

Rare and new Laboulbeniales from Poland. VII

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This publication gives descriptions of four new species: *Dipodomycetes phloeocharidis* sp. n. on *Phloeocharis subtilissima*, *Rickia pachylaelapis* sp. n. on *Pachylaelaps holothyroides*, and *Rickia ptilidarum* sp. n. on *Nannoptilium* sp. There are also the localities of six other species new for Poland.

Chitonomyces ensiferus Spegazzini

On *Laccophilus hyalinus* (Deg.) (Coleoptera, Dytiscidae): Brzuze Duże (Ostrołęka voivodeship), in a shallow bay of the Narew river, close to the village, 4.7.1979 (TM. 2241, 2246, 2247). Fig. 1b.

Single specimens of this fungus have been found on the distal segments of left tarsi of hosts. They are in accord with short diagnose and drawing of *Chitonomyces ensiferus* (Spegazzini 1915). The length of two well-preserved specimens was 115 and 125 μm , respectively, while the perithecia were $88-90 \times 21-30 \mu\text{m}$. This fungus seems not to have been hitherto given from stands other than locus classicus.

Chitonomyces italicus Spegazzini

On *Laccophilus hyalinus* (Deg.): Brzuze Duże (as with *Ch. ensiferus*) (TM. 2242, 2248, 2249). Fig. 1a.

Nine specimens of this species have been taken out of left tarsi of hosts, caught together with the hosts of *Ch. ensiferus*. They differ from the Spegazzini type (1915) in the same way as the specimens described in Bavaria by Scheloske (1969). They are longer and

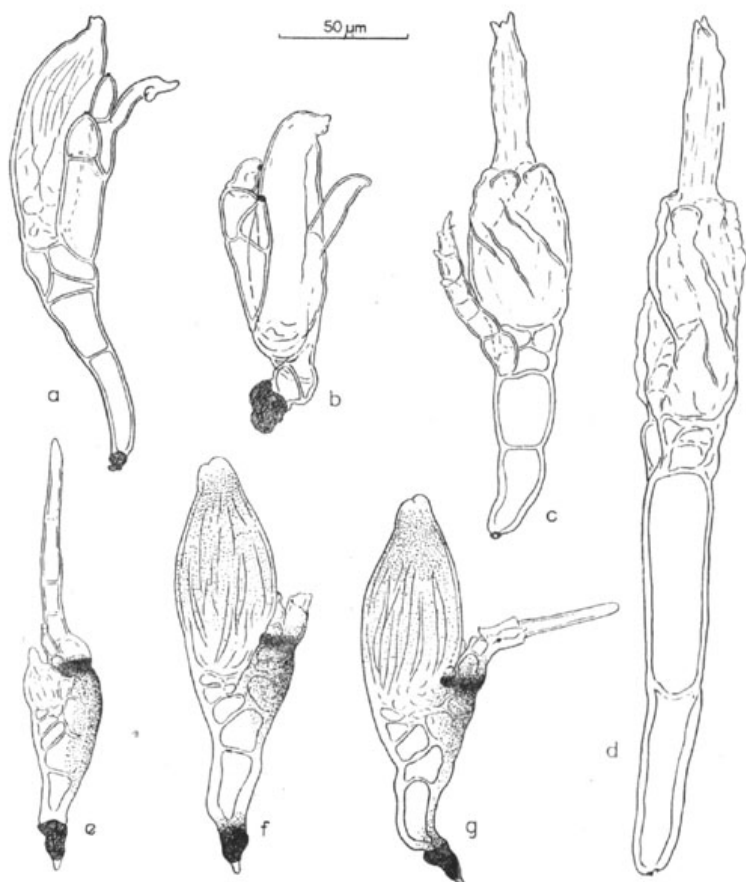


Fig. 1. a—*Chitonomyces italicus* Speg. on *Laccophilus hyalinus*, Brzuze Duże; b—*Chitonomyces ensiferus* Speg. on *Laccophilus hyalinus*, Brzuze Duże; c, d—*Stigmatomyces purpureus* Thaxter on *Scatella stagnalis*, Pomiechowo; e, f, g—*Laboulbenia biondii* Rossi et Cesari Rossi on *Orestia aubei* ssp. *arcuata*, Bereżki.

slimmer, their length being 140–180 μm . Nearly the whole thallus, except for the basal cell, is amber brown.

This species is known from Italy (Spegazzini 1915), the Federal Republic of Germany (Scheloske 1969), also from China (Thaxter 1926) and Japan (Sugiyama 1977), where, however, a more stout and darker form was found, more corresponding to the Spegazzini's type.

Dimeromyces longitarsi Thaxter

On *Longitarsus luridus* (Scopoli) (Col., *Chrysomelidae*): Bieszczady Mts., Wetlina (Krosno voivodeship), in a decaying haystack in the meadow north of the village, at the foot of the Wetlina Upland pasture, about 700 m above sea level, 19.6.1978 (TM. 1905).

A number of the fungus' males and females were found on the elytra of the host. They fully correspond to the description and pictures by Thaxter (1924: 361-362, pl. 5: 129-131). This rare species is known from the United States and Trinidad (Thaxter l. c.) as well as France (Balazuc 1975), and most probably also from Algeria if *Dimeromyces bordei* Maire is identical with it.

Dipodomyces phloeocharidis sp. n.

Thallus luteolus. Receptaculum primarium ex duabus cellulis constans; cellula basalis elongata, cellula subbasalis compressa. Cellula subbasalis appendicem antheridiale et paulo lateraliter cellulam pedunculi peritheci separata. Axis appendicis antheridialis ex sex vel septem cellulis una supra aliam positus, quae praeter basalem elongatae sunt, in parte superiore ramosa, antheridia elongata terminalia habet. Cellula pedunculi peritheci elongata, cellularum basaliu regio angustior. Perithecium asymmetricum, margo eius externa convexa, ad apicem angustatur, cum labiis tribus acutis.

Longitudo tota ad apicem peritheci 110-155 μ m, perithecia 55-95 \times 23-38 μ m, appendices ad 100 μ m.

Yellowish. Primary receptacle consisting of two cells: the basal cell elongated, the subbasal flattened. The subbasal cell bears distally the antheridial appendage and somewhat laterally the stalk-cell of the perithecium. Axis of the appendage consisting of six or seven superposed cells; all of which, with exception of the basal cell, are elongated. The fourth and next cells producing distally on the inner side the few celled branches which are one or two times branched, with elongated terminal antheridia. The stalk-cell of the perithecium 2-3-times longer than the width, somewhat contracted at the base. The basal cell region broader, the secondary stalk-cell and the basal cells inflated. The perithecium stout, the outer margin convex, the inner nearly straight; the neck tapering distally to the tip with three longer and pointed and one shorter lips.

Total length to the tip of the perithecium 110-155 μ m, perithecium 55-95 \times 23-38 μ m, antheridial appendage up to 100 μ m.

On *Phloeocharis subtilissima* Mann. (Col., *Staphylinidae*): Pomiechówek near Nowy Dwór Mazowiecki (Warszawa voivodeship), under the bark of dry, standing *Pinus sylvestris* in a pine wood close to the Wkra

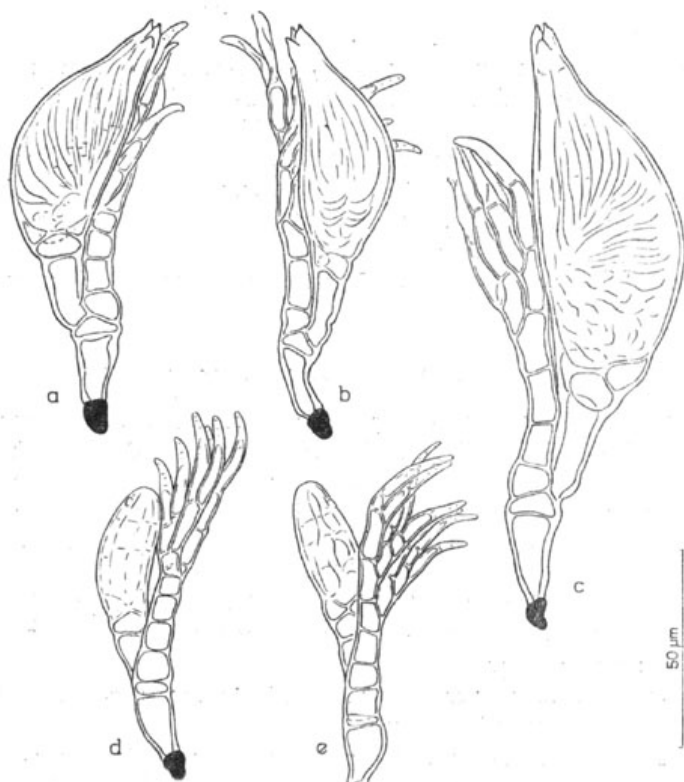


Fig. 2. *Dipodomycetes phleocharidis* sp. n. on *Phleocharis subtilissima*, Pomiechówek; a — holotype, b-e — isotypes

river, 3.7.1977 (TM. 1689, 1690), 27.7.1977 (TM. 1698), 3.8.1977 (TM. 1699), 21.8.1977 (TM. 1700, 1701 — holotype), leg. T. Majewski. Fig. 2.

This fungus is at first sight clearly different from the only hitherto known representative of the genus *Dipodomycetes*, *D. monstruosus* Thaxter (Thaxter 1931: 267, pl. 37: 19-23), described from Africa on a representative of the family *Colydiidae*. Much simpler is the construction of its receptacle, which does not form lateral outgrowth which occur at *D. monstruosus*, and consists of fewer cells of more regular structure. These traits should be taken into account in the new, expanded diagnosis of the genus *Dipodomycetes*. On the other hand, the structure of the perithecium and antheridial appendage is similar at both species. I owe gratitude for these suggestions to Dr. I. Tavares, who was so

kind as to make a comparison between my species with Thaxter's type of the genus *Dipodomycetes*.

Numerous specimens of the new species occurred on the elytra, abdomen, lower thorax and legs of the hosts.

Laboulbenia biondii Rossi et Cesari Rossi

On *Orestia aubei* Allard ssp. *arcuata* Miller (Col., Chrysomelidae): Bieszczady Mts., Bereżki (Krosno voivodeship), in the bedding of *Alnus incana* shrub, on the Bystry creek, about 650 m above sea level, 11.9.1972 (TM. 1112). Fig. 1 e-g.

The author collected about thirty specimens of this species on the elytra of one beetle. This fungus was recently described in Italy (Rossi, Cesari Rossi 1979). The Polish specimens differ from those by slightly smaller size: total length 143-160 μm , perithecia 73-88 \times 35-40 μm .

Rickia pachylaelapis sp. n.

Thallus hyalinus, late ellipticus. Series media plerumque ex quatuor cellulis formata. Series posterior ex quinque vel sex cellulis, quarum una vel duae inferiores duas cellulas appendiculatas separant, cellulae superiores singulas cellula appendiculata habent. Series anterior ex duabus vel tribus cellulis constat, omnes cum singulis vel binis cellulis appendiculatis. Perithecium ovatum, margo eius externa libera. Appendices irregulariter elongatae, interdum ramosae; antheridium plerumque unicum in serie anteriore prope perithecium.

Altitudo tota 75-88 \times 40-50 μm , perithecia 38-48 \times 20-28 μm .

Hyaline, triseriate. The body broadly elliptical in outline, borne on the abruptly distinguished, slightly intruded basal cell. Median series of usually four cells, three of which beside the perithecium, the upper somewhat elongate, the remainings irregularly isodiammetric. The margin cells somewhat radially elongated. The posterior series of five or six cells, separating single appendiculate cells, with the exception of the one or two lower cells with two appendiculate cells. The primary appendage somewhat lateral, lying beside the upper appendiculate cell. The anterior series of two or three cells with one or two appendiculate cells. Appendages irregularly elongated, sometimes ramified, the normal free antheridium usually only one on the anterior side near the perithecium. Perithecium rounded, nearly erect, externally free, with a short neck and truncate apex.

Total dimensions 75-88 \times 40-50 μm , perithecia 38-48 \times 20-28 μm .

On *Pachylaelaps holothyroides* (Leonardi) (Acarina, *Pachylaelapidae*):

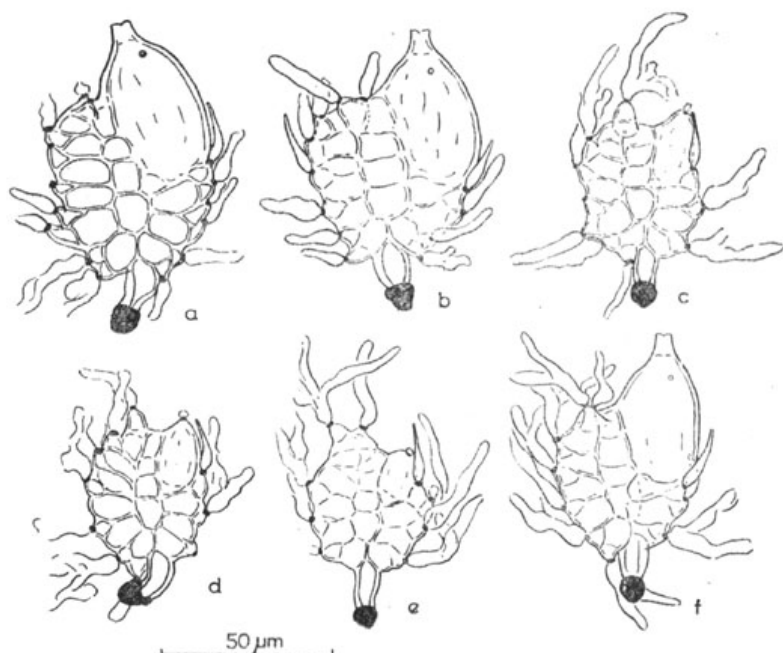


Fig. 3. *Rickia pachylaelapis* sp. n. on *Pachylaelaps holothyroides*, Puszczykowo; a — holotype, b-f — isotypes

Puszczykówko near Poznań (Poznań voivodeship), on the worker of *Lasius flavus* (Fabr.) in a nest under stone in a garden, 20.5.1979 leg. Piotr Michalski (TM. 2032-2037; 2034 — holotype). Fig. 3.

From among the numerous species described hitherto from the genus *Rickia*, the specimens found most resemble *Rickia celaenopsis* Th. and *R. inclinata* Th., which are also parasites of *Acarina*, and have been described from Trinidad (Thaxter 1926). *Rickia celaenopsis* differs in its immersed antheridium and only two strongly flattened anterior cells with one appendiculate cell. *Rickia inclinata* differs also in only two cells in the anterior series, and usually only one appendiculate cell on the posterior series of cells. The marginal cells of the Polish species are not so elongated as these cells of *R. celaenopsis* and *R. inclinata*, and appendages seems to be longer.

More than 30 examined specimens grew on the legs and thorax of one specimen of female mite. They, with their host, had been bleached with lactophenol, so some traits of their structure might have been slightly changed.

***Rickia ptiliidarum* sp. n.**

Thallus late fusiformis, luteolus, venter perithecii ferrugineus. *Cellula* basalis receptaculi minutissima. *Series* media plerumque ex tribus compressis cellulis formata. *Series* posterior ex quinque cellulis, cellula infima magna, obtriangulata, cetera minores, superior cum cellula appendiculata libera. *Series* anterior tantum una cellula cum una cellula appendiculata habet. *Perithecium* erectum, ovatum, collum rectum et residuum trichogyni nigrum distinctum.

Altitudo tota 63-65 × 25-28 μm , *perithecia* 40-43 × 15-18 μm .

Pale yellowish, the venter of the perithecium yellow-brownish. Basal cell of the receptacle very small, indistinct, replaced by the lowest cell of the posterior series. Median series of usually three cells; they are narrow, the two upper lying beside the perithecium, the lower below its base. The posterior series of five cells; the lowest obtriangular, relatively broad, the second connected with the lower on its wholly upper surface, asymmetrically triangular and flattened, the third and fourth

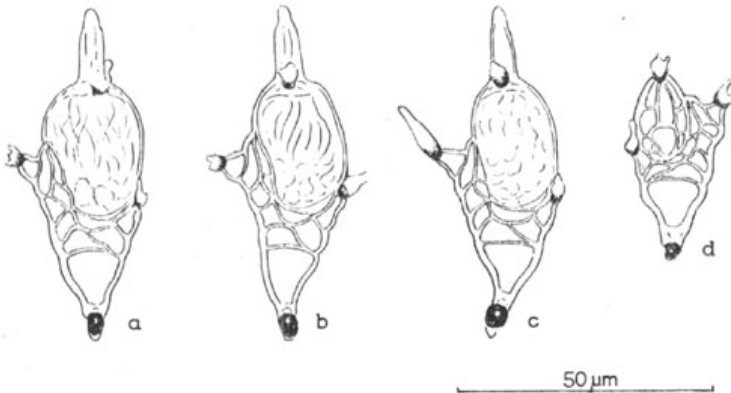


Fig. 4. *Rickia ptiliidarum* sp. n. on *Nannoptilium* sp., Białowieża; a—holotype, b-d—iso-types

irregularly isodiammetrical, the upper narrow, separating laterally one respectively large, free appendiculate cell. The anterior series of only one somewhat flattened cell with one appendiculate cell. The perithecium erect, free externally, its body broadly oval, the neck abruptly distinguished, as long as a half of the venter, slightly tapering to the top. The base of the trichogyne persistent, blackened, forms a short appendage.

Total dimensions 63-65×25-28 μm , perithecia 40-43×15-18 μm .

On *Nannoptilium* sp. (Col., *Ptiliidae*): Białowieża National Park (Białystok voivodeship), in horse manure on a road through *Quercus-Carpinetum* in section 369, 22.5.1973 leg. T. Majewski (TM. 1990 — holotype, 1993). Fig. 4.

Rickia ptilidarum is the second representative of this genus that is a parasite on beetles from the family *Ptiliidae*. From the described from Bavaria *Rickia nephans* (Scheloske 1969) it differs most clearly, mainly because of different, simpler structure of the receptacle: a reduced basal cell and only one appendiculate cell in the posterior part of the thallus. The thalli of the new species are about twice smaller than those of *Rickia nephans*.

Few specimens (four mature and one young) were found by the author on the elytra and pronotum of the host. It is to be assumed that it is a rare fungus, for many other beetles from other stands have been checked without result.

Sphaleromyces lathrobii Thaxter

On *Lathrobium quadratum* (Payk.) (Col., *Staphylinidae*): Giby (Suwałki voivodeship), in *Sphagna* on the bank of a forest lake in the Tobolinka reservation, 19.8.1978 (TM. 1922-1924).

Numerous specimens of the fungus in various development stages were found on the upper surface of the host's body (pronotum, elytra, abdomen). They are in accord with the description and pictures by Thaxter (1896: 365-366, pl. 11: 2-5, 19). The species described from North America, found also on *Lathrobium quadratum* in Europe, but without more detailed data (Thaxter 1931, sub *Corethromyces lathrobii*).

Stigmatomyces purpureus Thaxter

On *Scatella stagnalis* (Fall.) (Diptera, *Ephydriidae*): Pomiechowo near Nowy Dwór Mazowiecki (Warszawa voivodeship), on a muddy bank of the Wkra river, 21.8.1974 (TM. 1505-1512); on *Scatella* sp.: as above (TM. 1513-1514). Fig. 1 c, d.

Numerous specimens found display high variability, similarly to the typical material described by Thaxter (1908). Frequent are specimens relatively stout, with the thallus length 170-220 μm and poorly developed ridges (Fig. 1 c). In the Pomiechowo material, however, specimens were also found, the length of which reached 320 μm ; they were dark coloured, with distinct, strongly protruding ridges (Fig. 1 d).

Stigmatomyces purpureus was described by Thaxter (1908: 302, pl. 46: 30-36) from the United States, later found in Great Britain (Biffen 1909), India (Batra 1963, sub. *S. scatellae*), France (H. Dainat, J. Dainat 1973) and Italy (Rossi, Cesari Rossi 1979a). In India, France and Italy only more common specimens were described, with shortened receptacle.

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Rzadkie i nowe Laboulbeniales z Polski. VII

Streszczenie

Praca zawiera opisy nowych gatunków: *Dipodomycetes phloeocharidis* sp. n. na *Phloeocharis subtilissima*, *Rickia pachylaelapis* sp. n. na *Pachylaepaps holothyroides* (Acarina) i *Rickia ptiliidarum* sp. n. na *Nannoptilium* sp. (Col., Ptiliidae). Podano również stanowiska sześciu gatunków nowych dla flory Polski.