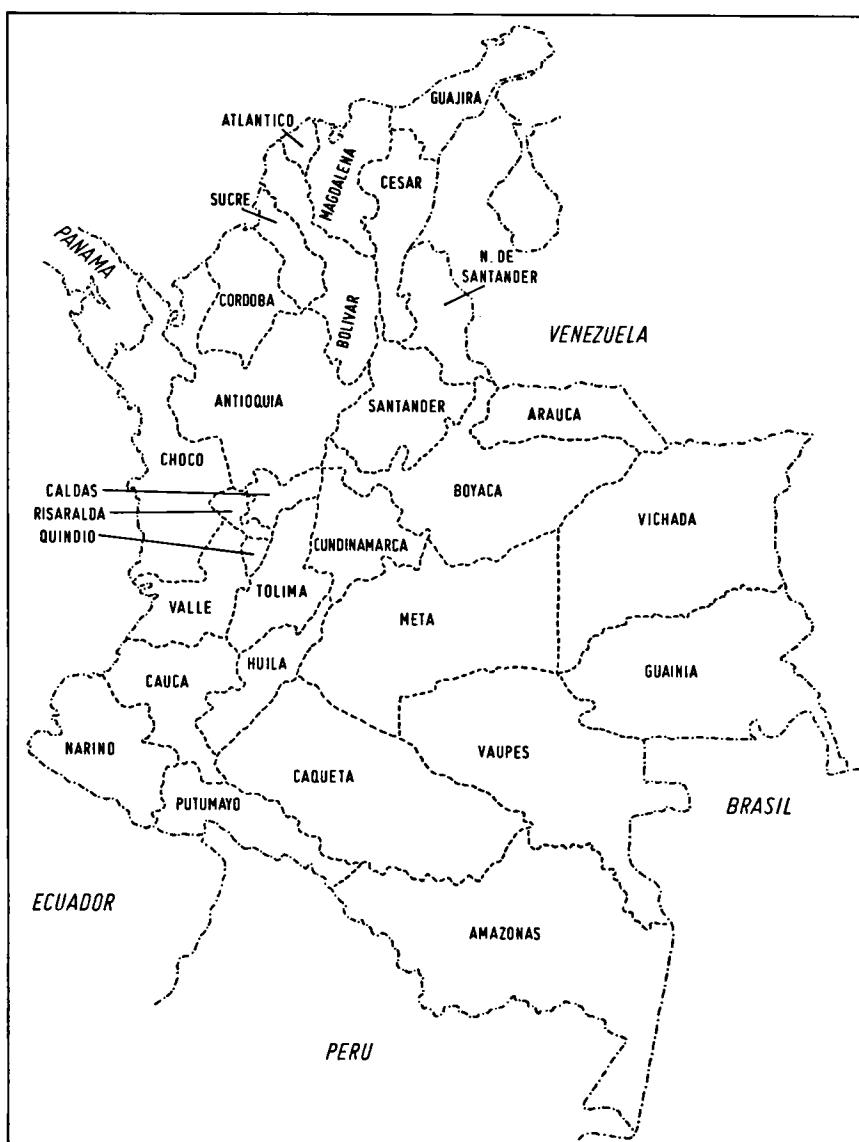


FIG. 1. Departmental subdivision of Colombia according to Latorre (1971).

country or a department (identifications by the first author unless otherwise stated).  Nomenclature follows the latest taxonomic works; a census of relevant generic revisions is given with the Systematic Arrangement of the Genera. Intraspecific taxa are listed separately except for forms, which usually constitute mere habitat modifications such as those described by Herzog and Gottsche. The forms have been mentioned under the individual records, though we have come across a con-

siderable number of varietal names, mostly by Gottsche (1864), which were neglected in later taxonomic works. In case of species name change we have preferred to list these varieties by their original names under the new species name, without proposing new combinations.

- The Colombian localities are cited by Department (see Fig. 1); if no (exact) locality is given, the species is cited as "S.L." (sine loco). The many 19th century records from "Nova Granada" published e.g. in the *Species Hepaticarum* (Stephani 1898–1924) present a special problem, because they may originate from Ecuador, Peru, Colombia or Venezuela. Those based on Moritz collections (e.g. Hampe 1847) have been excluded from our list because Moritz apparently collected only bryophytes in Venezuela (e.g. Caracas, Tovar, Merida). Similarly, most of the Fendler and Jameson records were not included, except for a few of them (see Index of Collectors). Specimens collected by Jameson from "Pillzum, Colombia" have been excluded following Evans (1925a, sub *Sympygyna atronervia* Jameson), who suggested that "Pillzum" is probably erroneous for Pillun, near Cuenca, Ecuador.
- A useful tool for tracing Colombian records was the *Index Hepaticarum* (Bonner 1962–1978), which confirmed many of the doubtful earlier records, because it cites in full the locality of authentic material. In such cases, or in order to document relevant synonymy the Bonner reference was included in the species list.
- References to the *Species Hepaticarum* are given only if they constitute the first or only record for Colombia.
- For relating localities to departments we have used the *Diccionario geográfico de Colombia* (Latorre 1971). The department of Boyacá is for practical reasons defined in the traditional broad sense, including the recently created department of Casanare. Specimens collected by Bischler and by van der Hammen & Jaramillo-M. in the vicinity of the headwaters of Rio Casanare mostly are from this new department. If the locality is located on the border of several departments, all are cited: e.g. "Quindío, Risaralda, Tolima" for Mt. Quindío and "Cesar, Guajira, Magdalena" for the Sierra Nevada de Santa Marta.
- It goes without saying that the present catalogue is likely to contain errors and omissions even so because standard reference works such as *Index Muscorum* are lacking for hepatics. Additional references and corrections brought to our attention will be very much appreciated and shall be incorporated in future supplements.

#### INDEX OF COLLECTORS

This index lists the collectors of Colombian liverworts up to 1977. It was compiled on the basis of published and unpublished locality data of specimens. Useful additional information was derived from Linden & Planchon (1863), Urban (1917), Verdoorn (1945), Barkley (1949) and Florschütz & Florschütz-de Waard (in press).

Collectors	Year(s)	Department where liverwhorts been collected
Steere, W.C.	1942	Norte de Santander
Triana, J.J.	1851-57	Cundinamarca, Quindío, Risaralda, Tolima
Triana, J.J. & Planchon, J.E.	1851-57	Quindío, Risaralda, Tolima
Troll, C.	1928-29	Cundinamarca
Wallace, A.R.	1851-52	Antioquia, s.l.
Wallis, G.	1872-74	Antioquia, Caldas, Norte de Santander, Tolima
Weir, J.	1863-64	Cundinamarca
Weverley	?	Cundinamarca
Winkler, S.	1967	Cesar, Chocó, Guajira, Magdalena
Woronow, G.	1926	Caquetá
<i>Doubtful:</i>		
Goethart, J.W.C.	?	Nova Granada (Bonner (1962a) 125)
Micholitz (see Urban in Beih. Bot. Centralbl. 34: 308. 1917: only col- lections from Indomalesia)	1901	Santander, Tolima (Bonner (1965) 270, 452, (1966) 661)
Thaxter, R.	1858-1932	s.l. (Fulford (1945) 382)
Weiss,	?	"Andes Bogotenses" (Hässel de Menéndez (1961) 276; Swails (1970) 211)

#### SYSTEMATIC ARRANGEMENT OF THE GENERA

The system given below classifies the liverwort genera of Colombia according to their supposed systematic relationships. The classification is largely based on Schuster 1966a, which provides the most recent comprehensive system of the Hepaticae and Anthocerotae. Alterations mainly concern the delimitation of the suborders, which follows Grolle 1976, the nomenclature of the families, which follows Grolle 1972c, and the sequence of the genera within the families, especially within Lejeuneaceae, which reflects some of the author's personal viewpoints.

□ Schuster's system is based on the evolutionary viewpoint that erect, foliose liverworts with large underleaves (e.g. *Herbertus* and *Isotachis*) are primitive whereas creeping, foliose liverworts with reduced underleaves (e.g. *Jungermannia* and the Lejeuneaceae) and thallose liverworts are more advanced. Similar views were held by e.g. R. von Wettstein, A. W. Evans and M. H. Fulford whereas others, e.g. Grolle (1972c, 1976), claim the opposite. The Marchantiales with their allies are now considered to represent an independent line of evolution, based on the shape of the premeiotic spore mothercells, which is round in the marchantioid line and deeply four-lobed in the jungermannioid line. The Anthocerotopsida are kept as a class within the Hepaticae, although they were recently placed in a separate division by Schuster (1977) and Stotler & Crandall-Stotler (1977).

□ The classification of higher taxa accepted here in some ways resembles the old classification of tropical South American liverworts by Spruce (1884-85), especially

the delimitation of the suborders. A comparison of the two systems is given below.

Spruce 1884-85	Present system
Order Hepaticae	Subdivision Hepaticae
Suborder Jungermanniaceae	Class Hepaticopsida
Tribus I Jubuleae	Subclass Jungermanniidae
Tribus II Jungermanieae	Order Jungermanniales
Subtribus 1. Raduleae	Suborder 1. Jubulineae
2. Porellaeae	2. Radulineae
3. Ptilidieae	3. Pleuroziinae
4. Trigonantheae	4. Porelliinae
5. Scapanioideae	5. Ptilidiinae
6. Epigoniantheae	6. Lepidoziinae
7. Fossombronieae	7. Jungermanniinaeae (incl. Scapanioideae sensu Spruce)
8. Metzgerieae	Order Metzgeriales
Suborder Marchantiaceae	Suborder Codoniinaeae
Suborder Ricciaceae	Suborder Metzgeriinaeae (incl. Fossom- bronieae sensu Spruce p.p.)
Suborder Anthocerotaceae	Subclass Marchantiidae
	Order Monocleales
	Order Marchantiales
	Suborder Marchantiinaeae
	Suborder Ricciinaeae
	Class Anthocerotopsida

In the generic classification references are given to relevant taxonomic treatments or keys to the Colombian species. Most of this literature dates from the last 25 years; older revisions are scarce. Treatments in preparation are also indicated just to illustrate where the gaps in our present knowledge are. It thus appears that the biggest groups of Colombian liverworts that need revisionary studies are the Aneuraceae, the Anthocerotaceae, *Frullania* and, above all, the Lejeuneaceae.

**Subdivision HEPATICA  
Class HEPATICOPSIDA  
Subclass JUNGERMANNIIDEAE**

## Order JUNGERMANNIALES

## **Suborder Ptilidiineae**

1. **Herbertaceae K. Müll.**  
*Herbertus* S. Gray (Fulford 1963)  
*Triandrophylum* Fulf. & Hatch. (Fulford 1963; Solari 1973)
  2. **Balantiopsaceae Buch**  
*Isotachis* (Lehm. & Lindenb.) Gott. (Hatcher 1960; Fulford 1963)  
*Neesioscyphus* Grolle (Grolle 1964a, 1966)
  3. **Lepicoleaceae Schust.**  
*Lepicolea* Dum. (Fulford 1963)

## 4. Pseudolepicoleaceae Fulf. &amp; J. Tayl.

*Blepharostoma* Dum. (Schuster 1966a)*Chaetocolea* Spruce (Fulford 1963)

## 5. Trichocoleaceae Nakai

*Trichocolea* Dum. (Fulford 1963)

## Suborder Lepidoziineae

## 6. Lepidoziaceae Limpr.

*Bonneria* Fulf. & J. Tayl. (Fulford 1966)*Kurzia* von Martens (Fulford 1966, sub *Microlepidozia*)*Lepidozia* Dum. (Fulford 1966)*Telaranea* Spruce (Fulford 1966)*Arachniopsis* Spruce (Fulford 1968)*Zoopsis* Hook. f. & Tayl. (Fulford 1968)*Pseudocephalozia* (Schuster & Engel 1974)*Micropterygium* Lindenb. (Reimers 1933; Fulford 1966)*Bazzania* S. Gray (Fulford 1946, 1963)

## 7. Calypogeiacaeae (K. Müll.) H.W. Arn.

*Calypogeia* Raddi (Bischler 1962c, d, e; Fulford 1968)

## 8. Cephaloziaceae Migula

*Cephalozia* Dum. (Fulford 1968)*Nowellia* Mitt. (Fulford 1968; Grolle 1968; Robinson 1970)*Alobiellopsis* Fulf. (Fulford 1968; Schuster 1969)*Fuscocephaloziopsis* Fulf. (Fulford 1968)

## 9. Adelanthaceae (Joerg.) Grolle

*Adelanthus* Mitt. (Grolle 1972a)*Odontoschisma* Dum. (Fulford 1968)*Anomoclada* Spruce (Fulford 1968)

## 10. Cephaloziellaceae Douin

*Cephaloziella* (Spruce) Schiffn. (Fulford 1976)

## Suborder Jungermanniineae

## 11. Lophocoleaceae (Joerg.) Van den Berghen

*Clasmatocolea* Spruce (Engel, in prep.)*Lophocolea* Dum. (Fulford 1976)*Heteroscyphus* Schiffn. (Fulford 1976)*Leptoscyphus* Mitt. (Grolle 1962; Fulford 1976)

## 12. Plagiochilaceae (Joerg.) K. Müll.

*Plagiochila* Dum. (Inoue, in prep.)*Plagiochilion* Hatt. (Inoue 1964)*Syzygiella* Spruce (Inoue 1966, 1974; Robinson 1967b)

## 13. Arnelliaceae Nakai

*Gongylanthus* Nees

## 14. Acrobolbaceae Hodgs.

*Lethocolea* Mitt. (Grolle 1965)*Tylimanthus* Mitt.

## 15. Jungermanniaceae Reichenb.

*Lophozia* Dum.*Anastrophyllum* (Spruce) Steph. (Váña, in prep.)*Cryptochila* Schust. (Grolle 1971)*Jamesoniella* (Spruce) Carringt. (Grolle 1971)*Jungermannia* L. (Váña 1973, 1974, 1974a, 1975)*Nardia* S. Gray (Váña 1976a)

16. *Gymnomitriaceae* Klinggräff*Stephaniella* Jack (Schmitt & Winkler 1968)*Stephaniellidium* S. Winkler (Winkler 1969)*Marsupella* Durn. (Váňa, in prep.)*Gymnomitrium* Corda (Váňa 1976b)17. *Scapaniaceae* Migula*Scapania* Dum. (Herzog 1928)

## Suborder Radulineae

18. *Radulaceae* (Dum.) K. Müll.*Radula* Dum. (Castle 1936-1968)

## Suborder Pleuroziinae

19. *Pleuroziaceae* K. Müll.*Eopleurozia* Schust.

## Suborder Porelliinae

20. *Porellaceae* Cavers*Porella* L. (Swails 1970)

## Suborder Jubulineae

21. *Jubulaceae* Klinggräff*Frullania* Raddi (Stotler 1969: subg. *Frullania*; Clark & Svhla 1944-1952)*Jubula* Dum.22. *Lejeuneaceae* Cas.-Gil. (Schuster 1963 for older references to genera).a. Subfam. *Bryopteridoideae* (Stotl.) Gradst.*Bryopteris* (Nees) Lindenb. (Stotler & Crandall-Stotler 1974)b. Subfam. *Ptychanthoideae* Mizut.*Stictolejeunea* (Spruce) Schiffn.*Thysananthus* Lindenb. (Fulford 1941)*Mastigolejeunea* (Spruce) Schiffn.*Schiffneriolejeunea* Verdoorn (Gradstein 1974)*Brachiolejeunea* (Spruce) Schiffn.*Acrolejeunea* (Spruce) Schiffn. (Gradstein 1975)*Caudalejeunea* (Steph.) Schiffn.*Archilejeunea* (Spruce) Schiffn.*Neurolejeunea* (Spruce) Schiffn.*Marchesinia* S. Gray*Symbiezidium* Trevis. (Fulford 1942)*Lopholejeunea* (Spruce) Schiffn.*Dicranolejeunea* (Spruce) Schiffn.*Odontolejeunea* (Spruce) Schiffn.c. Subfam. *Lejeuneoideae* Mass.*Omphalanthus* Lindenb.*Leucolejeunea* Evans*Anoprolejeunea* (Spruce) Schiffn.*Cyrtolejeunea* Evans (Schuster 1970)*Cheilolejeunea* (Spruce) Schiffn. s.l. (Grolle, in prep.)*Pycnolejeunea* (Spruce) Schiffn.*Kingolejeunea* Robinson (Robinson 1967a)*Trachylejeunea* (Spruce) Schiffn.*Cystolejeunea* Evans*Macrolejeunea* (Spruce) Schiffn.*Sphaerolejeunea* Herz.*Hygrolejeunea* (Spruce) Schiffn.

- Taxilejeunea* (Spruce) Schiffn.  
*Crossotolejeunea* (Spruce) Schiffn.  
*Lejeunea* Lib.  
*Microlejeunea* (Spruce) Steph. (Bischler, Bonner & Miller 1963)  
*Rectolejeunea* Evans  
*Ceratolejeunea* (Spruce) Schiffn. (p.p.: Fulford 1945)  
*Cyclolejeunea* (Spruce) Schiffn.  
*Prionolejeunea* (Spruce) Schiffn.  
*Pictolejeunea* Grolle (Grolle 1977)  
*Harpalejeunea* (Spruce) Schiffn.  
*Leptolejeunea* (Spruce) Schiffn. (Bischler 1969)  
*Drepanolejeunea* (Spruce) Schiffn. (Bischler 1964, 1967)

d. Subfam. Cololejeunoideae Herz.

- Diplasiolejeunea* (Spruce) Schiffn.  
*Colura* Dum. (Jovet-Ast 1953, and additions)  
*Cololejeunea* (Spruce) Schiffn.  
*Aphanolejeunea* Evans (Schuster 1955)

Order METZGERIALES

Suborder Codoniinaeae

23. Codoniaceae Klinggräff

*Fossumbronia* Raddi

Suborder Metzgeriinaeae

24. Pelliaceae Klinggräff

*Noteroclada* Spruce

*Symphyogyna* Nees & Mont. (Evans 1925a, 1927)

*Jensenia* Lindb. (Hässel de Menéndez 1961; Grolle 1964)

25. Hymenophytaceae Schust.

*Hymenophyton* Dum. (Evans 1925b)

26. Aneuraceae Klinggräff

*Aneura* Dum.

*Riccardia* S. Gray

27. Metzgeriaceae Klinggräff

*Metzgeria* Raddi (Kuwahara 1976)

Subclass MARCHANTIIDAE

Order MONOCLEALES

28. Monocleaceae (Nees) Frank

*Monoclea* (Hässel de Menéndez 1962)

Order MARCHANTIALES

Suborder Marchantiinaeae

29. Targioniaceae Dum.

*Targionia* L. (Hässel de Ménendez 1962)

*Cyathodium* Kunze

30. Aytoniaceae Cavers

*Plagiochasma* Lehm. & Lindenb. (Bischler 1977)

*Asterella* P. Beauv. (Grolle, in prep.)

31. Marchantiaceae (Bisch.) Endlicher

*Marchantia* L. (Evans 1917)

*Dumortiera* Nees (Evans 1919)

32. Corsiniaceae Engl.

*Cronisia* Berk. (Jovet-Ast 1964; Vital 1974)

Suborder Ricciineae

33. Ricciaceae Reichenb.

*Riccia* L.

### Class ANTHOCEROTOPSIDA

Order ANTHOCEROTALES

34. Anthocerotaceae Dum.

*Anthoceros* L.

*Phaeoceros* Prosk.

*Aspiromitus* Steph.

*Dendroceros* Nees

*Megaceros* Campb.

### ALPHABETICAL SPECIES LIST<sup>2</sup>

\**Acrolejeunea emergens* (Mitt.) Steph. – NORTE DE SANTANDER: Bischler 2653 – Alt.: 150 m.

*Adelanthus corticolus* S. Winkler – MAGDALENA: Winkler (1976) 805, Abb. 4, sp. nov. – Alt.: 2500 m.

*A. crossii* Spruce – CAUCA: Stephani (1906–09) 381; Grolle (1972a) 354, Abb. 9a–c.

*A. decurvus* Mitt. – S.L. (“NOVA GRANDA”): Stephani (1905–09) 383.

*A. lindenbergianus* (Lehm.) Mitt. – ARAUCA: Grolle (1972a) 342, Abb. 5, 9d–p – CUNDINAMARCA: Gottsche (1864) 116, as *Plagiochila magellanica* Lindenb.; Gradstein, Cleef & Fulford (1977) 385 – META: e.g. Cleef 7715a – SANTANDER: van der Hammen & Jaramillo 1816 – TOLIMA: van der Hammen & Jaramillo 3285b – Alt.: 1800–4155 m.

*A. pittieri* (Steph.) Grolle – CUNDINAMARCA, HUILA, NORTE DE SANTANDER: Grolle (1972a) 337, Abb. 3 – Alt.: 3050–3200 m.

\**Albiellopsis dominicensis* (Spruce) Fulf. – VALLE: Cleef 2701 – Alt.: 250 m.

*Anastrophyllum adulterinum* (Gott.) Steph. var. *adulterinum* – CUNDINAMARCA: Gottsche (1864) 117, as *Jungermannia adulterina* Gott. sp. nov. – S.L.: Stephani (1901–05) 117 – Alt.: 2900 m.

Possibly belonging here: 1. *Jungermannia adulterina* var. *minuta* Gott. – CUNDINAMARCA, QUINDIO, RISARALDA, TOLIMA: Gottsche (1864) 118 – Alt.: 2200–2500 m. 2. *Jungermannia adulterina* var. *subserrulata* Gott. – CUNDINAMARCA: Gottsche (1864) 118 – Alt.: 2900 m.

*A. conforme* (Lindenb. & Gott.) Steph. – MAGDALENA: Winkler (1976) 807 – Alt.: 2200 m.

*A. gemmiferum* S. Winkler – MAGDALENA: Winkler (1976) 805, Abb. 4a–h, sp. nov. – Alt.: 4500 m.

*A. glaziovii* Steph. – MAGDALENA: Winkler (1976) 807 – Alt.: 2000 m.

\**A. gradsteinii* Váña – CUNDINAMARCA: Cleef & Jaramillo 4023, 4024 (det. Váña, as sp. nov.) – Alt.: 3750 m.

*A. leptodictyon* Herz. – CUNDINAMARCA: Herzog (1934) 86, Abb. 4, sp. nov. – Alt.: 2200–2400 m.

\**A. leucocephalum* (Tayl.) Spruce – ARAUCA: Cleef 9097 (det. Váña) – BOYACÁ: Cleef 8540 (det. Váña) – CAUCA: Cleef & Fernandez 598a (det. Váña) – CUNDINAMARCA: e.g. Cleef 282a (det. Váña) – META: Cleef 8201 (det. Váña) – Alt.: 3300–4250 m.

*A. leucostomum* (Tayl.) Steph. – ARAUCA: e.g. Cleef 8894 (det. Váña) – BOYACA: e.g. Cleef 4495 (det. Váña) – CALDAS: Robinson (1967a) 45 – CUNDINAMARCA: e.g. Cleef 205 (det. Váña) – MAGDALENA: Winkler (1976) 807 – META: e.g. Cleef 805 (det. Váña) – PUTUMAYO: Robinson (1967a) 45 – Alt. 2000–4510 m.

*A. minutirete* Herz. – CUNDINAMARCA: Herzog (1934) 85, Abb. 2c–f, sp. nov. – MAGDALENA: Winkler (1976) 807 – Alt.: 2000–3200 m.

*A. nigrescens* (Mitt.) Steph. – ANTIOQUIA: Robinson (1967a) 45 – CUNDINAMARCA: Gradstein, Cleef & Fulford (1977) 287 – MAGDALENA: Winkler (1976) 807 – META: e.g. Cleef 989 (det. Váña) –

<sup>2</sup> New records for Colombia are marked with an asterisk.

Alt. 2000–4320 m.

\**A. pusillum* Steph. – CALDAS: Cleef & 't Hart 2542b (det. Váňa) – CUNDINAMARCA: Bischler 1559 (det. Váňa) – META: Cleef 1163 (det. Váňa) – Alt.: 4040–4300 m.

*Aneura pinguis* (L.) Dum. – CESAR: Winkler (1976) 823, as *Riccardia pinguis* (L.) S. Gray – PUTUMAYO: Robinson (1967a) 56 – Alt.: 300–1900 m.

*Anomoclada mucosa* Spruce – VAUPES: Fulford (1968) 346, pl. 90, f. 1 – Alt.: 250 m.

*Anoplolejeunea conferta* (Meissn.) Evans – BOYACA: e.g. van der Hammen & Jaramillo 1704 – CAUCA: e.g. Cleef & Fernández 612b – CHOCO: Winkler (1970) 951 – CUNDINAMARCA: Gottsche (1864) 152, as *Lejeunea conferta* (Meissn.) Gott., Lindenb. & Nees; Gradstein (1975) 138; Gradstein, Cleef & Fulford (1977) 388 – MAGDALENA: Winkler (1976) 807 – TOLIMA: van der Hammen & Jaramillo 3378 – VALLE: Herzog (1955) 172 – Alt.: (100–) 1390–3700 m.

*Anthoceros granulatus* Gott. – CUNDINAMARCA: Gottsche (1864) 188 – Alt.: 2600 m.

*A. punctatus* L. – CUNDINAMARCA: Robinson (1967a) 57 – Alt.: 2500–2700 m.

*Aphanolejeunea exigua* Evans – MAGDALENA: Winkler (1976) 807 – Alt.: 2200 m.

*A. gracilis* Jov.-Ast – CHOCO: Winkler (1970) 951 – Alt.: ±100 m.

*A. kunertiana* Steph. – CHOCO: Winkler (1970) 951 – Alt.: ±100 m.

*A. sicaefolia* (Gott. ex Schiffn.) Evans – VALLE: Herzog (1955) 195 – Alt.: 200–500 m.

*A. verrucosa* Jov.-Ast – CHOCO: Winkler (1970) 951 – Alt.: ±100 m.

*Arachniopsis coactilis* Spruce – AMAZONAS, VAUPES: Fulford (1968) 362, pl. 96, f. 2 – The Colombian record of *A. diacantha* (Gradstein, Cleef & Fulford 1977) is erroneous and represents *Telaranea nematodes*.

*Archilejeunea juliformis* (Nees) Gradst. – AMAZONAS, CAQUETA “in monte Arara Coara”: Martius s.n., Nees in Martius (1833) 351, as *Jungermannia filiformis* Nees sp. nov.; Gradstein (1975) 126 – MAGDALENA: Winkler (1976) 822, as *Ptychocoleus juliformis* (Nees) Trevis. – Alt.: 250–3500 m.

The type is erroneously cited from Brazil by the authors; the type-locality now belongs to Columbia. In the original publication and in the *Index Hepaticarum* (1976: 146) the basionym is cited as “*Jungermannia filiformis*” Nees, which is a typographic error for “*Jungermannia juliformis*” Nees (fide Nees in sched. et in Gottsche, Lindenberg & Nees 1844–47) or “*Jungermannia iuliformis*”. Since *Archilejeunea juliformis* has consistently been misinterpreted by previous authors, the Winkler record probably concerns another species.

*A. leprieurii* (Mont.) Schiffn. – CHOCO: Winkler (1970) 951 – Alt.: ±100 m.

\**A. poreloides* (Spruce) Schiffn. – BOYACA: van der Hammen & Jaramillo 1717 – Alt.: 1000 m.

*Aspiromitus schlimmianus* Steph. – MAGDALENA: Bonner (1962a) 92 – Alt.: 4000 ft.

*Asterella lateralis* M.A. Howe – CAUCA: Robinson (1967a) 57 – Alt.: 1800 m.

*A. lindenbergiana* (Corda) Lindenb. – CUNDINAMARCA: Gottsche (1864) 187, as *Fimbriaria lindenbergiana* Corda – Alt.: 2400–2800 m.

*A. macropoda* (Spruce) Evans – SANTANDER: Herzog (1955) 158 – Alt.: 3200–3700 m.

*A. pringlei* Underw. (*Fimbriaria bakeri* Steph., Sp. Hep. 6: 11. 1917 syn. nov., fide R. Grolle in litt.) – MAGDALENA: Stephani l.c.

*Bazzania acanthostipa* Spruce – AMAZONAS, CAQUETA, VAUPES (Rio Apaporis): Fulford (1963) 166, f. 48 – Alt.: ±100–500 m.

*B. affinis* (Lindenb. & Gott.) Trevis. – CUNDINAMARCA, META: Fulford (1963) 120, f. 7.

*B. angustifolia* Herz. – VALLE: Herzog (1955) 166, f. 6., sp. nov. – Alt.: 1700–2000 m.

*B. arcuata* (Lindenb. & Gott.) Trevis. – AMAZONAS, CAQUETA, VAUPES (Rio Apaporis): Fulford (1963) 146, f. 31 – CAUCA, HUILA: Bischler (1962a) 37 – MAGDALENA: Winkler (1976) 807 – Alt.: ±200–3630 m.

*B. aurescens* Spruce – AMAZONAS, VAUPES (Rio Apaporis): Fulford (1963) 129, f. 15 – Alt.: ±100–500 m.

*B. bidens* (Nees) Trevis. – VAUPES: Fulford (1963) 113, f. 1 – Alt.: ±200 m.

*B. boliviiana* (Steph.) Fulf. – ANTIOQUIA, VALLE: Bischler (1962b) 38 – CUNDINAMARCA, SANTANDER: Fulford (1963) 162, f. 45 – Alt.: 100–2800 m.

- B. breuteliania** (Lindenb. & Gott.) Trevis. – ANTIOQUIA, META, VALLE: Fulford (1963) 131, f. 17 – BOYACA, CAUCA: Bischler (1962b) 37 – CUNDINAMARCA: Gottsche (1864) 141, as *Mastigobryum cuervi* Gott. sp. nov.; Bischler l.c.; Fulford l.c. – NORTE DE SANTANDER: Herzog (1955) 168; Fulford l.c. – SANTANDER: Herzog l.c. – VAUPES: Fulford l.c.; Robinson (1967a) 44 – Alt.: 5–3000 m.
- B. canelensis** (Steph.) Fulf. – CAUCA, HUILA: Bischler (1962b) 38 – Alt.: 3530–3630 m.
- B. chilensis** (Steph.) Fulf. – CAUCA, HUILA: Bischler (1962b) 37 – CUNDINAMARCA: Stephani (1906–1909) 520 as *Mastigobryum bogotense* Steph.; Fulford (1963) 125, f. 11 – S.L. ("NOVA GRANADA"): Stephani (1906–09) 522, as *Mastigobryum chilense* Steph.; Fulford l.c. – Alt.: 2500–3630 m.
- B. chimborensis** Spruce – CHOCO: Bischler (1962b) 37 – VALLE: Bischler l.c.; Fulford (1963) 131, f. 18 – S.L. ("Cordillera occidental"): Fulford l.c. – Alt.: 70–300 m.
- B. crassidentata** Fulf. – CAUCA, HUILA: Bischler (1962b) 37 – VALLE: Fulford (1963) 143, f. 28 – Alt.: 3530–3630 m.
- B. cuneistipula** (Gott. & Lindenb.) Trevis. – CUNDINAMARCA: Bischler (1962b) 36 – QUINDIO, RISARALDA, TOLIMA: Gottsche (1864) 141, as *Mastigobryum brevifolium* Gott. sp. nov.; Fulford (1963) 116, f. 4 – Alt.: 2000–2500 m.
- B. diversicuspis** Spruce – CAUCA: Bischler (1962b) 37 – Alt.: 3200–3510 m.
- B. elongata** Fulf. – HUILA: Bischler (1962b) 37 – Alt.: 2420 m.
- B. falcula** (Lindenb.) Trevis. – CAUCA, CUNDINAMARCA, NORTE DE SANTANDER: Bischler (1962b) 38 – MAGDALENA: Winkler (1976) 807 – VALLE: Fulford (1963) 158, f. 42 – Alt.: 1000–3600 m.
- B. glaziovii** (Gott.) Fulf. – CHOCO, NORTE DE SANTANDER, VALLE: Bischler (1962b) 37 – VAUPES: Fulford (1963) 131, f. 6 – Alt.: 70–900 m.
- B. gracilis** (Hampe & Gott.) Steph. – AMAZONAS, META, VAUPES: Fulford (1963) 118, f. 6 – VALLE: Herzog (1955) 168 – Alt.: 100–2200 m.
- B. hookeri** (Lindenb.) Trevis. – BOYACA: Bischler (1962b) 39 – CAUCA: Bischler l.c.; Gradstein, Cleef & Fulford (1977) 388, f. 4 – CUNDINAMARCA: Herzog (1955) 168 – GUAJIRA, VAUPES: Fulford (1963) 159, f. 43 – NORTE DE SANTANDER: Bischler l.c.; Fulford l.c. – Alt.: 100–3300 m.
- B. jamaicensis** (Lehm. & Lindenb.) Trevis. – BOYACA, CAUCA: Bischler (1962b) 38 – MAGDALENA: Winkler (1976) 807 – Alt.: 2500–3510 m.
- B. latidens** (Gott.) Fulf. – VALLE: Robinson (1967a) 44 – Alt.: 3750 m.
- B. longistipula** (Lindenb.) Trevis. – ANTIOQUIA: Irmscher (1914) 995, as *Mastigobryum columbiculum* Steph. – CAUCA: Bischler (1962b) 38 – CUNDINAMARCA: Irmscher l.c.; Gradstein, Cleef & Fulford (1977) 388, f. 5 – GUAJIRA: Fulford (1946) 86 – NORTE DE SANTANDER: Fulford (1963) 136, f. 22 – SANTANDER, VALLE: Herzog (1955) 169 – Alt.: 750–3500 m.
- B. pallidivirens** (Steph.) Fulf. – AMAZONAS, CAQUETA, VAUPES (Rio Apaporis), VALLE: Fulford (1963) 121, f. 8 – BOYACA: Bischler (1962b) 38 – Alt.: ±100–2800 m.
- B. phyllobola** Spruce – AMAZONAS, CAQUETA, VAUPES (Rio Apaporis), VALLE: Fulford (1963) 113, f. 2 – CESAR, MAGDALENA: Winkler (1976) 807 – CUNDINAMARCA: Bischler (1962b) 36 – NORTE DE SANTANDER, SANTANDER: Herzog (1955) 169 – Alt.: ±100–2900 m.
- B. placophylla** (Tayl.) Grolle – CAUCA, HUILA: Bischler (1962b) 39 – Alt.: 3530–3630 m.
- B. quadricrenata** (Gott.) Trevis. – AMAZONAS, CAQUETA, VAUPES (Rio Apaporis): Fulford (1963) 128, f. 14 – NORTE DE SANTANDER: Bischler (1962b) 38 – Alt.: ±200–1600 m.
- B. robusta** Spruce – AMAZONAS, CAQUETA, VAUPES (Rio Apaporis): Fulford (1963) 160, f. 44 – CAUCA, HUILA: Bischler (1962b) 39; Robinson (1967a) 44 – CUNDINAMARCA: Bischler l.c. – META: Cleef 3715 – Alt.: ±100–3715 m.
- B. roraimensis** (Steph.) Fulf. – CAUCA, HUILA: Bischler (1962b) 36 – NORTE DE SANTANDER: Fulford (1963) 117., f. 5 – Alt.: 2910–3630 m.
- B. schlimiana** (Gott.) Fulf. – CAUCA, CUNDINAMARCA: Bischler (1962b) 39 – CESAR: Winkler (1976) 807 – GUAJIRA (Sierra Nevada de Santa Marta): Gottsche (1864) 140, as *Mastigobryum schlimianum* Gott. sp. nov.; Fulford (1963) 156, f. 41 – MAGDALENA: Winkler l.c. – NORTE DE SANTANDER: Fulford l.c. – PUTUMAYO: Robinson (1967a) 44 – VALLE: Bischler l.c.; Fulford l.c.

– Alt.: 650–3300 m.

**B. serrata** Fulf. – NORTE DE SANTANDER: Fulford (1963) 125., f. 10 – Alt.: 2150–2250 m.

**B. stolonifera** (Sw.) Trevis. – BOYACA: Bischler (1962b) 38 – Alt.: 2500–3000 m.

Possibly belonging here: *Mastigobryum stoloniferum* Lindenb. var. *granatensis* Gott. – CUNDINAMARCA: Gottsche (1864) 140, var. nov.

**B. taleana** (Gott.) Fulf. – CUNDINAMARCA: Bischler (1962b) 38 – Alt.: 2000–2500 m.

**B. tayloriana** (Mitt.) Kuntze – CUNDINAMARCA: Bischler (1962b) 39; Fulford (1963) 169, f. 53 – VALLE: Bischler l.c. – Alt.: 100–1300 m.

**B. teretiuscula** (Lindenb. & Gott.) Trevis. – CUNDINAMARCA: Stephani (1906–09) 520, sub *Mastigobryum humifusum* Spruce; Fulford (1946) 150 – MAGDALENA: Winkler (1976) 807 – META: Fulford (1963) 163, f. 47 – Alt.: 2160 m.

**B. tricuspidata** (Steph.) Fulf. – META: Fulford (1963) 136.

**Blepharostoma trichophyllum** (L.) Dum. – CUNDINAMARCA: Cleef 8402a – META: Cleef 8201a, 8202, 8212a – TOLIMA: Gradstein, Cleef & Fulford (1977) 389 – Alt.: 3100–3750 m.

**Bonneria bifida** (Steph.) Schust. – CUNDINAMARCA: Gradstein, Cleef & Fulford (1907) 405, as *Leucosarmentum portoricense* Fulf. – Alt.: 2850–3270 m.

**B. granatensis** (Gott.) Fulf. & J. Tayl. – CUNDINAMARCA: Gottsche (1864) 139, as *Lepidozia granatensis* Gott. sp. nov.; Herzog (1934) 94, as *Lepidozia granatensis* Gott.; Fulford (1966) 178, pl. 39, f. 1 – Alt.: 2900–3270 m.

**Brachiolejeunea columbica** Steph. – S.L.: Stephani (1917–24) 382; Bonner (1963a) 448.

**B. densifolia** (Raddi) Evans – CUNDINAMARCA: Gottsche (1864) 145, as *Phragmicoma bicolor* Nees – MAGDALENA: Winkler (1976) 807 – Alt.: 1100–2800 m.

**B. laxifolia** (Tayl.) Schiffn. – BOYACA: Bischler 1723 – CAUCA: Cleef & Fernandez 612 – CUNDINAMARCA: Robinson (1967a) 51; Gradstein, Cleef & Fulford (1977) 389, f. 6 – Herzog (1934) 95, as fo. *condensata* Herz. – NORTE DE SANTANDER: Herzog (1955) 176, as fo. *minor* Herz. – SANTANDER: Herzog (1955) 176 – TOLIMA: van der Hammen & Jaramillo 3375 – Alt.: 2030–3780 m.

**B. leiboldiana** (Lindenb. & Gott.) Schiffn. – S.L.: Schiffner (1894) 182, as *Phragmicoma leiboldiana* Lindenb. & Gott.

**B. liebmanniana** (Lindenb. & Gott.) Schiffn. – S.L.: Stephani (1909–12) 125; Bonner (1963a) 454.

**B. nitidiuscula** (Gott.) Schiffn. – BOYACA: e.g. Cleef 1889 (det. Gradstein & Fulford) – CUNDINAMARCA: Gottsche (1864) 145, as *Phragmicoma nitidiuscula* Gott. sp. nov.; Schiffner (1894) 166, as *Phragmicoma nitidiuscula* Gott.; Herzog (1934) 95, Abb. 8; Gradstein, Cleef & Fulford (1977) 390, f. 7 – META: Cleef 7780 – Alt.: 3400–4085 m.

**B. paramicola** Herz. – CUNDINAMARCA: Herzog (1934) 95. Abb. 8, sp. nov.

**B. rupestris** (Gott.) Steph. – CUNDINAMARCA: Gottsche (1864) 146, as *Phragmicoma rupestris* Gott. sp. nov. – Alt.: 2900 m.

**B. succisa** Steph. – SANTANDER: Herzog (1955) 176 – Alt.: 1500–2600 m.

**B. wrightii** Steph. – MAGDALENA: Winkler (1976) 807 – Alt.: 750 m.

**Bryolejeunea bogotensis** Hérib. in Bonner, nom. nud. – CUNDINAMARCA: Bonner (1963) 464.

*Bryolejeunea* (Spruce) Lacout. 1908 is reduced under *Bryopteris* (Nees) Lindenb. 1845.

**Bryopteris diffusa** (Sw.) Nees – S.L.: Stotler & Crandall-Stotler (1974) 71, div. figs.

**B. fruticulosa** Tayl. – CESAR, MAGDALENA: Winkler (1976) 808 – Alt.: 1500–1900 m.

**B. fruticulosa** Tayl. ssp. *fruticulosa* – CUNDINAMARCA: Stotler & Crandall-Stotler (1974) 103, div. figs. – PUTUMAYO, VALLE: Robinson (1967a) 51, fide Stotler & Crandall-Stotler l.c. – Alt.: 300–3000 m.

**B. fruticulosa** Tayl. ssp. *monoica* Stotler – CUNDINAMARCA: Gottsche (1864) 145, as *Bryopteris filicina* Nees var. *hookeriana* Nees; Stotler & Crandall-Stotler (1974) 116, div. figs. – MAGDALENA, SANTANDER: Stotler & Crandall-Stotler l.c. – Alt.: 1100–2200 m.

**B. trinitensis** (Lehm. & Lindenb.) Lehm. & Lindenb. – CUNDINAMARCA, META, VALLE, VAUPES: Stotler & Crandall-Stotler (1974) 130, div. figs. – Alt.: 2300 m.

**Calypogeia amazonica** (Spruce) Steph. – AMAZONAS, VAUPES: Fulford (1968) 307, pl. 75, f. 26 –

- ANTIOQUIA, NORTE DE SANTANDER, VALLE:** Bischler (1962e) 107, *f. 35* – Alt.: 200–2300 m.
- C. andicola** Bischler – BOYACA: *van der Hammen, Jaramillo & Murillo 1773* ("cf") – CAUCA, TOLIMA: Fulford (1968) 298, *pl. 72, f. 17* – CUNDINAMARCA: Fulford l.c.; Gradstein, Cleef & Fulford (1977) 390 – Alt.: 800–4100 m.
- C. caespitosa** (Spruce) Steph. – CAUCA, META, NORTE DE SANTANDER: Fulford (1968) 285, *pl. 67, f. 5* – CESAR: Winkler (1976) 808 – Alt.: 600–1900 m.
- C. crenulata** Bischl. – CUNDINAMARCA: Fulford (1968) 286, *pl. 67, f. 6*.
- C. cyclostipa** (Spruce) Steph. – CAUCA, CUNDINAMARCA: Gradstein, Cleef & Fulford (1977) 391, *f. 8* – TOLIMA: *van der Hammen & Jaramillo 3385* – Alt.: 1700–3600 m.
- C. densifolia** (Steph.) Steph. – AMAZONAS: Fulford (1968) 301, *pl. 73, f. 22* – Alt.: 200–250 m.
- C. laxa** Gott. & Lindenb. – ANTIOQUIA, CUNDINAMARCA: Fulford (1968) 305, *pl. 74, f. 25* – Alt.: 3200 m.
- C. lechleri** (Steph.) Steph. – AMAZONAS: Fulford (1968) 303, *pl. 74, f. 23* – NORTE DE SANTANDER: (1962e) 98, *f. 31* – Alt.: 1000 m.
- C. parallelogramma** (Spruce) Steph. – META: Fulford (1968) 287, *pl. 68, f. 8* – Alt.: 1700 m.
- C. peruviana** Nees & Mont. – BOYACA: Bischler (1962d) 63, *f. 17* – CAUCA, META, PUTUMAYO: Fulford (1968) 292, *pl. 70, f. 13* – CUNDINAMARCA: Gottsche (1864) 139, det. as *C. trichomanis* Corda; Stephani (1906–09) 403, as *C. biapiculata* (Spruce) Steph.; Bischler l.c.; Fulford l.c.; Gradstein, Cleef & Fulford (1977) 391, *f. 9* – MAGDALENA: Winkler (1976) 808 as *C. heterophylla* (Steph.) Steph. – HUILA, NORTE DE SANTANDER: Bischler l.c.; Bischler (1962d) 65, *f. 18*, as *C. heterophylla* (Steph.) Steph. var. *heterophylla* fo. *heterophylla* – Alt.: 250–3590 m.
- C. puiggarii** Steph. – MAGDALENA: Winkler (1976) 808 – Alt.: 2000 m.
- C. rhombifolia** (Spruce) Steph. var. *rhombifolia* – ANTIOQUIA, CHOCO, META: Bischler (1962e) 102, *f. 33*; Fulford (1968) 299, *pl. 73, f. 20* – Alt.: 350–1700 m.
- var. *colombiana* Bischler – VALLE: Bischler (1962e) 104, *f. 34*, var. nov.; Fulford (1968) 301, *pl. 73, f. 21*, as var. "colombica" – Alt.: 500–600 m.
- C. tenax** (Spruce) Steph. – AMAZONAS, VAUPES: Fulford (1968) 299, *pl. 72, f. 19* – Alt.: 250 m.
- Caudalejeunea lehmanniana** (Gott.) Evans – BOYACA: Bischler 2010 – CHOCO: Winkler (1970) 951 – Alt.: ±100 m.
- Cephalozia bicuspidata** (L.) Dum. – BOYACA: Fulford (1968) 317, *pl. 78, f. 5* – Alt.: 3800 m.
- C. bischlerae** Fulf. – CAUCA: Fulford (1968) 322, *pl. 80, f. 9*, sp. nov.; Bonner (1977) 838, as *C. "bischleri"* – META: Fulford l.c. – Alt.: ±2000–2910 m.
- \***C. caribbeania** Fulf. – NORTE DE SANTANDER: Bischler 222 (det. Váña) – Alt.: 2000–2400 m.
- C. connivens** (Dicks.) Lindenb. – QUINDIO, RISARALDA, TOLIMA: Kunth (1822) 41, as *Jungermannia connivens* Dicks.
- The Kunth reference represents the only record of this northern temperate species from Colombia and therefore most likely concerns another species of *Cephalozia*.
- C. crassifolia** (Lindenb. & Gott.) Fulf. – BOYACA: *van der Hammen & Jaramillo 1693 & 1719* – CUNDINAMARCA, META: Fulford (1968) 312, *pl. 77, f. 1* – Alt.: 1000–1800 m.
- C. crossii** Spruce – CAUCA: Stephani (1906–09) 309 – TOLIMA: Robinson (1967a) 50 – Alt.: 3160 m.
- \***C. dussii** Fulf. – BOYACA: e.g. Cleef 7273 & 8744a (det. Váña) – CUNDINAMARCA Cleef 745b (det. Fulford) – META: e.g. Cleef 1262 & 8192a (det. Váña) – TOLIMA: *van der Hammen & Jaramillo 3323 & 3334* (det. Váña) – Alt.: 2380–4100 m.
- C. evansioides** Douin – CALDAS, TOLIMA: Douin (1913) 480, sp. nov.
- Cephaloziella divaricata** (Smith) Schiffn. – CUNDINAMARCA: Herzog (1934) 92, Abb. 6, sp. nov.; Fulford (1976) 413, *pl. 114, f. 10* – Alt.: 3400 m.
- C. fragillima** (Spruce) Fulf. – CAUCA: Fulford (1976) 409, *pl. 112, f. 5* – Alt.: 3020–3330 m.
- C. granatensis** (Jack in Steph.) Fulf. – CALDAS, TOLIMA: Stephani (1906–09) 300, as *Cephalozia granatensis*; Fulford (1976) 411, *pl. 113, f. 9* – CAUCA: Fulford l.c. – CESAR: Winkler (1976) 808 – Alt.: 2500–4000 m.
- Ceratolejeunea cornuta** (Lindenb.) Schiffn. – S.L.: Fulford (1945) 388, *f. 74–81*.
- C. cubensis** (Mont.) Schiffn. – CHOCO: Winkler (1970) 951 – Alt.: ±100 m.

- C. globulifera* Herz. – CAUCA: Herzog (1942a) 23; Herzog (1955) 188 – Alt.: 1400–1500 m.
- C. grandiloba* Jack & Steph. 1892 (name published before validation of generic name) – ANTIOQUIA: Bonner (1953c) 197, f. 39–40 – S.L.: Bonner (1978) 565, as *Lejeunea grandiloba* (Jack & Steph.) Jack & Steph. – Alt.: 3000 m.
- C. guianensis* (Nees & Mont.) Steph. – CHOCO: Winkler (1970) 951 – Alt.: ±100 m.
- C. maritima* (Spruce) Steph. – CHOCO: Winkler (1970) 951 – MAGDALENA: Winkler (1976) 808 – PUTUMAYO: Robinson (1967a) 52 – VALLE: Fulford (1945) 385; Herzog (1955) 188, as *C. litoralis* Herz.; Robinson l.c. – Alt.: 0–2000 m.
- C. patentissima* (Hampe & Gott.) Evans – S.L.: Fulford (1945) 282, f. 38–44.
- C. platyceras* Steph. – VALLE: Herzog (1955) 188 – Alt.: 200–300 m.
- C. plumula* (Spruce) Steph. – CHOCO: Winkler (1970) 951 – Alt.: ±100 m.
- C. sacculosa* Herz. – CAUCA: Herzog (1942a) 20; Bonner (1953c) 235; Herzog (1955) 188 – VALLE: Herzog (1955) 188 – Alt.: 1400–2400 m.
- C. spinosa* (Gott.) Steph. – CHOCO: Winkler (1970) 951 – S.L.: Fulford (1945) 373, f. 9–15 – Alt.: ±100 m.
- Chaetocolea palmata* Spruce – TOLIMA: Gradstein, Cleef & Fulford (1977) 392 – Alt.: 2500–3100 m.
- Cheilolejeunea rigidula* (Nees & Mont.) Schust. – MAGDALENA: Winkler (1976) 810, as *Euosmolejeunea duriuscula* (Nees) Evans – Alt.: 2700 m.
- Clasmatocolea vermicularis* (Lehm.) Grolle – BOYACA: e.g. Cleef & Florschütz 5604 (det. Grolle) – CALDAS: Cleef & 't Hart 2441 (det. Grolle) – CAUCA: Gradstein, Cleef & Fulford (1977) 392 – SANTANDER: Herzog (1955) 164, f. 2e, as *Lophocolea elata* Gott. fo. *aquatica* Herz.; Grolle (1960) 78, t. 1–2 – Alt.: 3470–4520 m.
- Cololejeunea conchaeifolia* (Gott.) Gradst. comb. nov.; (*Lejeunea conchaeifolia* Gott., Ann. Scie. Nat. 5: 163, 1864; *Physocolea conchaeifolia* (Gott.) Steph. Spec. Hep. 5: 876, 1916) – CUNDINAMARCA: Gottsche l.c.; Stephani l.c. – Alt.: 2600 m.
- C. ensifolia* (Spruce) Herz. (Rev. Bryol. Lichén. 20: 174, 1951) – CHOCO: Winkler (1970) 951, as *Aphanolejeunea ensifolia*; MAGDALENA: Winkler (1976) 808 – Alt.: 50 m.  
The author citation “(Spr.) G. Beauverd”, given by Schiffner & Arnell (1964), is incorrect since Beauverd (in Stephani 1917–24) merely listed this name as a synonym.
- C. planifolia* (Evans) Schust. – CHOCO: Winkler (1970) 951, as *Leptocolea planifolia* Evans – Alt.: ±100 m.
- C. scabrifolia* Gott. ex Steph. – CHOCO: Winkler (1970) 951, as *Leptocolea scabrifolia* (Gott. ex Steph.) Evans – Alt.: ±100 m.
- Colura greig-smithii* Jov.-Ast – CHOCO: Winkler (1970) 951 – Alt.: ±100 m.
- C. patagonica* Jov.-Ast – BOYACA: Jovet-Ast (1976) 913, Pl. 3; Gradstein, Cleef & Fulford (1977) 394, f. 12 – Alt.: 3765 m.
- C. tenuicornis* Steph. – CUNDINAMARCA: Jovet-Ast (1953) 248, f. 30 – Alt.: 2300 m.
- C. tortifolia* (Nees & Mont.) Trevis. – CHOCO: Winkler (1970) 951 – Alt.: ±100 m.  
Possibly belonging here: *Lejeunea tortifolia* Nees & Mont. var. *granatensis* Gott. (taxon not treated by Jovet-Ast 1953) – CUNDINAMARCA: Gottsche (1864) 165, var. nov. – Alt.: 2200 m.
- C. ulei* Jov.-Ast – VALLE: Herzog (1955) 195.
- Cronisia paradoxa* (Wils. & Hook.) Berk. – META: Jovet-Ast (1963) 197, f. 3–5, as *Funicularia bischleriana* Jov.-Ast sp. nov.; Vital (1974) 276 – Alt.: 350 m.
- Crossotolejeunea angulata* S. Winkler – MAGDALENA: Winkler (1976) 808, Abb. 5a–c, sp. nov. – Alt.: 2160 m.
- C. bogotensis* Steph. – CUNDINAMARCA: Stephani (1912–17) 236 “Peruvia” (!); Bonner (1963b) 898.
- C. cavifolia* Steph. – Stephani (1912–17) 237; ANTIOQUIA: Bonner (1963b) 898.
- C. inflexiloba* Jack & Steph. 1892 (name published before validation of generic name) – ANTIOQUIA: Jack & Stephani (1892) 16; Bonner (1963b) 900 – Alt.: 3000 m.
- C. intricata* Jack & Steph. 1892 (name published before validation of generic name) – ANTIOQUIA: Jack & Stephani (1892) 17; Bonner (1963b) 900 – Alt.: ±3000 m.

- C. prionocalyx* Gott. ex Steph. – MAGDALENA: Winkler (1967) 808 – Alt.: 60 m.
- C. pustulosa-alata* Herz. – VALLE: Herzog (1955) 181, f. 17 l-o, sp. nov. – Alt.: 2100–2400 m.
- Cryptochila grandiflora* (Lindenb. & Gott.) Grolle – CESAR: Winkler (1976) 813, as *Jamesoniella grandiflora* (Lindenb. & Gott.) Spruce – CUNDINAMARCA: Herzog (1934) 84, as *Jamesoniella allionii* Steph. fo. *gracillima* Herz. fo. nov.; Robinson (1967a) 45, as *Jamesoniella grandiflora*; Grolle (1971) 19, Abb. 14 – VALLE: Hartman 242 – Alt.: 2800–3500 m.
- Cyathodium cavernarum* Kuntze – MAGDALENA: Winkler (1976) 898 – Alt.: 750 m.
- Cyclolejeunea accedens* (Gott.) Evans – VALLE: Robinson (1967a) 52 – Alt.: 5–2000 m.
- C. angulata* Herz. – CHOCO: Winkler (1970) 951 – Alt.: ± 100 m.
- C. angustistipa* (Steph.) Evans – CAUCA: Herzog (1955) 176 – CHOCO: Winkler (1970) 951 – Alt.: ± 100–1500 m.
- C. convexistipa* (Lehm. & Lindenb.) Evans – CAUCA, VALLE: Herzog (1955) 176 – CHOCO: Winkler (1970) 951 – Alt.: 100–1800 m.
- C. ocellata* – CHOCO: Winkler (1970) 951 – Alt.: ± 100 m.
- C. peruviana* (Lehm. & Lindenb.) Evans – CAUCA: Herzog (1955) 176 – CHOCO: Winkler (1970) 951 – VALLE: Herzog l.c.; Robinson (1967a) 52 – Alt.: 80–1800 m.
- Cytolejeunea holostipa* (Spruce) Evans – CUNDINAMARCA: van der Hammen & Jaramillo 1878 – MAGDALENA: Winkler (1976) 808 – VALLE: Herzog (1955) 172, 185 – Alt.: 0–3125 m.
- Cystolejeunea lineata* (Lehm. & Lindenb.) Evans – VALLE: Herzog (1955) 194 – Alt.: 200–300 m.
- Dendroceros* sp. – MAGDALENA: Winkler (1976) 810 – Alt.: 740 m.
- Dicranolejeunea axillaris* (Nees & Mont.) Schiffn. – BOYACA: van der Hammen, Jaramillo & Murillo 1763 – CUNDINAMARCA: Gottsche (1864) 151, as *Lejeunea axillaris* Nees & Mont.; Herzog (1934) 96; Robinson (1967a) 51 – HUILA: Cleef & van der Hammen 5104 – MAGDALENA: Winkler (1976) 810 – SANTANDER: Herzog (1955) 176 – TOLIMA: Robinson l.c. – Alt.: (1200–) 1500–2900 m. Possibly also belonging here: *Lejeunea axillaris* Nees & Mont. var. *lindigiana* Gott. – CUNDINAMARCA: Gottsche (1864) 151, var. nov. – Alt.: 2000 m.
- D. cipaonea* (Gott.) Steph. – CUNDINAMARCA: Gottsche (1864) 150, as *Lejeunea cipaonea* Gott. sp. nov. – Alt.: 3500 m.
- D. gigantea* Steph. – S.L. Stephani (1912–17) 160, sp. nov.
- D. grossiloba* Steph. – CHOCO: Winkler (1970) 951 – Alt.: ± 100 m.
- D. incongrua* (Lindenb. & Gott.) Steph. – CUNDINAMARCA: Herzog (1934) 96 – Alt.: 3200 m.
- D. loxensis* (Gott.) Steph. – MAGDALENA: Winkler (1976) 810 – META: Cleef 7880b – Alt.: 2500–3450 m.
- D. phyllorrhiza* (Nees) Schiffn. – SANTANDER: Gottsche (1864) 150, as *Lejeunea phyllorrhiza* (Nees) Nees – Alt.: 1200 m.
- D. tridentata* S. Winkler – MAGDALENA: Winkler (1976) 810, sp. nov. – Alt.: 2160 m.
- \**Diplasiolejeunea pauckertii* (Nees) Steph. – CUNDINAMARCA: Bischler 559 & 884 (det. Grolle).
- D. pellucida* (Meissn.) Schiffn. – CAUCA, SANTANDER: Herzog (1955) 195 – CHOCO: Winkler (1970) 951 – VALLE: Herzog l.c.; Robinson (1967a) 55 – Alt.: 0–2500 m. — var. *malleiformis* Evans – CHOCO: Winkler (1970) 951, as “*D. malleiformis*.”
- D. reflexiloba* (Gott.) Steph. – CUNDINAMARCA: Gottsche (1864) 164, as *Lejeunea reflexiloba* Gott., sp. nov.; Stephani (1912–17) 925.
- D. rudolphiana* (Spruce) Schiffn. – CHOCO: Winkler (1970) 951 – PUTUMAYO: Robinson (1967a) 55 – Alt.: ± 100–300 m.
- D. unidentata* (Lehm. & Lindenb.) Schiffn. – MAGDALENA: Winkler (1976) 810 – Alt.: 2550 m.
- Drepanolejeunea araucariae* Steph. var. *araucariae* CUNDINAMARCA, NORTE DE SANTANDER: Bischler (1964) 128, f. 25 – Alt.: 1300–1600 m.
- D. aurita* Bischler – CAUCA, HUILA: Bischler (1964) 146, f. 30, sp. nov. – Alt.: 3350–3450 m.
- D. bidens* Steph. – CHOCO: Winkler (1970) 951 – CUNDINAMARCA, NORTE DE SANTANDER: Bischler (1964) 107, f. 20 – Alt.: ± 100–1600 m.
- D. biocellata* Evans – CHOCO: Winkler (1970) 951 – CUNDINAMARCA, HUILA, NORTE DE SANTANDER:

- Bischler (1964) 57, f. 7 – Alt.: ± 100–2100 m.
- D. campanulata* (Spruce) Steph. – S.L.: Bischler (1964) 80, f. 13.
- D. crucianella* (Tayl.) Evans – CAUCA: Herzog (1955) 187 – CHOCO: Winkler (1970) 951 – NORTE DE SANTANDER: Bischler (1964) 88, f. 15 – VALLE: Herzog l.c.; Bischler l.c. – Alt.: 80–1600 m.
- D. granatensis* (Jack & Steph.) Bischler – ANTIOQUIA: Jack & Stephani (1892) 17, as *Harpalejeunea granatensis* sp. nov.; Bischler (1964) 150, f. 31 – Alt.: ± 3000 m.
- D. hamatifolia* (Hook.) Steph. – CUNDINAMARCA: Gottsche (1864) 155, as *Lejeunea hamatifolia* Dum. According to Bischler (1964: 163) *D. hamatifolia* is probably restricted to the atlantic coasts of Europe. The Colombian record thus remains doubtful until the specimen on which it was based (*Lindig* 1725) is found and revised.
- D. inchoata* (Meissn.) Steph. – ANTIOQUIA, CAUCA: Bischler (1964) 39, f. 3 – CHOCO: Winkler (1970) 951 – MAGDALENA: Winkler (1976) 1810 – VALLE: Herzog (1955) 185; Bischler l.c. – Alt.: 80–3000 m.
- var. *roraimae* (Steph. ex Zwickel) Bischler – VALLE: Herzog (1955) 185, as *D. roraimae* Zwickel; Bischler (1964) 48, f. 4 – Alt.: 1700–2200 m.
- D. lancifolia* (Gott.) Steph. – CUNDINAMARCA: Gottsche (1864) 155, as *Lejeunea lancifolia* Gott. sp. nov.; Bischler (1964) 161 – Alt.: 2200 m.
- D. lichenicola* (Spruce) Steph. – ANTIOQUIA, BOYACA, CAUCA, VALLE: Bischler (1964) 83, f. 4 – MAGDALENA: Winkler (1976) 810 – Alt.: 900–3000 m.
- D. mosenii* (Steph.) Bischler – CUNDINAMARCA, NORTE DE SANTANDER: Bischler (1967) 118, f. 8 – Alt.: 1300–2000 m.
- D. navicularis* Steph. – ANTIOQUIA, BOYACA, HUILA: Bischler (1964) 155, f. 33 – CAUCA: Gradstein, Cleef & Fulford (1977) 395, f. 13 – Alt.: 3000–3500 m.
- D. orthophylla* (Nees & Mont.) Bischler – BOYACA: Bischler (1964) 102, f. 4 – CAUCA: Herzog (1955) 187, f. 20, as *Dr. hamulata* Steph. var. *espinulosa* Herz. var. nov. – Alt.: 1400–2700 m.
- D. pterocalyx* (Herz.) Bischler – VALLE: Herzog (1955) 187, f. 20, as *Leptolejeunea pterocalyx* Herz. sp. nov.; Bischler (1967) 114, f. 7 – Alt.: 1600–1800 m.
- D. pungens* Bischler – CUNDINAMARCA: Bischler (1964) 104, f. 19, sp. nov.
- D. spinosa* Herz. – CAUCA, VALLE: Herzog (1955) 185, f. 19, sp. nov.; Bischler (1964) 53, f. 6 – Alt.: 1400–2400 m.
- D. subdissitifolia* Herz. – MAGDALENA: Winkler (1976) 810 – Alt.: 2200 m.
- Dumortiera hirsuta* (Sw.) Nees – CUNDINAMARCA: Gottsche (1864) 186; Herzog (1934) 80 – SANTANDER: van der Hammen & Jaramillo 1900 – TOLIMA: Robinson (1967a) 57 – VALLE: Hartman 232b – Alt.: 1500–3300 m.
- D. nepalensis* (Tayl.) Nees – CUNDINAMARCA: Evans (1919) 178.

*Eopleurozia paradoxa* (Jack) Schust. – NARINO: Jack (1886) 85, t. 10 – Alt.: ± 3000 m.

*Euosmolejeunea beyrichii* (Lindenb.) Steph. – MAGDALENA: Winkler (1976) 810 – Alt.: 2150 m.

*Euosmolejeunea* is treated as a synonym of *Cheilolejeunea* by recent authors (cf. Schuster (1955) 48; Mizutani (1961) 189). The Colombian taxa are currently being studied by R. Grolle.

*E. condensata* Spruce ex Steph. – S.L.: Stephani (1912–17) 585; Bonner (1965) 150, cf. sub *E. beyrichii*.

*E. fragrantissima* (Spruce) Steph. – SANTANDER: Herzog (1955) 193 – Alt.: 1500 m. cf. sub *E. beyrichii*.

— var. *columbica* Herz. – SANTANDER: Herzog (1955) 193, var. nov. – Alt.: 2300–2500 m.

*E. neglecta* Gott. ex Steph. – CESAR, MAGDALENA: Winkler (1976) 810 – Alt.: 1800–2800 m. cf. sub *E. beyrichii*.

*Fossombronia brasiliensis* Steph. – CESAR, MAGDALENA: Winkler (1976) 811 – Alt.: 3300–4200 m.

*F. lamellata* Steph. – MAGDALENA: Winkler (1976) 811 – Alt.: 750 m.

*F. paranapanemae* Schiffn. – CESAR: Winkler (1976) 811 – Alt.: 3000–4250 m.

*F. porphyryhiza* (Nees) Proskauer – CUNDINAMARCA: Gottsche (1864) 176, as *Androcryphia porphyryhiza*

- Nees – Alt.: 2800 m.
- Frullania apollinarii* Steph. – CUNDINAMARCA: Bonner (1965) 235 – Alt.: 2700 m.
- F. arecae* (Spreng.) Gott. – CESAR, MAGDALENA: Winkler (1976) 811 – CUNDINAMARCA: Gottsche (1864) 166, as *Fr. ecklonii* (Spreng.) Gott. & Lindenb. and *Fr. hians* Lehm. & Lindenb.; Robinson (1967a) 51 – CUNDINAMARCA, TOLIMA: Gottsche l.c., as *Fr. ecklonii* – SANTANDER: Herzog (1955) 171 – Alt.: 640–3140 m.
- F. armata* "Herz. et Cl." – CESAR, MAGDALENA: Winkler (1976) 811 – Alt.: 640 – 1900 m.
- F. arnellii* Steph. – S.L.: Bonner (1965) 237.
- F. atrata* (Sw.) Nees – CAUCA: Kunth (1822) 43, as *Jungermannia atrata* Sw. – MAGDALENA: Winkler (1976) 811 – Alt.: 2160 m.
- var. *flaccida* (Weber) Nees – CUNDINAMARCA: Gottsche (1864) 175 – Alt.: 2500 m.
- F. atrosanguinea* Tayl. – CALDAS: Herzog (1955) 171, as fo. *rotundifolia* (Steph.) – CUNDINAMARCA, TOLIMA: Robinson (1967a) 51 – Alt.: 3000–3470 m.
- F. beyrichiana* (Lehm. & Lindenb.) Lehm. & Lindenb. – ANTIOQUIA: Irmscher (1914) 996, as *Fr. coalita* Steph. – CUNDINAMARCA: Gottsche (1864) 174, as var. *granatensis* Gott. var. nov.; Irmscher (1914) 996, as *Fr. coalita* Steph. – Alt.: 1800–2100 m.
- F. bicornistipula* Spruce – S.L. ("NOVA GRANADA"): Stephani (1909–12) 510.
- var. *mucroloba* (Clark & Svhla) Clark & Svhla – NORTE DE SANTANDER: Clark & Svhla (1949) 134, as *Frullania mucroloba* Clark & Svhla sp. nov.; Clark & Svhla (1951) 124, comb. nov. – Alt.: 2000–2500 m.
- F. bogotensis* Steph. – CUNDINAMARCA: Stephani (1909–12) 327 – SANTANDER: Herzog (1955) 171 – Alt.: 1500 m.
- F. brasiliensis* Raddi – ANTIOQUIA: Stotler (1969) 438, f. 4a, 9–10 etc. – BOYACA: Gottsche (1864) 171, as *Fr. cylindrica* Lehm. var. *lindigii* Gott. fo. *laevior* Gott. fo. nov. – CALDAS, TOLIMA: Robinson (1967a) 51 – CESAR, MAGDALENA: Winkler (1976) 811, as *Fr. brasiliensis* & *Fr. spruceana* Steph. – CUNDINAMARCA: Gottsche l.c., as *Fr. cylindrica* var. *lindigii* fo. *lindigii*, fo. *brevicalicina* Gott. & fo. *laevior* Gott. fo. novae; Clark (1953) 140, as *Fr. spruceana* – VALLE: Herzog (1955) 71 – Alt.: 1650–3300 m.
- Possibly also belonging here: *F. cylindrica* var. *granatensis* Gott. – CUNDINAMARCA: Gottsche (1864) 171, var. nov. – Alt.: 2000 m.
- F. breuteliania* Gott. – CUNDINAMARCA, VALLE: Stotler (1969) 453, f. 160–167.
- F. campanensis* Spruce – S.L.: Stephani (1909–12) 332 (fide Bonner (1965) 258).
- F. clandestina* (Nees & Mont.) Nees – CAUCA: Stotler (1969) 448, f. 118–125.
- F. confertiloba* Steph. – SANTANDER: Bonner (1965) 270.
- Doubtful record: based on a coll. of Micholitz who was an explorer of Indomalesia.
- F. convoluta* Lindenb. & Hampe – PUTUMAYO: Robinson (1967a) 51 – Alt.: 2100 m.
- F. crenulifolia* Jack & Steph. – ANTIOQUIA: Jack & Stephani (1892) 14; Bonner (1965) 277 – Alt.: ± 3000 m.
- F. crinoidea* Spruce – CESAR, MAGDALENA: Winkler (1976) 811 – Alt.: 2900 m.
- F. cuencensis* Tayl. – SANTANDER: Herzog (1955) 171 – Alt.: 3100–3300 m.
- F. decidua* Spruce – S.L.: Bonner (1965) 284.
- F. ecuadorensis* Steph. – VALLE: Stotler (1969) 471, f. 297–303.
- F. ericoides* (Nees) Mont. – CUNDINAMARCA, SANTANDER: Gottsche (1864) 166, as *Fr. squarrosa* Nees – Alt.: 1100–2200 m.
- F. flexicaulis* Spruce – CAUCA: Stotler (1969) 463, f. 235–243.
- F. gibbosa* Nees – ANTIOQUIA: Irmscher (1914) 996 – CESAR, MAGDALENA: Winkler (1976) 811 – CUNDINAMARCA, SANTANDER: Gottsche (1864) 165 – Alt.: 750–2200 m.
- F. granatensis* Gott. – CUNDINAMARCA: Gottsche (1864) 173, sp. nov. – Alt.: 2100 m.
- F. gymnotis* Nees & Mont. – CESAR, MAGDALENA: Winkler (1976) 811 – Alt.: 1850–2750 m.
- F. harpantha* Herz. – CUNDINAMARCA: Herzog (1942) 571; Bonner (1965) 322 – Alt.: 2200–2400 m.
- F. intumescens* (Lehm. & Lindenb.) Lehm. & Lindenb. – ANTIOQUIA, TOLIMA: Irmscher (1914) 997,

as *Fr. longicollis* Lindenb. & Gott. — CESAR: Winkler (1976) 811, as *Fr. closterantha* Spruce — CUNDINAMARCA: Clark & Svhla (1952) 188; Stotler (1969) 444, f. 16–17, 21–23, etc. — MAGDALENA: Winkler l.c. — Alt.: 1900–2500 m.

- F. laxiflora* Spruce var. *crossii* Spruce — CAUCA: Spruce (1884) 27; Bonner (1965) 349.
- F. lechleri* Steph. — ANTIOQUIA: Irmscher (1914) 997 — Alt.: ±2500 m.
- F. lehmanniana* Gott. ex Steph. — S.L.: Bonner (1965) 350.
- F. lobato-hastata* Steph. — CUNDINAMARCA: Gradstein, Cleef & Fulford (1977) 395 — SANTANDER: Stotler (1969) 468, f. 274–282 — Alt.: 1800–3480 m.
- F. longipinna* Steph. — NORTE DE SANTANDER: Stephani (1909–12) 534; Bonner (1965) 355.
- F. macrocephala* (Lehm. & Lindenb.) Lehm. & Lindenb. — CUNDINAMARCA, VALLE: Stotler (1969) 439, f. 68–75.
- F. mathanii* Steph. — ANTIOQUIA, CUNDINAMARCA: Irmscher (1914) 997 — Alt.: 2300–3300 m.
- F. meridana* Steph. — CAUCA: Stotler (1969) 470, f. 283, 289.
- F. mirabilis* Jack & Steph. — VALLE: Herzog (1955) 171, f. 8 — S.L.: Jack & Stephani (1892) 15, sp. nov.; Clark & Svhla (1948a) 189, f. 1–14 — Alt.: 2100–2400 m.
- F. mucronata* (Lehm. & Lindenb.) Lehm. & Lindenb. — S.L.: Bonner (1965) 395, as *Fr. patens* Lindenb.
- F. nodulosa* (Reinw., Bl. & Nees) Nees — AMAZONAS, CAQUETA “in monte Arara-Coara”: Nees in Martius (1833) 369, as *Jungermannia replicata* Nees sp. nov. (syn. fide Clark & Svhla 1947). The type of *Jungermannia replicata* Nees 1833 was erroneously cited from Brazil; the type-locality belongs now to Colombia.
- F. obscura* (Sw.) Dum. — CAUCA: Kunth (1822) 43, as *Jungermannia obscura* Sw.
- F. occanniensis* Steph. — ANTIOQUIA: Irmscher (1914) 996; Stephani (1917–24) 542 — Alt.: 1900 m.
- F. pachoensis* Steph. — CUNDINAMARCA: Stephani (1909–12) 503; Bonner (1965) 390.
- F. paradoxa* Lehm. & Lindenb. — BOYACA, CAUCA, CUNDINAMARCA, VALLE: Stotler (1969) 455, f. 168–174 — QUINDIO, RISARALDA, TOLIMA (Mt. Quindío): Gottsche (1864) 175.
- F. pehlkeana* Steph. — CUNDINAMARCA: Stephani (1909–12) 340 — Alt.: ±2930 m.
- F. pendulostyla* Steph. — VALLE: Stotler (1969) 473, f. 311–317.  
Hattori (1973) reduced this species to a synonym of *F. mirabilis*.
- F. peruviana* Gott. — CUNDINAMARCA: Gottsche (1864) 175 (as “var. α” and “var. β”) — Alt.: 2500–3600 m.
- F. pluricarinata* Gott. — CUNDINAMARCA: Gottsche (1864) 168, sp. nov.; Clark & Svhla (1950) 121, f. 1–4 — MAGDALENA: Winkler (1976) 811 — Alt.: 2700–3300 m.
- F. repanda* Gott. — CUNDINAMARCA: Gottsche (1864) 175, sp. nov. — Alt.: ±2500 m.
- F. ringens* Spruce — S.L.: Bonner (1965) 415 — Alt.: 1200 m.
- F. riojaneirensis* (Raddi) Aongstr. 1876 (*Øfvers. K. Vet.-Akad. Förhandl.* 7: 88) — ANTIOQUIA: Irmscher (1914) 997 — CESAR, MAGDALENA: Winkler (1976) 811 — CUNDINAMARCA: Robinson (1967a) 51; Gradstein, Cleef & Fulford (1977) 396 — SANTANDER: Herzog (1955) 171, as *Fr. arietina* Tayl. — Alt.: 640–3800 m.  
The species is usually cited as “(Raddi) Spruce 1884”, but the Aongström citation is older.
- F. sabanetica* Gott. — CUNDINAMARCA: Gottsche (1864) 170, sp. nov.
- F. sebastianopolitana* Lindenb. “var. δ Gott.” — CUNDINAMARCA, SANTANDER: Gottsche (1864) 166, var. nov. — Alt.: 1100–2600 m.  
The species is reduced to synonymy under *Fr. riojaneirensis* (Raddi) Aongstr. (fide Spruce 1884: 23). However, the Lindig specimens described by Gottsche as “var. δ” are said to differ by the large and foliose stylus and therefore need further study.
- F. semiconnata* Lindenb. & Gott. var. *coronata* Gott. — CUNDINAMARCA: Gottsche (1864) 169, t. 20, f. 51, var. nov. — Alt.: 2650 m.  
— var. *granatensis* Gott. — CUNDINAMARCA: Gottsche (1864) 169, var. nov. — Alt.: 2200–2600 m.
- F. tamarisci* (L.) Dum. — S.L. (“in jugis Andium”): Kunth (1922) 43, as *Jungermannia tamarisci* L.  
According to Hattori (1972) this species is in America only known from temperate and subtropical portions of North America. The Kunth record from Colombia therefore probably concerns another species.

*F. tetraptera* Nees & Mont. – CUNDINAMARCA: Robinson (1967a) 51 – Alt.: 3140 m.

*F. tolimana* Steph. – TOLIMA: Bonner (1965) 452 – Alt.: 1268 m.

Doubtful record: based on a coll. of Micholitz who was an explorer of Indomalesia.

*F. transfalcicula* Clark & Svhla – CESAR: Winkler (1976) 812 – Alt.: 3000 m.

*F. trianae* Gott. – S.L.: Gottsche (1864) 173, sp. nov.

*F. trollii* Herz. – CUNDINAMARCA: Herzog (1942) 575; Bonner (1965) 455 – Alt.: 3000–3200 m.

*Fuscocephaloziopsis biloba* (Herz.) Fulf. – VALLE: Herzog (1955) 158, 166, f. 5, as *Alobiella biloba* Herzog sp. nov.; Fulford (1968) 355, pl. 93, f. 1 – Alt.: 60–100 m.

*Gongylanthus granatensis* (Gott.) Steph. – BOYACA: e.g. Cleef 4695a (det. Kruithof) – CAUCA, HUILA: Bischler 728 & 846 (det. Váña) – CUNDINAMARCA: Gottsche (1864) 138, t. 20, f. 50, as *Lindigina granatensis* Gott. sp. nov.; Herzog (1934) 82, as *Haplozia carnosa* Herz. sp. nov.; Váña (1974) 197 – TOLIMA: Gradstein, Cleef & Fulford (1977) 396, f. 14 – Alt.: 2900–3750 m.

*G. innovans* S. Winkler – BOYACA: Cleef 9385 (det. Kruithof) – CUNDINAMARCA: Cleef 6322 (det. Kruithof) – CESAR, MAGDALENA: Winkler (1969) 63, Abb. 2, sp. nov.; Winkler (1976) 812 – META: e.g. Cleef 1064 & 7834 (det. Kruithof) – Alt.: 3100–4300 m.

*G. liebmalianus* (Lindenb. & Gott.) Steph. – ARAUCA: e.g. Cleef 8906 (det. Váña & Grolle) – BOYACA: e.g. Cleef 2116a (det. Grolle) – CUNDINAMARCA: Herzog (1934) 82, Abb. 3, as *Haplozia cuculata* Herz.; Gradstein, Cleef & Fulford (1977) 396, f. 15 – Alt.: 3220–4320 m.

*Gymomitrium andinum* (Herz.) Herz. (Hedwigia 74: 81. 1934) – BOYACA: Cleef 4692 (det. Váña) – CESAR: Winkler (1976) 812 – Alt.: 3750–4200 m.

*G. andinum* Schust. 1966 (nom. illeg., non Herzog 1934) – CUNDINAMARCA: Stephani (1901–05) 165, as *Sphenolobus laceratus* Steph. sp. nov.; Schuster (1966) 278, sub *Sphenolobus laceratus* Steph.

*G. atrofilum* Váña – META: Vñaa (1976) 411, Abb. 1a–e, sp. nov. – Alt.: 4015 m.

*G. setaceum* Grolle & Váña – BOYACA, CUNDINAMARCA, MAGDALENA, META: Váña (1976) 411, Abb. 1m–q, 2, sp. nov. – Alt.: 3200–4300 m.

*G. truncato-apiculatum* Herz. – BOYACA: Cleef 4451a (det. Váña) – CUNDINAMARCA: Herzog (1934) 81, Abb. 2, sp. nov.; MAGDALENA: Winkler (1976) 812 – META: Cleef 7658a – Alt.: 3500–4300 m.

*Harpalejeunea acuta* S. Winkler – MAGDALENA: Winkler (1976) 812, Abb. 5g–i, sp. nov. – Alt.: 2550 m.

*H. ancistroides* (Spruce) Schiffn. – BOYACA: Cleef 2308 (cf.) – CUNDINAMARCA: Gradstein, Cleef & Fulford (1977) 397, f. 16 – Alt.: 3200–3765 m.

*H. buenaventurae* Herz. – VALLE: Herzog (1955) 183, f. 17a–d, sp. nov. – Alt.: ± 10 m.

*H. cinchonae* (Nees) Schiffn. – S.L. ("NOVA GRANADA"): Stephani (1912–17) 248.

*H. curvatiloba* Herz. – VALLE: Herzog (1955) 184, f. 18i–l, 23a–c – Alt.: ± 10 m.

*H. heterodonta* Evans – VALLE: Herzog (1955) 183 – Alt.: 2100–2400 m.

*H. subspathulata* (Spruce) Steph. – VALLE: Herzog (1955) 183, as fo. *turgidula* – Alt.: 2000–3000 m.

*H. tuberculata* Jack & Steph. 1892 (name published before validation of generic name) – ANTIOQUIA: Jack & Stephani (1892) 18, t. 3, f. 17–19 – Alt.: ± 3000 m.

*H. uncinata* Steph. var. *setulosa* Herz. – CAUCA, VALLE: Herzog (1955) 183, f. 17e–k, var. nov. – Alt.: 80–1500 m.

*Herbertus acanthelius* Spruce – ANTIOQUIA: Stephani (1909–12) 14, as *Schisma granatensis* Steph. sp. nov.; Fulford (1963) 99, f. 5 – CAUCA: Herzog (1955) 169 – CUNDINAMARCA: Herzog (1934) 94, as *Herberta granatensis* (Steph.) Herz.; Fulford 1.c. – VALLE: Robinson (1967a) 43 – Alt.: 2400–3800 m.

*H. divergens* (Steph.) Herz. – CESAR, MAGDALENA: Winkler (1976) 812 – Alt.: 1900–2900 m.

*H. grossispinus* (Steph.) Fulf. – MAGDALENA: Winkler (1976) 812 – VALLE: Fulford (1963) 98, f. 4 – Alt.: 2150–2750 m.

*H. juniperoides* (Sw.) Grolle – CUNDINAMARCA: Gottsche (1864) 142, as *Sendtnera juniperina* (Sw.) Nees – VALLE: Robinson (1967a) 43 – Alt.: 2200–3600 m.

*H. limbatus* (Steph.) Herz. – ANTIOQUIA: Stephani (1909–12) 18, as *Schisma wallisianum* Steph. sp.

nov. — CAUCA: Fulford (1963) 100, f. 7: Gradstein, Cleef & Fulford (1977) 397, f. 17 — CUNDINAMARCA: Fulford l.c.; Gradstein, Cleef & Fulford l.c. — Alt.: 2400–3910 m.

*H. oblongifolius* (Steph.) Gradst. & Cleef — ARAUCA: Gradstein, Cleef & Fulford (1977) 398, f. 31 — Alt.: 4065 m.

*H. pensilis* (Tayl.) Spruce — BOYACA: Cleef 9927 — VALLE: Herzog (1955) 169 — S.L.: Fulford (1963) 94, f. 2 — Alt.: 2150–3100 m.

*H. subdentatus* (Steph.) Fulf. — ANTIOQUIA: Fulford (1963) 104, f. 10 — Alt.: 3100 m.

*H. subnivalis* S. Winkler — MAGDALENA: Winkler (1976) 812 — Alt.: 3950 m.

*Herpetium scutigerum* Nees & Mont.

*Herpetium* Nees is a synonym of *Bazzania* S. Gray, but *H. scutigerum* Nees & Mont. has not yet been revised by Fulford (1946, 1963) or other authors. According to Dr. H. Bischler (pers. comm.), who checked the authentic material in the Montagne Herbarium (pc), it is definitely a species of *Bazzania*. The species has been recorded for Colombia by Bonner (1966: 605).

*Heteroscyphus marginatus* (Steph.) Fulf. — CAUCA: Fulford (1976) 491, pl. 143, f. 4 — META: Fulford l.c. (listed under Venezuela).

*H. polyblepharis* (Spruce) Schiffn. — CAUCA: Fulford (1976) 494, pl. 145, f. 7.

*Hygrolejeunea cerina* (Lehm. & Lindenb.) Steph. — CUNDINAMARCA: Herzog (1934) 97; Robinson (1967a) 53 — MAGDALENA: Winkler (1976) 813 — Alt.: 1800–2700 m.

*H. devoluta* (Spruce) Steph. — CHOCO: Winkler (1970) 951 — Alt.: ± 100 m.

*H. elongella* (Gott.) Steph. — CUNDINAMARCA: Gottsche (1864) 161, as *Lejeunea elongella* Gott. sp. nov.; Herzog (1934) 97 — Alt.: 2100–2400 m.

*H. flavicans* (Gott.) Steph. — CESAR: Winkler (1976) 813 — Alt.: 1900 m.

*H. grossereticulata* (Gott.) Steph. — MAGDALENA: Winkler (1976) 813 — Alt.: 2100 m.

*H. obtusiserrulata* Herz. — VALLE: Herzog (1955) 191, f. 22a-f, sp. nov. — Alt.: 200–300 m.

*H. pallida* (Lindenb. & Gott.) Steph. — MAGDALENA: Winkler (1976) 813 — Alt.: 2100 m.

*H. paramicola* Herz. — SANTANDER: Herzog (1955) 191, f. 22g-l, sp. nov. — Alt.: 3200 m.

*H. patellifera* (Spruce) Steph. — CESAR, MAGDALENA: Winkler (1976) 813 — Alt.: 2900 m.

*H. planiloba* Steph. — TOLIMA: Bonner (1966) 661 — Alt.: 1268 m.

Doubtful record: based on a coll. of Micholitz who was an explorer of Indomalesia.

*H. punctata* Herz. (*Lepidolejeunea punctata* (Herz.) Schust.) — CHOCO: Winkler (1970) 951 — Alt.: ± 100 m.

*H. reflexistipula* (Lehm. & Lindenb.) Steph. — CAUCA: Herzog (1955) 192 — Alt.: 1400–1500 m.

*H. sullivanti* (Gott.) Steph. — S.L. ("NOVA GRANADA"): Stephani (1912–17) 531; Bonner (1966) 666.

Possibly also belonging here: *Lejeunea sullivanti* Gott. var. *latrix* Gott. var. nov. — CUNDINAMARCA: Gottsche (1864) 152 — Alt.: 2500 m.

*Hymenophyton flabellatum* (La Bill.) Dum. (*H. divaricans* Mitt. in Bonner 1966: 672, nom. nud.) — CUNDINAMARCA: Evans (1925b) 504.

*Isotachis haematodes* (Lehm. & Lindenb.) Gott. — ANTIOQUIA, CAUCA: Fulford (1963) 71, f. 6a-d — MAGDALENA: Winkler (1976) 813 — Alt.: 2000–2250 m.

Colombian specimens included in *I. serrulata* by Gradstein, Cleef & Fulford (1977).

\**I. lacustris* Herz. — BOYACA: e.g. Cleef 7225 — Alt.: 3745–4325 m.

*I. lindigiana* Gott. — CAUCA: Gradstein, Cleef & Fulford (1977) 399, f. 18 — CUNDINAMARCA: Gottsche (1864) 123, sp. nov.; Herzog (1934) 94, as fo. *minor* Herz.; Fulford (1963) 73, f. 8a-e; Robinson (1967a) 44 — Alt.: 2900–3470 m.

*I. madida* (Hook. f. & Tayl.) Mitt. — ANTIOQUIA: Fulford (1963) 68, f. 4a-e — CUNDINAMARCA: Fulford l.c.; Robinson (1967a) 44. Colombian specimens included in *I. serrulata* by Gradstein, Cleef & Fulford (1977).

*I. musciformis* Gott. — CUNDINAMARCA: Stephani (1906–09) 666; Herzog (1934) 94 — Alt.: 3200–3400 m.

— var. *tenuior* Gott. — CUNDINAMARCA: Gottsche (1864) 124, var. nov. — Alt.: 2000–2900 m.

*I. multiceps* Gott. — BOYACA: Gradstein, Cleef & Fulford (1977) 399 — CAUCA: Fulford (1963) 66, f. 2

— CUNDINAMARCA: Fulford l.c.; Robinson (1967a) 44; Gradstein, Cleef & Fulford l.c. — MAGDALENA: Winkler (1976) 813 — META: Cleef 7717, 8138, 8193 — Alt.: 1250–4100 m.

— var. *fendleri* Gott. — CUNDINAMARCA: Gottsche (1864) 125, fide l.c. 124 (*Lindig* 2140), var. nov. — Alt.: 2900 m.

*I. serrulata* (Sw.) Gott. — ANTIOQUIA, CAQUETA, CAUCA, HUILA: Fulford (1963) 70, f. 5a — BOYACA, PUTUMAYO, TOLIMA: Robinson (1967a) 44 — CUNDINAMARCA: Fulford l.c.; Robinson l.c.; Gradstein, Cleef & Fulford (1977) 399 — MAGDALENA: Winkler (1976) 813 — Alt.: 1800–4450 m.

*I. tenax* Steph. — MAGDALENA: Winkler (1976) 813 — Alt.: 2200 m.

*Jamesoniella rubricaulis* (Nees) Grolle — ARAUCA, BOYACA (Sierra Nevada de Cocuy): Grolle (1971) 78, Abb. 21 — BOYACA: e.g. Cleef 7248 — CAUCA: Robinson (1967a) 45, as *J. colorata* (Lehm.) Spruce — CESAR, MAGDALENA: Winkler (1976) 813 as *J. colorata* — CUNDINAMARCA: Herzog (1934) 84, as *J. colorata*; Gradstein, Cleef & Fulford (1977) 400 — SANTANDER: Herzog (1955) as *J. colorata* — TOLIMA: van der Hammen & Jaramillo 3322 — Alt.: 2800–4500 m.

*J. undata* (Mont.) Steph. — CUNDINAMARCA: Herzog (1934) 85, as *J. paramicola* Herz. sp. nov.; Robinson (1967a) 45; Grolle (1971) 74, Abb. 20 — Alt.: 3400–3720 m.

The Colombian specimen of *J. undata* distributed by H. Inoue in his *Bryophyta Selecta Exsiccata* nr. 312 belongs to *J. rubricaulis* (fide R. Grolle in litt.).

*Jensenia erythropus* (Gott.) Grolle — BOYACA: e.g. Cleef 1882, 1946 & 7250 — CAUCA: Cleef & Fernandez 656b (det. Fulford) — CUNDINAMARCA: Gottsche (1864) 178, as *Mittenia erythropus* Gott. sp. nov.; Herzog (1934) 80, as *Pallaviciniius erythropus* (Gott.) Steph.; Hässel de Menéndez (1961) 276, f. 7, as *Pallavicinia erythropus* — MAGDALENA: Winkler (1976) 818, as *Pallavicinia erythropus* — Alt.: 2250–4075 m.

*J. wallisii* (Jack & Steph.) Grolle — ANTIOQUIA: Jack & Stephani (1892) 23, as *Pallavicinia wallisii* Jack & Steph., sp. nov.; Hässel de Menéndez (1961) 276, as *Pallavicinia erythropus* (Gott.) Steph. — MAGDALENA: Winkler (1976) 818 — Alt.: 2600–3950 m.

*Jubula hutchinsiae* (Hook.) Dum. subsp. *bogotensis* (Gott.) Verd. — CUNDINAMARCA: Gottsche (1864) 167, as *Frullania hutchinsiae* Nees var. *bogotensis* Gott. var. nov.; Verdoorn (1928) 215 — Alt.: 2700 m.

*Jungermannia amoena* Lindenb. & Gott. — QUINDIO, RISARALDA, VALLE: Váña (1974) 188, Abb. 3 — Alt.: 1500 m.

*J. callithrix* Lindenb. & Gott. — BOYACA, CALDAS, QUINDIO, RISARALDA, TOLIMA, VALLE: Váña (1974) 185, Abb. 4–5 — CUNDINAMARCA: Herzog (1934) 82, as *Alicularia callithrix* (Lindenb. & Gott.) Herz. — Alt.: 1200–2500 m.

*J. decolor* Schiffn. — CAUCA: Váña (1974) 184, Abb. 1–2 (Robinson 1967a det. as *Jungermannia hyalina*) — CUNDINAMARCA, PUTUMAYO, TOLIMA: Váña (1974) l.c. — Alt.: 475–3510 m.

*J. hyalina* Lyell ex Hook. — CUNDINAMARCA: Gottsche (1864) 119 — MAGDALENA: Winkler (1976) 821, as *Plectocolea hyalina* (Lyell) Mitt. — Alt.: 1800–2600 m.

*J. lingulifolia* Gott. — CALDAS, CAUCA: Váña (1974) 193, Abb. 6(I–4) — CESAR, MAGDALENA: Winkler (1976) 814 — CUNDINAMARCA: Herzog (1934) 82, det. as *Alicularia callithrix* (Lindenb. & Gott.) Herz.; Váña (1974) l.c. — Alt.: 1900–3300 m.

This species has often been confused with *Lethocolea glossophylla* (fide Váña l.c.).

*J. obovata* Nees var. *bogotensis* Gott. — CUNDINAMARCA: Gottsche (1864) 119, var. nov.; Váña (1975) 81 — Alt.: 2700 m.

“Der Holotypusbeleg im Herbar Gottsche (B) verbrannte während des zweiten Weltkrieges. Auf Grund der Untersuchung des Isotypusbelegs, der nur aus einigen sterilen Fragmenten besteht, kann ich die Art mit Sicherheit nicht bestimmen. Auf Grund der Blattform, Blattzellen u.a. kann ich *J. obovata* Nees ausschliessen” (Váña l.c.).

*J. ovato-trigona* (Steph.) Grolle — CUNDINAMARCA: Herzog (1934) 84, as *Haplozia rorida* sp. nov.; Grolle (1971) 90; Váña (1973) 279, Abb. 9 — Alt.: 2800 m.

*J. sphaerocarpa* Hook. — BOYACA, CALDAS: Váña (1974) 196 — CUNDINAMARCA: Gottsche (1864) 19,

as fo. *minor* Gott. nom. nud.; Robinson (1967a) 44; Váña (1974) 196; Váña (1974a) 408; Gradstein, Cleef & Fulford (1977) 400, f. 19 – MAGDALENA: Winkler (1976) 823 as *Solenostoma sphaerocarpa* (Hook.) Steph. – Alt. 2050–4100 m.

On *Jungermannia sphaerocarpa* fo. *minor* Gott. nom. nud., Váña (1974a) wrote "Der Original-beleg im Herbar Gottsche (B) blieb nicht erhalten; es ist möglich dass es sich um eine Modifikation dieser Art handelt" (p. 408).

*Kingiolejeunea ornata* Robinson – PUTUMAYO: Robinson (1967a) 53 – Alt.: 3000–3300 m.

*Kurzia capillaris* (Sw.) Grolle – BOYACA: Cleef, Garcia-Barriga & Jaramillo 3512a (det. Fulford) – CAUCA: Fulford (1966) 225, pl. 49, f. 1, as *Microlepidozia capillaris* (Sw.) Fulf. – SANTANDER: Gradstein, Cleef & Fulford (1977) 401 – Alt.: 2825–3750 m.

*K. flagellifera* (Steph.) Grolle – CUNDINAMARCA: Cleef & Uribe 6697a – MAGDALENA: Winkler (1976) 817, as *Microlepidozia flagellifera* (Steph.) Fulf. – Alt.: 2050–3750 m.

*K. verrucosa* (Steph.) Grolle – CUNDINAMARCA: Fulford (1966) 228, pl. 49, f. 2, as *Microlepidozia verrucosa* (Steph.) Fulf.; Gradstein, Cleef & Fulford (1977) 401 – Alt.: 3600–3755 m.

In Colombia this seems to be a common and characteristic species of páramo *Sphagnum* bogs.

*Lejeunea atrata* Jack in Bonner (1978) 476 nom. nud. – ANTIOQUIA: Bonner l.c. – Alt.: ±3000 m.

*L. biformis* Gott. – TOLIMA: Gottsche (1864) 162, sp. nov.; Stephani (1912–17) 724 – Alt.: 300 m.

*L. carolensis* Spruce – MAGDALENA: Winkler (1976) 814 – Alt.: 700 m.

*L. cauapunensis* Spruce – MAGDALENA: Winkler (1976) 814 – Alt.: 2100–2800 m.

*L. cyathophora* Mitt. – CHOCO: Winkler (1970) 951 – MAGDALENA: Winkler (1976) 814 – Alt.: ±100–1800 m.

*L. drymophila* Spruce – CHOCO: Winkler (1970) 951 – MAGDALENA: Winkler (1976) 814 – Alt.: ±100–1600 m.

*L. filipes* Spruce – MAGDALENA: Winkler (1976) 814 – Alt.: 750 m.

*L. flava* (Sw.) Nees – CAUCA: Herzog (1955) 194 – CHOCO: Winkler (1970) 951 – CUNDINAMARCA: van der Hammen, Jaramillo & Murillo 2134 (cf.) – MAGDALENA: Winkler (1976) 814 – PUTUMAYO: Robinson (1967a) 55 – SANTANDER: Gradstein, Cleef & Fulford (1977) 402 – Alt.: ±50–3000 m. — var. *robustior* Gott. – CUNDINAMARCA: Gottsche (1864) 162, var. nov. – Alt.: 2600 m.

*L. fusagasugana* Gott. – CUNDINAMARCA: Gottsche (1864) 158, sp. nov. – Alt.: 2200 m.

*L. glaucophylla* Gott. – CESAR, MAGDALENA: Winkler (1976) 814 – Alt.: 1900–2700 m.

*L. granatensis* Steph. 1915 nom. illeg., non Jack & Steph. 1892 – S.L. ("N. GRANADA"): Steph. (1912–17) 738; Bonner (1978) 564.

*L. laetevirens* Nees & Mont. (*Microlejeunea laetevirens* (Nees & Mont.) Evans) – CESAR: Winkler (1976) 814, as *Lejeunea lucens* Tayl. – S.L.: Bonner (1978) 709, as *Lejeunea subhyalina* Lindenb. & Gott. – Alt.: 1900 m.

*L. leptalea* Spruce – CHOCO: Winkler (1970) 951 – Alt.: ±100 m.

*L. montana* Gott. – SANTANDER: Gottsche (1864) 160, sp. nov. – Alt.: 1200 m.

*L. nemoralis* Gott. – CUNDINAMARCA: Gottsche (1864) 159, sp. nov. – Alt.: 2500 m.

*L. radicans* Lindenb. & Gott. – CUNDINAMARCA: Gottsche (1864) 162.

*L. remotifolia* Hampe ex Steph. – CHOCO: Winkler (1970) 951 – Alt.: ±100 m.

*L. sabanetica* Gott. – CUNDINAMARCA: Gottsche (1864) 161, sp. nov. – Alt.: 2200 m.

*L. semiscabrida* Gott. – GUAJIRA (Sierra Nevada de Santa Marta): Gottsche (1864) 154, sp. nov.; Stephani (1912–17) 824, as *Microlejeunea semiscabrida* (Gott.) Steph.

*L. silvatica* Gott. – BOYACA, CUNDINAMARCA: Gottsche (1864) 159, sp. nov. – Alt.: 2000–2800 m.

*L. subsessilis* Spruce – MAGDALENA: Winkler (1976) 814 – Alt.: 700–1600 m.

*L. tarapotensis* Spruce – VAUPES: Stephani (1917–24) 765.

*Lejeunea* sp.

Kunth (1822) reports from Mt. Quindío *Jungermannia serpyllifolia* Dicks. nom. confus., European species which is commonly called *Lejeunea patens* Lindb. The specimen has to be

revised. Other authors report various unidentified *Lejeuneae* from Colombia. It is obvious that *Lejeunea* and its allies remains one of the poorest known liverwort groups of Colombia.

- Lepicolea pruinosa* (Tayl.) Spruce – ANTIOQUIA, CAUCA, VALLE: Fulford (1963) 37, f. 6 – ARAUCA: Cleef 1016 – CUNDINAMARCA: Robinson (1967a) 44 – META: Cleef 7792 – Alt.: 2700–3600 m.
- Lepidozia alstoni* Fulf. – CUNDINAMARCA: Fulford (1966) 211, pl. 45, f. 30, sp. nov. – Alt.: ±3300 m.
- L. andicola* Beauv. in Steph. – CAUCA, VALLE: Fulford (1966) 204, pl. 43, f. 23 – Alt.: 3200–3600 m.
- L. brasiliensis* Steph. – CESAR, MAGDALENA: Winkler (1976) 814 – SANTANDER: Herzog (1955) 169, as *L. moritziana* Steph. – Alt.: 1500–2900 m.
- L. caespitosa* Spruce – CAUCA: Fulford (1966) 191, pl. 41, f. 8; Gradstein, Cleef & Fulford (1977) 402, f. 20 – HUILA, META, NORTE DE SANTANDER: Fulford l.c. – CESAR, MAGDALENA: Winkler (1976) 814 – Alt.: ±1500–3510 m.
- L. cypressina* (Sw.) Lindemb. – CUNDINAMARCA: Gottsche (1864) 139 – Alt.: 2500 m.
- L. dendritica* Spruce – CUNDINAMARCA: Fulford (1966) 202, pl. 43, f. 21a–c.
- L. incurvata* Lindemb. – CAUCA, HUILA, NORTE DE SANTANDER: Fulford (1966) 186, pl. 40, f. 3 – QUINDIO, RISARALDA, TOLIMA (Mt. Quindío): GOTTSCHE (1864) 139; Fulford l.c. – Alt.: 2150–2250 m.
- L. lindigiana* Steph. – CUNDINAMARCA: Herzog (1934) 93; Fulford (1966) 192, pl. 41, f. 9 – MAGDALENA: Winkler (1976) 814 – Alt.: 2150–3200 m.
- L. macrocolea* Spruce – CAUCA, HUILA, SANTANDER, VAUPES: Fulford (1966) 200, pl. 42, f. 18 – CUNDINAMARCA: Fulford l.c.; Gradstein, Cleef & Fulford (1947) 402, f. 21 – MAGDALENA: Winkler (1976) 814 – META: Cleef 7758 – Alt.: 1500–4015 m.
- L. patens* Lindemb. – NORTE DE SANTANDER: Fulford (1966) 183, pl. 40, f. 1 – Alt.: 2150–2250 m.
- L. peruviensis* Steph. – BOYACA: van der Hammen, Jaramillo & Murillo 2155 (det. Fulford) – CAUCA, HUILA: Fulford (1966) 201, pl. 43, f. 20 – CUNDINAMARCA: Cleef 731 – Alt.: 2910–3630 m.
- L. pinnatocruris* Spruce ex Steph. – VALLE: Fulford (1966) 205, pl. 43, f. 24 – Alt.: 80–2400 m.
- L. reptans* (L.) Dum. – CUNDINAMARCA: Fulford (1966) 188, pl. 40, f. 5 – Alt.: 2600–2750 m.
- L. squarrosa* Steph. – MAGDALENA: Winkler (1976) 814 – Alt.: 2150 m.
- L. tunguraguae* Steph. – S.L.: Stephani (1917–24) 345; Fulford (1966) 213.
- L. wallisiana* Steph. – ANTIOQUIA, CUNDINAMARCA: Fulford (1966) 198, pl. 42, f. 16 – CESAR, MAGDALENA: Winkler (1976) 185 – SANTANDER: van der Hammen & Jaramillo 1805 & 1808 (det. Fulford) – Alt.: 2850–3450 m.
- Leptolejeunea elliptica* (Lehm. & Lindenb.) Steph. – CAQUETA, CUNDINAMARCA, NORTE DE SANTANDER: Bischler (1969) 289, f. 3–4 – CHOCO: Bischler (1969) 289, f. 3–4; Winkler (1970) 951 – Alt.: ±100–2000 m.
- L. obovata* Bischler – ANTIOQUIA: Bischler (1969) 319, f. 11, sp. nov. – Alt.: 800 m.
- L. tridentata* Bischler – CHOCO: Bischler (1969) 335, f. 16, sp. nov. – Alt.: 80 m.
- Leptoscyphus amphibolius* (Nees) Grolle – BOYACA, META, SANTANDER: Fulford (1976) 513, pl. 152, f. 6 – CESAR, MAGDALENA: Winkler (1976) 815 – CUNDINAMARCA: Gottsche (1864) 130 as *Leioscyphus galipanus* Gott. sp. nov.; Grolle (1962) 55, t. 12, 20, 21; Fulford l.c. – Alt.: 800–3000 m.
- L. cleefii* Fulf. – ARAUCA: Cleef & van der Hammen 10343 – BOYACA: e.g. Cleef 7267 – CAUCA, CUNDINAMARCA, META: Fulford (1976) 534, pl. 159, f. 19; Gradstein, Cleef & Fulford (1977) 403, f. 22 – Alt.: 3220–4100 m.
- This recently described species is a surprisingly common and characteristic element of Colombian páramo bogs.
- L. cuneifolius* (Hook.) Mitt. – ANTIOQUIA: Jack & Stephani (1892) 20, t. 1, f. 1–6 as *Leioscyphus fragilis* Jack & Steph. sp. nov.; Grolle (1962) 28, t. 4–5 as *L. cuneifolius* subsp. *fragilis* (Jack & Steph.) Grolle; Fulford (1976) 494, pl. 150, f. 1 as *L. cuneifolius* subsp. *fragilis* (Jack & Steph.) Grolle – CUNDINAMARCA: Cleef & Jaramillo 3129 – Alt.: 3000–3500 m.
- L. jackii* Steph. – ANTIOQUIA: Grolle (1962) 48; Fulford (1976) 519, pl. 153, f. 9 – Alt.: 3300 m.
- L. obcordatus* (Spruce) Grolle – CAUCA: Cleef & Fernandez 550a (det. Fulford) – S.L.: Grolle (1962)

- 33, t. 7.; Fulford (1976) 510, pl. 150, f. 3 – Alt.: 3315–3460 m.
- L. physocalyx* (Hampe & Gott.) Gott. – ANTIOQUIA: Grolle (1962) 50, t. 17–18; Fulford (1976) 516, pl. 152, f. 7 – CUNDINAMARCA: van der Hammen & Jaramillo 4335 & 4393 – Alt.: 3460 m.
- L. porphyrius* (Nees) Grolle – ANTIOQUIA, META: Fulford (1976) 510, pl. 151, f. 4 – ARAUCA: Cleef 9136 – BOYACA: e.g. van der Hammen 3134 (Fulford l.c., sub s.l.) – CALDAS: Robinson (1967a) 45 as *L. liebmannianus* (Lindenb. & Gott.) Mitt.; Fulford l.c. – CAUCA: Herzog (1955) 163, f. 4h–i as *Mylia minutula* Herz. sp. nov.; Grolle (1962) 35, t. 8–9 as *L. liebmannianus*; Fulford (1976) l.c. – CUNDINAMARCA: Gottsche (1864) 131 as *L. liebmannianus*; Grolle l.c. as *L. liebmannianus*; Fulford l.c. – MAGDALENA: Winkler (1976) 815 as *L. liebmannianus* – SANTANDER: van der Hammen 141 (Fulford l.c., sub "s.l.") – TOLIMA: Gradstein, Cleef & Fulford (1977) 403 – Alt.: 1700–4300 m.
- Lethocolea glossophylla* (Spruce) Grolle – CALDAS: Robinson (1967a) 44, det. as *Jungermannia linguifolia* Gott. (fide Grolle in Vána (1974) 195) – CUNDINAMARCA: Gradstein, Cleef & Fulford (1977) 405, f. 23 – MAGDALENA: Winkler (1969) 69, Abb. 4 as *Neoprasanthus granatensis* S. Winkler gen. nov. & sp. nov.; Winkler (1976) 813 as *Jamesoniella boliviana* Steph.; Winkler (1976) 817 as *Neoprasanthus granatensis* – Alt.: 2700–3750 m.
- L. repens* S. Winkler – MAGDALENA: Winkler (1969) 67, Abb. 3, sp. nov.; Winkler (1976) 815 – Alt.: 3300 m.
- Leucolejeunea unciloba* (Spruce) Evans – CESAR, MAGDALENA: Winkler (1976) 815 – Alt.: 2750–2900 m.
- L. xanthocarpa* (Lehm. & Lindenb.) Evans – MAGDALENA: Winkler (1976) 815 – Alt.: 2600 m.
- Lophocolea aberrans* Lindenb. & Gott. – CUNDINAMARCA: Robinson (1967a) 50 – MAGDALENA: Winkler (1976) 815 – Alt.: 750–2700 m.
- L. bidentata* (L.) Dum. – CUNDINAMARCA: Robinson (1967a) 50 – MAGDALENA: Winkler (1976) 815 – Alt.: 700–2800 m.
- L. coadunata* (Sw.) Nees – CAUCA, HUILA, SANTANDER: Fulford (1976) 449, pl. 126, f. 19; Gradstein, Cleef & Fulford (1977) 407, f. 24 – CESAR, MAGDALENA: Winkler (1976) 815 – CUNDINAMARCA: Gottsche (1864) 127–129, as *L. longiflora* Hampe var. *longiflora*, var. *integra* Gott. var. nov. & var. *minor* Gott. var. nov., and as *L. mascula* Gott. var. *acroandra* Gott. var. nov. & var. *minor* Gott. var. nov.; Herzog (1934) 91, as *L. subtrilobata* Herz. sp. nov.; Fulford l.c.; Gradstein, Cleef & Fulford l.c. – META: Cleef 8114 – TOLIMA: van der Hammen & Jaramillo 3368 – Alt.: 1500–4120 m. *L. coadunata* is probably conspecific with the widespread *L. bidentata* (fide Fulford l.c.).
- L. connata* (Sw.) Nees – META: Fulford (1976) 446, pl. 125, f. 17.
- L. elata* Gott. – CALDAS, CUNDINAMARCA: Robinson (1967a) 50 – Alt.: 2600–4430 m.
- Lophocolea elata* Gott. fo. *aquatica* Herz. was reduced to synonymy under *Clasmatocolea vermicularis* by Grolle (1960). The type of *L. elata* Gott., however, has not been studied recently.
- L. granatensis* Gott. – CESAR, GUJIRA, MAGDALENA: Fulford (1976) 455, pl. 128, f. 22 – CUNDINAMARCA: Gottsche (1864) 126; Fulford l.c. – MAGDALENA: Fulford l.c.; Winkler (1976) 815 as *L. exigua* Steph. – Alt.: 2500–3700 m.
- L. guadeloupensis* Steph. – BOYACA, CUNDINAMARCA, HUILA: Fulford (1976) 448, pl. 125, f. 18.
- L. leptantha* (Hook. f. & Tayl.) Tayl. – MAGDALENA: Winkler (1976) 815, as *L. brasiliensis* Schiffn. – Alt.: 1800 m.
- L. liebmanniana* Gott. – CUNDINAMARCA: Gottsche (1864) 129 – MAGDALENA: Winkler (1976) 815 – PUTUMAYO: Robinson (1967a) 50 – Alt.: 2100–3300 m.
- L. lindmannii* Steph. – MAGDALENA: Winkler (1976) 815 – Alt.: 750 m.
- L. martiana* Nees – CUNDINAMARCA: Fulford (1976) 441, pl. 123, f. 13 – MAGDALENA: Fulford l.c.; Winkler (1976) 815, as *L. pertusa* Tayl. – Alt.: 2160 m.
- L. muricata* (Lehm.) Nees – CAUCA, HUILA: Fulford (1976) 425, pl. 117, f. 1 – CUNDINAMARCA: Gottsche (1864) 130; Fulford l.c. – MAGDALENA: Winkler (1976) 815, as *L. hirta* Steph. – Alt.: 2000–2700 m.

- L. perissodonta* (Spruce) Steph. – AMAZONAS, CAQUETA, VAUPES (Rio Apaporis): Fulford (1976) 445, pl. 124, f. 16 – CUNDINAMARCA, META, VAUPES: Fulford l.c. – Alt.: ± 200–1700 m.
- L. proteus* Herz. – MAGDALENA: Winkler (1976) 815 – SANTANDER: Fulford (1976) 443, pl. 133, f. 14 – Alt.: 2000 m.
- L. trapezoides* Mont. – ANTIOQUIA, CAUCA, HUILA, SANTANDER: Fulford (1976) 435, pl. 121–122, f. 10 – BOYACA: Fulford l.c.; Gradstein, Cleef & Fulford (1977) 407 – CALDAS: Robinson (1967a) 50, as *L. colombica* Gott. – CUNDINAMARCA: Gottsche (1864) 125, as *L. lindigiana* Gott. spec. nov.; Fulford l.c. – TOLIMA: Gradstein, Cleef & Fulford l.c. – Alt.: 2600–3800 m.
- L. widgrenii* Steph. – MAGDALENA: Winkler (1976) 815 – Alt.: 750 m.
- Lopholejeunea muelleriana* (Gott.) Schiffn. – MAGDALENA: Winkler (1976) 815 – Alt.: 1600–2500 m.
- L. saxatilis* (Gott. ex Aongstr.) Steph. – MAGDALENA: Winkler (1976) 816 – Alt.: 1600 m.
- Lophozia debilis* Jack & Steph. – S.L.: Stephani (1917–24) 112.
- L. incisa* (Schrad.) Dum. – ARAUCA: Cleef 9025 – BOYACA: Cleef 5677 (det. Grolle) – CALDAS: Robinson (1967a) 45 – CUNDINAMARCA: Gradstein, Cleef & Fulford (1977) 408 – META: Cleef 8100 – Alt.: (3270–)4030–4510 m.
- \**L. cf. patagonica* Herz. & Grolle – CUNDINAMARCA: Cleef 9579 (det. Grolle).  
“Cleef 9579 halte ich mit Bestimmtheit für *Lophozia* sp. aus dem Sg. *Schistochilopsis* (= *Massula*) Sekt. *Heterogemma*. Sie steht *L. patagonica* Herz. & Grolle (Rev. Bryol. Lichén. 28: 343, 1959) mindestens nahe oder ist vielleicht sogar artidentisch. Die Blattlappen sind bei Cleef 9579 mehr “obtusiusculi”, jedoch sah ich vereinzelt auch sehr spitze schmale Gipfel von Blattlappen. Es könnte sein, dass die Form des Gipfels der Blattlappen von der Gemmenbildung beeinflusst wird. Gemmen und damit Blätter mit Gemmenbildung sind ja leider von *L. patagonica* nicht bekannt” (R. Grolle in litt.).
- Macrolejeunea pallescens* (Mitt.) Schiffn. – MAGDALENA: Winkler (1976) 816 – Alt.: 1600–2160 m.
- M. subsimplex* (Mont. & Nees) Schiffn. – MAGDALENA: Winkler (1976) 816 – TOLIMA: Robinson (1967a) 52 – Alt.: 1420–1600 m.
- Marchantia berteroana* Lehm. & Lindenb. – CAUCA: Cleef & Fernandez 597 (det. Campbell) – CUNDINAMARCA: e.g. Cleef 6104 (det. Campbell) – SANTANDER: Herzog (1955) 158 – Alt.: 1800–3640 m.
- var. *polylepida* Herz. – CUNDINAMARCA: Herzog (1934) 79, var. nov.; Hässel de Menéndez (1962) 167, f. 55, l. 3–6 – Alt.: 3000–3200 m.
- M. brevirostra* Evans – NORTE DE SANTANDER, SANTANDER: Herzog (1955) 158 – Alt.: 3400–3900 m.
- M. chenopoda* L. – BOYACA: Gottsche (1864) 186; Evans (1917) 290, f. 15–20 – CAUCA, SANTANDER: Herzog (1955) 158 – CUNDINAMARCA: Gottsche l.c.; Evans l.c.; Robinson (1967a) 57 – MAGDALENA: Winkler (1976) 816 – PUTUMAYO, TOLIMA: Robinson l.c. – Alt.: 1420–2500 m.
- M. columbica* Steph. ex Bonner – ANTIOQUIA: Irmscher (1914) 995 – Alt.: 720–1800 m.
- M. discoidea* Steph. ex Bonner – ANTIOQUIA: Irmscher (1914) 994 – Alt.: 2300 m.
- M. domingensis* Lehm. & Lindenb. – SANTANDER: Herzog (1955) 158 – Alt.: 2300 m.
- M. macrocarpa* Jack & Steph. – S.L. (“NOVA GRANADA”): Jack & Stephani (1892) 22, sp. nov.
- M. plicata* Nees & Mont. – BOYACA: Cleef 2082 (det. Campbell) – CALDAS: Robinson (1967a) 57 – CAUCA: Cleef & Fernandez 674 (det. Campbell) – CESAR, MAGDALENA: Winkler (1976) 816 – CUNDINAMARCA: Evans (1917) 241, f. 3; Robinson l.c. – META: Cleef 851, 7567, 8260, 8262 (det. Campbell) – SANTANDER: Herzog (1955) 158 – Alt.: 2200–4150 m.
- M. polymorpha* L. – CAUCA, NORTE DE SANTANDER, SANTANDER: Herzog (1955) 158 – CUNDINAMARCA: Gottsche (1864) 186, inclus. fo. *denticulata* Gott. & fo. *nuda* Gott.; Evans (1917) 232, f. 1–2 – MAGDALENA: Winkler (1976) 816 – Alt.: 1700–3800 m.
- Marchesinia aquatica* Herz. – NORTE DE SANTANDER: Herzog (1955) 174, f. 11, sp. nov. – Alt.: 1400 m.
- M. brachiatata* (Sw.) Schiffn. – BOYACA: van der Hammen, Jaramillo & Murillo 1769 – CUNDINAMARCA: Bischler 3030 – MAGDALENA: Winkler (1976) 816 – SANTANDER: van der Hammen & Jaramillo

- 1891* – **VALLE**: Robinson (1967a) 51 – Alt.: 950–2000 m.
- M. extensa* (Steph.) Steph. – **MAGDALENA**: Winkler (1976) 816 – Alt.: 80 m.
- M. longirostris* Herz. – **VALLE**: Robinson (1967a) 51 – Alt.: 1950–2000 m.
- M. robusta* (Mitt.) Schiffn. – **SANTANDER**: Herzog (1955) 172, f. 10 – Alt.: 2300–2500 m.
- Marsupella andina* Jack & Steph. – **ANTIOQUIA**: Stephani (1901–05) 19 – **CESAR**: Winkler (1976) 816 – Alt.: 3000–4200 m.
- \**M. austro-americana* Váña – **BOYACA** (Sierra Nevada de Cocuy): *Cleef* 8809, 8811a & 8824 (det. Váña, sp. nov.) – Alt.: 4315–4320 m.
- M. involuta* Váña – **ARAUCA**, **BOYACA**, **META**: Váña (1976) 414, Abb. 3, sp. nov. – Alt.: 3615–4250 m.
- M. trollii* Herz. – **ARAUCA** (Sierra Nevada de Cocuy): *Cleef* 9002a (det. Váña) – **MAGDALENA**: Winkler (1976) 816 – Alt.: 3910–4360 m.
- Mastigolejeunea pittieri* Steph. – **PUTUMAYO**: Robinson (1967a) 51 – Alt.: 3000–3300 m.
- M. plicatiflora* (Spruce) Steph. – **CESAR**, **GUAJIRA** (Sierra Nevada de Santa Marta): Stephani (1909–12) 765.
- Megaceros columbianus* Steph. – **PUTUMAYO**: Robinson (1967a) 57 – S.L.: Stephani (1912–17) 950 – Alt.: 2100 m.
- M. vincentianus* (Lehm. & Lindenb.) Steph. – **CUNDINAMARCA**, **TOLIMA**: Gottsche (1864) 189, as *Anthoceros vincentianus* Lehm. & Lindenb. – Alt.: 2600–2800 m.
- Metzgeria atramentaria* Kuwah. – **BOYACA**: Kuwahara (1976) 260, f. 1, 2, sp. nov. – Alt.: 3550 m.
- M. bialata* S. Winkler – **MAGDALENA**: Winkler (1976) 816, Abb. 5n-p, sp. nov. – Alt.: 2450 m.
- M. bischlerae* Kuwah. – **CAUCA**, **HUILA**: Kuwahara (1976), 264, f. 3, 4, sp. nov. – Alt.: 3530–3630 m.
- M. bracteata* Spruce – S.L. ("NOVA GRANADA"): Stephani (1898–1900) 302.
- var. *robusta* Herz. – **CUNDINAMARCA**: Herzog (1934) 80, Abb. 1, var. nov. – Alt.: 3200–3400 m.
- M. chilensis* Steph. – **CAUCA**: Kuwahara (1976) 267 – **MAGDALENA**: Winkler (1976) 817 – Alt.: 1800–3600 m.
- M. conjugata* Lindenb. – **CUNDINAMARCA**: Kuwahara (1976) 267, f. 5 – Alt.: 2500 m.
- M. crenata* Steph. – **CESAR**, **MAGDALENA** (Sierra Nevada de Santa Marta): Winkler (1976) 817 – Alt. 2900 m.
- M. decipiens* (Massal.) Schiffn. & Gott. – **BOYACA**: Kuwahara (1976) 268 – Alt.: 3600–3900 m.
- M. dorsipara* (Herzog) Kuwah. – **BOYACA**: Kuwahara (1976) 269, f. 6 – **CUNDINAMARCA**: Robinson (1967a) 56, as *M. violacea* (Ach.) var. *dorsipara* Herz. – Alt.: 3350–3900 m.
- M. filicina* Mitt. – **CUNDINAMARCA**: Stephani (1898–1900) 283 – **TOLIMA**: Robinson (1967a) 56; Kuwahara (1976) 271, f. 7–8 – Alt.: 300–3330 m.
- M. fruticulosa* (Dicks.) Evans – **CUNDINAMARCA**: Gottsche (1864) 185, as *M. furcata* Nees var. "pallescens aut aeruginosa" Nees – Alt.: 2700 m.
- The Gottsche reference represents the only record of this northern temperate species from Colombia and therefore most likely concerns another species of *Metzgeria*.
- M. gigantea* Steph. – **BOYACA**, **CALDAS**, **QUINDIO**, **RISARALDA**: Kuwahara (1976) 274 – Alt.: 1500–4200 m.
- M. inflata* Steph. – **CESAR**, **MAGDALENA**: Winkler (1976) 817 – Alt.: 2850 m.
- \**M. maegdefraui* Kuwah. – **MAGDALENA**: *Mägdefrau* 1091 (det. Kuwahara 1977, as sp. nov.)
- M. leptoneura* Spruce – **BOYACA**, **CAUCA**, **CUNDINAMARCA**, **TOLIMA**: Kuwahara (1976) 275 as *M. hamata* Lindb. nom. illeg. – **CESAR**, **MAGDALENA**: Winkler (1976) 817 – **CUNDINAMARCA**: Gottsche (1864), as *M. furcata* Nees var. *extensa* Nees; Robinson (1967a) 56 – **TOLIMA**, **VALLE**: Robinson l.c. – Alt.: 1800–4200 m.
- M. liebmanniiana* Lindenb. & Gott. – **BOYACA**, **CAUCA**, **HUILA**, **CUNDINAMARCA**: Kuwahara (1976) 275, f. 9–11 – Alt.: 3530–3950 m.
- M. mexicana* Steph. – **CUNDINAMARCA**: Kuwahara (1976) 280, f. 12 – Alt.: 3000 m.
- M. myriopoda* Lindb. – **META**: Kuwahara (1976) 280 – Alt.: 500 m.
- M. papulosa* Steph. – **CHOCO**: Kuwahara (1976) 281 – Alt.: 900 m.
- M. polytricha* Spruce – **BOYACA**: Kuwahara (1976) 282, f. 13 – Alt.: 2000 m.

- M. procera* Mitt. – CAUCA, HUILA, VALLE: Kuwahara (1976) 284 – PUTUMAYO: Robinson (1967a) 56 – Alt.: 200–3560 m.  
 — var. *columbica* Herz. – VALLE: Herzog (1955) 158, var. nov. – Alt.: 200–300 m.
- M. rufula* Spruce – ANTIOQUIA: Kuwahara (1976) 285, f. 4 – CUNDINAMARCA: Herzog (1934) 80 – Alt.: 2800–3200 m.
- M. sandei* Schiffn. – BOYACA, CHOCO: Kuwahara (1976) 286 – Alt.: 650–3950 m.
- M. scyphigera* Evans – CUNDINAMARCA: Kuwahara (1976) 286 – Alt.: 2650 m.
- M. thomeensis* Steph. – CUNDINAMARCA, NORTE DE SANTANDER: Kuwahara (1976) 287, f. 15 – Alt.: 700–2500 m.
- M. tonsa* Herz. – ANTIOQUIA: Herzog (1955) 159, sp. nov. – Alt.: 2000 m.
- M. wallisiana* Steph. – ANTIOQUIA: Stephani (1898–1900) 299 – Alt.: ±3000 m.
- Microlejeunea acutifolia* Steph. – VALLE: Herzog (1955) 194, f. 24; Bischler, Bonner & Miller (1963) 364, pl. 59 – S.L.: Bonner (1978) 727, as *Lejeunea triangulata* (Herz.) Schust. – Alt.: ±10 m.
- M. bullata* (Tayl.) Steph. – CHOCO: Winkler (1970) 951 – CUNDINAMARCA, NORTE DE SANTANDER: Bischler, Bonner & Miller (1963) 369, pl. 61 – Alt.: 1800–2800 m.  
 This neotropical species is sometimes reduced under the holarctic *Microlejeunea ulicina* (Tayl.) Steph.
- M. capillaris* (Gott.) Steph. – CUNDINAMARCA: Gottsche (1864) 163, as *Lejeunea capillaris* Gott. – MAGDALENA: Winkler (1976) 817 – Alt.: 700–2500 m.
- M. columbiana* Bischler – CUNDINAMARCA: Bischler, Bonner & Miller (1963) 273, pl. 62(4), sp. nov.; Gradstein, Cleef & Fulford (1977) 408, f. 25 – MAGDALENA: Winkler (1976) 817 – Alt.: 1800–3200 m.
- M. epiphylla* Bischler – CHOCO: Winkler (1970) 951 – Alt.: ±100 m.
- M. grandistipula* Steph. – MAGDALENA: Winkler (1976) 817 – Alt.: 2160 m.
- M. perpusilla* (Spruce) Steph. – CHOCO: Winkler (1970) 951 – Alt.: ±100 m.
- M. stricta* (Gott., Lindenb. & Nees) Steph. – MAGDALENA: Winkler (1976) 817 – Alt.: 700–2200 m.
- Micropterygium carinatum* (Grev.) Reim. – CHOCO: Winkler (1970) 951 – Alt.: ±100 m.
- M. lechleri* Reim. – CAQUETA: Reimers (1933) 184, Abb. 14, sp. nov.; Fulford (1966) 261, pl. 59, f. 10 – META: Fulford l.c. – Alt.: 1700 m.
- M. leiophyllum* Spruce – AMAZONAS, VAUPES: Fulford (1966) 258, pl. 58, f. 8 – Alt.: 195–450 m.
- M. parvistipulum* Spruce – VAUPES: Fulford (1966) 268, pl. 62, f. 14 – Alt.: 250 m.
- M. pterygophyllum* (Nees) Trevis. – AMAZONAS, VAUPES: Reimers (1933) 174, Abb. 12, as var. *gracile* Reim. var. nov., Fulford (1966) 261, pl. 59, f. 9 – Alt.: 100–250 m.
- M. trachyphyllum* Reim. – AMAZONAS, VAUPES: Fulford (1966) 265, pl. 61, f. 13.
- Monoclea forsteri* Hook. – CUNDINAMARCA: Gottsche (1864) 185; Robinson (1967a) 56, as *M. gottschei* Lindb. – MAGDALENA: Winkler (1976) 817, as *M. gottschei* – PUTUMAYO: Robinson l.c. – SANTANDER: Herzog (1955) 158, as *M. gottschei* – TOLIMA: van der Hammen & Jaramillo 3395 – Alt.: 1800–3500 m.  
 The Colombian *Monoclea* records are tentatively placed under the New Zealandian *M. forsteri* Hook., but the assumed conspecificity with the neotropic *M. gottschei* Lindb. needs confirmation.
- Nardia succulenta* (Rich. ex Lehm.) Spruce – BOYACA, CALDAS, NORTE DE SANTANDER: Váñia (1976) 406, Abb. 11–12 – CAUCA: Cleef 2694 (det. Váñia) – CUNDINAMARCA: Spruce (1885) 520; Váñia l.c. – Alt.: 2800–3300 m.  
 — var. *crossii* Spruce – CUNDINAMARCA: Spruce (1885) 520; Váñia (1976) 410.  
*Nardia succulenta* is sometimes placed in the monotypic, montane-neotropic genus *Apotomanthus*, as *A. succulenta* (Rich. ex Lehm.) Schiffn. It is a characteristic element of hot sulphur springs (R. Grolle & J. Váñia, pers. comm.).
- Neesioscyphus argillaceus* (Nees) Grolle – MAGDALENA: Winkler (1976) 817 – Alt.: 700 m.
- N. n. sp.* – BOYACA: Cleef 9537 & 9776 – CUNDINAMARCA, TOLIMA: Gradstein, Cleef & Fulford (1977) 409, f. 26, as *Neesioscyphus* sp. – Alt.: 2830–3900 m.

This still undescribed species is apparently not uncommon in the paramos.

*Neurolejeunea breutelii* (Gott.) Evans – SANTANDER: Herzog (1955) 171 – Alt.: 2500–2700 m.

*Noteroclada confluens* Tayl. ex Hook. & Wils. – CUNDINAMARCA: Robinson (1967a) 55 – Alt.: 2330–3490 m.

*Nowellia curvifolia* (Dicks.) Mitt. – MAGDALENA: Winkler (1976) 817 – Alt.: 2160 m.

*Odontolejeunea calcarata* (Spruce) Steph. – CHOCO: Winkler (1970) 951 – PUTUMAYO: Herzog (1955) 1976 – VALLE: Herzog l.c.; Robinson (1967a) 51 – Alt.: 80–350 m.

*O. decemdentata* (Spruce) Steph. – CAUCA: Herzog (1955) 176 – Alt.: 1400–1500 m.

*O. longispica* Evans – CHOCO: Winkler (1970) 951 – Alt.: ±100 m.

*O. lunulata* (Web.) Schiffn. – CHOCO: Winkler (1970) 951 – VALLE: Herzog (1955) 176; Robinson (1967a) 51 – Alt.: 80–1400 m.

*O. obversiloba* Herz. – CHOCO: Winkler (1970) 951 – Alt.: ±100 m.

*O. sieberiana* (Gott.) Schiffn. – CHOCO: Winkler (1970) 951 – MAGDALENA: Winkler (1976) 817, as *O. chaerophylla* (Spruce) Schiffn. – SANTANDER: Herzog (1955) 176, as *O. chaerophylla* – Alt.: ±100–1500 m.

*Odontoschisma atropurpureum* Steph. – CAUCA, HUILA, VALLE, VAUPES: Fulford (1968) 345, pl. 89, f. 10 – Alt.: 220–3620 m.

— var. *andinum* (Spruce) Herz. – CUNDINAMARCA: Herzog (1934) 93, as fo. *laevis* Herz. – Alt.: 3400 m.

*O. falcifolium* Steph. – AMAZONAS, VAUPES: Fulford (1968) 343, pl. 89, f. 9 – CUNDINAMARCA, SANTANDER: Gradstein, Cleef & Fulford (1977) 409 – Alt.: 250–3600 m.

*O. longiflorum* (Tayl.) Steph. – CUNDINAMARCA: Gradstein, Cleef & Fulford (1977) 409, f. 27 – META: Fulford (1968) 335, pl. 86, f. 1 – Alt.: 1700–3220 m.

*O. soratum* Fulf. – AMAZONAS, VAUPES: Fulford (1968) 338, pl. 87, f. 4 – Alt.: 250 m.

*Omphalanthus filiformis* (Sw.) Nees – ARAUCA: Cleef 9146 – BOYACA: e.g. van der Hammen, Jaramillo & Murillo 1627, 1652 & 1668 – CUNDINAMARCA: Gottsche (1864) 147; Herzog (1934) 95 – MAGDALENA: Winkler (1976) 817 – PUTUMAYO: Robinson (1967a) 51 – SANTANDER: Gradstein, Cleef & Fulford (1977) 410, f. 28 – Alt.: 1500–3900 m.

*O. grandistipulus* Steph. – ANTIOQUIA, META: Herzog (1955) 171 – MAGDALENA: Winkler (1976) 818 – Alt.: ±2500 m.

*O. ovalis* (Lindenb. & Gott.) Gradst. – MAGDALENA: Mägdefrau 1139 – VALLE: Robinson (1967a) 51, as *Peltolejeunea ovalis* (Lindenb. & Gott.) Schiffn.; Gradstein, Cleef & Fulford (1977) 411 – Alt.: ±2000 m.

*O. platycoleus* Herz. – S.L.: Herzog (1955) 171, f. 9.

*O. wallisii* (Jack & Steph.) Gradst. comb. nov. (*Peltolejeunea wallisii* Jack & Steph. in Steph., Spec. Hep. 4: 699, 1911) – ANTIOQUIA: Jack & Stephani (1892) 19, as *Peltolejeunea wallisii* n. sp. (comb. inval., published before validation of generic name).

*Otigonolejeunea reducta* S. Winkler – MAGDALENA: Winkler (1976) 818, Abb. 6a–d, sp. nov. – Alt.: 50 m.

*O. schizotis* (Spruce) Schiffn. – MAGDALENA: Winkler (1976) 818 – Alt.: 700 m.

*Phaeoceros fimbriatus* (Gott.) Gradst. comb. nov. (*Anthoceros fimbriatus* Gott. var. *lindigianus* Gott., Ann. Scie. Nat. 5: 188. 1864) – CUNDINAMARCA, TOLIMA: Gottsche l.c. – MAGDALENA: Winkler (1976) 807, as *Anthoceros fimbriatus* – Alt.: 640–2800 m.

Possibly also belonging here: *Anthoceros fimbriatus* Gott. var. *schlimianus* Gott. – MAGDALENA: Gottsche (1864) 188, var. nov. – Alt.: ±1000 m.

*P. gualaquizana* (Steph.) Gradst. comb. nov. (*Anthoceros gualaquizana* Steph., Spec. Hep. 5: 979, 1916) – MAGDALENA: Winkler (1976) 807, as *Anthoceros gualaquizana* – Alt.: 1800 m.

*P. laevis* (L.) Prosk. – CALDAS, CUNDINAMARCA: Robinson (1967a) 57, as *Anthoceros laevis* L. – TOLIMA: Gottsche (1864) 187, as *Anthoceros laevis* – Alt.: 1800–3390 m.

*Pictolejeunea picta* (Gott. ex Steph.) Grolle – VALLE: Robinson (1967a) 55, f. 63–66, as *Prionolejeunea*

- cuatrecasii*, sp. nov.; Grolle (1977) 255, Abb. 2 – Alt.: 5–80 m.
- Plagiochasma rupestre* (Forst.) Steph. – CUNDINAMARCA: Murillo & Fayad 157 (NY, det. Bischler) – MAGDALENA: Winkler (1976) 818, as *P. subplanum* (Spruce) Steph. (syn. fide H. Bischler) – SANTANDER: Herzog (1955) 158, as *P. cf. lanigerum* (syn. fide H. Bischler) – TOLIMA: Killip & Smith 17390 (JE, det. H. Bischler) – Alt.: 2160–3200 m.
- Plagiochila abscedens* Gott. – CUNDINAMARCA: Gottsche (1864) 104, t. 18, f. 16–19, sp. nov.; Dugas (1929) 61, f. 29a; Carl (1931) 83 – Alt.: 2500 m.
- P. adiantoides* (Sw.) Dum. – CAUCA: Kunth (1822) 40, as *Jungermannia adiantoides* Sw.
- P. aerea* Tayl. – MAGDALENA: Winkler (1976) 818 – VALLE: Robinson (1967a) 45 – Alt.: 1300–2180 m.
- P. alpina* Gott. – S.L.: Dugas (1929) 60 “var. *alpina*”, “var. *major*”; Carl (1931) 68; Herzog (1934) 87, as fo. *latifolia* – Alt.: 2200–2400 m.
- var. *grandis* Gott. – CUNDINAMARCA: Gottsche (1864) 102, var. nov.
- var. *lindigiana* Gott. – CUNDINAMARCA: Gottsche (1864) 102, var. nov. – Alt.: 2500 m.
- P. alternans* Lindenb. & Gott. – CALDAS: Robinson (1967a) 48, as *Plagiochila grandifolia* Steph. – MAGDALENA: Winkler (1976) 818 – S.L.: Carl (1931) 75; Herzog (1955a) – Alt.: 2150–2700 m.
- P. amazonica* Spruce var. *parvifolia* Spruce – GUAINIA: Bonner (1962a) 11 – Alt.: 1200 m.
- P. amicta* Steph. – ANTIOQUIA: Bonner (1962a) 13 – Alt.: ±2500 m.
- P. angustisedens* Steph. – S.L.: Bonner (1962a) 17.
- Colombian record doubtful, because the only specimen cited is “Moritz s.n.”; probably from Venezuela.
- \**P. apicidens* Steph. – CUNDINAMARCA: van der Hammen & Jaramillo 3197 (det. Inoue) – Alt.: 3100 m.
- P. arcta* S. Winkler – MAGDALENA: Winkler (1976) 818, Abb. 6g–i, sp. nov. – Alt.: 1800–2180 m.
- P. arrecta* Gott. – CUNDINAMARCA: Gottsche (1864) 115, t. 19, f. 29–32, sp. nov. – MAGDALENA: Winkler (1976) 280 – Alt.: 2500–2600 m.
- P. asperifolia* Steph. var. *columbica* Herz. – CUNDINAMARCA: Herzog (1934) 90, var. nov. – Alt.: 2200–2400 m.
- P. aspleniformis* Schust. – PUTUMAYO: Robinson (1967a) 45 – Alt.: 300 m.
- P. axillaris* Jack & Steph. – S.L.: Jack & Stephani (1892) 24, sp. nov.; Stephani (1901–05) 581; Carl (1931) 62.
- P. bidens* Gott. – MAGDALENA: Winkler (1976) 820 – Alt.: 1600 m.
- P. binominis* Gott. – CUNDINAMARCA: Gottsche (1864) 103, t. 18, f. 13–15, sp. nov.; Carl (1931) 81 – Alt.: 2200–2600 m.
- P. blepharobasis* Herz. – SANTANDER: Herzog (1932) 216, f. 9; Herzog (1955) 160 – Alt.: 1500 m.
- P. bogotensis* Gott. – CUNDINAMARCA: Gottsche (1864) 98, t. 17, f. 4–6, sp. nov.; Dugas (1929) 173, f. 166a; Carl (1931) 81 – MAGDALENA: Winkler (1976) 820 – Alt.: 1250–2600 m.
- P. breutelianiana* Lindenb. – S.L.: Carl (1931) 52.
- var. *acutifolia* Herz. – VALLE: Herzog (1955) 160, f. 1, var. nov. (including fo. *depauperata*) – Alt.: 1700–2200 m.
- var. *novo-granatensis* Gott. – GUAJIRA: Gottsche (1864) 110, var. nov.; Stephani (1901–05) 517 (leg. Schlim.).
- P. bursata* (Desv.) Lindenb. – MAGDALENA: Winkler (1976) 820 – NORTE DE SANTANDER: Robinson (1967a) 46 – Alt.: 420–2600 m.
- P. calomelanos* Spruce – S.L.: Stephani (1901–05) 587.
- P. centrifuga* Tayl. – S.L.: Stephani (1901–05) 590.
- P. chinantiana* Gott. – CUNDINAMARCA: van der Hammen & Jaramillo 3213 (det. Inoue) – VALLE: Robinson (1967a) 46 – Alt.: 1950–3100 m.
- P. choachina* Gott. – CUNDINAMARCA: Dugas (1929) 65, f. 34a–b – MAGDALENA: Winkler (1976) 820 – S.L.: Carl (1931) 82. – Alt.: 1600–2200 m.
- var. *choachina* – CUNDINAMARCA: Gottsche (1864) 95, sp. nov. & var. nov. – Alt.: 2600 m.
- var. *phylllobola* Gott. – CUNDINAMARCA: Gottsche (1864) 95, var. nov. – Alt.: 2900 m.

- P. cipaonensis* Steph. – CUNDINAMARCA: Stephani (1901–05) 570, sp. nov. – S.L.: Dugas (1929) 179, f. 176a.
- \**P. cleefii* Inoue – META: Cleef 8042 (det. Inoue, typus !) – Alt.: 4050 m.
- P. cobana* Steph. – VALLE: Carl (1931) 80, as *Plagiochila linearis* Herz. nom. nud.; Herzog (1955) 160, including fo. *linearis* Herz.; Robinson (1967a) 46 – Alt.: 900–2200 m.
- P. columbica* Gott. – S.L.: Bonner (1962a) 63.
- var. *convexa* Gott. – S.L.: Bonner (1962a) 63.
- P. confundens* Lindenb. & Gott. – MAGDALENA: Winkler (1976) 820 – Alt.: 1500 m.
- P. connivens* Gott. – CUNDINAMARCA: Gottsche (1864) 114, t. 20, f. 37–40, sp. nov. – Alt.: 2200 m.
- P. conspicua* Tayl. – S.L. ("N. GRANADA"): Stephani (1901–05) 527.
- P. contigua* Gott. – VALLE: Herzog (1955) 160 – Alt.: 1550–1700 m.
- P. contingens* Gott. – CUNDINAMARCA: Gottsche (1864) 111, sp. nov.; Dugas (1929) 159, f. 149c; Carl (1931) 62 – MAGDALENA: Winkler (1976) 820 (cf.) – Alt.: ±2500 m.
- P. cordilliera* Steph. – S.L.: Stephani (1917–24) 142, sp. nov.; Bonner (1962a) 70.
- P. crispabilis* Lindenb. – MAGDALENA: Winkler (1976) 820 – VALLE: Herzog (1955) 160 – Alt.: 1700–2500 m.
- P. crispatodecurrents* Herz. – MAGDALENA: Winkler (1976) 820 – Alt.: 1600 m.
- P. cristata* (Sw.) Dum. – SANTANDER: Herzog (1955) 160 – VALLE: Robinson (1967a) 46 – Alt.: 1850–2160 m.
- var. *minor* Herz. – VALLE: Herzog (1955) 160, var. nov.
- P. cuatrecasii* Robinson – BOYACA: Robinson (1967a) 47, f. 48–51, sp. nov. – Alt.: 3930 m.
- P. cucullifolia* Jack & Steph. – ANTIOQUIA: Jack & Stephani (1892) 24, sp. nov. – HUILA: Cleef 5081 – Alt.: 2580 m.
- P. cuervina* Gott. – CUNDINAMARCA: Gottsche (1864) 96, sp. nov.
- P. cuneata* Lindenb. & Gott. var. *bicuspidata* (Gott.) Herz. – CUNDINAMARCA: Herzog (1934) 87 – Alt.: 3000 m.
- var. *loriloba* Herz. – CAUCA: Carl (1931) 48, as *Plagiochila loriloba* Herz. nom. nud.; Herzog (1932) 232, f. 17, var. nov.; Herzog (1955) 160, f. 2a–d; Bonner (1962a) 77 "loribola" – Alt.: 3100–3300 m.
- P. deciduifolia* Steph. – CAUCA: Herzog (1955) 160 – MAGDALENA: Winkler (1976) 820 – S.L.: Carl (1931) 82 – Alt.: 2160–3300 m.
- P. dependula* Tayl. – CAUCA, HUILA: Grolle (1971) 85, Abb. 23a–f, as *Jamesoniella dependula* (Tayl.) Steph. – META: Cleef 8067 & 8167 – Alt.: 3500–4200 m.
- P. dilatata* Steph. – SANTANDER: Herzog (1955) 161 – Alt.: 300 m.
- P. discreta* Gott. – CUNDINAMARCA: Gottsche (1864) 99, t. 17, f. 7–9, sp. nov. – Alt.: 2500 m.
- P. diversifolia* Lindenb. & Gott. var. *hians* Gott. – CUNDINAMARCA, GUAJIRA: Gottsche (1864) 109, var. nov. – Alt.: 2400–2500 m.
- P. douini* Steph. – MAGDALENA: Winkler (1976) 820 – Alt.: 2000–2160 m.
- P. echinella* Gott. – VALLE: Robinson (1967a) 47 – Alt.: 1950–2000 m.
- P. elegantula* Herz. – CAUCA: Herzog (1955) 161, f. 3 – Alt.: 1400–1500 m.
- P. ensiformis* Tayl. – CUNDINAMARCA: Herzog (1955) 162 – S.L.: Gottsche, Lindenberg & Nees (1844–47) 743; Stephani (1901–05) 581.
- P. exesa* Lindenb. & Gott. – VALLE: Carl (1931) 83; Herzog (1955) 162 – Alt.: 80–100 m.
- P. falcatoserrata* Carl – CAQUETA: Carl (1931) 58, sp. nov.; Herzog (1932) 217, f. 10 – SANTANDER: Herzog (1955) 162 – Alt.: 1500 m.
- P. fallax* Lindenb. & Hampe – VALLE: Herzog (1955) 162 – Alt.: 1700–2200 m.
- P. filicina* Herz. – MAGDALENA: Winkler (1976) 820 – Alt.: 1600 m.
- P. fragilis* Tayl. – MAGDALENA: Winkler (1976) 820 – NORTE DE SANTANDER, SANTANDER: Carl (1931) 54; Herzog (1955) 162 – Alt.: 2000–3000 m.
- P. frontinensis* Steph. – ANTIOQUA: Stephani (1901–05) 532, sp. nov.; Carl (1931) 61 – Alt.: ±2500 m.
- P. funckiana* Steph. – CUNDINAMARCA: Herzog (1934) 89 – MAGDALENA: Winkler (1976) 820 – S.L.:

- Stephani (1917-24) 171, as *Plagiochila irmscheri* Steph. sp. nov., Dugas (1929) 177, f. 172a; Carl (1931) 70 - Alt.: 1800-3200 m.
- P. fuscolutea* Tayl. - BOYACA: Robinson (1967a) 248 - CUNDINAMARCA: Carl (1931) 46. Abb. 7a; Herzog (1934) 37; Herzog (1955) 163, as fo. *purpurascens*; Robinson (1967a) 48 - Alt.: 3150-3500 m.
- P. glaucescens* Steph. - MAGDALENA: Winkler (1976) 821 - S.L. ("N. GRANADA"): Stephani (1901-05) 254, nom. nov.; Dugas (1929) 163, f. 153d; Carl (1931) 37 - Alt.: 1500-1800 m.
- P. glomerulifera* Herz. - NORTE DE SANTANDER: Herzog (1932) 202, f. 1e-g, sp. nov. - Alt.: 2800-3000m.
- P. goethartii* Steph. - S.L. ("N. GRANADA"): Stephani (1917-24): 159, sp. nov. Erroneously cited for S. America? Goethart collected in Indomalesia.
- P. granatensis* Gott. - CUNDINAMARCA: Gotsche (1864) 111, t. 19, f. 26-28, sp. nov.
- P. grandicrista* Steph. - CUNDINAMARCA: Stephani (1901-05) 581, sp. nov.; Herzog (1934) 89 - Alt.: 2200-2400 m.
- P. guevarii* Robinson - CUNDINAMARCA: Cleef 9636 (det. Inoue) - TOLIMA: Robinson (1967a) 48, f. 52-55, sp. nov. - Alt.: 3330-3550 m.
- P. guilleminiana* Mont. - CESAR: Winkler (1976) 821 - CUNDINAMARCA, NARINO, PUTUMAYO: Robinson (1967a) 48 - MAGDALENA: *Mägdefrau* 1327 - S.L.: Carl (1931) 49 - Alt.: 130-3300 m.
- P. gymnostoma* Jack & Steph. - S.L.: Jack & Stephani (1892) 25, sp. nov.
- P. hansmeyeri* Steph. - ANTIOQUIA: Irmsscher (1914) 995 - Alt.: 1700 m.
- P. heteromalla* (Lehm. & Lindenb.) Lehm. & Lindenb. - S.L.: Stephani (1901-05) 477.
- P. horrida* Gott. - CUNDINAMARCA: van der Hammen & Jaramillo 3200 (det. Inoue) - MAGDALENA: Winkler (1976) 821 - Alt.: 2000-3100 m.
- var. *granatensis* Gott. - CUNDINAMARCA: Gotsche (1864) 117, var. nov. - Alt.: 2200 m.
- P. hylacoetis* Spruce - S.L.: Carl (1931) 51 "hylaocoetis".
- P. hypnoides* (Willd.) Lindenb. - PUTUMAYO, VALLE: Robinson (1967a) 48 - S.L.: Carl (1931) 57.
- P. increscentifolia* Spruce - CESAR, MAGDALENA: Winkler (1976) 821 - Alt.: 2650-2900 m.
- P. interjecta* Gott. - CUNDINAMARCA: Gotsche (1864) 97, t. 17, f. 1-3, sp. nov. - Alt.: 2200 m.
- P. jamesonii* Tayl. - PUTUMAYO, VALLE: Robinson (1967a) 48 - SANTANDER: Carl (1931) 63; Herzog (1955) 163 - Alt.: 2100-3600 m.
- P. jaramillii* Robinson - CUNDINAMARCA: Robinson (1967a) 48, f. 56-62, sp. nov. - Alt.: 3520 m.
- P. juruensis* Steph. - S.L.: Carl (1931) 58.
- P. keckiana* Steph. - S.L.: Dugas (1929) 133, f. 110a.
- P. kegeliana* Steph. - VALLE: Herzog (1955) 163 - S.L.: Carl (1931) 76 - Alt.: 1700-2200 m.
- P. laetevirens* Lindenb. - S.L.: Gotsche, Lindenberg & Nees (1844-47) 38; Stephani (1901-05) 542.
- var. *peruviana* Spruce - VALLE: Herzog (1955) 163.
- P. leptodictyon* Herz. - MAGDALENA: Winkler (1976) 821 - Alt.: 2160 m.
- P. leptophylla* Spruce - S.L.: Stephani (1901-05) 586.
- P. lindigiana* Gott. - CUNDINAMARCA: Gotsche (1864) 105, sp. nov.; Stephani (1901-05) 218 - Alt.: 2500 m.
- P. longaeva* Herz. - CESAR, MAGDALENA: Winkler (1976) 821 - Alt.: 1900-2600 m.
- P. longispina* Lindenb. & Gott. - CALDAS; VALLE: Robinson (1967a) 50 - CUNDINAMARCA: Cleef & Jaramillo 3119 (det. Inoue) - Alt.: 0-3500 m.
- P. longitexta* Steph. - CUNDINAMARCA: Stephani (1901-05) 255, sp. nov.
- P. macrotricha* Spruce - CESAR, MAGDALENA: Winkler (1976) 821 - VALLE: Herzog (1955) 163 - Alt.: 200-2200 m.
- P. macvicarii* Steph. - VALLE: Herzog (1955) 163 - S.L.: Stephani (1901-05) 229, sp. nov. - Alt.: 1700-2200 m.
- P. magellanica* Lindenb. - CUNDINAMARCA: Gotsche (1864) 116.
- P. micropteryx* Gott. - CUNDINAMARCA: Gotsche (1864) 107, t. 19, f. 23-25, sp. nov.; Bonner (1962a) 193 "micropteryx" - Alt.: 2200 m.
- P. miquelianiana* Lehm. & Lindenb. - CUNDINAMARCA: Robinson (1967a) 50 - Alt.: 2500-2700 m.

- P. montagnei* Nees – MAGDALENA: Winkler (1976) 821 – Alt.: 100 m.
- P. oblita* Steph. – ANTIOQUIA: Stephani (1901–05) 221, sp. nov.; Bonner (1962a) 211 – BOYACA: Robinson (1967a) 50 – S.L.: Carl (1931) 76 – Alt.: 3150–3750 m.
- P. oblongotrigona* Steph. – CUNDINAMARCA: Irmscher (1914) 995 – Alt.: 3300 m.
- P. orestitropha* Spruce – CALDAS: Herzog (1955) 163, as fo. *minor* – MAGDALENA: Winkler (1976) 821 – VAUPES: Bonner (1962a) 215 – S.L.: Carl (1931) 74 – Alt.: 1200–3300 m.
- P. ovata* Lindenb. & Gott. – S.L.: Stephani (1901–05) 578.
- P. ovato-obconica* Steph. – ANTIOQUIA: Irmscher (1914) 995 – S.L.: Stephani (1917–24) 191, sp. nov. – Alt.: 2100 m.
- P. ovifolia* Steph. – ANTIOQUIA: Irmscher (1914) 995 – S.L.: Stephani (1917–24) 191, sp. nov. – Alt.: 1700 m.
- P. oxyphylla* Spruce – S.L.: Stephani (1901–05) 551.
- P. pachoensis* Steph. – CUNDINAMARCA: Stephani (1901–05) 544, sp. nov.
- P. pachyloma* Tayl. – SANTANDER: Carl (1931) 74; Herzog (1955) 163 – TOLIMA: Robinson (1967a) 50 – Alt.: 3300–3600 m.
- P. paraphyllina* Herz. – CUNDINAMARCA: Herzog (1934) 89, sp. nov. – Alt.: 3200 m.
- P. paucispinula* Herz. – NORTE DE SANTANDER: Carl (1931) 64; Herzog (1955) 163 – Alt.: 2800–3000 m.
- P. permista* Spruce – S.L.: Stephani (1901–05) 579.
- P. perrottetiana* Mont. & Gott. – CUNDINAMARCA: Gottsche (1864) 101.  
— var. *minor* Mont. & Gott. – CUNDINAMARCA: Gottsche (1864) 101.
- P. pichinchensis* Tayl. – PUTUMAYO: Robinson (1967a) 50 – Alt.: 2100 m.
- P. polopolensis* Herz. – MAGDALENA: Winkler (1976) 821 – Alt.: 2050 m.
- P. procera* Lindenb. – SANTANDER: Herzog (1955) 163 – S.L.: Stephani (1901–05) 532; Dugas (1929) 177, f. *171a* – Alt.: 3000 m.
- P. rara* Gott. – CUNDINAMARCA: Gottsche (1864) 100, t. 17, f. 10–12, sp. nov. – Alt.: 2600 m.
- P. regeliana* Steph. – S.L.: Stephani (1901–05) 212, sp. nov.
- P. relicta* Steph. – CUNDINAMARCA: Stephani (1901–05) 575, sp. nov.
- P. rufoviridis* Spruce – S.L.: Dugas (1929) 169, f. 160.
- P. rutilans* Lindenb. – CAUCA: Herzog (1955), as fo. *follicola* – CESAR: Winkler (1976) 821 – CUNDINAMARCA: Herzog (1934) 90 – PUTUMAYO: Robinson (1967a) 50 – Alt.: 300–2400 m.
- P. saltuensis* Spruce – S.L.: Stephani (1901–05) 577.  
— var. *spinossissima* Herz. – VALLE: Herzog (1955) 163, f. 1, var. nov. – Alt.: 2100–2400 m.
- P. schlimiana* Gott. – S.L. ("N. GRANADA"): Bonner (1962a) 269.
- P. serrata* (Roth) Lindenb. – S.L.: Carl (1931) 58.
- P. sylvatica* Gott. – CUNDINAMARCA: Gottsche (1864) 108, t. 20, f. 41–44, sp. nov.; Stephani (1901–05) 554 "sylvatica"; Dugas (1929) 134, f. 113a.; Herzog (1934) 90 – Alt.: 2200–2500 m.
- P. sparsifolia* Steph. – MAGDALENA: Winkler (1976) 821 – Alt.: 1800 m.
- P. stolonifera* Lindenb. & Gott. – META: Cleef 8173 (det. Inoue) – TOLIMA: Robinson (1967a) 50 – Alt.: 3330–4170 m.
- \**P. subaequalis* Steph. – CUNDINAMARCA: van der Hammen & Jaramillo 3161 (det. Inoue) – Alt.: 3100m.
- P. subdeflexiramea* Herz. – CESAR: Winkler (1976) 821 – Alt.: 1900 m.
- P. subdentata* Steph. – VALLE: Herzog (1955) 163 "subedentata" – Alt.: 200–300 m.
- P. subplana* Lindenb. – S.L.: Carl (1931) 76.
- P. subrara* Herz. – CUNDINAMARCA: Herzog (1934) 87, Abb. 5a, sp. nov. – Alt.: 3200 m.
- P. tocarema* Gott. – CUNDINAMARCA: Gottsche (1864) 106, t. 20, f. 45–49, sp. nov.; Stephani (1901–05) 574 – Alt.: 1900 m.
- P. tovarina* Gott. var. *trianae* Gott. – S.L.: Gottsche (1864) 102, sp. nov. & var. nov.; Stephani (1901–05) 206.
- P. trianae* Gott. – CUNDINAMARCA: Gottsche (1864) 114, t. 19, f. 33–36, sp. nov.; Stephani (1901–05) 515 – Alt.: 2600 m.
- \**P. triangulifolia* Steph. – META: Cleef 8045 (det. Inoue) – Alt.: 4050 m.

- P. trichostoma* Gott. – CUNDINAMARCA: Gottsche (1864) 113, sp. nov.; Stephani (1901–05) 579; Dugas (1929) 170, f. 162 – Alt.: 2500 m.
- P. trollii* Herz. – CUNDINAMARCA: Herzog (1934) 90, Abb. 5b–d, sp. nov. – Alt.: 2200–2400 m.
- P. turgida* Herz. – MAGDALENA: Winkler (1976) 821 – Alt.: 2000 m.
- P. undulifolia* Herz. – MAGDALENA: Winkler (1976) 821 – Alt.: 700 m.
- P. verruculosa* Schust. – CAUCA: Schuster (1959) 295, sp. nov.; Inoue (1975) 342 – CUNDINAMARCA: Robinson (1967a) 50 – Alt.: 2330–3300 m.
- P. vincentina* Lindenb. – BOYACA: Gottsche (1864) 110; Dugas (1929) 145, f. 128b – Alt.: 2100 m.
- P. wallisiana* Steph. – NORTE DE SANTANDER: Stephani (1901–05) 586, sp. nov.
- Plagiochilion bryhnii* (Steph.) Inoue – SANTANDER: Herzog (1932) 240, f. 22, as *Plagiochila reclinata* Herz. sp. nov.; Herzog (1955) 163; Schuster (1960) 127, as *Plagiochilion reclinata* (Herz.) Schust.; Inoue (1964) 61, f. 1 & 6 – VALLE: Robinson (1967a) 45 – Alt.: 1950–2600 m.
- Plectocolea subamoena* S. Winkler – MAGDALENA: Winkler (1976) 821, Abb. 6e–f, sp. nov. – Alt.: 1600 m.
- Plectocolea* is treated as a subgenus of *Jungermannia* by recent authors (cf. Váňa 1975).
- Porella brachiata* (Tayl.) Spruce – SANTANDER: Herzog (1955) 169, f. 7, as *Madotheca splendida* Herz., sp. nov.; Swails (1970) 225, f. 8a–j – Alt.: 2200–3200 m.
- P. brasiliensis* (Raddi) Schiffn. – S.L.: Swails (1970) 213, f. 2a–k.
- P. crispata* (Hook.) Trevis. – BOYACA: van der Hammen, Jaramillo & Murillo 1768 – CUNDINAMARCA: Swails (1970) 211, f. 1a–s – QUINDIO, RISARALDA, TOLIMA: Hooker (1819–20) 24, t. 153, f. 1–3, as *Jungermannia crispata* Hook. sp. nov.; Gottsche (1864) 114, as *Madotheca crispata* (Hook.) Nees; Spruce (1885) 328; Swails l.c. – Alt.: ± 1600–2100 m.
- Possibly also belonging here: *Madotheca commutata* var. *lindigiana* Gott. var. nov. – CUNDINAMARCA (1864) 144.
- P. expansa* (Lindenb. & Gott.) Clark & Frye – MAGDALENA: Winkler (1976) 822 – Alt.: 1250 m.
- P. leiboldi* (Lehm.) Trevis. – CAUCA: Swails (1970) 220, f. 5a–m.
- P. rugulosa* (Aongstr.) S. Arnell – CESAR, MAGDALENA: Winkler (1976) 822 – Alt.: 1500–2900 m.
- P. squamulifera* (Tayl.) Trevis. – CUNDINAMARCA: Swails (1970) 226, f. 9a–k; Gradstein, Cleef & Fulford (1977) 412 – SANTANDER: Herzog (1955) 169, as *Madotheca columbica* Tayl. – Alt.: 1200–3700 m.
- Prionolejeunea aemula* (Gott.) Evans – CAUCA: Herzog (1955) 176 – Alt.: 1400–1500 m.
- P. ampliretis* Herz. – VALLE: Herzog (1955) 178, f. 13, sp. nov. – Alt.: 200–300 m.
- P. arguta* (Nees) Steph. – VALLE: Herzog (1955) 176 – Alt.: 200–300 m.
- P. circinulata* Herz. – VALLE: Herzog (1955) 179, f. 14, sp. nov. – Alt.: 200–300 m.
- P. denticulata* (Web.) Schiffn. – BOYACA: Gottsche (1864) 153, as *Lejeunea denticulata* (Web.) Nees fo. *muzoana* Gott., fo. nov. – Alt.: 1900 m.
- P. fabroniae-folia* (Spruce) Schiffn. – VALLE: Robinson (1967a) 52 – Alt.: 1250–1400 m.
- P. gemmata* (Gott.) Steph. – CUNDINAMARCA: Gottsche (1864) 153, as *Lejeunea gemmata* Gott. sp. nov.
- P. helleri* – CHOCO: Winkler (1970) 951 – Alt.: ± 100 m.
- P. maculata* Herz. – VALLE: Herzog (1955) 180, f. 16, sp. nov. – Alt.: 150–300 m.
- P. magnistipula* Herz. – VALLE: Herzog (1955) 176, f. 1–2, sp. nov. – Alt.: 200–300 m.
- P. microdonta* (Gott.) Steph. – BOYACA: Gottsche (1864) 153, as *Lejeunea microdonta* Gott. – Alt.: 1900 m.
- P. mucronata* (Sande-Lac.) Steph. – VALLE: Herzog (1955) 176 – Alt.: 1700–2200 m.
- P. schlimiana* (Gott.) Steph. – GUAJIRA: Gottsche (1864) 154, as *Lejeunea schlimiana* Gott. sp. nov. – MAGDALENA: Winkler (1976) 822 – S.L.: Stephani (1912–17) 214 – Alt.: 1500–3000 m.
- Pseudocephalozia quadriloba* (Steph.) Schust. – BOYACA: e.g. Cleef 4707a – CAUCA: Cleef 2696 – CUNDINAMARCA: Schuster & Engel (1974) 685, f. 10–14; Gradstein, Cleef & Fulford (1977) 412, f. 29 – Alt.: 3200–4100 m.
- Pycnolejeunea decurvirostra* Steph. – VALLE: Herzog (1955) 193 – Alt.: 0–5 m.
- P. granatensis* Steph. – S.L. (“NOVA GRANADA”): Stephani (1912–17) 610, sp. nov.; Robinson (1967a)

- 55, as *Perilejeunea granatensis* (Steph.) Robinson.
- P. hyalina* Steph. 1890 (name published before validation of generic name) – CUNDINAMARCA (“Bogotá”): Stephani (1912–17) 614; Bonner (1978) 577, sub *Lejeunea hyalina* (Steph.) Steph.
- P. revoluta* Herz. – SANTANDER: Herzog (1955) 193, f. 23, sp. nov. – Alt.: 2000–2600 m.
- Radula amazonica* Spruce – VAUPES: Castle (1966) 22, f. 8 – Alt.: 1200 m.
- R. angulata* Steph. – CUNDINAMARCA, PUTUMAYO: Robinson (1967a) 51 – MAGDALENA: Winkler (1976) 822 – Alt.: 300–2330 m.
- R. bogotensis* Steph. – CUNDINAMARCA: Gottsche (1864) 143, as *R. pallens* Nees var. *brasiliensis* Nees; Stephani (1884) 115, sp. nov.; Castle (1966) 40, f. 16 – Alt.: 2500 m.
- R. boryana* (Web.) Nees – CUNDINAMARCA: Castle (1936) 20, f. 1.
- R. cornucopiae* Spruce – ANTIOQUIA: Castle (1959) 24, f. 11 – Alt.: 1200 m.
- R. fendleri* Gott. – CESAR: Winkler (1976) 822 – Alt.: 1900 m.
- R. flaccida* Lindenb. & Gott. – VALLE: Robinson (1967a) 51 – Alt.: 5–80 m.
- R. gracilis* Mitt. ex Steph. – CUNDINAMARCA: Castle (1967) 19, f. 7.
- R. jamesoni* Tayl. – CALDAS, TOLIMA: Irmscher (1914) 996, as *R. sprucei* Steph. – CUNDINAMARCA: Castle (1966) 29, f. 10 – Alt.: 3700 m.
- R. kegelii* Gott. – MAGDALENA: Winkler (1976) 822 – Alt.: 1500 m.
- R. lindigii* Castle – CUNDINAMARCA: Gottsche (1864) 143, as *R. pallens* Nees “var.  $\alpha$ ” Castle (1959) 29, f. 13, sp. nov. – Alt.: 1500–2500 m.
- R. mammosa* Spruce – S.L.: Castle (1939) 24, f. 2.
- R. mexicana* Lindenb. & Gott. ex Gott. – S.L.: Castle (1964) 192, f. 3.
- R. mollis* Lindenb. & Gott. – CUNDINAMARCA: Gottsche (1864) 143, as *Radula quadrata* Gott. var. *manzonensis* Gott. var. nov.; Castle (1965) 334, f. 2 – Alt.: 2700 m.
- R. quadrata* Gott. – CESAR, MAGDALENA: Winkler (1976) 822 – Alt.: 1900–2900 m.
- R. ramulina* Tayl. – CESAR: Winkler (1976) 822 – CUNDINAMARCA: Gottsche (1864) 143, det. as *R. xalapensis* Mont.; Castle (1965) 339, f. 3 – TOLIMA: Robinson (1967a) 51 – Alt.: 1900–3330 m.
- R. saccatiloba* Steph. – CHOCO: Winkler (1970) 951 – Alt.:  $\pm$  100 m.
- R. sinuata* Gott. – CESAR, MAGDALENA: Winkler (1976) 822 – Alt.: 1500–1900 m.
- R. sonsonensis* Steph. – ANTIOQUIA: Castle (1963) 7, f. 2 – Alt.: 3000 m.
- R. stenocalyx* Mont. – CHOCO: Winkler (1970) 951 – Alt.:  $\pm$  100 m.
- R. surinamensis* Steph. – MAGDALENA: Winkler (1976) 822 – Alt.: 2160 m.
- R. xalapensis* Mont. – CUNDINAMARCA: Gottsche (1864) 143. – Alt.: 2000–2700 m.
- Rectolejeunea emarginuliflora* (Gott. ex Schiffn.) Evans – VALLE: Herzog (1955) 194 – Alt.: 80–100 m.
- R. lindigiana* Steph. – S.L. (“NOVA GRANADA”): Stephani (1912–17) 690, sp. nov.
- R. longiloba* Steph. – CUNDINAMARCA, VALLE: Robinson (1967a) 55 – Alt.: 2600–3270 m.
- R. mandiocana* Steph. – MAGDALENA: Winkler (1976) 823 – Alt.: 2160 m.
- R. phyllobola* (Nees & Mont.) Evans – PUTUMAYO, VALLE: Robinson (1967a) 55. – Alt.: 300–1400 m.
- Riccardia aberrans* (Steph.) Gradst. comb. nov. (*Aneura aberrans* Steph., *Hedwigia* 32: 18, 1893) – ANTIOQUIA: Stephani (1889–1900) 210, as *A. aberrans*.
- R. amazonica* (Spruce) Schiffn. comb. nov. (*Aneura amazonica* Spruce, Trans. & Proceed. Bot. Soc. Edinburgh 15: 545, 1885; *Riccardia amazonica* (Spruce) Schiffn. (1964) 10, 17 comb. inval., sine ref. bibliogr.) – MAGDALENA: Winkler (1976) 823, as *R. amazonica* – Alt.: 2600 m.
- R. bogotensis* (Gott.) Schiffn. comb. nov. (*Pseudoneura bogotensis* Gott. Ann. Scie. Nat. 5: 184, 1864; *Riccardia bogotensis* (Gott.) Schiffn. (1964) 10 comb. inval., sine ref. bibliogr.) – CESAR: Winkler (1976) 823, as *R. bogotensis* – CUNDINAMARCA: Gottsche l.c.; Stephani (1889–1900) 213, as *Aneura bogotensis* (Gott.) Steph. – Alt.: 1900 m.
- R. cervicornis* (Spruce) Herz. comb. nov. (*Aneura cervicornis* Spruce, Trans. & Proceed. Bot. Soc. Edinburgh 15: 550, 1885; *Riccardia cervicornis* (Spruce) Herz. (1955) 158, comb. inval., sine ref. bibliogr.) – VALLE: Herzog l.c. – Alt.: 80–100 m.
- R. ciliolata* (Spruce) Gradst. comb. nov. (*Aneura ciliolata* Spruce, Trans. & Proceed. Bot. Soc.

- Edinburgh 15: 547, 1885) – ANTIOQUIA: Stephani (1898–1900) 239, as *A. ciliolata* – Alt.: ± 3000 m.  
*R. columbica* (Steph.) Hässel comb. nov. (*Aneura columbica* Steph., Sp. Hep. 6: 22, 1917; *Riccardia columbica* (Steph.) Hässel (1972) 164 comb. inval., sine ref. bibliogr.) – S.L.: Stephani l.c.; Bonner (1962b) 94, as *A. columbica*.  
*R. fucoidea* (Sw.) Schiffn., Consp. Hep. Arch. Ind. (1898) 54 – BOYACA: e.g. *van der Hammen & Jaramillo* 1670 – HUILA: Cleef 5069 & 5115 – PUTUMAYO: Robinson (1967a) 56 – TOLIMA: *van der Hammen & Jaramillo* 3269, 3281, 3333, 3351, 3352 – Alt.: 18–3750 m.  
*R. insignis* Schiffn. – MAGDALENA: Winkler (1976) 823 – Alt.: 1950 m.  
*R. lepidomitra* (Spruce) Gradst. comb. nov. (*Aneura lepidomitra* Spruce, Trans. & Proceed. Bot. Soc. Edinburg 15: 549, 1885) – ANTIOQUIA: Stephani (1898–1900) 235, as *A. lepidomitra*.  
*R. metzgeriaeformis* (Steph.) Schiffn. comb. nov. (*Aneura metzgeriaeformis* Steph., Spec. Hep. 1: 263, 1899; *Riccardia metzgeriaeformis* (Steph.) Schiffn. (1964) 10, comb. inval., sine ref. bibliogr.) – MAGDALENA: Winkler (1976) 823 – Alt.: 700–1600 m.  
*R. multifida* (L.) S. Gray – CUNDINAMARCA: Gottsche (1864) 184, as *Pseudoneura multifida* (L.) Gott. – QUINDIO, RISARALDA, TOLIMA: Kunth (1822) 44, as *Jungermannia multifida* L. – Alt.: 2500–3500 m.  
*R. palmata* (Hedw.) Carruth. – CUNDINAMARCA: Gottsche (1864) 184, as *Aneura palmata* (Hedw.) Nees – Alt.: 2500 m.  
*R. papillata* (Gott.) Hässel comb. nov. (*Pseudoneura papillata* Gott., Ann. Scie. Nat. 5: 184, 1864; *Aneura papillata* (Gott.) Steph. (1898–1900) 222; *Riccardia papillata* (Gott.) Hässel (1972) 179 comb. inval., sine ref. bibliogr.) – CUNDINAMARCA: Gottsche l.c.; Stephani l.c. – Alt.: 2100–2700 m.  
*R. pinnatifida* (Web.) Trevis. (cf. Schiffner (1898) 56–57; *Jungermannia multifida* L. var. *pinnatifida* Weber, Hist. Musc. Hepat. Prodr.: 94, 1815; *Jungermannia pinnatifida* (Web.) Sw. ex Nees, Hepat. Javan.: 9, 1830; *Aneura pinnatifida* (Web.) Dum., Rec. Observ.: 26, 1835) – CUNDINAMARCA: Gottsche (1864) 183, as *A. pinnatifida* – Alt.: 2700 m.  
*R. squarrosa* (Steph.) Gradst. comb. nov. (*Aneura squarrosa* Steph., Hedwigia 32: 26, 1893) – ANTIOQUIA: Stephani (1898–1900) 222, as *A. squarrosa* – Alt.: ± 3000 m.  
*R. wallisii* (Steph.) Gradst. comb. nov. (*Aneura wallisii* Steph., Hedwigia 32: 28, 1893) – ANTIOQUIA: Stephani (1898–1900) 236, as *A. wallisii*.  
*Riccia indusiata* S. Winkler – CESAR: Winkler (1976) 823, sp. nov. – Alt.: 4200 m.  
*R. weiniorum* Steph. – MAGDALENA: Winkler (1976) 823 – Alt.: 50 m.

- Scapania portoricensis* Hampe & Gott. – ANTIOQUIA: Herzog (1928) 109, as fo. *integrifolia* Herz. – BOYACA: *van der Hammen & Jaramillo* 2157 – CUNDINAMARCA: *van der Hammen & Jaramillo* 1886 – META: Cleef 7860 (det. Cleef) – TOLIMA: Gradstein, Cleef & Fulford (1977) 413 – Alt.: 3000–3750 m.  
— var. *roraimensis* Steph. ex Herz. – VALLE: Herzog (1928) 109, f. 10; Herzog (1955) 169 – Alt.: 1700–2200 m.  
*Schiffnerolejeunea polycarpa* (Nees) Gradst. – CHOCO: Winkler (1970) 951, as *Ptychocoleus polycarpus* (Nees) Trevis. – Alt.: ± 100 m.  
*Sphaerolejeunea umbilicata* Herz. – CAUCA: Herzog (1938) 88, f. 1, gen. nov. & sp. nov.; Herzog (1955) 195 – Alt.: 1400–1500 m.  
*Stephaniella paraphyllina* Jack – ARAUCA: Cleef 9113 (det. Kruithof) – BOYACA: Schmitt & Winkler (1968) 127, Abb. 1–3 – CESAR, MAGDALENA: Schmitt & Winkler l.c.; Winkler (1976) 823 – CUNDINAMARCA: Herzog (1934) 84; Schmitt & Winkler l.c. – Alt.: 2700–4350 m.  
*S. rostrata* Schmitt – BOYACA: Schmitt & Winkler (1968) 124, Abb. 3, sp. nov. – Alt.: 3250–4320 m.  
*S. uncifolia* S. Winkler – BOYACA: Schmitt & Winkler (1968) 127, Abb. 2, sp. nov. – Alt.: 3250 m.  
*S. steumeri* (K. Müll.) S. Winkler – CESAR, MAGDALENA: Winkler (1969) 60, Abb. 1, gen. nov.; Winkler (1976) 823 – Alt.: 3100 m.  
*Stictolejeunea kunzeana* (Gott.) Schiffn. – CHOCO: Winkler (1970) 951 – VALLE: Herzog (1955) 171 – Alt.: 80–1800 m.

*S. squamata* (Willd. ex Weber) Schiffn. – CHOCO: Winkler (1970) 951 – NARINO: Gottsche (1864) 151, as *Lejeunea squamata* (Willd. ex Weber) Nees & Mont. – VALLE: Cleef 2075 – Alt.: ± 250 m.  
*Strepsilejeunea acutangula* (Nees) Schiffn. (Bot. Jahrb. (1897) 851) – MAGDALENA: Winkler (1976) 823 – Alt.: 1250 m.

*Strepsilejeunea* is treated as a synonym of *Cheilojeunea* by recent authors (cf. Mizutani (1961) 189). The Colombian taxa are currently being studied by R. Grolle.

*S. choachina* (Gott.) Steph. – CUNDINAMARCA: Gottsche (1864) 156, as *Lejeunia choachina* Gott. sp. nov.; Herzog (1934) 96 – Alt.: 3400–3620 m. cf. sub *S. acutangula*.

*S. laevicalyx* Jack & Steph. 1892 (name published before validation of generic name) – S.L. ("NOVA GRANADA"): Jack & Stephani (1892) 19 – cf. sub *S. acutangula*.

*S. pectiniformis* (Gott.) Steph. – SANTANDER: Gottsche (1864) 156, as *Lejeunea pectiniformis* Gott., sp. nov. – Alt.: 1200 m. – cf. sub *S. acutangula*.

*Symbiezidium barbiflorum* (Lindenb. & Gott.) Evans – S.L.: Fulford (1942) 297.

*S. dentatum* Herz. – MAGDALENA: Winkler (1976) 823 – VALLE: Herzog (1955) 175, f. 10f-I, sp. nov. – Alt.: 200–2160 m.

*S. granulatum* (Nees) Steph. – VALLE: Herzog (1955) 175 – Alt.: 0–100 m.

*S. subrotundum* (Kunth) Trevis. – CHOCO: Winkler (1970) 951 – CUNDINAMARCA: Fulford (1942) 298 – MAGDALENA: Winkler (1976) 824 – CHOCO: Winkler (1970) 951 – QUINDIO, RISARALDA, TOLIMA: Kunth (1822) 41, as *Jungermannia subrotunda* Kunth, sp. nov.; Gottsche (1864) 150 as *Lejeunea subrotunda* (Kunth) Hook. ex Gott., Lindenb. & Nees; Fulford (1942) 298 – Alt.: 50–2600 m.

*S. transversale* (Sw.) Trevis. – CHOCO: Winkler (1970) 951, also as *S. hobsonianum* (Lindenb.) Trevis. – MAGDALENA: Winkler (1976) 824 – NARINO: Gottsche (1864) 150, as *Lejeunea transversalis* (Sw.) Nees; Robinson (1967a) 51 – PUTUMAYO: Robinson l.c. – Alt.: 50–300 m.

*Symphyogyna aspera* Steph. – CUNDINAMARCA: Gottsche (1864) 183, det. as *Symphyogyna hochstetteri* Nees & Mont. (fide Evans l.c.); Evans (1925a) 42, f. 11–13 – TOLIMA: Robinson (1967a) 56 – Alt.: 1420–2600 m.

*S. bogotensis* (Gott.) Steph. – CUNDINAMARCA: Gottsche (1864) 181, as *Sympphyogyna hymenophyllum* (Hook.) Mont. & Nees; Stephani (1898–00) 346; Herzog (1934) 81 – Alt.: 2700–3400 m.

*S. brasiliensis* Nees (basionym: *Jungermannia brasiliensis* Nees 1833, nom. illeg. non Raddi 1822) – CALDAS, TOLIMA: Robinson (1967a) 56 – CUNDINAMARCA: Evans (1927) 307, f. 1.; Robinson (1967a) 56 – MAGDALENA: Winkler (1976) 824 – SANTANDER: Herzog (1955) 159 – Alt.: 1850–3300 m.

— var. *angustior* Gott. – CUNDINAMARCA: Gottsche (1864) 183, var. nov.; Evans (1927) 308, as *S. brasiliensis* Nees, but type (*Lindig 1711* p.p.) not seen – Alt.: 2900 m.

*S. brogniartii* Mont. – CUNDINAMARCA: Gottsche (1864) 181, as *S. sinuata* Mont. & Nees (coll. *Lindig 1704*, fide Evans l.c.); Evans (1925a) 25, f. 5–7; Robinson (1967a) 56 – MAGDALENA: Winkler (1976) 824 – SANTANDER: Herzog (1955) 159 – Alt.: 2050–2600 m.

*S. leptothelia* Tayl. – CAUCA: Cleef 490e & 654 (det. Fulford) – Alt.: 3470–3730 m.

*S. podophylla* (Thunb.) Mont. & Nees – CUNDINAMARCA: Gottsche (1864) 181, as *S. hymenophyllum* (Hook.) Mont. & Nees – Alt.: 2900 m.

This South-African species is considered identical to the South-American *S. hymenophyllum* (Hook.) Mont. & Nees by S. Arnell (Hep. S. Afr. 1963). The Colombian collection of this species (*Lindig 1711* p.p.) consisted according to Gottsche (l.c.) of a mixture of this species and the related dendroid *S. bogotensis* (Gott.) Steph. The material needs further revision.

*S. rubescens* Steph. – CUNDINAMARCA: Cleef 298 – Alt.: 3600 m.

*S. sinuata* (Sw.) Mont. & Nees – CUNDINAMARCA: Gottsche (1864) 181 (coll. *Lindig 1748* p.p.) – MAGDALENA: Winkler (1976) 824 – TOLIMA: Kunth (1822) 44, as *Jungermannia sinuata* Sw. – Alt.: 2160 m.

*Syzygiella anomala* (Lindenb. & Gott.) Steph. – CALDAS: Cleef & 't Hart 2566 ("cf.") – CUNDINAMARCA:

- Herzog* (1934) 87; *Inoue* (1966) 188, *f. 8a-i* – **TOLIMA**: *van der Hammen & Jaramillo* 3270c – Alt.: 2830–3620 m.
- S. colombiana* *Robinson* – **VALLE**: *Robinson* (1967b) 322, *f. 25–31*, sp. nov. – Alt.: 2000 m.
- S. contigua* *Steph.* – **CUNDINAMARCA**: *Gottsche* (1864) 118, as *Jungermannia contigua* *Gott.* sp. nov., nom. illeg. non *Nees* 1833; *Herzog* (1934) 86 – **SANTANDER**: *Herzog* (1955) 159 – Alt.: 3300–3600 m.
- S. grollei* *Inoue* – **CUNDINAMARCA**: *Inoue* (1974) 303, *f. 2*, sp. nov. – Alt.: 2000 m.
- S. integerrima* *Steph.* – **TOLIMA**: *Gradstein, Cleef & Fulford* (1977) 414 – Alt.: 2920–3550 m.
- S. liberata* *Inoue* – **BOYACA**: *Cleef* 9306 – **CUNDINAMARCA**: *Inoue* (1974) 301, *f. 1*, sp. nov. – **META**: *Cleef* 7789a (det. *Inoue*) – Alt.: 3280–3915 m.
- S. manca* (*Mont.*) *Steph.* – **S.L.**: *Inoue* (1966) 184, *f. 6f–k*.
- S. perfoliata* (*Sw.*) *Spruce* – **CUNDINAMARCA**: *Stephani* (1901–05) 186, as *S. jelskii* (*Loitl.*) *Steph.* – **MAGDALENA**: *Winkler* (1976) 824, as *S. lingulifolia* *Schiffn.* – Alt.: 2500 m.
- S. setulosa* *Steph.* – **CESAR, MAGDALENA**: *Winkler* (1976) 814, as *Jamesoniella rotundifolia* *Steph.* – Alt.: 1600–2800 m.
- Targionia hypophylla** *L.* – **MAGDALENA**: *Winkler* (1976) 824 – Alt.: 630–1600 m.
- Taxilejeunea apiculata** (*Gott.*) *Steph.* – **CUNDINAMARCA**: *Gottsche* (1864) 149, as *Omphalanthus apiculatus* *Gott.* sp. nov. – **S.L.**: *Stephani* (1912–17) 459; *Bonner* (1978) 471, as *Lejeunea apiculata* (*Gott.*) *Steph.* – Alt.: 2800 m.
- T. auriculata* *Steph.* – **ANTIOQUIA**: *Irmscher* (1914) 996 – Alt.: 1900 m.
- T. caracensis* (*Lindenb.*) *Schiffn.* 1897 – **CESAR, MAGDALENA**: *Winkler* (1976) 824 “*caracasensis*” – Alt.: 1900–2150 m.
- T. caripensis* (*Lindenb. & Gott.*) *Schiffn.* – **MAGDALENA**: *Winkler* (1976) 824 – Alt.: 2160 m.
- T. cuervi* (*Gott.*) *Steph.* – **CUNDINAMARCA**: *Gottsche* (1864) 147, as *Omphalanthus cuervi* *Gott.* sp. nov.; *Stephani* (1912–17) 486.
- T. debilis* (*Lehm. & Lindenb.*) *Schiffn.* – **CUNDINAMARCA**: *Gradstein, Cleef & Fulford* (1977) 415 – Alt.: 3050 m.
- T. densiflora* *Evans* – **MAGDALENA, NORTE DE SANTANDER**: *Evans* (1921) 121, *f. 12–16*, sp. nov.
- T. dissitifolia* *Steph.* – **CESAR, MAGDALENA**: *Winkler* (1976) 824 – Alt.: 1600–220 m.
- T. flaccida* (*Lindenb. & Gott.*) *Steph.* – **MAGDALENA**: *Winkler* (1976) 824 – Alt.: 50 m.
- T. herzogiana* *Steph.* – **MAGDALENA**: *Winkler* (1976) 824 – Alt.: 1250–2100 m.
- T. hygrophila* (*Gott.*) *Steph.* – **CUNDINAMARCA** (1864) 157, as *Lejeunea hygrophila* *Gott.* sp. nov.; *Stephani* (1912–17) 468 – Alt.: 2800 m.
- T. killipii* *Herz.* – **VALLE**: *Herzog* (1955) 190, *f. 18a–h*, sp. nov. – Alt.: 300–500 m.
- T. laevis* (*Gott.*) *Steph.* – **BOYACA**: *Gottsche* (1864) 148, as *Omphalanthus laevis* *Gott.* sp. nov. – Alt.: 2700 m.
- T. lindbergiana* *Gott. ex Steph.* – **MAGDALENA**: *Winkler* (1976) 824 – Alt.: 50–2160 m.
- T. longiloba* *Steph.* – **VALLE**: *Robinson* (1967a) 52 – Alt.: 1250–1400 m.
- T. lusoria* (*Lindenb. & Gott.*) *Schiffn.* – **CAUCA**: *Herzog* (1955) 188 – **CHOCO**: *Winkler* (1970) 951 – **MAGDALENA**: *Winkler* (1976) 824 – **SANTANDER**: *van der Hammen & Jaramillo* 1896 (“cf.”) – **TOLIMA**: *Robinson* (1967a) 52 – **S.L.**: *Gottsche, Lindenbergh & Nees* (1844–47) 306, 747, as *Omphalanthus lusorius* *Lindenb. & Gott.* sp. nov. – Alt.: 100–3300 m.
- T. macrorhyncha* (*Spruce*) *Steph.* – **VALLE**: *Herzog* (1955) 188.
- T. obtusangula* (*Spruce*) *Evans* – **MAGDALENA**: *Winkler* (1976) 824 – Alt.: 700 m.
- T. pallescens* (*Mitt.*) *Steph.* – **BOYACA**: *Gottsche* (1864) 148, as *Omphalanthus leioscyphus* *Gott.* sp. nov.; *Schiffner* (1897) 580, as *ibid.* – **CUNDINAMARCA**: *Gottsche* l.c. – **SANTANDER**: *Herzog* (1955) 188 – Alt.: 2600–3000 m.
- T. papulifera* *Steph.* – **CESAR, GUAJIRA, MAGDALENA** (Santa Marta): *Stephani* (1912–17) 494, sp. nov.
- T. peruviana* *Steph.* – **S.L.**: *Stephani* (1912–17) 475, sp. nov.
- T. prominula* (*Gott.*) *Steph.* – **CUNDINAMARCA**: *Gottsche* (1864) 157, as *Lejeunea prominula* *Gott.* sp. nov. – **S.L.**: *Stephani* (1912–17) 476 – Alt.: 2200 m.

- T. pterogonia* (Lehm. & Lindenb.) Schiffn. – BOYACA: *van der Hammen, Jaramillo & Murillo 1618 & 1752* – CALDAS, TOLIMA, VALLE: Robinson (1967a) 52 – CUNDINAMARCA: Gottsche (1864) 147, as *Omphalanthus pterogonius* (Lehm. & Lindenb.) Lehm. & Lindenb.; Evans (1921) 108, *pl. 2* – MAGDALENA: Winkler (1976) 824 – SANTANDER: Herzog (1955) 188 – Alt.: 300–3390 m.
- T. speciosa* Herz. – VALLE: Herzog (1955) 188, *f. 21*, sp. nov. – Alt.: 80–100 m.
- T. sulphurea* (Lehm. & Lindenb.) Schiffn. – BOYACA: *van der Hammen, Jaramillo & Murillo 1764* – CAUCA: Herzog (1955) 188 – SANTANDER: *van der Hammen & Jaramillo 1894* – Alt.: 1400–2000 m.
- Telaranea nematodes* (Gott. ex Aust.) Howe – AMAZONAS, META, VAUPES: Fulford (1966) 235, *pl. 52*, *f. 1*, as *T. sejuncta* (Aongstr.) S. Arnell – BOYACA: e.g. Cleef 7238a – CUNDINAMARCA: Fulford l.c.; Gradstein, Cleef & Fulford (1977) 416 – HUILA: Cleef 5069a – MAGDALENA: Winkler (1976) 825 – META: Cleef 7635b – PUTUMAYO: Robinson (1967a) 44 – Alt.: 200–4520 m.
- Thysananthus amazonicus* (Spruce) Schiffn. – S.L.: Fulford (1941) 37, *f. 28–40*.
- T. evansii* Fulf. – PUTUMAYO: Robinson (1967a) 51 – Alt.: 300 m.
- T. pterobryoides* (Spruce) Schiffn. – VALLE: Fulford (1941) 35, *f. 13–27*.
- Trachylejeunea didrichsenii* Gott. ex Steph. – MAGDALENA: Winkler (1976) 825 – Alt.: ±2200 m.  
According to Grolle (in sched.), one of the two collections on which the record was based (Winkler C 118) belongs to *Cyclolejeunea*.
- T. inflexa* (Hampe ex Lehm.) Steph. – MAGDALENA: Winkler (1976) 825 – Alt.: 2160 m.
- Triandrophyllyum maegdefraui* S. Winkler – MAGDALENA: Winkler (1976) 825, sp. nov. – Alt.: 3500 m.
- T. subtrifidum* (Hook. f. & Tayl.) Fulf. & Hatch. – AMAZONAS, CAQUETA: Solari (1973) 198 – BOYACA: Cleef 2297 – CALDAS: e.g. Cleef & 't Hart 2439 – CAUCA, HUILA: Fulford (1963) 86, *f. 1*; Solari l.c. – CESAR, MAGDALENA: Winkler (1976) 825 – META: e.g. Cleef 1078 – Alt.: 2900–4520 m.
- var. *trifidum* (Gott.) Solari – CALDAS: Cleef & 't Hart 2563 – CUNDINAMARCA: Gottsche (1864) 142, as *Sendtnera trifida* Gott. sp. nov.; Stephani (1905–09) 607, as *Isotachis trifida* (Gott.) Spruce; Fulford (1963) 87, *f. 2*, as *Triandrophyllyum trifidum* (Gott.) Fulf. & Hatch.; Solari (1973) 201, stat. nov. – Alt.: 1800–4520 m.
- Trichocolea argentea* Herz. – CESAR: Winkler (1976) 825 – Alt.: 1900 m.
- T. elegans* Lehm. – MAGDALENA: Winkler (1976) 825 – Alt.: 2160 m.
- T. elliotii* Steph. – BOYACA, CAUCA, CUNDINAMARCA: Bischler (1962a) 34 – Alt.: 1700–3630 m.
- T. filicaulis* Steph. – CAUCA, CUNDINAMARCA: Bischler (1962a) 34 – MAGDALENA: Winkler (1976) 825 – Alt.: 2160–3510 m.
- T. flaccida* (Spruce) Jack & Steph. – BOYACA: *van der Hammen, Jaramillo & Murillo 1619* – CAUCA, HUILA: Bischler (1962a) 34; Fulford (1963) 49, *f. 8* – CUNDINAMARCA: Fulford l.c.; MAGDALENA: Winkler (1976) 825 – QUINDIO, RISARALDA, TOLIMA: Bischler (1962a) 34 – Alt.: 1500–3150 m.
- T. paraphyllina* (Spruce) Steph. – ANTIOQUIA, CAUCA: Fulford (1963) 46, *f. 5*.
- T. robusta* Steph. – ANTIOQUIA: Bischler (1962a) 35; Fulford (1963) 46, *f. 4* – BOYACA, CUNDINAMARCA: Bischler l.c. – Alt.: 2800–3600 m.
- T. sprucei* Steph. – CAUCA: Bischler (1962a) 35 – Alt.: 3530–3630 m.
- T. tomentosa* (Sw.) Gott. – CAUCA: Bischler (1962a) 35; Fulford (1963) 42, *f. 1* – CHOCO: Bischler l.c. – CUNDINAMARCA: Gottsche (1864) 133; Fulford l.c.; Robinson (1967a) 44 – MAGDALENA: Winkler (1976) 825 – PUTUMAYO: Robinson l.c. – TOLIMA: e.g. *van der Hammen & Jaramillo 3386* – Alt.: 900–3630 m.
- var. *minor* Gott. – CUNDINAMARCA: Gottsche (1864) 133, var. nov. – Alt.: 2900 m.
- T. uleana* Steph. – MAGDALENA: Winkler (1976) 826 – Alt.: 2160 m.
- Tylimanthus anisodontus* (Hook. f. & Tayl.) Steph. – CUNDINAMARCA: Gottsche (1864) 137, as *Gymnanthe anisodonta* (Hook. f. & Tayl.) Gott. – Alt.: 2400–2500 m.
- T. bispinosus* Jack & Steph. – NORTE DE SANTANDER: Jack & Stephani (1892) 26, *t. 3*, *f. 12–13*; Stephani (1901–05) 178, as *Acrobolbus bispinosus* (Jack & Steph.) Steph.
- T. setaceo-ciliatus* Steph. – BOYACA: Cleef 9822 (det. Grolle) – CUNDINAMARCA: Cleef 6501 & 6502a – META: Cleef 8200 – TOLIMA: Gradstein, Cleef & Fulford (1977) 417 – Alt.: 3670–4000 m.
- T. setaceus* Steph. – ANTIOQUIA: Stephani (1905–09) 13, sp. nov.

*Zoopsis integrifolia* (Spruce) Steph. – VAUPES: Fulford (1968) 369, pl. 99, f. 1.

#### SYNONYMS

- Acrobolbus bispinosus* Jack & Steph. = *Tylimanthus*  
*Alicularia callithrix* (Lindenb. & Gott.) Herz. = *Jungermannia*  
*A. succulenta* (Rich. ex Lehm.) Spruce = *Nardia*  
*Alobiella biloba* Herz. = *Fuscocephaloziopsis*  
*Androcryphia confluens* Nees = *Noteroclada*  
*A. porphyrorhiza* Nees = *Fossumbronia*  
*Aneura aberrans* Steph. = *Riccardia*  
*A. bogotensis* (Gott.) Steph. = *Riccardia*  
*A. cervicornis* Spruce = *Riccardia*  
*A. ciliolata* Spruce = *Riccardia*  
*A. columbica* Steph. = *Riccardia*  
*A. lepidomitra* Spruce = *Riccardia*  
*A. palmata* Nees = *Riccardia*  
*A. papillata* (Gott.) Steph. = *Riccardia*  
*A. pinnatifida* Nees = *Riccardia*  
*A. squarrosa* Steph. = *Riccardia*  
*A. wallisii* Steph. = *Riccardia*  
*Anthoceros fimbriatus* Gott. = *Phaeoceros*  
*A. qualiquizana* Steph. = *Phaeoceros*  
*A. laevis* L. = *Phaeoceros*  
*A. vincentianus* Lehm. & Lindenb. = *Megaceros*  
*Apotomanthus succulentus* (Rich. ex Lehm.) Schiffn. = *Nardia*  
*A. tortistipulus* (Spruce) Schiffn. = *Nardia succulenta*  
*Bazzania asperistipula* (Steph.) Herzog = *B. schlimmiana*  
*B. bogotensis* (Steph.) Jack & Steph. = *B. chilensis*  
*B. cuervi* (Gott.) Gott. ex Steph. = *B. breuteliana*  
*B. lindigii* (Steph.) Gott. ex Spruce = *B. affinis*  
*Bellincinia columbica* (Tayl.) Kuntze = *Porella squamulifera*  
*Brachiolejeunea bicolor* (Mont.) Schiffn. = *B. densifolia*  
*Bryopteris filicina* Nees var. *hookeriana* = *B. fruticulosa* ssp. *monoica*  
*Calypogeia biapiculata* (Spruce) Steph. = *C. peruviana*  
*C. colombica* S. Arnell = *C. andicola*  
*C. granatensis* (Gott.) Steph. = *Gongylanthus*  
*C. heterophylla* Steph. = *C. peruviana*  
*Cephalozia colombica* S. Arnell = *C. bicuspidata*  
*C. granatensis* Jack = *Cephaloziella*  
*Cephaloziella andina* Herz. = *C. divaricata*  
*Ceratolejeunea litoralis* Herz. = *C. maritima*  
*Drepanolejeunea hamulata* Gott. ex Steph. var. *espinulosa* Herz. = *Dr. orthophylla*  
*D. roraimae* Zwick. = *Dr. inchoata* var. *roraimae*  
*Euomolejeunea duriuscula* (Nees) Evans = *Cheirolejeunea rigidula*  
*Fimbriaria bakeri* Steph. = *Asterella pringlei*  
*F. lindbergiana* Corda = *Asterella*  
*F. macropoda* Spruce = *Asterella*  
*Frullania arietina* Tayl. = *Fr. riojaneirensis*  
*Fr. bullatiflora* Steph. = *Fr. macrocephala*  
*Fr. closterantha* Spruce = *Fr. intumescens*  
*Fr. coalita* Steph. = *Fr. beyrichiana*

- Fr. cylindrica* Gott.=*Fr. brasiliensis*  
*Fr. columbica* Steph.=*Fr. brasiliensis*  
*Fr. ecklonii* (Spreng.) Gott. & Lindenb.=*Fr. arecae*  
*Fr. hians* Lehm. & Lindenb.=*Fr. arecae*  
*Fr. hutchinsiae* Nees var. *bogotensis* Gott.=*Jubula*  
*Fr. longicollis* Lindenb. & Gott.=*Fr. intumescens*  
*Fr. mucroloba* Clark & Svhla=*Fr. bicornistipula* var. *mucroloba*  
*Fr. patens* Lindenb.=*Fr. mucronata*  
*Fr. replicata* (Nees) Spruce=*Fr. nodulosa*  
*Fr. robusta* (Spruce) Steph.=*Fr. brasiliensis*  
*Fr. spruceana* Steph.=*Fr. brasiliensis*  
*Fr. squarrosa* Nees=*Fr. ericoides*  
*Fr. ulotricha* Tayl.=*Fr. paradoxa*  
*Funicularia bischleriana* Jov.-Ast=*Cronisia paradoxa*  
*Gymnanthe anisodonta* (Hook. & Tayl.) Gott.=*Tylimanthus*  
*Haplozia carnosa* Herz.=*Gongylanthus granatensis*  
*H. cucullata* Herz.=*Gongylanthus liebmanianus*  
*H. rorida* Herz.=*Jungermannia ovato-trigona*  
*Harpalejeunea granatensis* Jack & Steph.=*Drepanolejeunea*  
*Herbertus granatensis* (Steph.) Herz.=*H. acanthelius*  
*Herpetium scutigerum* Nees & Mont.=*Bazzania* sp.  
*Isotachis piliflora* Herz.=*I. serratula*  
*I. trifida* (Gott.) Spruce=*Triandrophylloides subtrifidum* var. *trifidum*  
*I. woronowii* Herz.=*I. serratula*  
*Jamesoniella allionii* Steph.=*Cryptochila grandiflora*  
*J. boliviiana* Steph.=*Lethocolea glossophylla*  
*J. colorata* (Lehm.) Schiffn.=*J. rubricaulis*  
*J. dependula* (Tayl.) Steph.=*Plagiochila*  
*J. grandiflora* (Lindenb. & Gott.) Spruce=*Cryptochila*  
*J. paramicola* Herz.=*J. undata*  
*J. rotundifolia* Steph.=*Syzygiella setulosa*  
*Jungermannia adiantoides* Sw.=*Plagiochila*  
*J. adulterina* Gott.=*Anastrophyllum*  
*J. atrata* Sw.=*Frullania*  
*J. connivens* Dicks.=*Cephalozia*  
*J. contigua* Gott.=*Syzygiella*  
*J. crispa* Hook.=*Porella*  
*J. filiformis* Nees=*Archilejeunea juliformis*  
*J. multifida* L.=*Riccardia*  
*J. obscura* Sw.=*Frullania*  
*J. replicata* Nees=*Frullania nodulosa*  
*J. sinuata* Sw.=*Symphyogyna*  
*J. subrotunda* Kunth=*Symbiezidium*  
*J. tamarisci* L.=*Frullania*  
*Leioscyphus fragilis* Jack & Steph.=*Leptoscyphus cuneifolius*  
*L. galipanus* Gott.=*Leptoscyphus amphibolius*  
*L. jackii* Steph.=*Leptoscyphus*  
*L. liebmannianus* Lindenb. & Gott.=*Leptoscyphus porphyreus*  
*Lejeunea apiculata* (Gott.) Steph.=*Taxilejeunea*  
*Lejeunea axillaris* Nees & Mont.=*Dicranolejeunea*  
*Lejeunea capillaris* Gott.=*Microlejeunea*

- L. choachina* Gott. = *Strepsilejeunea*  
*L. cipaconeae* Gott. = *Dicranolejeunea*  
*L. conchaeolia* Gott. = *Cololejeunea*  
*L. conferta* (Meissn.) Gott., Lindenb. & Nees = *Anoplolejeunea*  
*L. denticulata* (Web.) Nees = *Prionolejeunea*  
*L. elongella* Gott. = *Hygrolejeunea*  
*L. gemmata* Gott. = *Prionolejeunea*  
*L. grandiloba* (Jack & Steph.) Jack & Steph. = *Ceratolejeunea*  
*L. hamatifolia* Dum. = *Drepanolejeunea*  
*L. hygrophila* Gott. = *Taxilejeunea*  
*L. inflexiloba* (Jack & Steph.) Jack & Steph. = *Crossotolejeunea*  
*L. intricata* (Jack & Steph.) Jack & Steph. = *Crossotolejeunea*  
*L. lancifolia* Gott. = *Drepanolejeunea*  
*L. lucens* Tayl. = *L. laetevirens*  
*L. microdonta* Gott. = *Prionolejeunea*  
*L. pectiniformis* Gott. = *Strepsilejeunea*  
*L. phyllorhiza* (Nees) Nees = *Dicranolejeunea*  
*L. prominula* Gott. = *Taxilejeunea*  
*L. reflexiloba* Gott. = *Diplasiolejeunea*  
*L. schlimiana* Gott. = *Prionolejeunea*  
*L. squamata* (Willd. ex Web.) Nees & Mont. = *Stictolejeunea*  
*L. subhyalina* Lindenb. & Gott. = *L. laetevirens*  
*L. subrotunda* (Kunth.) Hook. ex Gott., Lindenb. & Nees = *Symbiezidium*  
*L. sullivanti* Gott. = *Hygrolejeunea*  
*L. tenuicaulis* (Tayl.) Spruce = *Bryopteris trinitensis*  
*L. tortifolia* Nees & Mont. = *Colura*  
*L. transversalis* (Sw.) Nees = *Symbiezidium*  
*L. triangulata* (Herz.) Schust. = *Microlejeunea acutifolia*  
*Lepidozia bicalcarata* Steph. = *L. wallisiana*  
*L. bogotensis* Steph. = *L. wallisiana*  
*L. capilliramae* Steph. = *L. wallisiana*  
*L. granatensis* Gott. = *Bonneria*  
*L. moritziana* Steph. = *L. brasiliensis*  
*Leptolejeunea pterocalyx* Herz. = *Drepanolejeunea*  
*Leptoscyphus cuneifolius* (Hook.) Mitt. subsp. *fragilis* (Jack & Steph.) Grolle = *L. cuneifolius*  
*L. liebmalianus* (Lindenb. & Gott.) Mitt. = *L. porphyrius*  
*Leucosarmentum portoricense* Fulf. = *Bonneria bifida*  
*Lindigina granatensis* Gott. = *Gongylanthus*  
*Lophocolea brasiliensis* Schiffn. = *L. leptantha*  
*L. columbica* Gott. = *L. trapezoidea*  
*L. elata* Gott. = *Clasmotoclea vermicularis*  
*L. grossealata* Steph. = *L. granatensis*  
*L. hirta* Steph. = *L. muricata*  
*L. lindigiana* Gott. = *L. trapezoidea*  
*L. longiflora* Hampe = *L. coadunata*  
*L. mascula* Gott. = *L. coadunata*  
*L. pertusa* Tayl. = *L. martiana*  
*L. subtrilobata* Herz. = *L. coadunata*  
*L. terminalis* Lindenb. & Gott. = *L. coadunata*  
*Madotheca cardoti* Steph. = *Porella crispata*  
*M. commutata* Gott. = *Porella crispata*

- M. columbica* Tayl.=*Porella squamulifera*  
*M. crispata* (Hook.) Nees=*Porella*  
*M. splendida* Herz.=*Porella brachiata*  
*M. squamulifera* Tayl.=*Porella*  
*Mastigobryum bogotense* Steph.=*Bazzania chilensis*  
*M. brevifolium* Gott.=*Bazzania cuneistipula*  
*M. columbicum* Steph.=*Bazzania longistipula*  
*M. cuervi* Gott.=*Bazzania breuteliana*  
*M. humifusum* Spruce=*Bazzania teretiuscula*  
*M. lindigii* Steph.=*Bazzania affinis*  
*M. schlirmanum* Gott.=*Bazzania*  
*M. stoloniferum* Lindenb.=*Bazzania*  
*Metzgeria furcata* Nees var. *extensa* Nees=*M. leptoneura*  
*M. furcata* Nees var. "pallens aut aeruginosa" Nees=*M. fruticulosa*  
*M. hamata* Lindb.=*M. leptoneura*  
*M. procera* Mitt. var. *columbica* Herz.=*M. procera*  
*M. violacea* (Ach.) Evans var. *dorsipara* Herz.=*M. dorsipara*  
*Microlejeunea semiscabrida* (Gott.) Steph.=*Lejeunea*  
*M. triangulata* Herz.=*M. acutifolia*  
*Microlepidozia capillaris* (Sw.) Fulf.=*Kurzia*  
*M. flagellifera* (Steph.) Fulf.=*Kurzia*  
*M. verrucosa* (Steph.) Fulf.=*Kurzia*  
*Micropterygium pterigophyllum* (Nees) Trevis. var. *gracile* Reim.=*M. pterigophyllum*  
*Mittenia erythropus* Gott.=*Jensenia*  
*Monoclea gottschei* Lindenb.=*M. forsteri*  
*Mylia minuta* Herz.=*Leptoscyphus pophyrius*  
*Neoprasanthus granatensis* S. Winkl.=*Lethocolea glossophylla*  
*Odontolejeunea chaerophylla* (Spruce) Schiffn.=*O. sieberiana*  
*Omphalanthus apiculatus* Gott.=*Taxilejeunea*  
*O. cuervi* Gott.=*Taxilejeunea*  
*O. laevis* Gott.=*Taxilejeunea*  
*O. leioscyphus* Gott.=*Taxilejeunea pallescens*  
*O. lusorius* Lindenb. & Gott.=*Taxilejeunea*  
*O. pterogonius* (Lehm. & Lindenb.) Lehm. & Lindenb.=*Taxilejeunea*  
*Pallavicinia erythropus* (Gott.) Steph.=*Jensenia*  
*P. wallisii* Jack & Steph.=*Jensenia*  
*Peltolejeunea ovalis* (Lindenb. & Gott.) Schiffn.=*Omphalanthus*  
*P. wallisii* Jack & Steph.=*Omphalanthus*  
*Perilejeunea granatensis* (Steph.) Robinson=*Pycnolejeunea*  
*Phragmicomia bicolor* Nees=*Brachiolejeunea densifolia*  
*P. leiboldiana* (Lindenb. & Gott.) Schiffn.=*Brachiolejeunea*  
*P. nitidiuscula* Gott.=*Brachiolejeunea*  
*P. rupestris* Gott.=*Brachiolejeunea*  
*Physocolea conchaefolia* (Gott.) Steph.=*Cololejeunea*  
*Plagiochila bryhnii* Steph.=*Plagiochilion*  
*P. grandifolia* Steph.=*P. alternans*  
*P. irmscheri* Steph.=*P. funckiana*  
*P. linearis* Herz. ex Carl=*P. cobana*  
*P. loriloba* Herz. ex Carl=*P. cuneata* var. *loriloba*  
*P. magellanica* Lindenb.=*Adelanthus lindenbergianus*  
*P. reclinata* Herz.=*Plagiochilion bryhnii*

- Plagiochilion reclinata* (Herz.) Schust. = *P. bryhnii*  
*Plectocolea hyalina* (Lyell) Mitt. = *Jungermannia*  
*Pleurozia paradoxa* (Jack) Steph. = *Eopleurozia*  
*Prionolejeunea cuatrecasii* Robinson = *Pictolejeunea picta*  
*Pseudoneura bogotensis* Gott. = *Riccardia*  
*P. multifida* Gott. = *Riccardia*  
*P. papillata* Gott. = *Riccardia*  
*Ptychocoleus juliformis* (Nees) Trevis. = *Archilejeunea*  
*Radula gottscheana* Tayl. = *R. boryana*  
*R. pallens* Nees "var.  $\alpha$ " = *R. lindigii*  
*R. pallens* Nees var. *brasiliensis* Nees = *R. bogotensis*  
*R. quadrata* Gott. var. *manzanensis* Gott. = *R. mollis*  
*R. sprucei* Steph. = *R. jamesoni*  
*Riccardia pinguis* (L.) S. Gray = *Aneura*  
*Schisma columbae* Steph. = *Herbertus pensilis*  
*S. granatense* Steph. = *Herbertus acanthelius*  
*S. striolatum* Steph. = *Herbertus subdentatus*  
*S. wallisianum* Steph. = *Herbertus limbatus*  
*Sendtnera trifida* Gott. = *Triandrophymnum subtrifidum* var. *trifidum*  
*Solenostoma sphaerocarpa* (Hook.) Steph. = *Jungermannia*  
*Sphenolobus laceratus* Steph. = *Gymnomitrium andinum*  
*Symbiezidium hobsonianum* (Lindenb.) Trevis. = *S. transversale*  
*Syzygiella jelskii* (Loitl.) Steph. = *S. perfoliata*  
*S. linguiifolia* Schiffn. = *S. perfoliata*  
*Taxilejeunea leioscypha* (Gott.) Schiffn. = *T. pallescens*  
*Telaranea sejuncta* auct. = *T. nematodes*  
*Triandrophymnum trifidum* (Gott.) Fulf. & Hatch. = *Tr. subtrifidum* var. *trifidum*

#### NEW COMBINATIONS

- Cololejeunea conchaefolia* (Gott.) Gradst. comb. nov.  
*Omphalanthus wallisii* (Jack & Steph.) Gradst. comb. nov.  
*Phaeoceros fimbriatus* (Gott.) Gradst. comb. nov.  
*Phaeoceros qualaquiziana* (Steph.) Gradst. comb. nov.  
*Riccardia aberrans* (Steph.) Gradst. comb. nov.  
*Riccardia amazonica* (Spruce) Schiffn. comb. nov.  
*Riccardia bogotensis* (Gott.) Schiffn. comb. nov.  
*Riccardia cervicornis* (Spruce) Herz. comb. nov.  
*Riccardia ciliolata* (Spruce) Gradst. comb. nov.  
*Riccardia columbica* (Steph.) Hässel comb. nov.  
*Riccardia lepidomitra* (Spruce) Gradst. comb. nov.  
*Riccardia metzgeriaeformis* (Steph.) Schiffn. comb. nov.  
*Riccardia papillata* (Gott.) Hässel comb. nov.  
*Riccardia squarrosa* (Steph.) Gradst. comb. nov.  
*Riccardia wallisii* (Steph.) Gradst. comb. nov.

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