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Dactylella inquisitor sp. nov. — a new nematode-strangulating fungus

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The fungus under consideration was isolated from a sample of forest litter collected in a *Querco-Carpinetum* forest in May 1965 (Forest District Grzędy, Forest Inspectorate Rajgród, Grajewo county). In the nematode-infested subculture the fungus produced fusiform conidia on simple conidiophores and tricellular constricting rings as the traps. The fungus was observed for several weeks in the nematode-infested subculture. Repeated trials to obtain a pure culture of the fungus failed.

Fusiform conidia with several septa and contractile tricellular rings are found in several species of the genus *Dactylella* Grove *). The fungus found in Poland resembles most closely as far as morphology is concerned the Drechsler's species *Dactylella bembicodes* (Drechsler 1937) and *D. turkmenica* Soprunov (1958) which both form conidia with three septa. The conidia of *D. bembicodes* are, however, much wider than in the fungus found by me, their relative width (expressed as percentage of length) varies within 39—59 per cent. The *D. turkmenica* conidia are still wider, almost spherical. Moreover, the conidia of the fungus in point are much longer than those of *D. bembicodes* which measure 34—38 μm.

From among the remaining *Dactylella* species forming constricting rings *D. aphrobrocha* Drechsler (1950), *D. coelobrocha* Drechsler (1947) and *D. acrochaeta* Drechsler (1952) exhibit a certain morphological similarity to the fungus here described. These fungi differ, however, from the newly found species by the number of septa in the conidia, and by other morphological characteristics.

Therefore I consider the fungus as a new species closely related to *D. bembicodes*, but differing from it distinctly. A description of the fungus is given under the name *D. inquisitor* sp. nov.

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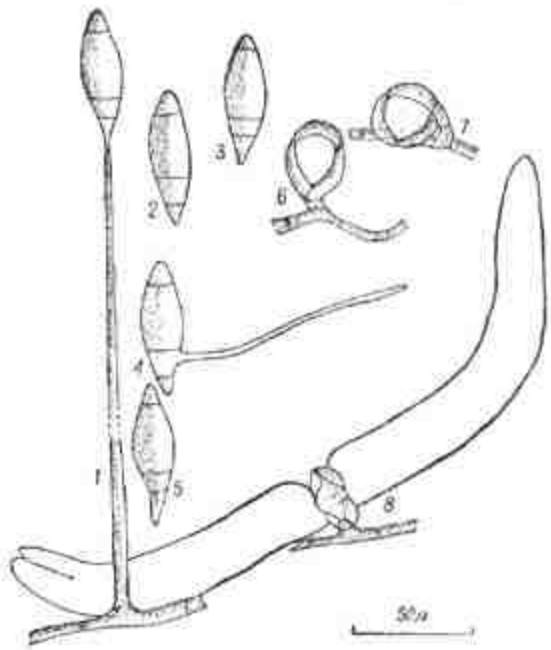
*) Subramanian (1964) and Cooke and Dickinson (1965) classify the species with conidia consisting of cells of unequal length to the genus *Monacrosporium* Oudemans. I apply here the traditional taxonomic interpretation of the genus *Dactylella* after Drechsler for reasons earlier explained (Jarowaja 1968).

Dactylella inquisitor sp. nov.

Diagnosis. Mycelium effusum; hyphis hyalinis, septatis, 1,8—2,7 μm *crassis, laqueos circulares circa* 17 μm *in diametro interno et circa* 28 *in externo in 3 cellulis arcuatis consistentes ex ramulo brevio uni- vel biloculari proferentibus; his laqueis vermiculos nematodeos illaqueantibus, deinde tum per contractionem inflationemquae trium cellularum animalia magnopere comprimentibus, ita haec trucidentibus, statim integumentum perforantibus, hyphas intus evolventibus quae carnem exhauriunt. Hyphae fertiles hyalinae, erectae, septatae, circa* 360 μm *altae, basi* 6,4—6,8 μm, *apice circa* 2,6 μm *crassae, ibi unicum conidium ferentes. Conidia fusiformia, hyalina,* 50—65 μm (*saepius circa* 55 μm) *longa,* 18—24 μm (*saepius circa* 19 μm) *lata, vulgo triseptata; loculo paenultimo longissimo et latissimo, dolioformi. Vermiculos nematodeos varios capiens consumensquae habitat in huma silvestri Querco-carpineti prope Grzędy, Grajewo, Polonia.*

Typus: figurae 1—8.



Figs. 1—8: Morphology of *Dactylella inquisitor* sp. nov.: 1 — conidiophore with conidium at the tip, 2—5 — conidia, 6—7 — open constricting rings, 8 — ring contracted on the body of the nematode caught (drawn with camera lucida from the nematode-infested subculture of the type strain).

Mycelium spreading, vegetative hyphae hyalinae, septatae, 1,8—2,7 μm wide, in the presence of eelworms producing underneath and at right angles to their axes tricellular constricting rings about 17 μm in in-

ternal and 28 μm in external diameter on the tips of short, uni- or bicellular lateral supporting branches. Conidiophores hyalinae, erect, septate, mostly about 360 μm high, 6,4—6,8 μm wide at the base, tapering gradually upward to a diameter of approximately 2,6 μm at the tip, whereon is born usually a single conidium. Conidia hyaline, spindle shaped, 50—55—65×18—19—24 μm (relative width, i.e. expressed as the percentage of total spore length, about 22—25%), mostly divided by three septa into four cell: the basal cell narrow, obconical, with relative length (i.e. expressed as the percentage of total spore length) 15—25%, wider but short suprabasal cell with rel. length 13—20%, the largest penultimate cell wider, with rel. length 45—52% and rather small, obconical or dome shaped apical cell with rel. length 10—20%.

Type: Figs. 1—8.

Type locality: the forest litter from the *Querco-carpinetum* near the Forest District Grzędy, Forest Inspectorate Rajgród, Grajewo County).

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Dactylella inquisitor sp. nov. — nowy gatunek grzyba nicieniobójczego

Streszczenie

Praca zawiera opis nowego gatunku grzyba — *Dactylella inquisitor* sp. nov., wyizolowanego ze ściółki z grądu z terenu leśnictwa Grzędy w pow. Grajewo. Grzyb ten chwyta nicienie za pomocą trójkomórkowych kurczliwych pierścieni (ryc. 6—8) i tworzy pojedyncze, wrzecionowate trójprzegrodowe zarodniki konidialne na szczytach nierozgałęzionych trzonków (ryc. 1—5). Nowy gatunek jest zbliżony do *Dactylella bembicodes* Drechsler (1937).