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## LIGNICOLOUS AND SOME OTHER SAPROPHYTIC HYPHOMYCETES FROM THE USSR

### II. *Helicosporous* species

Among the many lignicolous Hyphomycetes collected by several Estonian mycologists (Holubová-Jechová, 1980) five helicosporous species are determined and mentioned below. The records here represent the first information about their occurrence in the USSR.

1. HELICOMA MONILIPES Ellis & Johnson in Ellis & Everh., Proc. Acad. Nat. Sci. Phila. 1894: 376. 1894. — *Helicosporium monilipes* (Ellis & Johnson) Sacc., Syll. Fung. 11 : 639. 1895.

Colonies pulvinate, minute, less than 1 mm in diam., pale brown. Conidiophores aggregated, straight or curved, branched, pale olivaceous brown, up to subhyaline at the apex, 20—50 (—70) µm long, 3—3.5 (—4) µm wide, septate, slightly constricted at the septa. Conidia acrogenous, becoming pleurogenous by the elongation of the conidiophores, pale brown, 2—2 $\frac{1}{4}$  times tightly coiled, 14—19 µm in diam., 8—16-septate, very slightly constricted at brown septa, conidial filament 3.5—5 µm wide, apical end rounded, basal end slightly tapered and truncate.

On rotten bark of deciduous trees in North America (Michigan — Linder, 1929) and in Japan (Ichinoe, Kume, 1970).

Specimen examined: Georgian SSR, Poti Distr., near Poti, on dead branch of *Populus* sp., E. Parmasto, 12 X 1963 (TAA 16881).

This specimen is identical to the type material of *Helicoma monilipes*, collected by L. N. Johnson 23 X 1893 on *Quercus* in Ann Arbor, Michigan (USA), which is preserved in the Ellis collection (N 666) in New York Botanical Garden (NY). A very close species to this is *Tropospora fumosa* Karst. (*Hedwigia* 31 : 229. 1892) of which the type material was unavailable. On the basis of their published descriptions, the two species may be identical, but Linder (1929) who studied Karsten's type material of *T. fumosa* considered it to differ from *H. monilipes*. The material studied here is therefore retained as *H. monilipes* and further study of the two species seems necessary.

2. HELICOMA MUELLERI Corda, Icon. Fung. 1 : 15. 1837.

Perfect state: *Thaxteriella pezizula* (Berk. & Curt.) Petrak, Sydowia 7 : 110. 1953. Syn.: *Sphaeria pezizula* Berk. & Curt., Grevillea 4 : 106. 1876. — *Lasiosphaeria pezizula* (Berk. & Curt.) Sacc., Syll. Fung. 2 : 195.

1883. — *Herpotrichia pezizula* (Berk. & Curt.) Ellis & Everh., North Amer. Pyren. 160. 1892. (For other synonyms see Pirozynski, 1972 : 26.)

Pseudothecia superficial, scattered singly or closely gregarious, black, shiny, subglobose, then collapsed, cupulate, 250—450 µm in diam., smooth. Ascii bitunicate, cylindrical to clavate, 100—120×16—20 µm, 8-spored. Ascospores cylindrical to fusiform, straight or slightly curved, tapering towards rounded ends, thin-walled, hyaline, 5—8-septate, (24—) 46—50×(6.5—)8—10 µm. Pseudoparaphyses simple, filiform, septate, colourless. Pseudothecia scattered in colonies of imperfect state.

Colonies effused, hairy, velvety, dark brown to black brown. Basal hyphae superficial and immersed. Conidiophores arising from superficial hyphae, erect or more or less ascending, unbranched, straight, later slightly flexuous, at first simple, later aggregated in groups, proliferating, brown, paler at the apex, thick-walled, smooth, 35—270 µm long, 4—6.5 µm wide, at the base 6—10 µm wide. Conidiogenous cells denticulate, conidia produced from a sympodial succession of terminal denticles. Conidia acrogenous, hyaline to pale ochraceous, 1 $\frac{1}{4}$ —1 $\frac{3}{4}$  times tightly coiled, with 2—6 thin and hyaline septa, (12—) 14—20 µm in diam., conidial filament 5.5—7 µm wide, thin-walled, smooth, apical end tapered and rounded, basal end tapered and truncate, with grey basal scar, reflexed away from the centre of the coil.

On decaying wood and bark of deciduous trees on dead herbaceous material in Europe, North America, Africa (Tanzania) (Ellis, 1971; Pirozynski, 1972).

Specimen examined: Primorsk Region, Kavalerovo District, Chrystalnyi, on dead branch of *Acer ukurunduense*, E. Parmasto, 3 X 1977 (TAA 101053).

This species has sometimes been mistaken for *Helicoma viridis* (Corda) Hughes.

### 3. HELICOMYCES FUSCOPES Linder, Ann. Missouri Bot. Gdn 18 : 15. 1931.

Colonies effused, white, thin, flocculose. Basal hyphae immersed or superficial, anastomosing, pale brown, 2.5—4.5 (—5) µm wide. Conidiophores erect or bent, simple or shortly branched, rarely anastomosing, pale brown, darker at the base and subhyaline at the apex, 10—110 µm long, 3—5.5 µm wide, septate, proliferate, with apical and lateral conspicuous cylindrical truncate sporogenous teeth, 1.5—5×1—2 µm. Conidia hyaline, helically variably (1 $\frac{1}{2}$ —) 2—3 $\frac{1}{4}$  times coiled, 20—50 µm in diam., multiseptate, septa inconspicuous, the filament 2.5—3 µm wide, apical end tapering and rounded, basal end rounded and laterally truncate.

On dead herbaceous material and wood. The occurrence of this species is only recorded from South America (British Guiana — Linder, 1931) and Africa (Tanzania — Pirozynski, 1972).

Specimen examined: Georgian SSR, Poti District, near Poti, on dead branch of *Populus* sp., E. Parmasto, 12 X 1963 (TAA 16881).

### 4. HELICOON RETICULATUM Linder, Ann. Missouri Bot. Gdn. 16 : 327—328. 1929.

Colonies cottony, loose, easily separable from the substratum, olive brown. Conidiophores pale olivaceo-fuscous, much branched, septate and

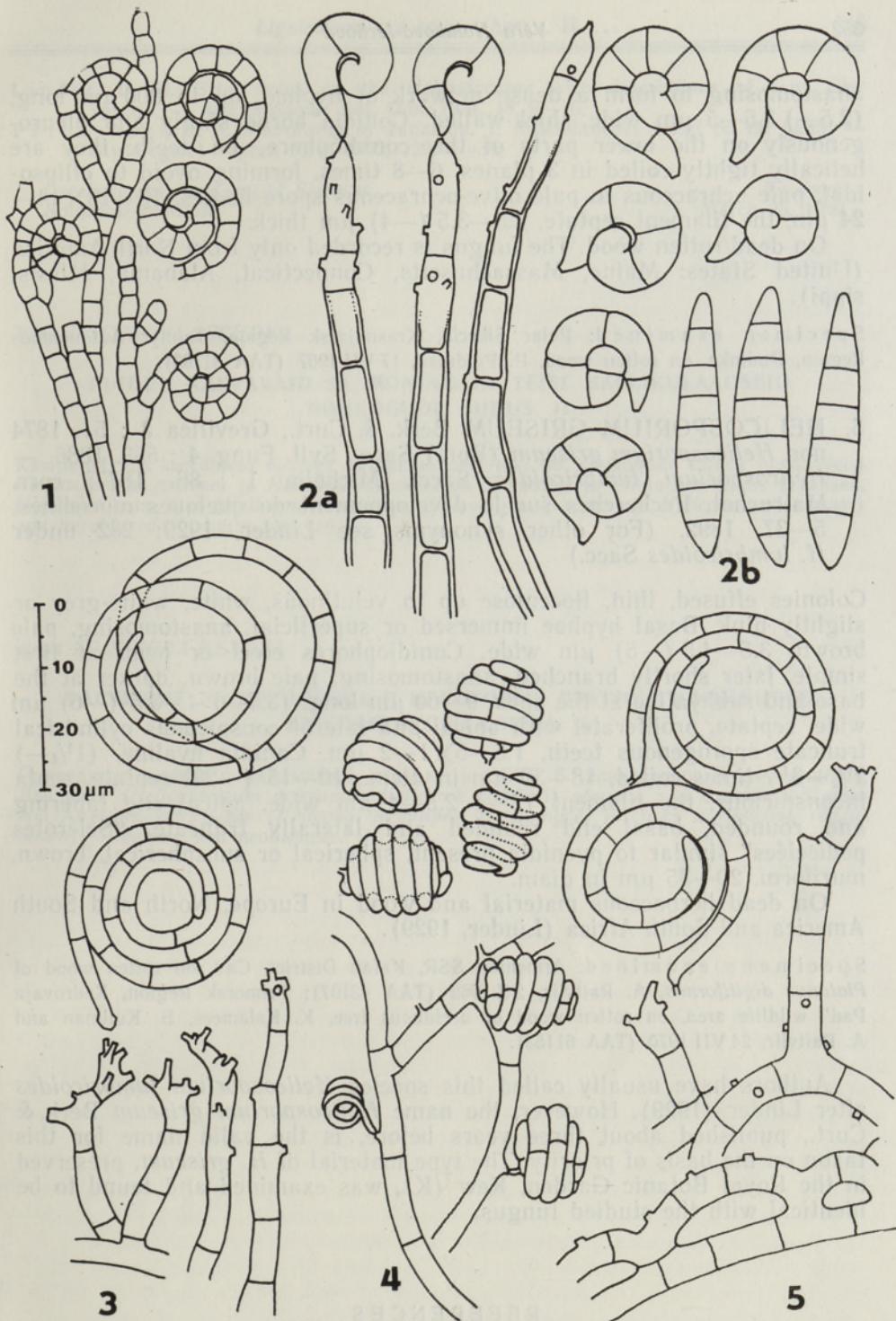


Figure: 1 — *Helicoma monilipes* Ellis & Johnson: conidiophores and conidia; 2a — *Helicoma muelleri* Corda: conidiophores and conidia; 2b — *Thaxteriella pezizula* (Berk. & Curt.) Petrak: ascospores; 3 — *Helicomyces fuscopes* Linder: conidiophores and conidia; 4 — *Helicoon reticulatum* Linder: conidiophores and conidia; 5 — *Helicosporium griseum* Berk. & Curt.: conidiophores and conidia. (Del.: V. Holubová-Jechová).

anastomosing to form a dense network of hyphae, up to 800 µm long, (2.5—) 3.5—5 µm wide, thick-walled. Conidia borne singly and pleurogenously on the lower parts of the conidiophore, on teeth; they are helically tightly coiled in 3 planes, 6—8 times, forming ovoid to ellipsoidal, pale ochraceous to pale olive-ochraceous spore bodies, 16—18×14—24 µm, the filament septate, 2.5—3.5 (—4) µm thick.

On dead rotten wood. The fungus is recorded only from North America (United States: Maine, Massachusetts, Connecticut, Alabama, Mississippi).

Specimen examined: Polar Siberia, Krasnojarsk Region, Tajmyr Autonomous Region, Dudinka, on rotten wood, P. Pöldmaa, 17 VII 1967 (TAA 31763).

5. **HELICOSPORIUM GRISEUM** Berk. & Curt., Grevillea 3 : 51. 1874  
non *Helicosporium griseum* (Bon.) Sacc., Syll. Fung. 4 : 559. 1886. —  
*Helicosporium lumbricoides* Sacc., Michelia 1 : 86. 1877; corr.  
Matruchot, Recherches sur le développement de quelques mucédinés,  
5—37. 1892. (For other synonyms see Linder, 1929: 282 under  
*H. lumbricoides* Sacc.)

Colonies effused, thin, flocculose up to velutinous, white, white-grey or slightly pink. Basal hyphae immersed or superficial, anastomosing, pale brown, 3.5—4.5 (—5) µm wide. Conidiophores erect or bent, at first simple, later shortly branched, anastomosing, pale brown, darker at the base and subhyaline at the apex, 9—60 µm long, (3.5—) 4—5.5 (—6) µm wide, septate, proliferate, with apical and lateral conspicuous cylindrical truncate sporogenous teeth, 1.5—5×1—2 µm. Conidia hyaline, (1<sup>1</sup>/<sub>4</sub>) 2<sup>1</sup>/<sub>2</sub>—3<sup>1</sup>/<sub>4</sub> times coiled, 18—30 µm in diam., 10—15 (—20)-septate, septa inconspicuous, the filament (2—) 2.5—4 µm wide, apical end tapering and rounded, basal end rounded and laterally truncate. "Sclerotes pedicelées" similar to pycnidia present, spherical or subspherical, brown, muriform, 20—35 µm in diam.

On dead herbaceous material and wood in Europe, North and South America and South Africa (Linder, 1929).

Specimens examined: Armenian SSR, Kafan District, Cav, on rotten wood of *Platanus digitiformis*, A. Raitviir, 2 X 1962 (TAA 43107); Primorsk Region, Kedrovaja Pad', wildlife area, on rotten wood of deciduous tree, K. Kalamees, B. Kullman and A. Raitviir, 24 VII 1970 (TAA 61153).

Authors have usually called this species *Helicosporium lumbricoides* after Linder (1929). However, the name *Helicosporium griseum* Berk. & Curt., published about three years before, is the valid name for this taxon on the basis of priority. The type material of *H. griseum*, preserved in the Royal Botanic Garden, Kew (K), was examined and found to be identical with the studied fungus.

#### REFERENCES

- Ellis, M. B. Dematiaceous *Hyphomycetes*. — Commonw. Mycol. Inst. Kew, 1971.  
Holubová-Jechová, V. Lignicolous and some other saprophytic *Hyphomycetes*  
from the USSR. I. — Eesti NSV TA Toim., Biol., 1980, 29, 131—147.  
Ichinoe, M., Kume, H. Japanese *Hyphomycete* notes. IV. Some helicosporous *Hyphomycetes* in Japan. — Trans. Mycol. Soc. Japan, 1970, 11, 98—108.  
Linder, D. H. A monograph of the helicosporous Fungi imperfecti. — Ann. Missouri Bot. Gdn, 1929, 16, 227—389, 31 pl.

- Linder, D. H. Brief notes on the *Helicosporae* with descriptions of four new species. — Ann. Missouri Bot. Gdn, 1931, 18, 9—16.  
 Pirozynski, K. A. Microfungi of Tanzania. I. Miscellaneous fungi on oil palm. — Mycological Papers, Kew, 1972, 129, 1—39.

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### **PUIDUL KASVAVAID JA MÖNINGAID TEISI HALLIKULAÄDSEID NÖUKOGUDE LIIDUS. II**

Käsitletud viis keerdunud eostega hallikulaadsete liiki on Nõukogude Liidus uued. Neist *Helicosporium griseum* ja *Helicoma muelleri* on Euroopas ja Põhja-Ameerikas tavalised, ülejää nud kolm liiki (*Helicoma monilipes*, *Helicomycetes fus scopes* ja *Helicoon reticulatum*) aga haruldased või harvaesinevad.

Вера ГОЛУБОВА-ИЕХОВА

### **РАСТУЩИЕ НА ДРЕВЕСИНЕ И НЕКОТОРЫЕ ДРУГИЕ ГИФОМИЦЕТЫ ИЗ СОВЕТСКОГО СОЮЗА. II**

Приводятся данные о нахождении впервые в СССР 5 геликоспоровых гифомицетов. Два вида (*Helicosporium griseum* и *Helicoma muelleri*) обычны для Европы и Северной Америки, остальные (*Helicoma monilipes*, *Helicomycetes fus scopes* и *Helicoon reticulatum*) — редкие или необычные.