

Michael J. LARSEN, Erast PARMASTO

STUDIES ON YAKUTIAN FUNGI I

Introduction. Thelephoraceae s. str.

The mycologists of the Academy of Sciences of the Estonian SSR have paid special attention to the regions of extreme environmental conditions in the last decade of their activities. These are semidesert and mountain steppe areas of the Kopetdagh in the southernmost part of the Soviet Union, and Arctic and Subarctic areas in the northernmost one. Field work included collecting of herbarium specimens as well as some ecological studies.

One of the mycologically less investigated regions in the Soviet Union has been the Yakutian Autonomous SSR. The first expedition to that country was organized in 1925 and 1926, but its results were published only some years ago (Карпова-Бенуа, Бенуа, 1972; Бенуа, Карпова-Бенуа, 1973). 199 species of fungi are mentioned in these papers; a few dozen species were added in some small publications, mainly concerning forest pathology. All published data are limited to Southern and Central Yakutia.

It is impossible to overestimate the importance of the investigations of this vast area of more than 3 millions square kilometres for mycogeography and for the history of the development of the Northern Hemisphere fungus flora. That is why a mycological expedition was organized from July 27 to September 12, 1972 in Northern, Eastern and Central Yakutia. The members of this expedition were: L. Järva, E. Parmasto (E. P.) (Institute of Zoology and Botany, Estonian Academy of Sciences), Albinas Gričius (Institute of Botany, Lithuanian Academy of Sciences), who collected mainly macrofungi (excl. *Agaricales*); H. Karis and H. Tamm (Tallinn Botanical Garden, Estonian Academy of Sciences), who collected mainly powdery mildews (*Erysiphales*). Besides the collectors, some other mycologists will take part in the examination of the collections and preparation of the papers. The collections of *Pseudotomentella*, *Tomentella* and *Tomentellina* have been studied by Dr. M. J. Larsen, who compiled the keys and descriptions of these fungi for the first report.

Herbarium specimens were collected in 18 localities indicated by numbers on the map in Fig. 1:

Woodland Tundra Zone: 1 — Saskylakh, 2 — Pokhodsk, 3 — Cherski;

Northern Taiga (Subarctic) Zone: 4 — Olenyok, 5 — Zhigansk, 6 — Batagai-Alyta, 7 — Verkhoyansk, 8 — Batagai, 9 — Sredne-kolymsk, 10 — Zyryanka, 11 — Honuu, 12 — Ust-Nera, 13 — Antygychan, 14 — Oimyakon;



Yakutian Autonomous SSR localities mentioned in this paper. (See p. 217.)

Central Taiga (Main Boreal) Zone: 15 — Sangar, 16 — Spasskaya Pad', 17 — Yakutsk, 18 — Pokrovsk.

Macrofungi were collected in localities 1, 3–16 and 18; *Erysiphales* — in localities 1–5, 7, 9–10, 14 and 17–18. Localities of particular importance are those situated in the so-called *region of the frost poles* of the Earth between the upper courses of the Yana and Indigirka rivers and the lower reaches of the Aldan river (Verkhoyansk, Oimyakon, Batagai-Alyta, Batagai, Honuu, Ust-Nera). The annual mean temperature in that region of extremely continental climate is about -15 to -17°C , the mean temperature of January is below -45° and the absolute minimum temperature -67.8° (Verkhoyansk); the mean depth of snow cover in January and February is not more than 30 cm, but usually much thinner; the amount of annual precipitation is very low (about 140 to 200 mm).

In the table below, the meteorological data, characteristic of some investigated localities, are represented (Наумов, 1962; Витвицкий, 1965; Филиппович, 1972).

Locality	Mean temperature, °C		Precipitation, mm		Growth period, days*
	January	July	annual	May to Sept.	
Olenyok	-41	14	290	215	102
Zhigansk	-40	16	284	213	
Verkhoyansk	-49	15	142	100	112
Oimyakon	-49	14	206	158	
Srednekolymsk	-38	14	175	105	105
Zyryanka	-39	15	265	175	113
Yakutsk	-43	19	256	162	129

* Length of the period with a mean daily temperature above 5°C.

THELEPHORACEAE s. str.

Up to the present, 14 species of *Thelephoraceae* have been found in Yakutia (*Pseudotomentella* — 1 species, *Tomentella* — 10, *Tomentellina* — 1, and *Thelephora* — 2 species). All species are quite rare or very rare, and they all grow in small numbers. The species of this family are entirely lacking in the north-western part of the investigated area (Saskylakh, Olenyok, Zhigansk, Sangar); the genus of erect (nonresupinate) basidiocarps of *Thelephora* is represented by two species and two collections in the Central Taiga Zone only. The northernmost collection is *Tomentella subtilacina* (Ell. & Holw.) Wakef., found near Cherski in the Woodland Tundra Zone. In the frost poles region, there are collected as many as ten species, three of them in the nearest vicinity of the Oimyakon Frost Pole (*Tomentella pilatii* Litsch., *T. ruttneri* Litsch. and *T. violaceofusca* (Sacc.) M. J. Larsen.

KEY TO THE GENERA TREATED

1. Basidiocarps erect or effuse-reflexed **Thelephora**
1. Basidiocarps resupinate. 2.
2. Cystidia present, borne in fascicles, thick-walled, septate; hyphal system dimitic; generative hyphae septate with clamps extremely rare **Tomentellina**
2. Cystidia absent, or if present, not borne in fascicles; hyphal system monomitic or dimitic; generative hyphae septate with clamps absent or present 3.
3. Subicular hyphae always with clamps; basidia clavate when mature; basidiospores appearing some shade of brown under the microscope, variously ornamented and with the ornamentation not typically bifurcate **Tomentella**
3. Subicular hyphae typically without clamps (clamps present in a few species); basidia clavipedunculate, often napiform when immature; basidiospores normally pale yellow to subhyaline, except in a few instances warted, with warts becoming bifurcate **Pseudotomentella**.

THE GENUS *PSEUDOTOMENTELLA*

Pseudotomentella Svrček, Česká Mykol. 12 : 67. 1958.

Basidiocarps annual, resupinate, arachnoid to byssoid, normally pelliculose; fertile areas pale or dark coloured.

Hyphal system normally dimitic; generative subicular hyphae with walls usually some shade of brown, septate, clamp connections absent or frequent in some species; cordons usually present. Basidia 4-sterigmate, sphaeropedunculate to napiform when immature, usually clavipedunculate when mature; basidiospores even to irregular in outline, often globose but frequently lobed, often appearing roughly triangular in optical section when immature, rarely echinulate or aculeate, normally warted, the warts becoming bifurcate, walls normally pale yellow to subhyaline, sometimes pale brown or umbrinous.

Type species — *P. mucidula* (Karst.) Svrček.

PSEUDOTOMENTELLA TRISTIS (Karst.) M. J. Larsen, Nova Hedwigia 22 : 613. 1971 [1973].

Basidiocarps effused, separable, usually becoming strongly pelliculose; fertile area ferruginous to brown or bluish black; subiculum ferruginous brown, thick, fibrous; hymenial surface smooth; margin fibrillose, narrow, concolorous with the subiculum.

Hyphal system monomitic. Subicular hyphae 2.5–3.5 (–6) μm diam., septate, thick-walled, light brown to dark ferruginous brown, parts often becoming green, bluish green, or blue due to the reaction of crystalline material with KOH. Basidia 40–60 (–80) \times 8–12 μm , clavate to clavipedunculate when mature, associated with a green, bluish green, or bluish black diffusate; basidiospores 7–10 (–11) μm across, globose to subglobose or irregular, usually globose but sometimes appearing roughly triangular in optical section when immature, rarely echinulate, usually warted, the warts usually bifurcate, walls pale yellowish when immature and pale to medium brown or umbrinous when mature.

Specimen examined: Ust-Nera, Indigirsk, on *Larix dahurica* Turcz., E. P., 29 VIII 72 (TAA 56332).

THE GENUS *TOMENTELLA*

Tomentella Pat. *nom. cons.* Hym. Europ., p. 154. 1887.

Basidiocarps annual, effused, byssoid, arachnoid, mucedinoid or pelliculose, adherent to separable, sometimes encrusting; fertile areas red, ferruginous, yellow, tan, brown, green, olive, grey, or black; margin arachnoid, byssoid, villose, fibrillose, or fimbriate, usually paler than the fertile area; hymenial surface smooth, granulose, colliculose, or toothed; basidiocarps often darkening or changing colour in KOH.

Hyphal system monomitic or dimitic; generative subicular hyphae often of more than one kind, thin- to thick-walled, clamped or septate without clamps, usually pigmented; cordons present or absent. Basidia clavate, clamped at the base, 4-sterigmate; cystidia absent or present, acuminate, clavate, obclavate or capitulate; basidiospores usually pigmented some shade of brown, green or red (in H_2O) and usually appearing some shade of brown in KOH, ornamentation and shape variable.

Type species — *T. ferruginea* (Pers. per Pers. : Fr.) Pat.

SECTION *CHORDULATAE* (Bourd. & Galz.) Donk, Med. Bot. Mus. Herb. Rijksuniv., Utrecht 9 : 29. 1933.

Basidiocarps separable, arachnoid to byssoid, more rarely mucedinoid; hymenial surface granulose, papillose, or colliculose, sometimes smooth. Hyphal system monomitic; subicular hyphae up to 7 μm diam., clamped; cordons abundant and forming a conspicuous part of the soma; basidia clavate; basidiospores aculeolate, echinulate, or aculeate.

Type species — *T. punicea* (Alb. & Schw. per Pers. : Fr.) Schroet.

TOMENTELLA CINERASCENS (Karst.) Hoehn. & Litsch., Sitzungsber. K. Akad. Wissensch. Wien, Math.-naturw. Klasse 115 : 1570. 1906.

Basidiocarps separable, tomentose, somewhat arachnoid when young; fertile areas grey to dull buff; hymenial surface sometimes smooth, mostly papillose or colliculose, rarely granulose; subiculum loose-fibrous, almost white; sterile margin fibrillose to byssoid, much paler than the fertile areas, almost white.

Subicular hyphae 2.5–4 (–5) μm diam., clamped, with walls hyaline or light tan to pale brown; some with contents dull yellowish brown; cordons up to 90 μm diam., pale brown to almost hyaline. Basidia 30–45 \times 6.5–8 μm , clavate; basidiospores 5–6 \times 5 μm , mostly globose to subglobose, sometimes irregular to irregularly globose, aculeolate to echinulate, walls hazel to dull brown.

Specimens examined: Yakutsk, Spasskaya Pad' on *Betula platyphylla* Sukacz., E. P., 9. IX 72 (TAA 56147); Ust-Nera, Indigirsk, on *Larix dahurica* Turcz., E. P., 29 VIII 72 (TAA 55359).

SECTION *DIMORPHAE* (Bourd. & Galz.) Donk, Med. Bot. Mus. Herb. Rijksuniv., Utrecht 9 : 33. 1933.

Basidiocarps mucedinoid, normally adherent; hymenial surface smooth, punctate, sometimes granulose or colliculose. Hyphal system monomitic; subicular hyphae up to 10 μm diam., normally thick-walled and distinctly pigmented some shade of brown, clamped; cordons absent to rare; basidia clavate; basidiospores normally globose to subglobose, often irregularly globose, aculeate to aculeolate.

Type species — *T. bryophila* (Pers.) M. J. Larsen.

TOMENTELLA BRYOPHILA (Pers.) M. J. Larsen, Mycol. Mem., 1974.

Basidiocarps mucedinoid, adherent to separable, fertile area bright to dull ferruginous brown, sometimes approaching reddish orange; sterile margin darker than the fertile area, usually concolorous with the subiculum.

Subicular hyphae of two kinds, some 4.5–6 (–7) μm diam., septate with clamps not abundant, often appearing torulose, thick-walled and often with localized thickening, dull olive brown; some 4–6 μm diam., with clamps frequent, thin- to thick-walled, often with localized thickenings, violaceous brown. Basidia 50–60 \times 7–9 (–11) μm , yellowish encrusting material frequently present on basidial walls; basidiospores 7–11

(-12) μm across, globose to subglobose, sometimes irregularly globose, normally aculeate, sometimes echinulate, pale to bright yellow.

Specimens examined: Antygychan, on *Chosenia macrolepis* (Turcz.) Kom., E. P., 30 VIII 72 (TAA 55914); Yakutsk, Spasskaya Pad', on *Populus tremula* L., L. Järva, 9 IX 72 (TAA 46634).

TOMENTELLA NEOBOURDOTII M. J. Larsen, *Mycologia* 60 : 1179. 1968.

Basidiocarps arachnoid to byssoid or sometimes floccose, usually mucedinoid, adherent to separable; fertile areas dark brown to dull greyish blue; hymenial surface granulose to colliculose, rarely smooth; subiculum fibrous and usually dark brown, sometimes dull greyish blue; sterile margin usually concolorous with fertile areas, but sometimes pale tan.

Subicular hyphae of two kinds, some 3-5 (-6.5) μm diam., clamped, wall thickening apparent, dull brown, with dull brown encrusting material giving the walls a rough or spinulose appearance, walls rarely smooth; some rare, 2-4 μm diam., usually septate without clamps, pale to dark brown, thick-walled with the lumen sometimes not evident, with brown encrusting material giving the walls a rough or spinulose appearance; cordons infrequent or rare, up to 35 μm diam., dark brown. Basidia 20-35 \times 5.5-7.5 μm , basidiospores 5-6.5 (-7.5) μm across, globose, subglobose, irregularly globose, or rarely irregular when mature, aculeolate to echinulate, sometimes aculeate, walls dull brown.

Specimen examined: Honuu, on *Salix caprea* L., E. P., 24 VIII 72 (TAA 56734).

TOMENTELLA PILATII Litsch., *Bull. Soc. Mycol. France* 49 : 72. 1933.

Basidiocarps mucedinoid, somewhat separable; fertile area dull brown to dull greyish brown; hymenial surface smooth to colliculose or blunt papillate; subiculum loosely fibrous, dark brown to concolorous with the fertile area; sterile margin arachnoid, somewhat paler than, to concolorous with, the fertile area.

Subicular hyphae 4-6 (-6.5) μm diam., clamped, wall thickening apparent, dull brown; cordons infrequent, up to 30 μm diam., dark brown; basidia 25-35 \times 5-7 μm . Basidiospores 6-8 (-9.5) μm across, globose to subglobose, some appearing ellipsoid or bent, distinctly flattened on one side, aculeolate to echinulate, bister to dark brown.

Specimen examined: Krest Tomptor near Oimyakon, on *Larix dahurica* Turcz., L. Järva, 31 VIII 72 (TAA 45970).

TOMENTELLA RAMOSISSIMA (Berk. & Curt.) Wakef., *Mycologia* 52 : 927. 1960.

Basidiocarps adherent to separable, normally mucedinoid; fertile area fuliginous; subiculum fibrous, darker than the fertile area, hymenial surface smooth, occasionally granulose or colliculose; sterile margin fibrillose, concolorous with the subiculum.

Subicular hyphae (3.5-) 4-7 (-10) μm , clamped, wall thickening apparent or thick-walled, brown to dark golden brown, rarely with

encrusting material, scattered crystalline material adhering to the hyphae becoming green in KOH. Basidia $35-50 \times 8-10 \mu\text{m}$, basidial parts becoming green to bluish green due to the reaction of scattered crystalline material on the walls with KOH; basidiospores $7-8.5 (-9) \mu\text{m}$ across, globose to subglobose, aculeate, tan to medium brown or dull golden brown, sometimes becoming wholly or in part dark bluish green due to the reaction of adhering crystalline material with KOH.

Specimen examined: Honuu, on *Larix dahurica* Turcz., E. P., 23 VIII 72 (TAA 56683).

TOMENTELLA RUTTNERI Litsch., Bull. Soc. Mycol. France 49 : 67. 1933.

Basidiocarps hypochnoid to mucedinoid, adherent; fertile area dark brown; hymenial surface smooth to minutely punctate; subiculum concolorous with, to darker than, the fertile area; sterile margin byssoid, concolorous with, to darker than, the fertile area.

Subicular hyphae $(2.5-) 3-5.5 (-6.5) \mu\text{m}$ diam., hyphal cells up to $70 \mu\text{m}$ long and usually irregular in outline, clamped, becoming thick-walled, with the lumen sometimes not evident (wall thickening frequently localized and cell wall strata often discernible), cell walls swelling upon continuous exposure to 2% KOH and immediately so upon exposure to 10% KOH, dark brown to yellowish brown. Basidia $45-55 (-60) \times 8-11 (-12) \mu\text{m}$; basidiospores $(7-) 8-9.5 (-11.5) \mu\text{m}$ across, globose to subglobose, aculeate to more rarely echinulate, pale brown to deep hazel.

Specimens examined: Spasskaya Pad', on *Larix dahurica* Turcz., L. Järva, 8 IX 72 (TAA 46623); Honuu, on *Larix dahurica* Turcz., E. P., 23 VIII 72 (TAA 56684); Krest Tomptor near Oimyakon, on *Larix dahurica* Turcz., E. P., 3 IX 72 (TAA 55988).

TOMENTELLA VIOLACEOFUSCA (Sacc.) M. J. Larsen, Mycol. Mem., 1974.

Basidiocarps usually mucedinoid, sometimes curling away from the substratum on drying, usually adherent; fertile greyish brown to umbrous, subiculum concolorous with, to darker than, the fertile area, fibrous; hymenial surface usually smooth, occasionally granulose or colliculose; sterile margin byssoid, concolorous with, to darker than, the fertile area.

Subicular hyphae $5-8 (-9) \mu\text{m}$ diam., clamped, becoming very thick-walled, pale yellowish brown to light golden brown, encrusting material sometimes giving the hyphae a spinulose character, usually only slightly spinulose, or the encrusting material not spinulose; cordons rare, up to $30 \mu\text{m}$ diam., golden brown. Basidia $30-40 \times 7-8.5 \mu\text{m}$, parts sometimes green in KOH; basidiospores $6.5-8.5 (-9) \mu\text{m}$ diam., globose to less frequently subglobose, sometimes flattened on one side, aculeate to echinulate, pale yellowish brown or subhyaline.

Specimens examined: Honuu, on *Larix dahurica* Turcz., E. P., 23 VIII 72 (TAA 56668, 56685); Honuu, on *Larix dahurica* Turcz., E. P., 24 VIII 72 (TAA 56326); Krest Tomptor near Oimyakon, on *Salix* sp., L. Järva, 1 IX 72 (TAA 45986).

SECTION *BRUNNEOLAE* (Bourd. & Galz.) Donk, Med. Bot. Mus. Herb. Rijksuniv., Utrecht 9 : 31. 1933.

Basidiocarps mucedinoid, occasionally arachnoid; fertile areas normally brown, sometimes grey, green, or olive brown. Hyphal system monomitic; cordons often present; basidia clavate, 7–13 μm diam.; basidiospores normally irregular to irregularly globose, or subglobose, normally 7–9.5 μm diam.

Type species — *T. sublilacina* (Ell. & Holw.) Wakef.

TOMENTELLA OCHRACEA (Sacc.) M. J. Larsen, Mycol. Mem., 1974.

Basidiocarps mucedinoid, usually adherent to occasionally separable; fertile area brown vinaceous to dull purplish brown, sometimes dull avellaneous to buff; hymenial surface smooth; subiculum firm-fibrous, very pale tan or hyaline to pale yellow; sterile margin fibrillose to fimbriate, pale yellow to distinctly yellow; cordons evident at 10 \times .

Subicular hyphae very variable in form and dimension, (2.5–) 3–5 (–7) μm diam., often ampullate and appearing constricted at the septa, wall thickening slight or noticeably thick-walled, some hyphae becoming irregular or swollen, normally hyaline; hyphal contents infrequently dull yellowish brown in KOH; cordons up to 80 μm diam. Basidia 30–40 \times 7–9 μm , contents sometimes pale yellowish brown in KOH, parts frequently dull green in KOH, basidiospores 7–8.5 (–9) μm across, globose, irregularly subglobose or globose, aculeolate to echinulate, pale to medium brown.

Specimen examined: Honuu, on *Larix dahurica* Turcz., E. P., 24 VIII 72 (TAA 56753).

TOMENTELLA RADIOSA (Karst.) Rick, Broteria 2 (ser. 3) : 79. 1934.

Basidiocarps mucedinoid; fertile area vinaceous brown to dull cinnamon brown; hymenial surface smooth; subiculum thin, fibrous, pale brown, much paler than the fertile area; sterile margin fibrillose to villose, much paler than the fertile area, sometimes almost white.

Subicular hyphae of two kinds, some 3–5.5 μm diam., clamped, wall thickening apparent, pale to medium brown; some 5.5–7 μm diam., simple-septate, some clamps also present, mostly thin-walled, pale yellowish brown; cordons up to 25 μm diam., dull brown. Basidia 30–45 \times 8–11 μm ; basidiospores 7.5–9 (–10) μm across, irregular in outline to lobed, usually elongated along one axis, aculeolate to echinulate, with the ornamentation becoming bifurcate, pale brown.

Specimens examined: Spasskaya Pad', on *Pinus silvestris* L., E. P., 9 IX 72 (TAA 56874); Batagai-Alyta, on *Larix dahurica* Turcz., E. P., 13 VIII 72 (TAA 56492).

TOMENTELLA SUBLILACINA (Ell. & Holw.) Wakef., Mycologia 52 : 931. 1960.

Basidiocarps mucedinoid, sometimes floccose; fertile area wood brown to vinaceous brown; subiculum concolorous with to darker than the

fertile area; hymenial surface smooth; sterile margin paler than the fertile area.

Subicular hyphae 4–6.5 (–8) μm diam., clamped, becoming thick-walled, often swollen and ampullate at the septa and appearing torose, dark brown to dull pale-brown; subhymenial hyphae 4–7 (–11) μm diam., nodose-septate, some wall thickening noticeably to becoming thick-walled, hyphae often appearing torose, hyaline to pale brown. Basidia 50–65 \times 7–12 μm ; basidiospores 7.5–10 (–11) μm across, irregular to strongly lobed, frequently appearing elongated along one axis, echinulate, medium to dark brown.

Specimen examined: Cherski, on *Larix dahurica* Turcz., E. P., 20 VIII 72 (TAA 56653).

THE GENUS TOMENTELLINA

Tomentellina Hoehn. & Litsch., Sitzungsber. K. Akad. Wissensch. Wien, Math.-naturw. Klasse 115 : 1604. 1906.

Basidiocarps annual, effused, arachnoid to byssoid; fertile area ferruginous brown; cystidia in fascicles, visible at 10 \times ; cordons present, visible at 10 \times .

Hyphal system dimitic, generative subicular hyphae brown to reddish brown, thick-walled, septate, rarely with clamp connections; cordons abundant. Cystidia arising from the subiculum or lower portions of the subhymenium, ferruginous brown, occurring singly or in fascicles, septate. Basidia 4-sterigmate, often napiform when immature; basidiospores with walls brown, usually warted, with the warts becoming bifurcate, rarely echinulate.

Type species — *T. fibrosa* (Berk. & Curt.) M. J. Larsen.

TOMENTELLINA FIBROSA (Berk. & Curt.) M. J. Larsen, Mycol. Mem., 1974.

Basidiocarps effused, separable, arachnoid and fibrous; fertile area ferruginous brown; hymenial surface becoming granulose, often appearing hydnyaceous.

Hyphal system dimitic. Subicular hyphae of two kinds, some generative, thick-walled, brown to dull reddish brown, 3.5–5 μm in diam., commonly septate, with clamp connections extremely rare; some skeletal, thick-walled, yellow, aseptate, 1.5–2 μm in diam.; cordons present. Basidia 40–50 (–60) \times 5–7 (–8) μm , often napiform when immature, with contents sometimes yellowish ochre; basidiospores 7–11 μm across with walls dull brown to brown, irregularly globose to somewhat lobed, rarely echinulate, usually warted with the warts becoming bifurcate. Cystidia arising from hyphae of the subiculum or subhymenium or as branches of other cystidia, walls dull reddish brown, up to 10 μm in diam. at the widest point and narrowing to 3–4 μm at the base, up to 200 μm long, randomly septate along the length, borne singly or in fascicles.

Specimen examined: Yakutsk, Spasskaya Pad', on *Larix dahurica* Turcz., E. P., 9 IX 72 (TAA 56875).

THE GENUS THELEPHORA

Thelephora Fr. Syst. mycol. 1 : 428. 1821.

Type species — *T. terrestris* Fr.

THELEPHORA TERRESTRIS Fr. Syst. mycol. 1 : 431. 1821.

Specimen examined: Spasskaya Pad' near Yakutsk, on ground, E. P., 9 IX 72 (TAA 56150).

According to E. Karpova-Benois and K. Benois, this species is found also in South-Western Yakutia in Vilyui District (Карпова-Бенуа, Бенуа, 1972 : 149).

THELEPHORA CARYOPHYLLEA Fr. var. RADIATA (Fr.) Bourd. et Galz. Hym. Fr., p. 466. 1928.

Specimen examined: Pokrovsk, on ground, E. P., 7 IX 72 (TAA 56115).

According to E. Karpova-Benois and K. Benois, the species is found also in South-Western Yakutia in Vilyui District (Карпова-Бенуа, Бенуа, 1972 : 149—150).

EXCLUDED SPECIES

Toментелла зыгодесмоидес (Ell.) Höhn. & Litsch., Sitzungsber. K. Akad. Wiss. Wien, Math.-naturw. Kl. 116 : 786. 1907.

Mentioned by E. Karpova-Benois and K. Benois in Ust-Kut in Kirensk District (Карпова-Бенуа, Бенуа, 1972 : 148—149); no specimens seen.

As demonstrated by M. J. Larsen (1968), this species is not a typical member of tomentelloid fungi and is therefore excluded.

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UURIMUSI JAKUUTIA SEENESTIKUST. I

Sissejuhatus. Thelephoraceae s. str.

Resümee

27. juulist 12. septembrini 1972 toimus Kesk-, Ida- ja Põhja-Jakuutias mükoloogide ekspeditsioon, millest võtsid osa L. Järva, E. Parmasto (Eesti NSV TA Zooloogia ja Botaanika Instituut), A. Gricius (Leedu NSV TA Botaanika Instituut), H. Karis ja H. Tamm (Tallinna Botaanikaead). Koguti peamiselt makrooseeni ja ebajahukastelaadseid, kokku 18 paigas; osa kogumispaiku asub Maa külmapoolest piirkonnas (Verhojansk, Oimijakon jt.), mis olid seni mükoloogiliselt täiesti uurimata.

Kogutud herbaarmaterjalide läbitöötamisest võtab peale ekspeditsiooni liikmete osa ka teisi mükologe. Käesolevas kirjutises esitatakse andmeid perekondade *Pseudotomentella* (1 liik), *Tomentella* (10) ja *Tomentellina* (1 liik) kohta M. J. Larseni sulest ja perekonna *Thelephora* (2 liiki) käsitus E. Parmastolt.

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26. II 1975

Eesti NSV Teaduste Akadeemia
Zooloogia ja Botaanika Instituut

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ИССЛЕДОВАНИЕ ГРИБОВ ЯКУТИИ. I

Введение. Семейство Thelephoraceae s. str.

Резюме

Микологи Академии наук Эстонской ССР (Х. Карис, Э. Пармасто, Х. Тамм, Л. Ярва) и Академии наук Литовской ССР (А. Грицус) организовали с 27 июля по 12 сентября 1972 г. экспедицию в северную, восточную и центральную части Якутской АССР с целью выяснить распространение и экологию макрогрибов и мучнисторосяных грибов. Сбор материала провели в 18 местах (см. рисунок), которые охватили и микологически не обследованный до этого район полюсов холода Земли.

В первой части сводки результатов экспедиции приведен обзор видов семейства *Thelephoraceae*. Все 14 видов в Якутии редкие или очень редкие и малочисленны. Самым северным видом является *Tomentella subtilacina* (Ell. & Holw.) Wakef., найденный около пос. Черского в лесотундровой зоне. Около Оймяконского полюса холода найдены *Tomentella pilatii* Litsch., *T. ruttneri* Litsch. и *T. violaceofusca* (Sacc.) M. J. Larsen. Виды рода *Thelephora* (*T. terrestris* Fr., *T. caryophyllea* var. *radiata* Fr.) найдены только в зоне средней тайги. Кроме указанных видов в Якутии отмечены еще *Pseudotomentella tristis* (Karst.) M. J. Larsen, *Tomentella cinerascens* (Karst.) Hoehn. & Litsch., *T. bryophila* (Pers.) M. J. Larsen, *T. neobourdotii* M. J. Larsen, *T. ramosissima* (Berk. & Curt.) Wakef., *T. ochracea* (Sacc.) M. J. Larsen, *T. radiosa* (Karst.) Rick и *Tomentellina fibrosa* (Berk. & Curt.) M. J. Larsen. Большинство видов указано впервые для Советского Союза.

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