

Rare and new Laboulbeniales from Poland. IX

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The author describes two new species (*Monoicomyces labiatus* sp. n. on *Aleocharinae* div. and *Rickia stellata* sp. n. on *Pleuronectocelaeno cuspidata*, *Acarina*), and gives the localities in which other species being new for Poland (with the exception of two *Trenomyces* spp.) were found.

Aphanandromyces audisioi W. Rossi

On *Brachypterus urticae* (F.) (*Col.*, *Nitidulidae*): Pomiechówek near Nowy Dwór Maz. (Warszawa voiv.), 27.6.1973 (TM. 1325 - 1328); *ibid.* 8.7.1973 (TM. 1332 - 1333); Białowieża National Park (Białystok voiv.), sect. 369, 25.6.1974 (TM. 1432 - 1455); Białowieża (Białystok voiv.), in the park, 26.6.1974 (TM. 1456 - 1459); Bieszczady Mts., Wetlina (Krosno voiv.), 17.6. 1978 (TM. 1899 - 1902); Szeków Nowy (Ostrołęka voiv.), 18.6. 1979 (TM. 2202 - 2203); Daniłowo (*Ostrołęka voiv.*), 13.7.1979 (TM. 2273 - 2276); Sajzy near Elk (Suwałki voiv.), 6.8.1979 (TM. 2292 - 2299); Magnuszew Duży (*Ostrołęka voiv.*), 30.6.1980 (TM. 2367 - 2369); Kiry near Zakopane (Nowy Sącz voiv.), 20.6. 1981 (TM. 2492 - 2493); Osa near Mikołajki (Suwałki voiv.), 8.6.1982 (TM. 2558, 2561). Fig. 1.

Though only recently described, this species is very common in Poland. During the past decade I have collected it many times. The specimens found are consistent with the description and photographs of Rossi (1982), reported for an Italian material. Thalli with preserved antheridial appendage are very rare, similarly as in Italy; my material contains three such specimens. The fungus usually occurs on the elytra and uncovered part of the host's abdomen, sometimes also on legs etc. The host is very often found in *Urtica dioica* inflorescences.

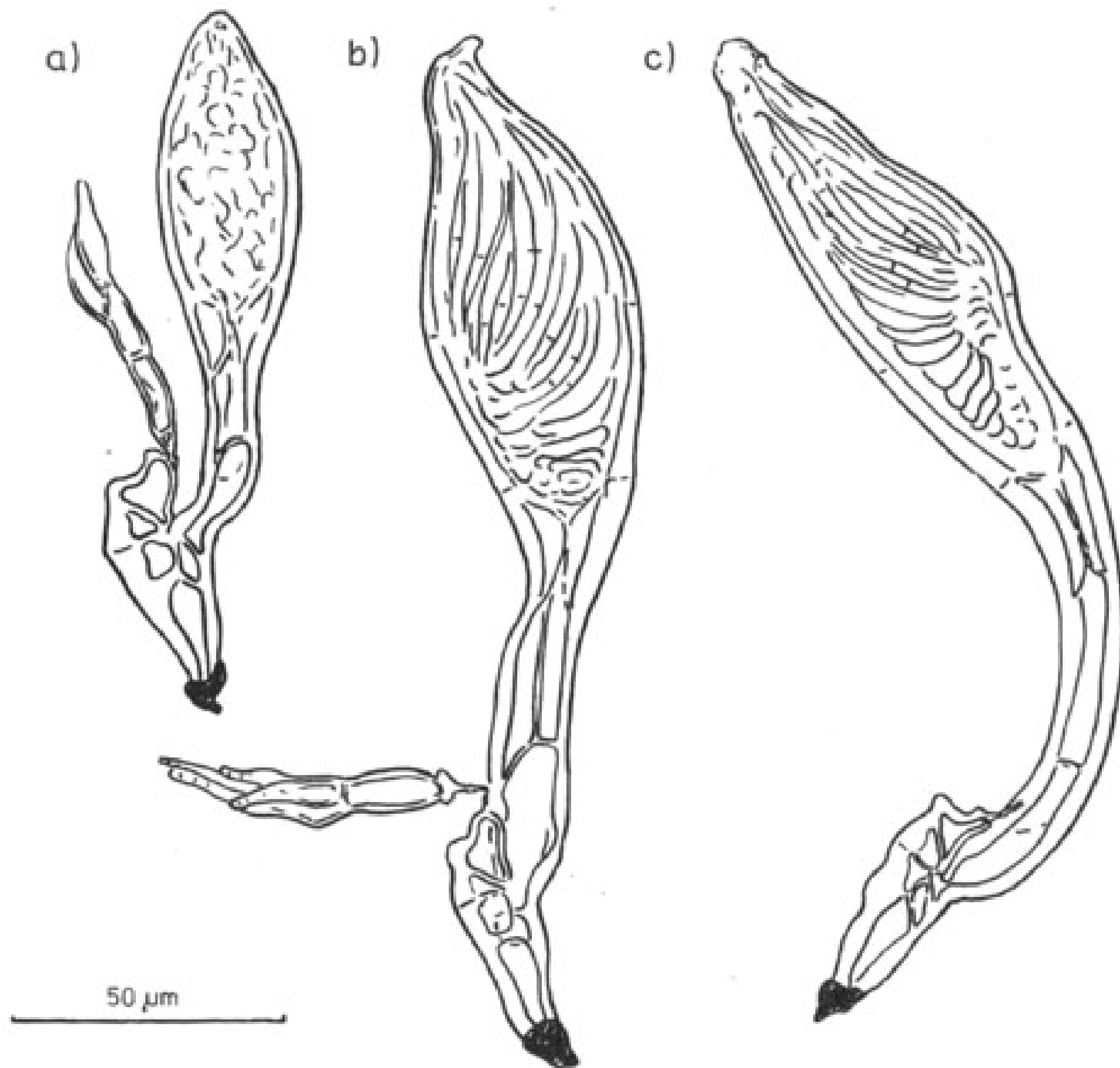


Fig. 1. *Aphanandromyces audisioi* W. Rossi on *Brachypterus urticae*; a — from Wetlina, b, c — from Szelków Nowy

Haplomyces texanus Thaxter

On *Bledius atricapillus* Germ. (Col., Staphylinidae): Przegorzały near Kraków, 2.8.1917, leg. S. S t o b i e c k i (TM. 2092); on *Bledius longulus* Er.: Głogoczów near Myślenice (Kraków voiv.), 25.5.1897, leg. S. S t o b i e c k i (TM. 2093, 2094).

I found five specimens of genus *Haplomyces* on beetles from the collection of the Institute of Systematical and Experimental Zoology, Polish Academy of Sciences, Cracov. They exhibit the features of two related species: *Haplomyces texanus* Th. and *H. virginianus* Th. The former species has been described by T h a x t e r (1896: 270-271, pl. 7: 5-6a) from North America; from Europe it has been reported by M i d d e l h o e k (1943), B a l a z u c (1974), and

R o s s i and C e s a r i (1980). The latter species has been described by T h a x t e r (1896: 270, pl. 7: 7-10), and reported from France by P a r r i a u d (1964); according to B a l a z u c (1974: 358), P a r r i a u d is mistaken, because all European specimens of genus *Haplomyces* belong to *H. texanus*.

The specimens from Poland resemble those from France, drawn by P a r r i a u d and B a l a z u c (l.c.). The subbasal cell of the receptacle and the basal cell of the antheridium are not blackened, and the perithecium is distinctly inflated; the specimens are relatively small, being 215-290 μm in length (typical *H. texanus* is 315-370 μm long). These features of the Polish specimens do not agree with the description of type *H. texanus*, as well as with the properties of fungi found in Holland and Italy (M i d d e l h o e k, R o s s i and C e s a r i, l.c.); they rather resemble *H. virginianus*. However, the latter species differs from the Polish specimens, according to the description of T h a x t e r, in a very greatly reduced subbasal cell of the receptacle, small antheridium (being of the same size as the subbasal cell of antheridial appendage) and evidently unsymmetrical perithecium. In my opinion it is best to determine it tentatively as *H. texanus*, by analogy with other authors. However, it seems indicated to examine a more abundant material of genus *Haplomyces* from various European countries. Perhaps in Europe there occur two species of this genus, comprising typical *H. texanus* (reported from Holland and Italy) and a new species differing from both — *H. texanus* and *H. virginianus*, which may include the specimens described from Poland and France.

Monoicomyces athetae Thaxter

On *Atheta fungi* (Grav.) (Col., Staphylinidae): Białowieża National Park, in horse feces on a way through *Quercus-Carpinetum* between sect. 371/372, 23.5.1981 (TM. 2474, 2476-2478, 2480).

The specimens collected occurred exclusively on distal processes of host abdomen. They fully agree with the description and drawings of T h a x t e r (1931: 36-37, pl. 7: 8-10). They are 125-160 μm long, with perithecium 75-95 \times 30-48 μm . The thallus usually forms one perithecium, and less frequently another immature one. The asymmetry of perithecia and a prominence subtending the apex are very evident. On antheridial appendages no branches are present. I did not find any specimens differing from the type, with two slender perithecia, as described by S c h e l o s k e (1969). *Monoicomyces athetae* has so far been reported only from England and West Germany.

***Monoicomyces labiatus* sp. n.**

Thallus succineus. Cellulae basalis et subbasalis breves. Appendix primaria simplex, ad basim fuscior. Appendices antheridiales primariae duae, fuscores extra. Appendices antheridiales secundariae bis 3, fuscores ad basim tantum, sunt vel desunt. Antheridia clavata, ad apicem truncata, cum duabus appendicibus terminalibus ad basim fuscioribus. Axes fertiles 2-5. Pedunculi perithecorum varie elongati, ad basim fuscores. Perithecia 2-4, raro 5, anguste ovati, ad apicem labiosa; dua labia breves, dua longiores sunt. Longitudo tota 115-210 μm , perithecia 65-80 \times 20-30 μm , pedunculi perithecorum 25-85 μm longi, antheridia 25-43 μm longa.

Thallus brown-yellow, except for some blackened cells; the stalk cell of the perithecium — when elongated — is nearly hyaline. The basal cell and subbasal cell of the receptacle are short, often indistinct. Primary appendage simple, comprising two or more (up to five) elongated cells; its basal cell is suffused with blackish brown in the lower part. Fertile branches two or more (up to five). Primary branches two, lateral and symmetrical, edged externally with blackish brown; when present, the secondary branches arise between the primary ones, and differ from them in the absence of external blackening. Primary antheridia externally blackened. Secondary antheridia blackened only at the base, slightly extending upward, and fairly abruptly flattened at the apex; they end by two usually identical terminal appendages which are blackened at the base and comprise several elongated cells. Stalk cells of the perithecium variably elongated, blackened at the base. Perithecia two to four, seldom five, slightly inflated, the tip extended, transformed into four distinct rounded projections, among which the two adjacent ones are longer, and both remaining ones — shorter. Total length 115-210 μm , perithecia 65-80 \times 20-30 μm , stalk-cells of the perithecia 25-85 μm , antheridia 25-43 μm .

On *Athet fungi* (Grav.) (Col., *Staphylinidae*): Stary Sącz (Nowy Sącz voiv.), sand on bank of the Dunajec River, 25.8.1982 (TM. 2700, 2702); on *Atheta* sp.: Smrock near Maków Maz. (Ostrołęka voiv.), bank of the Orzyc River, 30.6.1979 (TM. 2212); on *Gnypeta rubrior* Tott.: Stary Sącz (Nowy Sącz voiv.), bank of the Dunajec River, 25.8.1982 (TM. 2696, 2698, 2699, 2701, 2702, 2703); as above, bank of the Poprad River, 25.8.1982 (TM. 2719, 2720); the same site, 27.8.1982 (TM. 2736 — holotype); on *Ischnopoda atra* Grav.: Kidalowice near Jarosław (Przemyśl voiv.), bank of pond in village, 13.8.1982 (TM. 2634). Leg. T. M a j e w s k i. Fig. 2.

In some aspects this fungus resembles *Monoicomyces nigrescens*; however, it differs in size, and — in the first place — in the different distal part of the perithecium whose apex extends into four clear-cut projections (differing in

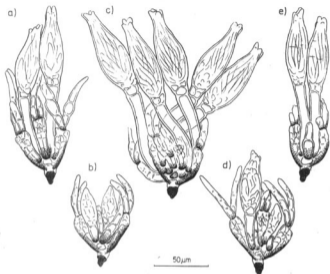


Fig. 2. *Monoicomyces labiatus* sp. n. on *Gnypeta rubrior*, Stary Sącz; a — holotype, b, d — isotypes, c, e — paratypes

length) not yet observed in the so far described species of genus *Monoicomyces*. It mostly occurs on the host's abdomen, often in parallel with *Dimorphomyces myrmedoniae*.

Monoicomyces nigrescens Thaxter

On *Aleocharinae* indet. (Col., *Staphylinidae*): Bialowieża National Park, at the same site as *Monoicomyces athetae*, 23.5.1981 (TM. 2475).

Only two specimens were found on the distal part of host's abdomen. They are relatively small (90 and 100 μm in length), and perhaps not fully mature. They fairly accurately correspond to the description and drawings of Thaxter (1908: 270, pl. 36: 1-4). This species is known from North and South America, Ceylon, Holland, West Germany and Italy (Middelhoek 1943, Scheloske 1969, Rossi and Cesari 1978, Thaxter 1931).

Rhadinomyces pallidus Thaxter

On *Lathrobium fovulum* Steph. (Col., Staphylinidae): Kidałowice near Jarosław (Przemyśl voiv.), 13.8.1982 (TM. 2640); on *L. quadratum* (Payk.): Pomiechówek near Nowy Dwór Maz. (Warszawa voiv.), 22.6.1973 (TM. 1316); Długie near Izbica Kujawska (Włocławek voiv.), 22.5.1976 (TM. 1580); Różan (Ostrołęka voiv.), 15.7.1981 (TM. 2520, 2521); on *L. terminatum* Grav.: Kurzeszyn Nowy (Skierniewice voiv.), 19.8.1972 (TM. 1082 - 1085).

It seems that *Rhadinomyces pallidus* is fairly common in Poland, similarly as *R. cristatus* Th., a related fungus reported by J. and W. Siemaszko (1931, sub *Corethromyces cristatus*). Both fungi are very variable; however, no intermediate forms occurred in my material. Thus for the present I prefer to consider them to be different species. *R. pallidus* has been reported from North America and some countries of West Europe: France, Holland, England, West Germany (Thaxter 1896, 1908; Middelhoeck 1943; Scheloske 1969; Balazuc 1973 - 1974).

Rickia stellata sp. n.

Thallus hyalinus, late falcatis. Series media ex duabus cellulis elongatis. Series posterior ex 3 vel 4 cellulis: prima cum singula cellula appendiculata, secunda (vel secunda et tertia) brevem appendicem antheridio terminatam sine septo denigrato habet, cellula suprema cum brevi appendice primario et una cellula appendiculata. Series anterior ex duabus cellulis eadem ac prima et secunda cellulae series posterioris. Appendices insidentes septis breviora. Perithecium irregulariter ovatum. Longitudo tota 55 - 66 μ m, perithecia 28-37 \times 14-20 μ m, appendices cum antheridiis ad 14 μ m longae.

Hyaline, triseriate. The body broadly falcate. Basal cell relatively large, elongated. The median series comprises two cells almost completely located beside the perithecium, with only the lower part of the first cell situated below the base of the perithecium; both cells are irregularly elongated. The posterior series comprises three or four cells. The lowermost cell irregularly isodiametric, with a single small appendiculate cell. The second (and sometimes the third cell) irregularly elongated. Its appendage obliquely directed upward, comprises three small cells arranged in a row, and it ends in the slender neck of the antheridium. The highest cell of the posterior series is smaller than the previous one (or than both previous ones), with a bicellular short primary appendage ending in septum and directed upward, and with an additional appendiculate cell (also ending in septum); the latter cell is located beside the upper cell of the median series and does not protrude beyond the external outline of thallus. The anterior series comprises two cells. The lower one is identical with the lower cell of the posterior

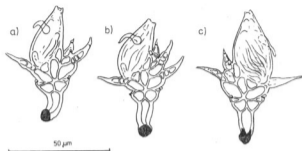


Fig. 3. *Rickia stellata* sp. n. on *Pleuronectocelaeno cuspidata*, Niemieczkowo; a — holotype, b, c — isotypes

series and ends in an identical appendage terminating in antheridium; this appendage is situated immediately under the perithecium. All appendages on the septa are very small, rudimental. The perithecium irregularly ovate, externally free, with a short indistinct neck and small lips. Residium trichogyni usually present, elongate and swollen above the base. Total length 55–66 μm , perithecia 28–37 \times 14–20 μm , appendages with antheridia up to 14 μm .

On *Pleuronectocelaeno cuspidata* (Kramer) (Acarina, *Celaenopsidae*): forest district Niemieczkowo, forest inspectorate Oborniki (Poznań voiv.), in nest of *Lasius* sp. in withered *Robinia pseudacacia*, 22.4.1983, leg. M. L u t o m s k i (TM. 2766, 2767 — holotype). Fig. 3.

Only four specimens of fungus were present on legs of a mite. However, the fungus is so characteristic and different from the known representatives of genus *Rickia* that it can be described as a new species. It is particularly distinguishable by appendages ending in an antheridium which is not separated from the preceding cell by a septum. The structure of the appendages deserves closer examination which will be possible after obtainment of material fixed in alcohol, and not bleached with lactophenol, as the now described specimens.

Teratomyces actobii Thaxter

On *Erichsonius cinerascens* (Grav.) (Col., *Staphylinidae*): Pomiechówek (Warszawa voiv.), on muddy bank of small water body near the Wkra River, 8.6.1973 (TM. 1279); Giby (Suwałki voiv.), in *Sphagna* on the bank of a small lake

in reservation Tobolinka, 19.8.1978 (TM. 1925 - 1928); Kampinos National Park (Warszawa voiv.), reservation Sieraków, moist *Alnetum*, 15.10.1980 (TM 2431); Mikołajki (Suwałki voiv.), muddy bank of small late in forest, 11.6.1982 (TM. 2570).

The specimens collected are consistent with the description and drawings of Thaxter (1896: 356-357, pl. 10: 9-17). Although this fungus is fairly frequent in Poland, it is difficult to find specimens with mature perithecia. It occurs on different body parts of host: on the elytra, both sides of the abdomen, and legs. It has been reported from USA, Algeria, England, West Germany and Italy (Thaxter 1896, 1931; Scheloske 1969; Rossi and Cesari 1980).

Teratomyces philonthi Thaxter

On *Gabrius nigrifolius* Grav. (Col., Staphylinidae): Puńców near Cieszyn (Bielsko-Biała voiv.), under stones on the bank of Puńcówka stream, 19.5.1979 (TM. 2149, 2150).

Well developed typical specimens are in agreement with the description and drawings of Thaxter (1908: 316, pl. 49: 4-5); somewhat schematic drawings have been published by Middelhök (1943). *Teratomyces philonthi* has been described from Hungary, and reported from West Germany, France, Holland and Italy (Thaxter loc. cit.; Scheloske 1969; Balazuc 1974; Rossi and Cesari 1978).

Trenomyces histophorus Chatton et Picard

On *Eomenacanthus stramineus* (Nitzsch) (Mallophaga) from *Gallus gallus* dom.: Kurzeszyn Nowy (Skierniewice voiv.), 23.6.1972 (TM. 1025, 1026, 2752); Wrocław, 1976, leg. E. Urban (TM. 2579); on *Menopon gallinae* (L.) from *Gallus gallus* dom.: Kurzeszyn Nowy, 23.6.1972 (TM. 1027-1029, 2754); on *Sturnidoecus sturni* (Schränk) from *Sturnus vulgaris* L.: Góra Kalwaria (Warszawa voiv.), 26.6.1979, leg. F. Grędziński (TM. 2575).

This cosmopolitan and common species has not been reported by J. and W. Siemaszko, although it has earlier been found in Poland. For the first time it has been collected in Poland by Traugott Müller (1932) in the vicinity of Elbląg (formerly Elbing) on „*Menopon pallidum*” = *M. gallinae* (L.), „*M. tridens*” = *Pseudomenopon pilosum* (Scop.) and „*Nirmus fusco-marginatus*” = *Aquanirmus colymbinus* (Scop.). This material has been utilized by Thaxter (1912, 1926) in his revision of genus *Trenomyces*. Species classification of a related form collected also by Müller on representatives of genus

„*Nirmus*” (*N. punctatus*, *N. maritimus* and *N. olivaceus*) remains unclear. Thaxter (1912) has classified it as *Trenomycetes histophorus*, and later (1926) — rather as *T. circinans*.

Apart from the above-mentioned specimens from my collection, the fungus found on *Spironirmus nebulosus* (Burm.) from *Sturnus vulgaris*: Dąbrowa near Kartuzy (Gdańsk voiv.), 18.5.1957, leg. J. Lachmajer (TM. 2580), probably ought to be classified as *Trenomycetes histophorus*. This specimen is in poor condition, but seems not to essentially differ from other *T. histophorus* specimens.

Eichler (1951) has reported a new species, *Trenomycetes helveticus*, on *Sturnidoecus sturni*. However, neither on this insect nor on other *Mallophaga* from Poland specimens with a crown on top of the perithecium, characteristic of this fungus, were found.

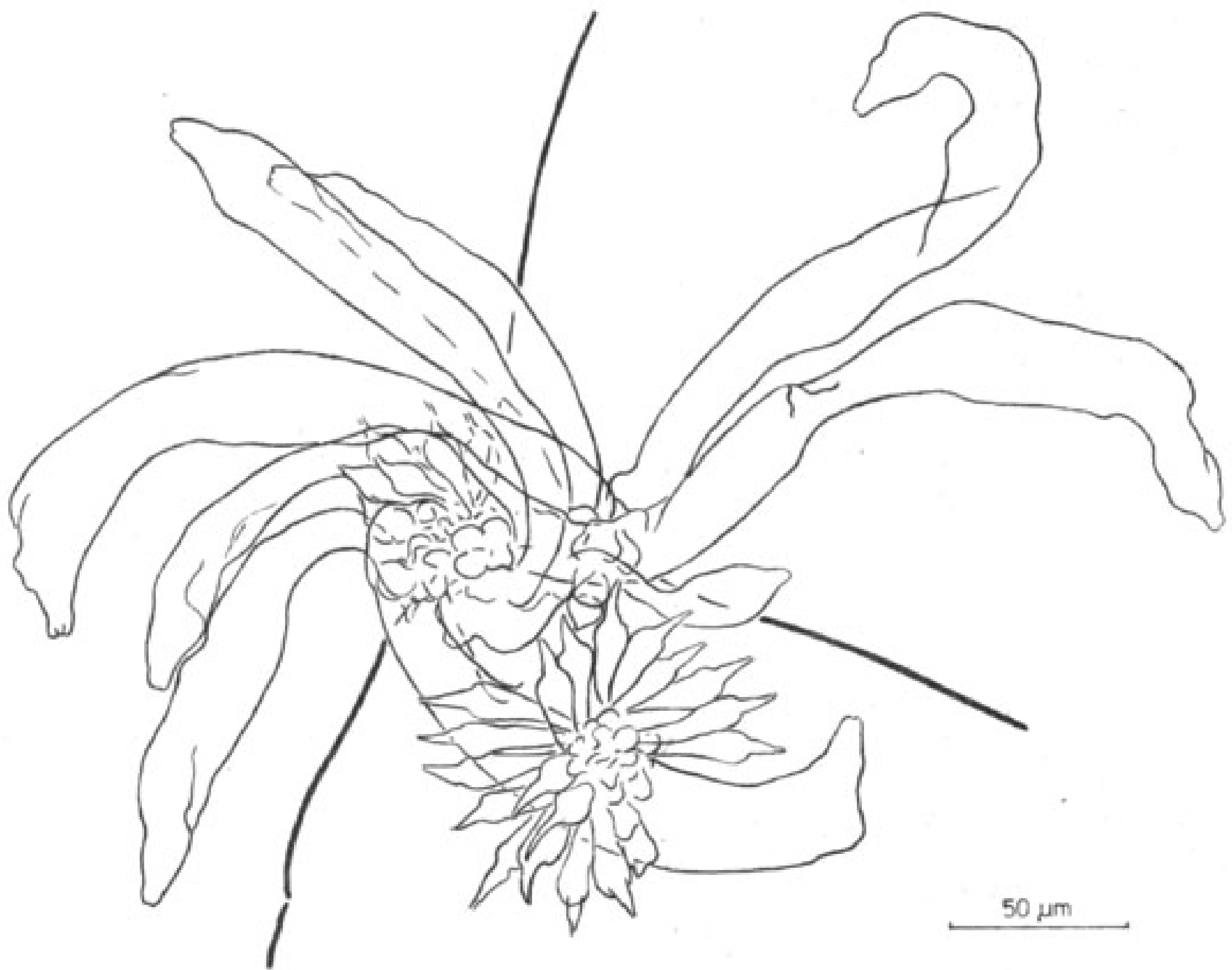


Fig. 4. *Trenomycetes circinans* Thaxter on *Quadrateps furvus*, Sominy

Trenomyces circinans Thaxter

On *Koeniginirmus sellatus* (Burm.) from *Sterna hirundo* L.: Sominy near Bytów (Ślupsk voiv.), 7.8.1957, leg. J. Złotorzycka; on *Quadriceps furvus* (Burm.) from *Tringa erythropus* (Pall.): Sominy, 5.8.1957, leg. J. Złotorzycka (TM. 2582, 2583). Fig. 4.

The above-mentioned fungi (similarly as some *Trenomyces histophorus* specimens) have been kindly offered by Prof. Jadwiga Złotorzycka, a prominent specialist in *Mallophaga* taxonomy. They are fixed in Canada balsam, and thus some details of their structure are imperceptible or deformed. However, there remains an important feature of *Trenomyces circinans*, i.e. bending of perithecia which are broader distally, and a long stalk of the perithecium. Apical lobes (characteristic of *T. circinans*) are visible in only some perithecia. The numbers of antheridia and perithecia are small, similarly as in the typical material described by Thaxter. As a rule, there are no more than three antheridia and four perithecia, except for one specimen with much greater numbers of these structures (Fig. 4).

Trenomyces circinans has been collected by Müller (1932) in the vicinity of Elbląg on "*Lipeurus baculus*" = *Columbicola columbae* (L.) and "*Docophorus pertusus*" = *Incidifrons fulicae* (L.).

I am very indebted to Prof. Dr. Jadwiga Złotorzycka, Institute of Microbiology, Wrocław University, who kindly donated infected specimens of *Mallophaga* from her own collection and determined other hosts, and to Prof. Dr. Jerzy Wiśniewski, Institute of Forest Protection, Academy of Agriculture, Poznań, for a very peculiar new fungus on a mite. I am grateful to Dr. Sławomir Mazur, Institute of Forest Protection, Agricultural Academy in Warsaw, for the determination of beetles of families *Nitidulidae* and *Staphylinidae*, and to Mrs. Maria Korzybska who helped me in translation of Latin diagnoses.

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Rzadkie i nowe Laboulbeniales z Polski. IX

Streszczenie

Praca zawiera opisy dwóch nowych gatunków: *Monoicomyces labiatus* sp. n. na *Aleocharinae* div. (Coleoptera, Staphylinidae) oraz *Rickia stellata* sp. n. na *Pleuronectoclaeno cuspidata* (Acarina), a także stanowiska dziesięciu innych gatunków, w tym siedmiu nowych dla flory Polski.