NOTES ON THE MACROMYCETES OF FINNISH LAPLAND AND ADJACENT FINNMARK

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I. INTRODUCTION

One of the main aims of the Kevo Subarctic Research Station established by the University of Turku in Utsjoki in 1957 has been the compilation of an inventory of the plant and animal species found in the surrounding areas. As the station is located north of the continuous conifer forest in Fjeld Lapland (69°45′ n. lat. and 27° e. longit.), the surrounding area represents a subarctic biotic zone (HUSTICH 1960, SJÖRS 1963).

It is not possible to form any general picture of the macromycetes growing in the zone from the information published to date. Although in subarctic Fennoscandia as a whole basic mycological research has been carried out to only a limited extent (NANNFELDT 1959), the records of LAESTADIUS (1860), BLYTT (1905), ROMELL (1912), PILÁT & NANNFELDT (1916), NANNFELDT (1928), and LANGE (1946) give some information. LANGE (1948, 1955, 1957) has also described the mycoflora of Greenland. The relationship between the mycoflora of Lapland and the better known mycoflora of the conifer forest zone and arctic zone which has been discussed by SINGER (1954) is one of the most interesting problems in this area.

The information on the distribution of macromycetes in eastern Lapland is largely limited to the list published by KARSTEN in 1882 after his excursion to Kola peninsula in 1860. A few additional observations have been recorded by LEPIK (1933, Petsamo), KALLIO (1960, Utsjoki) and TUOMIKOSKI (1961, Inari). Herbarium specimens have been very few in number. For this reason the general reviews on the distribution of fungi written by, for example, RAUTAVAARA (1947) have been based on very limited factual material as far as the northern regions of Finland are concerned. In his list he has divided Finland in five zones and numbered them I—V from south to north. The numbers in our paper correspond to those zones.

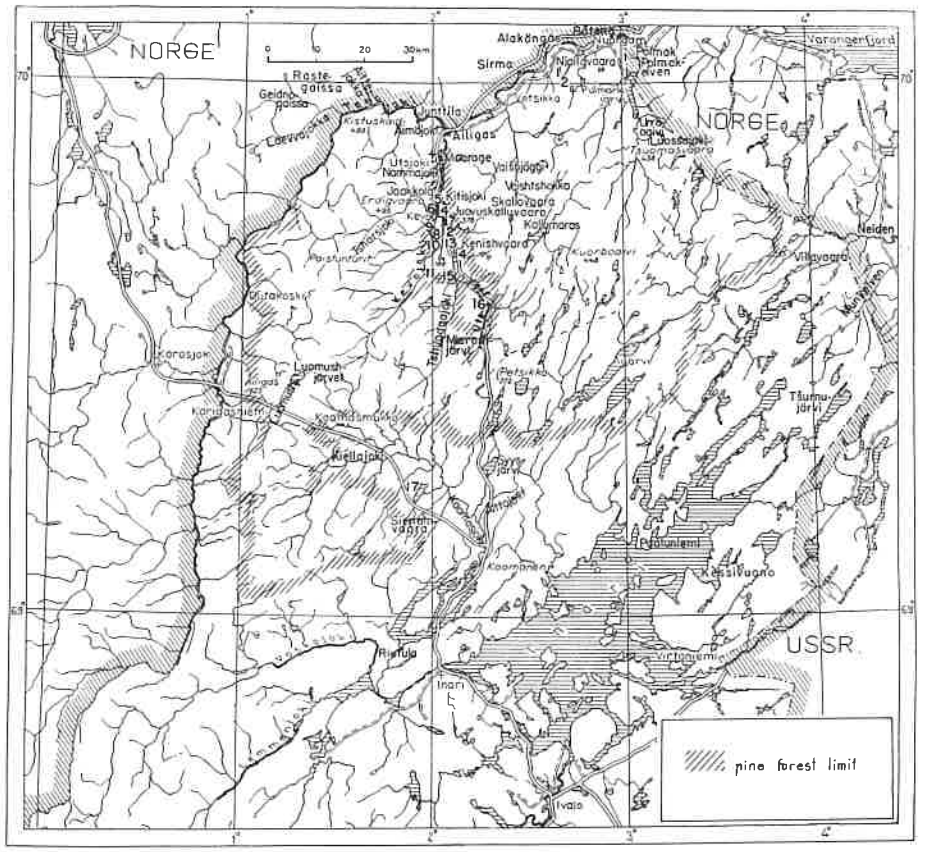

Fig. 1. The research area. Some of the localities not marked on the map: 1 Kiirunskaidi (fjeld); 2 Farfaloaivi (fjeld); 3 Lohiniemensaari (island); 4 Raessijoki (river), Patoniva (rapid), Kutuniemi (farm); 5 Jomppala (farm), Haukiniemi (farm); 6 Kevonsuu (farm), Jesnalvaara (fjeld); 7 Tshieskuljoki (river), Tshieskuljoki (farm); 8 Puksalskaidi (fjeld); 9 Kotkapahta (cliff); 10 Linkkapahta (cliff); 11 Njaggaljärvet (lakes in Kevojoki); 12 Puksala (farm); 13 Kenesjärvi (lake); 14 Kenespahta (cliff); 15 Ashkasjoki (river); 16 Mierashlompolo (farm); 17 Aksujärvi (lake).

Our field of study has comprised the areas surrounding the Kevo Station in Utsjoki commune although a number of specimens were collected from Inari commune and from adjoining regions in Norway (Finnmark), where the high mountains and proximity of the sea have made their own imprint on the biota. Since the general features of the nature of the areas in the immediate vicinity of Kevo Station have been described previously (e.g. LAINE et al. 1955, KALLIO & MÄKINEN 1957, KALLIO 1961, 1964, HÄMET-AHTI 1963), we shall only state that the area where the collections were made comprised the isolated pine forest (see map, Fig. 1), the extensive birch forest surrounding the latter, and the alpine zones above the birch zone. Excursions were also made

to greater distances from the Kevo Station, especially along various rivers of the Teno waterway in both Finland and Norway. The facilities for the drying and preparation of fungi at the station have been fairly good, and the collected material comprises over 5000 specimens of which the greater part is located in the Herbarium of the University of Turku (TUR), and the rest at the Kevo Station. The specimens were collected during the years 1959—1964. In this work the authors have been assisted by numerous students of biology. Those of the latter who participated in several years are Miss PAULA SILTANEN, B. Sc., Miss HELI HEIKKILÄ, B. Sc., Mr. SIMO SAARI, B. Sc., and Miss RAILI SUOMINEN, B. Sc.

The following list gives information mainly on herbarium specimens although observations on species readily identified in their habitats are included when a general survey of the distribution is made. For a wider background, information available from the literature mentioned above has been utilised. Also the observations of ULVINEN (1963 a, 1963 b) on the fungi of Oulu (65° n. lat. and 25°30′ e. longit.) and Savukoski (67°25′—68° n. lat. and 28°—29°30′ e. longit.) regions have been included. The years of publication of these papers are not repeated except when a special reason has made this necessary.

Because the collected material encompasses all groups of Agarics, only a part of the taxons has been identified to date. Genera typical of arctic and subarctic zones (SINGER 1954) such as *Cortinarius, Inocybe, Galerina, Hebeloma* and *Rhodophyllus* and the greater part of *Mycena* and *Hygrophorus* have had to be left unidentified for the present.

The classification and the names of taxa follow mainly those of SINGER (1962) for the *Agaricales,* those of CORNER (1950) for the *Clavariaceae,* those of ECKBLAD (1955) for the *Gasteromycetes* and those of MOSER (1963) for the *Ascomycetes.* In the identifications use has been made of the books of KARSTEN (1876, 1889), KÜHNER & ROMAGNESI (1953), JACOB LANGE (1935—40), NEUHOFF (1956), OVERHOLTS (1953), SKOVSTED (1956) and SCHAEFFER (1952). In some cases the exsiccate of LUNDELL & NANNFELDT (1934—1959) has been of great value.

The most important locations mentioned in the list are marked in the appended map (Fig. 1).

The authors are deeply indebted to the persons who participated in the collection excursions and to the research workers who have given expert advice in their special fields and whose names are mentioned in connection with the various species to which their contributions refer.

The English equivalents of Finnish, Norwegian and Lapp geographical names in the lists and on the map:

Elven (Norwegian) — River
Gaissa (Lapp) — Isolated mountain
Joki (Finnish) — River
Jokka (Lapp) — River
Järvi (Finnish) — Lake
Jaur(i) (Lapp) — Lake
Niemi (Finnish) — Cape
Pahta (Finnish) — Cliff
Skaidi (Lapp) — Mountain covered by birches and usually situated between rivers
Tunturi (Finnish) — Fjeld
Vaara (Finnish) — Mountain covered by forest

Utsjoki is both the name of a commune and that of a river; the commune name is spaced in the list.

II. LIST OF THE SPECIES

Ascomycetes

Vibrissea truncorum Fr.

Utsjoki: Mielgijoki 13. 8. -62, Tshieskuljoki 25. 7. -62. — Inari: west of Petsikko fjeld 1. 8. -62, south of Rajavaara 5. 8. -63. — KARSTEN states that the species grows in east Lapland. RAUTAVAARA: IV r.

Corynetes arenarius (Rostr.) Dur.

Utsjoki: southwest shore of Kevojärvi 23. 8. -63. — Finnmark: 500 m south of the bridge over Polmakelven 12. 8. -63, sand bank of Polmakelven 18. 8. -64. The habitat is shore sand. — The fungus has been found also in northern Sweden and on sand dunes in western Finland (cf. KALLIO & HEIKKILÄ 1963 and ERIKSSON 1964).

Mitrula paludosa Fr.

Utsjoki: Äimäjoki 1. 8. -63, Kitisjoki 1. 8. -61, east shore of Kevojärvi 18. 8. -61, 23. 8. -61, mouth of Siedgajoki (in Kevojoki valley) 19. 8. -61, Linkkapahta 16. 8. -61, Kenes-koski 7. 8. -62, west of Kenesjärvi 7. 8. -62. — Inari: Petsikko 4. 8. -64. — Grows in Sweden up to Lycksele Lappmark (NANNFELDT 1942). RAUTAVAARA: I—V p.

Mitrula gracilis Karst.

Utsjoki: east shore of Pulmankijärvi 19. 8. -64, southeast of Pulmankijärvi 14. 8. -63, Utsjoki 13. 8. -62, Saarela 21. 8. -64, mouth of Raessijoki 5. 8. -63, east of Kevojärvi 3. 8. -64, mouth of Kevojoki 14. 8. -62, 18. 8. -62, Linkkapahta 16. 8. -61, 26. 7. -62, Kenespahta 10. 8. -63, Tshuoggajoki 7. 8. -63. — Inari: west of Petsikko 1. 8. -62, 3. 8. -62, 4. 8. -64, west of Säytshjärvi 2. 8. -61. — Finnmark: Kiby 6. 8. -64, west bank of Polmakelven 18. 8. -64, Rastegaissa (subalpine region) 24. 8. -64, Geidnojokka 20. 8. -63. On *Drepanocladus* and *Paludella squarrosa,* which has turned brown in the vicinity of the fungus. Cf. NANNFELDT 1942. — NANNFELDT (1943) lists many localities in Swedish Lapland and Jämtland. LANGE (1957) records the species from Greenland and HAGEN (1950) from Jan Mayen. Fig. 2.

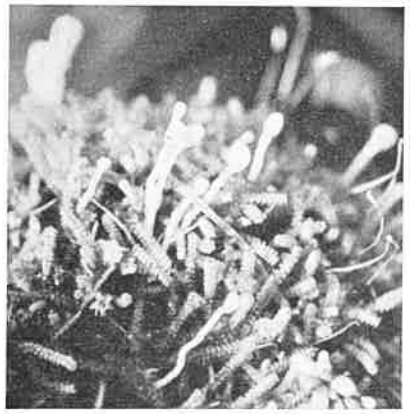

Fig. 2. Mitrula gracilis growing on *Paludella squarrosa*, which has turned brown. — Inari, Petsikko 1962.

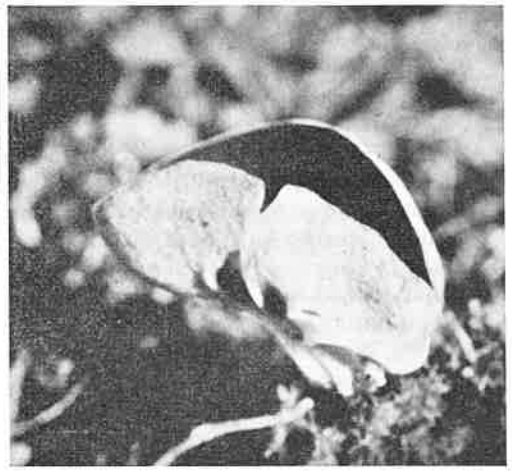

Fig. 3. Paxina acetabulum. — Tshieskuljoki 1964.

Spathularia flavida Pers.

Utsjoki: mouth of Kitisjoki 25. 8. -64, Kevonsuu 19. 8. -62, 20. 8. -64, mouth of Kevojoki 23. 8. -64, Linkkapahta 19. 8. -61, Kenespahta 8. 8. -64, southwest shore of Kenesjärvi 10. 8. -63. — Finnmark: mouth of Laevvajokka 24. 8. -64. All localities mentioned are in the pine forest zone, but in the grass-herb type of birch-pine forest. — NANNFELDT (1942) mentions localities up to Lule and Torne Lappmark. ULVINEN found the species in Savukoski. RAUTAVAARA: I—II p.

Cudonia circinans (Pers.) Fr.

Utsjoki: Raessijoki 14. 8. -61. — KARSTEN recorded the species from east Lapland. NANNFELDT (1942) did not find it in Swedish Lapland. RAUTAVAARA: I—V st fq.

Cudonia confusa Bres.

Utsjoki: mouth of Kitisjoki 25. 8. -64, Raessijoki 14. 8. -61, mouth of Tsharsjoki 18. 8. -64, 20. 8. -64, Kotkapahta 18. 8. -62. — Finnmark: west bank of Polmakelven 18.8. -64, mouth of Laevvajokka (subalpine region without pines) 24. 8. -64. — NANNFELDT (1942) mentions that the species grows in Sweden up to Helsingland and Jämtland. RAUTAVAARA: I fq.

Chlorosplenium aeruginosum (Oeder) de Notaris

Utsjoki: mouth of Tsharsjoki 15. 8. -62. — KARSTEN found the species in east Lapland and LANGE (1957) on rowan in Greenland.

Morchella conica Pers.

Utsjoki: Kevonsuu 21. 6. -64, Kotkapahta 8. 7. -64. The species was seen in the Utsjoki valley near Leppälä, July, 1957. Torne Lappmark: Abisko 13. 7. -64 (TUR, E. KANKAINEN). — RAUTAVAARA: I—V p.

Helvella lacunosa Afz.

Utsjoki: the Sarja farm (east shore of Pulmankijärvi) 19. 8. -64, Saarela 21. 8. -64, Jomppala 13. 9. -61, Kutuniemi 31. 8. -59, 1. 9. -59, Tshieskuljoki 18. 8. -61. Habitats always influenced by man. Contrary to statement by DISSING (1964) that the fruiting bodies are small in the material from Greenland and Swedish Lapland, here the fruit bodies are very large — up to 15 cm high. — LANGE found the species in Lapland and Greenland (1957), ULVINEN in the Oulu area. — RAUTAVAARA: I—III st r.

Helvella crispa (Scop.) Fr.

Finnmark: Vadsø, beach meadow 6. 8. -64. Small but well identifiable fruit bodies. — Earlier records only from south Finland (KALLIO 1963).

Cyathipodia macropus (Pers.) Dennis

Utsjoki: the Sarja farm (east shore of Pulmankijärvi) 19. 8. -64, mouth of Tsharsjoki 20. 8. -61, 23. 8. -61, 24. 8. -61, Linkkapahta 9. 8. -64, Tshuoggajoki 7. 8. -63. — RAUTAVAARA: I—II (—V) p.

Paxina acetabulum (L.) Kuntze

Utsjoki: mouth of Tshieskuljoki, dry meadow 17. 8. -64. — LANGE (1957) records the species from Greenland. The known localities in Finland are listed by MÄKINEN (1963 a). Fig. 3.

Gyromitra esculenta (Pers.) Fr.

Utsjoki: the species is common in the dry pine forests east of Kevojärvi, particularly on the roadside, but only one specimen has been collected there 7. 7. -62. — Inari: abundant in Vironniemi, northeast from Lake Inari, July, 1962. — KARSTEN found the species in east Lapland and ULVINEN in the Oulu area. RAUTAVAARA: I—V fq.

Gyromitra infula (Schff.) Fr.

Utsjoki: south of the church 30. 8. -59, east shore of Kevojärvi 11. 8. -61, 16. 9. -63, 26. 8. -64, 12. 9. -64, Tshieskuljoki 3. 9. -59, 17. 8. -64. — Inari: Kaamanen 17. 8. -61. Always grows in dry pine forests and on study roadsides. — LAESTADIUS found the species in the pine zone in Torne Lappmark and ULVINEN in Savukoski. RAUTAVAARA: I—III st fq.

Peziza violacea Pers.

Utsjoki: Kevonniemi 23. 8. -64, 12. 9. -64, east shore of Kevojärvi 22. 8. -64, 12. 9. -64. On pure sand. — KARSTEN: east Lapland.

Peziza cerea Sow.

Utsjoki: Kevonniemi 30. 7. -62, 15. 8. -62, 2. 8. -64, 10. 8. -64. On the yard of Kevo, common around the buildings. The size of the spores is ca. 14.3×8.4 microns. — KARSTEN found the species in east Lapland.

Peziza badia Pers.

Utsjoki: northeast of the mouth of Utsjoki 12. 8. -62, Kevonsuu 13. 8. -61, 8. 8. -64, mouth of Kevojoki 23. 8. -64, Kevonniemi 18. 9. -63, 23. 8. -64, Tshieskulvaara 15. 8. -64. —

Inari: Paksumaa 3. 8. -61, Kaamanen 17. 8. -62, Kaamanen road junction 26. 8. -64. — KARSTEN: Very common in Kola Peninsula. RAUTAVAARA: I—V fq.

Plectania protracta (Fr.) Gelin

Utsjoki: mouth of Tsharsjoki and Kevojoki, abundant in 1961 (MÄKINEN 1963 b).

Humaria hemisphaerica (Wiggers) Fuckel

Utsjoki: the Sarja farm (east shore of Pulmankijärvi) 19. 8. -64, mouth of Tsharsjoki 22. 8. -64, Kevonniemi 23. 8. -64. — Finnmark: mouth of Laevvajokka 24. 8. -64. — KARSTEN found the species in east Lapland.

Scutellinia scutellata (L.) Lambotte

Utsjoki: south of Urro-oaivi 14. 8. -63, near the church 6. 8. -62, 17. 8. -62, west of Nammatshokka 28. 8. -60, Jomppala 16. 8. -61, Raessijoki 26. 8. -60, 11. 8. -62, 21. 8. -63, Vetsikkojärvi 14. 8. -64, mouth of Tsharsjoki 23. 8. -61, 18. 8. -64, mouth of Kevojoki 22. 8. -63, east shore of Kevojärvi 21. 8. -61, near Kotkapahta 12. 8. -64, Tshieskulvaara 15. 8. -64, Kenespahta 10. 8. -63. — Inari: 4 km south of Syysjärvi 3. 8. -61, Syysjoki 2. 8. -61, northeast of Kessivuono 1. 8. -63. — Finnmark: west shore of Polmakelven 18. 8. -64. — KARSTEN found the species in east Lapland, LANGE (1957) in Greenland, and ULVINEN in the Oulu and Savukoski regions.

Daldinia concentrica (Bolt.) Ces. & DeNot.

Inari: Uutuanjoki, near the Norwegian border 5. 8. -63, close to the Näätämö frontier guard post 6. 8. -63, Vironniemi 1961. — Finnmark: 2 km southwest of the bridge over Polmakelven 14. 8. -63. — Torne Lappmark: Abisko 13. 7. -64 (TUR, E. KANKAINEN). — KARSTEN records the species from east Lapland.

Hypoxylon multiforme Fr.

Inari: Ivalo 3. 7. -31 (L. E. KARI). — Sodankylä: Tähtelä 23. 6. -31 (L. E. KARI). On *Betula*. — LAESTADIUS found the species in Torne Lappmark, KARSTEN in east Lapland.

Basidiomycetes

Tremellaceae

Exidia glandulosa Fr.

Utsjoki: mouth of Tsharsjoki (on *Salix*) 15. 8. -62, mouth of Kevojoki (on *Salix*) 14. 8. -62. — Inari: Laanioja, Laanila (on *Betula*) 29. 6. -31 (L. E. KARI). — KARSTEN records the species on *Alnus* from east Lapland.

Tremella mesenterica Jacq.

Utsjoki: Nuorgam 12. 8. -62, Äimäjoki 17. 8. -61, west of Utsjoki village (alpine region) 17. 8. -62, near the church 27. 7. -62, Patoniva, Oct. -62, Raessijoki 26. 8. -60, Jesnalvaara 24. 7. -62, mouth of Tsharsjoki 20. 9. -61, Tshieskuljoki 14. 8. -62, Kotkapahta 20. 8. -62, 2. 8. -62, Kenespahta 8. 8. -64. — Inari: Petsikko 1. 8. -62, 4. 8. -64, Laanila 28. 6. -31

(L. E. Kari). — Finnmark: Nyborg 6. 8. -64, Nesseby 22. 8. -61. On *Salix* and *Betula*. — KARSTEN found the species in east Lapland, LANGE (1957) on *Alnus* in Greenland. RAUTAVAARA: I r.

Thelephoraceae

Hymenochaete tabacina (Sow.) Lev.

Utsjoki: east shore of Kevojärvi 23. 8. -61, Tsharsjoki 16. 8. -64, 12. 9. -64, north of Kotkapahta 2. 8. -62. — KARSTEN listed the species from east Lapland.

Stereum hirsutum (Willd.) Fr.

Utsjoki: near the church 6. 8. -62, Kevonsuu 19. 8. -62, Tsharsjoki 20. 9. -61, 15. 8. -62, mouth of Kevojoki 19. 9. -61, 14. 8. -62, 22. 8. -63, Tshieskulvaara 14. 8. -64. — Inari: along Kaamasjoki 3. 8. -61, Ivalo 4. 7. -31 (L. E. KARI). This is the most common species of the genus in the whole research area. Common throughout Lapland (KARSTEN, LEPIK, LAESTADIUS).

Stereum purpureum Pers.

Utsjoki: mouth of Tsharsjoki 16. 8. -64, vicarage 21. 8. -64. Abundant in the surroundings of the Research Station. — KARSTEN listed the species from east Lapland. LAESTADIUS: Torne Lappmark.

Thelephora terrestris Ehrh.

Utsjoki: Kitisjoki 31. 8. -59, Raessijoki 10. 10. -62, mouth of Tsharsjoki 20. 8. -61, 8. 8. -64, Kevonniemi 19. 8. -60, Karigasniemi 16. 8. -63. — Inari: Kaamanen 17. 8. -63. — The species is common and abundant on the sandy yard of Kevo Research Station as well as on roadsides and other habitats influenced by man. — KARSTEN: east Lapland. RAUTAVAARA: I—V fq.

Thelephora palmata (Scop.) Fr.

Finnmark: Båteng 14. 8. -63. — KARSTEN recorded it from east Lapland. RAUTAVAARA: I—III fq.

Thelephora caryophyllea (Schaeff.) Fr.

Utsjoki: Äimäjoki 17. 8. -61. The species has been found also near Kotkapahta, although no specimens have been preserved. — LAESTADIUS has listed it from Torne Lappmark. RAUTAVAARA: I r.

Thelephora radiata (Holmsk.) Fr.

Utsjoki: Kevonniemi 8. 8. -62, mouth of Tsharsjoki 22. 8. -63. The habitat was a sandy shore. — LANGE (1957) records the species from Lapland and Greenland.

Clavariaceae

Clavaria argillacea Fr.

Utsjoki: Tshieskuljoki 17. 8. -64, west of Vetsikkojärvi 15. 8. -64, Kotkapahta 6. 8. -64. — Inari: Petsikko 16. 8. -64. — Finnmark: Kiby 6. 8. -64. "The only fairly common clavariaceous species in Greenland" (LANGE 1957, p. 53).

Fig. 4. Clavulinopsis vernalis. — Petsikko 1962.

Clavulinopsis vernalis (Schw.) Corner

U t s j o k i : the Saarela farm (south of the church) 22. 8. -63. — I n a r i : Petsikko fjeld (subalpine region) 1. 8. -62, 10. 8. -64. — F i n n m a r k : Geidnogaissa (alpine region) 20. 8. -63. The habitat is barren peaty and sandy soil or soil sparsely covered by *Polytrichum piliferum* mosses. The author KALLIO has found the species growing abundantly on barren soil on new roads in Twin Falls and Northwest River in Labrador as well as in Schefferville, Quebec, Canada, in 1963. Figs. 4 and 5. This species is very closely related to *Cl. lithocras* Reid, but Dr. REID has kindly identified this as *Cl. vernalis.*

Clavariadelphus fistulosus (Fr.) Corner

U t s j o k i : mouth of Kevojoki 22. 8. -61, 19. 9. -61, 18. 8. -62, 22. 8. -63, 20. 8. -64. — The fungus grows in a grass-herb birch forest type on litter of *Betula* twigs as well as on sandy soil on the river bank. The fruit bodies were up to 21 cm long and well developed. — RAUTAVAARA: I—III p.

Clavariadelphus fistulosus var. *contortus* Corner

U t s j o k i : the same localities as *C. fistulosus* 18. 8. -62, 20. 8. -64. Perhaps this is only a modification of the preceding taxon.

Fig. 5. Clavulinopsis vernalis. — Northwest River, Labrador, Canada 1963.

Clavariadelphus ligula (Fr.) Donk

U t s j o k i : mouth of Tsharsjoki 18. 8. -64, Kevojoki valley near Linkkapahta 4. 9. -59, east shore of Kevojärvi 17. 8. -64. — LAESTADIUS records the species as growing in the pine region in Torne Lappmark, ULVINEN lists it from Savukoski and Oulu areas. RAUTAVAARA: I—V fqq.

Fig. 6. Clavariadelphus septentrionalis. — Tshieskuljoki 1964.

Clavariadelphus septentrionalis Corner

U t s j o k i : Kevonsuu 25. 8. -64, mouth of Kevojoki 22. 8. -63, mouth of Tshieskuljoki 17. 8. -64, in many places in Kevonniemi on the path between the Research Station and the mouth of Kevojoki 25. 8. -64. — I n a r i : Kaamanen 26. 8. -64. — F i n n m a r k : Båteng 18. 8. -64, upper course of Polmakelven 18. 8. -64.

The characteristics of this species agree in all details those described by CORNER (1956) in the Swedish material. About 20 % of the fruit bodies are branched, the number of sterigmata (spores) per basido is mostly 6, sometimes 8 or 5. The size of the spores is 5.5—7.5×2—3 microns.

The habitat is sandy or peaty soil with only sparse cryptogam vegetation composed of *Polytrichum piliferum, P. juniperinum* and *Pogonatum urnigerum.* Also *Botrydina* and some algaen are always found in the vicinity (cf. POELT 1962, GAMS 1962). The species has been found earlier in Sweden (CORNER 1956), east Alps (POELT 1959) und Greenland (LANGE 1957). Figs. 6 and 7.

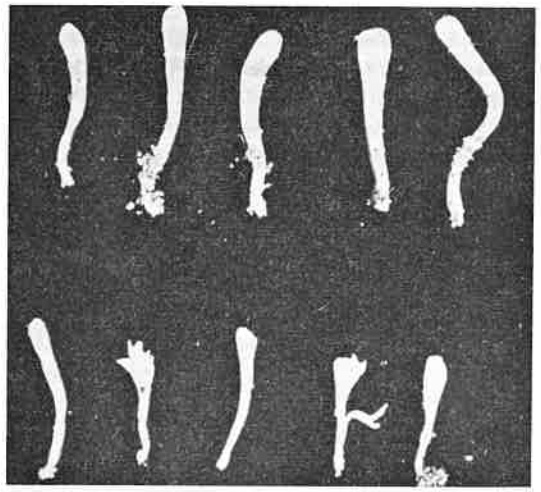

Fig. 7. Clavariadelphus septentrionalis. — Upper row: Finnmark, Båteng 1964; lower row: Finnmark, Polmakelven 1964.

Clavulina cristata (Fr.) Schroet.

U t s j o k i : Jomppala 16. 8. -61 in a willow copse on the river bank, mouth of Kevojoki 23. 8. -64, east shore of Pulmankijärvi 19. 8. -64. — F i n n m a r k : mouth of Laevvajokka 24. 8. -64. Recorded by LANGE (1957) from Greenland. RAUTAVAARA: I—III str.

Hydnaceae

Sarcodon scabrosus Fr. var. *fennicus* Karst.

Inari: Kaamanen 17. 8. -61. — From Kola Peninsula recorded by NIKOLAJEVA (1961).

Hydnellum aurantiacum (Alb. & Schw.) Karst.

Utsjoki: east shore of Kevojärvi 15. 8. -62, Kevonniemi 17. 8. -64. — Inari: Kaamanen 17. 8. -61. In pine forests. — NIKOLAJEVA (1961): Kola Peninsula, ULVINEN: Oulu area, RAUTAVAARA: I—II fq.

Hydnellum scrobiculatum (Fr.) Karst. [*Hydnum ferrugineum* Fr.]

Utsjoki: Kevonniemi 12. 9. -64, east shore of Kevojärvi 22. 8. -60, 15. 8. -61, 11. 8. -62, Kotkapahta 4. 8. -64. — Inari: Kaamanen 17. 8. -63. In sandy pine forests. — KARSTEN: east Lapland. NIKOLAJEVA (1961): Kola Peninsula. ULVINEN: rather common in the Oulu area. RAUTAVAARA: I—II st fq.

Hydnum repandum L.

Utsjoki: Padjisaeftikvaara 28. 8. -60, Paavalvaara 14. 8. -61, east shore of Kevojärvi 11. 8. -64, Jesnalvaara 11. 8. -61, Tsharsjoki 13. 8. -61, 22. 8. -64, Puksalskaidi 14. 8. -61, Tshieskuljoki 17. 8. -64, Linkkapahta 16. 8. -61, Kenishvaara 8. 8. 64, Mierashlompolo 13. 8. -61, Karigasniemi, Ailigas 16. 8. -63. — Inari: Paksumaa 3. 8. -61. In pine and birch forests. — NIKOLAJEVA (1961): Kola Peninsula, LAESTADIUS: Torne Lappmark, ULVINEN: Oulu and Savukoski areas, RAUTAVAARA: I—V fq.

Hydnum rufescens Pers.

Utsjoki: Puksalskaidi 14. 8. -61. — ULVINEN: Oulu area, RAUTAVAARA: I—V fq.

Polyporaceae

Merulius tremellosus Schrad.

Utsjoki: mouth of Tsharsjoki 20. 9. -61, Linkkapahta, on *Betula* 9. 8. -64. — KARSTEN: east Lapland, ROMELL: Abisko, LAESTADIUS: Torne Lappmark.

Merulioporia taxicola (Pers.) Bond. & Singer

Utsjoki: mouth of Tsharsjoki, on *Betula* 23. 8. -61. Det Dr. V. KUJALA.

Fomitopsis pinicola (Swartz) Karst.

Utsjoki: east shore of Kevojärvi, on pine, 17. 8. -64. — KARSTEN: east Lapland, RAUTAVAARA: I—V fqq.

Fomes roseus (Alb. & Schw.) Cooke

Utsjoki: Kevo 17. 8. -64. — Inari: on pine, 2. 7. -31 (L. E. KARI).

Fomes fomentarius (L.) Kickx

Utsjoki: Pulmankijoki, on *Betula*, 14. 7. -62, Puksalskaidi 25. 5. -64, 11. 8. -64, 22. 8. -64. — Common throughout the research area (on *Betula*, *Populus* and *Salix*) and also elsewhere Lapland (LAESTADIUS, KARSTEN, LEPIK). RAUTAVAARA: I—V fqq.

Fomes igniarius (L.) Kickx

Utsjoki: mouth of Tsharsjoki 11. 8. -64, Kevojoki valley 21. 8. -60, Puksalskaidi 25. 5. -64, Kevonniemi 20. 8. -64. — Common in the surroundings of Kevo. — Common also in all Lapland (LAESTADIUS, LEPIK, KARSTEN). RAUTAVAARA: I—V fqq.

Lenzites sepiaria (Wulf.) Fr.

Utsjoki: Puksalskaidi 16. 8. -62, mouth of Tsharsjoki 20. 8. -64. — Inari: near the bridge over Kaamasjoki 17. 8. -62, Ivalo 4. 7. -31 (L. E. KARI), Laanila 28. -6. -31 (L. E. KARI). — Common in all Lapland (LAESTADIUS, KARSTEN, LEPIK). RAUTAVAARA: I—V fqq.

Daedalea confragosa Bolt [*Lenzitina septentrionalis* Karst.]

Utsjoki: Kevonniemi 8. 8. -62, 17. 8. -64, mouth of Kevojoki 26. 7. -64, Puksalskaidi 25. 5. -64 abundantly, valley of Kevojoki 20. 8. -60, Jesnalvaara 19. 8. -61. — Inari: Uutuanjoki 5. 8. -63. Sweden, Torne Lappmark: Luopakte 11. 7. -64 (TUR, E. KANKAINEN). Always on birch. — KARSTEN: east Lapland, RAUTAVAARA: IV r.

Daedalea unicolor Bull.

Utsjoki: Kevonniemi (on *Betula*) 15. 9. -63, mouth of Kevojoki, Sept., -64. Common in the research area. — Inari: Ivalo (on *Betula*) 3. 7. -31, 15. 8. -31 (L. E. KARI). — LAESTADIUS records the species from Torne Lappmark and KARSTEN from east Lapland. RAUTAVAARA: I—V fq.

Polyporus ovinus Schaeff.

Utsjoki: east shore of Kevojärvi, in sandy pine forest 1. 9. -59. Very rare in the research area. — ULVINEN: Oulu region, RAUTAVAARA: I—V fq.

Polyporus squamosus Huds.

Utsjoki: Nuorgam (on *Salix myrsinifolia*) 12. 8. -62, mouth of Tsharsjoki (on *Salix*) 15. 8. -62, Tshieskuljoki (on *Salix*) 8. 8. -62. — Finnmark: Polmak, near the bridge over Polmakelven 12. 8. -63, upper course of Polmakelven (on *Salix phylicifolia*) 19. 8. -64. All habitats have been luxuriant grass-herb willow-birch copses. — LEPIK (1933) found the species in Kolttaköngäs (Petsamo) on *Salix*, and SIVERSTSEN (1961) in Finnmark also on *Salix*. In Finland mostly in the south (RAUTAVAARA: I r) and mostly on southern park trees (particularly elm). The northern area of distribution is separated from the southern in Finland. The taxons of these two distributional areas are hardly quite identical.

Polyporus picipes Fr.

Utsjoki: Kevonniemi (on dead *Betula*) 21. 8. -59. — LANGE 1957: Greenland (on *Salix*), RAUTAVAARA: I r.

Polyporus elegans Bull.

Utsjoki: Kevonsuu 22. 8. -64, mouth of Tsharsjoki 15. 8. -62, 28. 7. -64, Kotkapahta 2. 8. -62, 18. 8. -62, Linkkapahta (on *Salix*) 16. 8. -61. — KARSTEN: east Lapland (var. *albus*), ROMELL: Abisko, on *Salix*, RAUTAVAARA: I—V p.

Polyporus varius Fr.

Utsjoki: Kevojoki valley 19. 8. -61. — RAUTAVAARA: I—III r.

Polyporus betulinus Bull.

Utsjoki: Ruossavaara 28. 7. -61, Puksalskaidi 25. 5. -64, 20. 8. -64, Linkkapahta 16. 8. -61, Ailigas (Karigasniemi) 16. 8. -63. The species is very common in the research area as well as elsewhere in northern Fennoscandia (LAESTADIUS, KARSTEN, LEPIK). RAUTAVAARA: I—V fqq.

Polyporus arcularius Batsch

Utsjoki: Ailigas 10. 8. -64, near the church 21. 8. -61, 6. 8. -62, Jomppala 10. 8. -61, 16. 8. -61, Jesnalvaara 11. 8. -61, mouth of Tsharsjoki 23. 8. -61, 20. 9. -61, 15. 8. -62, mouth of Kevojoki 5. 8. -61, south of Kevonniemi 8. 8. -62, east shore of Kevojärvi 18. 8. -61, 15. 8. -62, 18. 8. -62, 16. 9. -63, 11. 8. -64, Tshieskuljoki 22. 8. -63, 17. 8. -64, Kotkapahta 15. 8. -61, Linkkapahta 16. 8. -61, upper course of Luomushjoki 17. 8. -63. — Inari: 2 km south of Munkelven 5. 8. -63, Villavaara 20. 7. -58. — Finnmark: Båteng 13. 8. -62, Nyborg 6. 8. -64, Varangerbotn 7. 8. -64, east shore of Lake Polmakvatn. — Sweden, Torne Lappmark: Björkstugan 19. 7. -64 (TUR, E. KANKAINEN). — LEPIK records the species from Petsamo. RAUTAVAARA: I—II r.

Polyporus brumalis Pers.

Utsjoki: east shore of Kevojärvi 20. 8. -60. Det. V. KUJALA. — The records of LAESTADIUS, KARSTEN and ROMELL obviously refer to the preceding taxon. In all cases species is rare as compared with *P. arcularius*. RAUTAVAARA: I—V fq.

Polyporus abietinus Dicks.

Utsjoki: mouth of Tsharsjoki 20. 8. -64. — Inari: Kessivuono 31. 7. -63. — Finnmark: west shore of Polmakelven 18. 8. -64. — Common throughout Lapland (LAESTADIUS, KARSTEN, LEPIK). RAUTAVAARA: I—V fq.

Polyporus borealis Fr.

Utsjoki: mouth of Tsharsjoki 20. 8. -64, along Kevojoki 23. 8. -64. — Not uncommon in the research area. — RAUTAVAARA: I—II p.

Polyporus dichrous Fr.

Utsjoki: east shore of Pulmankijärvi 19. 8. -64, Tshieskuljoki (on *Betula*) 25. 7. -62. — LAESTADIUS and ROMELL: Torne Lappmark, RAUTAVAARA: I—V p.

Polyporus cinnabarinus Jacq.

Inari: shore of Munkelven (on *Betula*) 5. 8. -63, Ivalo (on *Betula*) 15. 8. -31 (L. E. KARI). — RAUTAVAARA: I—V fq.

Polyporus perennis L.

Utsjoki: Ruossavaara 28. 7. -61, Vetsikko 27. 8. -58, Vuollisaeftikvaara (alpine region) 7. 7. -56, west of the Utsjoki village (alpine region) 16. 8. -62, Paavalvaara 1. 8. -61, Kutuniemi 4. 8. -63, Jesnalvaara 11. 8. -61, Kevonniemi 4. 8. -59, 9. 8. -61, 17. 9. -63, east shore of Kevojärvi 20. 8. -60, 15. 8. -62, Juovuskalluvaara 20. 8. -60, 8. 8. -61, south of Njargajärvi 8. 8. -61, Tshieskuljoki 25. 7. -62, 17. 8. -64, Puksalskaidi 4. 8. -61, 23. 8. -63, 25. 5. -64, Tsharsjokskaidi 5. 8. -61, Kotkapahta 12. 8. -64, Linkkapahta 16. 8. -61, Kenesjärvi 10. 8. -63, Mierashlompolo 13. 8. -61, upper course of Luomushjoki 17. 8. -63. — Inari: Kaamanen (village) 29. 7. -61, Kaamanen 17. 8. -61, south of Munkelven 5. 8. -63, Kallojoki 21. 7. -58, Laanila 17. 8. -61. — Finnmark: near the bridge over Polmakelven 12. 8. -63. — Common throughout northern Fennoscandia (LAESTADIUS, KARSTEN, ULVINEN). RAUTAVAARA: I—V fqq.

Coriolus zonatus (Nees.) Quél.

Utsjoki: Äimäjoki 18. 8. -62, Kutuniemi 11. 8. -62, Kevonniemi, July, -59, Puksalskaidi 25. 5. -64, mouth of Kevojoki 18. 8. -62, 23. 8. -64, Kenishvaara 23. 7. -62, south shore of Kenesjärvi 23. 7. -62. Common in the birch zone and always grows on birch.

Phyllotopsis nidulans (Pers.) Sing. [*Pleurotus nidulans* (Pers.) Gillet]

Inari: southeast shore of Tsurnujärvi (on *Betula*) 3. 8. -63. — RAUTAVAARA: I p. No records from northern Fennoscandia.

Pleurotus septicus (Fr.) Quél. [*Pleurotus pubescens* (Sow.) Schroeter]

Utsjoki: mouth of Kevojoki 19. 9. -61. On *Betula* twig litter. — RAUTAVAARA: I rr.

Pleurotus ostreatus (Jacq.) Quél.

Utsjoki: Roavvivaara 28. 7. -61, Paavalvaara 1. 8. -61, Jomppala 16. 8. -61, Raessijoki 1. 8. -61, 14. 8. -61, Kutuniemi 4. 8. -63, Jesnalvaara 11. 8. -61, 3. 8. -63, 10. 7. -64, mouth of Kevojoki 16. 8. -62, 1. 8. -63, 23. 8. -64, Kevonniemi 7. 8. -59, 24. 7. -60, 6. 8. -62, 26. 8. -64, east shore of Kevojärvi 15. 8. -61, Tshieskuljoki 25. 7. -62, 14. 8. -62, 22. 8. -62, 2. 8. -63, 17. 8. -64, Puksalskaidi 4. 8. -61, 2. 8. -62, Tsharsjokskaidi 5. 8. -61, Kotkapahta 15. 8. -61, Njaggaljärvet 9. 8. -63, Kenespahta 24. 7. -59, upper course of Luomushjoki 17. 8. -63. — Inari: Suopumavaara 19. 7. -58 (H. SÅLTIN), east of Partakko, July, -59. — Finnmark: Skipagurra 6. 8. -64, east shore of Lake Polmakvatn 19. 8. -64. — Fairly common in east Lapland (KARSTEN, LEPIK). RAUTAVAARA: I—V st r.

Lentinus lepideus Fr.

Utsjoki: along Tenojoki, near Mosesaari 10. 8. -61, Kutuniemi, Aug., -63. — Inari: Kaamanen 3. 8. -61. — KARSTEN records the species from east Lapland. RAUTAVAARA: I—III fq.

Hygrophoraceae

Hygrophorus karstenii Sacc. & Cub. [H. *bicolor* Karst.]

Utsjoki: Paavalvaara 1. 9. -59, Kevonniemi 19. 9. -63, east side of Kevojärvi 31. 8. -59, 1. 9. -59, 20. 8. -60, 21. 8. -61, 16. 9. -63. Tshieskulvaara 15. 8. -64, Tshieskuljoki 17. 8. -64.

Fig. 8. Hygrophorus piceae. — East shore of Kevojärvi 1961.

This species grows abundantly on the pine-covered slopes east of Kevojärvi. — ULVINEN: the Oulu and Savukoski areas, TUOMIKOSKI: Inari, Kuusipää, RAUTAVAARA: I—II st r.

Hygrophorus piceae Kühn.

U t s j o k i: Jesnalvaara 2. 9. -59, east shore of Kevojärvi 31. 8. -59 , 3. 9. -59 , 23. 8. -61, 17. 9. -63. The colour of this species is pure white; the size of the spores 7×4.5 microns (see KÜHNER & ROMAGNESI 1953, p. 58). The species was found in mixed birch forests on the lower slopes and in moist *Vaccinium myrtillus — Pleurozium schreberi* vegetation in pine forests. — TUOMIKOSKI: Inari, Kuusipää and ULVINEN: Oulu and Savukoski areas. Fig. 8.

Hygrophorus hypothejus (Fr.) Fr.

U t s j o k i: Jesnalvaara 13. 9. -64, a pine grove on the east shore of Kevojärvi 16. 9. -63. — ULVINEN: Oulu area. RAUTAVAARA: I—V fq.

Hygrophorus agathosmus (Fr.) Fr.

U t s j o k i: west side of Kevojärvi 31. 8. -59, east side of Kevojärvi 31. 8. -59, 16. 9. -63. The species occurs on moist lower slopes of hills covered by birch shrubs and pine. — LAESTADIUS found this species in the coniferous zone of Torne Lappmark. ULVINEN: Oulu and Savukoski areas, RAUTAVAARA: I—V fq.

Camarophyllus niveus (Scop.) Karst.

U t s j o k i: shore of Tenojoki near Lohiniemensaari 24. 8. -61, Nammajoki 28. 8. -60, mouth of Tsharsjoki 24. 8. -61, east shore of Kevojärvi 17. 9. -63. The species grows in coppices in the river valleys. — ULVINEN found the species in the Oulu area. RAUTAVAARA: I r.

Camarophyllus virgineus (Wulf.) Karst.

U t s j o k i: the Sarja farm (east shore of Pulmankijärvi) 19. 8. -64, dry grassy meadows at the mouth of Utsjoki 5. 9. -59, Äimäjoki 18. 8. -62, vicarage 30. 8. -59, 21. 8. -61, 20. 8. -64, Kitisjoki 9. 8. -59, 31. 8. -59, Jomppala 3. 9. -59, Kutuniemi 31. 8. -59, Kevonsuu -60, Tshieskuljoki 17. 8. -64. This species has also been found in Nuorgam, Vetsikko, Tshieskuljoki and Puksala. It occurs abundantly in the grass-covered yards of Lapp houses. — LAESTADIUS: Torne Lappmark, RAUTAVAARA: I—V st fq.

Hygrocybe nitrata (Pers.) Karst.

U t s j o k i: Äimäjoki 18. 8. -62. — The species has not earlier been found in Lapland. — RAUTAVAARA I p. Fig. 9.

Hygrocybe coccinea (Schaeff.) Kummer

U t s j o k i: Nuorgam 12. 8. -62, mouth of Utsjoki 30. 8. -59, vicarage 31. 8. -59. The species grows in grassy places in farmyards and in meadows along rivers. — LANGE (1957) found it in Greenland. RAUTAVAARA: I st fq.

Fig. 9. Hygrocybe nitrata. — Äimäjoki 1962.

Hygrocybe turunda (Fr.) Karst.

U t s j o k i: Lohiniemensaari in Tenojoki 24. 8. -61, mouth of Tsharsjoki, on moss carpet 15. 8. -62. The gills are white and somewhat decurrent.

Hygrocybe cantharellus (Schw.) Lange

U t s j o k i: Äimäjoki 17. 8. -61. — F i n n m a r k: Båteng 22. 8. -61. RAUTAVAARA: I r.

Hygrocybe miniata (Scop.) Karst.

U t s j o k i: Tsharsjoki (near the waterfall), Aug., 1961. — According to KARSTEN, this species is relatively common in eastern Lapland. LANGE (1946): Torne Lapland. TUOMIKOSKI: Inari. RAUTAVAARA: I—V fq.

Hygrocybe conica (Scop.) Karst.

U t s j o k i: the Sarja farm (east shore of Pulmankijärvi) 29. 7. -61, 19. 8. -64, along Tenojoki near Lohiniemensaari 24. 8. -61, along Tenojoki at the ferry landing 27. 8. -59, mouth of Utsjoki 30. 8. -59, Äimäjoki 5. 9. -59, 24. 8. -61, 18. 8. -62, vicarage 30. 8. -59, 31. 8. -59, 21. 8. -61, 20. 8. -64, Kitisjoki 7. 8. -59, Kutuniemi 31. 8. -59, 18. 8. -61, Kevonsuu 29. 8. -59, 25. 8. -60, 8. 8. -64, mouth of Tsharsjoki 19. 8. -61, 23. 8. -61, 24. 8. -61, 15. 8. -62, on the island east of Kevo Research Station 22. 8. -60, Tshieskuljoki 22. 8. -60, southwest of Vetsikkojärvi 15. 8. -64, Linkkapahta 16. 8. -61, south shore of Kenesjärvi 8. 8. -64, Mierashjärvi 1. 8. -61, Tshuoggajärvi 10. 8. -61. — I n a r i: camping area at Kaamanen 17. 8. -61. — F i n n m a r k: Kiby 6. 8. -64, Vadsø 6. 8. -64, shore of Varanger fjord near the mouth of Jacobselven 22. 8. -61, Polmakelven 19. 8. -64. This species is especially common in the grassy yards of farm houses as well as in meadows along rivers. It has not been found in the alpine region. This species occurs in different forms, e.g. both the yellow and red forms of the large type (var. *nigrescens*) and the small slender (red) form ("var. typicus") in the grassy yard of the vicarage. — LAESTADIUS, KARSTEN, LANGE (1946) and TUOMIKOSKI have recorded the species from Lapland. ULVINEN: Oulu and Savukoski areas, RAUTAVAARA: I—V fq.

Hygrocybe chlorophana (Fr.) Karst.

U t s j o k i: Kutuniemi 1. 9. -59, Kevonsuu 29. 8. -59. — F i n n m a r k: Vadsø 22. 8. -61. The northern *H. chlorophana* differs from the species in the southern part of the country by its somewhat bitter taste. — ULVINEN: Oulu area. RAUTAVAARA: I—II r.

Hygrocybe marchii (Bres.) Sing.

Utsjoki: Äimäjoki 5. 9. -59, north of Vetsikkojärvi 14. 8. -64, 15. 8. -64. — Finnmark: Kiby 6. 8. -64.

This species is apparently rather common in the research area, but is known by the authors first in 1964.

Hygrocybe laeta (Pers.) Karst.

Utsjoki: Lohiniemensaari in Tenojoki 24. 8. -61, Äimäjoki 17. 8. -61, 18. 8. -62, alpine region west of the church 16. 8. -62, alpine region of Erdigvaara 1. 9. -60, east shore of Kevojärvi 15. 8. -62. — Finnmark: mouth of Laevvajokka 24. 8. -64.

The following *Hygrophori,* which apparently are common in southern Finland, have not been found in Utsjoki:

Hygrophorus erubescens (Fr.) Fr. the northernmost known locality is Sukeva in the middle of Finland (TUR, AILA PARTANEN).

Hygrophorus olivaceo-albus (Fr.) Fr. The northernmost locality for this species is Kuusipää in Inari (TUOMIKOSKI). According to ULVINEN, it is one of the most common *Hygrophorus species* in the Oulu region.

Hygrophorus cossus Sow. ULVINEN found this species in the Oulu region, which is the northernmost locality for the species in Finland.

Camarophyllus pratensis (Pers.) Karst. LANGE (1955) has recorded the species from Greenland and ULVINEN from Oulu.

Tricholomataceae

Lyophyllum aggregatum (Schaeff.) Kühner

Utsjoki: Padjisaeftikvaara 28. 8. -60, Kevonniemi 16. 8. -61, east shore of Kevojärvi 23. 8. -61, Linkkapahta 19. 8. -61. The species is found in both pine and birch zones. Spores spherical, about five microns in diameter (see J. LANGE 1935 (I), p. 87: *Clitocybe aggregata* var. *sphaerospora* Lange).

Another closely related taxon with smaller and caespitose fruit bodies, obviously *Clitocybe conglobata* (Vitt.) Fr. (see J. LANGE op.c., p. 88), occurs also in pine and pure birch heaths. The localities of this species are:

Utsjoki: Nuorgam 12. 8. -62, south of the church 30. 8. -59, near Jomppala 13. 8. -61, west shore of Kevojärvi 16. 8. -62, Jesnalvaara 11. 8. -61, 16. 8. -61, east shore of Kevojärvi 1.29. 59, 20. 8. -60, 15. 8. -61, 21. 8. -61, valley of Kevojoki 19. 8. -61, Njaggaljärvet 9. 8. -63.

Lyophyllum ulmarium (Bull.) Kühner

Utsjoki: south of Nammajoki 1. 9. -61, Puksalskaidi 19. 8. -61. — Finnmark: mouth of Aittejokka (along Tanaelven) 19. 8. -63. — ROMELL and LANGE (1946) record the species from Swedish Lapland, ULVINEN from the Oulu area. RAUTAVAARA: I p.

Calocybe pseudoflammula (Lange) M. Lange

Finnmark: Rastegaissa 24. 8. -64. The species resembles closely *Tricholoma sulphureum,* but is odourless. — LANGE (1955) recorded the species from Greenland.

Laccaria laccata coll.

The species is very common and highly variable in the area (HEIKKILÄ 1963). The number of specimens is over 100. Var. *proxima* (Boud.) Maire is rather common, especially on the heaths influenced by man. — *Laccaria laccata* is common everywhere in subarctic regions (KARSTEN, LAESTADIUS, LANGE 1955).

Clitocybe clavipes (Pers.) Fr.

Utsjoki: Vetsikko 27. 8. -58, mouth of Utsjoki 30. 8. -59, 19. 8. -61, Äimäjoki 1. 8. -63, vicarage 16. 8. -61, 20. 8. -64, Kitisjoki 31. 8. -59, Jomppala 5. 8. -61, Kutuniemi 18. 8. -62, Kevonsuu 29. 8. -59, 18. 8. -61, mouth of Tsharsjoki 13. 8. -61, 20. 8. -61, southwest of Vetsikkojärvi 15. 8. -64, Tshieskuljoki 15. 8. -61, 23. 8. -61, 17. 8. -64, Puksala 9. 8. -59. — Inari: Kaamanen 17. 8. -61. All samples are from localities exposed to human activity, e.g. from farmyards, edges of cultivated fields and roadsides. — KARSTEN: east Lapland. LAESTADIUS: Torne Lappmark. RAUTAVAARA: I—V fq.

Clitocybe odora (Bull.) Quél.

Utsjoki: the Sarja farm (east shore of Pulmankijärvi) 19. 8. -64, along Tenojoki opposite Lohiniemensaari 24. 8. -61, Kitisjoki 9. 8. -59, 31. 8. -59, Raessijoki 1. 9. -59, 11. 8. -61, mouth of Tsharsjoki 25. 8. -60, 20. 8. -61, 24. 8. -61, Linkkapahta 16. 8. -61. — Finnmark: Varangerbotn 7. 8. -64, upper course of Polmakelven 18. 8. -64, mouth of Laevvajokka 24. 8. -64. This species occurs especially in dense thickets along the rivers and creeks and frequently in moist places. — KARSTEN: east Lapland. LAESTADIUS: Torne Lappmark. LANGE (1955): Greenland. RAUTAVAARA: I—V fq.

Clitocybe inversa (Scop.) Fr.

Utsjoki: Kutuniemi 31. 8. -59. — Inari: Ivalo 19. 9. -63. In Kutuniemi the species grew in a heap of litter in the farmyard; in Ivalo it grew abundantly on forest duff under spruce trees along a river. — There are no records in the literature of the occurrence of this species in subarctic regions. ULVINEN: Oulu area. RAUTAVAARA: I st r.

Clitocybe infundibuliformis (Schaeff.) Quél.

Utsjoki: Jeägelveägji (along Tenojoki) 10. 8. -61, Äimäjoki 17. 8. -61, vicarage 16. 8. -61, 23. 8. -62, Kitisjoki 8. 8. -59, Jomppala 5. 8. -61, 13. 8. -61, 16. 8. -61, Kutuniemi 13. 8. -61, 11. 8. -62, 12. 8. -62, 17. 8. -62, 18. 8. -62, 4. 8. -63, Kevonsuu 9. 8. -59, 4. 8. -61, mouth of Tsharsjoki 23. 8. -61, Kevonniemi 1. 9. -63, mouth of Kevojoki 21. 8. -60, 14. 8. -62, Tshieskuljoki 15. 8. -61, 17. 8. -64, Linkkapahta 21. 8. -62. — Inari: Laanila 17. 8. -61. — Finnmark: Vadsø 22. 8. -61, Varangerbotn 7. 8. -64. The species grows especially abundantly in the grassy farmyards around Lapp settlements, but also occurs in uninhabited areas. — From Lapland reported by KARSTEN, LAESTADIUS and LANGE (1955) and from Greenland by LANGE (1955). RAUTAVAARA I—V fq.

Clitocybe fragrans (Sow.) Quél.

Utsjoki: mouth of Utsjoki 19. 8. -61, Äimäjoki 17. 8. -61, 24. 8. -61, 18. 8. -62, Kotkapahta 18. 8. -62, Tshieskuljoki 22. 8. -62. — Inari: Laanila 17. 8. -61. The species was found growing on grassy places influenced by human activity with the exception of Kotkapahta, where it grew at the base of the slope. — LAESTADIUS records it from Torne Lappmark and ULVINEN from the Oulu area. RAURAVAARA: I—V st fq.

Clitocybe candicans (Pers.) Fr.

Utsjoki: Tsharsjoki, Aug., -61, Kevonniemi 19. 9. -63. — LAESTADIUS records this species from Torne Lappmark. RAUTAVAARA: II st fq.

Ripartites tricholoma (A. & S.) Karst.

Utsjoki: vicarage 20. 8. -64. — LANGE (1957) records the species from Lapland and Greenland. RAUTAVAARA: I r.

Tricholomopsis rutilans (Schaeff.) Sing.

Utsjoki: east shore of Kevojärvi 31. 8. -59, Raessijoki 10. 8. -61, Tshieskuljoki 19. 8. -60. — Inari: Kaamanen 17. 8. -61. In Utsjoki the species has been found only in the pine forest region around Kevo. — LAESTADIUS, KARSTEN and ROMELL record the species from Lapland. RAUTAVAARA: I—V st fq.

Tricholomopsis decora (Fr.) Sing.

Utsjoki: Jomppala 24. 8. -60, Jesnalvaara 9. 8. -62, Kevonsuu 2. 8. -64, north slope of Puksalskaidi 4. 8. -61, Kevonniemi 14. 8. -62, east shore of Kevojärvi 28. 7. -64, Tshieskuljoki 15. 8. -63, Keneskoski 7. 8. -62, Kenishvaara 8. 8. -64. — Inari: near the bridge over Kaamasjoki 17. 8. -62. The species is relatively common around Kevo. — TUOMIKOSKI found it growing on a spruce stump in Inari, but there are no other records of its occurrence in northern Fennoscandia. RAUTAVAARA: I r.

Tricholoma saponaceum (Fr.) Quél.

Utsjoki: west slope of Paavalvaara 1. 9. -59, Jomppala 24. 8. -60, Erdigvaara, alpine region 28. 8. -60, mouth of Tsharsjoki 13. 8. -61, 20. 8. -61, Kevonniemi 21. 8. -60, 12. 8. -64, 18. 8. -64, east shore of Kevojärvi 26. 8. -60, 17. 8. -64, Tshieskuljoki 31. 8. -59, 17. 8. -64, Puksalskaidi 23. 8. -60, Kotkapahta 4. 8. -64, Linkkapahta 16. 8. -61. — Inari: 4 km south of Syysjärvi 3. 8. -61. — Finnmark: Rastegaissa (alpine region) 24. 8. -64. — LAESTADIUS records it from the coniferous belt in Torne Lappmark, which is the only record of the species in northern Fennoscandia. RAUTAVAARA: I—III fq.

Tricholoma album (Schaeff.) Quél.

Utsjoki: Tshuomasvaara 13. 8. -63, the Sarja farm (east shore of Pulmankijärvi) 19. 8. -64, Raessijoki 14. 8. -61, mouth of Tsharsjoki 28. 8. -59, 2. 9. -59, 13. 8. -61, 20. 8. -61, 23. 8. -61, Linkkapahta 5. 9. -59, 16. 8. -61, south of Ailigas (Karigasniemi) 16. 8. -63. — Finnmark: Varangerbotn 7. 8. -64, east bank of Polmakelven 18. 8. -64, north shore of Lake Polmakvatn 14. 8. -63, mouth of Laevvajokka 24. 8. -64. All of the localities are moist, lush birch groves. — ROMELL: Abisko. TUOMIKOSKI: Inari. RAUTAVAARA: I st fq.

Tricholoma flavovirens (Pers.) Lundell [*T. equestre* (L.) Quél.]

Utsjoki: near the church 21. 8. -61, east shore of Kevojärvi 29. 8. -59, west shore of Kevojärvi 3. 9. -59, Jesnalvaara 20. 9. -61, Kevonniemi 30. 8. -59, 23. 8. -60, 26. 8. -64, 13. 9. -64, Puksalskaidi 27. 8. -60. — Inari: Kaamanen 17. 8. -61. All of the localities are from the pine forest belt, but the locality in Puksalskaidi is a birch grove where small pine seedlings grew. BLYTT found this species in Finnmark and ULVINEN in the Oulu region. RAUTAVAARA: I—V fq.

Tricholoma portentosum (Fr.) Quél.

Utsjoki: east slope of Puksalskaidi 8. 8. -59, east shore of Kevojärvi 30. 8. -59, Tshieskuljoki 19. 8. -60. This species has been found only in the coniferous forest area around Kevo. It has been considered a southern species (RAUTAVAARA: I st fq), but ULVINEN has found it in the Oulu region.

Tricholoma virgatum (Fr.) Gillet

Utsjoki: mouth of Tsharsjoki -59. — ULVINEN has recorded the species from the Oulu region. RAUTAVAARA: I—II st fq.

Tricholoma terreum (Schaeff.) Quél.

Utsjoki: Erdigvaara, alpine region 28. 8. -60, Tsharsjoki 20. 9. -61, Kevonniemi 1. 9. -59, east shore of Kevojärvi 31. 8. -59, 3. 9. -59, Tsharsjokskaidi 25. 8. -60, Linkkapahta 5. 9. -59. — Finnmark: upper course of Polmakelven 19. 8. -64. Very common in the surroundings of Kevo in the years 1959 and 1960. — The species has not been recorded previously from Lapland. ULVINEN: Oulu region. RAUTAVAARA: I st fq.

Tricholoma imbricatum (Fr.) Quél.

Inari: Kaamanen 17. 8. -61. — The species has not been found previously either in north Finland or in the northern part of Scandinavia. RAUTAVAARA: I—II st fq.

Tricholoma flavobrunneum (Fr.) Quél.

Utsjoki: Urro-oaivi 14. 8. -63, mouth of Utsjoki 30. 8. -59, 19. 8. -61, Äimäjoki 1. 8. -63, vicarage 20. 8. -64, Kutuniemi 4. 8. -63, Jesnalvaara 2. 9. -59, mouth of Tsharsjoki 25. 8. -60, 13. 8. -61, 15. 8. -62, mouth of Kevojoki 7. 8. -59, 22. 8. -63, Kevonniemi 2. 9. -59, north slope of Puksalskaidi 23. 8. -63, Mierashjärvi 9. 8. -63. This species is the most common species of the genus in the investigated area. It has been found in every zone from pine forest to alpine region. It also grows in the meadows around Lapp settlements. — TUOMIKOSKI: Ivalo. LAESTADIUS: Torne Lappmark. RAUTAVAARA: I—III st fq.

Tricholoma pessundatum (Fr.) Quél.

Utsjoki: west shore of Kevojärvi 3. 9. -59, east shore of Kevojärvi 1. 9. -59, 16. 9. -63. All specimens have been found in dry pine forests. — LAESTADIUS: Torne Lappmark. RAUTAVAARA: I st fq.

Armillariella mellea (Vahl) Karst.

Utsjoki: mouth of Kevojoki 14. 8. -62, Tshieskuljoki 29. 8. -59 Kevonniemi 19. 9. -63. The species was also found, although no specimens were taken, along the lower course of Nammajoki. Rare in the research area. — ROMELL: Torne Lappmark. RAUTAVAARA: I—IV fqq.

Omphalina rustica (Fr.) Quél.

Utsjoki: Tshuomasvaara, alpine region 13. 8. -63, Ailigas, subalpine region 10. 8. -64, vicarage 20. 8. -64, Saarela 21. 8. -64, Juovuskalluvaara 3. 8. -64, Kotkapahta 18. 8. -62, east shore of Kevojärvi 17. 8. -64, Puksalskaidi 8. 8. -62, 11. 8. -64, 20. 8. -64, northwest of Kenesjärvi 7. 8. -62, Ailigas (Karigasniemi; alpine region) 16. 8. -63. — Finnmark: Ala-

köngäs roadside 18. 8. -64, Rastegaissa 24. 8. -64, Geidnogaissa, alpine region 20. 8. -63. — The species is common in Swedish Lapland and Greenland (LANGE 1955, 1957). RAUTAVAARA: I rr.

Omphalina sphagnicola (Berk.) Karst.

Utsjoki: Nammajoki 1. 9. -60. — Inari: Petsikko 3. 8. -62, 10. 8. -64. The first specimen was collected in a boggy place beside a creek along the upper course of Nammajoki, the second in a "palsa" bog. — LANGE (1946) recorded the species from Swedish Lapland. RAUTAVAARA: I st r.

Omphalina ericetorum (Pers.) M. Lange [*O. umbellifera* (L.) Quél.]

Utsjoki: Nuorgam 12. 8. -62, along Utsjoki 19. 8. -61, west of the church (alpine region) 16. 8. -62, vicarage 6. 8. -62, Vaishtshokka-Skallovaara (alpine region) 8. 8. -61, Kitisjoki 1. 8. -61, Raessijoki 14. 8. -61, west shore of Kevojärvi 16. 8. -62, Jesnalvaara 9. 8. -62, mouth of Kevojoki 18. 8. -62, east shore of Kevojärvi 15. 8. -62, Tshieskuljoki 14. 8. -62, Puksalskaidi 10. 8. -61, 5. 8. -62, 13, 8. -62, Kotkapahta 2. 8. -62, Linkkapahta 16. 8. -61. — Inari: southwest of Petsikko 1. 8. -62, Paaluniemi, Sienivaara 9. 7. -59, along Aittojoki 3. 8. -61, Oravala-Pielppajärvi 4. 7. -59. — Finnmark: Nesseby 22. 8 .-61. The species has been found on dry moss-covered rocks and "palsas", but sometimes also on decayed tree stumps. Very abundantly in the year 1964 in the whole research area. Always grows together with *Botrydina* and/or *Coriscium viride*. — Recorded from Lapland by LAESTADIUS, KARSTEN, LANGE (1946, 1955), LUNDELL & NANNFELDT (1949), from Greenland by LANGE (1955), from Jan Mayen and Svalbard by HAGEN (1950).

Omphalina luteovitellina (Pilát & Nannf.) M. Lange
[*O. flava* (Cooke) M. Lange]

Utsjoki: west of the church (alpine region) 16. 8. -62, west shore of Vetsikkojärvi 14. 8. -64, Tsharsjoki 10. 8. -59, Kevonniemi 15. 8. -61, 17. 9. -63, 26. 8. -64, east shore of Kevojärvi 15. 8. -61, Puksalskaidi 5. 8. -62, 11. 8. -64, Tsharsjokskaidi 5. 8. -61, Kotkapahta 18. 8. -63. — Inari: Petsikko 4. 8. -64, 10. 8. -64. — Finnmark: Rastegaissa, alpine region 24. 8. -64. In addition to these the species has been found in several locations in the alpine region of Erdigvaara and Juovuskalluvaara as well as on the "palsas" of the bog area of Petsikko. Also this species is associated with *Corisicium* and *Botrydina*. — The species is common in Greenland (LANGE 1955) and in Swedish Lapland, where it occurs up to an elevation of 1700 m (LANGE 1955, cf. also DEARNESS 1928, p. 16).

Omphalina viridis (Fl. D.) Lange

Utsjoki: Nuorgam 13. 8. -62. The species grew in a natural dry meadow surrounded by cultivated fields. — Finnmark: roadside at Alaköngäs 6. 8. -64, 8. 8. -64, 8. 9. -64. On dry sand among coarse moss vegetation (*Pogonatum urnigerum, Polytrichum piliferum*).

Omphalina pyxidata (Bull.) Quél.

Utsjoki: Kevo 25. 8. -64, on thin peaty soil on rock 25. 8. -64. — Finnmark: sandy roadside at Alaköngäs 18. 8. -64, Skipagurra 23. 8. -64. The habitat sand with sparse vegetation of *Pogonatum urnigerum* and *Polytrichum piliferum* mosses. — LANGE records the species from Lapland (1946) and Greenland (1955). RAUTAVAARA: I—III r.

Omphalina luteolilacina Favre [*Omphalina lilacina* (Laest.) Lange]

Utsjoki: Erdigvaara, alpine region 1. 9. -60, bog along the shore of Vetsikkojärvi 14. 8. -64, west of Vetsikkojärvi 15. 8. -64, Kevonniemi 21. 8. -64, mouth of Kevojoki 26. 8. -64. — Inari: Petsikko "palsa" bog 16. 8. 64. — Finnmark: Rastegaissa, subalpine region 24. 8. -64. The characteristics correspond to the description of LANGE (1955): *Hygrophorus violæpes*. Also this species is a component of "hemilichenes".

Omphalina sp.

In Kevo research area one *Omphalina* (*Mycena*?) species is found growing on the thallus of *Blasia pusilla*. The grayish brown or pale fungus has a furrowed cap with a diameter of 4—8 mm and the stem up to 15 mm long and rather sturdy. The gills are only slightly decurrent and scarce. There are four sterigmas in the basidio and the dimensions of the spores are 6.5—7.5×3.5—4.0 microns. There are also cheilocystidia, about 9—12 microns in diameter.

Dr. DENNIS (Royal Botanical Gardens, Kew) has kindly examined our specimens and reported that this taxon seems very close to *Omphalia camptophylla* (Berk.) Sacc. Synonyms are *Mycena camptophylla* (Berk.) Sing. and *Mycena speirea* Fr. (cf. SINGER 1962, p. 386).

Mycena speirea is reported to grow on fallen twigs. We always found our species growing on the green thalli of *Blasia pusilla* on the banks of rives and other wet places. Hundreds of fruit bodies were collected in the near vicinity of the Research Station and in the Polmak village (Finnmark), but not a single one was found on any other substrate. Furthermore, the species is almost always found (when the fruitbodies have formed) when *Blasia* stands are examined. *Blasia pusilla* and our *Omphalina* species are not only parabiotic but apparently some kind of symbiosis exists between these two species.

The author Kallio found the same *Omphalina species* in 1963 near Northwest River, Newfoundland, when he examined a stand of *Blasia pusilla* on a wet slope.

Fayodia maura (Fr.) Sing.

Utsjoki: Kevonniemi 13. 9. -64, east of Kevojärvi, burned place in pine heath forest 17. 8. -64. — No earlier records of this species from Lapland. RAUTAVAARA: I—II st r.

Gerronema fibula (Bull.) Sing.

Utsjoki: Äimäjoki 17. 8. -61, 18. 8. -62, vicarage 21. 8. -61, 18. 8. -62, 20. 8. -64, Saarela 21. 8. -64, Kutuniemi 17. 8. -62, Tshieskuljoki 17.8. -64, mouth of Kevojoki 18. 8. -62, Linkkapahta 16. 8. -61. — Inari: Kaamanen 17. 8. -62. — Finnmark: Alaköngäs 18. 8. -64, Bâteng 19. 8. -64, west shore of Lake Polmakvatn 19. 8. -64, Skipagurra 22. 8. -64. — Common in open mossy meadows where the influence of human activity is evident. — Recorded from Lapland by LAESTADIUS, KARSTEN and LANGE (1946). RAUTAVAARA: I—V st fq.

Gerronema setipes (Fr.) Sing. [*Omphalina swartzii* (Fr.) Quél.]

Utsjoki: mouth of Kevojoki 22. 8. -63. The species grew among moss and grasses in a lush grove beside a path. — KARSTEN records the species from east Lapland. RAUTAVAARA: I p.

Leptoglossum lobatum (Pers.) Ricken [*Leptotus lobatus* Karst.]

Utsjoki: Karigasniemi, Ailigas 16. 8. -63. — The species is obviously common in

Fig. 10. Leptoglossum lobatum. — Karigasniemi, Ailigas 1963.

the subarctic as well as in arctic (SINGER 1954, p. 458, LANGE 1955, p. 20). Found in Swedish Lapland by PILÁT & NANNFELDT and LANGE (1946). RAUTAVAARA: I r. Fig. 10.

Hohenbuehelia petaloides (Bull.) Schulzer [*Pleurotus petaloides* (Bull.) Quél.]

Inari: by the bridge over Kaamasjoki 17. 8. -63. Habitat on roadside, sandy pine forest. The author Kankainen found the species 17. 6. -63 in west Lapland, Kolari, Mannakorpi, near an old lime converter. — The species has been found earlier only in south Finland (KARSTEN 1889, RAUTAVAARA: I—II r, v. SCHULMANN 1955). Fig. 11.

Cantharellula umbonata (Gmelin) Sing.

Utsjoki: Äimäjoki 24. 8. -61, Tsharsjoki 20. 8. -61, Kevonniemi 2. 8. -59, east shore of Kevojärvi 21. 8. -61, 3. 8. -64, 11. 8. -64, Kotkapahta 4. 9. -59. — LAESTADIUS: Torne Lappmark. ULVINEN: Oulu area. RAUTAVAARA: I—V st fq.

Cantharellula cyathiformis (Bull.) Sing.

Utsjoki: Kevonniemi 12. 9. -64, Puksalskaidi near Linkkapahta, Aug., -59. — LAESTADIUS found the species in Torne Lappmark. RAUTAVAARA: I—III st fq.

Melanoleuca strictipes (Karst.) Métrod

Utsjoki: mouth of Utsjoki 19. 8. -61, Äimäjoki 1. 8. -63, vicarage 16. 8. -61, Jomppala 5. 8. -61, 13. 8. -61, 6. 8. -62, 19. 8. -62, Kutuniemi 23. 8. -60, 1. 8. -61, 4. 8. -62, 4. 8. -63, mouth of Tsharsjoki 25. 8. -60, 11. 8. -61, 23. 8. -61, 22. 8. -64, Kevonniemi 11. 8. -64, Tshieskuljoki 2. 8. -63, Micrashjärvi 9. 8. -63. — Inari: Kaamanen 11. 8. -64, Akujärvi 11. 8. -64. A typical fungus in meadows around Lapp houses. — RAUTAVAARA: I—III r.

Melanoleuca cognata (Fr.) Konr. & Maubl.

Utsjoki: Kutuniemi 11. 8. -62, 5. 8. -64, Tshieskuljoki 11. 3. -62, 17. 8. -64. — Finnmark: Kiby 6. 8. -64. Occurs frequently in similar habitats, but is less abundant than *M. strictipes*. — According to LANGE (1946), rather common in the birch zone in Torne Lappmark; also found once in Greenland (LANGE 1955). RAUTAVAARA: I r.

Melanoleuca brevipes (Bull.) Pat.

Utsjoki: Jomppala 16. 8. -61. The species grew in a farmyard. — RAUTAVAARA: I r.

Lentinellus bisus (Quél.) Kühn. & Maire

Utsjoki: Raessijoki, Aug., -62, mouth of Tsharsjoki 19. 8. -62, 22. 8. -63, 18. 8. -64, mouth of Kevojoki 23. 8. -64, upper course of Tshieskuljoki 15. 8. -64, Kenespahta 8. 8. -64.

— Finnmark: upper course of Polmakelven 18. 8. -64. — LANGE perhaps (1955, p. 15) found this taxon in Greenland.

Fig. 11. Hohenbuchelia petaloides. — Kaamanen 1963.

Armillaria focalis Fr.

Utsjoki: west side of Kevojärvi, dry sandy pine forest 3. 9. -59, (The species is shown in Fig. 12), east shore of Kevojärvi 1. 9. -59 (two specimens), 31. 8. -60.

The species differs clearly from the following taxon. The breadth of the pileus is about 5 cm, the stem is shorter than the diameter of the cap, the colour is glossy red brown without the typical "scales" of *A. goliath*. The stem is slightly swollen at the annulus. The size of the spores 4.51 × 2.49 (east side of Kevojärvi 1. 9. -59) and 4.44 × 3.17 μ (31. 8. -60) corresponds to that recorded by KÜHNER & ROMAGNESI (1953, p. 151), and that of no. 2510 in the exsiccate of LUNDELL & NANNFELDT which corresponds to our material also in all other characteristics. The habitat was a sandy pine forest with *Arctostaphylos uva-ursi, Vaccinium vitis-idaea* and different lichens. The habitat corresponds to that mentioned by LUNDELL & NANNFELDT (1958) in shaede 2510—2512 in their exsiccate.

Armillaria goliath (Fr.) Lundell

Utsjoki: 15 specimens collected in the years 1959, 1960, 1961 and from different localities in pine forests around Kevojärvi. This taxon is identical with number 1706 in the exsiccate of LUNDELL & NANNFELDT (1949) from Sweden. The diameter of the fruit body

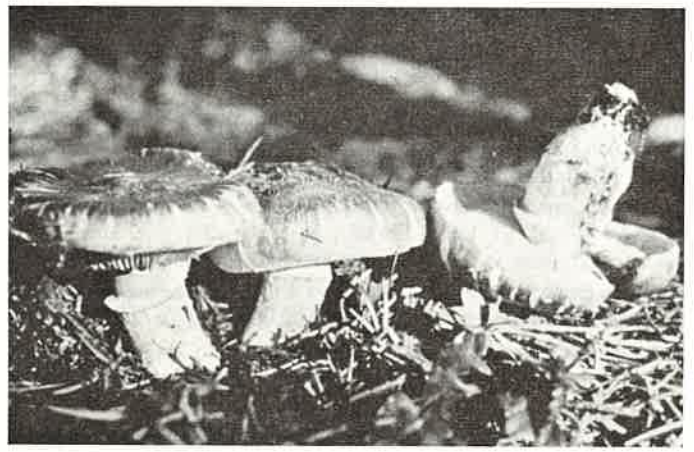

Fig. 12. Armillaria focalis. — Kevo 1959.

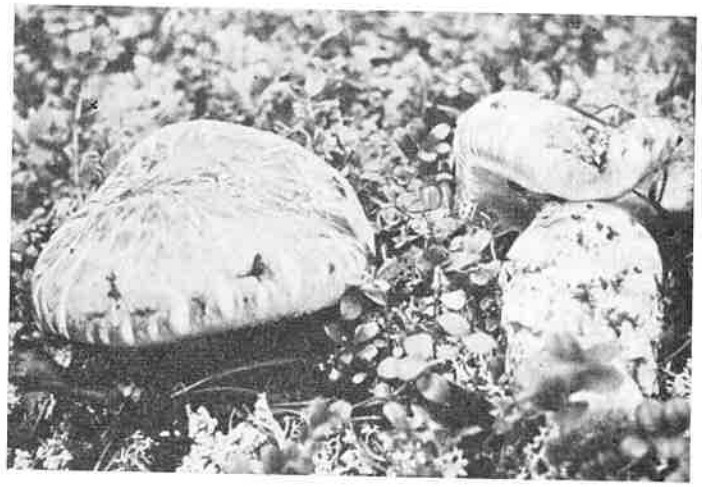

Fig. 13. Armillaria goliath. — East shore of Kevojärvi 1959.

may be 15 cm but usually less than 10 cm. The stem is mostly longer than the diameter of the pileus and the annulus is fugacious. The cutis of the pileus is formed by coarse fibril groups and diffuse squamules (Fig. 13). The colour is grayish brown and not the glossy red brown typical of *A. focalis*. The stem is sunk deep in the mineral (sandy) soil. The odour is characteristic (perhaps similar to that of *Catathelasma imperiale*) and is still preserved in six-year-old herbarium specimens. The habitat is always a sandy pine forest.

The sizes of the spores measured from various herbarium collections are: 6.03×4.42 microns (100 measurements), 5.85×4.29 (50), 5.04×4.33 (100), 5.98×4.44 (100), 6.31×4.40 (50). These are smaller than the measurements given by LUNDELL. Cf. the data given for *A. galicata* by KÜHNER & ROMAGNESI (1953, p. 151). The spore sizes of the specimens from Rovaniemi are 6.05×4.36 (50) and those from Masku 6.01×4.33 (50).

The taxon is not rare in Finland; the specimens are preserved under the name *A. robusta* or *A. caligata* in the collections in H and TUR. In H there are altoghether 6 specimens, all from south Finland: Uusimaa: Porvoo (NYBERG, 2 specimens), Porvoo (CARPELAN), Tuusula (MALMSTRÖM), Varsinaissuomi: "Åbo-trakten" (CARPELAN), Satakunta: Kankaanpää (LAURILA).

In TUR, there are the following specimens, in addition to those from Lapland: Varsinaissuomi: Masku (KALLIO), Satakunta: Yläne (2 specimens, KALLIO), Honkilahti (KALLIO), Kankaanpää (LAURILA), Pohjoispohjanmaa: Rovaniemi (very abundant in Ounasvaara 1960; KALLIO). There are further some records apparently of this species in the literature: Sipoo (FREY, Mem. Soc. F. Fl. Fenn. 18: 25), Parainen (REUTER, Mem. Soc. F. Fl. Fenn. 19: 42), Tuusula (MALMSTRÖM, Ibid. 22: 16; cf. also NYBERG, Ibid. 22: 52). This agaric is one of the rarest Swedish species and appears as a rule as single specimens (LUNDELL, shaede 1706, op.c.). According to a private communication of Dr. LUNDELL, the species has, however, been found later in several localities in Sweden.

Trogia crispa (Pers.) Fr. [*Cantharellus crispus* Fr.]

U t s j o k i: mouth of Tsharsjoki 19. 9. -62, on decayed birch twigs. — LAESTADIUS found the species in the conifer zone of Torne Lappmark. KARSTEN (1876, p. 238): in Fennia australis passim.

Collybia maculata (A. & S.) Quél.

U t s j o k i: northwest of Vetsikkojärvi 11. 8. -61, east shore of Kevojärvi 15. 8. -62, 16. 8. -62, 3. 8. -64, Puksalskaidi 11. 8. -62, Linkkapahta 16. 8. -61. — I n a r i: Riutula 8. 8. -62. — S o d a n k y l ä: 45 km north of Sodankylä (along Kitinen R.) 24. 8. -63. — F i n n m a r k: Skallelven 7. 8. -64. In both birch and pine forests. — LAESTADIUS found the species in the birch zone of Torne Lappmark, ULVINEN in Oulu region. RAUTAVAARA: I, IV st fq.

Collybia butyracea (Bull.) Quél.

U t s j o k i: Raessijoki 20. 8. -60, mouth of Tsharsjoki 29. 8. -61, Kevonniemi 15. 8. -61, 19. 9. -63, 12. 9. -64, east shore of Kevojärvi 31. 8. -59, 2. 9. -59, 15. 8. -61, 16. 9. -63, Tshieskuljoki 22. 8. -62, Puksalskaidi 12. 8. -62, Kenespahta 8. 8. -64. — I n a r i: Kaamanen 17. 8. -61. The species has been found only in pine forests. — LAESTADIUS found it in Torne Lappmark also in birch zone. According to ULVINEN, common in the Oulu region. RAUTAVAARA: I—III st fq.

Collybia dryophila (Bull.) Quél.

U t s j o k i: Nuorgam 12. 8. -62, Farfaloaivi 10. 8. -61, Ailigas (alpine region) 10. 8. -64, mouth of Utsjoki 19. 8. -61, Äimäjoki 1. 8. -63, west of the church (alpine region) 16. 8. -62, Patoniva 30. 7. -62, 3. 8. -63, Haukiniemi 5. 8. -63, north shore of Kevojärvi 5. 8. -63, Kutuniemi 4. 8. -63, west shore of Kevojärvi 16. 8. -62, Jesnalvaara 5. 8. -61, 24. 7. -62, mouth of Tsharsjoki 5. 8. -61, 11. 8. -61, 18. 8. -61, 20. 8. -61, 23. 8. -61, 27. 7. -62, 13. 8. -62, 14. 8. -62, 18. 8. -64, Kevonniemi 29. 7. -62, 1. 8. -63, 16. 9. -63, 20. 9. -63, east shore of Kevojärvi 1. 9. -59, 1. 8. -61, 18. 8. -61, 23. 8. -61, 11. 8. -62, Tshieskuljoki 25. 7. -62, 6. 8. -63, southwest of Vetsikkojärvi 15. 8. -64, Puksalskaidi 5. 8. -61, 9. 8. -61, 14. 8. -62, Kotkapahta 21. 8. -60, 15. 8. -61, valley of Madjoki 14. 8. -61, Linkkapahta 16. 8. -61, east shore of Kenesjärvi 10. 8. -63, Ashkasjoki 3. 8. -62, Tshuoggajoki 7. 8. -63, Mierashlompolo 13. 8. -61, Njaggaljärvet 14. 8. -61, 9. 8. -63, upper course of Luomushjoki 16. 8. -63, Ailigas, Karigasniemi 16. 8. -63. — I n a r i: west of Petsikko 1. 8. -62, Kaamanen 17. 8. -62. — F i n n m a r k: Skallelven 6. 8. -64, 7. 8. -64, northeast shore of Lake Polmakvatn 17. 8. -62, Rastegaissa (alpine region) 24. 8. -64. Occurs also in the alpine region of Erdigvaara and Juovuskalluvaara. One of the most common fungi in all vegetation zones in the research area. Two different "forms" of the taxon exist: 1. the smaller and darker form with spores 5.8×3.0 microns (from 115 measurements) and 2. the larger form with lighter fruit bodies and a spore size of 4.0×2.5 microns (see LANGE 1955, p. 37). The author KALLIO found these two forms also in northern Quebec, Canada, in 1963. — Already KARSTEN considered the species "sat frequens per totam Lapponiam" (p. 197). According to LANGE, it occurs above the tree limit in Abisko (1946) and in Greenland (1955). ULVINEN: Oulu area, RAUTAVAARA: I—V fq.

Collybia fuscopurpurea (Pers.) Kummer

U t s j o k i: near the church 6. 8. -62, north of Kotkapahta 4. 9. -59, 4. 8. -64, Juovuskalluvaara 2. 8. -64. — F i n n m a r k: Kiby 6. 8. -64. The fruit bodies are small, mostly less than 1.5 cm wide. — LANGE found the species in Torne Lappmark (1946) and in Greenland (1955), where the species is variable in size and colour.

Collybia peronata (Bolt) Sing.

U t s j o k i: Ailigas 10. 8. -64, mouth of Tsharsjoki 20. 9. -61, Kutuniemi 11. 8. -62, 17. 8. 62, 18. 8. -62, east shore of Kevojärvi 18. 8. -61, upper course of Tshieskuljoki

14. 8. -62, Kotkapahta 18. 8. -62, Linkkapahta 16. 8. -61. — Finnmark: Båteng 13. 8. -62. All samples are from a luxuriant herb-grass birch forest. The spore sizes 8.19×3.26 microns (100 measurements). — No earlier records exist of its occurrence in northern Fennoscandia. RAUTAVAARA: I r.

Collybia confluens (Pers.) Quél.

Utsjoki: Nammajoki 13. 8. -62, Tsharsjoki 23. 8. -61, Tshieskuljoki 14. 8. -62. All the habitats are the luxurious meadow birch forests of the pine zone of Utsjoki. — LAESTADIUS found the species in Torne Lappmark in the birch zone. RAUTAVAARA: I—III st fq.

Collybia putilla (Fr.) Sing.

Utsjoki: east slope of Jesnalvaara 19. 9. -61, Tshieskuljoki 17. 8. -64. — LAESTADIUS found the species in the birch zone of Torne Lappmark. RAUTAVAARA: I—V st r.

Collybia cirrata (Pers.) Quél.

Utsjoki: Ailigas 10. 8. -64, Raessijoki 5. 8. -63, mouth of Tsharsjoki 5. 8. -62, 15. 8. -62, 11. 8. -64, mouth of Kevojoki 14. 8. -62, Kevonniemi 18. 8. -62, southwest of Vetsikkojärvi 15. 8. -64, Kenespahta 8. 8. -64, upper course of Luomushjoki 17. 8. -63. — Inari: Petsikko 4. 8. -64. — Finnmark: Skallelven 7. 8. -64, Kiby 6. 8. -64. Very common in the research area, mostly on rotten agarics. — LANGE (1955, p. 37) records it from Greenland growing mostly on rotten *Boletus scaber*. LAESTADIUS, KARSTEN and LANGE (1946) record the species from Lapland. Common in the Oulu area (ULVINEN). RAUTAVAARA: I—V fq.

Collybia tuberosa (Bull.) Quél.

Utsjoki: the Sarja farm (east shore of Pulmankijärvi) 19. 8. -64, Ailigas 10. 8. -64, east of Kevojärvi 3. 8. -64, Tshieskulvaara 15. 8. -64, south shore of Kenesjärvi 8. 8. -64. — Inari: Petsikko 4. 8. -64, 16. 8. -64. — Finnmark: Kiby 6. 8. -64, Skipagurra 6. 8. -64. — LANGE found the species in Torne Lappmark (1946) and ULVINEN in the Oulu region. RAUTAVAARA: I—II st r.

Micromphale perforans (Hofm. & Fr.) Sing.

The species has not been found in the research area proper. The northernmost known localities are from Korvatunturi (about 68° n. lat., 29° e. longit.; TUR, KALLIO), and from Inari: Kuusipää (TUOMIKOSKI). Apparently dependent on the distribution of spruce.

Panellus violaceofulvus (Batsch) Sing. or *P. ringens* (Fr.) Rom.

Utsjoki: a sterile specimen from mouth of Kevojoki 19. 9. -61. The habitats were rotten twigs in a birch herb-grass forest. — Cf. LANGE 1955, p. 13.

Panellus serotinus (Pers.) Kühner [*Pleurotus serotinus* (Schrad.) Quél.]

Utsjoki: Luossajoki 14. 8. -63, Jesnalvaara 23. 8. -61, mouth of Tsharsjoki 20. 9. -61, Kevonniemi 12. 9. -64. Always on *Betula*. — ROMELL records the species from Abisko, ULVINEN from the Oulu area on *Prunus* and LANGE (1955) from Greenland on *Sorbus*. RAUTAVAARA: I—V st fq.

Flammulina velutipes (Curt.) Sing. [*Collybia velutipes* (Curt.) Quél.]

Utsjoki: Äimäjoki 18. 8. -62, Jesnalvaara 8. -61, Tsharsjoki 15. 8. -62, 16. 8. -64, mouth of Kevojoki 16. 8. -62, 22. 8. -63, Kotkapahta 6. 8. -62, upper course of Luomushjoki 17. 8. -63. — Finnmark: Rastegaissa 24. 8. -64. On birch and willow. — According to KARSTEN (p. 197): passim in tota Lapponia. Also in Swedish Lapland (LAESTADIUS and LANGE 1955) and Greenland (LANGE 1955). RAUTAVAARA: I—V st fq.

Macrocystidia cucumis (Pers.) Heim. [*Naucoria cucumis* (Pers.) Gillet]

Utsjoki: east slope of Puksalskaidi near Kenesjärvi 7. 8. -62. — No record from northern Fennoscandia in the literature. RAUTAVAARA: I r.

Marasmius androsaceus (L.) Fr.

Utsjoki: Äimäjoki 17. 8. -61, near the church 6. 8. -62, Patoniva, Oct., -62, south of Vetsikkojärvi 15. 8. -64, mouth of Kevojoki 4. 9. -59, east shore of Kevojärvi 21. 8. -61, 3. 8. -64, Tshieskuljoki 14. 8. -62, Kotkapahta 2. 8. -62, Tshuoggajoki 7. 8. -63. — Inari: Petsikko 1. 8. 62. — Finnmark: Båteng 13. 8. -62, tundra beside Skallelven 7. 8. -64, Rastegaissa 24. 8. -64, 13. 8. -62, northeast shore of Lake Polmakvatn. — Has been found in different parts of Lapland (LAESTADIUS, LANGE 1946, TUOMIKOSKI) and Greenland (LANGE 1955). RAUTAVAARA: I—V fq.

Marasmius epiphyllus (Pers.) Fr.

Utsjoki: Raessijoki, Aug., -59, mouth of Tsharsjoki 24. 8. -61, 15. 8. -62, mouth of Kevojoki 14. 8. -62, Tshieskuljoki 23. 8. -61, 14. 8. -62, 25. 8. -64, Kotkapahta 4. 9. -59, Njaggaljärvet 9. 8. -63. — Finnmark: near the mouth of Laevvajokka 20. 8. -63, 24. 8. -64, northeast shore of Lake Polmakvatn 14. 8. -63. No records from Lapland. LANGE (1955) found the species in Greenland. RAUTAVAARA: I—III st fq.

Marasmius siccus (Schw.) Fr.

Utsjoki: Mantojärvi, birch copse near vicarage 20. 8. -64, mouth of Kitisjoki 25. 8. -64, mouth of Tsharsjoki 24. 8. -61, 20. 8. -64, 21. 8. -64, 24. 8. -64 (11 specimens in all were taken from this locality), mouth of Kevojoki 25. 8. -64. — Finnmark: along the upper course of Polmakelven 18. 8. -64, Båteng, shore of Tanaelven 18. 8. -64, mouth of Laevvajokka 24. 8. -64. All the localities were in the Tenojoki (Tanaelven) area.

The species has been in some years the most common *Marasmius* species near the Kevo Research Station at Tsharsjoki and grows abundantly in the rather rich *Betula* forest mostly under

Fig. 14. Marasmius siccus. — Finnmark, Båteng 1962.

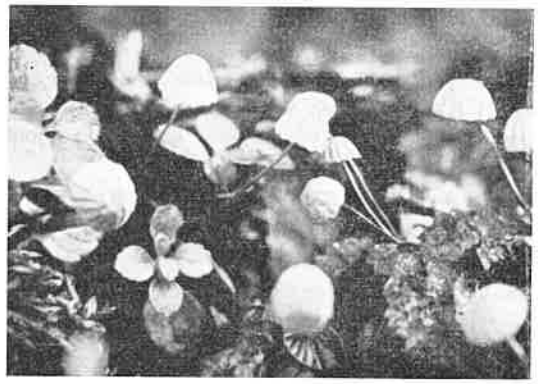

Fig. 15. Marasmius siccus. — Tsharsjoki 1964.

Juniperus but attached to birch leaves. The other habitats of this species are similar.

The species, which differs very clearly from all other species of the genus *Marasmius,* is quite "new" in the European fungus flora and has been determined by Dr. DEREK A. REID, Royal Botanical Gardens, Kew, England. According to him, it agrees in all other characteristics but in colour. The sample was, however, not quite perfect. "Bright ochraceous-red or rose-madded" characterizes well also the Lapp taxon. The pileus is about 1 cm in diameter (usually 8—12 mm), conical umbrella with roundly dentate margin (Figs. 14 and 15). The stipes is mostly about 1 mm thick and 4—5 cm long. The spore size is 14.2 × 3.3 microns.

The earlier known distributional area of this species, according to SINGER (1949, p. 334), is the United States of America. Dr. L. N. VASSILIEVA (Vladivostok) has, however, in private communication reported the species to be common in the Far East. The colour of our specimens identified from a colour slide agrees — according to VASSILIEVA — the colour of the Far Eastern specimens. Apparently the Teno area is a rather isolated distribution area for this fungus. This very readily identifiable and conspicuous taxon is hardly to be found in areas where mycologists have already collected specimens a longer time.

Marasmius epidryas Kühner

Finnmark: Rastegaissa, alpine region 24. 8. -64 on a dry twig of *Dryas octopetala.* Recorded from Greenland by LANGE (1955), but not known to occur in Lapland.

Mycena galericulata (Scop.) S. F. Gray

Utsjoki: near the church 6. 8. -62, Kevonsuu 19. 8. -62, mouth of Kevojoki 18. 8. -62. Recorded from Lapland by LAESTADIUS, KARSTEN and LANGE (1946). RAUTAVAARA: I—V fqq.

Mycena citrinomarginata Gillet

Utsjoki: Tshieskuljoki 14. 8. -62. — HINTIKKA (1963) records the species from Inari (Ivalo, Toloskoski). LANGE found it in Abisko and Greenland (1955).

Mycena luteoalcalina Sing.

Utsjoki: Kevonniemi 16. 8. -59. Det. Dr. VEIKKO HINTIKKA.

Mycena alcalina (Fr.) Kummer

Utsjoki: Linkkapahta 16. 8. -61. — Found in Swedish Lapland by LAESTADIUS and LANGE (1946). RAUTAVAARA: I—III fq.

Mycena polygramma (Bull.) S. F. Gray

Utsjoki: mouth of Tsharsjoki 15. 8. -62, east shore of Kevojärvi 23. 8. -61, 15. 8. -62, Tshieskuljoki 29. 8. -59, 14. 8. -62, 17. 8. -64, Kotkapahta 4. 9. -59, 15. 8. -61, Linkkapahta 16. 8. -61. The taxon is browner than *M. polygramma* in south Finland. All habitats in pine forest zone. — LAESTADIUS found it in Torne Lappmark. RAUTAVAARA: I—II, V r.

Mycena haematopus (Quél.) Kühn.

Utsjoki: Tshieskuljoki 20. 8. -61, 17. 8. -64, Tshieskulvaara 15. 8. -64, mouth of Tsharsjoki 18. 8. -64. — Finnmark: Laevvajokka 24. 8. -64. — RAUTAVAARA: I—V fq.

Mycena galopoda (Pers.) Kummer

Inari: Paaluniemi, Sienivaara, on *Sphagnum* 9. 7. -59. Det. Dr. VEIKKO HINTIKKA. — ULVINEN records the species from Sodankylä, Savukoski and Oulu areas. RAUTAVAARA: I—II r.

Mycena epipterygia (Scop.) S. F. Gray

Utsjoki: near the church 6. 8. -62, Vaishtshokka-Skallovaara 8. 8. -61, Kevonsuu 19. 8. -62, east shore of Kevojärvi 23. 8. -61, Tshieskuljoki 17. 8. -64, Linkkapahta 16. 8. -61, east shore of Kenesjärvi 14. 9. -62. In birch and pine zones. — According to LAESTADIUS and LANGE, it occurs in the forest zones of Torne Lappmark. ULVINEN records it from the Oulu area. RAUTAVAARA: I—III fq.

Mycena pura (Pers.) Kummer

Utsjoki: Nuorgam 12. 8. -62, mouth of Utsjoki 19. 8. -61, Ailigas 10. 8. -64, Mökölä 21. 8. -63, Jomppala 16. 8. -61, Raessijoki 1. 9. -59, 14. 8. -61, Kevonsuu 9. 8. -59, 13. 8. -61, 19. 8. -62, mouth of Tsharsjoki 18. 8. -61, 20. 8. -61, 23. 8. -61, 15. 8. -62, mouth of Kevojoki 16. 8. -61, 22. 8. -63, east shore of Kevojärvi 21. 8. -61, 23. 8. -61, Tshieskuljoki 29. 8. -59, 15. 8. -61, 14. 8. -62, Kotkapahta 4. 9. -59, Linkkapahta 19. 8. -61, Puksala 9. 8. -59, Kenespahta 7. 8. -62, 10. 8. -63, Tshuoggajoki 7. 8. -63. — Finnmark: Skallelven 7. 8. -64, Kiby 6. 8. -64, Varangerbotn 7. 8. -64, Bâteng 13. 8. -62, Rastegaissa (alpine region) 24. 8. -64, Geidnogaissa (alpine region) 20. 8. -63, Polmakelven 18. 8. -64. — Reported to grow in Lapland (LAESTADIUS, KARSTEN, LANGE 1946) and Greenland (LANGE 1955). RAUTAVAARA: I—V fq.

Amanitaceae

Amanita muscaria (L.) Pers.

Utsjoki: mouth of Utsjoki 19. 8. -61, west shore of Kevojärvi 24. 8. -60, Kevonsuu 8. 8. -59, 27. 8. -60, 13. 8. -61, Tsharsjoki 8. 8. -61, 13. 8. -61, 20. 8. -61, 12. 8. -62, north slope of Puksalskaidi 23. 8. -63, Kevonniemi 18. 9. -63, 17. 8. -64, east shore of Kevojärvi 31. 8. -59, Kotkapahta 4. 8. -64, 15. 8. -61, Kenishvaara 10. 8. -63, upper course of Luomushjoki 17. 8. -63. — Inari: Laanila 17. 8. -61. The species is common and abundant in some years in all vegetation zones (cf. LANGE 1955). RAUTAVAARA: I—V fqq.

Amanita nivalis Grew. [*Amanitopsis hyperborea* Karst.]

The spores are almost spherical, 5—7 microns in diameter. The colour of the pileus is almost white or grayish or gray-brown. The stipes are usually shorter than in *Amanita*

vaginata. The habitat is often barren gravel or sand in alpine regions or on the shores of rivers or lakes in the birch zone. — Utsjoki: mouth of Äimäjoki 17. 8. -61, Kitisjoki 8. 8. -59, Erdigvaara (alpine region) -60, Tshieskuljoki 15. 8. -61, Kotkapahta 15. 8. -61, mouth of Madjoki 14. 8. -61, Linkkapahta 16. 8. -61, upper course of Luomushjoki 16. 8. -63. — Inari: Petsikko 4. 8. -64. — TUOMIKOSKI (1961) found the taxon in Inari and ULVINEN probably in Ylikemi. The species is apparently the same as the *Agaricus gemmatus* Paul. var. *lapponicus* of KARSTEN (1882) and *Amanitopsis hyperborea* of the same author (1889). LANGE (1955, p. 52) perhaps found the same species in Greenland.

Amanita vaginata (Bull.) Vitt.

Utsjoki: Farfaloaivi (alpine region) 10. 8. -61, mouth of Utsjoki 30. 8. -59, 19. 8. -61, 13. 8. -62, Utsskaidas (alpine region) 19. 7. -60, Erdigvaara (alpine region) 28. 8. -60, upper course of Nammajoki 28. 8. -60, Kidsajärvi 4. 8. -61, northwest of Kevojärvi 4. 8. -61, 28. 7. -64, Skallovaara (boundary between alpine and subalpine regions) 8. 8. -60, southwest slope of Juovuskalluvaara 20. 8. -60, 8. 8. -61, Raessijoki 4. 8. -61, Kevonsuu 9. 8. -59, 11. 8. -59, 19. 8. -60, 13. 8. -61, mouth of Tsharsjoki 23. 8. -61, 22. 8. -64, Kevonniemi 8. 8. -59, 20. 8. -60, mouth of Kevojoki 21. 8. -60, east shore of Kevojärvi 31. 8. -59, 19. 8. -60, 21. 8. -61, Tshieskuljoki 23. 7. -60, Aug., -60, 19. 8. -60, Kotkapahta 21. 8. -60, Linkkapahta 16. 8. -61, Kenishvaara 10. 8. -63, Kenespahta 24. 7. -59, Micrashjärvi 13. 8. -61, Ailigas (Karigasniemi, alpine region) 16. 8. -63. — Finnmark: Skallelven 7. 8. -64, Ensligtraden 26. 8. -61, Varangerbotn 7. 8. -64, east of Boakkojokka (along Tanaelven) 20. 8. -63. There are mainly two different forms of fruit bodies. In herb-grass type (birch) forests they are more grayish-brown (darker) compared with the more yellow-brown (lighter) colour of the forms growing in dry pine-lichen woodlands or corresponding forest types of birch.

Amanita porphyria (Alb. & Schw.) Secr.

Utsjoki: east shore of Kevojärvi, in a pine forest 15. 8. -61. — Finnmark: mouth of Laevvajokka 24. 8. -64. — The nearest known localities are in Oulu and Haukipudas, where the species is the most common *Amanita* species (ULVINEN). RAUTAVAARA: I—III (—V) st fq.

Limacella illinita (Fr.) Murr.

Utsjoki: east shore of Kevojärvi, under juniper 15. 8. -61. — Finnmark: Skallelven 7. 8. -64. — RAUTAVAARA: I—V p.

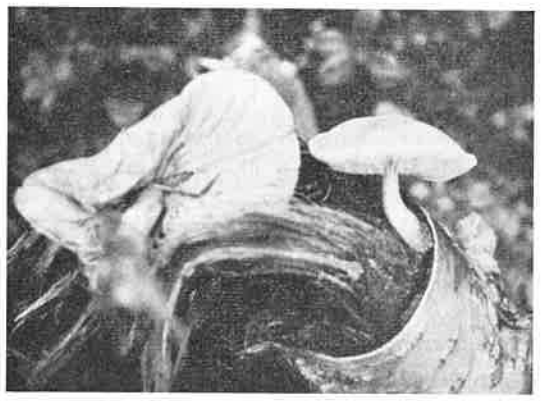

Fig. 16. Pluteus pellitus. — Tsharsjoki 1961.

Volvaria speciosa (Fr.) Sing. var. *gloiocephala* (DC.) Sing.

Utsjoki: Äimäjoki 17. 8. -61. Dimensions of spores 14.0×7.6 microns (100 measurements). The habitat was fertilized soil covered by *Stellaria media*. — RAUTAVAARA: I r.

Pluteus pellitus (Pers.) Kummer

Utsjoki: the Sarja farm (east shore of Pulmankijärvi) 19. 8. -64, Tsharsjoki 20. 8. -61,

Puksalskaidi 13. 8. -61, north shore of Kenesjärvi 7. 8. -62. The spore sizes 5.22×3.81 (100 measurements) and 4.98×3.86 are somewhat smaller than that 5.7—7.2×4—4.7) mentioned by KÜHNER & ROMAGNESI 1953, p. 420. — There are no earlier records of its occurrence in northern Fennoscandia. RAUTAVAARA: I rr. Fig. 16.

Pluteus atricapillus (Secr.) Sing. [*Pluteus cervinus* (Schaeff.) Kummer]

Utsjoki: Kitisjoki 7. 8. -59, Kutuniemi 12. 8. -62, Jesnalvaara 9. 8. -62, Kevonsuu 2. 9. -60, mouth of Tsharsjoki 18. 8. -61, 20. 8. -61, 23. 8. -61, 15. 8. -62, mouth of Kevojoki 5. 8. -61, 23. 8. -64, Tshieskuljoki 22. 8. -62, Micrashjärvi 9. 8. -63. — Finnmark: west bank of Polmakelven 18. 8. -64, Polmak 22. 8. -61, Laevvajokka 24. 8. -64. — The species is common in Lapland and north Finland (LAESTADIUS, KARSTEN, BLYTT, LANGE 1946, ULVINEN). RAUTAVAARA: I—V fq.

Agaricaceae

Macrolepiota rhacodes (Vitt.) Sing.

Utsjoki: Kutuniemi 31. 8. -59, Kevonsuu 13. 9. -64, Tshieskuljoki 12. 9. -64. The habitat was a farmyard. — ULVINEN records the species from Haukipudas. RAUTAVAARA: I—III st fq.

Agaricus campestris L.

Finnmark: Nesseby 22. 8. -61. — LAESTADIUS found the species in Torne Lappmark and LANGE (1955) in Greenland. RAUTAVAARA: I—V st fq.

Psalliota rubella Gillet

Utsjoki: Kutuniemi 11. 8. -62, 12. 8. -62, 18. 8. -62, Kevonsuu 19. 8. -62, 16. 8. -64, Tshieskuljoki 17. 8. -64.

Lepiota clypeolaria (Bull.) Quél.

Utsjoki: mouth of Tsharsjoki 13. 8. -61, 18. 8. -61, 20. 8. -61, 23. 8. -61, Tshieskuljoki 30. 8. -52, 22. 8. -63, 17. 8. -64, Kotkapahta 27. 8. -60. — Finnmark: mouth of Aittejokka (along Tanaelven) 19. 8. -63. The habitats are the luxuriant grass-herb birch forests in the pine and birch zones. — ULVINEN records the species from one locality in the Oulu area. RAUTAVAARA: I—III st fq.

Cystoderma granulosum (Batsch) Fayod

Utsjoki: Äimäjoki 17. 8. -61, 18. 8. -62, vicarage 21. 8. -61, 12. 8. -62, 16. 8. -62, 18. 8. -62, Jesnalvaara 11. 8. -61, Kevonsuu 2. 9. -59, 13. 8. -61, 19. 8. -62, Tsharsjoki 12. 8. -61, 23. 8. -61, 15. 8. -62, east shore of Kevojärvi 15. 8. -61, 18. 8. -61, 23. 8. -61, 15. 8. -62, Tshieskuljoki 14. 8. -62, Kotkapahta 21. 8. -60, 27. 8. -60, 15. 8. -61, 20. 8. -61, 18. 8. -62, Linkkapahta 16. 8. -61, Mierashlompolo 13. 8. -61. — Inari: Kaamanen 17. 8. -61, Laanila 17. 8. -61. — Finnmark: Polmak 22. 8. -61, Rastegaissa (alpine region) 24. 8. -64. One of the most typical species in the dry meadows around Lapp houses, particularly in the areas of old human habitations. — LAESTADIUS, ROMELL and LANGE (1946, 1955) record the species from Torne Lappmark. According to LANGE (1955), the species is the most common species of the genus around Abisko. LANGE found it also in Greenland (1955). ULVINEN records it from the Oulu area. RAUTAVAARA: I—III p.

Cystoderma carcharias (Pers.) Fayod

Utsjoki: Äimäjoki 17. 8. -61, 23. 8. -62, vicarage 23. 8. -62. The species has been seen also in Kevonsuu and Kutuniemi. A species of the birch forests near Lapp houses. — ULVINEN records it from the Oulu area. RAUTAVAARA: I—III fq.

Cystoderma amianthinum (Scop.) Fayod

Utsjoki: Vetsikko 27. 8. -58, mouth of Utsjoki 19. 8. -61, Äimäjoki 5. 9. -59, 17. 8. -61, vicarage 30. 8. -59, Kitisjoki 8. 8. -59, 31. 8. -59, Kevonsuu 29. 8. -59, 3. 9. -59, mouth of Tsharsjoki 29. 8. -59, 23. 8. -61, 17. 9. -63, mouth of Kevojoki 16. 8. -62, east shore of Kevojärvi 21. 8. -61, Kotkapahta 4. 9. -59, 20. 8. -61, upper course of Luomushjoki 16. 8. -63. — Inari: near the bridge over Kaamasjoki 17. 8. -63. — Finnmark: Varangerbotn 7. 8. -64, northeast shore of Lake Polmakvatn 14. 8. -63. In meadows near Lapp houses and in birch forests. — TUOMIKOSKI: Laanila, LANGE (1955): Lapland and Greenland, ULVINEN: Oulu and Savukoski areas, RAUTAVAARA: I—III fq.

Cystoderma amianthinum (Scop.) Fayod forma

Utsjoki: Äimäjoki 5. 9. -59. A pure white form growing abundantly on a dry meadow near the mouth of Äimäjoki.

Coprinaceae

Coprinus atramentarius (Bull.) Fr.

Utsjoki: mouth of Utsjoki 19. 8. -61. — Finnmark: Båteng 13. 8. -62. — ULVINEN found the species in the Oulu area. RAURAVAARA: I—V fq.

Coprinus micaceus (Quél.) Fr.

Utsjoki: Nuorgam 13. 8. -62. — Finnmark: Båteng 13. 8. -62. — LAESTADIUS records the species from Torne Lappmark. RAUTAVAARA: I—III p.

Coprinus niveus (Pers.) Fr.

Utsjoki: Kevonniemi, yard 5. 8. -64. — No earlier reports from Lapland. RAUTAVAARA: I—III p.

Psathyrella candolliana (Fr.) Maire

Utsjoki: Tshieskuljoki 15. 8. -62, mouth of Siedgajoki 14. 8. -61. — According to KARSTEN, "passim" in east Lapland. RAUTAVAARA: I st r.

Psathyrella caudata Fr.

Utsjoki: mouth of Tshieskuljoki 15. 8. -62. — RAUTAVAARA: I r.

Psathyrella hydrophila (Bull.) Maire

Inari: Kaamanen 17. 8. -62. — RAUTAVAARA: I—III r.

Panaeolus sphinctrinus (Fr.) Quél. [*Panaeolus campanulatus* (L.) Quél.]

Utsjoki: Nuorgam 13. 8. -62, between Vetsikko and Nuorgam (near Välimaa) 10. 8. -61, Jomppala 5. 8. -61, 16. 8. -61, mouth of Kevojoki 5. 8. -61. — Reported from Lapland by LAESTADIUS and KARSTEN, and from Greenland by LANGE (1955). RAUTAVAARA: I—IV fq.

Anellaria semiovata (Sow.) Pearson & Dennis [*Panaeolus separatus* (L.) Quél.]

Finnmark: Skallelven 7. 8. -64. — LAESTADIUS and LANGE (1946, 1955) found the species in Torne Lappmark, KARSTEN in east Lapland and LANGE also in Greenland (1955). RAUTAVAARA: I—V st fq.

Bolbitiaceae

Conocybe rickenii (J. Schäffer) Kühner

Utsjoki: Kutuniemi 18. 8. -62, Kevonniemi 14. 8. -62, 2. 7. -64, Puksala 11. 8. -64. — Inari: Kaamanen 17. 8. -62. — LANGE found the species in Lapland and Greenland (1957).

Bolbitius vitellinus (Pers.) Fr.

Utsjoki: Nuorgam 12. 8. -62, Kevonsuu 9. 8. -62, east shore of Kevojärvi 15. 8. -62. — LAESTADIUS and LANGE (1946) found the species in Torne Lappmark. RAUTAVAARA: I—III p.

Agrocybe praecox (Pers.) Fayod

Utsjoki: Tshuomasvaara 13. 8. -63, 14. 8. -63, mouth of Utsjoki 19. 8. -61, vicarage 16. 8. -61, Kitisjoki 8. 8. -59, Kutuniemi 10. 8. -59, Tshieskuljoki 2. 8. -63, 17. 8. -64. — Finnmark: Båteng 13. 8. -62. Common both in natural vegetation particularly in birch forests and in habitats influenced by man. The species is variable in form. — KARSTEN, LANGE (1957) and PILÁT & NANNFELDT found it in Lapland and LANGE (1957) also in Greenland. RAUTAVAARA: I—V st fq.

Agrocybe praecox forma *cutifracta* Lange

Utsjoki: Tshieskuljoki 17. 8. -64.

Strophariaceae

Stropharia aeruginosa (Curt.) Quél.

Utsjoki: Kevonsuu, farmyard meadow 29. 8. -59, 19. 8. -62. — LANGE (1955) records *S. aeruginosa* var. *alpina* from Greenland. ULVINEN reports *S. cyanea* to grow in the Oulu area. RAUTAVAARA: I—V.

Stropharia hornemannii (Fr.) Lundell & Nannfeldt

Utsjoki: Karunjargga (northeast of the mouth of Utsjoki) 5. 9. -59. — Found in Lapland by LAESTADIUS, KARSTEN and BLYTT. ULVINEN: common in the Oulu area. RAUTAVAARA: I—V st fq.

Stropharia semiglobata (Batsch) Quél.

Utsjoki: Nuorgam 12. 8. -62, Äimäjoki 17. 8. -61, 24. 8. -61, 11. 8. -62, 17. 8. -62, 18. 8. -62, 4. 8. -63, Saarela 21. 8. 64, Kevonniemi 20. 9. -63, Kotkapahta 20. 8. -61, Mierash-

järvi 9. 8. -63. — Finnmark: Vadsø 22. 8. -61, Laevvajokka 20. 8. -63. Common in the research area. — LAESTADIUS, KARSTEN and BLYTT found the species in Lapland. ULVINEN: Oulu area, RAUTAVAARA: I—V st fq.

Stropharia stercoraria (Bull.) Quél.

Utsjoki: mouth of Tsharsjoki, Aug., -60. — Finnmark: Bâteng 13. 8. -62. — LAESTADIUS records the species from Torne Lappmark.

Naematoloma capnoides (Fr.) Karst.

Utsjoki: Äimäjoki 1. 8. -63, Patoniva 17. 8. -62, Haukiniemi 5. 8. -63, Raessijoki 4. 6. -63, mouth of Tsharsjoki 18. 8. -61, 20. 8. -61, Kevonniemi 31. 8. -63, east shore of Kevojärvi 1. 9. -59, 23. 8. -61, 18. 8. -62, Mierashlompolo 13. 8. -61. — Inari: Kaamanen 17. 8. -61, 17. 8. -62, 17. 8. -63. Common in pine forest zones in both the Kevo area and Inari. Reported to occur in Lapland by LAESTADIUS and KARSTEN. Common also in the Oulu area (ULVINEN). RAUTAVAARA: I—V fq.

Naematoloma fasciculare (Huds.) Karst.

Inari: Kaamanen 17. 8. -62, in dry pine forest. Small but typical fruit bodies. Not found in Utsjoki. — LAESTADIUS recorded it from Torne Lappmark. RAUTAVAARA: I—V fq.

Psilocybe uda (Pers.) Fr.

Utsjoki: Ailigas 10. 8. -64, Raessijoki 14. 8. -61, Juovuskalluvaara 20. 8. -60. — Inari: west of Petsikko 1. 8. -62. — Finnmark: Kiby 6. 8. -64. The specimens perhaps include also the form *sphagnophila* Lange. Common in the area, particularly in semidry peat soil, or on *Sphagnum*. The length of the spores is always over 16 microns. — LAESTADIUS recorded it from Torne Lappmark. RAUTAVAARA: I—V fq.

Psilocybe elongata (Pers.) Fr.

Utsjoki: Luossajoki 14. 8. -63, Nammajoki 28. 8. -60. — The dimensions of the spores are 11.6×4.8 (100 measurements) and 8.9×3.7 microns (100 measurements). On *Sphagnum* and *Paludella*. — LANGE (1946): Torne Lappmark.

Pholiota alnicola (Fr.) Sing.

Utsjoki: Karunjargga 5. 9. -59, Haukiniemi 5. 8. -63, north shore of Kevojärvi 5. 8. -63, Jesnalvaara 11. 8. -61, mouth of Tsharsjoki 18. 8. -61, 20. 8. -61, 23. 8. -61, 20. 9. -61, 15. 8. -62, 19. 8. -63, Kevonniemi 31. 8. -59, Tshieskuljoki 10. 8. -59, 2. 9. -59, 3. 9. -59, 14. 8. -62, 22. 8. -62, 2. 8. -63, 6. 8. -63, 20. 8. -64, Puksalskaidi 29. 8. -59, 27. 8. -60, Linkkapahta 16. 8. -61, south shore of Kenesjärvi 19. 8. -61, 10. 8. 63, Tshuoggajoki 7. 8. -63, Luomushjoki 16. 8. -63. — Inari: Kaamanen 17. 8. -61. — Finnmark: Varangerbotn 22. 8. -62, northeast shore of Lake Polmakvatn 14. 8. -63, along Tanaelven (near Junttila) 19. 8. -63. It is possible that some specimens of *P. apicrea* are included in the preceding list. Mostly the pilei are, however, bright yellow in colour, and also other features typical of *P. alnicola* occur. The species seems to be common on the birch stumps in the pine forest zone of Kevo. — The only record from the subarctic zone is that of LAESTADIUS. RAUTAVAARA: I—II st fq.

Pholiota heteroclita (Fr.) Quél.

Utsjoki: south end of Pulmankijärvi, on *Betula* 14. 8. -63, mouth of Raessijoki (on dead *Betula*) 5. 7. -57, Puksalskaidi (on *Betula*) 15. 8. -62, Linkkapahta (on rotten

Betula) 26. 8. -60. — TUOMIKOSKI found the species in Inari, Kuusipää. RAUTAVAARA: I—II p.

Pholiota groenlandica M. Lange

Utsjoki: mouth of Tsharsjoki 18. 8.-64, north of Kotkapahta 4. 8. -64. Possibly also the following specimens which have been preserved as *P. lenta* (Pers.) Sing., are those of *P. groenlandica* species. Utsjoki: north shore of Kevojärvi 5. 8. -63, mouth of Tsharsjoki 15. 8. -62, Kevonniemi 20. 9. -63, along Kevojoki 19. 8. -61, south shore of Mierashjärvi 9. 8. -63. — Finnmark: along Tanaelven (near Junttila) 19. 8. -63. Closely related to *P. lenta* but the slimy cap has no floating scales. The species is apparently not rare in the area, but owing to the rather late season it may have been overlooked. — LANGE (1957) found *P. groenlandica* in Greenland and described its characteristics.

Kuehneromyces mutabilis (Schaeff.) Sing. & Sm.

Utsjoki: mouth of Utsjoki 19. 8. -61, Äimäjoki 17. 8. -61, vicarage 6. 8. -62, Kitisjoki 8. 8. -59, Jomppala 16. 8. -61, Raessijoki 26. 8. -60, west shore of Kevojärvi, Jesnalvaara 11. 8. -61, mouth of Tsharsjoki 20. 8. -61, 23. 8. -61, Kevojoki 7. 8. -59, 4. 9. -59, 21. 8. -60, east shore of Kevojärvi 18. 8. -61, 11. 8. -64, Linkkapahta 21. 8. -62, Kenespahta 8. 8. -64, upper course of Luomushjoki 17. 8. -63. The species is common on birch stumps in the research area in both the pine and birch zones. The species has been found in different regions of Lapland (LAESTADIUS, KARSTEN, LANGE 1946, 1955, PILÁT & NANNFELDT) and Greenland (LANGE 1955). RAUTAVAARA: I—V fqq.

Cortinariaceae

Inocybe geophylla (Sow.) Kummer var. *alba* Schum.

Utsjoki: south shore of Pulmankijärvi 13. 8. -63, Patoniva 21. 8. -63, mouth of Tsharsjoki 23. 8. -61, east shore of Kevojärvi 18. 8. -61, 21. 8. -61, 23. 8. -61, Tshieskuljoki 2. 8. -63, Tshieskulvaara 15. 8. -64, Vuoskujärvi 5. 8. -61, Kotkapahta 20. 8. -61, Linkkapahta 16. 8. -61, Njaggaljärvet 9. 8. -63, upper course of Luomushjoki 16. 8. -63, Ailigas (Karigasniemi) 16. 8. -63. — Finnmark: near the bridge over Polmakelven 12. 8. -63. The species is mostly white in colour. — LAESTADIUS and LANGE (1957) record the species from Swedish Lapland and LANGE (1957) also from Greenland. ULVINEN found it in the Oulu area. RAUTAVAARA: I—II p.

The *Inocybe* material is still largely unidentified. At least the following species occur in the research area: *I. lacera* Fr., *I. acuta* Boudier, *I. casimiri* Velen., and *I. asterospora* Quél.

Hebeloma crustuliniforme (Bull.) Quél.

Inari: Kaamanen 17. 8. -62. — LAESTADIUS and LANGE (1946) record the species from Torne Lappmark. LANGE (1955, p. 23) possibly found it in Greenland. RAUTAVAARA: I—V st fq.

Hebeloma pusillum J. E. Lange

Utsjoki: Kevonniemi, in the shore under willows among *Drepanocladus* 24. 8. -60. Det. Dr. MORTEN LANGE. — In Greenland and in Swedish Lapland (LANGE 1957).

Naucoria erinacea (Fr.) Gillet

Utsjoki: Nuorgam 13. 8. -62, Ailigas 10. 8. -64, Tsharsjoki 20. 8. -61, 24. 8. -61, 15. 8. -62, mouth of Kevojoki 14. 8. -62, Tshieskulvaara 15. 8. -64, upper course of Luomushjoki 16. 8. -63. — Finnmark: Båteng 13. 8. -62, mouth of Aittejokka (along Tanaelven) 19. 8. -63. On *Salix* and *Sorbus*. It is possible that the species is rather common in the north. The author KALLIO found it on *Salix* near Northwest River, Newfoundland, in 1963. — LANGE records the species from Lapland (1946, 1957) and Greenland (1957) on *Alnus*. RAUTAVAARA: I r.

Rozites caperata (Pers.) Karst.

Utsjoki: Njallavaara 10. 8. -61, southeast of Pulmankijärvi 14. 8. -63, Tshuomasvaara 13. 8. -63, Ailigas 10. 8. -64, south of Nammajoki 9. 8. -61, Kitisjoki 1. 8. -61, east of Skallovaara 8. 8. -61, north of Vetsikkojärvi 14. 8. -64, mouth of Tsharsjoki 13. 8. -61, 23. 8. -61, 3. 8. -63, Kevonniemi 31. 8. -59, 15. 8. -61, 20. 9. -63, east shore of Kevojärvi 30. 8. -59, Tshieskuljoki 1. 9. -59, 15. 8. -61, 22. 8. -63, Puksalskaidi 14. 8. -61, Linkkapahta 16. 8. -61, Mierashjärvi 13. 8. -61, upper course of Luomushjoki 17. 8. -63, Ailigas (Karigasniemi) 16. 8. -63. — Inari: Petsikko 4. 8. -64, Kaamanen 17. 8. -61, Laanila 17. 8. -61. — Finnmark: Polmak 13. 8. -63, near the bridge over Polmakelven 12. 8. -63, Rastegaissa (alpine region) 24. 8. -64, Geidnogaissa (alpine region) 20. 8. -63. The species is very common in the research area — also in alpine regions. — Common over all Lapland (LAESTADIUS, KARSTEN, LANGE 1946, 1957, ULVINEN), but rare in Greenland (LANGE 1957). RAUTAVAARA: I—V fqq.

Cortinarius multiformis (Fr.) Fr.

Utsjoki: Linkkapahta 16. 8. -61, Njaggaljärvet 14. 8. -61. Reported by LAESTADIUS to occur in Torne Lappmark and by LANGE (1957) in Greenland. RAUTAVAARA: I—V fq.

Cortinarius crassus Fr.

Utsjoki: east of Kevojärvi 3. 8. -64. The species seems to be quite common in the research area. — No previous records from Lapland. RAUTAVAARA: I r.

Cortinarius pholideus Fr.

Utsjoki: southeast of Pulmankijärvi 14. 8. -63, 19. 8. -64, Tshuomasvaara 13. 8. -63, Ailigas 10. 8. -64, vicarage 21. 8. -61, Jomppala 13. 8. -61, Jesnalvaara 11. 8. -61, Tsharsjoki 13. 8. -61, 18. 8. -61, 23. 8. -61, 15. 8. -62, 23. 8. -62, Kevonniemi 15. 8. -61, 16. 8. -62, east shore of Kevojärvi 15. 8. -61, 23. 8. -61, Puksalskaidi 9. 8. -61, 18. 8. -62, Kotkapahta 18. 8. -62, Linkkapahta 16. 8. -61, 21. 8. -62, Mierashlompolo 13. 8. -61, upper course of Luomushjoki 17. 8. -63. — Inari: Kaamanen 17. 8. -61. — Finnmark: Båteng 13. 8. -61, along Tanaelven (near Junttila) 19. 8. -63, north of Lacvvajokka 20. 8. -63. The species is common in birch forests. — ULVINEN records the species from the Oulu area. RAUTAVAARA: I—II p.

Cortinarius anomalus (Fr.) Fr.

Utsjoki: vicarage 21. 8. -61, Patoniva 17. 8. -62, Jomppala 16. 8. -61, Kevonsuu 13. 8. -61, mouth of Tsharsjoki 18. 8. -61, 20. 8. -61, 23. 8. -61, 15. 8. -62, mouth of Kevojoki 16. 8. -62, east shore of Kevojärvi 15. 8. -61, 21. 8. -61, Puksalskaidi 9. 8. -61, 14. 8. -61, Linkkapahta 16. 8. -61, Mierashlompolo 13. 8. -61. — According to LANGE, it occurs in Lapland (1946, 1957) and Greenland (1957). RAUTAVAARA: I—II fq.

Cortinarius alboviolaceus (Pers.) Fr.

Utsjoki: east shore of Pulmankijärvi 19. 8. -64, Ailigas 10. 8. -64, Jesnalvaara 11. 8. -61, Tsharsjoki 23. 8. -61, mouth of Kevojoki 16. 8. -62, Kevonniemi 15. 8. -61, 19. 9. -63, east shore of Kevojärvi 15. 8. -62, 2 km east of Kevojärvi 14. 8. -61, Tshieskuljoki 14. 8. -62, Puksalskaidi 9. 8. -61, north of Kotkapahta 12. 8. -64, Vuoskujärvi 5. 8. -61, Linkkapahta 16. 8. -61, Kenespahta 10. 8. -63, Ailigas (Karigasniemi) 16. 8. -63. — Inari: south of Munkelven 5. 8. -63, Laanila 17. 8. -61. — Finnmark: near the bridge over Polmakelven, Rastegaissa (alpine region) 24. 8. -64. — The record of its occurrence in Oulu (ULVINEN) is the only one from north Finland. RAUTAVAARA: I p.

Cortinarius camphoratus Fr.

Utsjoki: east of Kevojärvi 3. 8. -64, 17. 8. -64 near Kotkapahta 16. 8. -62, Kenishvaara 8. 8. -64. This species has been found several times in the surroundings of Kevo. — ULVINEN records it from the Oulu area. RAUTAVAARA: I st r.

Cortinarius traganus Fr.

Utsjoki: Njallavaara 10. 8. -61, Raessijoki 26. 8. -60, 14. 8. -61, Tsharsjoki 25. 8. -60, 13. 8. -61, east shore of Kevojärvi 11. 8. -61, 18. 8. -61, 11. 8. -64, Tshieskuljoki 15. 8. -61, 18. 8. -61, Puksalskaidi 9. 8. -61, 16. 8. -62, Puksaljärvi 22. 8. -62, Linkkapahta 16. 8. -61, upper course of Luomushjoki 16. 8. -63. — Inari: Petsikko 16. 8. -64, Alttojoki 3. 8. -61, Kaamanen 17. 8. -61. This species grows in pine and birch zones. — ULVINEN records it from the Oulu region. RAUTAVAARA: I—III fq.

Cortinarius delibutus Fr.

Utsjoki: east shore of Pulmankijärvi 19. 8. -64, Ailigas 10. 8. -64, Tshieskuljoki 17. 8. -64, Kenishvaara 8. 8. -64. — Inari: Petsikko 16. 8. -64. — Finnmark: Kiby 6. 8. -64, southwest of Neiden 5. 8. -63. Common in the research area. — LANGE records the species from Lapland (1946, 1957) and Greenland (1957). RAUTAVAARA: I p.

Cortinarius collinitus Fr.

Utsjoki: Tshuomasvaara (alpine region) 13. 8. -63, Ailigas (alpine region) 10. 8. -64, mouth of Utsjoki 19. 8. -62, vicarage 16. 8. -61, Jomppala 16. 8. -61, Kutuniemi 4. 8. -63, Jesnalvaara 7. 8. -62, Tsharsjoki 11. 8. -61, 13. 8. -61, 18. 8. -61, 23. 8. -61, 24. 8. -61, 5. 8. -62, mouth of Kevojoki 31. 7. -63, Kevonniemi 15. 8. -61, 7. 8. -63, east shore of Kevojärvi 11. 8. -61, 18. 8. -61, Tshieskuljoki 2. 8. -63, southwest of Vetsikkojärvi 15. 8. -64, Puksalskaidi 14. 8. -61, 16. 8. -62, Linkkapahta 16. 8. -61, 19. 8. -61, Kenespahta 10. 8. -63, 8. 8. -64, Ashkasjoki 3. 8. -62, Tshuoggajoki 7. 8. -63, Mierashjärvi 13. 8. -61, Ailigas, Karigasniemi (alpine region) 16. 8. -63. — Inari: Petsikko 4. 8. -64, Kiellajoki 17. 8. -63, Kaamanen 17. 8. -61, Laanila 17. 8. -61. — Finnmark: Skallelven 6. 8. -64, 7. 8. -64, Varangerbotn 7. 8. -64, near the bridge over Polmakelven 12. 8. -63, 14. 8. -63, along Tanaelven (near Junttila) 19. 8. -63, Geidnogaissa (alpine region) 24. 8. -64. — LAESTADIUS, KARSTEN and LANGE (1946) record the species from Lapland. RAUTAVAARA: I—V fq.

Cortinarius cinnamomeus (L.) Fr.

Utsjoki: Tshuomasvaara 13. 8. -63, Ailigas 10. 8. -64, Äimäjoki 17. 8. -61, Patoniva 5. 8. -63, Jomppala 16. 8. -61, north shore of Kevojärvi 5. 8. -63, Raessijoki 5. 8. -63, west

shore of Kevojärvi 5. 8. -63, Jesnalvaara 11. 8. -61, mouth of Tsharsjoki 25. 8. -60, 15. 8. -62, mouth of Kevojoki 16. 8. -62, Kevonniemi 21. 8. -60, 15. 8. -61, 17. 9. -63, east shore of Kevojärvi 11. 8. -61, 15. 8. -61, 15. 8. -62, north of Kaskamusjärvi 8. 8. -61, Tshieskuljoki 15. 8. -61, 14. 8. -62, 20. 8. -62, 2. 8. -63, southwest of Vetsikkojärvi 15. 8. -64, Puksalskaidi 14. 8. -61, Kotkapahta 15. 8. -61, Linkkapahta 16. 8. -61, Kenishvaara 10. 8. -63, Tshuoggajoki 7. 8. -63, Mierashlompolo 13. 8. -61, Mierashjärvi 1. 8. -61, upper course of Luomushjoki 17. 8. -63, Ailigas, Karigasniemi (alpine region) 16. 8. -63. — Inari: Kiellajoki 17. 8. -63, Kaamanen 17. 8. -62, south of Munkelven 5. 8. -63. — Finnmark: Skallelven (tundra) 7. 8. -64, near the bridge over Polmakelven 12. 8. -63, Polmak 12. 8. -63, Båteng 13. 8. -62, Geidnogaissa (alpine region) 20. 8. -63. The species is one of the most common species of the genus *Cortinarius* in the research area, also in alpine regions. — Recorded from Lapland by LAESTADIUS, KARSTEN and LANGE (1946, 1957), from Greenland by LANGE (1957) and from the Oulu region by ULVINEN. RAUTAVAARA: I—V fq.

Cortinarius semisanguineus (Fr.) Gillet

Utsjoki: Urro-oaivi 14. 8. -63, Tshuomasvaara (alpine region) 13. 8. -63, vicarage 21. 8. -61, Jesnalvaara 11. 8. -61, mouth of Kevojoki 11. 8. -63, Kevonniemi 15. 8. -61, 17. 9. -63, 20. 9. -63, east shore of Kevojärvi 20. 8. -60, 26. 8. -60, 11. 8. -61, 18. 8. -61, 22. 8. -62, 11. 8. -64, Tshieskuljoki 15. 8. -61, Puksalskaidi 18. 8. -61, north of Kotkapahta 12. 8. -64, Kenishvaara 10. 8. -63, Mierashjärvi 9. 8. -63, upper course of Luomushjoki 17. 8. -63. — Inari: Paksumaa 3. 8. -61, 4 km south of Syysjärvi 3. 8. -61, Kaamanen 17. 8. -61, 17. 8. -61, 17. 8. -62, Akujärvi 11. 8. -64. This species is common in the dry forests of the research area and grows also in the alpine region. — Reported by LAESTADIUS to occur in Torne Lappmark. According to ULVINEN, common in the regions of Oulu and Savukoski. RAUTAVAARA: I st fq.

Cortinarius violaceus (L.) Fr.

Utsjoki: west shore of Kevojärvi 13. 8. -61, Jesnalvaara 11. 8. -61. — Inari: Laanila 17. 8. -61. — Finnmark: mouth of Aittejokka (along Tanaelven) 19. 8. -63, mouth of Laevvajokka 24. 8. -64. — LAESTADIUS records the species from Torne Lappmark. RAUTAVAARA: I—V st fq.

Cortinarius tofaceus Fr.

Utsjoki: Tshieskuljoki 17. 8. -64.

Cortinarius hemitrichus (Pers.) Fr.

Inari: Petsikko 16. 8. -64. — Finnmark: Skallelven 7. 8. -64, Rastegaissa (alpine region) 24. 8. -64. — LANGE found the species both in Swedish Lapland and in Greenland (1957). RAUTAVAARA: I p.

Cortinarius armillatus Fr.

Utsjoki: Ailigas 10. 8. -64, Tshuomasvaara 13. 8. -63, Jomppala 16. 8. -61, northwest of Kevojärvi 4. 8. -61, Jesnalvaara 5. 8. -61, Tsharsjoki 5. 8. -61, 11. 8. -61, 15. 8. -62, mouth of Kevojoki 14. 8. -62, Kevonniemi 19. 8. -60, 23. 8. -60, Aug., -60, 9. 8. -61, 19. 9. -63, Raessijoki 16. 8. -62, east shore of Kevojärvi 26. 8. -60, 11. 8. -61, 16. 9. -63, southwest of Juovuskalluvaara 8. 8. -61, Tshieskuljoki 29. 8. -59, 15. 8. -61, 17. 8. -64, southwest of Vetsikkojärvi 15. 8. -64, Puksalskaidi 5. 8. -61, 9. 8. -61, 10. 8. -61, Vuoskujärvi 5. 8. -61, Mierashlompolo 13. 8. -61, upper course of Luomushjoki 16. 8. -63. — Inari: Paksumaa 3. 8. -61, Iijärven tie (road) 3. 8. -61, Kiellajoki 17. 8. -63, Kaamanen 17. 8. -61, Laanila 17. 8. -61. — Finnmark: along Tanaelven (opposite Välimaa) 10. 8. -61, along Tanaelven (opposite Junttila) 19. 8. -63, upper course of Polmakelven 19. 8. -64. — LAESTADIUS: Torne Lappmark, KARSTEN (p. 179): 'passim usque Kola', ULVINEN: common in the Oulu and Savukoski areas, RAUTAVAARA: I—V fq.

Gymnopilus penetrans (Fr.) Murr.

Utsjoki: Paavalvaara 1. 8. -61, north of Vetsikkojärvi 14. 8. -64, Raessijoki 20. 8. -60, 14. 8. -61, Jesnalvaara 5. 8. -61, mouth of Tsharsjoki 5. 8. -61, 11. 8. -61, 23. 8. -61, 15. 8. -62, 20. 8. -64, mouth of Kevojoki 16. 8. -62, Kevonniemi 13. 8. -61, 12. 8. -64, east shore of Kevojärvi 15. 8. -61, 18. 8. -61, 23. 8. -61, 3. 8. -64, Puksalskaidi 9. 8. -61, 18. 8. -61, Linkkapahta 16. 8. -61. — Inari: Paksumaa 3. 8. -61, Kaamanen 17. 8. -62. — Finnmark: Rastegaissa 24. 8. -64. Common in dry pine forests. — The northernmost record is from Oulu (ULVINEN). RAUTAVAARA: I—III fq.

Crepidotaceae

Tubaria furfuracea (Pers.) Gillet

Utsjoki: mouth of Kevojoki 12. 8. -64. — LAESTADIUS records the species from Torne Lappmark and LANGE (1957) from Greenland. RAUTAVAARA: I—V fqq.

Rhodophyllaceae

Clitopilus prunulus (Scop.) Kummer

Utsjoki: mouth of Utsjoki 5. 9. -59, Kevonsuu 9. 8. -59. — RAUTAVAARA: I—V st fq.

Rhodophyllus carneoalbus (With.) Quél.

Utsjoki: vicarage 16. 8. -61, Kutuniemi 13. 8. -61, 18. 8. -62, Linkkapahta 16. 8. -61. — Inari: Kaamanen 17. 8. -62.

Rhodophyllus jubatus (Fr.) Quél.

Utsjoki: Äimäjoki 4. 8. -59, Kevonsuu 9. 8. -59, 2. 9. -59, Tshieskuljoki 6. 8. -59. The species grows around farmyards. — LANGE (1957) records the species from Lapland and Greenland. RAUTAVAARA: I rr.

Rhodophyllus anthracinellus Lange

Utsjoki: Kitisjoki 7. 8. -59, Kutuniemi 18. 8. -62, Jesnalvaara 11. 8. -61. Revised by Dr. MORTEN LANGE. LANGE (1957) found the species in Greenland.

Paxillaceae

Paxillus panuoides (Fr.) Fr.

Inari: Kaamanen 17. 8. -62. — KARSTEN records the species from east Lapland. RAUTAVAARA: I—V st fq.

Paxillus involutus (Batsch) Fr.

Utsjoki: Äimäjoki 1. 8. -63, Kitisjoki 8. 8. -59, Patoniva 4. 8. -61, near Jomppala 5. 8. -63, Raessijoki 14. 8. -61, 11. 8. -62, 5. 8. -63, west shore of Kevojärvi 16. 8. -62, Kevonsuu 9. 8. -59, Tsharsjoki 11. 8. -61, Kevonniemi 19. 6. -60, 15. 8. -61, 14. 8. -62, 20. 9. -63, east shore of Kevojärvi 20. 8. -60, 18. 8. -61, 21. 8. -61, 23. 8. -61, 6. 8. -63, Tshieskuljoki 17. 8. -64, Kotkapahta 15. 8. -61, Linkkapahta, 16. 8. -61 south shore of Kenesjärvi 8. 8. -64. — Inari: Petsikko 16. 8. -64, Kaamanen 17. 8. -61, Laanila 17. 8. -61. — Finnmark: near Sirma 10. 8. -61. The species is common particularly near human habitations. In a few years it has multiplied greatly in the yard of the Kevo Research Station. — Reported to grow in Lapland by LAESTADIUS, KARSTEN and LANGE (1946, 1957) and in Greenland by LANGE (1957). RAUTAVAARA: I—V fqq.

Gomphidiaceae

Gomphidius rutilus (Schaeff.) Lundell & Nannfeldt

Utsjoki: Padjisaeftikvaara 28. 8. -60, Patoniva 17. 8. -62, 21. 8. -63, west shore of Kevojärvi 3. 9. -59, 16. 8. -62, Jesnalvaara 11. 8. -61, mouth of Tsharsjoki 15. 8. -62, 2. 8. -64, mouth of Kevojoki 16. 8. -62, Kevonniemi 10. 8. -59, 19. 9. -63, 10. 8. -64, east shore of Kevojärvi 11. 8. -61, 14. 8. -61, 21. 8. -61, 15. 8. -62, 16. 8. -62, 22. 8. -63, 3. 8. -64, Puksalskaidi 14. 8. -61, 5. 8. -62, 8. 8. -62, 12. 8. -62, Keärdusjärvi 27. 8. -60, south shore of Kenesjärvi 8. 8. -64. — Inari: near the bridge over Kaamasjoki 17. 8. -63, Kaamanen 17. 8. -62, 17. 8. -63, Laanila 17. 8. -61. All localities in the pine forest zone. — TUOMIKOSKI found the species in Inari, LAESTADIUS in Torne Lappmark and ULVINEN in the Savukoski and Oulu areas. RAUTAVAARA: I—V fq.

Gomphidius roseus (Fr.) Karst.

Utsjoki: Kidsajärvi (northwest of Patoniva) 24. 8. -60. — Inari: Kaamanen 17. 8. -61. In the locality in Utsjoki the species grew together with *Boletus bovinus* under a pine. — ULVINEN records the species from the Oulu area. RAUTAVAARA: I—(?) p. Fig. 17.

Boletaceae

Suillus luteus (L.) S. F. Gray

Utsjoki: Vetsikko 26. 8. -58, Kidsajärvi 24. 8. -60, Patoniva 6. 8. -62, near Jomppala 24. 8. -60, Raessijoki 5. 8. -63, Kutuniemi 14. 8. -61, Jesnalvaara 11. 8. -61, Tsharsjoki 20. 8. -61, 24. 8. -61, Kevonniemi 1. 9. -59, 9. 8. -61, 6. 8. -62, 21. 8. -62, 17. 9. -63 19. 9. -63 east shore of Kevojärvi 20. 8. -60, 11. 8. -61, Tshieskuljoki 22. 8. -60, 2. 8. -63, 17. 8. -64, Puksalskaidi 8. 8. -59, 27. 8. -60, 14. 8. -61, 8. 8. -62, Tsharsjokskaidi 19. 8. -61, Kotkapahta 4. 8. -64, Linkkapahta 19. 8. -61, Puksala 10. 10. -62, Kenishvaara 23. 7. -62, 10. 8. -62. — Inari: Syysjärvi 3. 8. -61, Alttojoki 3. 8. -61, near the bridge over Kaamasjoki 17. 8. -63, Kaamanen 17. 8. -61, 17. 8. -62, Laanila 17. 8. -61. Common in the dry pine forests in the whole research area. It has been found also under the northernmost solitary pines in the subalpine region. — The species is common in Lapland (LAESTADIUS, KARSTEN, TUOMIKOSKI, ULVINEN), as well as in the whole of Finland (RAUTAVAARA: I—V fqq.).

Suillus bovinus (L.) O. Kuntze

Utsjoki: Kidsajärvet 24. 8. -60, 25. 8. -60, mouth of Tsharsjoki 24. 8. -61, Kevonniemi 20. 9. -61, east shore of Kevojärvi 16. 9. -63. — Inari: Kaamanen 17. 8. -61. The species is common up to the continuous pine forest limit, but is less abundant in the pine forest of Kevo. Not found under solitary pines in the subalpine region. — KARSTEN (p. 200): passim ad Kola usqve, TUOMIKOSKI: Inari, ULVINEN: Oulu and Savukoski areas, RAUTAVAARA: I—V fqq. Fig. 17.

Fig. 17. Boletus bovinus and *Gomphidius roscus*. — Kidsajärvi 1960.

Suillus variegatus (Sw.) O. Kuntze

Utsjoki: Paavaljärvi 23. 8. -60, north of Patoniva 21. 8. -63, Haukiniemi 5. 8. -63, west shore of Kevojärvi 2. 9. -59, Jesnalvaara 11. 8. -61, Kevonsuu 29. 8. -59, mouth of Kevojoki 1. 8. -61, Kevonniemi 1. 9. -59, 11. 8. -61, 15. 8. -61, 17. 8. -62, 18. 9. -63, 19. 9. -63, 20. 9. -63, 28. 7. -64, east shore of Kevojärvi 15. 8. -61, Tshieskuljoki 17. 8. -64, Vuoskujärvi 5. 8. -61, Kenesjärvi 21. 8. -62, 10. 8. -63. — Inari: Alttojoki 3. 8. -61, Kaamanen 3. 8. -61. — Finnmark: southwest of Neiden 5. 8. -63. The distribution of this corresponds to that of *Suillus luteus*. — Found in Lapland by LAESTADIUS, KARSTEN and ROMELL. ULVINEN: Oulu and Savukoski areas, RAUTAVAARA: I—V fqq.

Suillus piperatus (Bull.) O. Kuntze

Utsjoki: Kiirunskaidi (alpine region) 10. 8. -61, Tshuomasvaara 13. 8. -63, Vetsikko 27. 8. -58, mouth of Utsjoki 19. 8. -61, Äimäjoki 18. 8. -62, vicarage 16. 8. -61, 20. 8. -64, Erdigvaara (alpine region) 18. 8. -60, 20. 8. -61, 23. 8. -61, 19. 8. -62, mouth of Kevojoki 14. 8. -62, east shore of Kevojärvi 23. 8. -61, 15. 8. -62, Tshieskuljoki 22. 8. -60, Kotkapahta 4. 9. -59, 21. 8. -60, 15. 8. -61, 18. 8. -62, Linkkapahta 16. 8. -61, 19. 8. -61. — Inari: Syysjärvi 3. 8. -61, Laanila 17. 8. -61. — Finnmark: Bâteng 6. 8. -64. Common in the research area; found also in the alpine region. — Recorded from Swedish Lapland by LAESTADIUS, from Inari by TUOMIKOSKI and from Oulu area by ULVINEN. RAUTAVAARA: I—V st fq.

Xerocomus subtomentosus (L.) Quél.

Utsjoki: Njallavaara 10. 8. -61, Kiirunskaidi (alpine region) 10. 8. -61, Vetsikko 27. 8. -58, Ailigas 10. 8. -64, mouth of Utsjoki 19. 8. -61, Äimäjoki 6. 8. -63, north of the church 30. 8. -59, south of Jaakkola 21. 8. -63, Paavalvaara 1. 9. -59, 1. 8. -61, north of Vetsikkojärvi 14. 8. -64, Patoniva 21. 8. -63, Jesnalvaara 5. 8. -61, 11. 8. -61, 2. 9. -61, mouth of Tsharsjoki 23. 8. -61, mouth of Kevojoki, Sept., -59, 1. 8. -64, Kevonniemi 7. 8. -59, 29. 8. -59, 8. 9. -59, Sept., -59, 19. 8. -60, 23. 8. -60, 5. 8. -61, 11. 8. -61, 15. 8. -61, 4. 8. -63, 17. 9. -63, 18. 9. -63, 19. 9. -63, 16. 8. -64, east shore of Kevojärvi 20. 8. -60, 15. 8. -61, upper course of Tshieskuljoki 6. 8. -63, Puksalskaidi 8. 8. -59, 27. 8. -60, 4. 8. -61, 9. 8. -61, 8. 8. -62, Tsharsjokskaidi 25. 8. -60, Vuoskujärvi 5. 8. -61, Kotkapahta 1. 8. -61, Linkkapahta 16. 8. -61, Kuivi (Paistunturit; alpine region) 14. 8. -61, upper course of Luomushjoki 17. 8. -63. — Inari: Syysjärvi 3. 8. -61, Kiellajoki 17 .8. -63, Kaamanen 29. 7. -61, 17. 8. -61, 17. 8. -62, Uutuan-

joki 5. 8. -63, Laanila 17. 8.-61. — Finnmark: Skallelven (tundra) 7. 8. -64, Nesseby 23. 8. -61, Varangerbotn 7. 8. -64, near the bridge over Polmakelven 12. 8. -63, 18. 8. -64. The species is very common in all regions of the research area. — KARSTEN (p. 200): "passim in tota Lapponia", LANGE (1946): Torne Lappmark, TUOMIKOSKI: Inari, ULVINEN: Oulu and Savukoski areas, RAUTAVAARA: I—V fqq.

Boletus edulis Bull.

Utsjoki: Jomppala 24. 8. -60, Paavalvaara 1. 8. -61, Raessijoki 26. 8. -60, Kutuniemi 17. 8. -62, Jesnalvaara 28. 8. -60, Tsharsjoki 2. 9. -59, 23. 8. -60, 13. 8. -61, 23. 8. -61, Kevonniemi 19. 8. -61, 16. 9. -63, Erdigvaara (alpine region) 28. 8. -60, Kaimioaivi (Paistunturit) 14. 8. -61. — Finnmark: Skallelven (tundra) 7. 8. -64, Nesseby 22. 8. -61, Varangerbotn 7. 8. -64, upper course of Polmakelven 17. 8. -64. Fairly common in the pine forest region, but grows also in other regions. — TUOMIKOSKI found the species in Inari and ULVINEN in the Oulu and Savukoski areas. RAUTAVAARA: I—V fqq.

Boletus edulis f. *pinicola* Vitt.

Utsjoki: Jesnalvaara 11. 8. -61, Kevonniemi 19. 8. -61. The species has been found also several times in the *Arctostaphylos uva-ursi* vegetation in Kevojoki valley. Always under a pine.

Leccinum aurantiacum (Bull.) S. F. Gray

Utsjoki: Jesnalvaara 2. 9. -59. Under *Populus tremula* on the south slope of the fjeld. — ULVINEN found the species in Savukoski.

Boletus vulpinus Watling (WATLING 1961)

Utsjoki: east shore of Kevojärvi, pine forest 4. 8. -64. The species has been found also in Sodankylä, Vuotso, under a pine. — The same species was obviously recorded by TUOMIKOSKI from Inari, Muddusjärvi, and by ULVINEN from Savukoski.

Leccinum testaceoscabrum (Secr.) Sing.

Utsjoki: Njallavaara 10. 8. -61, Kiirunskaidi (alpine region) 10. 8. -61, Tshuomasvaara 13. 8. -63, Ailigas 10. 8.-64, Äimäjoki 1. 8. -63, west of the church (alpine region) 16. 8. -62, near the church 7. 8. -62, Paavalvaara 1. 8.-61, Kutuniemi 4. 8. -63, Jesnalvaara 5. 8. -61, 11. 8. -61, mouth of Tsharsjoki 3. 8. -63, 20. 8. -64, Kevonniemi 6. 8. -59, 1. 8. -61, 5. 8. -61, 15. 8. -61, 7. 8. -63, east shore of Kevojärvi 18. 8. -61, 16. 9. -63, 4. 8. -64, Tshieskuljoki 17. 8. -64, Vaishtshokka 8. 8. -61, Skallovaara 8. 8. -61, Vetsikkojärvi 15. 8. -64, Vuoskujärvi 5. 8. -61, Kuivi (Paistunturit; alpine region) 14. 8. -61, Linkkapahta 16. 7. -62, Njaggaljärvet 9. 8. -63, Kenishvaara 14. 7. -62, 10. 8. -63, Ailigas (alpine region) 16. 8. -63. — Inari: south of Uutuanjoki 5. 8. -63, Paksumaanjärvi 3. 8. -61, Alttojoki 3. 8. -61, Kaamanen 3. 8. -61, 17. 8. -61. — Finnmark: Skallelven (tundra) 7.8. -64, Nesseby 22. 8. -61, upper course of Polmakelven 18. 8. -64, Geidnogaissa (alpine region) 20. 8. -63. The most common species of the genus in the research area. In the lower zones mostly under birch (*Betula "tortuosa"*). Contrary to the statement of LANGE (1957, p. 45) the species is rather common in the alpine region in the research area and grows under *Betula nana*. The fruit bodies are usually smaller in the alpine region than in the subalpine region where the largest caps have measured 35 cm. — Recorded in all lists of Lapland. Found also in Greenland (LANGE 1957). RAUTAVAARA: I—V fqq.

Leccinum testaceoscabrum forma

Utsjoki: Tshuomasvaara 13. 8. -63, mouth of Tsharsjoki 25. 8. -64, Luomushharju 17. 8. -63. — Finnmark: Varangerbotn 7. 8.-64. Almost white. The pileus is somewhat pale.

Leccinum scabrum (Bull.) S. F. Gray

Utsjoki: Kiirunskaidi 10. 8. -61, Loktavaara 9. 8. -61, Tshuomasvaara (alpine region) 13. 8. -63, Äimäjoki 1. 8. -63, Ailigas 10. 8. -64, vicarage 16. 8. -61, west of the church (alpine region) 16. 8. -62, Paavalvaara 1. 8. -61, Kitisjoki 1. 8. -61, Mökölä 21. 8. -63, Kutuniemi 4. 8. -63, Jesnalvaara 11. 8. -61, Kevonsuu 29. 8. -59, 2. 9. -59, Tsharsjoki 5. 8. -61, 13. 8. -61, 19. 8. -62, 3. 8. -63, mouth of Kevojoki 21. 8. -60, 14. 8. -62, 16. 8. -62, Kevonniemi 30. 8. -59, 19. 8. -60, Sept. -60, 1. 8. -61, 5. 8. -61, 9. 8. -61, 8. 8. -62, 1. 8. -63, east shore of Kevojärvi 20. 8. -60, 23. 8. -61, 18. 8. -62, 3. 8. -64, Skallovaara 8. 8. -61, Tshieskuljoki Sept. -59, 2. 8. -63, Puksalskaidi 10. 8. -61, 11. 8. -64, Tshuoggajoki 7. 8. -63. — Inari: Paksumaanjärvi 3. 8. -61, Alttojoki 3. 8. -61, Syysjoki 3. 8. -61, Kiellajoki 17. 8. -63, near the bridge over Kaamasjoki 17. 8. -63, Kaamanen 17. 8.-61, 17. 8. 62, Laanila 17. 8. -61. — Finnmark: near the bridge over Polmakelven 12. 8. -63, 18. 8. -64. Common in all biotic zones. In the alpine region the species grows under *Betula nana*. — Recorded in all lists from Lapland and Greenland. RAUTAVAARA: I—V fqq.

Leccinum scabrum ssp. *rotundifoliae* (Sing.) Sing.

Obviously this taxom is not so clear owing to the very poor description of SINGER (1954). The diameter of the cap is usually 4—5 cm, the stem relatively short, often only 0.5 cm in diameter at the top but 1.5 cm at the base. The colour of the cap is light grayish brown with an often greenish margin. The pore layer is reddish. Dr. LUNDELL, Uppsala, has kindly identified one of our specimens to be same as that called *L. rotundifoliae* in exsiccate no. 2615 (LUNDELL & NANNFELDT 1959). It is, however, not always possible to distinguish a specimen from the type species (cf. LANGE 1957, p. 44). The size of the spores does not differ significantly from that of the type species. Only typical specimens are listed in the following:

Utsjoki: Njallavaara 10. 8.-61, Kiirunskaidi (alpine region) 10. 8. -61, Farfaloaivi 10. 8. -61, Ailigas (alpine region) 10. 8. -64, Erdigvaara (alpine region) 28. 8. -60, Paistunturit (alpine region) 14. 8. -61, Raessijoki 14. 8. -61, Kutuniemi 11. 8. -62, Jesnalvaara 9. 8. -62, mouth of Kevojoki 1. 8. -64, east shore of Kevojärvi 21. 8. -61, 3. 8. -64, Skallovaara 8. 8. -61, Njargajärvi 8. 8. -61, Juovuskalluvaara 8. 8. -61, southwest of Vetsikkojärvi 16. 8. -64, Puksalskaidi 14. 8. -61. — Inari: Petsikko 4. 8. -64. — Finnmark: Skallelven (tundra) 7. 8. -64, Rastegaissa 24. 8. -64. Mostly in wet or dry *Betula nana* shrubs, often in the alpine and subalpine zones, less frequent in the pine zone. — Recorded from north Sweden (LUNDELL & NANNFELDT 1959) and possibly from Greenland (LANGE 1957, p. 44). The species is obviously an arctic-montane species (SINGER 1954).

Leccinum scabrum ssp. *niveum* (Fr.) Sing.

Utsjoki: Ailigas 10. 8. -64, west of the church (alpine region) 16. 8. -62, Jomppala 16. 8. -61, Raessijoki 14. 8. -61, Jesnalvaara 11. 8. -61, mouth of Tsharsjoki 5. 8. -61, 2. 8. -64, mouth of Kevojoki 16. 8. -62, 26. 7. -64, Kevonniemi 5. 8. -61, 9. 8. -61, 15. 8. -61, east shore of Kevojärvi 15. 8. -61, 11. 8. -62, 3. 8. -64, Skallovaara 8. 8. -61, southwest of Vetsikkojärvi 15. 8. -64, Puksalskaidi 27. 8. -59, Kenesjärvi 21. 8. -62, Tshuoggajoki 7. 8. -63. — Inari:

Petsikko 4. 8. -64, Syysjärvi 3. 8. -61, Alttojoki 3. 8. -61. — Finnmark: Skallelven (tundra) 7. 8. -64, Kiby 6. 8. -64, Nesseby 22. 8. -61, upper course of Polmakelven 18. 8. -64, Geidnojoki 20. 8. -63. The species is rare in the research area. It grows in wet birch forests (often characterized by *Sphagnum*). — ULVINEN records the species from Oulu and Savukoski areas. RAUTAVAARA: I r.

Leccinum scabrum var. *roseofractum* Sing.

Utsjoki: Nuorgam 13. 8. -62, Njallavaara 10. 8. -61, Tshuomasvaara 13. 8. -63, Farfaloaivi 9. 8. -61, mouth of Utsjoki 19. 8. -61, 10. 8. -64, near Jaakkola 23. 8. -63, Raessijoki 14. 8. -61, mouth of Tsharsjoki 5. 8. -61, 11. 8. -61, 15. 8. -62, 16. 8. -64, mouth of Kevojoki 2. 9. -59, 19. 8. -60, 15. 8. -61, 22. 8. -63, Kevonniemi 5. 8. 61, 9. 8. -61, southwest of Vetsikkojärvi 15. 8. -64. — Inari: Syysjärvi 2. 8. -61, Paksumaa 3. 8. -61, Alttojoki 3. 8. -61. — Finnmark: Skallelven (tundra) 7. 8. -64. The species differs from the type species by the dark (spotted) colour of the cap and the colour of the trama, which rapidly changes to reddish at the top of the stem and in the pileus and to blue at the base. The species is common in the research area in both pine and birch zones. — TUOMIKOSKI found the species in Inari, as well as in many localities in south Finland. The author KALLIO has found it in southwest Finland.

Leccinum scabrum forma

Finnmark: Rastegaissa (alpine region) 24. 8. -64. A very characteristic, rather slender and small form with all parts of the fungus light yellow-brown in colour. Especially in alpine and upper subalpine regions.

Russulaceae

Russula delica Fr.

Utsjoki: Kaldautshjoki 18. 7. -60, Tshuomasvaara 13. 8. -63, Nammajoki 28. 8. -60, Patoniva 17. 8. -62, Raessijoki 26. 8. -60, Kevonsuu 23. 8. -60, Tsharsjoki 13. 8. -61, 20. 8. -61, 23. 8. -61, near Keärdusjärvi (Kevojoki) 27. 8. -60, Kotkapahta 21. 8. -60, Linkkapahta 16. 8. -61, 9. 8. -64, Tshieskuljoki 22. 8. -60, 22. 8. -63, 17. 8. -64, Keneskoski 10. 8. -63, Ailigas (Karigasniemi) 16. 8. -63. — Finnmark: Nyborg 6. 8. -64, Varangerbotn 7. 8. -64, near the bridge over Polmakelven 14. 8. -63, east shore of Lake Polmakvatn 19. 8. -64, Rastegaissa 24. 8. -64. The macroscopic characteristics are typical of *R. delica*. The possibility, however, that some of the specimens may be of the species *R. pseudodelica* Lange is not excluded. The spore size of the specimen from Keneskoski was 8.2—10.4×6.4—8.2 microns (average of 50 measurements 8.84±0.04 × 7.24±0.03). The typical habitat is a river valley or border of a creek in the pine and birch zones. In Tshuomasvaara the fungus grew at the uppermost boundary of the birch zone on wet soil. — TUOMIKOSKI found it in Inari. KARSTEN has recorded the species from east Lapland, ROMELL and LANGE (1946, 1957) from Abisko, and LANGE (1957) from Greenland. RAUTAVAARA: I (V ?) fq.

Russula adusta (Pers.) Fr.

Utsjoki: mouth of Tsharsjoki 13. 8. -61, Kevonniemi 13. 9. -64, east shore of Kevojärvi 15. 8. -61, 8. 8. -62, 15. 8. -62, 28. 7. -64, 4. 8. -64, 11. 8. -64, Puksalskaidi 14. 8. -61, Linkkapahta 14. 8. -61, Madjoki 14. 8. -61, Kenespahta 8. 8. -64. — Inari: Kaamasjoki (by the bridge) 17. 8. -63. The characteristics agree well with those of the south Finnish specimens. The spore size of the specimen east of Kevojärvi (15. 8. -62) was 8.72±0.04 × 6.86±0.03 microns. The main habitats are in rather dry pine and birch forests on sandy soil, often on *Arctostaphylos uva-ursi* heaths. — No previous records from Lapland. ULVINEN: Oulu region. RAUTAVAARA: I fq.

Russula consobrina (Fr.) Fr.

Utsjoki: Ailigas 10. 8. -64, east shore of Kevojärvi 22. 8. -63, 11. 8. -64, Puksalskaidi 20. 8. -61, Linkkapahta 16. 8. -61. — Inari: Kaamanen 17. 8. -63. — Finnmark: Skallelven 6. 8. -64. The spore sizes of the specimen from Kaamanen 8.47±0.03 × 7.03±0.03 and that of the specimen from east shore of Kevojärvi (22. 8. -63) 8.26±0.04 × 6.90±0.02 microns. ROMELL records the species from Abisko and ULVINEN from Savukoski. RAUTAVAARA: I (V ?) p.

Russula vinosa Lindbl.

Utsjoki: Njallavaara 10. 8. -61, west of the church (alpine region) 16. 8. -62, 16. 8. -62, Tshuomasvaara 13. 8. -63, Kitisjoki 1. 8. -61, east of Jomppala 5. 8. -63, Raessijoki 14. 8. -61, west shore of Kevojärvi 3. 9. -59, Jesnalvaara 11. 8. -61, Kevonsuu 13. 8. -61, mouth of Tsharsjoki 19. 8. -60, 5. 8. -61, Kevonniemi 16. 9. -63, 18. 9. -63, east shore of Kevojärvi 26. 8. -60, Puksalskaidi 23. 8. -63, Paistunturit (alpine region) 14. 8. -61. — Inari: Kaamanen 17. 8. -61. — Finnmark: west shore of Polmakelven 18. 8. -64, Rastegaissa (alpine region) 24. 8. -64. The species is very common in the research area up to the alpine regions, where it has been found only rarely. — ROMELL has recorded it from Abisko, TUOMIKOSKI from Inari and ULVINEN from the Oulu area. RAUTAVAARA: I—IV fq.

Russula flava (Romell) Romell

Utsjoki: Nuorgam 13. 8. -62, Njallavaara (alpine region) 10. 8. -61, Kiirunskaidi 10. 8. -61, Tshuomasvaara 13. 8. -63, mouth of Utsjoki 8. 8. -61, 12. 8. -62, Äimäjoki 10. 8. -62, south of Nammajoki 28. 8. -60, 9. 8. -61, Kitisjoki 1. 8. -61, Patoniva 24. 8. -60, Raessijoki 26. 8. -60, Jomppala 16. 8. -61, Jesnalvaara 5. 8. -61, 11. 8. -61, Tsharsjoki 5. 8. -61, 23. 8. -61, Kevonniemi 29. 8. -59, 4. 8. -61, 23. 8. -61, 15. 8. -61, 19. 8. -61, east shore of Kevojärvi 11. 8. -61, 21. 8. -61, 23. 8. -61, 15. 8. -62, 3. 8. -64, southeast of Vaishtshokka 8. 8. -61, southwest of Skallovaara 8. 8. -61, Tshieskuljoki 1. 9. -59, Puksalskaidi 4. 8. -61, 5. 8. -61, 18. 8. -61, 14. 8. -62, 18. 8. -62, Tsharsjokskaidi 25. 8. -60, 5. 8. -61, Kenesjärvi 10. 8. -63, Njaggaljärvet 9. 8. -63, Mierashjärvi 1. 8. -61, 13. 8. -61, Luomushjoki 16. 8. -63, Ailigas (Karigasniemi) 16. 8. -63. — Inari: Petsikko 4. 8. -64, Paksumaa 3. 8. -61, Alttojoki 3. 8. -61, Kaamanen 29. 7. -61, 17. 8. -61, Laanila 17. 8. -61. — Finnmark: Skallelven 6. 8. -64, 7. 8. -64, Kiby 6. 8. -64, Varangerbotn 7. 8. -64, upper course of Polmakelven 18. 8. -64, Rastegaissa (alpine region) 24. 8. 64. The species is common on birch heaths, but also under *Betula nana* in alpine regions. — TUOMIKOSKI records it from Inari, ROMELL as well as LANGE (1946, 1957) from Swedish Lapland, and LANGE (1957) from Greenland. RAUTAVAARA: I—(V ?) fq.

Russula decolorans Fr.

Utsjoki: Njallavaara 10. 8. -61, Ailigas 10. 8. -64, Vaishjäggi 7. 8. -61, south of Nammajoki 9. 8. -61, Patoniva 17. 8. -62, Jomppala 11. 8. -61, Raessijoki 26. 8. -60, Jesnalvaara 11. 8. -61, Kevonsuu 19. 8. -60, Kevonniemi 13. 8. -61, 15. 8. -62, east shore of Kevojärvi 20. 8. -60, 11. 8. -61, 18. 8. -61, 23. 8. -61, Juovuskalluvaara 8. 8. -61, Tshieskuljoki 17. 8.

-61, Linkkapahta 16. 8. -61. The species is rather variable in colour and shape. The spore dimensions (Kevonniemi 15. 8. -62) are $10.75 \pm 0.03 \times 8.47 \pm 0.04$ microns. The habitats are similar to those of *R. flava*, birch heaths, sometimes, however, pure pine stands. — TUOMIKOSKI has recorded it from Inari, ROMELL and LANGE (1957) from Swedish Lapland, BLYTT from alpine zones in Norway, LANGE (op.c.) from Greenland and ULVINEN from the Oulu area. RAUTAVAARA: I—III fqq.

Russula foetens Fr.

U t s j o k i: along Tshieskuljoki 22. 8. -60, 22. 8. -63. The species grew in a moist rich copse by the river where birch, *Sorbus aucuparia, Prunus padus* and *Juniperus* grew. The spore dimensions (22. 8. -60) were $8.40 \pm 0.03 \times 6.90 \pm 0.02$ microns. The shape and the odour were typical of the species. — No records from Lapland or north Finland. RAUTAVAARA: I—III fqq.

Russula xerampelina (Schaeff.) Fr.

U t s j o k i: Tshuomasvaara 13. 8. -63, Äimäjoki 16. 8. -61, Jomppala 16. 8. -61, Raessijoki 14. 8. -61, 21. 8. -63, southeast of Vaishtshokka 8. 8. -61, 14. 8. -64, Kevonsuu 18. 8. -64, Tsharsjoki 15. 8. -64, 18. 8. -64, Kevonniemi 15. 8. -61, 17. 9. -63, 18. 9. -63, 11. 8. -64, east shore of Kevojärvi 15. 8. -61, 21. 8. -61, north of Kotkapahta 11. 8. -63, 12. 8. -64, Tshieskuljoki 15. 8. -61, south of Kevojärvi 21. 8. -61, Luomushjoki 17. 8. -63. — I n a r i: Kaamanen 17. 8. -61, Laanila 17. 8. -61. Common in both birch and pine zones, usually on thick litter carpet. The violet colour is often dominant in coniferous forests and a greenish brown colour in birch forests. Forms with bright red caps and more or less red stems have been found in pine forests (var. *rubra* Britz. ?). Spore dimensions: (north of Kotkapahta 11. 8. -63) $8.03 \pm 0.02 \times 6.46 \pm 0.02$, (Kevonniemi 17. 9. -63) $8.75 \pm 0.03 \times 7.08 \pm 0.27$ and (Kevonniemi 18. 9. -63) $8.27 \pm 0.04 \times 7.02 \pm 0.03$ microns. — TUOMIKOSKI found the species in Inari. Known also from Greenland (LANGE 1957). RAUTAVAARA: I (V ?) fq.

Russula puellaris Fr.

U t s j o k i: Nuorgam 13. 8. -62, Tshuomasvaara (alpine region) 13. 8. -63, Äimäjoki 18. 8. -62, vicarage 16. 8. -61, Erdigvaara 28. 8. -60, Raessijoki 21. 8. -63, mouth of Tsharsjoki 20. 8. -61, 23. 8. -61, 9. 8. -62, mouth of Kevojoki 20. 8. -61, Kevonniemi 15. 8. -62, Tshieskuljoki 15. 8. -61, 20. 8. -62, southwest of Vetsikkojärvi 15. 8. -64, Kotkapahta 15. 8. -61, 18. 8. -62, Tshuoggajoki 7. 8. -63, Mierashjärvi 13. 8. -61, Karigasniemi, Ailigas (alpine region) 16. 8. -63. — I n a r i: Kaamanen 17. 8. -62. — F i n n m a r k: Skallelven 7. 8. -64, Kiby 6. 8. -64, Varangerbotn 7. 8. -64, Polmak 22. 8. -61. Like *R. gracilis, R. puellaris* is a species of moist river banks and bogs. On Tshuomasvaara the vegetation of its habitat comprised *Betula nana, Comarum palustre, Rubus chamaemorus, Sphagnum* sp. — ROMELL records the species from Abisko. RAUTAVAARA: I (—V ?) r.

Russula emetica (Schaeff.) Pers.

U t s j o k i: Nuorgam 12. 8. -62, Tshuomasvaara 13. 8. -63, mouth of Utsjoki 19. 8. -61, Äimäjoki 10. 8. -62, Jomppala 16. 8. -61, Raessijoki 14. 8. -61, north of Kevojärvi 5. 8. -63, Kevonsuu 13. 8. -61, Tsharsjoki 23. 8. -61, 19. 8. -62, Kevonniemi 25. 8. -60, north of Vetsikkojärvi 14. 8. -64, southwest of Vetsikkojärvi 15. 8. -64, Kevojoki 19. 8. -61, north of Kotkapahta 12. 8. -64, Tsharsjokskaidi 25. 8. -60, Madjoki 14. 8. -61, Njaggaljärvet 9. 8. -63, Kenes-koski 21. 8. -63, Kenespahta 10. 8. -63, Mierashjärvi 13. 8. -61, Luomushjoki 16. 8. -63. —

F i n n m a r k: Skallelven 7. 8. -64, Kiby 6. 8. -64, upper course of Polmakelven 18. 8. -64, Rastegaissa (alpine region) 24. 8. -64. The fruit bodies are usually small in size and are more compact in dry forests and barren fields than those in the richer and moister habitats. Usually very acrid in taste. Some specimens, however, are less acrid and often very small and may systematically be nearer to *R. alpina* (Blytt) Möller & Schaeff. The spores, however, look more like the spores of *R. emetica*: (Keneskoski) $9.41 \pm 0.04 \times 8.16 \pm 0.06$ and (Tsharsjoki 19. 8. -62) $9.04 \pm 0.04 \times 7.41 \pm 0.04$ microns. It is possible that *R. alpina* was included in this species, but "subglobose spores" (cf. LANGE 1957, p. 46) were not found. One of the most common species of the genus, particularly in alpine regions. — Mentioned from Lapland by KARSTEN, LANGE (1946) and TUOMIKOSKI. RAUTAVAARA: I—V p.

Russula chrysodacryon Sing. [*Russula sardonia* Fr.]

F i n n m a r k: Varangerbotn 7. 8. -64. — No records from Lapland. RAUTAVAARA: I st r.

Russula gracilis Burl.

U t s j o k i: mouth of Tsharsjoki 15. 8. -62, west of Skallovaara 8. 8. -61, Tshieskuljoki 22. 8. -63, Linkkapahta 21. 8. -62, Paltonjärvi (Puksalskaidi) 11. 8. -63, east shore of Kenesjärvi 10. 8. -63, Tshuoggajoki 7. 8. -63, Ailigas (Karigasniemi) 16. 8. -63. — I n a r i: west of Petsikko 1. 8. -62, 3. 8. -62. — F i n n m a r k: near the bridge over Polmakelven 12. 8. -63. The spore dimensions are (Petsikko 1. 8. -62) $8.12 \pm 0.03 \times 6.39 \pm 0.01$, (Petsikko 3. 8. -62) $7.53 \pm 0.02 \times 6.43 \pm 0.01$, (Linkkapahta) $8.10 \pm 0.03 \times 6.39 \pm 0.01$, (Tsharsjoki) $8.31 \pm 0.03 \times 6.54 \pm 0.03$ and (Tshieskuljoki) $8.61 \pm 0.032 \times 6.59 \pm 0.129$ microns. Grows in moist habitats of different types, often in *Salix* and *Betula* thickets among *Equisetum silvaticum, Viola epipsila, Potentilla palustris* etc. — ROMELL reports it from Swedish Lapland as *R. queletii*. Cf. also LANGE 1957, p. 47. The species is quite common in Greenland (LANGE 1957).

Russula rhodopoda Zvára

U t s j o k i: by Kenesjärvi, pine-birch forest, Aug., -63. Differs from *R. paludosa* in its smaller size, lighter colour of the spores and uniform colour of the trama. Spore dimensions: $8.12 \pm 0.04 \times 6.26 \pm 0.02$ microns. The distribution area of the species in Finland is not known.

Russula aeruginea Lindbl.

U t s j o k i: Kiirunskaidi 10. 8. -61, Farfaloaivi 10. 8. -61, Tshuomasvaara 13. 8. -63, Ailigas (alpine region) 10. 8. -64, mouth of Utsjoki 19. 8. -61, 23. 8. -62, Äimäjoki 17. 8. -61, vicarage 16. 8. -61, Kitisjoki 1. 8. -61, Patoniva 17. 8. -62, 21. 8. -63, Haukiniemi 5. 8. -63, Jomppala 16. 8. -61, Raessijoki 14. 8. -61, 16. 8. -62, 21. 8. -63, Kutuniemi 19. 8. -60, 18. 8. -62, 4. 8. -63, Jesnalvaara 11. 8. -61, Kevonsuu 19. 8. -60, 4. 8. -61, 19. 8. -62, Tsharsjoki 13. 8. -61, mouth of Kevojoki 21. 8. -60, 14. 8. -62, Kevonniemi 15. 8. -61, 15. 8. -62, east shore of Kevojärvi 17. 8. -61, southwest of Juovuskalluvaara 8. 8. -61, Tshieskuljoki 22. 8. -62, Puksalskaidi 5. 8. -61, Kotkapahta 27. 8. -59, Linkkapahta 14. 8. -61, Kuivi (Paistunturit; alpine region) 14. 8. -61. — I n a r i: Paksumaa 3. 8. -61, Laanila 17. 8. -61. — F i n n m a r k: Skallelven 7. 8. -64, Varangerbotn 7. 8. -64, upper course of Polmakelven 18. 8. -64, Rastegaissa, subalpine and alpine region 24. 8. -64. In moist and dry birch vegetation. Often very pale forms occur in birch heaths with *Cladina-Polytrichum* ground vegetation. Spore dimensions: (Kevonsuu 19. 8. -62) $8.66 \pm 0.04 \times 6.30 \pm 0.04$, (Kevonniemi 15. 8. -62) $7.64 \pm 0.04 \times 5.85 \pm 0.02$,

(Tshuomasvaara) 8.05±0.04 × 6.23±0.02 and (Patoniva 21. 8. -63) 8.77±0.04 × 6.91±0.03 microns. — TUOMIKOSKI found the species in Inari, ROMELL in Abisko. LANGE records from Greenland a pallid or almost white form (1957, p. 47). RAUTAVAARA: I (—V ?) fq.

Russula paludosa Britz.

Utsjoki: Ailigas 10. 8. -64, Kevonsuu 19. 8. -60, mouth of Kevojoki 21. 8. -60, 1. 8. -64, Kevonniemi 13. 8. -61, 11. 8. -64, 16. 8. -64, east shore of Kevojärvi 20. 8. -60, 26. 8. -60, southwest of Vetsikkojärvi 15. 8. -64, Linkkapahta 16. 8. -61. — Inari: Paksumaa 3. 8. -61, Alttojoki 3. 8. -61, Kaamanen 17. 8. -61. — Finnmark: Skallelven (tundra) 7. 8. -64. Common in the research area. — TUOMIKOSKI reports the species from Inari and ROMELL from Swedish Lapland. RAUTAVAARA: I—V (?) fq.

Lactarius fuliginosus Fr.

Utsjoki: Farfaloaivi (alpine region) 10. 8. -61, south of Nammajoki 9. 8. -61, south of Tuolbajärvi 7. 8. -61, Kallumoras 8. 8. -61, Raessijoki 14. 8. -61, mouth of Tsharsjoki 23. 8. -60, 2. 9. -60, 20. 8. -61, 23. 8. -61, 16. 8. -64, Tshieskuljoki 15. 8. -61, Puksalskaidi 18. 8. -61, Njaggaljärvet 14. 8. -61, Paistunturit 14. 8. -61, Mierashjärvi 13. 8. -61. — Inari: Petsikko 10. 8. -64, Munkelven 5. 8. -63, Laanila 17. 8. -61.

Morphologically usually similar to the species in south Finland. Three times, however, forms with almost white stems have been found. The outer morphology is similar to that of *Lactarius azonites* (Bull.) Fr. in the oak zone of Finland (KALLIO 1963). *L. fuliginosus* is a species of rather rich *Betula* forests, mostly in the river valleys. In the alpine region it has been found e.g. among *Salix myrsinites* shrubs, and in *Betula nana* vegetation. — The northernmost localities mentioned in the literature are Tervola (TUOMIKOSKI 1953) and Savukoski (ULVINEN). RAUTAVAARA: I—II st fq.

Lactarius glyciosmus Fr.

Utsjoki: Nuorgam 13. 8. -62, Tshuomasvaara (alpine region) 13. 8. -63, Vetsikko 27. 8. -58, mouth of Utsjoki 19. 8. -61, Äimäjoki 4. 8. -59, 17. 8. -61, 23. 8. -62, Ailigas 10. 8. -64, near the church 6. 8. -62, vicarage 16. 8. -61, Erdigvaara (alpine region) 28. 8. -60, Jomppala 16. 8. -61, Raessijoki 11. 8. -62, 5. 8. -63, Kevonsuu 7. 8. -59, 29. 8. -59, 2. 9. -59, 19. 8. -60, mouth of Tsharsjoki 18. 8. -61, 23. 8. -61, 15. 8. -62, mouth of Kevojoki 19. 8. -60, 14. 8. -61, 14. 8. -62, Kevonniemi 21. 8. -60, 15. 8. -61, 8. 8. -62, east shore of Kevojärvi 15. 8. -62, 11. 8. -64, Vaishtshokka 8. 8. -61, Tshieskuljoki 15. 8. -61, 25. 7. -62, 14. 8. -62, 20. 8. -62, 22. 8. -62, Kotkapahta 15. 8. -61, Linkkapahta 16. 8. -61, Kenespahta 7. 8. -62, 24. 8. -62, 10. 8. -63, Tshuoggajoki 7. 8. -63, Mierashjärvi 13. 8. -61, upper course of Luomushjoki 17. 8. -63. — Inari: Kaamanen 17. 8. -61, 17. 8. -62. — Finnmark: Kiby 6. 8. -64, near the bridge over Polmakelven 12. 8. -63, upper course of Polmakelven 19. 8. -64, northeast shore of Lake Polmakvatn 14. 8. -63, Geidnogaissa (alpine region) 20. 8. -63.

Very common in all zones in the research area. — Common also in Inari (TUOMIKOSKI) as well as in Swedish Lapland (LANGE 1946) and in Oulu and Savukoski (ULVINEN). Common also in Greenland (LANGE 1957). RAUTAVAARA: I—III fq.

The specimen from Linkkapahta was an almost odourless form reported also from Swedish Lapland by LANGE (1946) as well as from Greenland by LANGE (1957).

Lactarius mammosus Fr.

Utsjoki: Erdigvaara (alpine region) 28. 8. -60, Raessijoki 14. 8. -61, Tsharsjoki 17. 8. -64, mouth of Kevojoki 16. 8. -62, Kevonniemi 29. 8. -59, 29. 9. -59, 23. 8. -60, Sept., -60,

15. 8. -61, 17. 9. -63, east shore of Kevojärvi 20. 8. -60, 18. 8. -61, 13. 8. -61, 16. 9. -63, 11. 8. -64, 17. 8. -64, Tsharsjokskaidi 25. 8. -60, southwest of Vetsikkojärvi 15. 8. -64. — Inari: Petsikko 4. 8. -64, Kaamanen 17. 8. -61. — Sodankylä: 44 km north of the church 24. 8. -63. — Finnmark: Polmak 22. 8. -61. — TUOMIKOSKI records the species from Inari and ULVINEN from the Oulu and Savukoski areas. RAUTAVAARA: I—IV r.

Lactarius helvus Fr.

This species must be very rare in our research area. There is in our collections only one somewhat dubious specimen from Juovuskalluvaara 8. 8. -61. — TUOMIKOSKI found the species in Inari, Kuusipää, KARSTEN in east Lapland, LAESTADIUS in Torne Lappmark, and ULVINEN in his research areas. RAUTAVAARA: I—V p.

Lactarius rufus (Scop.) Fr.

Utsjoki: Farfaloaivi 10. 8. -61, Ailigas (alpine region) 10. 8. -64, Urro-oaivi 14. 8. -63, Vaishjäggi 7. 8. -61, south of Nammajoki 9. 8. -61, Erdigvaara (alpine region) 28. 8. -60, Kitisjoki 1. 8. -61, Patoniva 4. 8. -59, Jomppala 16. 8. -61, west shore of Kevojärvi 16. 8. -62, Kevonsuu 8. 8. -59, Kutuniemi 4. 8. -63, Kevonniemi 8. 8. -59, 30. 8. -59, 19. 8. -60, 23. 8. -60, 4. 8. -61, 17. 9. -63, 16. 8. -64, east shore of Kevojärvi 18. 8. -61, 11. 8. -62, 22. 8. -62, Tshieskuljoki 15. 8. -61, 6. 8. -63, Puksalskaidi 5. 8. -61, 9. 8. -61, 10. 8. -61, Linkkapahta 11. 8. -63, Kenishvaara 10. 8. -63, Tshuoggajoki 7. 8. -63, Mierashjärvi 1. 8. -61, Ailigas (alpine region) 16. 8. -63. — Inari: Petsikko 3. 8. -62, 4. 8. -64, Paksumaa 3. 8. -61, Alttojoki 3. 8. -61, Kaamanen 17. 8. -63, Laanila 17. 8. -61. — Finnmark: Skallelven (tundra) 7. 8. -64, Kiby 6. 8. -64, Geidnogaissa (alpine region) 20. 8. -63, Rastegaissa (alpine region) 24. 8. -64. One of the most typical mushrooms of the birch heaths and pine forests in the region, but grows also in the alpine region. — Many reports from Lapland (LAESTADIUS, KARSTEN, BLYTT, ROMELL, LANGE 1946, 1957, TUOMIKOSKI). Found also in Greenland (LANGE 1957). RAUTAVAARA: I—V fqq.

Lactarius obscuratus (Lasch) Fr.

Utsjoki: Raessijoki, Aug., 1959. In all probability the poor specimen belongs to this species. The same species has also been found at the mouth of Kevojoki. There is also *Alnus* in these valleys. — ULVINEN has recorded the species from Oulu, and LANGE possibly the same species from Greenland (1957, p. 51).

Lactarius sp.

The species resembles in its main morphology and colour the species *L. mitissimus* Fr. of NEUHOFF (1956) and TUOMIKOSKI (1952, 1953). The surface of the cap is a glossy red brown and often there are radial ridges (puckers) in the cap surface. The best characteristic is the change in the colour of the milk to a bright sulphur yellow within one to two minutes. This characteristic is one of the taxon *L. tabidus* Fr. (sensu J. E. Lange) which is the same as *L. thejogalus* Fr. (sensu Neuhoff). In Finland, however, TUOMIKOSKI (1953, p. 22) has understood *L. thejogalus* to be more like *L. subdulcis*. The colour of this species is light brown and the stem is usually more slender and often softer. The change in the colour of the latex is slight and is seen only when the milk has dried, e.g. on a finger nail. ROMELL records a species like *L. mitissimus* with the milk colour changing to sulphur yellow. His *L. subdulcis* is presumably the species TUOMIKOSKI took to be *L. thejogalus*. Localities where this easily identified species were found are:

Utsjoki: Pulmankijärvi 29. 7. -61, Jomppala 16. 8. -61, Raessijoki 14. 8. -61, 5. 8. -63, east shore of Kevojärvi 11. 8. -64, mouth of Tsharsjoki 13. 8. -61, 20. 8. -61, 15. 8. -62, 16. 8. -64, mouth of Kevojoki 29. 8. -58, 5. 8. -59, 2. 9. -59, 4. 9. -59, 21. 8. -60, 28. 8. -60, 5. 8. -61, 31. 7. -63, 22. 8. -63, 1. 8. -64, Kevonniemi 21. 8. -60, upper course of Tshieskuljoki 22. 8. -60, mouth of Tshieskuljoki 17. 8. -64, Kotkapahta 21. 8. -50, 27. 8. -60, 15. 8. -61, 19. 8. -61, 12. 8. -64, Siedgajoki 19. 8. -61, Linkkapahta 19. 8. -61, Njaggaljärvet 14. 8. -61, Tshuoggajoki 7. 8. -63. — Finnmark: northeast shore of Lake Polmakvatn 14. 8. -63, upper course of Polmakelven 19. 8. -64, near the mouth of Laevvajokka 20. 8. -63. Almost all localities are in the richest herb-grass birch forests often among ferns, *Ribes spicatum*, *Prunus padus* and *Urtica dioica* ssp. *sondenii*. — TUOMIKOSKI records this taxon from "north Finland" (1959) and from Inari (1961). ULVINEN found the same fungus in the Oulu and Savukoski areas. The taxon has never been reported from south Finland, although most collections of fungi are from this part of Finland. *L. mitissimus*, which is rather common in south Finland, particularly in the oak zone (KALLIO 1963), has never been found in north Finland, although it has been recorded from Swedish Lapland and the Norwegian mountains as well as from Greenland (LANGE 1957, p. 51).

Lactarius thejogalus (Bull.) Fr. sensu Neuhoff

The nomenclature is that used by TUOMIKOSKI (cf. preceding species).

Utsjoki: Farfaloaivi 10. 8. -61, Kiirunskaidi 10. 8. -61, Loktavaara 9. 8. -61, Ailigas 10. 8. -64, Kitisjoki 8. 8. -59, Haukiniemi 5. 8. -63, Raessijoki Sept. -59, 11. 8. -61, 14. 8. -61, 21. 8. -63, Kutuniemi 18. 8. -62, Jesnalvaara 11. 8. -61, Kevonsuu 9. 8. -59, 29. 8. -59, 2. 9. -59, 19. 8. -60, 19. 8. -62, mouth of Tsharsjoki 13. 8. -61, 20. 8. -61, mouth of Kevojoki 7. 8. -59, 21. 8. -60, 5. T. -61, east shore of Kevojärvi 23. 8. -61, Tshieskuljoki 19. 8. -60, 22. 8. -60, 15. 8. -61, 22. 8. -62, east shore of Vaishtshokka 8. 8. -61, east of Skallovaara 8. 8. -61, southwest of Vetsikkojärvi 15. 8. -64, Kotkapahta 15. 8. -61, upper course of Luomushjoki 16. 8. -63. — Inari: Uutuanjoki 5. 8. -63, Paksumaa 3. 8. -61, 4 km south of Syysjärvi 3. 8. -61, Syysjoki 3. 8. -61, Kaamanen 17. 8. -63. — Finnmark: Polmak 22. 8. 61, Geidnojokka 20. 8. -63. The species is common in the research area and apparently throughout Finland.

Lactarius flexuosus (Pers.) S. F. Gray

Utsjoki: Kevonsuu 19. 8. -60. — Finnmark: Varangerbotn 22. 8. -61. The species is rare in the research area. TUOMIKOSKI records it from Inari. RAUTAVAARA: I—III fq.

Lactarius hysginus (Fr.) Fr.

Utsjoki: Juovuskalluvaara (subalpine region) 8. 8. -61, Tsharsjokskaidi 5. 8. -61. — TUOMIKOSKI found the species in Inari. Earlier the species has been believed to have a southern distribution. RAUTAVAARA: I—II r.

Lactarius torminosus (Schaeff.) Gray

Utsjoki: Njallavaara 10. 8. -61, Farfaloaivi 10. 8. -61, Tshuomasvaara 13. 8. -63, Äimäjoki 1. 8. -63, Padjisaeftikvaara 28. 8. -60, vicarage 16. 8. -61, Nammajoki 28. 8. -60, Erdigvaara (alpine region) 28. 8. -60, Jomppala 16. 8. -61, Raessijoki 20. 8. -60, 26. 8. -60, 14. 8. -61, 21. 8. -63, Kutuniemi 4. 8. -63, Tsharsjoki 25. 8. -60, 28. 8. -60, 13. 8. -61, 18. 8. -61, 23. 8. -61, 24. 8. -61, 11. 8. -62, 15. 8. -62, 20. 8. -62, 3. 8. -63, mouth of Kevojoki 19. 8. -60,

14. 8. -62, Kevonniemi 8. 8. -59, 31. 8. -59, 2. 9. -59, 21. 8. -60, 15. 8. -61, east shore of Kevojärvi 18. 8. -61, 23. 8. -61, 16. 9. 63, north of Kaskamusjärvi 8. 8. -61, southwest of Vetsikkojärvi 15. 8. -64, Tshieskuljoki 15. 8. -61, 22. 8. -62, Puksalskaidi 5. 8. -61, Kotkapahta 21. 8. -60, 27. 8. -60, south shore of Kenesjärvi 10. 8. -63, Mierashjärvi 13. 8. -61, upper course of Luomushjoki 17. 8. -63. — Inari: Petsikko 3. 8. -62, Kiellajoki 17. 8. -63, Kaamanen 17. 8. 61, Laanila 17. 8. -61. — Finnmark: Skallelven 7. 8. -64, Varangerbotn 7. 8. -64, Polmak 22. 8. -61, near the bridge over Polmakelven 12. 8. -63, 14. 8. -63, 18. 8. -64, mouth of Aittejokka 19. 8. -63, Rastegaissa (alpine region) 24. 8. -64, Geidnogaissa (alpine region) 20. 8. -63. The species is most common in the birch zones, but grows also in the alpine region. — Mentioned in all lists from Lapland. RAUTAVAARA: I—V fqq.

Lactarius torminosus (Schaeff.) Gray forma

A small and slender form with the cap mainly smaller than 4 cm — often 2—3 cm. Pale or almost white, less hairy and more watery than the type species. The margin of the cap is usually almost straight or only slightly curved. The gills are as in the type species, often branched at the base. It is not impossible that this fungus is *L. torminosus* var. *gracillimus* J. E. Lange, but not *L. pubescens* Fr. sensu Neuhoff. These two taxons have been found growing almost side by side. — Localities of the species:

Utsjoki: Farfaloaivi 10. 8.-61, Äimäjoki 23. 8. -62, near the church 6. 8. -62, Tsharsjoki 28. 8. -60, 5. 8. -62, Kevonniemi 15. 8. -61, Kotkapahta 15. 8. -61, south of Tuolbajärvi 7. 8. -61, Kallumoras 8. 8. -61, southwest of Vetsikkojärvi 15. 8. -64, Tshuoggajoki 7. 8. -63. — Inari: Petsikko 4. 8. -64. The habitat is mostly wet peaty soil, often among *Sphagnum*. — LANGE (1957) found the species in Lapland and Greenland?

Lactarius pubescens Fr. sensu Neuhoff

Utsjoki: the Sarja farm (east shore of Pulmankijärvi) 19. 8. -64, mouth of Tsharsjoki 25. 8. -60, 28. 8. -60, 18. 8. -61, 29. 8. -61, 5. 8. -62, 15. 8. -62, 3. 8. -63, east shore of Kevojärvi 18. 8. -61, near Kotkapahta 27. 8. -60, 28. 8. -60, along Puksaljoki 19. 8. -61. — Inari: Kaamanen 17. 8.-61, 17. 8. -63. — Finnmark: Bäteng 18. 8. -64, near the bridge over Polmakelven 12. 8. -63, upper course of Polmakelven 18. 8. -64, Rastegaissa (alpine region) 24. 8. -64. The species differs from both taxons of *L. torminosus*. The colour is almost white and the gills do not branch. The flesh is more compact than in the small form of *L. torminosus* and the margin is often more curved. Twice, an intermediate form between *L. torminosus* type and *L. pubescens* was found. In both places there were three different forms growing in three separate groups. The two localities are near Kotkapahta (about 400 metres south of Kotkapahta) and along Tsharsjoki. In both localities the taxa have been found in two years. The habitat is a meadowlike grassland under *Betula* and *Salix phylicifolia*. — TUOMIKOSKI records the taxon from Inari, Laanila. LANGE has not found the two species because he mentions (1957, 49) *L. pubescens* under the name *L. torminosus* var. *gracillimus*. ULVINEN records *L. pubescens* from the Oulu and Sodankylä areas. RAUTAVAARA: I r.

Lactarius scrobiculatus (Scop.) Fr.

Utsjoki: Tsharsjoki 2. 8. -60, 26. 8. -64. The fungus grows on an islet under small *Betula* bushes, about 700 metres above the mouth of Tsharsjoki. The size, form and the yellow colour of the latex are quite typical of the species. The species is by no means *L. repraesentaneus* which is very common in the research area. It has been considered a southern species. RAUTAVAARA: I—III st fq.

Lactarius aspideus (Fr.) Fr. forma

The taxon is not quite identical with *L. aspideus* from south Finland. The fruit bodies are small — the average cap diameter of 200 specimens is 2.5 cm — compared with the data of KÜHNER & ROMAGNESI (1953, p. 471) and LANGE (1940, p. 40). The colour is more yellow, but there are no significant differences in spore sizes. Also an almost gray form of this taxon has been found and also one specimen with one half yellow and the other gray. ROMELL gave the name *L. flavissimus* to this taxon, specimens of which from Lapland are in the collections of the Riksmuseet in Stockholm.

U t s j o k i: mouth of Utsjoki 19. 8. -61, Faarela 7. 8. -61, mouth or Siedgajoki 19. 8. -61, Erdigvaara (alpine region) 28. 8. -60, Luovusvaara 18.—19. 7. -60, Raessijoki 11. 8. -62, mouth of Tsharsjoki 25. 8. 60, 5. 8. -61, 13. 8. -61, 18. 8. -61, 23. 8. -61, 15. 8. -62, 30. 8. -62, Kevonniemi 31. 7. -63, east shore of Kevojärvi 21. 8. -61, Kotkapahta 21. 8. -60, 15. 8. -61, Linkkapahta 19. 8. -61, Kaimioaivi (Paistunturit) 14. 8. -61. — I n a r i: near the bridge over Kiellajoki 17. 8. -63, southeast of Aksujärvi 17. 8. -63. — F i n n m a r k: Skallelven 6. 8. -64, mouth of Laevvajokka 20. 8. -63. The species grows mostly along the rivers on almost pure gravel but always under *Salix*. Most common has been *S. phylicifolia*, but also other *Salix* species, particularly *S. myrsinites*, are common. In alpine regions the species has been found in *Salix herbacea* vegetation. — Neither *L. aspideus* nor *L. flavidus* has been mentioned from the northern parts of Finland. LANGE (1957) records *L. flavidus* from Greenland and Lapland.

Lactarius uvidus Fr.

U t s j o k i: Ailigas 10. 8. -64, southeast of Pulmankijärvi 14. 8. -63, Urro-oaivi 14. 8. -63, south of Tuolbajärvi 7. 8. -61, north of Vetsikkojärvi 14. 8. -64, Raessijoki 14. 8. -61, 21. 8. -63, northwest of Kevojärvi, Aug., -61, Kevonsuu 9. 8. -59, 19. 8. -60, 19. 8. -62, Tsharsjoki 18. 8. -61, 23. 8. -61, 15. 8. -62, mouth of Kevojoki 8. 8. -59, 5. 8. -61, Tshieskuljoki 18. 8. -61, 23. 8. -61, north of Kotkapahta 12. 8. -64, Kotkapahta 21. 8. -60, 15. 8. -61, 2. 8. -62, Linkkapahta 16. 8. -61, Kenespahta 10. 8. -63, Mierashjärvi 13. 8. -61, 9. 8. -63. — I n a r i: Petsikko 1. 8. -62, 4. 8. -64, 4 km south of Syysjärvi 3. 8. -61. — F i n n m a r k: Skallelven (tundra) 7. 8. -64, Geidnogaissa (alpine region) 20. 8. -63. Common in all regions. — TUOMIKOSKI records the species from Inari, Laanila. Found in Russian, Norwegian and Swedish Lapland by KARSTEN, BLYTT and LANGE (1946, 1957), respectively. ULVINEN found it in the Oulu and Savukoski areas and LANGE (1957) in Greenland. RAUTAVAARA: I—V st fq.

Lactarius repraesentaneus Britz.

U t s j o k i: Njallavaara 10. 8. -61, Farfaloaivi (alpine region) 10. 8. -61, Ailigas (alpine region) 10. 8. -64, Pulmankijärvi 14. 8. -63, Tshuomasvaara 13. 8. -63, south of Nammajoki 28. 8. -60, 9. 8. -61, Kitisjoki 7. 8. -59, Raessijoki 14. 8. -61, Kevonsuu 13. 8. -61, mouth of Tsharsjoki 20. 8. -61, 24. 8. -61, mouth of Kevojoki 5. 8. -61, Kevonniemi 10. 8. -61, east shore of Kevojärvi 23. 8. -61, 3. 8. -64, Tshieskuljoki 17. 8. -64, southwest of Vaishtshokka 8. 8. -61, Skallovaara 8. 8. -61, Juovuskalluvaara (alpine region) 20. 8. -60, Tshieskuljoki 15. 8. -61, Puksalskaidi 8. 8. -59, 4. 8. -61, 23. 8. -63, Kotkapahta 21. 8. -60, 27. 8. -60, 20. 8. -61, 1. 8. -64, Njaggaljärvet 9. 8. -63, east shore of Kenesjärvi 24. 7. -59, 10. 8. -63, 8. 8. -64, Mierashjärvi 1. 8. -61. — I n a r i: Paksumaa 3. 8. -61, Alttojoki 3. 8. -61, Laanila 17. 8. -61. — F i n n m a r k: Geidnogaissa (alpine region) 20.8. -63.

The species is common in the *Betula* heaths (both *B. "tortuosa"* and *B. nana*) in all vertical biotic zones. Recorded from Inari by TUOMIKOSKI, from Swedish Lapland by

ROMELL and LANGE (1946, 1957), but not from Greenland (cf. LANGE 1957, p. 51). RAUTAVAARA: I—V st fq.

Lactarius vietus (Fr.) Fr.

U t s j o k i: Farfaloaivi (alpine region) 10. 8. -61, Kiirunskaidi (alpine region) 10. 8. -61, Urro-oaivi 14. 8. -63, Tshuomasvaara 13. 8. -63, mouth of Utsjoki 21. 8. -61, west of the church (alpine region) 16. 8. -62, vicarage 16. 8. -61, Kitisjoki 2. 8. -59, Paavalvaara 1. 9. -59, Jomppala 16. 8. -61, Raessijoki 20. 8. -60, 14. 8. -61, Kutuniemi 12. 8. -62, Jesnalvaara 11. 8. -61, Kevonsuu 29. 8. -59, Tsharsjoki 20. 8. -61, 23. 8. -61, mouth of Kevojoki 7. 8. -59, 19. 8. -60, 5. 8. -61, 14. 8.-62, Kevonniemi 15. 8. -61, east shore of Kevojärvi 20. 8. -60, 15. 8. -61, 18. 8. -61, 16. 9. -63, 11. 8. -64, Tshieskuljoki 9. 8.-60, southwest of Vetsikkojärvi 15. 8. -64, Puksalskaidi 10. 8. -61, Kotkapahta 21. 8. -60, 15. 8. -61, 4. 8. -64, Linkkapahta 16. 8. -61, 3. 8. -64, Luomushjoki 17. 8. -63. — I n a r i: Petsikko 4. 8. -64, Aksujärvi 17. 8. -63, Kaamanen 17. 8. -61, Riutula 8. 8. -62. — F i n n m a r k: Bäteng 13. 8. -62, Polmakelven 18. 8. -64. Found also in the alpine region of Geidnogaissa 20. 8. -63. — TUOMIKOSKI reports it from Inari, Laanila, LAESTADIUS and LANGE (1946) from Torne Lappmark, and ULVINEN from the Savukoski and Oulu areas. RAUTAVAARA: I—III st fq.

Lactarius trivialis Fr.

Variable in colour and zonation of the cap. Two common types prevail: (1) cap yellowish gray-brown almost without zones, (2) more or less violet coloured and zonated cap; the flesh is mostly more compact than in the preceding form.

U t s j o k i: Njallavaara (alpine region) 9. 8. -61, 10. 8. -61, Kiirunskaidi 10. 8. -61, Ailigas (alpine region) 10. 8. -64, Tshuomasvaara 13. 8. -63, Vaishjäggi 7. 8. -61, south of Nammajoki 9. 8. -61, Jomppala 16. 8. -61, 5. 8. -63, Raessijoki 14. 8. -61, Kutuniemi 11. 8. -62, 4. 8. -63, Kevonsuu 19. 8. -60, 19. 8. -62, Tsharsjoki 5. 8. -61, 13. 8. -61, 18. 8. -61, 5. 8. -62, 15. 8. -62, 3. 8. -63, mouth of Kevojoki 6. 8. -59, 5. 8. -61, 14. 8. -62, Kevonniemi 29. 8. -59, 31. 8. -59, 1. 9. -59, 5. 9. -59, 19. 8. -60, 21. 8. -60, 25. 8. -60, 15. 8. -61, 7. 8. -63, east shore of Kevojärvi 1. 9. -58, southeast of Njargajärvi 8. 8. -61, southwest of Skallovaara 8. 8. -61, Tshieskuljoki 15. 8. -61, 2. 8.- 63, upper course of Tshieskuljoki 6. 8. -63, Puksalskaidi 24. 7. -59, 4. 8. -61, 5. 8. -61, 14. 8. -62, Vuoskujärvi 5. 8. -61, Mierashjärvi 1. 8. -61, upper course of Luomushjoki 17. 8. -63. — I n a r i: Paksumaa 3. 8. -61, Kiellajoki 17. 8. -63, Kaamanen 17. 8. -63, Laanila 17. 8. -61. — F i n n m a r k: Skallelven 6. 8. -64, 7. 8. -64, Varangerbotn 22. 8. -61, near the bridge over Polmakelven 12. 8. -63, Rastegaissa (alpine region) 24. 8. -64. Found also in the alpine regions of Tshuomasvaara, Erdigvaara and Geidnogaissa. — TUOMIKOSKI reports it from Inari, ROMELL from Abisko, LAESTADIUS from Torne Lappmark and ULVINEN from his research area. RAUTAVAARA: I—V fqq.

Lactarius necator (Bull.) Karst.

U t s j o k i: Äimäjoki 17. 8. -61, vicarage 18. 8. -61, 20. 8. -64, Raessijoki 14. 8. -61, Kutuniemi 31. 8. -59, Kevonniemi 17. 8. -64, Juovuskalluvaara 20. 8. -60, southwest of Vetsikkojärvi 15. 8. -64, Tshieskuljoki 29. 8. -59, Kotkapahta 23. 8. -60, Linkkapahta 16. 8. -61. — F i n n m a r k: Annijoki 6. 8. -64. On rich soil close to human habitations or under rocky slopes or in rich herb-grass forests. Recorded by KARSTEN from east Lapland. The species is obviously rare in Swedish Lapland, where only LANGE (1946) has found it. ULVINEN found it in both his research areas. RAUTAVAARA: I—V fqq.

(*Lactarius deliciosus* (L.) S. F. Gray has not been found in the research area, although KARSTEN found it in two localities in the coniferous tree zone in east Lapland and ULVINEN in Savukoski. RAUTAVAARA: I—V fq.)

Gasteromycetes

Crucibulum vulgare Tul.

Utsjoki: mouth of Kevojoki, on decayed twigs of *Betula* 23.2.-64 and 26.8.-64. — The species was reported from Swedish Lapland by FRIES (1914) and from Greenland by LANGE (1948).

Calvatia utriformis (Bull.) Moser [*Lycoperdon bovista* Pers.]

Inari: Jääjärvi, farmyard 14.7.-62. — Finnmark: mouth of Skallelven 7.8.-64. The species, which has been held to be southern (cf. FRIES 1921, RAUTAVAARA: I—III r), has been found also in Finnmark, although it must be rare there (ECKBLAD 1955, pp. 35—36). KARSTEN reported it from east Lapland.

Lycoperdon perlatum Pers. var. *perlatum* Pers.

Utsjoki: south shore of Pulmankijärvi 14.8.-63, Tshuomasvaara 13.8.-63, mouth of Utsjoki 19.8.-61, near the church 6.8.-62, Saarela 21.8.-64, Kutuniemi 13.8.-61, Kevonsuu 4.8.-61, east shore of Kevojärvi 15.8.-61, Tshieskuljoki 2.8.-63, southwest of Vetsikkojärvi 15.8.-64, Puksalskaidi 16.8.-62, Linkkapahta 14.8.-61, 21.8.-62. — Inari: Kaamanen 11.8.-64, Laanila 17.8.-61. — Finnmark: mouth of Skallelven 7.8.-64, Polmakelven 18.8.-64. Common in the research area. — Reported from Finnmark (ECKBLAD 1955).

Lycoperdon perlatum var. *nigrescens* Pers.

Utsjoki: vicarage 20.8.-64, south of Nammajoki 9.8.-61, Saarela 21.8.-64, Raessijoki 14.8.-61, east shore of Kevojärvi 15.8.-61, Tshieskuljoki 22.8.-62, Kotkapahta 15.8.-61, 18.8.-62, Karigasniemi 16.8.-63. — Inari: Kaamanen 17.8.-61. — Finnmark: mouth of Skallelven 7.8.-64, Bäteng 18.8.-64, near the bridge of Polmakelven 14.8.-63, upper course of Polmakelven 18.8.-64. Almost as common as the previous taxon. — LANGE (1948) reports it from Greenland.

Lycoperdon pyriforme Pers.

Utsjoki: Tshieskuljoki 22.8.-60, 27.8.-64. — Finnmark: mouth of Laevvajokka 24.8.-64. — The taxon has earlier been found in Tromsø, but not in Finnmark, Norway (ECKBLAD 1955). RAUTAVAARA: I—V fq.

Bovista nigrescens Pers.

Utsjoki: south shore of Pulmankijärvi 14.8.-63, Saarela 21.8.-64, Tshieskuljoki 22.8.-63. — Inari: Jääjärvi 14.7.-62. The species is very common in the area and is found in every farmyard. Common in Finnmark (ECKBLAD 1955) and in northern Sweden (FRIES 1921). KARSTEN reports it from east Lapland and LANGE from Greenland (1948). RAUTAVAARA: I—V fq.

(*Bovista blumbea* Pers. has not been found in the research area, which corresponds to the reports of FRIES, 1921 and ECKBLAD 1955.)

Rhizopogon roseolus (Corda) Fr.

Inari: Kaamanen road junction 17.8.-63. — Sodankylä: 45 km north of the church village 24.8.-63. Both places in pine heaths. — The species has been found in Norrbotten, Sweden (FRIES 1921), and ULVINEN has recorded it from Oulu. RAUTAVAARA: I p.

Rhizopogon luteolus Fr.

Inari: Kaamanen 17.8.-63, in the same locality as *R. roseolus*. KARSTEN records the species from east Lapland, and FRIES (1921) found it up to Norrbotten in Sweden. RAUTAVAARA: I—V r.

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