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BRYOPHYTE CHECKLIST AND EUROPEAN RED LIST OF THE BRUSSELS-CAPITAL REGION, FLANDERS AND WALLONIA (BELGIUM)

André SOTIAUX^{1,2,*}, Herman STIEPERAERE¹ and Alain VANDERPOORTEN²

¹National Botanic Garden of Belgium, Domein van Bouchout, B - 1860 Meise, Belgium

²Université de Liège, Institut de Botanique, B22 Sart Tilman, B - 4000 Liège, Belgium

(* Author for correspondence)

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ABSTRACT. — An amended checklist of the bryophytes of Belgium is presented. Although some taxonomic positions adopted in the most recent European checklist of mosses are discussed, the latter is used as a reference in an attempt to homogenize taxonomic concepts at a wide scale and enable comparisons across countries. Since the previous 2001 checklist of Belgian bryophytes, a total of 17 and 14 species must be added to the Belgian bryoflora owing to taxonomic changes and floristic discoveries, respectively. The report of *Grimmia caespiticia*, at an altitude of 500-600 m, is particularly noteworthy because this alpine species usually occurs above 2 000 m. Five additional taxa, *Scapania cuspiduligera*, *Dialytrichia fragilifolia*, *Ephemerum cohaerens*, *Orthotrichum shawii* and *Tortella inclinata* var. *densa*, are reported here as new to Belgium. Six species were previously erroneously reported from Belgium and are excluded. As a consequence, the bryophyte flora of Belgium consists of 748 species, including 5 hornworts, 173 liverworts, and 570 mosses whose occurrence in the three regions of Belgium, namely Flanders (5 hornworts, 122 liverworts, 399 mosses), Wallonia (3 hornworts, 169 liverworts, 546 mosses), and Brussels-Capital Region (46 liverworts, 196 mosses), is documented. Thirty-six species (6 liverworts and 30 mosses) have not been recorded since 1980 and are most probably extinct. The new checklist is used to update the list of European red list species that are present in Belgium, which now includes 49 species.

KEY WORDS. — Belgium, Bryophytes, checklist, red list species.

INTRODUCTION

The most recent publication of the European checklist of mosses (HILL *et al.* 2006), which incorporates substantial taxonomic changes largely based upon recent outcomes of the molecular systematics, will undoubtedly influence the taxonomic positions so far adopted in the different countries. As Hill's *et al.* work resulted from the joint effort of a panel of taxonomic experts, reaching a consensus at a large scale remains an extremely challenging task. A good example is offered by the conflictual

treatments of difficult families such as the Pottiaceae (contrast, e.g., ZANDER 1993, GUERRA & CANO 2000, and WERNER *et al.* 2005a,b). Another issue is that the status of some of the species retained in the European checklist has long been controversial because of the strong overlap in morphological features and the existence of a range of puzzling intermediates. Examples of such cases are numerous (e.g., *Aloina aloides* and *A. ambigua*; *Plagiothecium succulentum* and *P. nemorale*; *P. curvifolium* and *P. laetum*; *Didymodon vinealis* and *D. insulanus*; *Hygroamblystegium tenax* and *H.*

varium; *Tortella bambergeri* and *T. tortuosa*; *Orthotrichum schimperi* and *O. pumilum*). While the genetic bases for justifying species recognition is lacking in most cases, it is clear that some of these species form complexes of polyphyletic origin (SHAW & ALLEN 2000, VANDERPOORTEN *et al.* 2004) and convergent morphology (VANDERPOORTEN & JACQUEMART 2004). In such cases, the conflicting interpretations of taxonomists will still lead to substantial differences in diversity assessments and hence, difficulties of comparisons across- (and even within-) countries. Thus, although Hill's *et al.* reference list should arguably serve as a reference basis to homogenize taxonomic concepts between countries, departures from the proposed list will still persist in the checklist adopted within each country. In The Netherlands for example (SIEBEL *et al.* 2005), most of the above species have been synonymized.

In this paper, we discuss the application of the new European checklist to the Belgian bryoflora. While preparing this revision, it also appeared that, to be useful to a broad panel of users including local florists, taxonomists seeking comparative data at a national or regional scale, and conservation agencies, the checklist should not only provide a taxonomic and nomenclatural reference basis for the Belgian bryoflora, but also include information about species occurrence at the regional level and threats. Our motivation for presenting an updated checklist since our previous contribution (SOTIAUX & VANDERPOORTEN 2001) was further stimulated by a number of additional species reports and the important con-

sequences for the European red list species present in Belgium (ECCB 1995).

METHODS

For liverworts and hornworts, nomenclature follows GROLLE & LONG (2000) with some modifications due to subsequent taxonomic and nomenclatural works, including GROLLE & SO (2003) for *Metzgeria* and SZWEYKOWSKI *et al.* (2005) for *Conocephalum*. Following DE ROO *et al.* (2007), ENGEL & BRAGGINS (2005) are not followed in accommodating *Mylia anomala* within its own genus *Leiomylia*. GROLLE & LONG (2000), who treat *Lophocolea* and *Chiloscyphus* as separate genera, are also followed. There is, however, growing evidence from molecular studies (e.g., HENTSCHEL *et al.* 2006) that ENGEL & SCHUSTER (1984) were right in merging *Lophocolea* with *Chiloscyphus*.

For mosses, the European checklist of HILL *et al.* (2006) served as a reference. Therefore, HILL *et al.* (2006) are followed in merging a series of species (e.g., *Bryum barnesii* and *B. dichotomum*), even though they display, at least in Belgium, a clear morphological discontinuity and might deserve a distinct taxonomic status. For the same reasons, HILL *et al.* (2006) are followed in recognizing a series of morphologically extremely similar and intergrading species (see above), although we believe that such species, because of the difficulty in their identification, add 'noise' to floristic inventories and hence, that a more conservative strategy would be to reduce these species to synonymy. In the case of *Leucobryum*, however, HILL *et al.* (2006) are not followed in recognizing three species in the European flora for reasons detailed in the text. Nomenclatural changes since the 2001 checklist are summarized in Table 1.

Table 1. List of nomenclatural changes, with corresponding synonymies, since the previous check-list of the bryophytes of Belgium by SOTIAUX & VANDERPOORTEN (2001).

Nomenclature of SOTIAUX & VANDERPOORTEN (2001)	Current name
Liverworts	
<i>Leiocolea bantriensis</i>	<i>Leiocolea collaris</i>
<i>Metzgeria fruticulosa</i>	<i>Metzgeria violacea</i>
Mosses	
<i>Amblystegium fluviatile</i>	<i>Hygroamblystegium fluviatile</i>
<i>Amblystegium humile</i>	<i>Hygroamblystegium humile</i>
<i>Amblystegium tenax</i>	<i>Hygroamblystegium tenax</i>
<i>Amblystegium varium</i>	<i>Hygroamblystegium varium</i>
<i>Aphanorhegma patens</i>	<i>Physcomitrella patens</i>
<i>Brachythecium oedipodium</i>	<i>Sciuro-hypnum oedipodium</i>

- Brachythecium oxycladum*
Brachythecium plumosum
Brachythecium populeum
Brachythecium reflexum
Brachythecium velutinum
Bryum barnesii
Bryum imbricatum
Bryum rutilans
Bryum stirtonii
Bryum subelegans
Bryum versicolor
Calliergon sarmentosum
Cirriphyllum tommasinii
Cynodontium polycarpum
Dicranella palustris
Dicranum bergeri
Ditrichum cylindricum
Eurhynchium crassinervium
Eurhynchium flotowianum
Eurhynchium hians
Eurhynchium praelongum
Eurhynchium pulchellum
Eurhynchium pumilum
Eurhynchium schleicheri
Eurhynchium speciosum
Eurhynchium striatulum
Fissidens incurvus
Funaria muhlenbergii
Funaria pulchella
Hylocomium brevirostre
Hylocomium pyrenaicum
Hylocomium umbratum
Hypnum lacunosum
Hypnum pratense
Hypnum resupinatum
Leucobryum juniperoideum
Microbryum curvicolle
Octodiceras fontanum
Pleuridium palustre
Polytrichum formosum
Polytrichum longisetum
Pseudo-calliergon lycopodioides
Schistidium singarense
Scleropodium purum
Seligeria paucifolia
Sematophyllum micans
Serpoleskea confervoides
Sphagnum denticulatum
Syntrichia inermis
Syntrichia intermedia
Syntrichia pagorum
Syntrichia ruraliformis
Thuidium abietinum
Thuidium philibertii
Tortula acaulon
Tortula protobryoides
Trichostomopsis australasiae
- Brachythecium laetum*
Sciuro-hypnum plumosum
Sciuro-hypnum populeum
Sciuro-hypnum reflexum
Brachytheciastrum velutinum
Bryum dichotomum
Bryum archangelicum
Bryum pallens
Bryum elegans
Bryum moravicum
Bryum dichotomum
Warnstorfia sarmentosa
Brachythecium tommasinii
Cynodontium polycarpon
Dichodontium palustre
Dicranum undulatum
Trichodon cylindricus
Cirriphyllum crassinervium
Sciuro-hypnum flotowianum
Oxyrrhynchium hians
Kindbergia praelonga
Eurhynchiastrum pulchellum
Oxyrrhynchium pumilum
Oxyrrhynchium schleicheri
Oxyrrhynchium speciosum
Plasteurhynchium striatulum
Fissidens viridulus var. *incurvus*
Entosthodon muhlenbergii
Entosthodon pulchellus
Loeskeobryum brevirostre
Hylocomiastrum pyrenaicum
Hylocomiastrum umbratum
Hypnum cupressiforme var. *lacunosum*
Breidleria pratensis
Hypnum cupressiforme var. *resupinatum*
Leucobryum glaucum
Microbryum curvicollum
Fissidens fontanus
Cleistocarpidium palustre
Polytrichastrum formosum
Polytrichastrum longisetum
Pseudocalliergon lycopodioides
Schistidium helveticum
Pseudoscleropodium purum
Seligeria calycina
Hageniella micans
Amblystegium confervoides
Sphagnum auriculatum
Tortula inermis
Syntrichia montana
S. laevipila
Syntrichia ruralis var. *ruraliformis*
Abietinella abietina
Thuidium assimile
Phascum cuspidatum
Protobryum bryoides
Didymodon australasiae
-

RESULTS

CHANGES WITH THE PREVIOUS CHECKLIST

New taxa

Fourteen species are reported as new since the 2001 checklist: *Haplomitrium hookeri* (SOTIAUX *et al.* 2006), *Scapania calcicola* (SOTIAUX *et al.* 2002), *S. cuspiduligera* (see below), *Bryum dyfrynense* (DE BEER & MARTENS 2007), *Dialytrichia fragilifolia* (see below), *Ephemerum cohaerens* (see below), *Grimmia caespiticia* (MUÑOZ & PANDO 2000), *G. dissimulata* (DE BEER 2007), *G. elongata* (GREVEN & SOTIAUX 2003), *Isoetecium holtii* (cited in SIEBEL & DURING 2006 for the Ardennes district, based on Siebel 01.381, Robertville, Warche Valley, IFBL G8.34.23, 7.08.2001, BR and herb. Siebel), *Orthotrichum shawii* (see below), *Polytrichastrum alpinum* (REINEKE *et al.* 2002), *Rhytidiadelphus subpinna-tus* (SCHUMACKER & SOTIAUX 2003) and *Tortula mucronifolia* (SOTIAUX & SOTIAUX 2005).

Grimmia caespiticia (Brid.) Jur. was once collected in Belgium at the beginning of the 20th century (Cornet, 1906, NY!) (MUÑOZ & PANDO 2000). The collection includes two fertile plants with exserted capsules and an obliquely rostrate operculum. The leaves are distinctly longitudinally furrowed. Hence, the specimen perfectly matches the circumscription of *G. caespiticia*. The Belgian locality, at an altitude of 500-600 m, is completely outside the altitudinal range of this alpine species, which mostly occurs at an altitude of 2 000 m or higher, with a few occurrences reported down to an altitude of 1 400 m (GREVEN 1995).

Scapania cuspiduligera, *Dialytrichia fragilifolia*, *Ephemerum cohaerens*, *Orthotrichum shawii* and *Tortella inclinata* var. *densa* are reported here as new to Belgium.

Scapania cuspiduligera: Prov. Namur, Durnal, Bocq valley (IFBL H5.28.23), on rocks in old quarry together with *Encalypta streptocarpa* and *Rhynchostegium murale*, alt. 175 m, 28.10.1979 (herb. Sotiaux, Sotiaux 3).

Dialytrichia fragilifolia: Prov. Namur, Dinant, Meuse valley towards Colébi (IFBL H5.57.12), shaded calcareous rocks, alt. 100 m, 08.06.1986 (herb. Sotiaux, Sotiaux 5450).

Ephemerum cohaerens: Prov. Liège, Hergenrath (IFBL F8.13.21), wet sandy track in an ancient sand quarry, with *Calliergonella cuspidata*, alt. 260 m, 01.10.2006 (LG, Vanderpoorten B1362); Prov. Namur, Merlemont (IFBL J5.12.13), wet calcareous ground of an ancient limestone quarry with *Pellia endiviifolia*, alt. 250 m, 27.11.2001 (herb. Sotiaux, Sotiaux 27619, herb. J.-P. Duvivier, Duvivier s.n.).

Orthotrichum shawii: Prov. Liège, Büllingen, Our valley between Hülscheid and Berterath (IFBL H9.11.23), epiphytic on *Fraxinus excelsior* at 520 m, 25.06.2005 (herb. Sotiaux, Sotiaux 32729).

Tortella densa: Prov. Liège, Huy (IFBL G6.14.43), calcareous gravelly ground, together with *Campyliadelphus chrysophyllus*, *Didymodon fallax*, and *T. inclinata* var. *inclinata*, alt. 85 m, 10.11.2005 (LG, Vanderpoorten B899 and herb. Sotiaux, Sotiaux 33392). As opposed to *T. inclinata*, the dorsal side of the costa in *T. densa* is not covered by a layer of isodiametric cells. Although this is a key character in the taxonomy of the genus (e.g., SMITH 2004), *T. densa* is now treated as a variety of *T. inclinata* in HILL *et al.* (2006). This taxon is therefore not included in the checklist, wherein we do not list infraspecific taxa.

A total of 17 species must be added to the checklist due to the creation or erection at the species level of former infraspecific taxa, already known from Belgium. These species include *Conocephalum salebrosum*, *Aloina ambigua*, *Anomobryum concinnatum*, *Bryum kunzei*, *Campylium protensum*, *Dichodontium flavescens*, *Didymodon insulanus*, *Ephemerum minutissimum*, *Heterocladium flaccidum*, *Orthotrichum schimperi*, *Palustriella falcata*, *Plagiothecium succulentum*, *Polytrichum uliginosum*, *Syntrichia calcicola*, *Tortella bambergeri*, *Tortula schimperi*, and *Zygodon stirtonii*.

Rediscovered taxa

Two species considered extinct have been rediscovered.

Philonotis marchica had not been seen in Belgium since 1912, (RAEYMAEKERS 1981) but

was discovered in a wetland restoration area near Bruges (STIEPERAERE 2007).

Pterygoneurum lamellatum was found in 2005 very close to the Dutch and German border in Bassenge (ANDRIESEN *et al.* 2006). The previous collection of the species dated back to more than 100 years ago.

Excluded taxa

Three species must be deleted from the previous checklist as a result of the reduction to synonymy in HILL *et al.* (2006). These species include *Bryum barnesii* (= *B. dichotomum*), *B. rutilans* (= *B. pallens*), and *B. versicolor* (= *B. dichotomum*). A fourth species, *Leucobryum juniperoideum*, is also deleted. *Contra* FRAHM (2005), which is the reference cited by HILL *et al.* (2006) for keeping *L. juniperoideum*, *L. albidum* is by no means characterized by leaves that are less than 2 mm long (2-4 mm for example reported by CRUM & ANDERSON 1981). *Leucobryum albidum* does intergrade morphologically with *L. glaucum*, the latter including in its range the poorly defined *L. juniperoideum*. *Leucobryum juniperoideum* was therefore synonymized and it was proposed that the European *Leucobryum* flora consists of only two species, *L. glaucum* and *L. albidum* (VANDERPOORTEN *et al.* 2003). Only the former has to date been found in Belgium. Although *L. albidum* exhibits a more southwestern distribution than *L. glaucum*, it was found in France and Germany, so that the species is very likely to occur in Belgium as well.

Seven additional species are excluded for the reasons detailed below.

Scapania praetervisa. The occurrence of this boreal, calcicolous species on highly acidic soils with *Calluna vulgaris* and other strictly acidophilous species such as *Lophozia grandiretis* (DE ZUTTERE & POHL 1991) at low elevation is ecologically unlikely. The presence of pinkish gemmae, used as evidence for the identity of the collection with *S. praetervisa* (DE ZUTTERE & POHL 1991), can be observed in *S. scandica*, an acidophilous species present in the Ardennes. The material of *S. praetervisa* is unfortunately unavailable for re-examination and the species is,

therefore, tentatively excluded from the Belgian checklist.

Fissidens curnovii (= *F. bryoides* var. *caespitans*). All the specimens attributed to this taxon from Belgium were re-examined by M. A. Bruggeman and proved to belong to *F. bryoides* var. *bryoides*.

Fissidens limbatus (= *F. crispus*). No collection of this Mediterranean species was found at BR or LG and the record most probably resulted from a synonymy error in SCHUMACKER *et al.* (1985).

Grimmia reflexidens Müll. Hal. was reported from Belgium from the same locality as *G. caespiticia* in Spa, Promenade Annette et Lubin (MUÑOZ & PANDO 2000). The collection of *G. reflexidens* (Cornet, 1906, BP!) is sterile and the gametophyte does not match that of the typical expression of the species. MUÑOZ & PANDO (2000) indicated that the group of species including *G. australis* (Dixon & Sainsbury) J. Muñoz & Ochyra, *G. alpestris* (F. Weber & D. Mohr) Schleich., and *G. reflexidens* is characterized by bulging laminal cells in leaf cross-section, but emphasized that this character cannot be observed on poor specimens. Pending convincing evidence of the presence of *G. reflexidens* in Belgium based on fertile material, we exclude this alpine species from the checklist.

Grimmia mollis Bruch & Schimp., reported from Belgium (MUÑOZ & PANDO 2000), was tentatively not included in the previous checklist of bryophytes of Belgium pending further evidence of the presence of this alpine species in Belgium (SOTIAUX & VANDERPOORTEN 2001). J. Muñoz (pers. comm.) confirmed that the report of *G. mollis* in Belgium was a mistake.

Meesia longiseta. DE SLOOVER (1970) renamed the original collection as *Aulacomnium palustre*. A later collection at BR from Troch's herbarium is of doubtful origin and probably a fraud.

Meesia uliginosa. KICKX (1867) reported fragments of this species from a supply of *Sphagnum* for the Botanic Garden of Ghent harvested near Damme in 1857. DE SLOOVER (1970) showed that the specimen in BR with a label in Troch's handwriting (Damme, Kickx, 1850) is probably a fraud. We found that the collection is

mixed with *Blepharostoma trichophyllum* and has mica fragments in the peaty substrate. This makes it extremely unlikely that the specimen comes from anywhere near Damme.

Taxa considered as extinct

Catoscopium nigratum. This species was treated as extinct in our previous checklist. Evidence for its presence in Belgium remains, however, subject to controversy. There has been no record of this species from Flanders since DE SLOOVER (1970) re-identified the original specimen cited in DELOGNE (1883) as *Dicranella varia* and showed that a second, correctly named specimen in BR from the Troch collection is most probably a fraud. In the herbarium of the Carnoy Institute (LV, transferred to BR in 1999), we found another specimen of *C. nigratum*. The species name and the collector's name are in Delogne's handwriting; the locality "Entre Ostende & Blanckenberghe" is a later addition in a different handwriting. Therefore, some doubts remain regarding this record. Most recently, a collection made by Castagne in 1956 from Baraque Michel in the Ardennes was found in the Parent herbarium (DE ZUTTERE & SOTIAUX 2007). In the complete absence of basic fens around Baraque Michel, however, a little doubt also persists regarding the validity of this record.

THE CHECKLIST

As a consequence of the changes exposed above, the bryophyte flora of Belgium (30,528 km²) consists of 748 species, including 5 hornworts, 173 liverworts, and 570 mosses (Appendix). A total of 526 species is recorded to date from Flanders (13,522 km²), including 5 hornworts, 122 liverworts, and 399 mosses. The Brussels-Capital Region (162 km²) bryophyte flora is composed of 242 species, including 46 liverworts and 196 mosses. In Wallonia (16,844 km²), 718 species have been recorded to date, including 3 hornworts, 169 liverworts, and 546 mosses (Appendix).

Thirty-six species, including 6 liverworts and 30 mosses, have not been recorded since 1980 and are probably extinct.

CONSEQUENCES FOR THE EUROPEAN RED LIST SPECIES OF BELGIUM

Thirty-six European red-list species were listed as occurring in Belgium (ECCB 1995) [excluding *Didymodon glaucus*, only reported from the Grand-Duchy of Luxembourg, which is subject to a separate survey (WERNER 2003)]. Four species: *Fossombronia incurva*, *Grimmia lisae*, *Hamatocaulis vernicosus* and *Rhynchostegium rotundifolium*, which do occur in Belgium, were omitted from the 1995 ECCB list. Since the publication of the European red list, twelve additional red list species have been reported from Belgium: *Anthoceros caucasicus* (HEYLEN *et al.* 2001), *Haplomitrium hookeri* (SOTIAUX *et al.* 2006), *Ephemerum stellatum* (VANDERPOORTEN *et al.* 1996), *Orthotrichum consimile* (SOTIAUX *et al.* 1998a), *O. ibericum* (HEYLEN & WALRAEVENS 2001), *O. rogeri* (SOTIAUX & SOTIAUX 2002), *O. scanicum* (SOTIAUX *et al.* 1998b), *Schistidium helveticum* (BLOM 1996), *S. papillosum* (BLOM 1996), *S. pruinatum* (BLOM 1996), and *Ulota rehmannii* (SOTIAUX & SOTIAUX 1999). Two additional species, *Ephemerum cohaerens* and *Grimmia caespiticia*, are reported here. Furthermore, *Aneura maxima* was found new to Europe in Belgium (ANDRIESSEN *et al.* 1995). We have since observed the species fairly frequently in the Belgian and French parts of the Ardennes, where it grows in deep seeps, often with *Chryso-splenium*. It seems to be an overlooked species that may have been confounded with *Pellia neesiana* and *P. epiphylla*. At the European scale, however, *Aneura maxima* is only reported from 1-2 localities in France, Luxembourg, Poland, and Finland (VANDERPOORTEN *et al.* 2006). As a consequence, we suggest with WERNER (2003) that the species should be included within the European red list, but with the status 'insufficiently known', as its exact distribution in Europe remains to be documented (VANDERPOORTEN *et al.* 2006). Lastly, five species must be deleted from the European red list species of Belgium. *Buxbaumia viridis* (DE SLOOVER & STIEPERAERE 1999) and *Fissidens ovatifolius* were erroneously listed from Belgium in the treatment of ECCB (1995). *Meesia longiseta* must be excluded from the checklist of

Belgium for reasons detailed above, while *Bryum stirtonii*, *B. versicolor*, and *Rhynchostegiella jacquinii* are currently considered to be conspecific with *Bryum elegans*, *B. dichotomum*, and *R. teneriffae*, respectively.

As a consequence, 49 species listed in the European red list (ECCB 1995) occur in Belgium (Table 2). Seven species are probably extinct in

Belgium and all the others are known from one to few localities, except *Aneura maxima* (VANDERPOORTEN *et al.* 2006), *Cleistocarpidium palustre*, and *Orthotrichum consimile* (SOTIAUX *et al.* 1998a, SOTIAUX & VANDERPOORTEN 2004), for which the Belgian populations play a significant role in the conservation of those species in Europe.

Table 2. The European red list species (ECCB 1995) present in Belgium.

Species	IUCN category	Status in Belgium
<i>Anthoceros caucasicus</i>	R	Two localities (STIEPERAERE 2002)
<i>Aneura maxima</i>	K	Locally fairly common (VANDERPOORTEN <i>et al.</i> 2006)
<i>Cephaloziella elachista</i>	K	
<i>Fossombronia incurva</i>	R	
<i>Haplomitrium hookeri</i>	R	A few shoots found in a single locality (SOTIAUX <i>et al.</i> 2006)
<i>Pallavicinia lyellii</i>	V	
<i>Riccia huebeneriana</i>	R	
<i>Amblystegium radicale</i>	R	
<i>Anomodon rostratus</i>	R	One locality (SCHUMACKER <i>et al.</i> 1982)
<i>Brachythecium laetum</i>	R	
<i>Bryum neodamense</i>	R	Not seen since the 19th century
<i>Bryum tenuisetum</i>	K	
<i>Bryum warneum</i>	R	
<i>Campylostelium saxicola</i>	R	Not seen for >100 years (SOTIAUX & VANDERPOORTEN 2004)
<i>Cleistocarpidium palustre</i>	R	Known from >50 localities, probably overlooked due to its short, seasonal presence
<i>Dicranum viride</i>	V	Not seen since 1980
<i>Ephemerum cohaerens</i>	E	Reported from two localities, including one found in 2006; apparently exceedingly rare but possibly somewhat overlooked
<i>Ephemerum recurvifolium</i>	R	
<i>Ephemerum sessile</i>	R	
<i>Ephemerum stellatum</i>	V	Disappeared because of the spreading of dolomite on its only locality (VANDERPOORTEN <i>et al.</i> 2001)
<i>Fissidens arnoldii</i>	R	
<i>Fissidens monguillonii</i>	R	Reported from many localities (DE ZUTTERE 1993) based on sterile material but undistinguishable from the common <i>F. bryoides</i> in this state and probably truly very rare
<i>Grimmia atrata</i>	R	
<i>Grimmia caespiticia</i>	R	One locality, not seen for >100 years
<i>Grimmia lisae</i>	R	
<i>Hamatocaulis vernicosus</i>	K	Very rare and decreasing (DE ZUTTERE <i>et al.</i> 2002)
<i>Leptodontium gemmascens</i>	R	
<i>Microbryum floerkeanum</i>	K	
<i>Micromitrium tenerum</i>	V	
<i>Mielichhofferia mielichhofferiana</i>	K	
<i>Orthotrichum consimile</i>	Ev	>20 localities
<i>Orthotrichum ibericum</i>	K	

<i>Orthotrichum rogeri</i>	V	
<i>Orthotrichum scanicum</i>	E	Still very rare but increasingly found
<i>Orthotrichum sprucei</i>	R	
<i>Physcomitrium sphaericum</i>	R	
<i>Pterygoneuron lamellatum</i>	V	One recent locality (ANDRIESEN <i>et al.</i> 2006)
<i>Rhynchostegiella tenuicaulis</i>	K	
<i>Rhynchostegium rotundifolium</i>	R	
<i>Schistidium helveticum</i>	K	
<i>Schistidium papillosum</i>	K	
<i>Schistidium pruinatum</i>	K	
<i>Schistidium trichodon</i>	K	
<i>Sematophyllum demissum</i>	R	Not seen since 1978
<i>Tortula cernua</i>	R	One 19 th century locality on a carbide dump
<i>Ulota rehmannii</i>	E	A few specimens from a single locality (SOTIAUX & SOTIAUX 1999)
<i>Weissia rostellata</i>	R	
<i>Weissia squarrosa</i>	R	
<i>Zygodon forsteri</i>	V	Not seen for >100 years (SOTIAUX & VANDERPOORTEN 2004)

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APPENDIX

Checklist of the bryophytes of Belgium. O: occurrence within each region (F = Flanders, W = Wallonia, B = Brussels-Capital Region). Species names in bold denote species likely to be extinct because no occurrence has been reported in Belgium since 1980 or because the only known locality has been destroyed.

Taxon	O	O	O
Hornworts			
<i>Anthoceros agrestis</i> Paton	F	W	
<i>Anthoceros caucasicus</i> Steph.	F		
<i>Anthoceros punctatus</i> L.	F	W	
<i>Phaeoceros carolinianus</i> (Michx.) Prosk.	F	W	
<i>Phaeoceros laevis</i> (L.) Prosk.	F		

Liverworts

<i>Anastrophyllum minutum</i> (Schreb.) R.M.Schust.	F	W	
<i>Aneura maxima</i> (Schiffn.) Steph.	F	W	
<i>Aneura pinguis</i> (L.) Dumort.	F	W	B
<i>Apometzgeria pubescens</i> (Schrank) Kuwah.		W	
<i>Barbilophozia attenuata</i> (Mart.) Loeske	F	W	
<i>Barbilophozia barbata</i> (Schmidel ex Schreb.) Loeske	F	W	
<i>Barbilophozia floerkei</i> (F.Weber & D.Mohr) Loeske	F	W	
<i>Barbilophozia hatcheri</i> (A.Evans) Loeske	F	W	
<i>Barbilophozia kunzeana</i> (Huebener) Müll.Frib.	F	W	
<i>Bazzania flaccida</i> (Dumort.) Grolle		W	
<i>Bazzania trilobata</i> (L.) S.F.Gray	F	W	
<i>Blasia pusilla</i> L.	F	W	B
<i>Blepharostoma trichophyllum</i> (L.) Dumort.	F	W	
<i>Calypogeia arguta</i> Nees & Mont.	F	W	B
<i>Calypogeia azurea</i> Stotler & Crotz	F	W	B
<i>Calypogeia fissa</i> (L.) Raddi	F	W	B
<i>Calypogeia integristipula</i> Steph.	F	W	
<i>Calypogeia muelleriana</i> (Schiffn.) Müll.Frib.	F	W	B
<i>Calypogeia neesiana</i> (C.Mass. & Carestia.) Müll.Frib.	F	W	
<i>Calypogeia sphagnicola</i> (Arnell. & J.Perss.) Warnst. & Loeske	F		
<i>Calypogeia suecica</i> (Arnell & J.Perss.) Müll.Frib.		W	
<i>Cephalozia bicuspidata</i> (L.) Dumort.	F	W	B
<i>Cephalozia catenulata</i> (Huebener) Lindb.		W	
<i>Cephalozia connivens</i> (Dicks.) Lindb.	F	W	
<i>Cephalozia lunulifolia</i> (Dumort.) Dumort.	F	W	
<i>Cephalozia macrostachya</i> Kaal.	F		
<i>Cephalozia pleniceps</i> (Austin) Lindb.	F	W	
<i>Cephaloziella baumgartneri</i> Schiffn.		W	
<i>Cephaloziella divaricata</i> (Sm.) Schiffn.	F	W	B
<i>Cephaloziella elachista</i> (J.B.Jack ex Gottsche & Rabenh.) Schiffn.	F	W	
<i>Cephaloziella hampeana</i> (Nees) Schiffn.	F	W	
<i>Cephaloziella rubella</i> (Nees) Warnst.	F	W	B
<i>Cephaloziella stellulifera</i> (Taylor ex Spruce) Schiffn.	F	W	
<i>Chiloscyphus pallescens</i> (Ehrh. ex Hoffm.) Dumort.	F	W	
<i>Chiloscyphus polyanthos</i> (L.) Corda	F	W	B
<i>Cladopodiella fluitans</i> (Nees) H.Buch.	F	W	
<i>Cladopodiella francisci</i> (Hook.) Jörg.	F	W	
<i>Cololejeunea calcarea</i> (Libert) Schiffn.		W	
<i>Cololejeunea minutissima</i> (Sm.) Schiffn.	F	W	
<i>Cololejeunea rossettiana</i> (C.Massal.) Schiffn.		W	
<i>Conocephalum conicum</i> (L.) Dumort.	F	W	B
<i>Conocephalum salebrosum</i> Szweykowski, Buczkowska & Odrzykoski	F	W	
<i>Diplophyllum albicans</i> (L.) Dumort.	F	W	B
<i>Diplophyllum obtusifolium</i> (Hook.) Dumort.	F	W	B
<i>Douinia ovata</i> (Dicks.) H.Buch		W	
<i>Fossombronina foveolata</i> Lindb.	F	W	
<i>Fossombronina incurva</i> Lindb.	F	W	
<i>Fossombronina pusilla</i> (L.) Nees	F	W	B
<i>Fossombronina wondraczekii</i> (Corda) Lindb.	F	W	B
<i>Frullania dilatata</i> (L.) Dumort.	F	W	B
<i>Frullania fragilifolia</i> (Taylor) Gottsche et al.		W	
<i>Frullania tamarisci</i> (L.) Dumort.	F	W	
<i>Gymnocolea inflata</i> (Huds.) Dumort.	F	W	B
<i>Haplomitrium hookeri</i> (Sm.) Nees		W	
<i>Harpanthus flotovianus</i> (Nees) Nees	F		
<i>Harpanthus scutatus</i> (F.Weber & D.Mohr) Spruce		W	
<i>Jamesoniella autumnalis</i> (DC.) Steph.		W	

<i>Jungermannia atrovirens</i> Dumort.			W
<i>Jungermannia caespiticia</i> Lindenb.	F	W	
<i>Jungermannia exsertifolia</i> Steph.		W	
<i>Jungermannia gracillima</i> Sm.	F	W	B
<i>Jungermannia hyalina</i> Lyell	F	W	
<i>Jungermannia leiantha</i> Grolle		W	
<i>Jungermannia obovata</i> Nees		W	
<i>Jungermannia paroica</i> (Schiffn.) Grolle		W	
<i>Jungermannia pumila</i> With.		W	
<i>Jungermannia sphaerocarpa</i> Hook.		W	
<i>Jungermannia subelliptica</i> (Lindb. ex Kaal.) Levier		W	
<i>Kurzia pauciflora</i> (Dicks.) Grolle	F	W	
<i>Kurzia sylvatica</i> (A.Evans) Grolle	F	W	
<i>Kurzia trichoclados</i> (Müll.Frib.) Grolle		W	
<i>Leiocolea badensis</i> (Gottsche.) Jörg.	F	W	
<i>Leiocolea collaris</i> (Nees) Schljakov	F	W	
<i>Leiocolea heterocolpos</i> (Thed. ex Hartm.) H.Buch		W	
<i>Leiocolea turbinata</i> (Raddi) H.Buch		W	
<i>Lejeunea cavifolia</i> (Ehrh.) Lindb.	F	W	
<i>Lejeunea lamacerina</i> (Steph.) Schiffn.		W	
<i>Lepidozia reptans</i> (L.) Dumort.	F	W	B
<i>Lophocolea bidentata</i> (L.) Dumort.	F	W	B
<i>Lophocolea heterophylla</i> (Schrad.) Dumort.	F	W	B
<i>Lophocolea minor</i> Nees	F	W	
<i>Lophocolea semiteres</i> (Lehm.) Mitt.	F	W	B
<i>Lophozia bicrenata</i> (Schmidel ex Hoffm.) Dumort.	F	W	B
<i>Lophozia capitata</i> (Hook.) Macoun	F	W	
<i>Lophozia excisa</i> (Dicks.) Dumort.	F	W	
<i>Lophozia grandiretis</i> (Lindb. ex Kaal.) Schiffn.	F	W	
<i>Lophozia incisa</i> (Schrad.) Dumort.	F	W	
<i>Lophozia longidens</i> (Lindb.) Macoun		W	
<i>Lophozia longiflora</i> (Nees) Schiffn.		W	
<i>Lophozia obtusa</i> (Lindb.) A.Evans		W	
<i>Lophozia perssonii</i> H.Buch & S.W.Arnell	F	W	
<i>Lophozia sudetica</i> (Nees ex Huebener) Grolle		W	
<i>Lophozia ventricosa</i> (Dicks.) Dumort.	F	W	
<i>Lophozia wenzelii</i> (Nees) Steph.		W	
<i>Lunularia cruciata</i> (L.) Lindb.	F	W	B
<i>Marchantia polymorpha</i> L.	F	W	B
<i>Marsupella emarginata</i> (Ehrh.) Dumort.	F	W	
<i>Marsupella funckii</i> (F.Weber & D.Mohr) Dumort.	F	W	
<i>Marsupella sphacelata</i> (Gies. ex Lindenb.) Dumort.		W	
<i>Marsupella sprucei</i> (Limpr.) Bernet		W	
<i>Metzgeria conjugata</i> Lindb.		W	
<i>Metzgeria furcata</i> (L.) Dumort.	F	W	B
<i>Metzgeria temperata</i> Kuwah.	F	W	
<i>Metzgeria violacea</i> (Ach.) Dumort.	F	W	
<i>Microlejeunea ulicina</i> (Taylor) A.Evans	F	W	B
<i>Moerckia hibernica</i> (Hook.) Gottsche	F	W	
<i>Mylia anomala</i> (Hook.) Gray	F	W	
<i>Mylia taylorii</i> (Hook.) Gray		W	
<i>Nardia compressa</i> (Hook.) Gray	F	W	
<i>Nardia geoscyphus</i> (De Not.) Lindb.	F	W	B
<i>Nardia insecta</i> Lindb.		W	
<i>Nardia scalaris</i> Gray	F	W	B
<i>Nowellia curvifolia</i> (Dicks.) Mitt.	F	W	B
<i>Odontoschisma denudatum</i> (Mart.) Dumort.	F	W	
<i>Odontoschisma sphagni</i> (Dicks.) Dumort.	F	W	

<i>Pallavicinia lyellii</i> (Hook.) Carruth.	F	W	
<i>Pedinophyllum interruptum</i> (Nees) Kaal.		W	
<i>Pellia endiviifolia</i> (Dicks.) Dumort.	F	W	B
<i>Pellia epiphylla</i> (L.) Corda	F	W	B
<i>Pellia neesiana</i> (Gottsche) Limpr.	F	W	
<i>Plagiochila asplenioides</i> (L. emend. Taylor) Dumort.	F	W	B
<i>Plagiochila bifaria</i> (Sw.) Lindenb.		W	
<i>Plagiochila porelloides</i> (Torrey ex Nees) Lindenb.	F	W	B
<i>Plagiochila spinulosa</i> (Dicks.) Dumort.		W	
<i>Porella arboris-vitae</i> (With.) Grolle		W	
<i>Porella cordaeana</i> (Huebener) Moore		W	
<i>Porella platyphylla</i> (L.) Pfeiff.	F	W	B
<i>Preissia quadrata</i> (Scop.) Nees	F	W	
<i>Ptilidium ciliare</i> (L.) Hampe	F	W	
<i>Ptilidium pulcherrimum</i> (Weber) Vainio	F	W	B
<i>Radula complanata</i> (L.) Dumort.	F	W	B
<i>Radula lindenbergiana</i> Gottsche ex C.Hartm.		W	
<i>Reboulia hemisphaerica</i> (L.) Raddi	F	W	
<i>Riccardia chamedryfolia</i> (With.) Grolle	F	W	
<i>Riccardia incurvata</i> Lindb.	F	W	
<i>Riccardia latifrons</i> (Lindb.) Lindb.	F	W	
<i>Riccardia multifida</i> (L.) Gray	F	W	
<i>Riccia beyrichiana</i> Hampe ex Lehm.	F	W	
<i>Riccia bifurca</i> Hoffm.	F	W	B
<i>Riccia canaliculata</i> Hoffm.	F	W	
<i>Riccia cavernosa</i> Hoffm.	F	W	
<i>Riccia ciliata</i> Hoffm.	F	W	
<i>Riccia ciliifera</i> Link ex Lindenb.		W	
<i>Riccia fluitans</i> L.	F	W	B
<i>Riccia glauca</i> L.	F	W	B
<i>Riccia huebeneriana</i> Lindenb.	F	W	
<i>Riccia rhenana</i> Lorb. ex Müll.Frib.		W	
<i>Riccia sorocarpa</i> Bisch.	F	W	B
<i>Riccia subbifurca</i> Warnst. ex Croz.	F	W	B
<i>Riccia warnstorffii</i> Limpr. ex Warnst.	F	W	
<i>Ricciocarpos natans</i> (L.) Corda	F	W	
<i>Scapania aequiloba</i> (Schwägr.) Dumort.		W	
<i>Scapania aspera</i> Bernet & M.Bern.		W	
<i>Scapania calcicola</i> (Arnell & J.Perss.) Ingham		W	
<i>Scapania compacta</i> (A.Roth) Dumort.	F	W	
<i>Scapania curta</i> (Mart.) Dumort.	F	W	B
<i>Scapania cuspiduligera</i> (Nees) K.Müll.		W	
<i>Scapania irrigua</i> (Nees) Nees	F	W	B
<i>Scapania lingulata</i> H.Buch		W	
<i>Scapania mucronata</i> H.Buch		W	
<i>Scapania nemorea</i> (L.) Grolle	F	W	B
<i>Scapania paludicola</i> Loeske & Müll.Frib.	F	W	
<i>Scapania scandica</i> (Arnell & H.Buch) Macvicar	F	W	
<i>Scapania undulata</i> (L.) Dumort.	F	W	
<i>Southbya nigrella</i> (De Not.) Henriq.		W	
<i>Sphaerocarpos michelii</i> Bellardi	F	W	B
<i>Sphaerocarpos texanus</i> Austin	F	W	
<i>Targionia hypophylla</i> L.	F	W	
<i>Tetralophozia setiformis</i> (Ehrh.) Schljakov		W	
<i>Trichocolea tomentella</i> (Ehrh.) Dumort.	F	W	
<i>Tritomaria exsecta</i> (Schmidel) Loeske		W	
<i>Tritomaria exsectiformis</i> (Breidl.) Loeske	F	W	
<i>Tritomaria quinquedentata</i> (Huds.) H.Buch	F	W	

Mosses

<i>Abietinella abietina</i> (Hedw.) M.Fleisch.	F	W	
<i>Acaulon muticum</i> (Hedw.) Müll.Hal.	F	W	B
<i>Acaulon triquetrum</i> (Spruce) Müll.Hal.		W	
<i>Aloina aloides</i> (Koch ex Schultz) Kindb.	F	W	B
<i>Aloina ambigua</i> (Bruch & Schimp.) Limpr.	F	W	B
<i>Aloina rigida</i> (Hedw.) Limpr.	F	W	
<i>Amblystegium confervoides</i> (Brid.) Schimp.		W	
<i>Amblystegium radicale</i> (P.Beauv.) Schimp.	F	W	
<i>Amblystegium serpens</i> (Hedw.) Schimp.	F	W	B
<i>Amphidium mougeotii</i> (Schimp.) Schimp.		W	
<i>Andreaea rothii</i> F.Weber & D.Mohr		W	
<i>Andreaea rupestris</i> Hedw.		W	
<i>Anomobryum concinnatum</i> (Spruce) Lindb.		W	
<i>Anomobryum julaceum</i> (Schrad. ex P.Gaertn. et al.) Schimp.		W	
<i>Anomodon attenuatus</i> (Hedw.) Huebener	F	W	
<i>Anomodon longifolius</i> (Schleich. ex Brid.) Hartm.		W	
<i>Anomodon rostratus</i> (Hedw.) Schimp.		W	
<i>Anomodon viticulosus</i> (Hedw.) Hook. & Taylor	F	W	B
<i>Antitrichia curtipendula</i> (Hedw.) Brid.	F	W	
<i>Archidium alternifolium</i> (Hedw.) Mitt.	F	W	
<i>Atrichum angustatum</i> (Brid.) Bruch & Schimp.		W	
<i>Atrichum tenellum</i> (Röhl.) Bruch & Schimp.	F	W	
<i>Atrichum undulatum</i> (Hedw.) P.Beauv.	F	W	B
<i>Aulacomnium androgynum</i> (Hedw.) Schwägr.	F	W	B
<i>Aulacomnium palustre</i> (Hedw.) Schwägr.	F	W	
<i>Barbula convoluta</i> Hedw.	F	W	B
<i>Barbula unguiculata</i> Hedw.	F	W	B
<i>Bartramia halleriana</i> Hedw.		W	
<i>Bartramia ithyphylla</i> Brid.	F	W	
<i>Bartramia pomiformis</i> Hedw.	F	W	
<i>Brachytheciastrum velutinum</i> (Hedw.) Ignatov & Huttunen	F	W	B
<i>Brachythecium albicans</i> (Hedw.) Schimp.	F	W	B
<i>Brachythecium campestre</i> (Müll.Hal.) Schimp.		W	
<i>Brachythecium glareosum</i> (Bruch ex Spruce) Schimp.	F	W	B
<i>Brachythecium laetum</i> (Brid.) Schimp.		W	
<i>Brachythecium mildeanum</i> (Schimp.) Schimp.	F	W	B
<i>Brachythecium rivulare</i> Schimp.	F	W	B
<i>Brachythecium rutabulum</i> (Hedw.) Schimp.	F	W	B
<i>Brachythecium salebrosum</i> (Hoffm. ex F.Weber & D.Mohr) Schimp.	F	W	B
<i>Brachythecium tommasinii</i> (Sendtn. ex Boulay) Ignatov & Huttunen		W	
<i>Breidleria pratensis</i> (W.D.J.Koch ex Spruce) Loeske		W	
<i>Breutelia chrysocoma</i> (Hedw.) Lindb.		W	
<i>Bryoerythrophyllum ferruginascens</i> (Stirt.) Giacom.		W	
<i>Bryoerythrophyllum recurvirostrum</i> (Hedw.) P.C.Chen	F	W	B
<i>Bryum algovicum</i> Sendtn. ex Müll.Hal.	F	W	
<i>Bryum alpinum</i> Huds. ex With.	F	W	
<i>Bryum archangelicum</i> Bruch & Schimp.	F	W	
<i>Bryum argenteum</i> Hedw.	F	W	B
<i>Bryum bornholmense</i> Wink. & R.Ruthe	F	W	
<i>Bryum caespiticium</i> Hedw.	F	W	B
<i>Bryum canariense</i> Brid.		W	
<i>Bryum capillare</i> Hedw.	F	W	B
<i>Bryum creberrimum</i> Taylor	F	W	
<i>Bryum cyclophyllum</i> (Schwägr.) Bruch & Schimp.	F		
<i>Bryum demaretianum</i> Arts	F		
<i>Bryum dichotomum</i> Hedw.	F	W	B
<i>Bryum donianum</i> Grev.		W	

<i>Bryum dyffrynense</i> Holyoak	F		
<i>Bryum elegans</i> Nees		W	
<i>Bryum funckii</i> Schwägr.		W	
<i>Bryum gemmiferum</i> R.Wilczek & Demaret	F	W	B
<i>Bryum gemmilucens</i> R.Wilczek & Demaret	F	W	
<i>Bryum gemmiparum</i> De Not.		W	
<i>Bryum intermedium</i> (Brid.) Blandow	F	W	
<i>Bryum klinggraeffii</i> Schimp.	F	W	B
<i>Bryum knowltonii</i> Barnes	F		
<i>Bryum kunzei</i> Hornsch.		W	
<i>Bryum mildeanum</i> Jur.	F	W	
<i>Bryum moravicum</i> Podp.	F	W	B
<i>Bryum muehlenbeckii</i> Bruch & Schimp.		W	
<i>Bryum neodamense</i> Itzigs.	F		
<i>Bryum pallens</i> Sw. ex anon.	F	W	B
<i>Bryum pallescens</i> Schleich. ex Schwägr.	F	W	
<i>Bryum pseudotriquetrum</i> (Hedw.) P.Gaertn. et al.	F	W	B
<i>Bryum radiculosum</i> Brid.	F	W	B
<i>Bryum rubens</i> Mitt.	F	W	B
<i>Bryum ruderale</i> Crundw. & Nyholm	F	W	B
<i>Bryum sauteri</i> Bruch & Schimp.	F	W	
<i>Bryum subapiculatum</i> Hampe	F	W	B
<i>Bryum tenuisetum</i> Limpr.	F	W	
<i>Bryum torquescens</i> Bruch & Schimp.		W	
<i>Bryum turbinatum</i> (Hedw.) Turner		W	
<i>Bryum uliginosum</i> (Brid.) Bruch & Schimp.	F	W	
<i>Bryum violaceum</i> Crundw. & Nyholm	F	W	
<i>Bryum warneum</i> (Röhl.) Brid.	F		
<i>Bryum weigelii</i> Spreng.	F	W	
<i>Buxbaumia aphylla</i> Hedw.	F	W	
<i>Calliergon cordifolium</i> (Hedw.) Kindb.	F	W	
<i>Calliergon giganteum</i> (Schimp.) Kindb.	F	W	
<i>Calliergonella cuspidata</i> (Hedw.) Loeske	F	W	B
<i>Calliergonella lindbergii</i> (Mitt.) Hedenäs	F	W	B
<i>Campyliadelphus chrysophyllus</i> (Brid.) R.S.Chopra	F	W	B
<i>Campyliadelphus elodes</i> (Lindb.) Kanda	F	W	
<i>Campylium protensum</i> (Brid.) Kindb.	F	W	
<i>Campylium stellatum</i> (Hedw.) Lange & C.E.O.Jensen	F	W	
<i>Campylophyllum calcareum</i> (Crundw. & Nyholm) Hedenäs	F	W	
<i>Campylopus brevipilus</i> Bruch & Schimp.	F		
<i>Campylopus flexuosus</i> (Hedw.) Brid.	F	W	B
<i>Campylopus fragilis</i> (Brid.) Bruch & Schimp.	F	W	
<i>Campylopus introflexus</i> (Hedw.) Brid.	F	W	B
<i>Campylopus pilifer</i> Brid.	F		
<i>Campylopus pyriformis</i> (Schultz) Brid.	F	W	B
<i>Campylopus subulatus</i> Schimp. ex Milde		W	
<i>Campylostelium saxicola</i> (F.Weber & D.Mohr) Bruch & Schimp.		W	
<i>Catoscopium nigratum</i> (Hedw.) Brid.	F	W	
<i>Ceratodon conicus</i> (Hampe) Lindb.		W	
<i>Ceratodon purpureus</i> (Hedw.) Brid.	F	W	B
<i>Cinclidium stygium</i> Sw.		W	
<i>Cinclidotus aquaticus</i> (Hedw.) Bruch & Schimp.		W	
<i>Cinclidotus danubicus</i> Schiffn. & Baumgartner	F	W	
<i>Cinclidotus fontinaloides</i> (Hedw.) P.Beauv.	F	W	B
<i>Cinclidotus riparius</i> (Host ex Brid.) Arn.	F	W	
<i>Cirriphyllum crassinervium</i> (Taylor) Loeske & M.Fleisch.	F	W	B
<i>Cirriphyllum piliferum</i> (Hedw.) Grout	F	W	B

<i>Cleistocarpidium palustre</i> (Bruch & Schimp) Ochyra & Bednarek-Ochyra	F	W	
<i>Climacium dendroides</i> (Hedw.) F.Weber & D.Mohr	F	W	B
<i>Conardia compacta</i> (Müll.Hal.) H.Rob.		W	
<i>Coscinodon cribrosus</i> (Hedw.) Spruce		W	
<i>Cratoneuron filicinum</i> (Hedw.) Spruce	F	W	B
<i>Crossidium squamiferum</i> (Viv.) Jur.		W	
<i>Cryphaea heteromalla</i> (Hedw.) D.Mohr	F	W	B
<i>Ctenidium molluscum</i> (Hedw.) Mitt.	F	W	B
<i>Cynodontium bruntonii</i> (Sm.) Bruch & Schimp.		W	
<i>Cynodontium polycarpon</i> (Hedw.) Schimp.		W	
<i>Cynodontium strumiferum</i> (Hedw.) Lindb.		W	
<i>Dialytrichia fragilifolia</i> (Bizot & J.Roux) F.Lara		W	
<i>Dialytrichia mucronata</i> (Brid.) Broth.		W	
<i>Dichodontium flavescens</i> (Dicks.) Lindb.		W	
<i>Dichodontium palustre</i> (Dicks.) M.Stech		W	
<i>Dichodontium pellucidum</i> (Hedw.) Schimp.		W	B
<i>Dicranella cerviculata</i> (Hedw.) Schimp.	F	W	B
<i>Dicranella heteromalla</i> (Hedw.) Schimp.	F	W	B
<i>Dicranella rufescens</i> (Dicks.) Schimp.	F	W	B
<i>Dicranella schreberiana</i> (Hedw.) Dixon	F	W	B
<i>Dicranella staphylina</i> H.Whitehouse	F	W	B
<i>Dicranella subulata</i> (Hedw.) Schimp.		W	
<i>Dicranella varia</i> (Hedw.) Schimp.	F	W	B
<i>Dicranodontium denudatum</i> (Brid.) E.Britton		W	
<i>Dicranoweisia cirrata</i> (Hedw.) Lindb.	F	W	B
<i>Dicranum bonjeanii</i> De Not.	F	W	
<i>Dicranum flagellare</i> Hedw.	F	W	
<i>Dicranum fulvum</i> Hook.		W	
<i>Dicranum fuscescens</i> Sm.		W	
<i>Dicranum majus</i> Sm.	F	W	B
<i>Dicranum montanum</i> Hedw.	F	W	B
<i>Dicranum polysetum</i> Sw. ex anon.	F	W	
<i>Dicranum scoparium</i> Hedw.	F	W	B
<i>Dicranum spurium</i> Hedw.	F	W	
<i>Dicranum tauricum</i> Sapjegin	F	W	B
<i>Dicranum undulatum</i> Schrad. ex Brid.		W	
<i>Dicranum viride</i> (Sull. & Lesq.) Lindb.		W	
<i>Didymodon acutus</i> (Brid.) K.Saito	F	W	
<i>Didymodon australasiae</i> (Hook. & Grev.) R.H.Zander	F	W	
<i>Didymodon cordatus</i> Jur.		W	
<i>Didymodon fallax</i> (Hedw.) R.H.Zander	F	W	B
<i>Didymodon ferrugineus</i> (Schimp. ex Besch.) M.O.Hill	F	W	
<i>Didymodon insulanus</i> (De Not.) M.O.Hill	F	W	B
<i>Didymodon luridus</i> Hornsch.	F	W	B
<i>Didymodon nicholsonii</i> Culm.		W	
<i>Didymodon rigidulus</i> Hedw.	F	W	B
<i>Didymodon sinuosus</i> (Mitt.) Delogne	F	W	B
<i>Didymodon spadiceus</i> (Mitt.) Limpr.	F	W	B
<i>Didymodon tophaceus</i> (Brid.) Lisa	F	W	B
<i>Didymodon vinealis</i> (Brid.) R.H.Zander	F	W	B
<i>Diphyscium foliosum</i> (Hedw.) D.Mohr	F	W	
<i>Discelium nudum</i> (Dicks.) Brid.		W	
<i>Distichium capillaceum</i> (Hedw.) Bruch & Schimp.	F	W	
<i>Distichium inclinatum</i> (Hedw.) Bruch & Schimp.		W	
<i>Ditrichum flexicaule</i> (Schwägr.) Hampe	F	W	
<i>Ditrichum gracile</i> (Mitt.) Kuntze	F	W	
<i>Ditrichum heteromallum</i> (Hedw.) E.Britton	F	W	B

<i>Ditrichum lineare</i> (Sw.) Lindb.	F	W	
<i>Ditrichum pallidum</i> (Hedw.) Hampe	F	W	
<i>Ditrichum pusillum</i> (Hedw.) Hampe	F	W	
<i>Drepanocladus aduncus</i> (Hedw.) Warnst.	F	W	B
<i>Drepanocladus polygamus</i> (Schimp.) Hedenäs	F	W	
<i>Drepanocladus sendtneri</i> (Schimp. ex H.Müll.) Warnst.	F	W	
<i>Encalypta ciliata</i> Hedw.		W	
<i>Encalypta streptocarpa</i> Hedw.	F	W	B
<i>Encalypta vulgaris</i> Hedw.	F	W	
<i>Entodon concinnus</i> (De Not.) Paris	F	W	
<i>Entosthodon fascicularis</i> (Hedw.) Müll.Hal	F	W	
<i>Entosthodon muhlenbergii</i> (Turner) Fife		W	
<i>Entosthodon obtusus</i> (Hedw.) Lindb.	F	W	
<i>Entosthodon pulchellus</i> (H.Philib.) Brugués		W	
<i>Ephemerum cohaerens</i> (Hedw.) Hampe		W	
<i>Ephemerum minutissimum</i> Lindb.	F	W	B
<i>Ephemerum recurvifolium</i> (Dicks.) Boulay		W	
<i>Ephemerum serratum</i> (Hedw.) Hampe	F	W	
<i>Ephemerum sessile</i> (Bruch) Müll.Hal.		W	
<i>Ephemerum stellatum</i> H.Philib.			B
<i>Eucladium verticillatum</i> (With.) Bruch & Schimp.	F	W	B
<i>Eurhynchiastrum pulchellum</i> (Hedw.) Ignatov & Huttunen	F	W	
<i>Eurhynchium angustirete</i> (Broth.) T.J.Kop.		W	
<i>Eurhynchium striatum</i> (Hedw.) Schimp.	F	W	B
<i>Fissidens adianthoides</i> Hedw.	F	W	B
<i>Fissidens arnoldii</i> R.Ruthe		W	
<i>Fissidens bryoides</i> Hedw.	F	W	B
<i>Fissidens celticus</i> Paton		W	
<i>Fissidens crassipes</i> Wilson ex Bruch & Schimp.	F	W	B
<i>Fissidens dubius</i> P.Beauv.	F	W	B
<i>Fissidens exilis</i> Hedw.	F	W	B
<i>Fissidens fontanus</i> (Bach.Pyl.) Steud.	F	W	
<i>Fissidens gracilifolius</i> Brugg.-Nann. & Nyholm	F	W	B
<i>Fissidens monguillonii</i> Thér.	F	W	
<i>Fissidens osmundoides</i> Hedw.	F	W	
<i>Fissidens pusillus</i> (Wilson) Milde	F	W	B
<i>Fissidens rivularis</i> (Spruce) Schimp.		W	
<i>Fissidens rufulus</i> Bruch & Schimp.	F	W	
<i>Fissidens taxifolius</i> Hedw.	F	W	B
<i>Fissidens viridulus</i> (Sw. ex anon.) Wahlenb.	F	W	B
<i>Fontinalis antipyretica</i> Hedw.	F	W	
<i>Fontinalis squamosa</i> Hedw.		W	
<i>Funaria hygrometrica</i> Hedw.	F	W	B
<i>Grimmia atrata</i> Miel. ex Hornsch.		W	
<i>Grimmia caespiticia</i> (Brid.) Jur.		W	
<i>Grimmia crinita</i> Brid.	F	W	
<i>Grimmia decipiens</i> (Schultz) Lindb.		W	
<i>Grimmia dissimulata</i> E.Maier	F	?	?
<i>Grimmia elongata</i> Kaulf.		W	
<i>Grimmia hartmanii</i> Schimp.		W	
<i>Grimmia laevigata</i> (Brid.) Brid.		W	
<i>Grimmia lisae</i> De Not.		W	
<i>Grimmia longirostris</i> Hook.		W	
<i>Grimmia montana</i> Bruch & Schimp.		W	
<i>Grimmia muehlenbeckii</i> Schimp.		W	
<i>Grimmia orbicularis</i> Bruch ex Wilson		W	
<i>Grimmia ovalis</i> (Hedw.) Lindb.		W	

<i>Grimmia pulvinata</i> (Hedw.) Sm.	F	W	B
<i>Grimmia ramondii</i> (Lam. & DC.) Margad.		W	
<i>Grimmia tergestina</i> Tomm. ex Bruch & Schimp.		W	
<i>Grimmia torquata</i> Drumm.		W	
<i>Grimmia trichophylla</i> Grev.	F	W	
<i>Gymnostomum aeruginosum</i> Sm.		W	
<i>Gymnostomum calcareum</i> Nees & Hornsch.		W	
<i>Gymnostomum viridulum</i> Brid.		W	
<i>Gyroweisia tenuis</i> (Hedw.) Schimp.	F	W	B
<i>Habrodon perpusillus</i> (De Not.) Lindb.		W	
<i>Hageniella micans</i> (Mitt.) B.C.Tan & Y.Jia		W	
<i>Hamatocaulis vernicosus</i> (Mitt.) Hedenäs	F	W	
<i>Hedwigia ciliata</i> (Hedw.) P.Beauv.	F	W	
<i>Hedwigia stellata</i> Hedenäs		W	
<i>Helodium blandowii</i> (F. Weber & D.Mohr.) Warnst.	F		
<i>Hennediella heimii</i> (Hedw.) R.H.Zander	F	W	
<i>Herzogiella seligeri</i> (Brid.) Z.Iwats.	F	W	B
<i>Heterocladium flaccidum</i> (Schimp.) A.J.E.Smith		W	
<i>Heterocladium heteropterum</i> (Brid.) Schimp.	F	W	
<i>Homalia trichomanoides</i> (Hedw.) Brid.	F	W	B
<i>Homalothecium lutescens</i> (Hedw.) H.Rob.	F	W	B
<i>Homalothecium sericeum</i> (Hedw.) Schimp.	F	W	B
<i>Homomallium incurvatum</i> (Schrad. ex Brid.) Loeske		W	
<i>Hookeria lucens</i> (Hedw.) Sm.	F	W	
<i>Hygroamblystegium fluviatile</i> (Hedw.) Loeske	F	W	
<i>Hygroamblystegium humile</i> (P.Beauv.) Vanderp., Goffinet & Hedenäs	F	W	B
<i>Hygroamblystegium tenax</i> (Hedw.) Jenn.	F	W	B
<i>Hygroamblystegium varium</i> (Hedw.) Mönk.	F	W	B
<i>Hygrohypnum eugyrium</i> (Schimp.) Broth.		W	
<i>Hygrohypnum luridum</i> (Hedw.) Jenn.	F	W	B
<i>Hygrohypnum ochraceum</i> (Turner ex Wilson) Loeske	F	W	
<i>Hylocomiastrum pyrenaicum</i> (Spruce) M.Fleisch.		W	
<i>Hylocomiastrum umbratum</i> (Hedw.) M.Fleisch.		W	
<i>Hylocomium splendens</i> (Hedw.) Schimp.	F	W	
<i>Hymenostylium recurvirostrum</i> (Hedw.) Dixon		W	
<i>Hyocomium armoricum</i> (Brid.) Wijk & Margad.		W	
<i>Hypnum andoi</i> A.J.E.Smith	F	W	
<i>Hypnum cupressiforme</i> Hedw.	F	W	B
<i>Hypnum imponens</i> Hedw.	F	W	
<i>Hypnum jutlandicum</i> Holmen & E.Warncke	F	W	B
<i>Hypnum pallescens</i> (Hedw.) P.Beauv.	F	W	
<i>Isoetecium alopecuroides</i> (Lam. ex Dubois) Isov.	F	W	B
<i>Isoetecium holtii</i> Kindb.		W	
<i>Isoetecium myosuroides</i> Brid.	F	W	B
<i>Kindbergia praelonga</i> (Hedw.) Ochyra	F	W	B
<i>Leptobarbula berica</i> (De Not.) Schimp.	F	W	
<i>Leptobryum pyriforme</i> (Hedw.) Wilson	F	W	
<i>Leptodictyum riparium</i> (Hedw.) Warnst.	F	W	B
<i>Leptodontium flexifolium</i> (Dicks.) Hampe	F	W	
<i>Leptodontium gemmascens</i> (Mitt.) Braithw.	F	W	
<i>Leskea polycarpa</i> Hedw.	F	W	B
<i>Leucobryum glaucum</i> (Hedw.) Ångstr.	F	W	B
<i>Leucodon sciuroides</i> (Hedw.) Schwägr.	F	W	
<i>Loeskeobryum brevirostre</i> (Brid.) M.Fleisch.	F	W	
<i>Meesia triquetra</i> (L. ex Jolycl.) Ångstr.		W	
<i>Microbryum curvicollum</i> (Hedw.) R.H.Zander	F	W	
<i>Microbryum davallianum</i> (Sm.) R.H.Zander	F	W	B

<i>Microbryum floerkeanum</i> (F.Weber & D.Mohr) Schimp.	F	W	
<i>Microbryum rectum</i> (With.) R.H.Zander		W	
<i>Microbryum starckeanum</i> (Hedw.) R.H.Zander	F	W	
<i>Micromitrium tenerum</i> (Bruch & Schimp.) Crosby	F		
<i>Mielichhoferia mielichhoferiana</i> (Funck) Loeske		W	
<i>Mnium hornum</i> Hedw.	F	W	B
<i>Mnium marginatum</i> (Dicks.) P.Beauv.	F	W	B
<i>Mnium stellare</i> Hedw.	F	W	B
<i>Neckera complanata</i> (Hedw.) Huebener	F	W	B
<i>Neckera crispa</i> Hedw.		W	
<i>Neckera pumila</i> Hedw.		W	
<i>Oligotrichum hercynicum</i> (Hedw.) Lam. & DC.	F	W	
<i>Orthodontium lineare</i> Schwägr.	F	W	B
<i>Orthothecium intricatum</i> (Hartm.) Schimp.		W	
<i>Orthothecium rufescens</i> (Dicks. ex Brid.) Schimp.		W	
<i>Orthotrichum affine</i> Schrad. ex Brid.	F	W	B
<i>Orthotrichum anomalum</i> Hedw.	F	W	B
<i>Orthotrichum consimile</i> Mitt.		W	
<i>Orthotrichum cupulatum</i> Hoffm. ex Brid.	F	W	B
<i>Orthotrichum diaphanum</i> Schrad. ex Brid.	F	W	B
<i>Orthotrichum ibericum</i> F.Lara & Mazimpaka	F		
<i>Orthotrichum lyellii</i> Hook. & Taylor	F	W	B
<i>Orthotrichum obtusifolium</i> Brid.	F	W	B
<i>Orthotrichum pallens</i> Bruch ex Brid.	F	W	B
<i>Orthotrichum patens</i> Bruch ex Brid.	F	W	
<i>Orthotrichum pulchellum</i> Brunt.	F	W	B
<i>Orthotrichum pumilum</i> Sw. ex anon.	F	W	B
<i>Orthotrichum rivulare</i> Turner		W	
<i>Orthotrichum rogeri</i> Brid.		W	
<i>Orthotrichum rupestre</i> Schleich. ex Schwägr.	F	W	
<i>Orthotrichum scanicum</i> Grönvall		W	
<i>Orthotrichum schimperi</i> Hammar	F	W	
<i>Orthotrichum shawii</i> Wilson		W	
<i>Orthotrichum speciosum</i> Nees	F	W	
<i>Orthotrichum sprucei</i> Mont.	F	W	
<i>Orthotrichum stramineum</i> Hornsch. ex Brid.	F	W	B
<i>Orthotrichum striatum</i> Hedw.	F	W	B
<i>Orthotrichum tenellum</i> Bruch ex Brid.	F	W	B
<i>Oxyrrhynchium hians</i> (Hedw.) Loeske	F	W	B
<i>Oxyrrhynchium pumilum</i> (Wilson) Loeske	F	W	B
<i>Oxyrrhynchium schleicheri</i> (R.Hedw.) Röhl	F	W	B
<i>Oxyrrhynchium speciosum</i> (Brid.) Warnst.	F	W	B
<i>Oxystegus tenuirostris</i> (Hook. & Taylor) A.J.E.Sm.		W	
<i>Palustriella commutata</i> (Hedw.) Ochyra	F	W	
<i>Palustriella falcata</i> (Hedw.) Hedenäs	F	W	
<i>Paraleucobryum longifolium</i> (Hedw.) Loeske		W	
<i>Phascum cuspidatum</i> Hedw.	F	W	B
<i>Philonotis arnellii</i> Husn.	F	W	
<i>Philonotis caespitosa</i> Jur.	F	W	
<i>Philonotis calcarea</i> (Bruch & Schimp.) Schimp.	F	W	
<i>Philonotis fontana</i> (Hedw.) Brid.	F	W	B
<i>Philonotis marchica</i> (Hedw.) Brid.	F	W	
<i>Philonotis seriata</i> Mitt.		W	
<i>Physcomitrella patens</i> (Hedw.) Bruch & Schimp.	F	W	B
<i>Physcomitrium eurystomum</i> Sendtn.	F	W	
<i>Physcomitrium pyriforme</i> (Hedw.) Bruch & Schimp.	F	W	B
<i>Physcomitrium sphaericum</i> (C.F.Ludw. ex Schkuhr) Brid.	F	W	

<i>Plagiobryum zieri</i> (Hedw.) Lindb.			W
<i>Plagiomnium affine</i> (Blandow ex Funck) T.J.Kop.	F	W	B
<i>Plagiomnium cuspidatum</i> (Hedw.) T.J.Kop.	F	W	B
<i>Plagiomnium elatum</i> (Bruch & Schimp.) T.J.Kop.	F	W	
<i>Plagiomnium ellipticum</i> (Brid.) T.J.Kop.	F	W	B
<i>Plagiomnium medium</i> (Bruch & Schimp.) T.J.Kop.	F	W	
<i>Plagiomnium rostratum</i> (Schrad.) T.J.Kop.	F	W	B
<i>Plagiomnium undulatum</i> (Hedw.) T.J.Kop.	F	W	B
<i>Plagiopus oederianus</i> (Sw.) H.A.Crum & L.E.Anderson	F	W	
<i>Plagiothecium cavifolium</i> (Brid.) Z.Iwats.	F	W	B
<i>Plagiothecium curvifolium</i> Schlieph. ex Limpr.	F	W	B
<i>Plagiothecium denticulatum</i> (Hedw.) Schimp.	F	W	B
<i>Plagiothecium laetum</i> Schimp.	F	W	B
<i>Plagiothecium latebricola</i> Schimp.	F	W	
<i>Plagiothecium nemorale</i> (Mitt.) A.Jaeger	F	W	B
<i>Plagiothecium succulentum</i> (Wilson) Lindb.	F	W	B
<i>Plagiothecium undulatum</i> (Hedw.) Schimp.	F	W	B
<i>Plasteurhynchium striatulum</i> (Spruce) M.Fleisch.	F	W	B
<i>Platydictya jungermannioides</i> (Brid.) H.A.Crum			W
<i>Platygyrium repens</i> (Brid.) Schimp.	F	W	B
<i>Platyhypnidium riparioides</i> (Hedw.) Dixon	F	W	B
<i>Pleuridium acuminatum</i> Lindb.	F	W	B
<i>Pleuridium subulatum</i> (Hedw.) Rabenh.	F	W	B
<i>Pleurochaete squarrosa</i> (Brid.) Lindb.	F	W	
<i>Pleurozium schreberi</i> (Willd. ex Brid.) Mitt.	F	W	B
<i>Pogonatum aloides</i> (Hedw.) P.Beauv.	F	W	B
<i>Pogonatum nanum</i> (Hedw.) P.Beauv.	F	W	B
<i>Pogonatum urnigerum</i> (Hedw.) P.Beauv.	F	W	
<i>Pohlia andalusica</i> (Höhn.) Broth.			W
<i>Pohlia annotina</i> (Hedw.) Lindb.	F	W	B
<i>Pohlia bulbifera</i> (Warnst.) Warnst.	F	W	
<i>Pohlia camptotrachela</i> (Renauld & Cardot) Broth.	F	W	
<i>Pohlia cruda</i> (Hedw.) Lindb.			W
<i>Pohlia drummondii</i> (Müll.Hal.) A.L.Andrews			W
<i>Pohlia elongata</i> Hedw.			W
<i>Pohlia flexuosa</i> Hook.	F	W	
<i>Pohlia lescuriana</i> (Sull.) Ochi	F	W	
<i>Pohlia lutescens</i> (Limpr.) H.Lindb.	F	W	B
<i>Pohlia melanodon</i> (Brid.) A.J.Shaw	F	W	B
<i>Pohlia nutans</i> (Hedw.) Lindb.	F	W	B
<i>Pohlia wahlenbergii</i> (F.Weber & D.Mohr) A.L.Andrews	F	W	B
<i>Polytrichastrum alpinum</i> (Hedw.) G.L.Sm.			W
<i>Polytrichastrum formosum</i> (Hedw.) G.L.Sm.	F	W	B
<i>Polytrichastrum longisetum</i> (Sw. ex Brid.) G.L.Sm.	F	W	
<i>Polytrichum commune</i> Hedw.	F	W	
<i>Polytrichum juniperinum</i> Hedw.	F	W	B
<i>Polytrichum piliferum</i> Hedw.	F	W	B
<i>Polytrichum strictum</i> Menzies ex Brid.	F	W	
<i>Polytrichum uliginosum</i> (Wallr.) Schriebl.	F	W	
<i>Protobryum bryoides</i> (Dicks.) J.Guerra & M.J.Cano	F	W	B
<i>Pseudephemerum nitidum</i> (Hedw.) Loeske	F	W	B
<i>Pseudobryum cinclidioides</i> (Huebener) T.J.Kop.	F	W	
<i>Pseudocalliergon lycopodioides</i> (Brid.) Hedenäs	F		
<i>Pseudocrossidium hornschurchianum</i> (Schultz) R.H.Zander	F	W	B
<i>Pseudocrossidium revolutum</i> (Brid.) R.H.Zander	F	W	B
<i>Pseudoleskeella catenulata</i> (Brid. ex Schrad.) Kindb.			W
<i>Pseudoleskeella nervosa</i> (Brid.) Nyholm			W

<i>Pseudoscleropodium purum</i> (Hedw.) M.Fleisch.	F	W	B
<i>Pseudotaxiphyllum elegans</i> (Brid.) Z.Iwats.	F	W	B
<i>Pterigynandrum filiforme</i> Hedw.	F	W	
<i>Pterogonium gracile</i> (Hedw.) Sm.		W	
<i>Pterygoneurum lamellatum</i> (Lindb.) Jur.		W	
<i>Pterygoneurum ovatum</i> (Hedw.) Dixon	F	W	
<i>Ptilium crista-castrensis</i> (Hedw.) De Not.	F	W	
<i>Ptychomitrium polyphyllum</i> (Dicks. ex Sw.) Bruch & Schimp.		W	
<i>Pylaisia polyantha</i> (Hedw.) Schimp.	F	W	B
<i>Racomitrium aciculare</i> (Hedw.) Brid.	F	W	
<i>Racomitrium affine</i> (F.Weber & D.Mohr) Lindb.		W	
<i>Racomitrium aquaticum</i> (Brid. ex Schrad.) Brid.		W	
<i>Racomitrium canescens</i> (Hedw.) Brid.	F	W	
<i>Racomitrium elongatum</i> Ehrh. ex Frisvoll	F	W	
<i>Racomitrium ericoides</i> (Brid.) Brid.	F	W	
<i>Racomitrium fasciculare</i> (Hedw.) Brid.		W	
<i>Racomitrium heterostichum</i> (Hedw.) Brid.	F	W	
<i>Racomitrium lanuginosum</i> (Hedw.) Brid.	F	W	
<i>Racomitrium obtusum</i> (Brid.) Brid.		W	
<i>Rhabdoweisia crenulata</i> (Mitt.) H.Jameson		W	
<i>Rhabdoweisia crispata</i> (Dicks.) Lindb.		W	
<i>Rhabdoweisia fugax</i> (Hedw.) Bruch & Schimp.		W	
<i>Rhizomnium pseudopunctatum</i> (Bruch & Schimp.) T.J.Kop.		W	
<i>Rhizomnium punctatum</i> (Hedw.) T.J.Kop.	F	W	B
<i>Rhodobryum ontariense</i> (Kindb.) Kindb.		W	
<i>Rhodobryum roseum</i> (Hedw.) Limpr.	F	W	
<i>Rhynchostegiella curviseta</i> (Brid.) Limpr.	F	W	B
<i>Rhynchostegiella tenella</i> (Dicks.) Limpr.	F	W	B
<i>Rhynchostegiella teneriffae</i> (Mont.) Dirkse & Bouman	F	W	
<i>Rhynchostegiella tenuicaulis</i> (Spruce) Kartt.		W	
<i>Rhynchostegium confertum</i> (Dicks.) Schimp.	F	W	B
<i>Rhynchostegium megapolitanum</i> (Blandow ex F.Weber & D.Mohr) Schimp.	F	W	
<i>Rhynchostegium murale</i> (Hedw.) Schimp.	F	W	B
<i>Rhynchostegium rotundifolium</i> (Scop. ex Brid.) Schimp.		W	
<i>Rhytidiadelphus loreus</i> (Hedw.) Warnst.	F	W	
<i>Rhytidiadelphus squarrosus</i> (Hedw.) Warnst.	F	W	B
<i>Rhytidiadelphus subpinnatus</i> (Lindb.) T.J.Kop.		W	
<i>Rhytidiadelphus triquetrus</i> (Hedw.) Warnst.	F	W	
<i>Rhytidium rugosum</i> (Hedw.) Kindb.	F	W	
<i>Sanionia uncinata</i> (Hedw.) Loeske	F	W	
<i>Schistidium apocarpum</i> (Hedw.) Bruch & Schimp.	F	W	B
<i>Schistidium confertum</i> (Funck) Bruch & Schimp.		W	
<i>Schistidium crassipilum</i> H.H.Blom	F	W	
<i>Schistidium elegantulum</i> H.H.Blom	F	W	
<i>Schistidium flaccidum</i> (De Not.) Ochyra		W	
<i>Schistidium helveticum</i> (Schkuhr) Deguchi		W	
<i>Schistidium papillosum</i> Culm.		W	
<i>Schistidium pruinatum</i> (Wilson ex Schimp.) G.Roth		W	
<i>Schistidium rivulare</i> (Brid.) Podp.	F	W	
<i>Schistidium trichodon</i> (Brid.) Poelt		W	
<i>Schistostega pennata</i> (Hedw.) F.Weber & D.Mohr.		W	
<i>Sciuro-hypnum flotowianum</i> (Sendtn.) Ignatov & Huttunen		W	
<i>Sciuro-hypnum oedipodium</i> (Mitt.) Ignatov & Huttunen	F		
<i>Sciuro-hypnum plumosum</i> (Hedw.) Ignatov & Huttunen	F	W	B
<i>Sciuro-hypnum populeum</i> (Hedw.) Ignatov & Huttunen	F	W	B
<i>Sciuro-hypnum reflexum</i> (Starke) Ignatov & Huttunen	F	W	
<i>Scleropodium cespitosum</i> (Wilson ex Müll.Hal.) L.F.Koch.	F	W	

<i>Scleropodium touretii</i> (Brid.) L.F.Koch.		W	
<i>Scopelophila cataractae</i> (Mitt.) Broth.	F	W	
<i>Scorpidium cossonii</i> (Schimp.) Hedenäs	F	W	
<i>Scorpidium revolvens</i> (Sw. ex anon.) Rubers	F	W	
<i>Scorpidium scorpioides</i> (Hedw.) Limpr.	F	W	
<i>Scorpiurium circinatum</i> (Bruch) M.Fleisch. & Loeske		W	
<i>Seligeria acutifolia</i> Lindb.		W	
<i>Seligeria calcarea</i> (Hedw.) Bruch & Schimp.	F	W	
<i>Seligeria calycina</i> Mitt. ex Lindb.		W	
<i>Seligeria donniana</i> (Sm.) Müll.Hal.		W	
<i>Seligeria pusilla</i> (Hedw.) Bruch & Schimp.		W	
<i>Seligeria recurvata</i> (Hedw.) Bruch & Schimp.		W	
<i>Seligeria trifaria</i> (Brid.) Lindb.		W	
<i>Sematophyllum demissum</i> (Wilson) Mitt.		W	
<i>Sematophyllum substrumosum</i> (Hampe) E.Britton	F		
<i>Sphagnum affine</i> Renauld & Cardot	F	W	
<i>Sphagnum angustifolium</i> (C.E.O.Jensen ex Russow) C.E.O.Jensen	F	W	
<i>Sphagnum auriculatum</i> Schimp.	F	W	
<i>Sphagnum capillifolium</i> (Ehrh.) Hedw.	F	W	
<i>Sphagnum centrale</i> C.E.O.Jensen	F	W	
<i>Sphagnum compactum</i> Lam. & DC.	F	W	
<i>Sphagnum contortum</i> Schultz	F	W	
<i>Sphagnum cuspidatum</i> Ehrh. ex Hoffm.	F	W	
<i>Sphagnum fallax</i> (H.Klinggr.) H.Klinggr.	F	W	
<i>Sphagnum fimbriatum</i> Wilson	F	W	
<i>Sphagnum flexuosum</i> Dozy & Molk.	F	W	B
<i>Sphagnum fuscum</i> (Schimp.) H.Klinggr.		W	
<i>Sphagnum girgensohnii</i> Russow	F	W	
<i>Sphagnum inundatum</i> Russow	F	W	
<i>Sphagnum magellanicum</i> Brid.	F	W	
<i>Sphagnum majus</i> (Russow) C.E.O.Jensen	F	W	
<i>Sphagnum molle</i> Sull.	F	W	
<i>Sphagnum obtusum</i> Warnst.	F		
<i>Sphagnum palustre</i> L.	F	W	
<i>Sphagnum papillosum</i> Lindb.	F	W	
<i>Sphagnum platyphyllum</i> (Lindb. ex Braithw.) Warnst.	F		
<i>Sphagnum quinquefarium</i> (Braithw.) Warnst.	F	W	
<i>Sphagnum riparium</i> Ångstr.		W	
<i>Sphagnum rubellum</i> Wilson	F	W	
<i>Sphagnum russowii</i> Warnst.	F	W	
<i>Sphagnum squarrosum</i> Crome	F	W	
<i>Sphagnum subnitens</i> Russow & Warnst.	F	W	
<i>Sphagnum subsecundum</i> Nees	F	W	
<i>Sphagnum tenellum</i> (Brid.) Pers. ex Brid.	F	W	
<i>Sphagnum teres</i> (Schimp.) Ångstr.	F	W	
<i>Sphagnum warnstorffii</i> Russow		W	
<i>Splachnum ampullaceum</i> Hedw.	F	W	
<i>Splachnum sphaericum</i> Hedw.		W	
<i>Straminergon stramineum</i> (Dicks. ex Brid.) Hedenäs	F	W	
<i>Syntrichia calcicola</i> J.J.Amann	F	W	B
<i>Syntrichia laevipila</i> Brid.	F	W	B
<i>Syntrichia latifolia</i> (Bruch ex Hartm.) Huebener	F	W	B
<i>Syntrichia montana</i> Nees	F	W	B
<i>Syntrichia papillosa</i> (Wilson) Jur.	F	W	B
<i>Syntrichia princeps</i> (De Not.) Mitt.		W	
<i>Syntrichia ruralis</i> (Hedw.) F.Weber & D.Mohr	F	W	B
<i>Syntrichia virescens</i> (De Not.) Ochyra	F	W	B

<i>Taxiphyllum wissgrillii</i> (Garov.) Wijk & Margad.		W	B
<i>Tayloria tenuis</i> (Dicks.) Schimp.		W	
<i>Tetraphis pellucida</i> Hedw.	F	W	B
<i>Tetraplodon mnioides</i> (Hedw.) Bruch & Schimp.	F		
<i>Tetradontium brownianum</i> (Dicks.) Schwägr.		W	
<i>Thamnobryum alopecurum</i> (Hedw.) Gangulee	F	W	B
<i>Thuidium assimile</i> (Mitt.) A.Jaeger		W	
<i>Thuidium delicatulum</i> (Hedw.) Schimp.	F	W	
<i>Thuidium recognitum</i> (Hedw.) Lindb.	F	W	
<i>Thuidium tamariscinum</i> (Hedw.) Schimp.	F	W	B
<i>Tomentypnum nitens</i> (Hedw.) Loeske	F	W	
<i>Tortella bambergeri</i> (Schimp.) Broth.		W	
<i>Tortella flavovirens</i> (Bruch) Broth.	F		
<i>Tortella inclinata</i> (R.Hedw.) Limpr.	F	W	
<i>Tortella inflexa</i> (Bruch) Broth.		W	
<i>Tortella nitida</i> (Lindb.) Broth.		W	
<i>Tortella tortuosa</i> (Hedw.) Limpr.	F	W	B
<i>Tortula atrovirens</i> (Sm.) Lindb.		W	
<i>Tortula canescens</i> Mont.	F	W	
<i>Tortula cernua</i> (Huebener) Lindb.	F		
<i>Tortula cuneifolia</i> (Dicks.) Turner	F		B
<i>Tortula inermis</i> (Brid.) Mont.		W	
<i>Tortula lanceola</i> R.H.Zander	F	W	
<i>Tortula marginata</i> (Bruch & Schimp.) Spruce	F	W	B
<i>Tortula modica</i> R.H.Zander	F	W	B
<i>Tortula mucronifolia</i> Schwägr.		W	
<i>Tortula muralis</i> Hedw.	F	W	B
<i>Tortula schimperi</i> M.J.Cano, O.Werner & J.Guerra		W	
<i>Tortula subulata</i> Hedw.	F	W	B
<i>Tortula truncata</i> (Hedw.) Mitt.	F	W	B
<i>Tortula vahliana</i> (Schultz) Mont.	F	W	
<i>Trematodon ambiguus</i> (Hedw.) Hornsch.	F		
<i>Trichodon cylindricus</i> (Hedw.) Schimp.	F	W	B
<i>Trichostomum brachydontium</i> Bruch		W	
<i>Trichostomum crispulum</i> Bruch	F	W	B
<i>Ulota bruchii</i> Hornsch. ex Brid.	F	W	B
<i>Ulota coarctata</i> (P.Beauv.) Hammar	F	W	
<i>Ulota crispa</i> (Hedw.) Brid.	F	W	B
<i>Ulota hutchinsiae</i> (Sm.) Hammar		W	
<i>Ulota phyllantha</i> Brid.	F	W	
<i>Ulota rehmannii</i> Jur.		W	
<i>Warnstorfia exannulata</i> (Schimp.) Loeske	F	W	
<i>Warnstorfia fluitans</i> (Hedw.) Loeske	F	W	
<i>Warnstorfia pseudostraminea</i> (Müll.Hal.) Tuom. & T.J.Kop.	F		
<i>Warnstorfia sarmentosa</i> (Wahlenb.) Hedenäs		W	
<i>Weissia brachycarpa</i> (Nees & Hornsch.) Jur.	F	W	B
<i>Weissia condensa</i> (Voit) Lindb.		W	
<i>Weissia controversa</i> Hedw.	F	W	B
<i>Weissia longifolia</i> Mitt.	F	W	
<i>Weissia rostellata</i> (Brid.) Lindb.	F	W	
<i>Weissia rutilans</i> (Hedw.) Lindb.	F	W	
<i>Weissia squarrosa</i> (Nees & Hornsch.) Müll.Hal.	F	W	
<i>Zygodon conoideus</i> (Dicks.) Hook. & Taylor	F	W	B
<i>Zygodon forsteri</i> (Dicks.) Mitt.		W	
<i>Zygodon rupestris</i> Schimp. ex Lorentz	F	W	
<i>Zygodon stirtonii</i> Schimp. ex Stirt.	F	W	
<i>Zygodon viridissimus</i> (Dicks.) Brid.	F	W	B