



RAPPORT BOTANISK SERIE 1995-6

THE 11TH NORDIC MYCOLOGICAL CONGRESS IN SKIBOTN, NORTH NORWAY 1992

Geir Mathiassen and Alfred Granmo



"Universitetet i Trondheim, Vitenskapsmuseet. Rapport. Botanisk Serie" inneholder stoff fra det fagområdet og det geografiske ansvarsområdet som Botanisk avdeling, Vitenskapsmuseet representerer. Serien bringer stoff som av ulike grunner bør gjøres kjent så fort som mulig. I mange tilfeller kan det være foreløpige rapporter, og materialet kan seinere bli bearbeidet for videre publisering. Det vil også bli tatt inn foredrag, utredninger, o.l. som angår avdelingens arbeidsfelt. Serien er ikke periodisk, og antall nummer pr. år varierer. Serien starta i 1974, og det fins parallelle arkeologiske og zoologiske serier. Serien har skifta navn fra og med 1987, og den er en fortsettelse av "K. norske Vidensk. Selsk. Mus. Rapp. Bot. Ser." som kom ut med 89 nummer i årene 1974-1986.

TIL FORFATTERNE

Manuskriptet må være maskinskrevet med tekst på den ene sida av arket. Manuskriptet kan også med fordel leveres på IBM-kompatibel diskett (helst 3½"), skrevet i Word Perfect (versjon 5.1 eller senere) eller Word (versjon 2.0 eller senere). Latinske plantenavn kursiveres (eller understrekes). Som språk blir vanligvis norsk brukt, unntatt i abstract (se nedenfor). Med manuskriptet skal følge:

1. Eget ark med artikkelens tittel og forfatterens/forfatternes navn. Tittelen bør være kort og inneholde viktige henvisningsord.
2. Et referat (synonym: abstract) på maksimum 200 ord. Referatet innledes med bibliografisk referanse og avsluttes med forfatterens navn og adresse.
3. Et abstract på engelsk med samme innhold som referatet.

Artikkelen bør forøvrig inneholde:

1. Et forord som ikke overstiger to trykksider. Forordet kan gi bakgrunn for artikkelen som relevante opplysninger om eventuell oppdragsgiver og prosjekttilknytning, økonomisk og annen støtte fra fond, institusjoner og enkeltpersoner med takk til dem som bør takkes.
2. En innledning som gjør rede for den vitenskapelige problemstillingen og arbeidsgangen i undersøkelsen.
3. En innholdsfortegnelse som svarer til disposisjonen av stoffet, slik at inndeling av kapitler og underkapitler er nøyaktig som i sjølve artikkelen.

4. Et sammendrag av innholdet. Det bør vanligvis ikke overstige 3% av det originale manuskriptet. I spesielle tilfelle kan det i tillegg også tas med et "summary" på engelsk.

Litteraturhenvisninger

Henvisninger i teksten gis som Rønning (1972), Moen & Selnes (1979), eller dersom det er flere enn to forfattere som Sæther et al. (1980). Om det blir vist til flere arbeid, angis det som "Flere forfattere (Rønning 1972, Moen & Selnes 1979, Sæther et al. 1980) rapporterer", i kronologisk orden uten komma mellom navn og årstall. Litteraturlista skal være unummerert og i alfabetisk rekkefølge. Flere arbeid av samme forfatter i samme år gis ved a, b, c osv. (Elven 1978a). Tidsskriftnavn forkortes i svar med siste utgave av World List of Scientific Periodicals eller gjengis i tvilstilfelle fullt ut.

Eksempler:

Tidsskrift: Moen, A. & M. Selnes 1979. Botaniske undersøkelser på Nord-Fosen, med vegetasjonskart. - K. norske Vidensk. Selsk. Mus. Rapp. Bot. Ser. 1979 4: 1-96.

Bretten, S. & O.I. Rønning (red.) 1987. Fagmøte i vegetasjonsøkologi på Kongsvold 1987. - Univ. Trondheim, Vitensk. mus. Rapp. Bot. Ser. 1987 1: 1-63.

Kapittel: Gjærevoll, O. 1980. Fjellplantene. - s. 316-347 i P. Voksø (red.): Norges fjellverden. Forlaget Det Beste, Oslo.

Bok: Rønning, O.I. 1972. Vegetasjonslære. - Universitetsforlaget, Oslo/Bergen/Tromsø. 101 s.

Illustrasjoner

Eventuelle tabeller, plansjer og tegninger leveres på egne ark med angivelse av hvor i teksten de ønskes plassert.

Særtrykk

Hver forfatter får vanligvis inntil 50 eksemplar gratis. Flere eksemplar kan bestilles til kostpris. Dersom det er flere enn to forfattere pr. artikkel vil antallet gratis-eksemplarer bli redusert.

Utgiver

Universitetet i Trondheim,
Vitenskapsmuseet,
Botanisk avdeling,
7004 Trondheim

Forsidebilder

Engmarihand
Dactylorhiza incarnata
(foto: A. Moen)

Fra Sølendet natur-
reservat i Røros
(foto: T. Arnesen)

Huldretorvmose
Sphagnum wulfianum
(foto: K.I. Flatberg)

Landskap ved elva Forra
i Stjørdal og Levanger
(foto: S. Sivertsen)

UNIVERSITETET I TRONDHEIM, VITENSKAPSMUSEET
RAPPORT BOTANISK SERIE 1995 6

THE 11TH NORDIC MYCOLOGICAL CONGRESS IN
SKIBOTN, NORTH NORWAY 1992

Geir Mathiassen and Alfred Granmo

Editor for this issue
Sigmund Sivertsen

Rapporten er trykt i 300 eksemplarer

UNIVERSITETET I TRONDHEIM
Vitenskapsmuseet, Botanisk avdeling
Trondheim, desember 1995

ISBN 82-7126-894-5
ISSN 0802-2992



Skibotn with Skibotn Kurssenter LHL (Landsforeningen for hjerte- og lungesyke), used as Congress center in 1992, in the foreground. Photo: Ola Røe.



Abstract

Mathiassen G. & Granmo A. 1994. The 11th Nordic Mycological Congress in Skibotn, North Norway 1992. *Univ. Trondheim Vitensk. mus. Rapp. Bot. Ser.* 1995 6: 1-77.

The paper presents a short survey of the natural and cultural history of the fjord district Kåfjord - Storfjord (with data updated to 1994) where the congress was held in 1992. The fungi found in different kinds of forest and alpine vegetation at seven localities, are listed in a comprehensive list totalling 818 taxa, of which 141 are ascomycetes, 614 are basidiomycetes, and 63 taxa belong in other groups of fungi. Some species, particularly the less common ones or those not recorded previously in North Norway or Norway, are given special attention in a commentary chapter. An extensive list of the literature used at the congress is included. A new combination, *Nemania mammata* (Wahlenb.) Granmo, is proposed.

Geir Mathiassen & University of Tromsø
Alfred Granmo, Tromsø Museum/IMV
 Lars Thørings vei 10
 N-9006 Tromsø

Referat

Mathiassen G. & Granmo A. 1994. Den 11. Nordiske Mykologiske Kongress i Skibotn, Nord-Norge 1992. *Univ. Trondheim Vitensk. mus. Rapp. Bot. Ser.* 1995 6: 1-77.

Publikasjonen gir først en orientering over natur- og kulturhistoriske forhold for de to fjordkommunene Gaivuona-Kåfjord og Storfjord (data ajourført frem til 1994). Noe av dette ble presentert for deltakerne ved åpningen av kongressen i 1992. Deretter behandles de faglige resultater av den 11. Nordiske Mykologiske Kongress for soppforskere, avholdt i Skibotn 16.-21. august 1992. De i alt 55 kongressdeltakerne, som omfattet både profesjonelle soppforskere og amatører fra inn- og utland (Norden samt Nederland, Estland og Russland) foretok ekskursjoner til 7 ulike lokaliteter (fig. 1) i disse kommunene. Det ble funnet minst 818 forskjellige arter sopp, hvorav 141 askomyceter og 614 basidiomyceter eller storsopp. Flere sjeldne arter ble funnet, f.eks. kronebegersopp (*Sarcosphaeria coronaria*), lundhette (*Mycena pelianthina*), skrubbet svovelmusseron (*Tricholoma sulfurescens*), skaftjordstjerne (*Geastrum pectinatum*), småjordstjerne (*Geastrum minimum*), dvergfuglerede (*Mycocalia denudata*). Disse og andre, mindre vanlige arter, spesielt de som er nye for Norge eller Nord-Norge, er kommentert i et eget kapittel foran artslista. I tillegg til referert litteratur, er det også gitt en tilnærmet fullstendig oversikt for resten av den faglitteratur som ble brukt ved kongressen. En ny kombinasjon, *Nemania mammata* (Wahlenb.) Granmo, blir foreslått.

Geir Mathiassen & Universitetet i Tromsø
Alfred Granmo, Tromsø Museum/IMV
 Lars Thørings vei 10
 N-9006 Tromsø

Preface

As soon as the decision was made in autumn 1991 to arrange the 11th Nordic Mycological Congress in North Norway, with the Botanical Department of Tromsø Museum responsible for its organization, the search started to find the best location for the conference. The primary demand was an optimal area in terms of opportunity for field excursions, combined with appropriate accommodation facilities, and infrastructure such as post, bank, telephones, shops, and medical and police services. In addition the location should not be too far from Tromsø and the Museum.

Skibotn was an obvious candidate. The University's field station was located there, and all members of the organizing committee had some knowledge of the place and its surroundings, and very good experience concerning the incidence of fungi. A reconnaissance was made by senior curator Ola Skifte and one of the authors (AG) in November 1991, and it soon became evident that the best accommodation facilities for the 80 - 90 persons expected were those of Skibotn Kurssenter LHL. The field station of the University was too small and thus not suitable. In assessing the date of the Congress, we had to take into account the very fact that while fungi grow best in the late, humid summer season, there is also a danger of early frost in such an inner fjord district. The best - though risky - period would have been the last week of August, but to be on the safe side, the third week was chosen.

This choice of place and time proved fortunate in many ways. In Skibotn the congress organization benefited from the help of the late Sigurd Olsen, a skilled investigator of Discomycetes. We greatly regret his death in 1993. In organizing the course center facilities we were in all ways assisted by the manager, Mr. Nicolaisen and his staff.

The organizing committee included Ola Skifte, President of the Congress; Guri Reibo, Birgit Møller, Alfred Granmo and Geir Mathiassen. The committee had 14 meetings before the Congress and one meeting after.

The written results of the Congress, as manifested in this paper, have been eagerly anticipated by the participants. Even though much behind time, we think the paper has gained a lot in accuracy from participants' post-congress comments on the preliminary species list, and from answers to specific questions posed by some collectors about particular species.

Contents

Abstract
Referat
Preface

I. INTRODUCTION 7

II. THE INVESTIGATION AREA 9

 A. CHOICE OF AREA AND EARLIER INVESTIGATIONS 9

 B. SITUATION, TOPOGRAPHY, SETTLEMENT 10

 C. CULTURAL AND INDUSTRIAL BACKGROUND 10

 1. Particulars of Kåfjord 12

 2. Particulars of Storfjord 12

 D. CLIMATE 14

 1. Wind conditions 14

 2. Precipitation 16

 E. GEOLOGY 17

 F. LOCALITIES VISITED DURING THE CONGRESS 18

III. MATERIALS AND METHODS 27

 A. MATERIALS 27

 B. METHODS 27

 1. Field methods 27

 2. Laboratory methods 27

 3. Nomenclature 27

 4. Taxonomy 28

 5. Literature 28

 6. Abbreviations and legends 28

IV. RESULTS 30

 A. COMMENTS ON SOME TAXA FOUND DURING THE CONGRESS 30

 1. Myxomycetes 30

 2. Ascomycotina 31

 3. Dacrymycetales 33

 4. Tremellales 34

 5. Aphyllophorales 34

 6. Boletales 35

 7. Agaricales 35

 8. Russulales 37

 9. Gasteromycetes 38

 B. LIST OF SPECIES 39

 1. Tab. 2. The Myxomycetes 40

 2. Tab. 3. The Zygomycotina and Deuteromycotina 42

 3. Tab. 4. The Ascomycotina 43

 4. Tab. 5. The Uredinales and Ustilaginales 47

 5. Tab. 6. The Dacrymycetales, Tremellales and Exobasidiales 48

6. Tab. 7. The Aphyllophorales.....49

7. Tab. 8. The Boletales52

8. Tab. 9. The Agaricales53

9. Tab. 10. The Russulales63

10. Tab. 11. The Gasteromycetes.....65

V. ACKNOWLEDGEMENTS66

VI. REFERENCES67

VII. BIBLIOGRAPHY71

VIII. APPENDIX. PARTICIPANTS AT THE CONGRESS75

I. INTRODUCTION

The 11th Nordic Mycological Congress was held in Skibotn in North Norway on August 16-21 1992. This was the third time the Congress was arranged in Norway. The two preceeding ones were in 1976 at Rana in Nordland (the 3rd Congress) and in 1984 at Nymoen in Oppland (the 7th Congress). Since the first Nordic Mycological Congress which was held in Denmark in 1972, the Congress has been arranged in the different Nordic countries at regular intervals, usually every second year. The next will be held in Finland.

Including the members of the committee, a total of 55 professional and amateur mycologists from Norway, Sweden, Denmark, Finland, the Netherlands, Estonia, and Russia participated in the Congress. Specially invited guest scientists and lecturers included Dr. Märt Hanso from Estonia (Estonian Forest Research Institute, Tartu), Dr. Vladimir Shubin from Russia (The Forest Institute of the Karelian Centre, Petrozavodsk), and Egil Bendiksen from Norway (Norwegian Institute for Nature Research, Oslo).

The programme during the Congress week was comprehensive, and included laboratory work, exhibitions of fungi, lectures, poster sessions, and excursions to 7 different localities, of which 6 were forested areas and one an alpine site.

The following lectures were given:

Bendiksen, Egil (Oslo, Norway): *The mushrooms in the Skibotn area.*

Hanso, Märt (Tartu, Estonia): *Research of microfungi on land plants in Estonia. A survey.*

Kaukonen, Maarit (Oulu, Finland): *Studying endangered macrofungi in northern Finland.*

Knudsen, Henning (Copenhagen, Denmark): *Nordic macromycetes.*

Núñez, Maria (then Oslo, Norway): *Culture work in the genus Polyporus, Aphyllophorales.*

Shubin, Vladimir (Petrozavodsk, Russia): *Mycological studies in the taiga zone of Russia.* The lecture was read by Märt Hanso.

Skifte, Ola (Tromsø, Norway): *The Skibotn area, - and a short presentation of the different excursion localities.*

The following posters were presented:

Bendiksen, Egil (Oslo, Norway): *Threatened fungi in Norway. The Norwegian red list project; status and goals.*

Lundmark, Hjärdís (Sundsvall, Sweden): *Färga garn med svamp* (Dyeing yarn with mushrooms).

Yakovlev, E.B. (Petrozavodsk, Russia): *Long-term study of mushroom yields and structure of dipterous communities in some forest site types of South Karelia.* Presented by Kauko Salo, Finnish Research Institute, Joensuu.

It is, of course, the basic data and information which are most important when mycologists gather at such a congress. We nevertheless believe that many of the participants, not at least those from abroad, will appreciate information concerning how people live and work in the region they have visited. We have thus included a chapter which presents Kåfjord and Storfjord and the most important sources of employment for people living there.

We hope that this will also be useful for others: scientists and students from home and abroad who stay at Tromsø University's Skibotn field station and observatory.

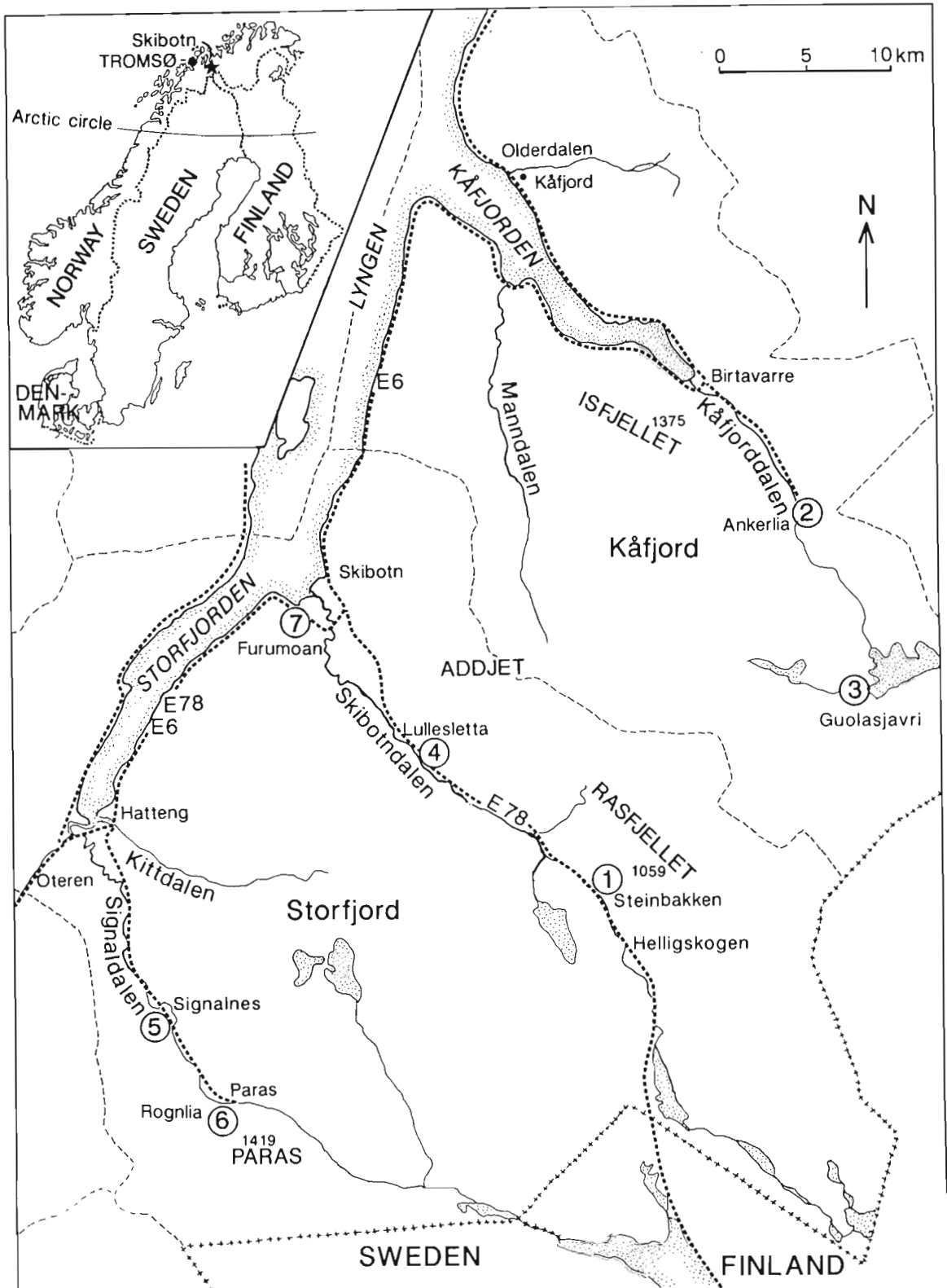


Fig. 1. Map of the municipalities Kåfjord and Storfjord and the seven main localities visited during the congress in 1992.

II. THE INVESTIGATION AREA

A. CHOICE OF AREA AND EARLIER INVESTIGATIONS

There are many reasons for the choice of Skibotn as the site for a fungal foray. Favourable climate is one, quite decisive factor: the relatively high summer temperatures in combination with showers in July should give good conditions for mushroom growth. This was well known from mushroom expeditions here in previous years, and mycology courses held at the Skibotn field station had always been successful in terms of species occurrence. Thus the fungus flora of the area was reasonably well known prior to the Congress, and had been studied and commented upon by several researchers, including Lange & Skifte (1967), Vorren (1979, 1982, 1983), Elvebakk (1980), Dunfjeld (1982), Granmo, Skifte & Nilssen (1982), and recently Bendiksen & Bendiksen (1993).

The majority of the data, however, is still in the form of unpublished lists at Tromsø Museum.

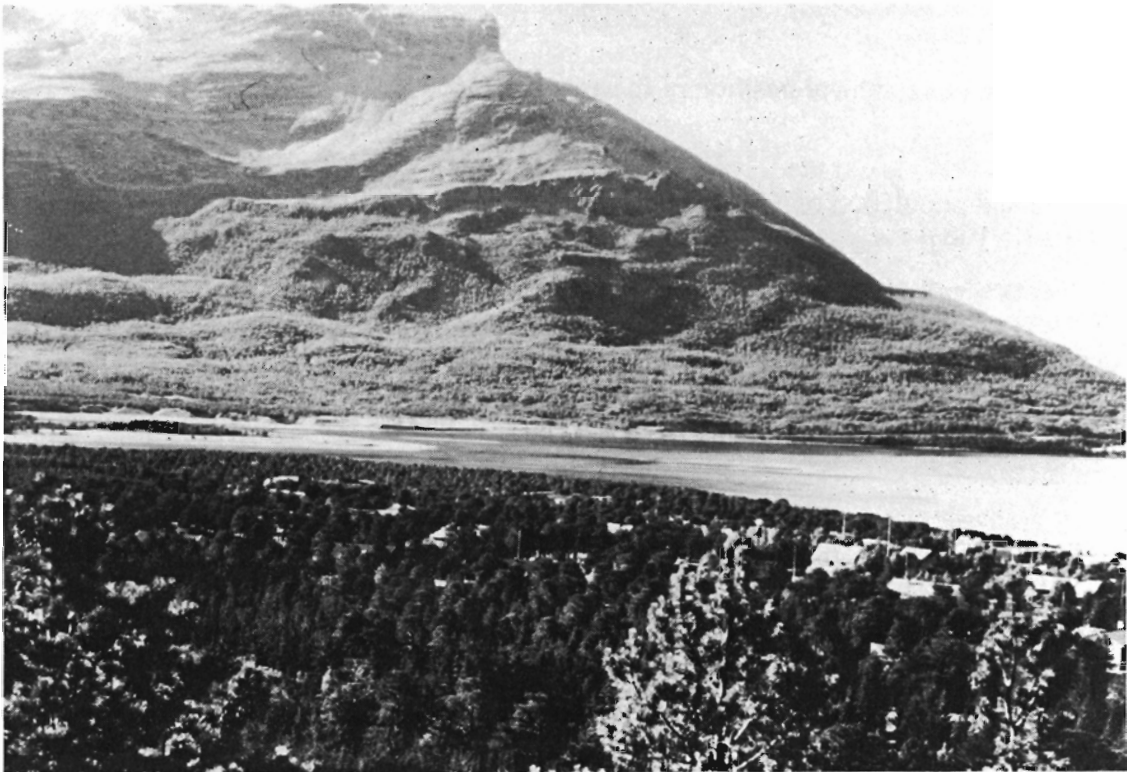


Fig. 2. Skibotn. View towards WSW with mountain Falsnesfjellet (ca. 1100m alt.).
AG 3/9 94.

B. SITUATION, TOPOGRAPHY, SETTLEMENT

The localities visited during the Congress are situated in the two municipalities Kåfjord and Storfjord in the northern part of Troms county. Kåfjord is located on the eastern side of the large Lyngen fjord, whereas Storfjord includes areas on both sides of the inner part of the fjord. Together these municipalities constitute an area of 2532km² with 4627 inhabitants. The whole area borders in the southeast on Sweden and Finland, with Kilpisjärvi as the nearest rural settlement in Finland, 50km from Skibotn.

The topography is first and foremost characterized by mountains, of which "The Lyngen Alps" with their glaciers on the western side of Lyngen fjord are especially impressive. Only 12% of the actual land area is below 300m altitude, and most settlements are situated along the narrow beach terrace near sea level. There are also some settlements in the main valleys, Kåfjorddalen and Manndalen (which are 10 and 14 km long respectively) in Kåfjord, and Skibotndalen, Signaldalen and Kittdalen (40, 18 and 8km long respectively) in Storfjord. The main villages in Kåfjord are Løkvoll, Birtavarre, Olderdalen (pop. 600; location of local authorities, post, bank, doctor). In Storfjord the main villages are Oteren (pop. 200; post, bank, doctor), Hatteng (Kvesmenes) (location of local authorities), Skibotn (pop. 600; post, bank, police).

The approximate geographical position of the area is lat. 69° 30' N, long. 20° 30' E.

Tab. 1. Area and population of Troms county, and the municipalities Gáivuona-Kåfjord and Storfjord 01.01.1994.

Parameter	TROMS county	Gáivuona-Kåfjord	Storfjord
Area (sq.km)	25954	994	1538
Population	149725	2712	1915

C. CULTURAL AND INDUSTRIAL BACKGROUND

Demographically, the population of the two municipalities is composed of three ethnic groups: the indigenous Sami, Norwegians, and descendants of Finnish immigrants who arrived in the 1700s and late 1800s. Many inhabitants of Finnish origin still speak a now somewhat archaic Finnish dialect, but probably even more people speak or at least understand the Sami language. The meeting of these three nations is beautifully visualized in the emblem of Storfjord municipality, which is composed of three joint, golden flowers of the Laestadius Poppy (*Papaver laestadianum*) on a red shield.

Since January 1, 1992, when the Sami language law was proposed, the Sami language has officially the same status as Norwegian. This also concerns all place names, including the name of the municipality, which officially should be written in both languages Gáivuona-Kåfjord.

However, parallel opportunities for these races to exploit the existing resources has with time resulted in an almost complete amalgamation of the different cultures, with features in common with the rest of the coastal culture in Norway.

The traditional way of living for people in such fjord districts has been a combination of fishing and farming, and some people still earn their living this way. After World War II, the political leadership of Norway made a strong bid for an industrialization of the country. This required many workers and officials, which had to be supplied by the primary industries. One result of this policy was a centralization of the population.

However, a modern fishing industry needs regular supplies of raw material from a large, stable fishing fleet. Consequently this policy forced people to choose between fishing and farming, or between them and factory work if they could not find other alternatives. In this way the millenium long epoche of a livelihood gained from a combination of fishing and farming, and the culture connected with it, is almost history today. The compensation to people who had to change job and move from their home has been better material welfare and easier access to different public services in the center or town.

The foregoing development was further accelerated by the collapse in the fisheries in the late 1980s which resulted in severe regulations on fishing. This included the prohibition of many former fishermen from resuming their activity after the crisis, and a final disappearance of subsidies in all fisheries. On the whole, active use of subsidies by the state authorities have been powerful means to manage the process described. The centralization policy is still followed, and has even been strengthened in the 1990s.

The main primary activity in this district is now directed into farming, including the cultivation of potatoes, vegetables, strawberries, and keeping livestock (sheep, goats, cows). Especially for Kåfjord, cod-fishing in Lyngenfjorden, and the seasonal fisheries in Lofoten and Finnmark still play an important role. Both municipalities have a growing tourist industry, operating hotels and similar establishments.

Considerable amounts of electricity are provided by and exported out of the district from the hydro electric power development of Guolasjavri in Kåfjord (averaging 316 GWh/year) and Skibotndalen (with the previously well known Skibotn river) in Storfjord (313 GWh/year). This provides an important part of the total income of the municipalities.

Religion is dominated by the Laestadians - *læstadianerne*. This is an evangelic - Lutheran pietistic movement within the State church, named after the Swedish clergyman and botanist Lars Levi Læstadius (1800 - 1861) in Karesuando (from 1849 in Pajala). It has exerted, and still exerts, a profound influence on people's religious and social life, as it has done in many parts of northern Fennoscandia. About 1890 the Laestadians built a chapel in Skibotn, later also in Birtavarre. In the summer and autumn, at the same time as the market in Skibotn used to be arranged, they hold some of their main gatherings alternately here and at Lyngseidet in Lyngen municipality. For the last three years a bitter controversy has split the movement in Troms into a liberal and a more fundamentalistic branch.

With the retreat of the German forces from Kola, Finland and the northernmost part of Norway in the late autumn of 1944, Finnmark and northern Troms suffered from a "scorched

earth" policy of the German troops and the population was evacuated. A new front line, heavily fortified (remains still to be seen at Falsnes), was established on the western side of Lyngen fjord, extending into Enontekiö (incl. Kilpisjärvi) in Finland. More than 200 000 German soldiers were withdrawn behind this line. Most of them were the remainder of general Lothar Rendulic's Lapland army. However, the pursuing Russian forces never intended to advance so far west, and Kåfjord and Storfjord municipalities, lying immediately east of the front line, escaped total devastation. Only about 50% of all buildings in Kåfjord were burnt.

1. Particulars of Kåfjord

Manndalen is well known for its production of goat milk. For this purpose a collective dairy has been erected at Abmelas at the head of this valley. The milk is used mainly to make Norwegian sweet brown cheeses. There are also fish farms for salmon and a fishing quay in Kåfjord (Djupvik). Some fox farmers produce silver fox and blue fox furs. The weaving of distinctive rugs, *grener*, using the ancient warp-weighted loom (*Opstad-veven*), and the making of the traditional *lefser* (griddle cakes) have become considerable home craft industries and are important sources of female employment in Kåfjord. The rugs and other textiles (thick woollen socks and mittens, Norwegian sweaters etc.) are commonly sold at Løkvoll (Manndalen). The tradition of home craft is visualized in the emblem of Kåfjord municipality which is a spinning wheel on a red shield.

In Kåfjorddalen *Birtavarre gruber* (mines) produced copper and iron ore at the beginning of the century (1898-1920). Traces may still be seen today at Sabetjokka, and at Ankerlia where the smelter was set up. The most important mining field was that at Måskogaissi/Måskojavri on the western side of Kåfjorddalen, in harsh surroundings at an altitude of 900 - 950m.

The road built for the hydroelectric construction work at Guolasjavri is open in summer, and may be used by bus as far as the end of the valley (Ankerlia). From Ankerlia, one may travel a further 10km by car or small bus (10-15 persons) to lake Guolasjavri (750m alt.). From there the impressive massif Raisduoddarhaldi-Haltia on the Finnish border is seen to the southeast, with the highest mountain in Finland, Haltiatunturi (1324m alt.) as its easternmost peak.

2. Particulars of Storfjord

In Storfjord farming is also of importance. Settlers from Trøndelag and eastern Norway moved to Signaldalen in 1820-1860 and started farming, which still continues in the lower part of the valley. There is also some forestry, and about 15 persons earn their income from the keeping of reindeer. At Oteren a large laundry (34 employees) serves nursing homes and old people's homes in many municipalities, as well as the hospitals in Tromsø.

Skibotn is an old market center, as recorded in documents dating back to 1519. Substantial amounts of goods, especially provisions and furs were traded with or exchanged between the people settled in the surrounding fjord districts, the mountain Sami who kept reindeer and storekeepers from Norway (e.g. Tromsø and Oslo), Sweden and Finland. Originally the market took place three times a year: winter, spring and autumn, being held on the plain called Njallavuoppi (loc. Nal-vuoppi) at Apaja (Furumoan). In 1840 the market was officially authorized and later moved to Skibotn. After World War II, the interest in the market decreased radically and it was completely abandoned after 1950. However, the market has recently been revived in a somewhat attenuated form, and is for the time being held once a

year for 3-5 days around the 20th of June (in 1995 June 23-25). Now also Russian home crafts, for instance beautiful wood work, are for sale.

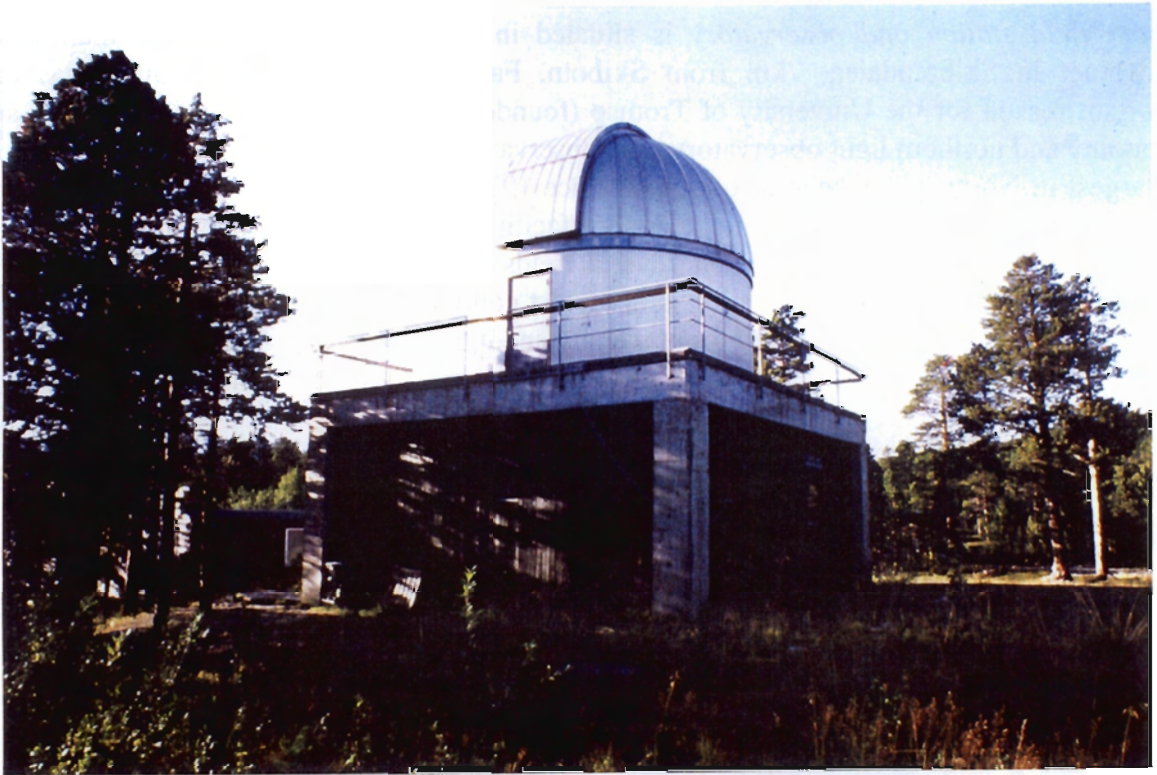


Fig. 3. The observatory at Skibotn field station and observatory. AG5/94:8.



Fig. 4. The main building of Skibotn field station and observatory. AG 3/9 94.

The pleasant weather conditions in the Skibotn area attract many people from Tromsø for weekends and holidays. This reaches to a peak in late August and September when the lingonberry ripens in Skibotn valley.

Skibotn field station and observatory is situated in the pine forest near the small lake Øvrevatnet in Skibotndalen, 7km from Skibotn. Favourable weather conditions was an important reason for the University of Tromsø (founded 1968) in choosing this place for an astronomy and northern light observatory. The observatory which has a 0.5m mirror telescope, the largest in Norway, has been in operation since 1978. In 1980 the rest of the field station was opened. In the four buildings are laboratory facilities and boarding rooms for 37 persons. The station is used by researchers in several fields both from Norway and abroad, with emphasis in natural history. The station is in almost continuous use in spring and autumn for field courses in biology and geology for university and upper secondary school students.



Fig. 5. Pine forest close to Skibotn Kurssenter (Congress center). AG 3/9 94.

D. CLIMATE

1. Wind conditions

The two wind roses (Fig. 7A-B) reflect to a very great extent the general wind conditions of Norway. The prevailing winds in the autumn and winter, roughly from September to May, blow mainly from the land towards the sea from fjord stations or inland stations, but at the coast the winds veer and blow nearly parallel to the coastline with the land to the right. Hence the prevailing wind directions during the year are S and SSE at places like Lyngseidet and Skibotn, and SW at Tromsø. In summer (June to August) the situation is much the reverse: the winds now blow mainly from the sea towards the land, but veer at the coast and blow with the

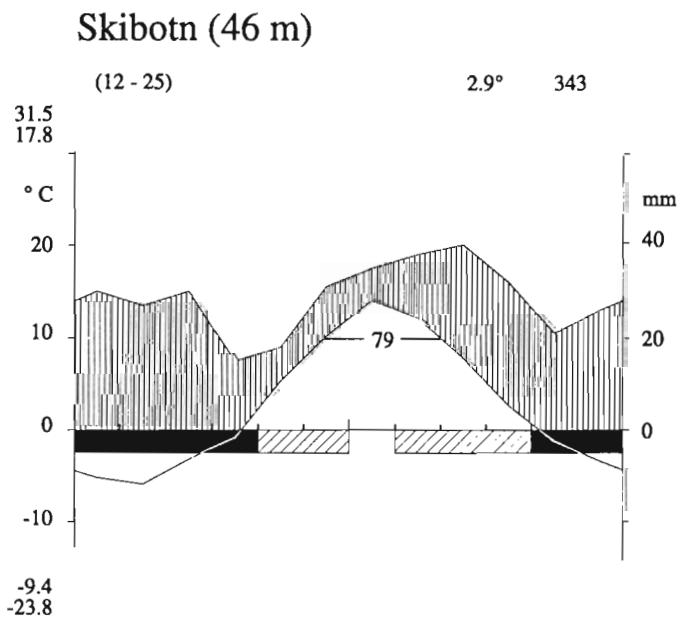
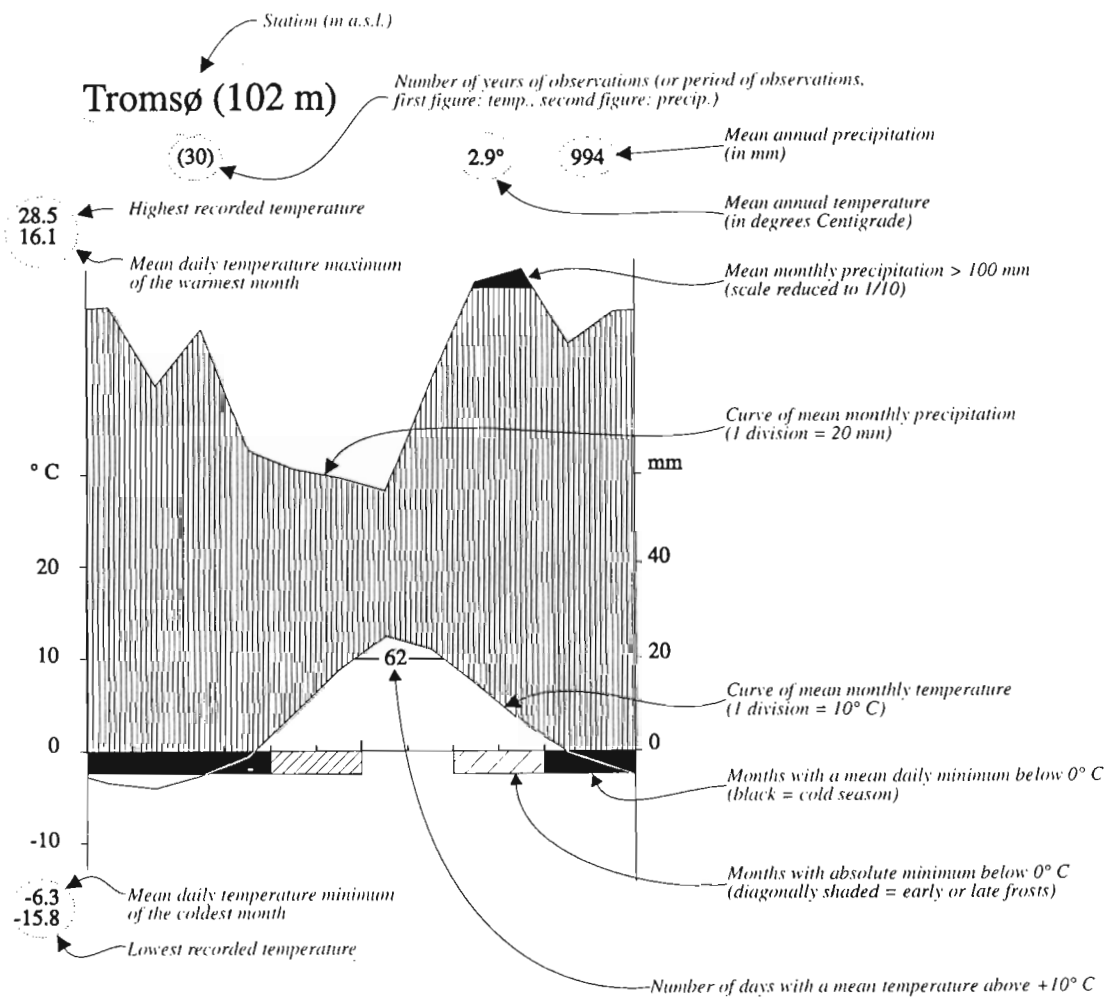


Fig. 6. Walter diagrams for Tromsø and Skibotn based on data from the last standard period (1961-1990).

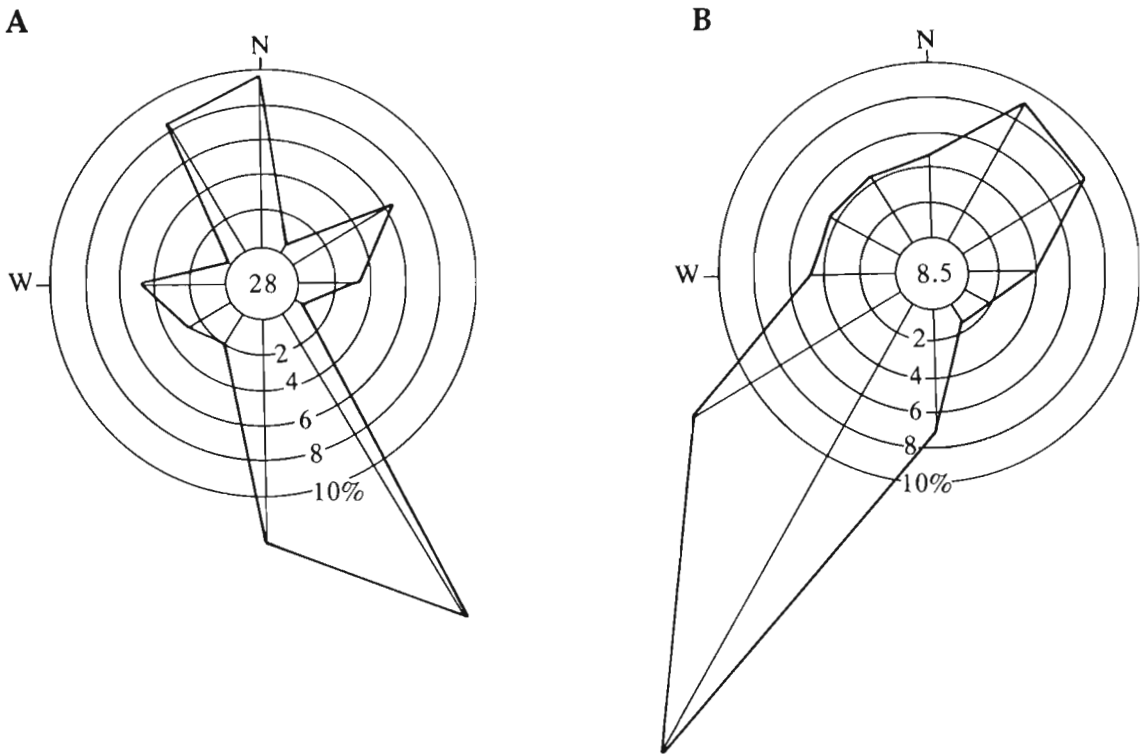


Fig. 7. A. Prevailing winds (in terms of frequency from twelve main directions) during the year at Lyngseidet (Lyngseidet IV) in Lyngenfjord 20km N of Skibotn. **B.** Prevailing winds during the year in Tromsø 60km NW of Skibotn. The figures in the center is percentage calm. Observations from the period 1961-1975.

land to the left. Then Tromsø has prevailing winds from the NE and W, while Lyngseidet and Skibotn have mostly winds from the N and NNW.

2. Precipitation

Precipitation in an area is heavily influenced by the topography and wind direction. The reason for the very small amount of precipitation in Skibotn becomes clear when a map of the area is studied. The high mountains to the north and northwest, many of which also have glaciers, force the moist air from the sea upwards. As a result most of the precipitation is lost before reaching Skibotn. Low pressure systems from the Baltic Sea may result in some precipitation in the border districts and even in Skibotn in the summer. Skibotn has as many as 88 days of clear weather a year. Although the island Tromsøya is also to some degree protected against moist air masses, the situation is far less favourable than at Skibotn (cf. Fig. 6).

Meteorological data concerning temperature and precipitation for the normal period 1931-1990 have been supplied by Det norske meteorologiske institutt, Oslo. The resulting Walter diagrams have kindly been drawn by Sigmund Spjelkavik at the University of Tromsø (now at UNIS, Longyearbyen). The wind data is from Andresen (1979). Vervarslinga for Nord-Norge has provided the specific data from Skibotn for 1992.

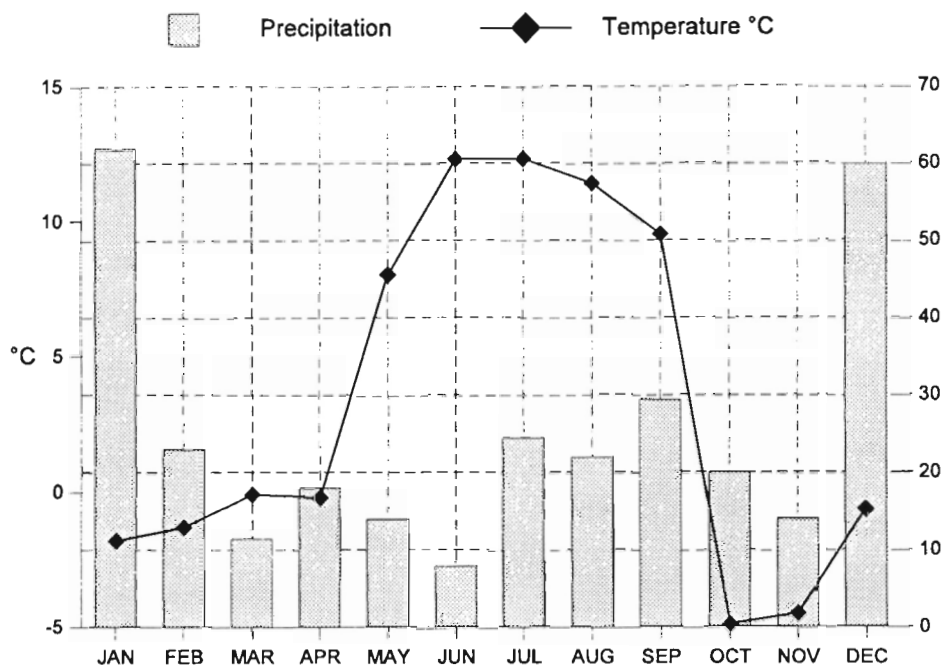


Fig. 8. Skibotn. Precipitation in mm and monthly mean temperature in 1992.

E. GEOLOGY

The bedrock in the area is heavily influenced by the Caledonian orogenesis, which metamorphosed, thrust and folded thick layers of sedimentary rocks some 400 million years ago. The orogenesis was initiated by the collision between the two continental plates of Scandinavia and Greenland, pushing sedimentary bedrock structures in from the west. Only in a small area in the southeast, close to the Swedish border, there is a narrow zone which is not influenced by the orogenesis. This zone is dominated by Precambrian intrusive rocks, amphibolite and gabbro.

Lyngen gabbro is found to the northwest. This is probably part of an old oceanic crust squeezed in between the metamorphosed sedimentary layers during the Caledonian folding and thrusting. To the east, the Caledonian nappes, which contain different types of rock, are thrust on top of each other. In a zone along both sides of the Lyngen fjord are mica schist and mica gneiss. East of this area are metagreywackes, shales and limestones and even further east quartzitic shales and gneisses. Close to the Precambrian rocks is a narrow zone of limestone and mudstone belonging to the Dividalen group. These are sedimentary rocks which were deposited on top of the Precambrian structures, and later metamorphosed during the Caledonian orogenesis.

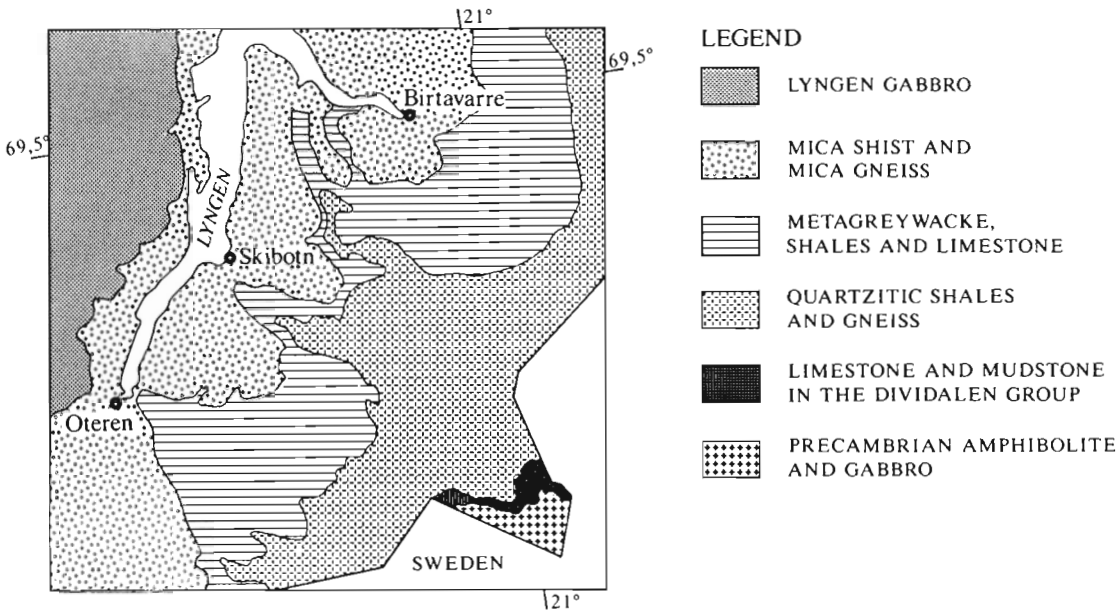


Fig. 9. Features of the bedrock geology in the Lyngen area (redrawn from Sigmond et al. 1984).

F. LOCALITIES VISITED DURING THE CONGRESS

Positions of the investigated localities are given by reference to the UTM reference grid system to the nearest km (E-W coordinates and N-S coordinates separated by a comma (European datum)), using topographic maps in the M711 series on the scale 1:50 000.

Locality 1 - Helligskogen

Troms: Storffjord: Skibotndalen, Helligskogen between Steinbakken and bajit Gæranjåkka. Map 1633 II, UTM DB 86,80. 320-350m alt. Aug. 17, 1992.

Geology: Gneiss and meta-arkose with quartzite (Kalak nappe) predominate. Morainic boulders are common, and fluvial deposits occur along the Skibotn River.

Vegetation: Subalpine birch forest (northern boreal zone). The mixed and mostly oligotrophic birch/rowan-willow forest is partly a *Rumici-Salicetum lapponae*-association along the river. Elsewhere *Empetro-Betuletum tortuosi* (in Dicrano-Pinion) interspersed with scattered pines, and *Betuletum geraniosum subalpinum* (in Lactucion alpinae) are frequent.



Fig. 10. Locality 1. Steinbakken at Helligskogen (seen from the parking place towards E). AG 3/9 94.

Locality 2 - Ankerlia

Troms: Kåfjord: Kåfjorddalen, Ankerlia. Map 1633 I, UTM DB 98-00,01-02. 120-180m alt. Aug. 18, 1992.

Geology: In Kåfjorddalen metamorphosed Cambro-Silurian sediments dominate, mainly as mica schist and shale. There is also some highly crystallized and metamorphosed limestone. At Ankerlia, the valley is covered by Quaternary deposits (moraine, gravel, sand). The 3-4 beautiful canyons at Ankerlia are the result of water erosion during the glacial periods in the Quaternary.

Vegetation: Subalpine birch forest (northern boreal zone). Birch dominates (as *Corno-Betuletum*). The birch forest is mixed with willows (*Salix* spp.), aspen (*Populus tremula*), alder (*Alnus incana*) and scattered rowans (*Sorbus aucuparia*). Along streams and especially near the main river, alder forms clear stands. The influence of grazing is often obvious.



Fig. 11. At Apaja. Ola Skifte, Anne Mari (2), Katriina and Egil Bendiksen, and Esteri Ohenoja. AG 21/8 92.



Fig. 12. Anders and Karin Bohlin collecting fungi at Apaja. AG 21/8 92.

Locality 3 - Guolasjavri

Troms: Kåfjord: Guolasjavri. Map 1733 IV, UTM EB 01-02,91-92. 750-800m alt. Aug. 18, 1992. The area for field work was on both sides of the river Gåd'dejåkka, just above its outlet and across the crag of Sinaivarre (855m alt.).

Geology: The bedrock is almost exclusively calcite marble, and some quartzite.

Vegetation: Low alpine region. There are several communities: low alpine *Empetrum* heath, *Dryas* heath and meadows with low herbs. In snowbeds the alliances *Oppositifolia-Oxyrion* and *Herbaceon* are frequent, the last mentioned mostly dominated by *Salix herbacea* (least willow), *Carex bigelowii* (stiff sedge), *Cassiope hypnoides* (matted cassiope) and *Polygonum viviparum* (knot weed). On limestone in exposed places, species as *Dryas octopetala* (mountain avens), *Cassiope tetragona* (cassiope) and *Rhododendron lapponicum* (lapland rhododendron) grow together with several other basicole plants.



Fig. 13. Locality 3. Guolasjavri. Participants of the Congress in the alpine surroundings of the lake. Photo: Egil Bendiksen.

Locality 4 - Lullesletta

Troms: Storfjord: Skibotndalen, Lullesletta, on both sides of Lulleelva. Map 1633 I, UTM DB 77,88. 70-150m alt. Aug. 19, 1992.

Geology: The plateau and ridges close to the main road and car park on the south side of the plain Lullesletta are postglacial deposits at highest beach level (9500 years B.P.). Material of morainic origin is also found at Lullesletta and further up along Lulleelva. The bedrock in the

mountain south of Lulleelva and also 50m (at Lullesletta) to 1000m north of it is banded, pegmatitic gneiss with layers of amphibolite (Kalak nappe from Cambrium-Ordoviciun). A zone of Silurian limestone is situated between the stream Kavleelva (northern end of Lullesletta) and the gneiss area.

Vegetation: Middle boreal region. The forest at Lulleelva is mainly an impoverished *Alno incanae-Prunetum padi*. A poor (in terms of number of phanerogams) though fresh type of an old pine forest (Dicrano-Pinion) covers the hills in the gneiss area at Lulleelva, at Aksogaikuarri and on the mountains south of these. Associations of the Lactucion alpinae alliance are frequent outside the pine forest. In the limestone zone, there is also some variety of *Convallario-Pinetum/Melico-Piceetum* (in Eu-Picenion) with many eutrophic plant species, for instance *Cypripedium calceolus*, *Pyrola chlorantha* and *Equisetum scirpoides*.

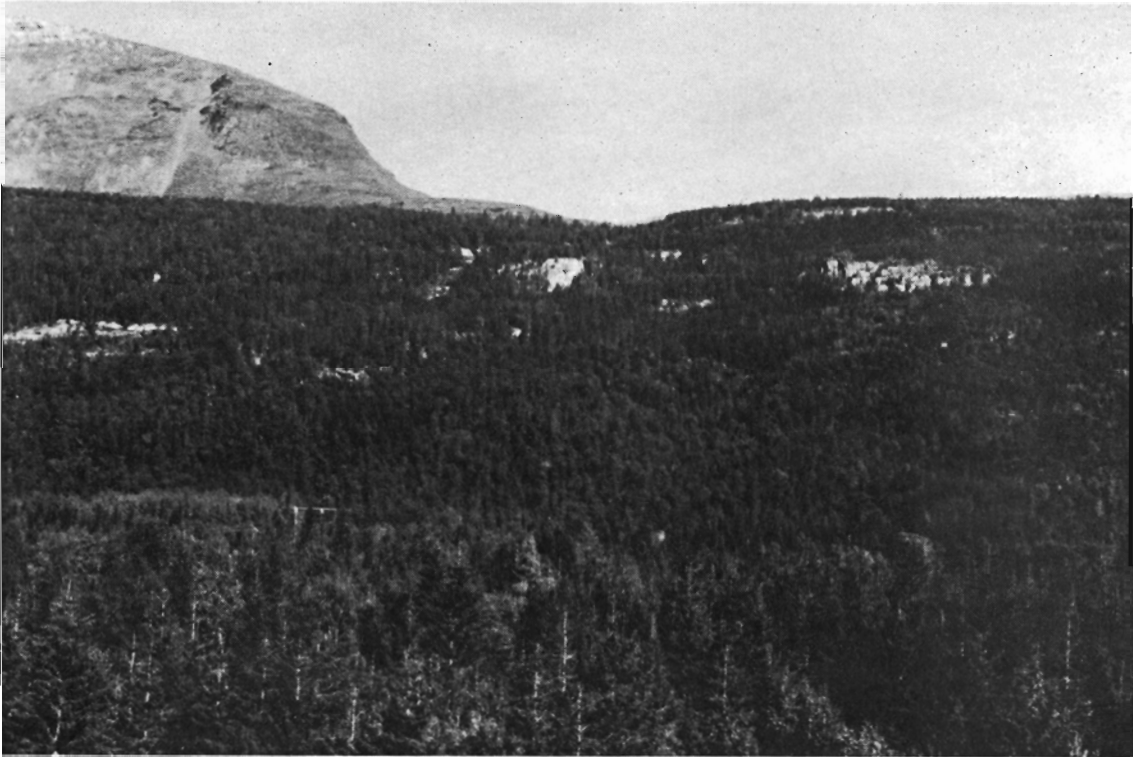


Fig. 14. Locality 4. View across the southern end of Lullesletta towards the NE and the forested slope of Favresladdo (400m alt.), with Addjet behind. AG 3/9 94.

Locality 5 - Signalnes

Troms: Storfjord: Signaldalen, Signalnes. Map 1633 III, UTM DB 61-62,72-73. 70-80m alt. Aug. 20, 1992.

Geology: The bedrock consists of grey, banded garnet-quartzbiotite schist and limestone. Quaternary deposits cover the bedrock. Otertind (1360m alt.) is a landmark seen from Signalnes to the northwest.

Vegetation: Middle boreal region. A subxeric pine forest (*Vaccinio-Pinetum*-ass. of *Dicrano-Pinion*) intermixed with birch dominates.



Fig. 15. Locality 5. Signalnes. A stand of birch in the pine forest. AG 3/9 94.

Locality 6 - Rognli/Paras

Troms: Storfjord: Signaldalen, Rognli/Paras. Map 1633 III, UTM DB 64,67. 110-160m alt. Aug. 20, 1992.

Geology: The bedrocks are mica schist and marble, partly covered with Quaternary deposits. The mountain Paras (1419m alt.) towers in the southeast.

Vegetation: Subalpine birch forest (northern boreal zone). On the slope of Paras just above the farms the *Alno incane-Prunetum padi* ass. of *Alno-Padion* is predominant at lower levels. Scattered pines (*Pinus sylvestris*) and small plantations of spruce (*Picea abies*) may also be seen. The influence of grazing is evident everywhere. Species of the *Lactucion alpinae* alliance gradually increase ascending the slope.



Fig. 16. Locality 6. Rognli/Paras. Fallow meadow and deciduous forest at the western slope of mountain Paras. Photo: Birgit Møller 20/8 92.

Locality 7 - Apaja/Furumoan

Troms: Storfjord: Skibotn, Apaja/Furumoan/Mellomjord. Map 1633 IV, UTM DB 69-70,96. 1-20m alt. Aug. 21, 1992.

Geology: The post-glacial deposits of gravel and sand in the Skibotn valley to an altitude of 80m (i.e. highest beach level) date from the middle of the late preboreal period, about 9500 B.P. The deposits at Furumoan (Apaja - Sommarset), near the present sea level, are relatively recent.

Vegetation: Middle boreal region. *Empetrum*-heath and oligotrophic pine forest (moss rich *Calamagrostio lapponicae pinetum*) totally dominate the area.

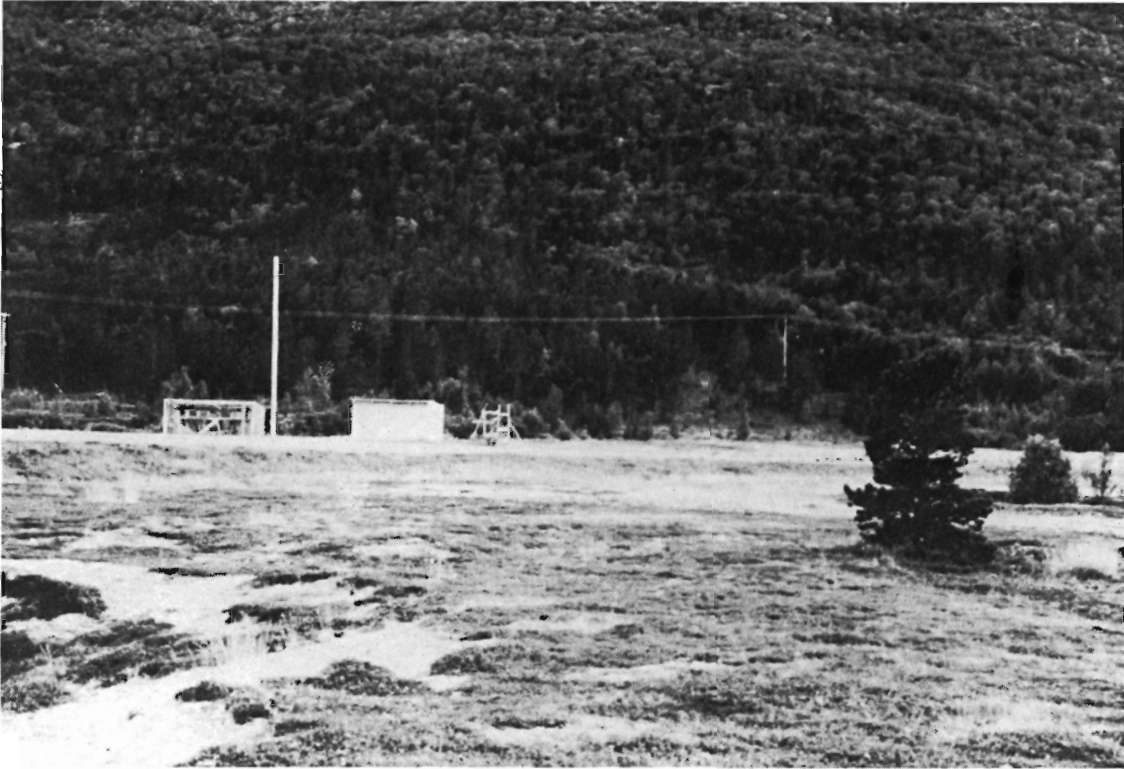


Fig. 17. Locality 7. Apaja/Furumoan. Part of the plain Njallavuoppi with the slope of mountain Falsnesfjellet in the background. Traffic has caused erosion which has damaged the earth surface of the plain in several places (foreground). AG 3/9 94.



Fig. 18. Esteri Ohenoja, Mauri Korhonen and Ola Skifte. AG 21/8 92.

Additional localities

Troms: Storfjord: Skibotndalen, 15. Aug. 1992 (collector P. Marstad).

Troms: Storfjord: Skibotn, near Skibotn Kurssenter. Map 1633 IV, UTM DB 71,98. 1-10m alt. Aug. 15-21, 1992. Oligotrophic pine forest with *Empetrum hermaphroditum* and *Vaccinium vitis-idaea* as the dominating phanerogams.

Troms: Storfjord: Skibotndalen, 6km SE of Steinbakken (prospect-stop at the main road). Map 1633 II, UTM DB 90,74. 430m alt. Aug. 16, 1992. Gneisses of the Kalak nappe. *Empetro-Betuletum tortuosi* - association (in Dicrano-Pinion).

Troms: Kåfjord: Birtavarre. Map 1633 I, UTM DC 93,09. 10-20m alt. Aug. 18, 1992.

Troms: Kåfjord: Nordnes. Map 1634 III, UTM DC 76,17. 20m alt. Aug. 20, 1992. Deciduous forest, mainly *Betula pubescens* and *Alnus incana*.



Fig. 19. The upper part of Skibotndalen, with Helligskogen in the center (a little behind the lake). View down the valley towards the NNW from the prospect stop at the main road 6km SE of Steinbakken. AG 3/9 94.

III. MATERIALS AND METHODS

A. MATERIALS

The list of species presented in Tabs 2-11 is based on the material found during the 11th Nordic Mycological Congress in Skibotn, August 16-21, 1992. The list can not be regarded as complete, but is based on all specimens collected and identified by the participants and presented in the exhibition hall during the Congress week. Post-congress information conveyed to us has been considered, as well as species recorded near Skibotn Kurssenter and in a few surrounding localities. Also included are species noticed by the members of the committee when reconnoitering the main localities before the Congress.

Collections kept in a public herbarium, except those kept at Tromsø Museum, are all marked according to Index Herbariorum (cf. p. 31), while those kept in a private herbarium are marked with the owners initials (e.g. P.H. = Paavo Höijer, private herbarium). The collections kept by M. Noordeloos are probably deposited in L.

B. METHODS

1. Field methods

Material was collected from seven main localities, and a few additional localities. Many of the collected specimens, particularly those belonging to the Agaricales, were identified by the participants in the field, but the majority of the collections needed a closer examination in the laboratory. Between two and five hours were spent at each locality.

2. Laboratory methods

The main body of the collected material was thoroughly studied in the laboratory at Skibotn, and regularly examined with a Zeiss microscope when necessary. In addition many collections were thoroughly reexamined by participants in their own laboratories after the congress.

3. Nomenclature

The vascular plant names are in accordance with Lid (1985), and the names of the vegetation units are in accordance with Fremstad and Elven (1987).

The nomenclature of the fungi follows the principles, rules and recommendations in the latest edition of the Code (Greuter 1988). For the Boletales, Agaricales and Russulales we have mainly followed Nordic Macromycetes 2 (Hansen & Knudsen 1992), Moser (1983) and Noordeloos (1992). For nomenclature and taxonomy of the fungi in the list of species, see "Taxonomy".

The citation of authors of fungal names are as recommended by Kirk & Ansell (1992).

4. Taxonomy

Although the rank of species is basic, taxonomists may disagree about the rank and position of one particular taxon: it may be considered as a species by one taxonomist, as a variety, or even as belonging to a different genus by another.

The taxonomic status is undoubtedly uncertain for several of the taxa found during the congress, and there were disagreements among the specialists concerning some of these. However, as the authors mainly work with pyrenomycetes, we have not tried to solve taxonomic problems in the other groups of fungi in the present paper. Consequently the literature has been followed, though in some cases the specialists of the pertaining fungus groups present at the congress are followed.

For example, *Galerina marginata* (Batsch) Kühner and *G. unicolor* (Vahl : Fr.) Singer are listed as two different species, although they probably represent the same taxon. *Pholiota flavida* (Schaeff. : Fr.) Singer is listed in addition to *P. alnicola* (Fr. : Fr.) Singer, although Jacobsson (1986) considered *P. flavida* as partly synonymous with *P. alnicola*, and later (Jacobsson 1991: 55) proposed *P. flavida* placed on the list of *nomina rejicienda*. *Inocybe armeniaca* Huijsman is listed as a species, and not as a variety of *I. geophylla* (Sowerby : Fr.) P. Kumm. (see Hansen & Knudsen 1992), and further e.g. *Rickenella setipes* (Fr. : Fr.) Raithelh. is listed instead of *Omphalina setipes* (Fr. : Fr.) Quél., and *O. ericetorum* (Fr.) M. Lange is listed instead of *O. umbellifera* (L. : Fr.) Quél. As a final example, both *Boletus subtomentosus* L. : Fr. var. *subtomentosus* and *B. lanatus* Rostk. are listed as species, although Hansen & Knudsen (1992) note *B. lanatus* as a synonym of *B. subtomentosus* var. *subtomentosus*.

Undescribed species, and species or specimens that were marked with cf., aff., sp., " ", and ined. during the congress are listed, as they may be of particular interest for the specialists who are working with these fungi.

5. Literature

Specialists in many groups of fungi participated at the congress, and a wide range of literature was used in identifying the fungi. An integrated presentation of such literature may, in our opinion, be very important and useful, particularly for amateur mycologists. Therefore, a bibliography of the literature used is included.

6. Abbreviations and legends

aff.	= akin to
AG	= Alfred Granmo
cf.	= compare
comb. nov.	= new combination
e.g.	= for instance
ined.	= unpublished
"... "	= preliminary name
ITS	= internal transcribed spacer
leg.	= he/she has gathered
spp.	= species (pl.)

UNIS = University's courses in Svalbard

C, H, L, etc. = material is kept in public herbaria (Copenhagen, Helsinki, Leiden etc.). The abbreviations are as used in Index Herbariorum 8th edn. (Holmgren et al. 1990).

J.J. = Jörgen Jeppson, Sweden, private herbarium

J.P. = Jens H. Petersen, Denmark, private herbarium

M.J. = Mikael Jeppson, Sweden, private herbarium

P.H. = Paavo Höijer, Finland, private herbarium

Special symbols used in the list of species are given on p. 39.

IV. RESULTS

A total of 818 taxa were found during the Congress. The distribution of the different fungal groups are as follows: Myxomycetes: 47, Zygomycotina: 1, Deuteromycotina: 15, Ascomycotina: 141, Uredinales: 8, Ustilaginales: 4, Dacrymycetales: 3, Tremellales: 6, Exobasidiales: 5, Aphyllophorales: 104, Boletales: 28, Agaricales: 369, Russulales: 62, Gasteromycetes: 25. Most species were found in the genera *Cortinarius* (61), *Lactarius* (25), and *Russula* (30).

Some common species, e.g. *Hydnum rufescens*, *Lentinus lepideus*, *Agrocybe praecox*, and some rare species as *Inocybe erubescens* (= *I. patouillardii* Bres.), *Cortinarius sanguineus* and *Ptychoverpa bohemica*, which have previously been found at some of the main localities, were not found during the congress.

A. COMMENTS ON SOME TAXA FOUND DURING THE CONGRESS

1. Myxomycetes

Comatricha pulchella (C. Bab.) Rostr.

The species is rare in Norway, and the collections from Helligskogen (Aug. 17, 1992, TROM) and Lullesletta (Aug. 19, 1992, TROM) are the first from North Norway. *Comatricha pulchella* is previously known from only 4 localities in Norway, and its earlier northern limit is Samnanger in Hordaland. The other three localities are Bjørnen and Odda in Hordaland, and Oslo (Kalstø 1985, Johannesen 1984, Johannesen in litt. 1994).

Cribraria oregana H.C. Gilbert

The species is very rare in Norway, and the collection from Lullesletta (Aug. 19, 1992, TROM) is the third recorded from Norway. It was earlier found in Oslo and Fåberg (Oppland), and is rare in Europe as a whole (Johannesen 1982, 1984, 1986). However, recently E.W. Johannesen (in litt. 1994) drew the authors' attention to "Die Myxomyceten 1" (Neubert et al. 1993), and *Cribraria oregana* is now, in addition to Norway, known from the U.S.A., Canada, England, France and the Netherlands.

Nannenga-Bremekamp (1964, 1974) tend towards including *Cribraria oregana* in *C. vulgaris* Schrad., but irrespective of taxonomic rank, the find from Lullesletta is very interesting, and undoubtedly the northernmost find in the world.

Licea aff. *testudinacea* Nann.-Bremek.

The find from Helligskogen (Aug. 17, 1992, TROM) appears to be the second record of this species from Norway. The first find (Nov. 15, 1988, P. Marstad 148-88) is from Hillestad in Vestfold. Per Marstad has also found *Licea testudinacea* in Sweden (April 20, 1989, PM 25-89) and in Denmark (Aug. 26, 1989, PM 80-89), and these two collections probably represent the first records from these countries. All of Marstad's collections appeared on bark in moist chamber cultures after ca. 25 days (P. Marstad in litt. 1994).

Licea testudinacea was reported from Iceland (Gøtzsche 1987), but a later revision and comparison with similar material from Greenland revealed a better agreement with *L. minima* Fr. (Gøtzsche 1990).

Lycogala exiguum Morgan

The species is new for Norway (Helligskogen, Aug. 17, 1992, TROM). An earlier report of the species from Norway (Karlsen 1943), probably represents *Lycogala epidendrum* (L.) Fr. (Johannesen 1982).

Lycogala exiguum is cosmopolitan in its distribution, but although widely distributed, it seems to be uncommon (Martin & Alexopoulos 1969). The fungus is closely allied to *L. epidendrum*, which is one of our most common myxomycete-species (Kalstø 1985, Johannesen 1986). *Lycogala exiguum* was found at three localities during the congress.

Stemonitis pallida Wingate

The species is new for Norway (Paras, Aug. 20, 1992, TROM). Although it has earlier been reported from Dovrefjell National Park (Hjortstam & Johannesen 1980), that material finally turned out to be erroneously determined (E.W. Johannesen in litt. 1994).

2. Ascomycotina

Amphisphaerella erikssonii Math.

The species is known only from Troms, and from one alpine locality west of Östersund (Jämtland) in central Sweden. Its distributional pattern is very similar to that of *Hypoxylon macrosporum* P. Karst. in Scandinavia, but *A. erikssonii* seems to be more restricted to northern boreal and low alpine regions, and to be more continental. It has only been found on *Salix* spp., and was published as a new species after the congress (Mathiassen 1993).

Lachnum Retz.

Baral & Krieglsteiner (1985) raised *Dasyscyphus* subgen. *Capitotricha* Raitv. to generic rank, but this generic name was later (Raitviir 1987) placed as a synonym of *Lachnum* subgen. *Belonidium* (Dur.) Raitv. Eriksson & Hawksworth (1993) list, among others, *Capitotricha*, *Dasyscypha* Fuckel and *Dasyscyphus* Gray as synonyms of *Lachnum* Retz., and the taxa that were placed in the genera *Capitotricha*, *Dasyscypha*, and *Dasyscyphus* during the congress are therefore listed here as *Lachnum*.

Monilinia cassiopes (Rostr.) L. Holm

According to Schumacher (1994, & in litt. 1994) the species is very rare in Norway, and known only from one locality in Finnmark (Bossekop in Alta) and one locality in Troms (Guolasjavri in Kåfjord). The collection from Guolasjavri (Aug. 18, 1992, O) is cultured, and is also included in a larger ITS-sequence investigation at the University of Oslo (A. Holst-Jensen in litt. 1994). Ascomata were not developed in any of the three known Norwegian collections, but it is very difficult to find the apothecia in nature, as they develop on capsules lying on the ground (Holm 1975). However, Holm considered *M. cassiopes* to be rather common in Scandinavia, as "more or less darkened capsules are often seen, still attached to the host plant" (Holm 1975, p. 147).

Nemania mammata (Wahlenb.) Granmo comb. nov.

Sphaeria mammata Wahlenb., Flora Suecica p. 1003. 1826.

Nemania in the emended sense of Pouzar (1985) is here accepted as a generic name for most of the Primocinerea subsection species of *Hypoxylon* treated by J.H. Miller (1961), including *Hypoxylon serpens* (Pers. : Fr.) Kickx and *Hypoxylon mammatum* (Wahlenb.) P. Karst. However, the combination of the latter species with the genus *Nemania* has not, to the author's knowledge, been made before. The species is common in the northern and eastern continental parts of Fennoscandia, occurring in the bark of dead *Salix*, *Sorbus* and more rarely on *Betula*.

Otidea caligata (Nyl.) Sacc.

The species is new for Norway (Lullesletta, Aug. 19, 1992, TRH, OULU). Many records are known from Sweden, from Blekinge in the south, and north to Övertorneå in Norrbotten. It is not as common in Finland, where the majority of the records are from the southern part of the country (Nannfeldt 1966, Ulvinen 1976). However, it is found north to Koillismaa (Kuusamo) province in northeast Finland (Ulvinen et al. 1981). *Otidea caligata* is also found in Czechoslovakia (Nannfeldt 1966).

Sarcosphaera coronaria (Jacq.) Boud.

This is a rare species in Scandinavia, and it has not yet been recorded from Finland (Bohlin 1993). Earlier, its distribution in Scandinavia was considered to be strongly south-eastern, as the majority of the known records were located to the south-eastern parts of Sweden (Ryman & Holmåsén 1984). The first two Norwegian records of *Sarcosphaera coronaria* in 1983 (Telemark, south-eastern Norway) agreed well with this distribution pattern, but later the same year, it was found in Saltdal in Nordland, several hundred kilometers further to the north (Brandrud & Bendiksen 1984).

Sarcosphaera coronaria was thoroughly described and mapped by Brandrud et al. (1986), and they pointed out that the record from Saltdal probably represented the northernmost find of the species in the world. However, in 1992 it was also found in Skibotn ("Lullevárri", Aug. 19, 1992, TROM). This find is reported by Bohlin (1993), and is also mentioned by Bendiksen & Bendiksen (1993). The fungus was found in a calcareous pine forest, which is the major habitat (Brandrud et al. 1986). Lange (1991) considers *S. coronaria* as a very rare and vulnerable species in Norway, and it is also included in the red list with that status (Bendiksen & Høiland 1992).

Sclerotinia pirolae Grose

The species is new for Norway. The collection from Lullesletta (Aug. 19, 1992, O) has been cultured, and is included in a larger ITS-sequence investigation at the University of Oslo (A. Holst-Jensen in litt. 1994). *Sclerotinia pirolae* is discussed and illustrated by Pyykkö & Hämet-Ahti (1980), who reported it as new to Finland. Earlier, it was only known from Latvia, Estonia and Russia. It seems to be widespread in Finland, and Pyykkö & Hämet-Ahti (1980) mentioned that it has often been overlooked by mycologists.

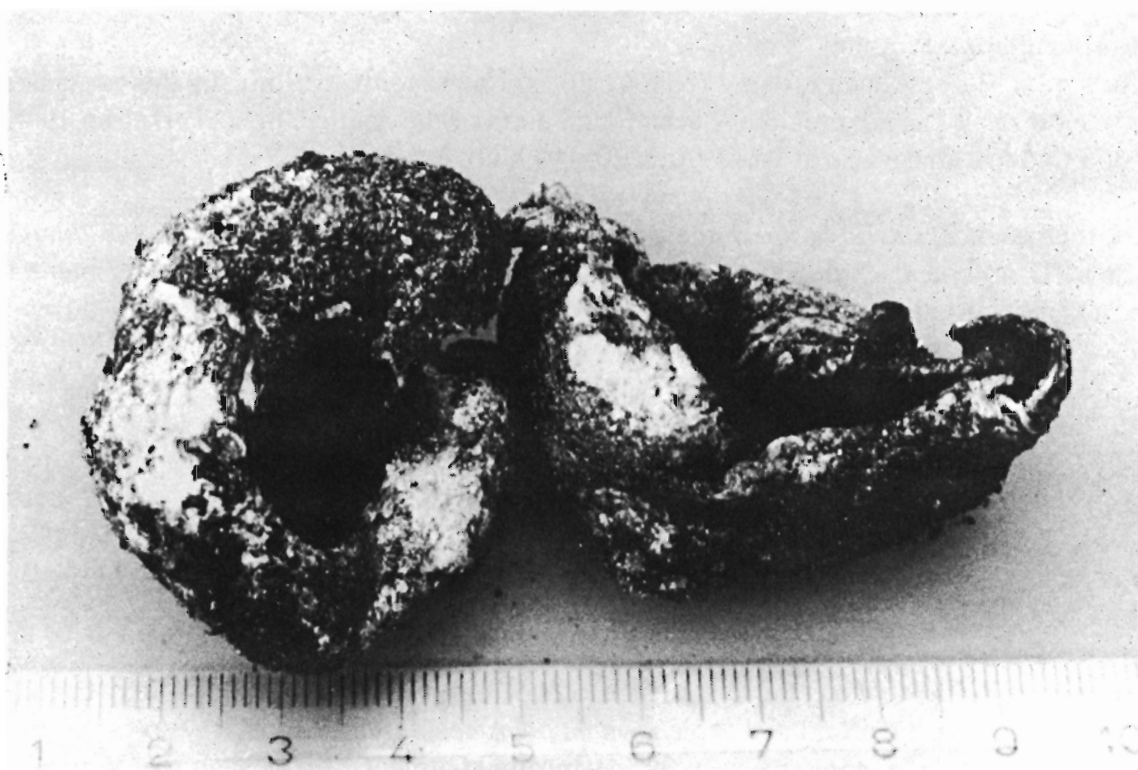


Fig. 20. *Sarcosphaeria coronaria* from Lullesletta/Favresladdo. K. Bohlin leg. AG /8 92.

Xylaria filiformis (Alb. & Schwein. : Fr.) Fr.

This threadlike *Xylaria* on dead stems of herbs and ferns has possibly been overlooked by mycologists. In Sweden it is recorded from several provinces from Skåne in the south to Torne Lappmark in the north (Eriksson 1992), but in Norway it was previously only published from Oslo and Oppland in southern Norway (Eckblad 1969). However, during the congress *Xylaria filiformis* was found at two different localities, and as far as we know this is the first report of it from North Norway, except the unpublished thesis by Tveitstul (1974) from Grane and Rana. There are a couple of further observations from Lyngen and Tromsø (Sivertsen, pers. comm.).

3. Dacrymycetales

Dacryonaema rufum (Fr.) Nannf.

The find from Lullesletta (Aug. 19, 1992, O) represents a new northern limit in Norway for this jelly fungus. Its earlier northern limit was Oppdal in Sør-Trøndelag (Torkelsen 1972, Torkelsen in litt.), a record which dates back to 1864 (Nannfeldt 1947). It is considered common in both Sweden (Ryman & Holmåsen 1984, Nannfeldt 1947) and Finland (Nannfeldt 1947, Karsten 1890: 62).

4. Tremellales

Tremella juniperina P. Karst.

The find from Helligskogen (Aug. 17, 1992, O) is a new northern limit for this species in Fennoscandia, as it has not previously been found north of the Arctic Circle (Torkelsen 1978). A second find was made also at Paras (Aug. 20, 1992, O).

The fruitbodies of *Tremella juniperina* are associated with old ascocarps of *Colpoma juniperi* (P. Karst.) Dennis, and its distribution is limited by the host distribution. *Colpoma juniperi* has a northern-alpine distribution (Holm & Holm 1977), and was found at 3 different localities during the congress.

5. Aphyllophorales

Clavaria krieglsteineri Kajan & Grauw.

This taxon appears not formerly published for Norway (See Kajan & Grauwinkel 1987). It belongs to a critical group of taxa partly discussed sub *C. tenuipes* by Sivertsen & al. (1994).

Dichomitus campestris (Quél.) Doman. & Orl.

It is very interesting to note the occurrence of not only *Dichomitus campestris*, but also *Plicaturopsis crispa* (Fr.) Reid and *Steccherinum ochraceum* (Pers. : Fr.) Gray so far north in Norway, as they all are representatives for a typically continental element in the Norwegian mycoflora. However, they have been found earlier in the inner part of Troms (Dividalen), and north to Alta and Lakselv in Finnmark (Ryvarden in litt. 1994). Earlier, Ryvarden (1976) attributed this particular distribution pattern (with the isolated localities in Finnmark) to the remarkably high summer temperature "due to the midnight sun" in the inner fjords and parts of Finnmark. The distribution of these three species in the Nordic countries is described by Ryvarden (1976) and Eriksson et al. (1981, 1984).

Polyporus tuberaster (Jacq.) Fr.

The finds represent the northern limit on a world basis (compare map in Nuñez 1993).

Pterula multifida E.P. Fr. : Fr.

The find from Lullesletta (Aug. 19, 1992, J.P.) represents the second find of this species in northern Norway. It is rare, and earlier Norwegian records are known only from the area around Oslofjorden and north to Biri in South Norway (Lange 1991). Ryman & Holmåsén (1984) also consider *Pterula multifida* as rare. The first find from northern Norway is reported by Bujakiewicz and Sivertsen (1994) with comments on the disjunct occurrence.

Ramariopsis crocea (Pers. : Fr.) Corner

The find from Paras (Aug. 20, 1992, TROM) is a new northern limit for this species in Norway. Sveum (1983) reported it for the first time from Norway, and all three known collections were from southeastern Norway. Ryman & Holmåsén (1984) consider *Ramariopsis crocea* as rare.

6. Boletales

Leccinum pulchrum Lannoy et Estadès

This taxon seems to be the most common species in the *Leccinum scabrum*-group in Fennoscandia, and is also found in Denmark (M. Korhonen in litt. 1994). Mauri Korhonen (l.c.) has recently studied the holotype of *L. pulchrum*, and there seems to be no doubt that this taxon is a distinctive species. *Leccinum pulchrum* was found abundantly in 4 different localities during the congress, and all these collections are deposited in H. See also the recent *Leccinum* monography (Lannoy & Estadès 1994).

Leccinum roseotinctum Watling

Mauri Korhonen (in litt. 1994) considers this species to be common in Fennoscandia, but both Ryman & Holmåsen (1984), and Hansen & Knudsen (1992) consider it as rare. Some collections of this species were determined as *Leccinum percandidum* (Vassilkov) Watling during the congress, and *L. roseotinctum* is actually treated as a synonym of *L. percandidum* by Hansen & Knudsen (1992). However, Korhonen emphasizes (l.c.) that *L. roseotinctum* is not a synonym of *L. percandidum*, and that the latter is a species which he has never seen. In this particular case we have followed Korhonen, and therefore include only *L. roseotinctum* in the list of species.

7. Agaricales

Amanita groenlandica Bas ex Knudsen & T. Borgen

The species is new for Norway (Guolasjavri, Aug. 18, 1992, TROM, C), and this is the first time it is definitely recorded outside Greenland. However, one find of this species was made in Siberia (Russia) by H. Knudsen, but unfortunately the helicopter blew it away (H. Knudsen in litt. 1994)!

Amanita groenlandica is the most common *Amanita* in Greenland, and one of the most common and spectacular Greenland macrofungi. It is closely related to *A. submembranacea* (Bon) Gröger (Knudsen & Borgen 1987).

Baeospora myriadophylla (Peck) Singer

The species is not previously recorded in Norway, and apparently rare in the whole of Fennoscandia. In the Nordic countries, it is reported earlier only from Kuusamo and Pelkosenniemi in northern Finland (Hansen & Knudsen 1992). The particular find of *Baeospora myriadophylla* from Helligskogen (Aug. 17, 1992) is deposited in OULU.

Cortinarius rubicundulus (Rea) Pears.

The find from Lullesletta (Aug. 19, 1992, TROM) is a new northern limit for this species both in Norway and in Fennoscandia (Hansen & Knudsen 1992). Its earlier northern limit in Norway was Nord-Trøndelag.

Cortinarius subargentatus Orton

Three specimens were collected in Helligskogen (Aug. 17, 1992) by Birgitta Gahne, and photographed by one of us (AG). It was much like a very pale *C. alбовiolaceus*. It had serrulate, pale gill edges and a pale stem; spores 9-10 x 7 micron. The name is apparently not

well-known, and the taxon may hide under another name, for instance *C. niveoglobosus*, or may have been reduced to a synonym of *C. alboviolaceus*.

Crepidotus lundellii Pilát

The species was found in Kåfjorddalen (Aug. 18, 1992, TROM) and Paras (Aug. 20, 1992, TROM), and named *Crepidotus inhonestus* P. Karst. at the congress. Hansen & Knudsen (1992) treat *C. lundellii* as a synonym of *C. inhonestus*. However, Senn-Irlet (1993) has examined the type material of *C. inhonestus* and found that it did not represent the same taxon as the present species. Therefore, the correct name of the taxon found at the congress is *C. lundellii* - as earlier (S. Sivertsen in litt. 1994).

Entoloma subarcticum Noordel.

This is similar to *Entoloma sericeum* but is much stouter (cap 8-10cm diam., stipe with swollen base, 10-12 x 1-1.8cm; flesh with a curious, acrid milk-like smell). The three records from Storfjord and Kåfjord are the first from North Norway. It has previously been found at Finse, Hordaland, in southern Norway (ca. 1200m alt.), and in Greenland. *Salix-Betula* thicket is a common habitat.

Laccaria pumila Fayod

Mueller & Vellinga (1986) proposed *Laccaria altaica* Singer as a synonym of the earlier *L. pumila* Fayod. This seems to have been accepted by later authors, e.g. Gulden & Jenssen (1988) and Hansen & Knudsen (1992), but recently Sivertsen (1993) showed that *L. pumila* s. lato could be divided into two spore types, *L. altaica* s. str. and *L. pumila* s. str. He considered his investigation as a preliminary study, and pointed out that these two taxa should be studied closely in fresh condition "in order to elucidate other possible characters that can be used" (Sivertsen 1993: 334). In any case, both taxa occur in arctic-alpine areas. *Laccaria pumila* seems to be rare, at least in Norway, while *L. altaica* is widely distributed. They have so far not been confronted in culture.

The finds from Helligskogen (Aug. 17, 1992, TRH) and Lullesletta (Aug. 19, 1992, TROM) were both named *Laccaria pumila* at the congress. However, the material from Helligskogen has recently been re-examined and determined to *L. altaica* (S. Sivertsen in litt. 1994). The material from Lullesletta must therefore also be re-examined, particularly since *L. pumila* s. str. is known from Alta (Finnmark).

Mycena pelianthina (Fr.) Quél.

The finds of this species from Paras (Aug. 20, 1992, all TROM) are reported by Bendiksen & Bendiksen (1993), and its curious bicentric distribution in the nordic countries is discussed. Lange (1991) considers *Mycena pelianthina* as very rare in Norway, and it is included in the red list as vulnerable (Bendiksen & Høiland 1992).

Rickenella setipes (Fr. : Fr.) Raithelh.

It seems, according to S. Sivertsen (in litt. 1994), that more and more mycologists gradually accept *Rickenella swartzii* (Fr. : Fr.) Kuyper to be the correct name for this taxon. Hansen & Knudsen (1992) name this taxon *Omphalina setipes* (Fr. : Fr.) Quél., and list *Mycena swartzii* (Fr.) A.H. Sm. as a synonym.

Tricholoma sulphurescens Bres.

The find from Lullesletta (Aug. 19, 1992, H) is reported by Bendiksen & Bendiksen (1993), and represents the first record of this species from Norway. It was later (September 1992) found in Telemark in South Norway. Bendiksen & Bendiksen (1993) consider *Tricholoma sulphurescens* as very rare in the whole of Fennoscandia.

Psathyrella multipedata (Peck) A.H. Sm.

The species is new for Norway (Lullesletta, Aug. 19, 1992, H). It is also found in Finland, but its frequency and distribution is unknown. Hansen & Knudsen (1992) report it as rare in Sweden, and accidental in Denmark. According to I. Kytövuori (in litt. 1994), the taxonomical position of *Psathyrella multipedata* is uncertain.

8. Russulales

Lactarius flavidus Boud.

The species was found at two localities during the congress. The taxonomical position of this taxon is, according to I. Kytövuori (in litt. 1994), uncertain.

Lactarius lanceolatus Miller & Laursen

The find of the species from Guolasjavri (Aug. 18, 1992, O) represents the first record of *Lactarius lanceolatus* from mainland Norway. In Europe, it was earlier only known from Svalbard (Gulden 1988). It also occurs in Alaska, and seems to be rather common in Arctic Canada (Ohenoja & Ohenoja 1993).

Lactarius lanceolatus is calcicolous, and probably forms mycorrhiza with *Salix polaris* (Gulden 1988). The species is pictured, illustrated, and described in detail by Gulden & Jenssen (1988).

Lactarius subcircellatus Kühn

The species resembles *Lactarius trivialis*, but has intense ochre-orange gills. It was also found at Tromsø in late August 1992, but no material exists, just a photo. Lange (1991) considers it as rare in Norway, earlier found north to Sør-Trøndelag.

Lactarius subtorminosus Knudsen & T. Borgen

The find from Paras (Aug. 20, 1992, C) is chosen as the holotype for *Lactarius subtorminosus*, which is described as a new species in a paper dedicated to Meinhard Moser's seventieth birthday (Knudsen & Borgen 1994). The name *L. subtorminosus* has turned out to be a homonym (Knudsen in litt. 1995). The correct name will be *L. torminosulus* Knudsen & Borgen (in press).

The species resembles a minor *Lactarius torminosus* (Schaeff. : Fr.) Gray. Although the two species are very similar, they are easily distinguished. The authors of the taxon point out that it may also be considered a subspecies of *L. torminosus*. However, they have known this taxon for many years, and collected it in a number of arctic and subarctic areas. It is earlier found in Greenland, Iceland, Norway, Sweden and Russia (Siberia), but all the records from mainland Europe and Siberia are north of the Arctic Circle (Knudsen & Borgen 1994).

9. Gasteromycetes

Geastrum pectinatum Pers.

The find from Lullesletta (Aug. 19, 1992, TROM, M.J.) is reported by Bohlin (1993), and is also mentioned by Bendiksen & Bendiksen (1993). This is the northernmost find of this species in Fennoscandia (Bohlin 1993). In Finland and Sweden it has not been found north of the Arctic Circle, while the previously northernmost localities in Norway were in Skjerstad and Saltdal in Nordland county, both north of the Arctic Circle (Engengård 1971, Sunhede 1989). Lange (1991) considers *Geastrum pectinatum* as rare in Norway, which is certainly correct.

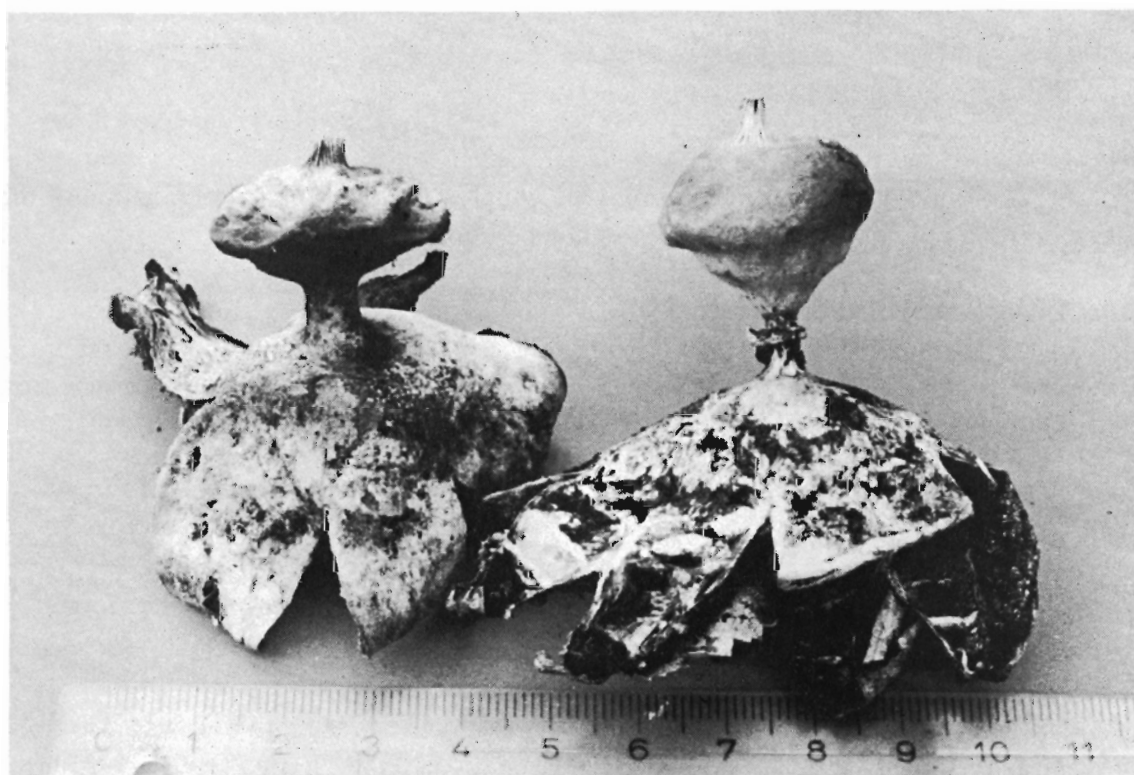


Fig. 21. *Geastrum pectinatum* from Lullesletta. K. Bohlin leg. AG /8 92.

Geastrum minimum Schwein.

The find from Kåfjorddalen is the second in North Norway. It was earlier found at Masi in Finnmark, 1983 (Høiland & Sarre 1983). Three other sites of the species are known in Fennoscandia north of the Arctic Circle: Kvikkjokk, Abisko, Kilpisjärvi (Sunhede 1989).

Thus, so far three species of *Geastrum* are known from North Norway. *Geastrum fimbriatum* Fr. was found in Junkerdal in Saltdal as early as 1824 (Eckblad 1955).

Mycocalia denudata (Fr.) J.T. Palmer

The find from Helligskogen (Aug. 17, 1992, M.J.) on a rotting birch twig is new northern limit for this species in Norway. *Mycocalia denudata* must be considered as rare in Scandinavia. Only two previous records are known from Norway (Akershus and Vest-Agder in South Norway). One record is known from Denmark, and four records are known from Sweden (Jeppson 1985). The northern limit in Sweden is Sävar in Västerbotten (Jeppson 1985).

In Great Britain, *Mycocalia denudata* is rather common, and it seems to have a wide distribution in central Europe (Jeppson 1985).

B. LIST OF SPECIES

The species are listed below in 10 tables (Tabs 2-11). The symbols used in these tables are as follows:

- x = Species found in the main localities during the congress
- ♠ = Species found in the main localities before the congress
- ☐ = Species found near Skibotn Kurssenter, Storfjord, during the congress
- * = Species found in Skibotndalen, Storfjord, Aug. 15, 1992
- ** = Species found in Birtavarre, Kåfjord, Aug. 18, 1992
- *** = Species found at Nordnes, Kåfjord, Aug. 20, 1992.

Species marked with these legends are all kept as herbarium material at Tromsø Museum (TROM).

- + = Identified species, collected or observed, but not presented in the exhibition hall, or preserved in any herbarium.

Tab. 2. The Myxomycetes.

DATE (1992) LOC. NO. LOCALITY	Aug. 17. 1 Hellig- skogen	Aug. 18. 2 Ankerlia/ Kåfjord- dalen	Aug. 18. 3 Guolas- javri	Aug. 19. 4 Lullesletta	Aug. 20. 5 Signal- nes	Aug. 20. 6 Rognli/ Paras	Aug. 21. 7 Apaja/ Furu- moan
MYXOMYCETES							
<i>Arcyodes incarnata</i>				x			
<i>Arcyria cinerea</i>	x	x					
<i>Arcyria denudata</i>				x			
<i>Arcyria incarnata</i>	x	x		x		x	
<i>Arcyria obvelata</i>	x	x					
<i>Arcyria oerstedtii</i>	x						
<i>Arcyria pomiformis</i>						x	
<i>Badhamia utricularis</i>		x					
<i>Ceratiomyxa fruticulosa</i>		x		x		x	
<i>Comatricha nigra</i>	x	x					
<i>Comatricha pulchella</i>	x			x			
<i>Craterium leucocephalum</i>	x			x			
<i>Cribraria argillacea</i>				x			
<i>Cribraria oregana</i>				x			
<i>Dictydium cancellatum</i>				x			
<i>Diderma globosum</i>				x			
<i>Diderma radiatum</i>	S					x	
<i>Didymium clavus</i>				x			
<i>Didymium minus</i>						x	
<i>Didymium squamulosum</i>	x			x			
<i>Enerthenema papillatum</i>	x						
<i>Enteridium splendens</i> var. <i>jurana</i>				x		x	
<i>Fuligo muscorum</i>						x	
<i>Fuligo septica</i>	x			x, OULU		x	
<i>Lamproderma</i> cf. <i>columbinum</i>						x	
<i>Lamproderma sauteri</i>	x						
<i>Lamproderma scintillans</i>				x		x	
<i>Leocarpus fragilis</i>				x			
<i>Licea</i> aff. <i>testudinacea</i>	x						
<i>Lycogala epidendrum</i>	x	x		x, OULU			
<i>Lycogala</i> cf. <i>exiguum</i>	x						
<i>Mucilago crustacea</i>		x					
<i>Physarum cinereum</i>	x						

Physarum contextum				x			
Physarum leucophaeum	x	x		x		x	
Physarum nutans	x	x		x			
Stemonitis axifera	x			x			
Stemonitis fusca	x			x	x		
Stemonitis pallida						x	
Stemonitopsis typhina	x			x			
Symphytocarpus flaccidus		x					
Trichia alpina	x						
Trichia decipiens				x		x	
Trichia favoginea	x			x			
Trichia lutescens						x	
Trichia varia	x	x					
Tubifera ferruginosa				x		x	

Tab. 3. The Zygomycotina and Deuteromycotina.

DATE (1992) LOC. NO. LOCALITY	Aug. 17. 1 Hellig- skogen	Aug. 18. 2 Ankerlia/ Kåfjord- dalen	Aug. 18. 3 Guolas- javri	Aug. 19. 4 Lullesletta	Aug. 20. 5 Signal- nes	Aug. 20. 6 Rognli/ Paras	Aug. 21. 7 Apaja/ Furu- moan
ZYGOMYCOTINA							
Spinellus fusiger		x				+	
DEUTEROMYCOTINA							
Bostrichonema polygoni		S					
Bothrodiscus pinicola					x		
Botrytis cinerea			O				
Cladobotryum sp.	S						
Cytospora pinastri □							
Cytospora sp.					S		
Illosporium carneum	S						
Melanconium cf. betulinum	x						
Melanconium sphaeroideum				S			
Sepedonium chrysospermum				x	x	x	
Sporidesmium folliculatum				S			
Taeniolella sp.	S						
Taeniolella sp.	S						
Trichoderma viride	S						
Trimmatostroma betulinum	x			S			

Tab. 4. The Ascomycotina.

DATE (1992) LOC. NO. LOCALITY	Aug. 17. 1 Hellig- skogen	Aug. 18. 2 Ankerlia/ Kåfjord- dalen	Aug. 18. 3 Guolas- javri	Aug. 19. 4 Lullesletta	Aug. 20. 5 Signal- nes	Aug. 20. 6 Rognli/ Paras	Aug. 21. 7 Apaja/ Furu- moan
ASCOMYCOTINA							
<i>Amphisphaerella erikssonii</i>		x					
<i>Ascobolus carbonarius</i>	x			x			
<i>Ascocalyx abietina</i> (anamorph)					x		
<i>Ascocoryne cylichnium</i>	x						
<i>Ascocoryne sarcoides</i>	x			O			
<i>Atopospora betulina</i>			O				
<i>Bertia moriformis</i>		x					
<i>Biscogniauxia repanda</i>		x					
<i>Bisporella citrina</i>		x		+			
<i>Bryoglossum gracile</i>			x,O,UPS				
<i>Bryoglossum rehmi</i>	OULU						
<i>Camarops microspora</i>		x, S, TRH		x,O,S ,OULU			
<i>Capronia collapsa</i>		x					
<i>Cenangium ferruginosum</i>	x	x					
<i>Cheilymenia fimicola</i>					x		
<i>Cheilymenia theleboides</i>				TRH			
<i>Chlorociboria aeruginascens</i>				x, O		x, S	
<i>Colpoma juniperi</i>	O			O		O	
<i>Creopus gelatinosus</i>		S					
<i>Crocicreas coronatum</i>						x	
<i>Cryptosphaeria subcutanea</i>		x					
<i>Cudonia circinans</i>				+			
<i>Cudoniella clavus</i>		x					
<i>Dactylospora stygia</i> ***, in TRH							
<i>Daldinia concentrica</i>		x		x		+	
<i>Diatrype stigma</i>		x					
<i>Diatrypella favacea</i>		x					
<i>Duplicaria empetri</i>	x		O				
<i>Encoelia furfuracea</i>				O			
<i>Endoxyla operculata</i>	S						
<i>Eutypa flavovirens</i>				x, S			
<i>Eutypella sorbi</i>		x					
<i>Fenestella media</i>	x						

Geoglossum arenarium □, & H						♠, x
Geoglossum fallax					x, LD	
Geoglossum starbaeckii		x		x		
Geoglossum umbratile	x					
Geopora nicaensis				x		
Geopora sp.	TRH					
Helvella atra					x	
Helvella corium *						
Helvella elastica				H		
Helvella hyperborea *, in H						
Helvella lacunosa					x	x
Helvella macropus		x		P.H., H		
Helvella queletii				x		
Helvella rivularis				P.H., TRH		
Herpotrichia juniperi (nigra)	x, S, OULU	+			+	
Heyderia abietis				x		
Hyaloscypha aureliella					x	
Hymenoscyphus conscriptum	x					
Hymenoscyphus rhodoleucus			x			
Hymenoscyphus scutula	S					
Hymenoscyphus sp.		x				
Hymenoscyphus sp.	S					
Hymenoscyphus sp.					S	
Hypocrea pulvinata		x			x	
Hypocrea rufa	x	TRH		O	O	
Hypodermella sulcigena					x	
Hypoxyton macrosporum	x, S			O		
Hypoxyton multifforme	x	x		O		
Hysterographium cf. mori	x, TRH					
Inermisia aggregata				TRH		
Iodophanus carneus		x, S				
Lachnum bicolor	S				x	
Lachnum rubi				x, S		
Lachnum virgineum		S				
Lachnum polytrichi						♠
Lamprospora crouanii					x	
Lamprospora cf. rugensis	TRH					
Lasiosphaeria sp.				x		
Leucoscypha leucotricha				O		

<i>Lirula macrospora</i>		x			x		
<i>Lophiostoma compressum</i>	x						
<i>Lophiostoma curtum</i>	x	x					
<i>Lophiostoma quadrinucleatum</i>	x						
<i>Lophiotrema nucula</i>		x					
<i>Lophodermium aucupariae</i>				O			
<i>Lophodermium pinastri</i> s.str.	O	x					
<i>Melanomma pulvis-pyrius</i>	x						
<i>Mollisia</i> sp.		S					
<i>Mollisia</i> sp.	S						
<i>Monilinia cassiopes</i>			O				
<i>Monilinia</i> sp.			O		O		
<i>Monilinia urnula</i>	O				O		
<i>Myriosclerotinia curreyana</i>	O						
<i>Nemania mammata</i>	x	x					
<i>Nemania serpens</i>				x, S			
<i>Neottiella rutilans</i>	x			x			
<i>Neottiella vivida</i>	x						♣
<i>Octospora humosa</i>	x, S						
<i>Octospora rubens</i>							♣
<i>Octospora</i> sp.	TRH						
<i>Ombrophila violacea</i>	x					S	
<i>Orbilina</i> cf. <i>auricolor</i>		S					
<i>Otidea caligata</i>				TRH, OULU			
<i>Otidea</i> cf. <i>cochleata</i>	O						
<i>Patinellaria sanguinea</i>				TRH			
<i>Perrotia flammea</i>				x, S			♣
<i>Peziza alaskana</i>	x, TRH						
<i>Peziza alcidis</i>				x, TRH, O, S		x, O	
<i>Peziza ampliata</i>				P.H.			
<i>Peziza badia</i> □	x, S					x	
<i>Peziza badioconfusa</i>				x, S		x	
<i>Peziza echinospora</i>	x						
<i>Peziza micropus</i> ***				TRH			
<i>Peziza praetervisa</i>	x						
<i>Peziza repanda</i> cf. □							
<i>Peziza</i> sp.	TRH	x					
<i>Peziza</i> sp. (<i>praetervisa</i> group)						TRH	
<i>Peziza violacea</i>				x, P.H.			

<i>Pezizella</i> cf. <i>discreta</i>	x, S						
<i>Phaeohelotium</i> sp.		x					
<i>Poculum</i> <i>firmum</i>	O						
<i>Polystigma</i> <i>fulvum</i>				x			
<i>Pulvinula</i> <i>convexella</i> cf.				♠			
<i>Rhizina</i> <i>undulata</i>							♠
<i>Rhodoscypha</i> <i>ovilla</i>				TRH			
<i>Rhytisma</i> <i>salicinum</i>	x			+, O, S		O	
<i>Rutstroemia</i> <i>bolaris</i>						S	
<i>Sarcoleotia</i> <i>globosa</i>	x						
<i>Sarcosphaera</i> <i>coronaria</i>				x			
<i>Schizothecium</i> <i>conicum</i>		S					
<i>Sclerotinia</i> <i>pirolae</i>				O			
<i>Scutellinia</i> <i>crinita</i>				x, P.H.		P.H.	
<i>Scutellinia</i> <i>kerguelensis</i>	x, TRH						
<i>Scutellinia</i> <i>minor</i>				P.H.			
<i>Scutellinia</i> <i>scutellata</i>		x, S		x		x, S	
<i>Scutellinia</i> sp.						x	
<i>Sordaria</i> <i>superba</i>	S						
<i>Spathularia</i> <i>flava</i>						H	
<i>Sphaerosporella</i> <i>brunnea</i>	x						
<i>Tarzetta</i> cf. <i>cupularis</i>		O					
<i>Thelebolus</i> <i>crustaceus</i> □ in S							
<i>Trichophaea</i> <i>gregaria</i>						O	
<i>Trichophaea</i> <i>hemisphaerioides</i>	x						
<i>Valsa</i> <i>ambiens</i>				x, S			
<i>Valsella</i> <i>salicis</i>				x, S			
<i>Vibrissea</i> <i>leptospora</i>		x					
<i>Vibrissea</i> <i>truncorum</i>		x, S					
<i>Xylaria</i> <i>filiformis</i>				x		x	

Tab. 5. The Uredinales and Ustilaginales.

DATE (1992) LOC. NO. LOCALITY	Aug. 17. 1 Hellig- skogen	Aug. 18. 2 Ankerlia/ Kåfjord- dalen	Aug. 18. 3 Guolas- javri	Aug. 19. 4 Lullesletta	Aug. 20. 5 Signal- nes	Aug. 20. 6 Rognli/ Paras	Aug. 21. 7 Apaja/ Furu- moan
UREDINALES							
<i>Gymnosporangium cornutum</i>				x, S			
<i>Melampsorium cf. betulinum</i>		x					
<i>Phragmidium rubi-idaei</i>				x, S			
<i>Puccinia arenariae</i>		x, S					
<i>Puccinia dioicae</i>					S		
<i>Puccinia vaginatae</i>				S			
<i>Thecopsora padi</i>		x					
<i>Uromyces geranii</i>					S		
USTILAGINALES							
<i>Anthracoidea buxbaumii</i>	H						
<i>Anthracoidea heterospora</i>							H
<i>Anthracoidea karii</i>	H						
<i>Anthracoidea paniceae</i>					H		

Tab. 6. The Dacrymycetales, Tremellales and Exobasidiales.

DATE (1992) LOC. NO. LOCALITY	Aug. 17. 1 Hellig- skogen	Aug. 18. 2 Ankerlia/ Kåfjord- dalen	Aug. 18. 3 Guolas- javri	Aug. 19. 4 Lullesletta	Aug. 20. 5 Signal- nes	Aug. 20. 6 Rognli/ Paras	Aug. 21. 7 Apaja/ Furu- moan
DACRYMYCETALES							
<i>Calocera cornea</i>	x			x		x, O	
<i>Dacrymyces lacrymalis</i>	O					O	
<i>Dacryonaema rufum</i>				O			
TREMELLALES							
<i>Exidia glandulosa</i>	O			x, O		O	
<i>Exidia repanda</i>					O	x, O, S	
<i>Tremella foliacea</i>		x					
<i>Tremella juniperina</i>	O					O	
<i>Tremella mesenterica</i>		x				x, S	
<i>Myxarium grilletii</i>				O			
EXOBASIDIALES							
<i>Exobasidium aequale</i>	S						
<i>Exobasidium cassiopes</i>		O					
<i>Exobasidium hypogenum</i>			O				
<i>Exobasidium splendidum</i> □	O	x, S	x, O	O	x, S	O	
<i>Exobasidium vaccinii</i>	O			x, O			

Tab. 7. The Aphyllophorales.

DATE (1992) LOC. NO. LOCALITY	Aug. 17. 1 Hellig- skogen	Aug. 18. 2 Ankerlia/ Kåfjord-dalen	Aug. 18. 3 Guolas- javri	Aug. 19. 4 Lullesletta	Aug. 20. 5 Signal- nes	Aug. 20. 6 Rognli/ Paras	Aug. 21. 7 Apaja/ Furu- moan
APHYLLOPHORALES							
Amphinema byssoides				x			
Athelia epiphylla				x			
Bankera fuligineo-alba *							♣
Basidioradulum radula		x					
Bjerkandera adusta ***							
Botryobasidium botryosum	S					x	
Botryohypochnus isabellinus		x, TRH		x			
Ceraceomerulius serpens						x	
Ceriporia purpurea		x		x			
Ceriporia reticulata		x					
Ceriporia viridans				x			
Cerrena unicolor	x, B.H.	x		x	x		
Chondrostereum purpureum	x				x		
Clavaria kriegsteineri						TRH	
Clavaria argillacea (□ in H)	x						+
Clavulina cinerea	x, O					H	
Clavulina cristata						+	
Clavulinopsis fusiformis						♣	
Clavulinopsis helveola				x			
Clavulinopsis pulchra	x						
Clavulinopsis sp.						O	
Coltricia perennis □	x				x	x	♣
Coniophora puteana		x		x, S			
Cytidia salicina	x			x, O		x, O, S	
Datronia mollis		x		x		x	
Datronia stereoides		x, S				S	
Dichomitus campestris		x		x			
Fibulomyces septentrionalis						x	
Fomes fomentarius	+			♣, +			
Gloeocystidiellum luridum				x		x	
Gloeoporus dichrous					O	x	
Hydnum repandum *				x			
Hymenochaete cinnamomea						x	

Hymenochaete tabacina		x					
Hyphoderma praetermissum						x	
Hyphoderma radula		x					
Hyphodontia subalutacea				x	x		
Hypochnicium bombycinum						x	
Hypochnicium eichleri						x	
Hypochnicium punctulatum		x					
Inonotus obliquus	x				O	+	
Junghuhnia nitida				x		x, S	
Laeticorticium roseum				x			
Lentinellus omphalodes	x, H			H		♠, H	
Lentinellus cf. vulpinus				H			
Leucogyrophana romellii	x						
Macrotyphula fistulosa		x, H		x		x	
Merulius tremellosus	x			x		x, O	
Mucronella calva	C						
Oligoporus subcaesius		x		x			
Oxyporus populinus				x			
Peniophora incarnata	x	x		x			
Phanerochaete laevis						x	
Phanerochaete sanguinea				O	x		
Phanerochaete sordida		S					
Phellinus igniarius		x		+		x	
Phellinus igniarius var. trivialis				+			
Phellinus lundellii	x	x					
Phellinus tremulae				x			
Phellinus viticola				x			
Phlebia albida						x	
Phlebia radiata	x	x					
Piptoporus betulinus				x		x	
Pleurotus pulmonarius	H			+			
Plicatura nivea	C	x		x			+
Plicaturopsis crispa	C						
Polyporus brumalis	x			+		x	
Polyporus ciliatus						x	
Polyporus melanopus		x					
Polyporus squamosus						x	
Polyporus tuberaster				x, O		x, O	
Polyporus varius	x	x		x		x	

<i>Pterula multifida</i>				J.P.			
<i>Pycnoporus cinnabarinus</i>		x				x	
<i>Radulomyces confluens</i>	x						
<i>Ramaria myceliosa</i>		C, TRH		x			
<i>Ramaria</i> sp.		H					
<i>Ramariopsis crocea</i>						x	
<i>Scopuloides hydroides</i>		S				x	
<i>Scytinostroma portentosum</i>				C, TRH		x	
<i>Sistotrema brinkmannii</i>		S					
<i>Steccherinum fimbriatum</i>				O			
<i>Steccherinum ochraceum</i>				x			
<i>Stereum hirsutum</i>				+		x	♣
<i>Stereum rugosum</i>	x	x					
<i>Stereum subtomentosum</i>				x, O, S			
<i>Stromatoscypha fimbriata</i>				C			
<i>Subulicystidium longisporum</i>						x	
<i>Thelephora caryophyllea</i>	x			x, UPS	H	x	
<i>Thelephora terrestris</i> □				+		x	
<i>Tomentella</i> cf. <i>badia</i>				x			
<i>Tomentella crinalis</i>				C, TRH			
<i>Tomentella</i> sp.	x						
<i>Trametes hirsuta</i>	x	x					
<i>Trametes zonatella</i>	+	x					
<i>Trechispora amianthina</i>				x			
<i>Trechispora farinacea</i>		TRH				x	
<i>Trichaptum abietinum</i>	x						
<i>Tubulicrinis gracillimus</i>						x	
<i>Typhula erythropus</i>						x	
<i>Typhula uncialis</i>						x, S	
<i>Tyromyces chioneus</i>		x		x		x	
<i>Vuilleminia comedens</i>				x, O			
<i>Woldmaria crocea</i>				x		x	

Tab. 8. The Boletales.

DATE (1992) LOC. NO. LOCALITY	Aug. 17. 1 Hellig- skogen	Aug. 18. 2 Ankerlia/ Kåfjord- dalen	Aug. 18. 3 Guolas- javri	Aug. 19. 4 Lullesletta	Aug. 20. 5 Signal- nes	Aug. 20. 6 Rognli/ Paras	Aug. 21. 7 Apaja/ Furu- moan
BOLETALES							
<i>Boletus edulis</i>		♣					
<i>Boletus lanatus</i>					H	H	
<i>Boletus pinophilus</i>							H
<i>Boletus</i> sp.				x			
<i>Boletus subtomentosus</i>	x	x		+	x	x	
<i>Chalciporus piperatus</i>	x	x		x			
<i>Chroogomphus rutilus</i>				x	+	x	♣, +
<i>Gomphidius glutinosus</i>				x			
<i>Gomphidius roseus</i>							♣
<i>Hygrophoropsis aurantiaca</i> □							
<i>Leccinum "trivialis"</i>				x		x	
<i>Leccinum "vulgaris"</i>			UPS	x			
<i>Leccinum pulchrum</i>	H	H		H		H	
<i>Leccinum roseotinctum</i>	x, C, H	H		C, H	+		
<i>Leccinum rotundifoliae</i>		x	x				
<i>Leccinum scabrum</i> (var. alba)		x					
<i>Leccinum scabrum</i> coll.				+	+	+	+
<i>Leccinum</i> sp.	x	H		x			
<i>Leccinum</i> sp. ined. Knudsen	x						
<i>Leccinum variicolor</i>	x	H		x	+	x	
<i>Leccinum versipelle</i>	x			+	+	+	+
<i>Paxillus filamentosus</i>		x, TRH, H		O			
<i>Paxillus involutus</i>	x			+			
<i>Suillus bovinus</i>							♣, +
<i>Suillus flavidus</i> (□ in H)				x	H		+
<i>Suillus granulatus</i>				+			
<i>Suillus luteus</i> □				+	+		+
<i>Suillus variegatus</i>	x			x	+		+

Tab. 9. The Agaricales.

DATE (1992) LOC. NO. LOCALITY	Aug. 17. 1 Hellig- skogen	Aug. 18. 2 Ankerlia/ Kåfjord- dalen	Aug. 18. 3 Guolas- javri	Aug. 19. 4 Lullesletta	Aug. 20. 5 Signal- nes	Aug. 20. 6 Rognli/ Paras	Aug. 21. 7 Apaja/ Furu- moan
AGARICALES							
<i>Agaricus arvensis</i> coll.	x						
<i>Agaricus</i> cf. <i>macrosporus</i>	x						
<i>Agaricus semotus</i>		x				x	
<i>Agaricus sylvaticus</i>		x					
<i>Amanita battarrae</i>	x			x			
<i>Amanita fulva</i>	x, H			x	x		
<i>Amanita groenlandica</i>			x				
<i>Amanita muscaria</i>	x	H		+			
<i>Amanita</i> sp.		H			x	H	
<i>Amanita submembranacea</i>	x, L				x		
<i>Amanita vaginata</i>	x						
<i>Amanita</i> vag. var. <i>flavescens</i>	x						
<i>Armillaria borealis</i>	x	x		x			
<i>Armillaria mellea</i> s. lato				x			
<i>Armillaria</i> sp.	x						
<i>Arrhenia auriscalpium</i>	x		x				
<i>Arrhenia lobata</i> (□ in H)		♠				H	
<i>Baeospora myriadophylla</i>	OULU						
<i>Bolbitius titubans</i> (□ in H)							
<i>Calocybe carnea</i>		H					
<i>Calocybe fallax</i>				x			
<i>Camarophyllus virgineus</i>				x			
<i>Camarophyllus</i> cf. <i>virgineus</i>		x					
<i>Clitocybe</i> "geotropa-group"		H					
<i>Clitocybe candicans</i>	x	x					
<i>Clitocybe cerussata</i>				♠			
<i>Clitocybe clavipes</i>	x	x		x	x	+	+
<i>Clitocybe fragrans</i>	x						
<i>Clitocybe geotropa</i>				x		+	
<i>Clitocybe gibba</i>		x		x		+	
<i>Clitocybe inornata</i>		x, TRH, OULU				H	
<i>Clitocybe lateritia</i>			x				
<i>Clitocybe maxima</i>		x					

<i>Clitocybe nebularis</i>		x					
<i>Clitocybe odora</i>	x	x		x		x	
<i>Clitocybe phyllophila</i>	x	x					
<i>Clitocybe regularis</i>	x						
<i>Clitocybe</i> sp.		H				x	
<i>Clitocybe diatreta</i>					+		
<i>Collybia "alpina"</i>	x		x	+	+		
<i>Collybia asema</i>						+	♣, +
<i>Collybia butyracea</i>				x		+	
<i>Collybia cirrata</i>	x			x	+	x, S	
<i>Collybia confluens</i>				x			+
<i>Collybia cookei</i>						+	
<i>Collybia maculata</i>	x						
<i>Collybia tergina</i>	x					x, H	+
<i>Collybia tuberosa</i>	x	x		+		+	
<i>Conocybe</i> cf. <i>arrhenii</i>						x	
<i>Conocybe blattaria</i>		H					
<i>Conocybe filaris</i>				+			
<i>Conocybe</i> sp. (□ in H)		H		H			
<i>Coprinus "borealis"</i> (Höijer ined.)		TRH					
<i>Coprinus</i> cf. <i>aquatilis</i>	x						
<i>Coprinus atramentarius</i>		x		x		x	
<i>Coprinus domesticus</i>		x		x			
<i>Coprinus lagopides</i> (□ in H)	DUKE			x, P.H.			
<i>Coprinus plicatilis</i>		x, P.H.					
<i>Coprinus pseudoradiatus</i>				DUKE			
<i>Coprinus</i> sp.				H			
<i>Coprinus stercoreus</i>				x, TRH, P.H.			
<i>Cortinarius alboviolaceus</i>	x, O			x	x	x, H	+
<i>Cortinarius</i> cf. <i>alnetorum</i>						+	
<i>Cortinarius anomalus</i>	x, H			x	x	+	
<i>Cortinarius armillatus</i>	x			x	x	+	
<i>Cortinarius balaustinus</i>	x, UPS						
<i>Cortinarius betuletorum</i>				+		x	
<i>Cortinarius betulinus</i>	+			x	+	x	
<i>Cortinarius bibulus</i>				x			
<i>Cortinarius biformis</i>				x	x	O, OULU	
<i>Cortinarius bivelus</i>	x, OULU	OULU, H		x		x, OULU	+
<i>Cortinarius brunneus</i>	x			x		+	

Cortinarius callisteus				x			
Cortinarius calopus				x	x	+	
Cortinarius camphoratus				x			
Cortinarius cinnamomeus	O			x	x	x	
Cortinarius collinitus	+			H			
Cortinarius croceus *	x, H		x	x	+	x	+
Cortinarius delibutus	x			x	x	x	
Cortinarius cf. emunctus	O						
Cortinarius favrei		x	x				
Cortinarius fennoscandicus	x, H, OULU			x	H	x, H	
Cortinarius fervidus				x			
Cortinarius fulvescens				x			
Cortinarius fuscoperonatus	O			x			
Cortinarius helobius				O		H	
Cortinarius cf. helvelloides						+	
Cortinarius hemitrichus	x			+		x	+
Cortinarius infractus				OULU, H			
Cortinarius laniger				x, H		x	
Cortinarius mucosus □				H			
Cortinarius multiformis □	+			+			
Cortinarius niveoglobosus				O, H			
Cortinarius obtusus	x		x	x		x	
Cortinarius paleaceus	O			x		x	
Cortinarius paragaudis				x			
Cortinarius pholideus	x, H			x	x	x	
Cortinarius pluviorum		TRH		x, O		O	
Cortinarius polaris			x				
Cortinarius porphyropus	x	x, H		x, OULU		x, H	
Cortinarius pusillus			x, O				
Cortinarius raphanoides *	x	x		x		x	
Cortinarius cf. rigens	H						
Cortinarius rubicundulus				x			
Cortinarius saniosus	O						
Cortinarius saturninus						+	
Cortinarius scaurus				x, H	x	x	
Cortinarius semisanguineus				x	x	x	
Cortinarius septentrionalis	x, H, OULU	x, H		x, H	x, H	H	+
Cortinarius sp. (□ in H)				H		x, H	
Cortinarius stillatitius					x		

Cortinarius subargentatus	x						
Cortinarius cf. subbalaustinus				H			
Cortinarius subsertipes				+		+	
Cortinarius subtorvus			x, O				
Cortinarius talus	x		x	x, H	x	H	
Cortinarius cf. tenebricus			x				
Cortinarius tortuosus					x		
Cortinarius trivialis	x, H, OULU	x		x	x	x	
Cortinarius uliginosus	x			x	x	H	
Cortinarius vibratilis					+		
Cortinarius violaceus				x			
Crepidotus lundellii		x				x	
Cystoderma adnatifolium				x			
Cystoderma amianthinum	x	x		+	H		
Cystoderma carcharias	x						
Cystoderma granulosum	x			+		H	
Cystoderma jasonis	x		x	x	+		
Cystoderma terreii *							
Cystolepiota seminuda				x			
Entoloma alpicolum			x				
Entoloma asprellum	x			x			
Entoloma atrosericeum			x				
Entoloma bipelle	x, C						
Entoloma byssisedum				x			
Entoloma caesiocinctum						x	
Entoloma cf. carneogriseum						H	
Entoloma cetratum	OULU						+
Entoloma chalybaeum						x	
Entoloma conferendum	x, H	x		+			
Entoloma cyanulum						x	
Entoloma depluens	x						
Entoloma fernandae *** (in TRH)							
Entoloma formosum		x				x	
Entoloma fuscomarginatum		x					
Entoloma hebes	x						
Entoloma hispidulum						x	
Entoloma incanum				x			
Entoloma jubatum	x						
Entoloma cf. juncinum	OULU						

Entoloma nidorosum	x, H						
Entoloma papillatum	x	x				x	
Entoloma placidum					H	H, L	
Entoloma plebeioides						x	
Entoloma cf. poliopus						H	
Entoloma cf. politum						H	
Entoloma pseudoturci		x					
Entoloma sericatum		+		x		H	
Entoloma sericellum		x		x, ♠		x	
Entoloma sericeum □	x	x				x	x
Entoloma serrulatum		x					
Entoloma sp.	H	H		H		H	♠
Entoloma subarcticum	x, UPS, L		x			x, H	
Entoloma tenellum			OULU				
Entoloma turbidum □							
Entoloma turci		x, H					
Entoloma vinaceum	x						
Fayodia leucophylla						OULU	
Flagelloscypha sp.					S	x	
Flammulaster carpophiloides				+			
Flammulaster limulatooides	x			OULU, C	P.H.		
Flammulina velutipes	x, H	H		x, H	x	x	
Galerina atkinsoniana	x, H	H					
Galerina badipes				O			
Galerina clavata	H			H		H	
Galerina marginata	+	x, H		x, H		x	+
Galerina mniophila						x	
Galerina pseudomycenopsis	H	H					
Galerina sp. (□ in H)		H		H			
Galerina styliifera						+	
Galerina subclavata	H						
Galerina triscopa						H	
Galerina cf. unicolor □, & in H	H	H					
Galerina vittaeformis				H			+
Gymnopilus flavus		x					
Gymnopilus penetrans	x	H		x			
Gymnopilus picreus				+			
Hebeloma alpinum			x				
Hebeloma circinans				x			

Hebeloma crustuliniforme			x	x, H			
Hebeloma longicaudum	x			+		x	x
Hebeloma sp.	x, H	x, H		x, H			
Hemimycena cephalotricha						x	
Hemimycena delectabilis	x						
Hygrocybe ceracea				x			
Hygrocybe citrinopallida	+		x				
Hygrocybe coccinea □							
Hygrocybe conica	x, H	x, H		x		x, H	+
Hygrocybe helobia				x			
Hygrocybe lepida	x						
Hygrocybe persistens **	P.H.			x			
Hygrocybe sp. (□ in H)	H			x, H		H	+
Hygrophorus agathosmus □				x			+
Hygrophorus gliocyclus				x			
Hygrophorus hypothejus		x					
Hypholoma capnoides	x			x	+		
Hypholoma elongatum	H						
Hypholoma myosotis	x, H						
Hypholoma sp. (□ in H)	H						
Hypsizygus ulmarius	H	x					
Inocybe acuta	H						
Inocybe armeniaca	H						
Inocybe boltonii	x			x, H	x	H	
Inocybe bongardii				H			
Inocybe calamistrata	H	x	OULU				
Inocybe castanea	H						
Inocybe cf. dulcamara				H			
Inocybe fastigiata (rimosa)	H		x	H		x	
Inocybe cf. fuscomarginata			x				
Inocybe geophylla		x	O	x		x, C	
Inocybe geophyl. var. lilacina	H			+			
Inocybe grammata		H					
Inocybe lacera	H			H			x, P.H.
Inocybe lanuginosa				H			
Inocybe lanuginosa		x		x			
Inocybe leioccephala		H			TURA, H	H	
Inocybe leptocystis						H	
Inocybe leucoblema				x, UPS, H			

<i>Inocybe malenconii</i>		H					
<i>Inocybe mixtilis</i>				H		x	
<i>Inocybe pyriodora</i>						x	
<i>Inocybe cf. rivularis</i>	H						
<i>Inocybe soluta</i>	H						
<i>Inocybe sp.</i>	H	x, H		x, H	x	H	♠
<i>Inocybe squarrosa</i>				H			
<i>Laccaria altaica</i>	TRH						
<i>Laccaria bicolor</i>				x			♠
<i>Laccaria laccata</i>		x		x		x	
<i>Laccaria proxima</i>	x						
<i>Laccaria pumila</i>				x			
<i>Lepiota clypeolaria</i>		x, H		x	x	♠, H	
<i>Lepiota ventriospora</i>	x	x					
<i>Lepista cf. densifolia</i>						H	
<i>Lepista gilva</i>		x					
<i>Lepista multiforme</i>	x	x	x				
<i>Lepista nuda</i>						x	
<i>Lepista sordida</i>							♠
<i>Limacella guttata</i>		x					
<i>Limacella illinita</i>				x, H			x
<i>Lyophyllum anthracophilum</i>	x						
<i>Lyophyllum connatum</i>		x					
<i>Lyophyllum sp.</i>		H		H	H		
<i>Macrocyttidia cucumis</i>					x		
<i>Macrolepiota rhacodes</i>		x					
<i>Marasmius epiphyllus</i>				OULU		x	
<i>Marasmius siccus</i>	x			x			
<i>Melanoleuca cognata</i>		x		x		H	
<i>Melanoleuca sp.</i>		H				H	
<i>Melanoleuca strictipes</i>		x, H					
<i>Melanophyllum echinatum</i> ***							
<i>Merismodes anomalus</i>	x	x		x			
<i>Mycena arcangeliana</i> ***							
<i>Mycena cinerella</i>			O				
<i>Mycena diosma</i> (seen from ***)							
<i>Mycena epipterygia</i>						x	+
<i>Mycena galericulata</i>	x	x		+		x	
<i>Mycena galopus</i>	+					+	

<i>Mycena haematopus</i>	+	x, H		x		+	
<i>Mycena laevigata</i>				x			
<i>Mycena niveipes</i>		+				x	
<i>Mycena pelianthina</i>						x, H	
<i>Mycena polygramma</i> ***							
<i>Mycena pterigena</i>				x		x,O, UPS	
<i>Mycena pura</i>	+	x	x	x		x	
<i>Mycena renati</i> (luteoalcalina)						+	
<i>Mycena rosea</i>						x,UPS	
<i>Mycena rubromarginata</i>	x						
<i>Mycena</i> sp.	x, H					x, H	
<i>Mycena</i> cf. <i>speirea</i>						+	
<i>Mycena stipata</i> (alcalina)			x	+		+	
<i>Naucoria alnetorum</i>		H					
<i>Naucoria bohémica</i>	H						
<i>Naucoria escharioides</i>		H		H		+	
<i>Naucoria scolecina</i>		+					
<i>Naucoria</i> sp. (□ in H)		H		H			
<i>Naucoria spadicea</i>	x						
<i>Naucoria suavis</i>		x					
<i>Omphaliaster asterosporus</i>	OULU			x			
<i>Omphaliaster borealis</i> □							
<i>Omphalina alpina</i>	x						
<i>Omphalina ericetorum</i>	x, H		x, O	+		+	
<i>Omphalina hudsoniana</i> *							
<i>Omphalina rivulicola</i>			x				
<i>Omphalina rustica</i>	x, H						
<i>Omphalina</i> sp.					x		
<i>Omphalina velutipes</i> coll.			x				
<i>Panaeolus acuminatus</i>		x, H		H			
<i>Panaeolus fimicola</i>		H					
<i>Panaeolus olivaceus</i>		H					
<i>Panellus serotinus</i>	x, H					x	
<i>Phaeolepiota aurea</i>		x					
<i>Pholiota alnicola</i>	x	+					
<i>Pholiota flavida</i>	x	x					
<i>Pholiota highlandensis</i> □							x
<i>Pholiota lubrica</i>	x, H	x		x, H			
<i>Pholiota mutabilis</i>	x	x		x		x	

Pholiota scamba	C						
Pholiota sp.		x					
Pholiota spumosa (& aff.)				x, H	x		
Pluteus atricapillus	x, H	x					
Pluteus cf. granulatus				O			
Pluteus sp.				H			
Psathyrella cf. artemisiae	H						
Psathyrella cf. fulvescens		H					
Psathyrella lacrymabunda		x				H	
Psathyrella microrrhiza		H		H	H		
Psathyrella aff. multipedata				H			
Psathyrella rostellata						+	
Psathyrella sp.	x, H	H		x, H		+	♣
Psathyrella spadicea		x				x	
Pseudobaeospora pillodii						UPS	
Psilocybe inquilina var. crobulus	H	H					
Psilocybe magnivelaris				x, L			
Psilocybe montana (□ in H)	x	x	x				+
Psilocybe cf. phyllogena		H					
Psilocybe cf. physaloides	H						
Psilocybe cf. rhombispora		TRH, H					
Psilocybe sp.		H					
Ramicola centunculus				x			
Ramicola haustellaris				x			
Resupinatus applicatus				x			
Rhodocybe hirneola				x			
Rhodocybe nitellina		x		x, H		x	
Rickenella pseudogrisella	x						
Rickenella setipes	x			+		+	
Ripartites cf. helomorphus				H			
Ripartites metrodii		H					
Ripartites tricholoma	x					x	
Rozites caperatus	x			x	x	x	
Stropharia albonitens				H			
Stropharia coronilla				x			
Stropharia cyanea				x			
Stropharia hornemannii	x, H			x	x	x	
Stropharia inuncta		x				H	
Stropharia pseudocyanea	x	x				x, H	

<i>Stropharia semiglobata</i>	x			x			
<i>Stropharia</i> aff. <i>semiglobata</i>				OULU			
<i>Tricholoma</i> "terreum-group"				H			
<i>Tricholoma albobrunneum</i> (□ H)							x
<i>Tricholoma album</i>		x		x, H		x, H	
<i>Tricholoma</i> cf. <i>auratum</i> (□ in H)							
<i>Tricholoma bufonium</i>				x		H	
<i>Tricholoma flavovirens</i>							♠
<i>Tricholoma fulvum</i>	+	x, H		x, H		x, H	
<i>Tricholoma imbricatum</i>				x			
<i>Tricholoma inamoenum</i>				H			
<i>Tricholoma inodorum</i>				H			
<i>Tricholoma lascivum</i>				x			
<i>Tricholoma robustum</i> □							
<i>Tricholoma saponaceum</i>				x, H			x, ♠
<i>Tricholoma scalpturatum</i>				H		H	
<i>Tricholoma sulphurescens</i>				H			
<i>Tricholoma sulphureum</i>				x			
<i>Tricholomopsis rutilans</i>				x			♠
<i>Tubaria confragosa</i>	x	x			H	x	
<i>Tubaria furfuracea</i>				+		x	
<i>Volvariella</i> sp.						x	
<i>Xeromphalina campanella</i>						x	
<i>Xeromphalina caulicinalis</i>					x		

Tab. 10. The Russulales.

DATE (1992) LOC. NO. LOCALITY	Aug. 17. 1 Hellig- skogen	Aug. 18. 2 Ankerlia/ Kåfjord- dalen	Aug. 18. 3 Guolas- javri	Aug. 19. 4 Lullesletta	Aug. 20. 5 Signal- nes	Aug. 20. 6 Rognli/ Paras	Aug. 21. 7 Apaja/ Furu- moan
RUSSULALES							
Lactarius "arctotorminosus"	J.P.						
Lactarius deterrimus				x			
Lactarius dryadophilus			C				
Lactarius aff. flavidus		H		TRH, H, OULU			
Lactarius flexuosus	H						
Lactarius glyciosmus	x	x		x	H	x, H	+
Lactarius hysginoides	H	H					
Lactarius lanceolatus			x, O				
Lactarius lapponicus	x, H	x, H, OULU		x, OULU		x, H	
Lactarius lilacinus		x					
Lactarius mammosus				x			
Lactarius nanus			x, OULU				
Lactarius necator	x			+			
Lactarius obscuratus	x	x, H		x			
Lactarius pseudouvidus	x		x, O				
Lactarius pubescens	x			x		H	+
Lactarius repraesentaneus	x			x	+	x	
Lactarius rufus □	x			+	OULU		+
Lactarius salicis-reticulatae				H			
Lactarius scoticus	x		x	x			
Lactarius sp.	x						
Lactarius spinosulus		H					
Lactarius subcircellatus	O, H	H		x, H	OULU, H		
Lactarius subtorminosus						C	
Lactarius thejogalus	x			x		x	
Lactarius torminosus	x	x	x	+	+	+	+
Lactarius trivialis	x			x	x	+	+
Lactarius utilis				+		+	
Lactarius uvidus	x	x		x	+	+	
Lactarius vietus	x			x	+	+	
Russula aeruginea	x	x, H		+	x		+
Russula betularum						x	
Russula claroflava	x	x		x, H			
Russula coerulea				x			

<i>Russula consobrina</i>	x			+			
<i>Russula decolorans</i>	H			+	x		
<i>Russula cf. delica</i>	H						
<i>Russula depallens</i>				H	P.H., H		
<i>Russula emetica</i> *	x			+	+	x	
<i>Russula favrei</i>				x			
<i>Russula fragilis</i>	x						
<i>Russula gracillima</i>	P.H., H	H		x, H	H	x, H	+
<i>Russula heterophylla</i>		x		x			
<i>Russula lundellii</i>	x	P.H.		x			
<i>Russula maculata</i> var. bres.	H						
<i>Russula nana</i>	x		x				
<i>Russula nitida</i>	x, H	H					
<i>Russula norvegica</i>	x, S		x				
<i>Russula olivaceoviolascens</i>				UPS			
<i>Russula paludosa</i>				x	+		
<i>Russula puellaris</i>	x			+			
<i>Russula queletii</i>				x			
<i>Russula rhodopoda</i>							+
<i>Russula</i> sp. (□ in H)	x, H	H		x, H	H	H	
<i>Russula sphagnophila</i>	x						
<i>Russula subrubens</i>				O			
<i>Russula cf. subterfucata</i>						H	
<i>Russula tenuiceps</i>		x, P.H.				H	
<i>Russula versicolor</i>	x, H	x		x			x
<i>Russula vinosa</i>				H		H	
<i>Russula</i> "violaceoincarnata"				UPS			
<i>Russula xerampelina</i> coll.		x		x		x	+

Tab. 11. The Gasteromycetes.

DATE (1992) LOC. NO. LOCALITY	Aug. 17. 1 Hellig- skogen	Aug. 18. 2 Ankerlia/ Kåfjord- dalen	Aug. 18. 3 Guolas- javri	Aug. 19. 4 Lullesletta	Aug. 20. 5 Signal- nes	Aug. 20. 6 Rognli/ Paras	Aug. 21. 7 Apaja/ Furu- moan
GASTEROMYCETES							
<i>Bovista plumbea</i>				x, M.J.			
<i>Bovista nigrescens</i>	x	x	x, M.J.	x	x		M.J.
<i>Calvatia exipuliformis</i>		x					
<i>Calvatia turneri</i> aff.			M.J.				
<i>Calvatia utriformis</i>							x, M.J.
<i>Crucibulum laeve</i>							M.J.
<i>Geastrum minimum</i>		x					
<i>Geastrum pectinatum</i>				x, M.J.			
<i>Hymenogaster tener-compl.</i>					M.J.		
<i>Lycoperdon frigidum</i>			M.J.				
<i>Lycoperdon</i> cf. <i>lambinonii</i>	M.J.						
<i>Lycoperdon lividum</i>			x, M.J.				
<i>Lycoperdon molle</i>		x		M.J.			
<i>Lycoperdon nigrescens</i> *	x			x			x
<i>Lycoperdon norvegicum</i>		M.J.					
<i>Lycoperdon perlatum</i>	x	x		x, M.J.			x, M.J.
<i>Lycoperdon pyriforme</i>		x		x, M.J.		+	
<i>Lycoperdon</i> sp.	M.J.			x			
<i>Lycoperdon umbrinum</i>	M.J.			x, M.J.	x, M.J.		
<i>Mycocalia denudata</i>	M.J.						
<i>Rhizopogon</i> cf. <i>luteolus</i>				x, M.J.			
<i>Rhizopogon luteolus</i> □ in H							♠
<i>Rhizopogon roseolus</i>							♠
<i>Rhizopogon</i> cf. <i>roseolus</i>							x, M.J.
<i>Sphaerobolus stellatus</i>	x			x			

V. ACKNOWLEDGEMENTS

The organizing committee will take this opportunity to thank those who have contributed to the species list, and many more besides who made the stay in Skibotn a memorable event. Sigurd Olsen helped and encouraged us in so many ways, taking care of both fungi and our health. An excellent job was done by our bus driver Lars-Henrik Larsen, Elvevoll, who arranged the transport during the congress week. We are also thankful for the benevolence of Magne Nicolaisen, head of Skibotn Kurssenter LHL. Riise Taylor and Rob Barrett have helped with linguistic revision of the text. Arnt Ivar Kverndal has commented on the bedrock geology, and Olga Kvalheim and Anne Gundersen have drawn the maps of the area and geology respectively. Tromsø Museum/IMV generously offered financial support to the arrangement of the Congress.

VI. REFERENCES

- Andresen L. 1979. *Monthly and annual frequencies of concurrent wind forces and wind directions in northern Norway and the Arctic*. Det norske meteorologiske institutt, Oslo. XXII + 202 pp.
- Baral H.O. & Krieglsteiner G.I. 1985. Bausteine zu einer Askomyzeten-Flora der Bundesrepublik Deutschland: In Süddeutschland gefundene inoperculate Diskomyzeten mit taxonomischen, ökologischen und chorologischen Hinweisen. *Beih. Zeitschr. Mykol.* 6: 1-160.
- Bendiksen K. & Bendiksen E. 1993. Contribution to the macromycete flora of Troms (North Norway) and adjacent Finnish Lapland. *Polarflokken* 17 (2): 385-407.
- Bendiksen E. & Høiland K. 1992. Red list of threatened macromycetes in Norway. In: Direktoratet for naturforvaltning. *DN-Rapport 1992-6*: 31-42.
- Bohlin K. 1993. *Sarcosphaera coronaria* och *Geastrum pectinatum* i Nord-Norge. *Blekkoppen* 60: 13-16.
- Brandrud T.E. & Bendiksen E. 1984. Bidrag til soppfloraen i og omkring Junkerdalsura i Øvre Saltdal, Nordland. *Agarica* 5: 58-85.
- Brandrud T.E., Bendiksen E. & Jenssen K.M. 1986. Kronebeger (*Sarcosphaera coronaria*) - en kalkelskende nykomling i Norge. *Blyttia* 44: 113-116.
- Bujakiewicz, A. & Sivertsen, S. 1994. Disjunkte sopparter i nord-norske oreskoger. *Blekkoppen* 64: 18-22.
- Dunfjeld S. 1982. Sjeldne rørsopp i Nord-Norge. *Polarflokken* 6 (1): 34-40.
- Eckblad F.-E. 1955. The Gasteromycetes of Norway. The Epigaeae Genera. *Nytt Mag. Bot.* 4: 19-86.
- Eckblad F.-E. 1969. The genera *Daldinia*, *Ustulina* and *Xylaria* in Norway. *Nytt Mag. Bot.* 16 (2): 139-145.
- Elvebakk A. 1980. Nordnorske vårsoppar. *Polarflokken* 4 (1): 23-55.
- Engengård G. 1971. Om utbredelsen av *Geastrum* Pers. i det nordlige Skandinavia og Nord-Finland. (On the distribution of *Geastrum* Pers. in northern Scandinavia and northern Finland.). *Blyttia* 29: 211-220.
- Eriksson J., Hjortstam K. & Ryvarden L. 1981. The Corticiaceae of North Europe 6. *Phlebia* - *Sarcodontia*. *Fungiflora*, Oslo. Pp. 1047-1276.
- Eriksson J., Hjortstam K. & Ryvarden L. 1984. The Corticiaceae of North Europe 7. *Schizopora* - *Suillosporium*. *Fungiflora*, Oslo. Pp. 1277-1449.
- Eriksson O.E. 1992. *The non-lichenized pyrenomycetes of Sweden*. SBT-förlaget. Lund, 208 pp.
- Eriksson O.E. & Hawksworth D.L. 1993. Outline of the ascomycetes - 1993. *Systema Ascomycetum* 12: 51-257.
- Fremstad E. & Elven R. (ed.) 1987. Enheter for vegetasjonskartlegging i Norge. (Units for vegetation mapping in Norway). *Økoforsk Utredning 1987, 1*. Økoforsk/NAVF, Trondheim.
- Granmo A., Skifte O. & Nilssen A.C. 1982. *Ptychoverpa bohemica* (Pezizales) in Norway and Finland. *Karstenia* 22: 43-48.
- Greuter W. (ed. chairman) 1988. International Code of Botanical Nomenclature adopted by the Fourteenth International Botanical Congress, Berlin, July-August 1987. *Koeltz Scientific Books, Königstein*, pp. I-XIV, 1-328.
- Gulden G. 1988. *Contributions to an Agaric flora of Svalbard*. Botanical Museum, University of Oslo. 200 pp. (manuscript).

- Gulden G. & Jenssen K.M. 1988. *Arctic and Alpine Fungi* - 2. Soppkonsulentent, Oslo. 60 pp.
- Gulden G., Jenssen K.M. & Stordal J. 1985. *Arctic and Alpine Fungi* - 1. Sopp-konsulentent, Oslo. 62 pp.
- Gøtzsche H. 1987. *Arktiske og subarktiske myxomyceter med særlig henblik på Island og Grønland*. Cand. scient.-thesis (unpubl.), University of Copenhagen.
- Gøtzsche H. 1990. Notes on Icelandic Myxomycetes. *Acta bot. Isl.* 10: 3-21.
- Hansen L. & Knudsen H. (ed.) 1992. *Nordic macromycetes 2. Polyporales, Boletales, Agaricales, Russulales*. Nordsvamp, Copenhagen. 474 pp.
- Hjortstam K. & Johannesen E.W. 1980. Annotated list to the alpine wood fungus flora in Norway (Aphylllophorales and Myxomycetes in Dovrefjell national park). *Göteborgs Svampklubbs Årsskrift 1980*: 15-45.
- Holm L. 1975. Taxonomic notes on Ascomycetes. VIII. Microfungi on Cassiope tetragona. *Svensk bot. Tidskr.* 69: 143-160.
- Holm K. & Holm L. 1977. Nordic junipericolous Ascomycetes. *Symb. Bot. Upsal.* 21 (3): 1-70.
- Holmgren P.K., Holmgren N.H. & Barnett L.C. (ed.) 1990. Index Herbariorum 1. The herbaria of the world, edn. 8. *Regnum Veg.* 120: 1-693.
- Høiland K. & Sarre K.M. 1983. Ny verdens-nordgrense for jordstjerner! Småjordstjerne, *Geastrum minimum* Schwein., funnet på Hábatvuohpebákti i Masi, Kautokeino (Finnmark). *Polarflokken* 7 (2): 172-182.
- Jacobsson S. 1986. A taxonomic survey of the *Pholiota alnicola* group in Europe. *Windahlia* 16: 129-143.
- Jacobsson S. 1991. *Pholiota* in northern Europe. *Windahlia* 19: 1-86.
- Jeppson M. 1985. Notes on the genus *Mycocalia* (Basidiomycetes, Nidulariales) in Scandinavia. *Agarica* 6 (12): 228-236.
- Johannesen E.W. 1982. *The Myxomycetes of Norway*. Cand. real.-thesis (unpubl.), University of Oslo.
- Johannesen E.W. 1984. New and interesting Myxomycetes from Norway. *Nord. J. Bot.* 4: 513-520.
- Johannesen E.W. 1986. Bestemmelsesnøkkel til norske myxomycet-arter I. Ceratiomyxales og Liceales. *Agarica* 14: 93-104.
- Kajan, E. & Grauwinkel, B. 1987. Neues über *Clavaria tenuipes* ss. restr. und *Clavaria krieglsteineri* nov. spec. *Beiträge zur Kenntnis der Pilze Mitteleuropas III*: 355-358, 1 pl.
- Kalstø A.B. 1985. *Myxomycetfloraen på Bjørnen og Smørås, et barskogs- og et løvskogs område i Bergensregionen*. Cand. real.-thesis (unpubl.), University of Bergen.
- Karlsen A. 1943. Studies on Myxomycetes II. The Myxomycete Flora of Hardanger. Bergens Museums Årbok 1943. *Naturvitenskapelig Rekke Nr. 4*: 1-34.
- Karsten P.A. 1890. Sphaeropsidaeae hucusque in Fennia observatae. *Acta Soc. F. Fl. Fenn.* 6 (2): 1-86.
- Kirk P.M. & Ansell A.E. 1992. Authors of fungal names. A list of authors of scientific names of fungi, with recommended standard forms of their names, including abbreviations. *Index of fungi supplement 1992*: [8]+ 1-95.
- Knudsen H. & Borgen T. 1987. Agaricaceae, Amanitaceae, Boletaceae, Gomphidiaceae, Paxillaceae and Pluteaceae in Greenland, pp. 235-253 in: Laursen, G.A., Ammirati, J.F. & Redhead, S.A. (ed.): *Arctic and alpine mycology 2. International Symposium on Arcto-Alpine Mycology*. Environmental science research, Plenum Press, New York and London.
- Knudsen H. & Borgen T. 1994. The *Lactarius torminosus*-group in Greenland. *Mycologia Helvetica* 6 (2): 49-56.

- Lange M. 1991. *Soppflora*. Norwegian ed. by R. Thomassen, E. Bendiksen og K. Bendiksen. NKS-forlaget, Oslo. 293 pp.
- Lange M. & Skifte O. 1967. Notes on the macromycetes of Northern Norway. *Acta Borealia A. Scientia* 23: 1-51.
- Lannoy, G. & Estadés, P. 1995. *Monographie des Leccinum d'Europe*. La Roche-sur-Foron (Haute Savoie). 229 pp.
- Lid, J. 1985. *Norsk, svensk, finsk flora*. New ed. by O. Gjørevoll. Det norske Samlaget. Oslo. 837 pp.
- Martin G.W. & Alexopoulos C.J. 1969. *The Myxomycetes*. Univ. Iowa Press, Iowa City. IX + 560 pp.
- Mathiassen G. 1993. Corticolous and lignicolous Pyrenomycetes s. lat. (Ascomycetes) on Salix along a mid-Scandinavian transect. *Sommerfeltia* 20: 1-180.
- Miller J.H. 1961. *A Monograph of the World Species of Hypoxylon*. University of Georgia Press, Athens. 158 pp.
- Moser M. 1983. Die Röhrlinge und Blätterpilze. 5. Aufl. *Kleine Kryptogamenflora IIb/2*. G. Fischer Verlag, Stuttgart. 533 pp.
- Mueller G.M. & Vellinga E.C. 1986. Taxonomic and nomenclatural notes on *Laccaria* B. & Br. *Laccaria amethystea*, *L. fraterna*, *L. laccata*, *L. pumila*, and their synonyms. *Persoonia* 13: 27-43.
- Nannenga-Bremekamp N.E. 1964. Notes on Myxomycetes VII. *Acta Bot. Neerl.* 13: 133-147.
- Nannenga-Bremekamp N.E. 1974. *De Nederlandse Myxomyceten*. Konink. Nederl. Nat.-hist. Verlag., Zutphen. 440 pp.
- Nannfeldt J.A. 1947. *Spharonaema rufum* Fr., a misunderstood member of Dacrymycetaceae. *Svensk Bot. Tidskr.* 41: 321-338.
- Nannfeldt J.A. 1966. On *Otidea caligata*, *O. indivisa* and *O. platyspora* (Discomycetes Operculatae). *Ann. Bot. Fenn.* 3: 309-318.
- Neubert H., Nowotny W. & Baumann K. 1993. *Die Myxomyceten Deutschlands und des angrenzenden Alpenraumes unter besonderer Berücksichtigung Österreichs. 1*: 1-343. Karlheinz Baumann Verlag, Gomaringen.
- Noordeloos M.E. 1992. *Entoloma* s.l. *Fungi Europaei* 5: 1-760. Giovanna Biella, Saronno (Italy).
- Núñez García, M.P. 1993. *The genus Polyporus (Aphyllophorales, Basidio-mycotina). A world synopsis*. Thesis, University of Oslo. 130 pp.
- Ohenoja E. & Ohenoja M. 1993. Lactarii of the Franklin and Keewatin Districts of the Northwest Territories, Arctic Canada. *Arctic and Alpine Mycology* 3. *Bibl. Mycol.* 150: 179-192.
- Pouzar Z. 1985. Reassessment of the *Hypoxylon serpens*-complex 1. *Česká Mykologie* 39: 15-25.
- Pyykkö M. & Hämet-Ahti L. 1980. *Sclerotinia pirolae*: sclerotial ontogeny and occurrence in Finland. *Karstenia* 20: 28-32.
- Raitviir A. 1987. Notes on the taxonomy and nomenclature of *Belonidium*, *Trichopeziza*, and *Lachnum* (Hyaloscyphaceae) in the light of the homologous series concept. *Eesti NSV Teaduste Akademia Toimetised, Biologia* 36: 313-318.
- Ryman S. & Holmåsen I. 1984. *Svampar. En fälthandbok*. Interpublishing, Stockholm. 718 pp.
- Ryvarden L. 1976. *The Polyporaceae of North Europe 1. Albatrellus - Incrustoporia*. Fungiflora, Oslo. Pp. 1-214.

- Schumacher T. 1994. "Sclerotiniaceae". Key to species and genera. In *Nordic Macromycetes 1* (in press).
- Senn-Irlet B. 1993. Type studies in Crepidotus - 2. *Persoonia* 15 (2): 155-167.
- Sigmond E.M.O., Gustavson M. & Roberts D. 1984. *Berggrunnskart over Norge, M 1:1 million*. NGU.
- Sivertsen S. 1993. *Laccaria pumila* Fayod and *L. altaica* Sing. - are they really synonyms? *Polarflokken* 17 (2): 331-338.
- Sivertsen, S., Jordal, J.B. & Gaarder, G. 1994. Noen soppfunn i ugjødsla beite- og slåttemarker. *Agarica* 13(22): 1-38.
- Sunhede S. 1989. Geastraceae (Basidiomycotina). Morphology, ecology, and systematics with special emphasis on the North European species. *Synopsis Fungorum* 1: 1-534. Fungiflora, Oslo.
- Sveum B.K.P. 1983. *Slektene Clavulinopsis, Ramariopsis, Multiclavula og Lentaria (Basidiomycetes, Aphyllophorales) i Norge. Med kommentarer til artenes systematikk*. Cand. real.-thesis (unpubl.), University of Trondheim.
- Torkelsen A.-E. 1972. *Gelesopper*. Universitetsforlaget, Oslo. 102 pp.
- Torkelsen A.-E. 1978. Tremella juniperina, a fungicolous jelly fungus. *Bot. Not.* 31: 435-438.
- Tveitstul, Ø. 1974. *Sopp (Ascomycetes og Holobasidiomycetes) på døde stengler av Aconitum septentrionale Koelle og Lactuca alpina A. Gray i Norge*. Thesis, unpublished. University of Oslo. 299 pp.
- Ulvinen T. 1976. *Suursieniopas*. Suomen Sieniseura, Helsinki. 359 pp.
- Ulvinen T., Ohenoja E., Ahthi T. & Alanko P. 1981. A check-list of the fungi (incl. lichens) of the Koillismaa (Kuusamo) biological province, N.E. Finland. *Oulanka Reports* 2. Oulanka Biological Station, University of Oulu.
- Vorren B. 1979. Soppfloraen i indre Troms. *Polarflokken* 3 (2): 101-109.
- Vorren B. 1982. Soppfloraen i indre Troms 2. *Polarflokken* 6 (1): 41-47.
- Vorren B. 1983. Nyfunn av sopp 1982/83. *Polarflokken* 7 (2): 183-194.

VII. BIBLIOGRAPHY

- Baral H.O. & Krieglstainer G.I. 1985. Bausteine zu einer Askomyzeten-Flora der Bundesrepublik Deutschland: In Süddeutschland gefundene inoperculate Diskomyzeten mit taxonomischen, ökologischen und chorologischen Hinweisen. *Beih. Zeitschr. Mykol.* 6: 1-160.
- Bidaud A., Moëgne-Loccoz P., Reumaux P. & Henry R. 1992. *Atlas des Cortinaires IV*. Fédération mycologique Dauphiné-Savoie, Annecy-Seynod.
- Bon M. 1987. *The Mushrooms and Toadstools of Britain and North-western Europe*. Hodder & Stoughton, London. 352 pp.
- Bon M. 1988. Clé monographique des Russules d'Europe. *Docum. Mycol.* 18: 1-120.
- Brandrud T.E., Lindström H., Melot J. & Muskos S. 1989. Cortinarius. *Flora Photographica* 1. Matfors.
- Brandrud T.E., Lindström H., Melot J. & Muskos S. 1992. Cortinarius. *Flora Photographica* 2. Matfors.
- Bresinsky A. & Besl H. 1985. Giftpilze. *Ein Handbuch für Apotheker, Ärzte und Biologen*. Wissenschaftliche Verlagsgesellschaft, Stuttgart. 295 pp.
- Cetto B. 1979-1984. *Der grosse Pilzfürher 1-4*. Arti Grafiche Saturnina, Trento.
- Dennis R.W.G. 1978. *British Ascomycetes*. J. Cramer, Vaduz. 585 pp.
- Dähncke R.M. 1979. *700 Pilze in Farbfotos*. AT Verlag, Aarau. 686 pp.
- Eckblad F.-E., Gulden G., Horn K., Roll-Hansen F., Røseeng O., Sivertsen S., Stordal J. & Torkelsen A.-E. 1976. *Norske soppsnavn*. Utgitt av Den norske soppsnavnkomiteen av 1968. Oslo [reprodusert ved Universitetets Trykkeri, Universitetet i Oslo. ISBN 82-7130-010-5]. 83 pp.
- Eckblad F.-E., Gulden G., Roll-Hansen F., Røseeng O., Sivertsen S., Stordal J. & Torkelsen A.-E. 1985. *Norske soppsnavn. Edn. 2*. Utgitt av Den norske soppsnavnkomiteen av 1968. Oslo [reprodusert ved Reprosentralen, Universitetet i Oslo. ISBN 82-991311-0-3]. 59 pp.
- Engel F. 1972. *Pilzwanderungen. Eine Pilzkunde für jedermann*. A. Ziemsen Verlag, Wittenberg-Lutherstadt. 208 pp. + 64 pl.
- Eriksson B. 1970. On Ascomycetes on Diapensiales and Ericales in Fennoscandia. 1. Discomycetes. *Acta Sym. Bot. Ups.* 19 (4): 1-71 + 7 pl. Uppsala.
- Eriksson J., Hjortstam K., & Ryvarden L. 1978. *The Corticiaceae of North Europe* 5. Mycoaciella - Phanerochaete. Fungiflora, Oslo. Pp. 885-1046.
- Eriksson J., Hjortstam K., & Ryvarden L. 1981. *The Corticiaceae of North Europe* 6. Phlebia - Sarcodontia. Fungiflora, Oslo. Pp. 1047-1276.
- Eriksson J., Hjortstam K., & Ryvarden L. 1984. *The Corticiaceae of North Europe* 7. Schizopora - Suillosporium. Fungiflora, Oslo. Pp. 1277-1449.
- Eriksson J. & Ryvarden L. 1973. *The Corticiaceae of North Europe* 2. Aleurodiscus - Confertobasidium. Fungiflora, Oslo. Pp. 59-161.
- Eriksson J. & Ryvarden L. 1975. *The Corticiaceae of North Europe* 3. Coronicium - Hyphoderma. Fungiflora, Oslo. Pp. 162-544.
- Eriksson J. & Ryvarden L. 1976. *The Corticiaceae of North Europe* 4. Hyphodermella - Mycoacia. Fungiflora, Oslo. Pp. 545-886.
- Eriksson O.E. 1992. *The non-lichenized pyrenomycetes of Sweden*. SBT-förlaget, Lund. 208 pp.
- Garnweidner E. 1990. *Sopp*. Overs. av R.B. Gulliksen. Cappelen's naturhåndbøker. Cappelen, Oslo. 251 pp.
- Gjærum H.B. 1974. *Nordens rustsopper*. Fungiflora, Oslo. 321 pp.

- Granmo A. 1977. *Slekten Hypoxylon i Norge*. Cand. real.-thesis (unpubl.). University of Bergen. 191 pp. + 6 pl.
- Granmo A., Hammelev D., Knudsen H., Læssøe T., Sasa M. & Whalley A.J.S. 1989. The genera *Biscogniauxia* and *Hypoxylon* (Sphaeriales) in the Nordic countries. *Opera Bot.* 100: 59-84.
- Gulden G. 1969. *Musseronflora (incl. a supplement of 8 pages from 1981)*. Universitetsforlaget, Oslo. 96 pp.
- Gulden G. 1973. *Matsopper i skog og mark*. Aschehoug, Oslo. 156 pp.
- Gulden G. & Jenssen K.M. 1988. *Arctic and Alpine Fungi - 2*. Soppkonsulentene, Oslo. 60 pp.
- Gulden G., Jenssen K.M. & Stordal J. 1985. *Arctic and Alpine Fungi - 1*. Soppkonsulentene, Oslo. 62 pp.
- Gulden G., Jenssen K.M. & Stordal J. 1989. *Norsk lommessoppbok*. Tiden Norsk Forlag, Oslo. 298 pp.
- Hafellner J. 1979. *Karschia*; Revision einer Sammelgattung an der Grenze von lichenisierten und nichtlichenisierten Ascomyceten. *Beih. Nova Hedwigia* 62: 1-248.
- Hansen L. & Knudsen H. (ed.) 1992. *Nordic macromycetes 2. Polyporales, Boletales, Agaricales, Russulales*. Nordsvamp, Copenhagen. 474 pp.
- Hawksworth D.L., Sutton B.C. & Ainsworth G.C. 1983. *Ainsworth & Bisby's Dictionary of the fungi. 7th edn.* Commonwealth Mycological Institute, Kew, Surrey. 412 + XVI pp.
- Hesler L.R. & Smith A.H. 1965. *North American species of Crepidotus*. Hafner Publishing Company, New York & London. 168 pp.
- Hjortstam K., Larsson K.-H. & Ryvarden L. 1987. *The Corticiaceae of North Europe 1*. Introduction and keys. *Fungiflora*, Oslo. Pp. 1-59.
- Hjortstam K., Larsson K.-H. & Ryvarden L. 1988. *The Corticiaceae of North Europe 8*. *Thanatephorus - Ypsilonidium*. *Fungiflora*, Oslo. Pp. 1445-1631.
- Hohmeyer H. 1986. Ein Schlüssel zu den europäischen Arten der Gattung *Peziza* L. *Zeitschr. Mykol.* 52: 161-188.
- Holm L. & Holm K. 1988. Studies in the Lophiostomataceae with emphasis on the Swedish species. *Symb. bot. upsal.* 28 (2): 1-50.
- Holst-Jensen A. 1992. *Morphology and rDNA restriction site based phylogeny in the genus Monilinia (Sclerotiniaceae)*. Cand. scient. thesis (unpubl.), University of Oslo. 100 pp.
- Imazeki R. & Hongo T. 1957. *Coloured illustrations of fungi of Japan*. Hoikusha, Osaka. 181 pp.
- Imazeki R., Otani Y., Hongo T., Izawa M. & Mizuno N. 1988. *Fungi of Japan (photo flora)*. Yama-Kei publishers Co., Tokyo. 624 pp.
- Jacobsson S. 1991. *Pholiota in northern Europe*. *Windahlia* 19: 1-86.
- Jahn H. 1964. Mitteleuropäische Porlinge (Polyporaceae s. lato) und ihr Vorkommen in Westfalen. *Westf. Pilzbriefe* 4: 1-143.
- Jahn H. 1967. Die resupinaten *Phellinus*-Arten in Mitteleuropa mit Hinweisen auf die resup. *Inonotus*-Arten und *Poria expansa*. *Westf. Pilzbriefe* 6: 37-126.
- Jahn H. 1979. *Pilze die an Holz wachsen*. Verlag Busse, Hereford. 268pp.
- Johannesen E.W. 1982. *The Myxomycetes of Norway*. Cand. real.-thesis (unpubl.), University of Oslo.
- Jülich W. 1984. *Die Nichtblätterpilze, Gallertpilze und Bauchpilze. Kleine Kryptogamenflora 2b/1*. Gustav Fischer Verlag, Stuttgart. 626 pp.
- Kauffman C.H. 1918. *Hygrophorus*. Pp. 172-203 in: *The Agaricaceae of Michigan*. Lansing (Michigan).

- Korhonen M. 1976. *100 sopper i farger*. Transl. and adapted by L. Ryvarden. Gyldendal Norsk Forlag, Oslo. 159 pp.
- Korhonen M. 1984. *Suomen rouskut (Lactarius species of Finland)*. Helsinki. 223 pp.
- Kühner R. & Romagnesi H. 1953. *Flora analytique des champignons superieurs (Agarics, Bolets, Chanterelles)*. Masson & Cie, Paris. XIV + 557 pp.
- Lange J.E. 1935-1940. *Flora agaricina Danica 1-5*. København.
- Lange M. 1976. *Soppflora. 3. norske utg.* av F.-E. Eckblad. NKS-forlaget, Oslo. 242 pp.
- Lange M. 1981. *Soppflora. 4. norske utg.* av F.-E. Eckblad. NKS-forlaget, Oslo. 248 pp.
- Lange M. 1990. *Nordens svampe*. Gads forlag, København. 291 pp.
- Marchand A. 1971-1986. *Champignons du Nord et du Midi 1-9*. Société Mycologique des Pyrénées Méditerranéennes, Perpignan.
- Mathiassen G. 1989. Some corticolous and lignicolous Pyrenomycetes s. lat. (Ascomycetes) on Salix in Troms, N Norway. *Sommerfeltia* 9: 1-100.
- Mathiassen G. 1993. Corticolous and lignicolous Pyrenomycetes s. lat. (Ascomycetes) on Salix along a mid-Scandinavian transect. *Sommerfeltia* 20: 1-180.
- Melot J. 1985. Cortinarius, sous-genre Myxacium. Section Delibuti. *Agarica* 6: 47-55.
- Minter D.W. (s.a.).[1987?] *The Rhytismatales on conifers from Europe*. CAB International Mycological Institute.
- Moser M. 1983. *Die Röhrlinge und Blätterpilze. 5. Aufl. Kleine Kryptogamenflora IIb/2*. G. Fischer Verlag, Stuttgart. 533 pp.
- Moser M. & Jülich W. 1985-1991. *Farbatlas der Basidiomyceten. Lief. 1-9*. G. Fischer Verlag, Stuttgart.
- Mossberg B., Nilsson S. & Persson O. 1978. *Sopp i naturen 1-2*. Norsk utg. ved G. Gulden. Cappelen, Oslo.
- Möller F.H. 1945. *Fungi of the Færöes 1*. Basidiomycetes. Munksgaard, Copenhagen. 295 pp. + 2 pl. + map.
- Möller F.H. 1958. *Fungi of the Færöes 2*. Myxomycetes, Archimycetes, Phycomycetes, Ascomycetes, and Fungi Imperfecti. Munksgaard, Copenhagen. 286 pp. + 1 pl.
- Munk A. 1957. Danish Pyrenomycetes. *Dansk bot. Ark.* 17 (1): 1-491.
- Neuhoff W. & Neuhoff E. 1956. Die Milchlinge (Lactarii). *Die Pilze Mitteleuropas 2b*: 1-248 + 20 pl. Verlag Julius Klinkhardt, Bad Heilbrunn.
- Noordeloos M. E. 1987. Entoloma (Agaricales) in Europe. Synopsis and keys to all species and a monograph of the subgenera Trichopilus, Inocephalus, Alboleptonia, Leptonia, Paraleptonia, and Omphaliopsis. *Beih. Nova Hedwigia* 91: 1-419. J. Cramer, Stuttgart.
- Nylen B. & Stordal J. 1990. *Norsk sopphåndbok*. Aschehoug, Oslo. 341 pp.
- Olsen S. 1986. Jordtunger i Norge. *Agarica* 7: 120-168.
- Orton P.D. & Watling R. 1979. Coprinaceae 1: Coprinus. *British Fungus Flora* 2: 1-149. Royal Botanical Garden, Edinburgh.
- Petrini L.E. 1985. *Untersuchungen über die Gattung Hypoxylon (Ascomycetes) und verwandte Pilze*. Dr.-thesis Eidgenössische Technische Hochschule in Zürich (unpubl.).
- Petrini L.E. & Müller E. 1986. Haupt- und Nebenfruchtformen europäischer Hypoxylon-arten (Xylariaceae, Sphaeriales) und verwandter Pilze. *Mycol. helv.* 1: 501-627.
- Pilat A. 1969. *Pilz-taschenatlas*. Verlag Werner Dausien, Hanau/Main. 118 pp. + 94 pl.
- Pyykkö M. & Hämet-Ahti L. 1980. Sclerotinia pirolae: sclerotial ontogeny and occurrence in Finland. *Karstenia* 20: 28-32.
- Romagnesi H. 1967. *Les Russules d'Europe et d'Afrique du Nord*. Bordas, Paris. 1001 pp.
- Ryman S. & Holmåsen I. 1984. *Svampar. En fälthandbok*. Interpublishing, Stockholm. 718 pp.

- Ryvarden L. 1968. *Flora over kjuker*. Universitetsforlaget, Oslo. 96 pp.
- Ryvarden L. 1976. *The Polyporaceae of North Europe 1*. Albatrellus - Incrustoporia. Fungiflora, Oslo. Pp. 1-214.
- Ryvarden L. 1978. *The Polyporaceae of North Europe 2*. Inonotus - Tyromyces. Fungiflora, Oslo. Pp. 215-507.
- Ryvarden L. & Gilbertson R.L. 1993. European Polypores 1. Abortiporus - Lindtneria. *Synopsis Fungorum* 6: 1-387.
- Schaeffer J. 1952. Russula-Monographie. *Die Pilze Mitteleuropas* 3: 1-297 + 20 pl. Verlag Julius Klinkhardt, Bad Heilbrunn.
- Schumacher T. 1994. "Sclerotiniaceae". Key to species and genera. In: *Nordic Macromycetes I* (in press).
- Senn-Irlet B. 1993. Type studies in Crepidotus - II. *Persoonia* 15 (2): 155-167.
- Singer R. 1965. Die Röhrlinge 1. Die Boletaceae (ohne Boletioideae). *Die Pilze Mitteleuropas* 5: 51-131 + 21 pl. Verlag Julius Klinkhardt, Bad Heilbrunn.
- Singer R. 1967. Die Röhrlinge 2. Die Boletioideae und Strobilomycetaceae. *Die Pilze Mitteleuropas* 6: 1-151 + 26 pl. Verlag Julius Klinkhardt, Bad Heilbrunn.
- Sivanesan A. 1984. *The Bitunicate Ascomycetes and their anamorphs*. J. Cramer, Vaduz. 701 pp.
- Smith A. & Singer R. 1964. *A monograph of the genus Galerina Earle*. Hafner Publishing Company, New York & London. 384 pp.
- Torkelsen A.-E. 1972. *Gelésopper*. Universitetsforlaget, Oslo. 102 pp.
- Torkelsen A.-E. 1978. Tremella juniperina, a fungicolous jelly fungus. *Bot. Not.* 131: 435-438.
- Torkelsen A.-E., Eckblad F.-E. 1977. Encoelioideae (Ascomycetes of Norway). *Norw. J. Bot.* 24: 133-149.
- Wahlenberg G. 1812. *Flora lapponica*. Taberna libraria scholae realis, Berolini. I- LXVI + 550 pp.
- Wojewoda W. 1977. *Grzyby (Mycota) 8 (Tremellales, Auriculariales, Septobasidiales)*. Warszawa, Kraków.
- Zogg H. 1943. Untersuchungen über die Gattung Hysterographium Corda, insbesondere über Hysterographium fraxini (Pers.) De Not. *Phytopath. Z.* 14: 310-384.
- Zogg H. 1962. Die Hysteriaceae s. str. und Lophiaceae unter besonderer Berücksichtigung der mitteleuropäischen Formen. *Beitr. Krypt. Flora Schweiz* 11: 3: 1-190.

VIII. APPENDIX. PARTICIPANTS AT THE CONGRESS

Norway:

Andreassen Marit
 Bendiksen Egil
 Bendiksen Katriina
 Granmo Alfred
 Gunnermann Inger
 Jensen Arne Holst
 Johannesen Edvin
 Johansen Kato
 Marstad Per
 Mathiassen Geir
 Møller Birgit
 Mølmen Kjersti
 Olsen Sigurd †
 Ramberg Edith
 Ramberg Hermann
 Reibo Guri
 Sivertsen Sigmund
 Skifte Ola
 Stensrud Øyvind
 Stordal Jens
 Torkelsen Anna-Elise
 Whist Cathrine Marie

Address:

Svanevn. 37, 9500 Alta
 Trondheimsvn. 442 A, 0962 Oslo 9
 Trondheimsvn. 442 A, 0962 Oslo 9
 Univ. i Tromsø, IMV, Lars Thørings veg 10, 9006 Tromsø
 9925 Svanvik
 Univ. i Oslo, Biologisk institutt, Botanisk avdeling
 Postboks 1045, Blindern, 0316 Oslo
 Maridalsvn. 357 B, 0881 Oslo
 Myrullvn. 22, 9500 Alta
 Postmannsvn. 7, 3122 Tønsberg
 Univ. i Tromsø, IMV, Lars Thørings veg 10, 9006 Tromsø
 Univ. i Tromsø, IMV, Lars Thørings veg 10, 9006 Tromsø
 Myrullvn. 22, 9500 Alta
 Ø Tollevik 9B, 9500 Alta
 Ø Tollevik 9B, 9500 Alta
 Univ. i Tromsø, IMV, Lars Thørings veg 10, 9006 Tromsø
 Vitenskapsmuseet, 7004 Trondheim
 Univ. i Tromsø, IMV, Lars Thørings veg 10, 9006 Tromsø
 usejernvn. 88, 1253 Oslo
 Kauffeldts v. 34, 2800 Gjøvik
 Botanisk hage og museum, Trondheimsvn. 23 B, 0562 Oslo 5
 Langmyrgrenda 53 A, 0861 Oslo

Sweden:

Bohlin Anders
 Bohlin Karin
 Gahne Birgitta
 Hagman Birgit
 Hägg Berni
 Halltorpsgatan 14, S-461 41 Trollhättan
 Halltorpsgatan 14, S-461 41 Trollhättan
 Rasbo, Grän S-755 96 Uppsala
 Bågevägen 41B, S-856 52 Sundsvall
 Mossbergagränd 5, S-212 30 Malmö

Special fields of interest:

Cortinarius, fungal ecology
 Cortinarius, fungal ecology
 Pyrenomycetes
 Ascomycetes, Sclerotiniaceae
 Myxomycetes
 Myxomycetes, Clitocybe, Agaricales s. lato
 Pyrenomycetes
 Inoperculate discomycetes
 Discomycetes, Agaricales s. lato
 Arctic Agaricales s. lato
 Lactarius, Russula, alpine zone, Agaricales s.l.
 Jelly fungi, Phacidiales
 Aphyllophorales
 Threatened fungi
 Agaricales s. lato, Telamonia, fungal ecology

Jeppson Jørgen	Bergkullevägen 448, S-461 67 Trollhättan	Gastromycetes
Jeppson Mikael	Hults gård, S-461 91 Trollhättan	Mushroom dyeing
Lundmark Hjärdís-Katarina	Repslagarevägen 28, S-852 34 Sundsvall	
Lundqvist Nils	Sektionen för kryptogambotani, Naturhistoriska Riksmuseet, Boks 50007, S-104 05 Stockholm	Ascomycetes, Pyrenomycetes
Olsson Signhild	Klockarevägen 6 E, S-240 17 Södra Sandby	WF-project: Rare flora of fungi in Scania
Olsson Ulf	Klockarevägen 6 E, S-240 17 Södra Sandby	Agaricales s. lato
Persson Olle	Romansvägen 33, 3 tr., S-131 40 Nacka	Agaricales s. lato, Russula
Wasstorp Birgitta	Kuskbost., Ulriksdals slott, S-171 71 Solna	
Denmark:		
Holden Gunnel	Birkevang, Nellikengangen 41, DK-2700 Brønshøj	
Jensen Karen Hølund	Snogårdsvvej 75, DK-2820 Gentofte	
Knudsen Henning	Botanisk Museum, Gothersgade 130, DK-1123 København K	Russulales, Agaricales s. lato
Petersen Jens H.	Fuglesangsalle 88, DK-8210 Århus	Clavariaceae, Gomphaceae, Hericiaceae
Printz Poul	Frugtparken 1, DK-2820 Gentofte	Inocybe
Sasa Mikako	Inst. for sporeplanter, Ø. Farimagsgade 2 D, DK-1353 København K	Mycorrhiza
Thorbek Susanne	Rønnebærvej 40, DK-2840 Holte	
Finland:		
Höijer Paavo	Teissala 48, SF-06100 Borgå	Coprinus
Kaukonen Maarit	Bot. Mus., Univ. of Oulu, SF-90570 Oulu	Threatened fungi
Korhonen Eine	Mäntymäki 3 E 36, SF-02110 Espoo	
Korhonen Mauri	Mäntymäki 3 E 36, SF-02110 Espoo	Lactarius, Boletales
Kortekangas Elsa	Palovartiointie 61392, SF-00750 Helsinki	
Kytövuori Ilkka	Dept. of Botany, Univ. of Helsinki, Unioninkatu 44, SF-00170 Helsinki	Tricholoma, Lactarius
Kytövuori Pirjo	Dept. of Botany, Univ. of Helsinki, Unioninkatu 44, SF-00170 Helsinki	
Ohenoja Esteri	Bot. Mus., Univ. of Oulu, SF-90570 Oulu	Threatened fungi, fenology, ecology, Agaricales s. lato

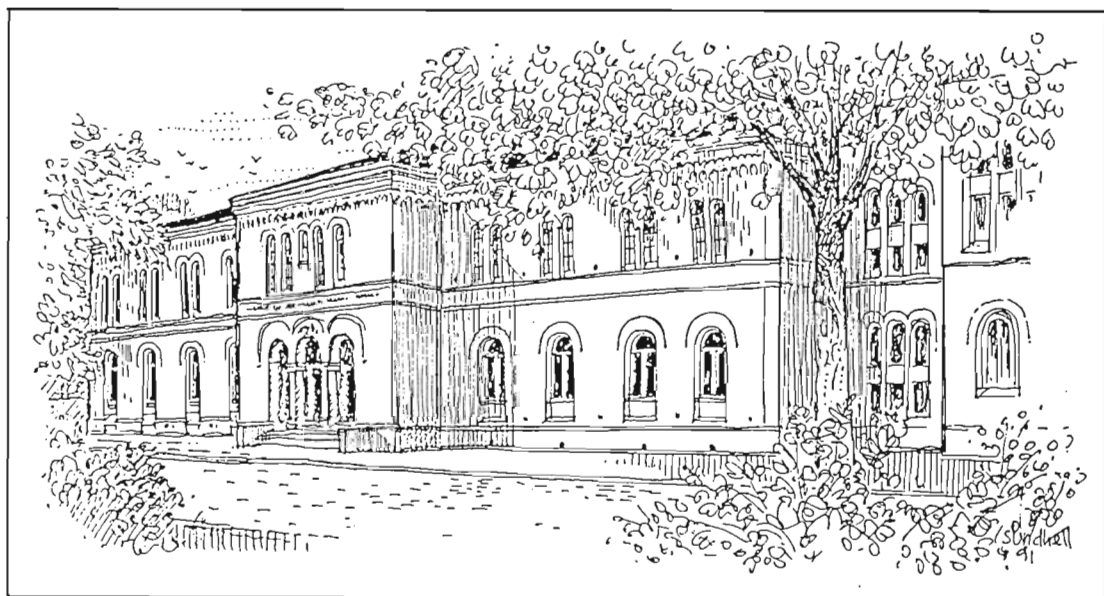
Salo Kauko	Forest Research Institute, Joensuu res. station P.O.Box 68, SF-80101 Joensuu	Fungal ecology and fungal communities. Mycorrhiza, Lactarius, Russula etc.
Estonia: Hanso Märt	Estonian Forest Research Institute, Laboratory of Forest Protection Roomu. tee 2, 202400 TARTU	Diagnostics of diseases caused by microfungi on conifers and their distribution
The Netherlands: Noordeloos Machiel E.	P.O.Box 9514, 2300 RA Leiden	Entoloma
Russia: Shubin Vladimir Dr.	The Forest Institute of the Karelian Centre Pushkinskaya str 11, Petrozavodsk 185610	Mycorrhiza
Spain: Nuñez, Maria Dr.	Avda. Betanzos 13, E-28029 Madrid, Spain	Aphyllophorales (Polyporaceae, Corticiaceae)

- 1974 1 Klock, T. Myrundersøkelser i Trondheimsregionen i forbindelse med den norske myrreservat-planen. 30 s. kr 20,-
- 2 Bretten, S. Botaniske undersøkelser i forbindelse med generalplanarbeidet i Snillfjord kommune, Sør-Trøndelag. 24 s. utgått
- 3 Moen, A. & T. Klock. Botaniske verneverdier i Tydal kommune, Sør-Trøndelag. 15 s. utgått
- 4 Baadsvik, K. Registreringer av verneverdig strandengvegetasjon langs Trondheimsfjorden sommeren 1973. 65 s. kr 40,-
- 5 Moen, B.F. Undersøkelser av botaniske verneverdier i Rennebu kommune, Sør-Trøndelag. 52 s. utgått
- 6 Sivertsen, S. Botanisk befarung i Åbjøravassdraget 1972. 20 s. utgått
- 7 Baadsvik, K. Verneverdig strandbergvegetasjon langs Trondheimsfjorden - foreløpig rapport. 19 s. kr 20,-
- 8 Flatberg, K. I. & B. Sæther. Botanisk verneverdige områder i Trondheimsregionen. 51 s. utgått
- 1975 1 Flatberg, K. I. Botanisk verneverdige områder i Rissa kommune, Sør-Trøndelag. 45 s. utgått
- 2 Bretten, S. Botaniske undersøkelser i forbindelse med generalplanarbeidet i Åfjord kommune, Sør-Trøndelag. 51 s. kr 40,-
- 3 Moen, A. Myrundersøkelser i Rogaland. Rapport i forbindelse med den norske myrreservat-planen. 127 s. kr 40,-
- 4 Hafsten, U. & T. Solem. Naturhistoriske undersøkelser i Forradalsområdet - et suboceanisk, høytliggende myrområde i Nord-Trøndelag. 46 s. kr 20,-
- 5 Moen, A. & B. F. Moen. Vegetasjonskart som hjelpemiddel i arealplanleggingen på Nerskogen, Sør-Trøndelag. 168 s., 1 pl. kr 60,-
- 1976 1 Aune, E. I. Botaniske undersøkingar i samband med generalplanarbeidet i Hemne kommune, Sør-Trøndelag. 76 s. kr 40,-
- 2 Moen, A. Botaniske undersøkelser på Kvikne i Hedmark, med vegetasjonskart over Innerdalen. 100 s., 1 pl. utgått
- 3 Flatberg, K. I. Klassifisering av flora og vegetasjon i ferskvann og sump. 39 s. kr 20,-
- 4 Kjellvik, L. Botaniske undersøkelser i Snåsa kommune, Nord-Trøndelag. 55 s. kr 40,-
- 5 Hagen, M. Botaniske undersøkelser i Grøvuområdet i Sunndal kommune, Møre og Romsdal. 57 s. kr 40,-
- 6 Sivertsen, S. & Å. Erlandsen. Foreløpig liste over Basidiomycetes i Rana, Nordland. 15 s. kr 20,-
- 7 Hagen, M. & J. Holten. Undersøkelser av flora og vegetasjon i et subalpint område, Rauma kommune, Møre og Romsdal. 82 s. kr 40,-
- 8 Flatberg, K. I. Myrundersøkelser i Sogn og Fjordane og Hordaland i forbindelse med den norske myrreservatplanen. 112 s. kr 40,-
- 9 Moen, A., L. Kjellvik, S. Bretten, S. Sivertsen & B. Sæther. Vegetasjon og flora i Øvre Forradalsområdet i Nord-Trøndelag, med vegetasjonskart. 135 s., 2 pl. kr 60,-
- 1977 1 Aune, E. I. & O. Kjærem. Botaniske undersøkingar ved Vefnsavassdraget, med vegetasjonskart. 138 s. 4 pl. kr 60,-
- 2 Sivertsen, I. Botaniske undersøkelser i Tydal kommune, Sør-Trøndelag. 49 s. kr 20,-
- 3 Aune, E. I. & O. Kjærem. Vegetasjon i planlagte magasin i Bjøllådalen og Stormdalen, med vegetasjonskart i 1:10 000, Saltfjellet/Svartisen-prosjektet. Botanisk delrapport nr. 1. 65 s., 2 pl. kr 60,-
- 4 Baadsvik, K. & J. Suul (red.). Biologiske registreringer og verneinteresser i Litlvatnet, Agdenes kommune i Sør-Trøndelag. 55 s. kr 40,-
- 5 Aune, E. I. & O. Kjærem. Vegetasjonen i Saltfjellområdet, med vegetasjonskart Bjøllådal 2028 II i 1:50 000. Saltfjellet/Svartisen-prosjektet. Botanisk delrapport nr. 2. 75 s., 1 pl. kr 60,-
- 6 Moen, J. & A. Moen. Flora og vegetasjon i Tromsdalen i Verdal og Levanger, Nord-Trøndelag, med vegetasjonskart. 94 s., 1 pl. kr 60,-
- 7 Frisvoll, A. A. Undersøkelser av mosefloraen i Tromsdalen i Verdal og Levanger, Nord-Trøndelag, med hovedvekt på kalkmosefloraen. 37 s. kr 20,-
- 8 Aune, E. I., O. Kjærem & J. I. Koksvik. Botaniske og ferskvassbiologiske undersøkingar ved og i midtre Rismålsvatnet, Rødøy kommune, Nordland. 17 s. kr 20,-
- 1978 1 Elven, R. Vegetasjonen ved Flåtisen og Østerdalsisen, Rana, Nordland, med vegetasjonskart over

- Vesterdalen i 1:15 000. Saltfjellet/Svartisen-prosjektet. Botanisk delrapport nr. 3. 83 s., 1 pl. kr 60,-
- 2 Elven, R. Botaniske undersøkelser i Rien-Hyllingen-området, Røros, Sør-Trøndelag. 53 s. kr 40,-
- 3 Aune, E. I. & O. Kjærem. Vegetasjonsundersøkingar i samband med planene for Saltdal-, Beiarn-, Stor-Glomfjord- og Melfjordutbygginga. Saltfjellet/Svartisen-prosjektet. Botanisk delrapport nr. 4. 49 s. kr 20,-
- 4 Holten, J. I. Verneverdige edellauvskoger i Trøndelag. 199 s. kr 40,-
- 5 Aune, E. I. & O. Kjærem. Floraen i Saltfjellet/Svartisen-området. Saltfjellet/Svartisen-prosjektet. Botanisk delrapport nr. 5. 86 s. kr 40,-
- 6 Aune, E. I. & O. Kjærem. Botaniske registreringar og vurderingar. Saltfjellet/Svartisen-prosjektet. Botanisk sluttrapport. 78 s., 4 pl. kr 60,-
- 7 Frisvoll, A. A. Mosefloraen i området Borrsåsen-Barøya-Nedre Tynes ved Levanger. 82 s. kr 40,-
- 8 Aune, E. I. Vegetasjonen i Vassfaret, Buskerud/Oppland med vegetasjonskart 1:10 000. 67 s., 6 pl. kr 60,-
- 1979 1 Moen, B. F. Flora og vegetasjon i området Borrsåsen-Barøya-Kattangen. 71 s., 1 pl. kr 40,-
- 2 Gjærevoll, O. Oversikt over flora og vegetasjon i Oppdal kommune, Sør-Trøndelag. 44 s. kr 20,-
- 3 Torbergesen, E. M. Myrundersøkelser i Oppland i forbindelse med den norske myrreservatplanen. 68 s. kr 40,-
- 4 Moen, A. & M. Selnes. Botaniske undersøkelser på Nord-Fosen, med vegetasjonkart. 96 s., 1 pl. kr 60,-
- 5 Kofoed, J. -E. Myrundersøkingar i Hordaland i samband med den norske myrreservatplanen. Supplerande undersøkingar. 51 s. kr 40,-
- 6 Elven, R. Botaniske verneverdier i Røros, Sør-Trøndelag. 158 s., 1 pl. kr 60,-
- 7 Holten, J. I. Botaniske undersøkelser i øvre Sunndalen, Grødalen, Lindalen og nærliggende fjellstrøk. Botaniske undersøkelser i 10-årsverna vassdrag. Delrapport 1. 32 s. kr 20,-
- 1980 1 Aune, E. I., S. Aa. Hatlelid & O. Kjærem. Botaniske undersøkingar i Kobbelv- og Hellemo-området, Nordland med vegetasjonskart i 1:10 000. 122 s., 1 pl. kr 60,-
- 2 Gjærevoll, O. Oversikt over flora og vegetasjon i Trollheimen. 42 s. kr 20,-
- 3 Torbergesen, E. M. Myrundersøkelser i Buskerud i forbindelse med den norske myrreservatplanen. 104 s. kr 40,-
- 4 Aune, E. I., S. Aa. Hatlelid & O. Kjærem. Botaniske undersøkingar i Eiterådalen, Vefsn og Krutvatnet, Hattfjelldal. 58 s., 1 pl. kr 60,-
- 5 Baadsvik, K., T. Klokk & O. I. Rønning (red.). Fagmøte i vegetasjonsøkologi på Kongsvoll, 16. - 18.3 1980. 279 s. kr 60,-
- 6 Aune, E. I. & J. I. Holten. Flora og vegetasjon i vestre Grødalen, Sunndal kommune, Møre og Romsdal. 40 s., 1 pl. kr 60,-
- 7 Sæther, B., T. Klokk & H. Taagvold. Flora og vegetasjon i Gaulas nedbørfelt, Sør-Trøndelag og Hedmark. Botaniske undersøkelser i 10-årsverna vassdrag. Delrapport 2. 154 s., 3 pl. kr 60,-
- 1981 1 Moen, A. Oppdragsforskning og vegetasjonskartlegging ved Botanisk avdeling, DKNVS, Museet. 49 s. kr 20,-
- 2 Sæther, B. Flora og vegetasjon i Nesåas nedbørfelt, Nord-Trøndelag. Botaniske undersøkelser i 10-årsverna vassdrag. Delrapport 3. 39 s. kr 20,-
- 3 Moen, A. & L. Kjelvik. Botaniske undersøkelser i Garbergselva/Rotla-området i Selbu, Sør-Trøndelag, med vegetasjonskart. 106 s., 2 pl. kr 60,-
- 4 Kofoed, J. -E. Forsøk med kalibrering av ledningsevnmålere. 14 s. kr 20,-
- 5 Baadsvik, K., T. Klokk & O. I. Rønning (red.). Fagmøte i vegetasjonsøkologi på Kongsvoll 15.-17.3.1981. 261 s. kr 60,-
- 6 Sæther, B., S. Bretten, M. Hagen, H. Taagvold & L. E. Vold. Flora og vegetasjon i Drivas nedbørfelt, Møre og Romsdal, Oppland og Sør-Trøndelag. Botaniske undersøkelser i 10-årsverna vassdrag. Delrapport 4. 127 s. kr 40,-
- 7 Moen, A. & A. Pedersen. Myrundersøkelser i Agder-fylkene og Rogaland i forbindelse med den norske myrreservatplanen. 252 s. kr 60,-
- 8 Iversen, S. T. Botaniske undersøkelser i forbindelse med generalplanarbeidet i Frøya kommune, Sør-Trøndelag. 63 s. kr 40,-
- 9 Sæther, B., J. -E. Kofoed & T. Øiaas. Flora og vegetasjon i Ognas og Skjækras nedbørfelt, Nord-Trøndelag. Botaniske undersøkelser i 10-årsverna vassdrag. Delrapport 5. 67 s. kr 20,-
- 10 Wold, L. E. Flora og vegetasjon i Toås nedbørfelt, Møre og Romsdal og Sør-Trøndelag. Botaniske undersøkelser i 10-årsverna vassdrag. Delrapport 6. 58 s. kr 40,-

11	Baadsvik, K. Flora og vegetasjon i Leksvik kommune, Nord-Trøndelag. 89 s.	kr 40,-
1982	1 Selnes, M. og B. Sæther. Flora og vegetasjon i Sørlivassdraget, Nord-Trøndelag. Botaniske undersøkelser i 10-årsverna vassdrag. Delrapport 7. 95 s.	kr 40,-
	2 Nettelbladt, M. Flora og vegetasjon i Lomsdalsvassdraget, Helgeland i Nordland. Botaniske undersøkelser i 10-årsverna vassdrag. Delrapport 8. 60 s.	kr 40,-
	3 Sæther, B. Flora og vegetasjon i Istras nedbørfelt, Møre og Romsdal. Botaniske undersøkelser i 10-årsverna vassdrag. Delrapport 9. 19 s.	kr 20,-
	4 Sæther, B. Flora og vegetasjon i Snåsavatnet, Nord-Trøndelag. Botaniske undersøkelser i 10-årsverna vassdrag. Delrapport 10. 31 s.	kr 20,-
	5 Sæther, B. & A. Jakobsen. Flora og vegetasjon i Stjørdalselvas og Verdalselvas nedbørfelt, Nord-Trøndelag. Botaniske undersøkelser i 10-årsverna vassdrag. Delrapport 11. 59 s.	kr 40,-
	6 Kristiansen, J. N. Registrering av edellauvkoger i Nordland. 130 s.	kr 40,-
	7 Holten, J. I. Flora og vegetasjon i Lurudalen, Snåsa kommune, Nord-Trøndelag. 76 s., 2 pl.	kr 60,-
	8 Baadsvik, K. & O. I. Rønning (red.). Fagmøte i vegetasjonsøkologi på Kongsvoll 14.-16.3.1982. 259 s.	kr 60,-
1983	1 Moen, A. og medarbeidere. Myrundersøkelser i Nord-Trøndelag i forbindelse med den norske myrreservatplanen. 160 s.	kr 40,-
	2 Holten, J. I. Flora- og vegetasjonsundersøkelser i nedbørfeltene for Sanddøla og Luru i Nord-Trøndelag. 148 s.	kr 40,-
	3 Kjærem, O. Fire edellauvskogslokaliteter i Nordland. 15 s.	kr 20,-
	4 Moen, A. Myrundersøkelser i Sør-Trøndelag og Hedmark i forbindelse med den norske myrreservatplanen. 138 s.	kr 40,-
	5 Moen, A. & T. Ø. Olsen. Myrundersøkelser i Sogn og Fjordane i forbindelse med den norske myrreservatplanen. 37 s.	kr 20,-
	6 Andersen, K. M. Flora og vegetasjon ved Ormsetvatnet i Verran, Nord-Trøndelag. 37 s., 1 pl.	kr 60,-
	7 Baadsvik, K. & O. I. Rønning (red.). Fagmøte i vegetasjonsøkologi på Kongsvoll 7.-8.3.1983. 131 s.	kr 40,-
1984	1 Krovoll, A. Undersøkelser av rik løvskog i Nordland, nordlige del. 40 s.	kr 20,-
	2 Granmo, A. Rike løvskoger på Ofotfjordens nordside. 46 s.	kr 20,-
	3 Andersen, K. M. Flora og vegetasjon i indre Visten, Vevelstad, Nordland. 53 s., 1 pl.	kr 60,-
	4 Holten, J. I. Flora- og vegetasjonsundersøkelser i Raumavassdraget, med vegetasjonskart i M 1:50 000 og 1:150 000. 141 s., 2 pl.	kr 60,-
	5 Moen, A. Myrundersøkelser i Møre og Romsdal i forbindelse med den norske myrreservatplanen. 86 s.	kr 40,-
	6 Andersen, K. M. Vegetasjon og flora i øvre Stjørdalsvassdraget, Meråker, Nord-Trøndelag. 83 s., 2 pl.	kr 60,-
	7 Baadsvik, K. & O. I. Rønning (red.). Fagmøte i vegetasjonsøkologi på Kongsvoll 18.-20.3.1984. 107 s.	kr 40,-
1985	1 Singsaas, S. & A. Moen. Regionale studier og vern av myr i Sogn og Fjordane. 74 s.	kr 40,-
	2 Bretten, S. & A. Moen (red.). Fagmøte i vegetasjonsøkologi på Kongsvoll 1985. 139 s.	kr 40,-
1986	1 Singsaas, S. Flora og vegetasjon i Ormsetområdet i Verran, Nord-Trøndelag. Supplerende undersøkelser. 25 s.	kr 20,-
	2 Bretten, S. & O. I. Rønning (red.). Fagmøte i vegetasjonsøkologi på Kongsvoll 1986. 132 s.	kr 40,-
1987	1 Bretten, S. & O. I. Rønning (red.). Fagmøte i vegetasjonsøkologi på Kongsvoll 1987. 63 s.	kr 40,-
1988	1 Bretten, S. & O. I. Rønning (red.). Fagmøte i vegetasjonsøkologi på Kongsvoll 1988. 133 s.	kr 40,-
1989	1 Wilmann, B. & A. Baudouin. EDB-basert framstilling av botaniske utbredelseskart. 21 s. + 10 kart.	kr 20,-
	2 Bretten, S. & O. I. Rønning (red.). Fagmøte i vegetasjonsøkologi på Kongsvoll 1989. 136 s.	kr 40,-
1990	1 Singsaas, S. Botaniske undersøkelser i vassdrag i Trøndelag for Verneplan IV. 101 s.	kr 40,-
1991	1 Singsaas, S. Konesjonspålagte botaniske undersøkelser i reguleringssonen ved	

		Storglomfjordutbygginga, Meløy, Nordland. 35 s.	kr 20,-
	2	Bretten, S. & A. Krovoll (red.). Fagmøte i vegetasjonsøkologi på Kongsvold 1990 og 1991. 168 s.	kr 40,-
1992	1	Bretten, S. & A. Krovoll (red.). Fagmøte i vegetasjonsøkologi på Kongsvold 1992. 100 s.	kr 40,-
1993	1	Arnesen, T., A. Moen & D.-I. Øien. Sølendet naturreservat. Oversyn over aktiviteteten i 1992 og sammendrag for DN-prosjektet "Sølendet". 62 s.	kr 40,-
	2	Krovoll, A. & A. Moen (red.). Fagmøte i vegetasjonsøkologi på Kongsvoll 1993. 76 s.	kr 40,-
1994	1	Moen, A. & R. Binns (eds.). Regional variation and conservation of mire ecosystems. Summary of papers. 61 s.	kr 40,-
	2	Moen, A. & S. Singsaas. Excursion guide for the 6th IMCG field symposium in Norway 1994. 159 s.	kr 100,-
	3	Flatberg, K. I. Norwegian Sphagna. A field colour guide. 42 s. 54 pl.	utgått
	4	Aune, E. I. & A. Moen. (red.). Fagmøte i vegetasjonsøkologi på Kongsvoll 1994. 50 s.	kr 40,-
	5	Arnesen, T. Vegetasjonsendringer i tilknytning til tråkk og tilrettelegging av natursti i Sølendet naturreservat. 49 s.	kr 40,-
1995	1	Singsaas, S. Botaniske undersøkelser for konsesjonssøknad i forbindelse med planer om overføring av Nesåa, Nord-Trøndelag. 56 s.	kr 40,-
	2	Holien, H. & T. Prestø. Kartlegging av nøkkelbiotoper for trua og sårbare lav og moser i kystgranskog langs Arnevik-vassdraget, Åfjord kommune, Sør-Trøndelag. 32 s.	kr 20,-
	3	Aune, E. I. & A. Krovoll (red.). Fagmøte i vegetasjonsøkologi på Kongsvoll 1994. 81 s.	kr 40,-
	4	Singsaas, S. Botaniske undersøkelser med skisse til skjøtelsplan for Garbergmyra naturreservat, Meldal, Sør-Trøndelag. 31 s.	kr 20,-
	5	Prestø, T. & H. Holien. Floraundersøkelser i Øggdalen, Holtålen kommune, Sør-Trøndelag - grenser for framtidig landskapsvernområde og konsekvenser for skogsdrift. 24 s.	kr 20,-
	6	Mathiassen, G. & A. Granmo. The 11th Nordic mycological Congress in Skibotn, North Norway 1992. 77 s.	kr 100,-



ISBN 82-7126-894-5
ISSN 0802-2992