Notes on some Icelandic bryophyte species

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ABSTRACT: Several annotations are given to a recently published list of Icelandic bryophyte species. Notes are made on the distribution of several bryophyte species in Iceland. Occurrence in Iceland of species belonging to the recently revised *Bryum biocolor* group, *B. capillare* group, "*B. erythrocarpum*" group and *Racomitrium canescens* group are discussed. First find in Iceland of *Anastrophyllum minutum* (Schreb.) Schust. var. *grandis* (Lindb.) Schust., *Cladopodiella franciscana* (Hook.) Joerg., *Grimmia sessitana* De Not., *Homalia trichomanoides* (Hedw.) Brid., *Jungermannia caespitiosa* Lindenhb., *J. confertissima* Nees, *Lophozia bioreiata* (Hoffm.) Dum. *L. longifrons* (Lindb.) Mac., *Oxystegus tenuirostris* (Hook. & Tayl.) A.J.E. Sm., *Philonotis marchica* (Medw.) Brid., *Tayloria acuminata* Hornsch. and *Tritomaria polita* (Nees) Joerg. ssp. *polymorpha* Schust. are recorded. Rediscovery of *Isopterygium elegans* (Brid.) Lindb. in Iceland is reported. *Bryozanthion norvegicum* (Brid.) Mitt is recorded with sporophytes from Iceland. The taxonomic position of *Bartramia thyophylla* Brid. var. *breviseta* (Lindb.) Kindb. and *Polytrichum senserculare* Brid. var. *vulcanicum* C. Jens. is briefly discussed. *Bryum violaceum* Crundw. & Nyh. and *Cirriphyllum niveum* (Schwaegr.) Grout are added to the Icelandic bryophyte flora. *Bryum schleicheri* Lam. & DC. is withdrawn from the Icelandic flora.

The author published in 1983 a list of Icelandic bryophyte species (JÓHANNSSON 1983). This list was mainly based on specimens in ICEL and collections of bryophytes in other Museums in Iceland. During the last decade there has been considerable activity in bryophyte collecting, mainly in connection with a mapping project in accordance with the grid-system proposed by KRISTINSSON & JÓHANNSSON (1970). I would like to mention here the botanists H. Hallgrimson and H. Kristinsson, and the geologist H. Jóhannesson, who have been a great help in this work. Much collected material is still waiting to be worked out and some areas are still very badly investigated. The distribution patterns of the bryophyte species in Iceland are gradually becoming clearer, and it is hoped that there will not elapse a very long time before the distribution maps will appear.
The list of Jónasson (1983) is without annotations and therefore no explanations are given as to why species new to Iceland are included or why other species are omitted. Hopefully this article will compensate for some of these deficiencies. A few additions are made to the Icelandic flora as well as notes on the distribution of several species, especially those which have recently been found in Iceland or have recently been described.

The square numbers used in brackets in the article refer to the grid-system of Kristinsson & Jónasson (1970). The ICEL numbers refer to the numbers in the Icelandic bryophyte collection in Icelandic Museum of Natural History in Reykjavík.

Anastrophyllum minutum (Schreb.) Schust.

In addition to var. minutum, A. minutum var. grandis (Lindb.) Schust. has been found in Iceland (e.g. ICEL 13247, 24546).

Atrichum angustatum (Brid.) B. & S.

This species has only been found on warm ground by hot springs. It was collected in 1975 by A. Einarsson in the Landmannalaugar area (ICEL 13500, square 4961) and in 1981 by H. Kristinsson in the Askja area (ICEL 20661, square 6049). It has not been found with sporophytes.

Bartramia Ithyphylla Brid.

Some authors consider B. Ithyphylla Brid. var. breviseta (Lindb.) Kindb. to deserve specific rank as B. breviseta Lindb. Frisvoll (1978) stressed as distinguishing characters "the reduced peristome, the rather symmetrical and erect capsules and the short setae" (Frisvoll 1978, p. 126). Frisvoll had difficulties in distinguishing between sterile B. Ithyphylla and B. breviseta and admitted that he found it "difficult or impossible to discriminate between them in the sterile state" (Frisvoll 1978, p. 126). Watson (1964) stressed the short setae and "perfectly erect capsules immersed among the shoot tips and ill-developed peristome" (Watson 1964, p. 200). Watson also found the spores of B. breviseta to be smoother than those of B. Ithyphylla.

B. Ithyphylla var. breviseta is in Iceland a coastal form, found along the west, north and east coasts. I do not find any constant differences between it and the usual form, neither in ornamentation, papillosity and size of the spores, nor in development of the peristome.

Specimens with symmetrical and erect, immersed capsules are very striking. Such specimens may have somewhat reduced peristome. Tufts of such plants may be found growing in a meters distance or less from tufts of the usual form with long setae and asymmetrical capsules, especially on steep slopes by the sea or where there are overhanging rocks on the seashore. In such cases it is however obvious that the form with long setae is growing in more sheltered places than the other one. I have never seen plants of both forms growing side by side.

In some places Bartramia Ithyphylla var. breviseta is abundant
on slopes by the sea. Some plants are then with more or less im-
mersed and erect capsules. Others have barely exserted capsules,
which are more or less asymmetrical and cernuous and others with
still longer setae and quite normal capsules, until it seems very
difficult or impossible to tell whether the specimens should be
named var. *ithyphylla* or var. *breviseta* (e.g. ICEL 13960, 20160, 23979).
The variation in length of the seta seems to be continuous in such
localities and the same must be said about the form of the capsule.
In other localities the variation may be very similar, except that
the form with the shortest setae are lacking. In still other loca-

talities, especially on islands, only specimens with very short se-
tae are found.

An erect symmetrical capsule is not a constant character of *B.
ithyphylla* var. *breviseta*, specimens with asymmetrical cernuous

capsules must also be included. The form of the capsule cannot,
in my opinion, be used as a distinguishing character between *B.
ithyphylla* and *B. breviseta*.

Many collections of *B. ithyphylla* s.lat., especially from the
coast of NW-Iceland, have even shorter setae than some plants from
continuous tufts of *B. ithyphylla* var. *breviseta*, but would be de-
termined as *B. ithyphylla* var. *ithyphylla* without hesitation. In
*B. ithyphylla* s. lat. I have not been able to find any distinct gap
in the variation of the length of the setae.

Having seen the variation of *B. ithyphylla* Brid. in the coastal
areas I find it very hard to believe that *B. breviseta* Lindb. is
a species.

**BRACHYTHECIUM ALBICANS** (Hedw.) B.,S.& G.

Several specimens in ICEL have been determined as *B. albicans* var.
groenlandicum C. Jens. (*B. groenlandicum* (C.Jens.) Schljak.), and
at least many of them easily key out as such according to the flo-

ra of NYHOLM (1965). Provisionally I prefer to treat all those
specimens as *B. albicans* in a wide sense mainly for two reasons.
Firstly, I am not familiar with *B. groenlandicum* and I am not cer-
tain that the Icelandic mountain forms are identical with that
taxon. Secondly, *B. albicans* s. lat. is so variable and occurs in
so different forms, that it seems difficult to divide it satisfac-
torily in two entities.

**BRACHYTHECIUM PLUMOSUM** (Hedw.) B.,S.& G.

This species was first correctly recorded from Iceland by H. Pers-
son, when he pointed out that *B. plumosum* Hesselbo was a synonym
of *B. plumosum* (PERSSON 1946). The species has now been found to
be distributed over the southern lowland areas from Snafellsnes in
the West to Seyðisfjörður in the East.

**BRYOXIPHIUM NORVEGICUM** (Brid.) Mitt.

To my knowledge *B. norvegicum* with sporophytes has not been repor-
ted before from Iceland. A collection made by H. Kristinsson 1979
in Dórsmórk, S-Iceland (ICEL 17330) is with numerous ripe capsules.
**BRYUM BICOLOR** complex

Specimens from the Westman Islands (e.g. ICEL 23569) collected 1972 by S. Magnússon and specimens from NW-Iceland (square 3840) collected 1983 by the author (ICEL 23798) belong to *B. bicolor* Dicks. Some specimens from the Westman Islands are very different in the longly excurrent nerve and in the narrow, hardly concave, tapering leaves. I believe they must be referred to *B. dunense* A.J.E.Sm. & H.Whiteh. (see Smith & Whitehouse 1978). Among these specimens are ICEL 10373, recorded as *B. biaizo* by S. Magnússon (1974).

**BRYUM CAPILLARE** group

Of this group (see Syed 1973 and Smith 1978) four species have been found in Iceland, i.e. *B. capillare* Hedw., *B. elegans* Brid., *B. flaccidum* Brid. and *B. stirtonii* Schimp. So far *B. capillare* seems to have a rather southern distribution. *B. elegans* and *B. flaccidum* seem to be widely distributed lowland species. The distribution pattern of *B. stirtonii* seems to be different from the other ones. Its main distribution is in the highlands and in the northern part of the country, although it reaches the southern lowland areas.

"**BRYUM ERYTHROCARPUM**" complex

The main habitat for species of this complex is warm, clayey soil by hot springs. The species already found in such localities are *B. klinggraeffii* Schimp., *B. caueri* B., S. & G., *B. subapicatum* Hampe, *B. tenuisetum* Limpr. and *B. violaceum* Crundw. & Nyh. Their distribution in Iceland is still insufficiently known. So far *B. klinggraeffii* and *B. tenuisetum* seem to be the ones most widely distributed. *B. violaceum* was recognized too recently to be included in the list of Jóhannsson (1983). For further information on this group see Crundwell & Nyholm (1964).

**BRYUM NEOODAMENSE** C. Müll. var. Ovatum (J. Lange & C. Jens.) Lindb. & H. Arn.

There is one record from Iceland (Hesselbo 1918). The specimens (ICEL 19856) belong in my opinion to *B. pseudotriquetrum* (Hedw.) Gaertn. et al. The leaves on lower part of the stems are typical for *B. klinggraeffii* Schimp., *B. caueri* B., S. & G., *B. subapicatum* Hampe, *B. tenuisetum* Limpr. and *B. violaceum* Crundw. & Nyh. Their distribution in Iceland is still insufficiently known. So far *B. klinggraeffii* and *B. tenuisetum* seem to be the ones most widely distributed. *B. violaceum* was recognized too recently to be included in the list of Jóhannsson (1983). For further information on this group see Crundwell & Nyholm (1964).

**BRYUM SCHLEICHERI** Lam. & DC.

The listing of this species by Jóhannsson (1983) was mainly based on specimens collected 1974 by the author in a mountain stream at Lýshúhóll in W-Iceland (ICEL 19854). These specimens are robust, turgid and yellowish. The relatively broad leaves are not red at the base and lack the typical decurrent base of *B. pseudotriquetrum*. The leaf-cells are thin-walled and broad. On the whole the Lýshúhóll specimens are very similar to specimens of *B. schleicheri* from Jutland in Denmark (coll. & det. C. Jensen 1906). Although
the specimens from Lysuhóll were considered to be the most reliable ones, I had seen similar specimens from two other localities. None of these specimens have sporophytes. It was therefore after some hesitation that the species was listed as Icelandic by Jóhannsson (1983).

In the summer of 1983 H. Hallgrimsson collected very similar specimens near Húsavik in N-Iceland (ICEL 24362). The specimens from Húsavik were determined as B. pseudotriquetrum (Hedw.) Gaertn. et al. by Hallgrimsson, and I quite agree with him. These specimens have several well developed sporophytes. Thus it seems that the specimens from Lysuhóll also represent a form of B. pseudotriquetrum. B. sahlétheri should therefore be withdrawn from the Icelandic flora. After this experience I agree with Mártessson (1956, p. 183) when he wrote on B. sahlétheri: "I would prefer to be able to establish its occurrence with fruiting specimens". His caution seems to be warranted.

BRYUM ULIGINOSUM (Brid.) B. & S.

Hesselbo (1918) records this species from three localities in Iceland. As Hesselbo mentioned, the specimens have synoecious inflorescences and the outer peristome teeth are horizontally papillose-striate. I have seen the specimens from Haukadalsheioi (ICEL 8036) and Svinadalur (ICEL 16373). They are in my opinion much closer to B. purpurascens (R.Brown) B., S. & G. than B. uliginosum. The only other record of this species from Iceland known to me is that of Jóhannsson & Kristinsson (1972) and Jóhannsson, Kristinsson & Pálsson (1974) from Thjórsárver. The specimens of this collection also belong to B. purpurascens. The author therefore (Jóhannsson 1983) excluded the species from the Icelandic flora.

CHILOSCYPHUS Corda

Three taxa are known from Iceland, C. pallescens (Hoffm.) Dum., C. polyanthos (L.) Corda and C. fragilis (Roth) Schiffn. They have been combined in a different ways by different authors. S. Arnell (1956) and Steere & Inoue (1978) treat fragilis as a variety of polyanthos. On the other hand Schuster (1980) and Duell (1983) treat fragilis as a variety of pallescens. Gradstein (1977) treats pallescens as a variety of polyanthos. Because of the confusingly different recent interpretations the author provisionally follows Gradstein and thus listed the three taxa as one species, C. polyanthos (Jóhannsson 1983).

CINCLIDIUM SUBROTUNDUM Lindb.

There are few collections of this species in ICEL from NW- and N- Iceland and from the western part of the central highland.

CIRRIPHYLLUM CIRROSUM (Schwaegr.) Grout

This species is recorded from Iceland by Hesselbo (1918). Jóhannsson (1969) found the specimens to belong to C. piliferum (Hedw.) Grout. The species is therefore excluded from the Icelandic flora by Jóhannsson (1983). Recently good specimens of
it have been found in material collected 1979 by the author in NW-Iceland (ICEL 24679, square 2443).

**CLADOPODIELLA FRANCISCI** (Hook.) Joerg.
Found by the author in 1979 in the thermal area at Landmannalaug- 

**DIDYMODON FALLAX** (Hedw.) Zander
This is a variable species in Iceland as elsewhere. A few speci-

**DIDYMODON MAMILLOSUS** (Crundw.) M.Hill
The species is listed by Jóhannesson (1983). The author had pre-

**DIDYMODON VINEALIS** (Brid.) Zander
D. vinealis var. flaccidus (B. & S.) Zander (D. insulanus (De Not.)
M.Hill) is more common than var. vinealis. D. vinealis var. vine-

It is obvious that this matter needs a careful reconsideration 
and further discussions must wait until it has been satisfactorily 
settled.
easily named but in some instances I have difficulties with the
determination. Therefore I provisionally use the varietal status
for D. insulanus, as is done e.g. by NYHOLM (1956).

DIPLOPHYLLUM TAXIFOLIUM (Wahlenb.) Dum.
D. obtusifolium is recorded by HESSELBO (1918) but the specimens
have been found to belong to this species. It is known from
scattered localities in the northern part of the country.

DITRICHUM LINEARE (Sw.) Lindb.
This species grows mainly by warm springs. It has not been found
with sporophytes. Thus the determination may be considered to be
unreliable, but I am reasonably satisfied with it and the speci-
mens fit very well with specimens of D. lineare from Canada.

DREPANOCLADUS BADIUS (Hartm.) G.Roth
This species is recorded from Iceland by MEYLAN (1940). There are
recently collected specimens in ICEL from a few localities in NW-
and N-Iceland.

DREPANOCLADUS FLUITANS (Hedw.) Warnst.
Both var. fluitans and var. falcatus (C.Jens.) Roth (D. schulzei
Roth) are known from Iceland. Both taxa seem to be rare.

ENCALYPTA BREVIPES Schljak.
This species is recorded from Iceland by JÖHANNSSON (1980). The record
was based on specimens collected by ANDREWS in 1914 near Hafnar-
fjörður. Recent collections of the species in Iceland are all from
the south-western part of the country, from Hafnarfjörður in the
West to Hvolsvöllur in the East.

ENCALYPTA STREPTOCARPA Hedw.
Although this species is listed by JÖHANNSSON (1983) there is no
definite proof that it occurs in Iceland. To this species have
been referred a few specimens which do not show any of the charac-
ters supposed to separate sterile specimens of E. prosera Bruch
from E. streptocarpa. It may be questioned whether sterile speci-
mens lacking these criteria, e.g. hairpoint, revolute leaf margin
and well developed central strand, necessarily belong to E. strepto-
carpa and not to E. prosera. E. prosera is known from practically
all areas, where specimens referred to E. streptocarpa have been
found. All the E. streptocarpa specimens are from lowland areas.
E. prosera has been found in suitable localities in almost the
whole country. It is especially found in the mountains but it is
also found in the lowlands, even in the lowland areas in S-Iceland.

GRIMMIA PULVINATA (Hedw.) Sm.
This species was recorded from Iceland by JÖHANNSSON (1962). The
specimens certainly belong to this species. On the other hand
this species does not grow now in the collecting locality. It is possible that it is now extinct, but I find it more likely that there has been a confusion of labels. The specimens were collected in 1959 when the author also collected mosses in Germany. Because it is at least a possibility that the specimens are from Germany, the species is excluded from the Icelandic flora by Jóhannesson (1983), and must be so unless it will be refound.

**Grimmia sessitana** De Not.

Specimens from nunataks in Vatnajökull, Esjufjöll, have been determined as this species by the author (ICEL 15001 and 15008, square 6258, collected by K. Egilsson 1972). The specimens have well developed sporophytes. Related *Grimmia* species have in my opinion been much misidentified in the past. I want especially to mention *G. alpestris* (Web. & Mohr) Hornsch. As I understand that species I have only seen it from the extreme northern areas in Iceland. *G. montana* B. & S. is on the other hand locally rather frequent in the lowland areas but rare in the mountains. *G. affinis* Hornsch. is a widely distributed species, and in some places even common. *G. ovalis* (Hedw.) Lindb. is very rare in Iceland.

**Hedwigia ciliata** (Hedw.) P. Beauv.

Hesselbo (1918) recorded this species only from one locality. It is now known from scattered localities along the southeastern, southern and western coast. It is frequently found with sporophytes.

**Homalia trichomanoides** (Hedw.) Brid.

This species was found in 1981 by the author in two localities in S-Iceland (ICEL 19189 and 19203, squares 4161 and 4463).

**Hypnum jutlandicum** Holmen & Warncke

The specimens recorded by Hesselbo (1918) as *H. imponens* belong to *H. jutlandicum*. It is rather common in SW-Iceland and has also been found in scattered localities in S-, SE-, W- and NW-Iceland.

**Isopterygium elegans** (Brid.) Lindb.

This species was found by Hesselbo 1912 on warm ground in S-Iceland (Hesselbo 1918). Jóhannesson (1983) listed the species as only found before 1950. Recently it has been rediscovered in W-Iceland. It was collected 1983 (ICEL 24340, square 2750) by H. Jóhannesson growing in a cave in hyaloclastitic rocks.

**Jungermannia caespiticia** Lindenb.

In the summer of 1980 the author collected this species with gemmae and perianths around the hot springs at Deildartunga in W-Iceland (ICEL 18878, square 3853).

**Jungermannia confertissima** Nees

This species has been found by the author with perianths in the central highland (ICEL 8386, square 5054) and in South-Iceland.
(ICEL 6074, 8340 and 13120, squares 6261, 4565 and 4764).

**JUNGERMANNIA HYALINA** Lyell

Found by the author in 1973 in S-Iceland on moist sandy soil along a river (ICEL 18808, square 5366) and in 1981 at an outlet from a warm spring in W-Iceland (ICEL 23708, square 3953).

**LOPHOCOLEA BIDENTATA** (L.) Dum.

Conventionally a distinction is made between the autoecious part as *L. cuspidata* (Nees) Limpr. and the dioecious part as *L. bidentata* (L.) Dum. I am using these names here in the old conventional way. The more common taxon in Iceland seems to be *L. bidentata*. Collections of definitely autoecious specimens are very few. Otherwise there seems not to be any major difference between the distribution patterns of the two taxa. Autoecious inflorescences have only been found on specimens which according to leaf lobes and branching gave reason to believe they might belong to *L. cuspidata*. Thus, the criteria given by SCHUSTER (1980) and STEEL (1978) seem to work reasonably well.

**LOPHOZIA BICRENATA** (Hoffm.) Dum.

Found by the author in 1965 in S-Iceland (ICEL 14160, square 4561) and in 1969 in NW-Iceland (ICEL 5857, square 3438).

**LOPHOZIA GILLMANII** (Aust.) Schust.

This species is confirmed by fertile paroecious specimens in ICEL from most parts of the country.

**LOPHOZIA LONGIDENS** (Lindb.) Mac.

Found by the author in 1981 in a birch scrub in Ásafell, N-Iceland (ICEL 22910, square 5739).

**MARCHANTIA** L.

By far the commonest taxon is *M. alpestris* (Nees) Burgeff. Other taxa known from Iceland are *M. polymorpha* L. and *M. aquatica* (Nees) Burgeff, but both are rare. *M. aquatica* is commonly treated as a variety of *M. polymorpha*, but habitus, habitat and distribution of these two taxa in Iceland are quite different.

**MEESIA ULIGINOSA** Hedw.

Forms with acute leaves are often found, especially in the central highland. All specimens in ICEL previously named *M. hexasticha* are such acute-leaved forms of *M. uliginosa*.

**NARDIA INSECTA** Lindb.

*Nardia insecta* has been recorded from Iceland by HESSELBO (1918, as *Alicularia geoscypha* var. *insecta*) and by JONES (1946). I have not seen these specimens.
The species is listed by Jónsson (1983) as found in Iceland recently. This assumption was based on specimens collected by H. Jónnsson in 1982 in W-Iceland (ICEL 22305). Comparison with further specimens from the same region have now convinced me that these specimens represent unusually robust, erect specimens of N. geoscyphus (De Not.) Lindb.

_Oxystegus tenuirostris_ (Hook. & Tayl.) A.J.E. Sm.

To my knowledge it was first collected in Iceland by the author in 1982 on lava and boulders in SW-Iceland (ICEL 22068 and 22129, squares 3559 and 3659).

_Phaeceros_ Prosk.

All specimens checked belong to _P. laevis_ (L.) Prosk. _ssp. carolinianus_ (Michx.) Prosk., which is commonly given the status of a species as _P. carolinianus_ (Michx.) Prosk. It is considered to be the only taxon of this genus found in Iceland.

_Philonotis Marchica_ (Hedw.) Brid.

Specimens collected 1965 by the author on warm ground at Reykir in Fnjósadalur, N-Iceland, have been considered to belong to this species (ICEL 19857, square 5543). The species is listed by Jónsson (1983) but has otherwise not been reported from Iceland before. It was collected again 1982 by K. Egilsson on warm ground in Laugarvalladalur, E-Iceland (ICEL 22844, square 6549). The specimens are sterile but with propagules in the leaf axils. It has not been found in the hot spring areas in S- and W-Iceland.

_Pogonatum Dentatum_ (Brid.) Brid.

This species is recorded by Hesselbo (1918) from Reykjavík. During the last decades it has been spreading rapidly from this area to the North through the lowland of W-Iceland and to a lesser extent to the East through the lowland of S-Iceland. In 1960 it had reached the Snæfellshs peninsula in the West and now it has reached the Vestfirðir area. Towards East it has only reached the western part of the southern lowland. _P. dentatum_ grows on banks of recent ditches in peat bogs and is usually with sporophytes.

_Polytrichum Sphaerothecum_ (Besch.) C. Muell.

_P. sexangulare_ Brid. var. _vulcanicum_ C. Jens. is always distinguishable from _P. sexangulare_ var. _sexangulare_, almost as easily when sterile as with sporophytes. I prefer to treat it as a species, _P. sphaerothecum_. Its distribution is quite different from that of _P. sexangulare_ and it has quite a different habitat. No intermediate forms between these taxa have been found in Iceland. For contradictory opinions on the relation between these taxa see discussions by Persson (1968) and Schofield (1966).

_Racomitrium Canescens_ group

For recent investigations on this group see Frisvoll (1983a). _R. ericoides_ (Brid.) Brid. is the commonest member of this group in Iceland. It is common all over the country. _R. canescens_ (Hedw.)
Brid. is most common in the northern and eastern parts but is found in all parts of the country. *R. elongatum* (Ehrh.) Frisv. is, as far as its distribution is known, a lowland species. It has been found in many lowland areas although it seems to be generally rather rare. However, it may be locally common, at least in some places in SW-Iceland.

**Racomitrium Sudeticum** (Funck) B. & S.

Since I have never understood how to distinguish between *R. sudeticum* and *R. affine* (Web. & Mohr) Lindb. I should perhaps rather use *R. affine*, but most of the Icelandic specimens belong to what has been understood as *R. sudeticum* and therefore I use this name here.

The main problem with this variable species concerns the possible relation between it and *R. microcarpon* (Hedw.) Brid. In Iceland there are forms with long cells in upper part of the leaf. These forms might therefore be referred to *R. microcarpon*, but some specimens at least have bistratose leaf margin and branching and general habit is that of *R. sudeticum*. Similar specimens are discussed by Frisvoll (1983b) from Svalbard.

Hesselbo (1918) records *R. microcarpon* from one locality in Iceland, Hof by Eyjafjörður. The specimens were collected by Ø. Davíðsson in 1898 (*ICEL 5185*). I am inclined to believe that these specimens are correctly determined.

**Radula Complanata** (L.) Dum.

Both unisexual and bisexual plants occur in Iceland. Some authors, e.g. Grolle (1983) treat the unisexual part as a species, *R. lindenberghiana* Hartm.f., others, e.g. Schuster (1980) as a ssp. of *R. complanata*. As they seem to be indistinguishable when sterile I prefer to follow Schuster. The bisexual part, *R. complanata* ssp. *complanata*, is by far the more common taxon in Iceland.

**Riccia Beyrichiana** Lehm.

Hesselbo (1918) recorded *R. bifurca* Hoffm. from Iceland but not *R. beyrichiana*. I have for a long time been of the opinion that the common *Riccia* species on warm ground is *R. beyrichiana* and not *R. bifurca*. I have found no reason to believe that there are more than one species involved. Thus I have assumed that the records of *R. bifurca* by Hesselbo (1918) and Dreissen (1973) would be referable to *R. beyrichiana*. Paton (1980) considered specimens from Mývatn collected by E.W. Jones in 1934 to belong to *R. bifurca*. I consider this the most reliable record of *R. bifurca* from Iceland. Further investigations are needed to settle the question whether both species occur in Iceland.

**Riccia cavernosa** Hoffm.

This species was found near a warm spring in W-Iceland 1981 (*ICEL 19390*, square 3953) by the author. The record of *R. crystallina* by Hesselbo (1918) surely also belongs to this species.
SCAPANIA DEGENII Schiffn.

This species has been found to be widely distributed in Iceland. There are several specimens with gemmae in ICEL and some with perianths.

SPHAGNUM MAGELLANICUM Brid.

BODIL LANGE (1952) found all specimens recorded as this species by HESSELBO (1918) to be wrong. As pointed out by JÖHANNSSON (1969) the species is recorded from Iceland by ANDREWS (1917) and was collected by I. Davíðsson 1937 in the vicinity of Reykjavík.

Recent collections are from W-Iceland. It was collected by the author 1978 on boggy ground by a lake in the Hvalfjörður area (ICEL 16907, square 3656) and in 1981 in a warm spring area in the Borgarfjörður district (ICEL 19482, square 3853).

SPHAGNUM RUBELLUM Wils.

This species is excluded from the Icelandic flora in agreement with Bodil Lange (pers. comm.), who has made extensive studies on the Icelandic Sphagnum flora (LANGE 1952, 1963, 1973).

SPHAGNUM TENELLUM (Brid.) Bory

This species was collected 1965 by I. Davíðsson in the Snæfellsnes peninsula, W-Iceland (ICEL 10478). It has since been found by Bodil Lange (unpubl. pers. comm.) and the author in some further localities in W-Iceland.

TAYLORIA ACUMINATA Hornsch.

The first and only collection of this species in Iceland was made by H. Jóhannesson in a bird cliff at Hornbjarg, NW-Iceland in 1981 (ICEL 19420, square 3433).

TREMATODON AMBIGUUS (Hedw.) Hornsch.

The only specimens in ICEL are collected in 1909. The species is marked in the list by JÖHANNSSON (1983) in accordance with this fact. It should be noted that the species has recently been collected and recorded by DIERSSSEN (1973).

TRITOMARIA POLITA (Nees) Jordg.

In addition to ssp. polita, which is widely distributed, ssp. polymorpha Schust. is known from Iceland (ICEL 0837, square 4961, leg. B.J. 1968). This taxon has recently been given a specific status as T. polymorpha (Schust.) Grolle (GROLLE 1983). DAMSHOLT (1983) has convincingly demonstrated that the supposed differences between the gemmae of these two taxa do not exist. As these differences were considered to be "Perhaps most important of all" (SCHUSTER 1969, page 703) the specific status for this taxon does not seem to be justified. The Icelandic material is abundantly gemmiferous. The habitat was sandy lava. The only associated species noted was
Bartramia ithyphylla Brid. Usual habitats for ssp. polita are stream-banks, bogs or other very wet places.

WEISSIA RUTILANS (Hedw.) Lindb.
Found in S. and SW-Iceland (ICEL 16280, 23476 and 24100; squares 4259, 3658 and 4359).

REFERENCES


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