

Fungi parasites on the genus *Spirogyra* Link rare or new for the Polish flora

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Investigations carried out on the genus *Spirogyra* Link revealed the following species of fungi parasitizing in the *Spirogyra* cells:

Olpidium entophytum (Braun) Rabenhorst

Sporangium pyriform, $50 \times 19 \mu$. Wall thin, colourless. Discharge tube isodiametric, $70 \times 7 \mu$. Sporangium dimensions of this species differ significantly from those given by Sparrow (1960). Zoospores spherical, $2-4 \mu$ in diam., colourless (Fig. 1). In vegetative cells of *Spirogyra inflata* (Vauch.) Kütz.

Habitat of *S. inflata*: Pond Lipowy at Gołysz (Cieszyn distr.), 2.VI.1965.

Olpidiopsis schenkiana Zopf

Sporangium ellipsoidal, $33-38 \times 16-17 \mu$, wall thin, colourless. Discharge tube isodiametric, $60-75 \times 8 \mu$. Zoospores absent. Resting spores spherical, $35-45 \mu$ in diam. Companion cell spherical, $10-50 \mu$ (Fig. 2). In vegetative cell of *Spirogyra majuscula* Kütz.

Habitat of *S. majuscula*: a pond formed by the river Jasień in Łódź, 3.VII.1957.

Entophlyctis bulligera (Zopf) Fischer

Sporangium spherical, 10μ in diam. Rhizoidal system extensive. Zoospores spherical, 3μ in diam. In moribund vegetative cells of *Spirogyra majuscula* Kütz (Fig. 3).

Habitat of *S. majuscula*: a pond formed by the river Jasień in Łódź, 30.III.1957.

Myzocytium proliferum Schenk

Thallus unbranched, composed of 6 zoosporangia. Zoosporangia ellipsoidal, $11-14 \mu$ wide, separated by two-layered refractive walls up to $2-4 \mu$ thick. In vegetative cell of *Spirogyra* sp. (Fig. 4, 5).

Habitat of *Spirogyra* sp.: Łagiewniki near Łódź, 17.VI.1958.

Thallus composed of 10 spherical zoosporangia. Zoosporangia $14-16 \mu$ in diam. Zoospores $3-5 \mu$ in diam. Vesicle 8μ in diam. In vegetative

cell of *Spirogyra grevilleana* (Hass.) Kütz.

Habitat of *S. grevilleana*: the peat-bog at Marysin III in Łódź, 11.VI.1962.

Lagenidium entophytum (Braun) Rabenhorst

Sporangia with a single cylindrical tube, $10-100 \times 2-3 \mu$. Zoospores $4-6 \times 3-5 \mu$, entering into the vesicle (Fig. 6). In zygotes of *Spirogyra silesiaca* Kadl.

Habitat of *S. silesiaca*: Gołysz (Cieszyn distr.) Pond Nowy Mały, 5.VII.1965.

Lagenidium rabenhorstii Zopf

Thallus branched, intramatrically composed of a small number of cylindrical cells, $4-6 \mu$ in diam. Some thalli transformed into sporangia. Discharge tube $7-10 \times 1-1.5 \mu$ (Fig. 7). In vegetative cell of *Spirogyra decimina* (Mueller) Kütz.

Habitat of *S. decimina*: a pond at Marysin III in Łódź, 9.VI.1963.

Aphanomyces phycophilus De Bary

Mycelium $8-10 \mu$ wide. Sporangia filiform. Oogonium 53μ in diam. Oospore 34μ in diam. Sex organs set intramatrically and not extramatrically as described by Cejp (1959). Oospore surrounded by undulated membrane (Fig. 8). In vegetative cells of *Spirogyra nitida* (Dillwyn) Link.

Habitat of *S. nitida*: Marysin III in Łódź, 9.VII.1965.

Pythium gracile Schenk

Mycelium 5μ in diam., wall developed, oospores 25μ in diam.; wall smooth, brown. In vegetative cells of *Spirogyra majuscula* Kütz. (Fig. 9).

Habitat of *S. majuscula*: a pond formed by the river Jasień in Łódź, 30.III.1957.

The author wishes to express her warmest thanks to Professor Karel Cejp for confirmation of the species determination.

LITERATURE

- Cejp K., 1959, *Oomycetes* (in Flora ČSR I, B, 2). Praha.
Sparrow F. K., 1960, *Aquatic Phycomycetes*. Michigan.

Rzadkie lub nowe dla Polski pasożyty glonów z rodzaju *Spirogyra* Link

Streszczenie

Autorka opisuje 8 gatunków glonowców pasożytujących na przedstawicielach rodzaju *Spirogyra* znalezionych w Łodzi, w Gołyszu i w Łagiewnikach.

Plate I

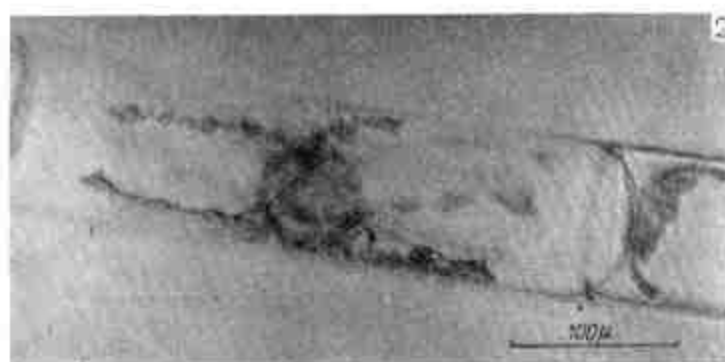
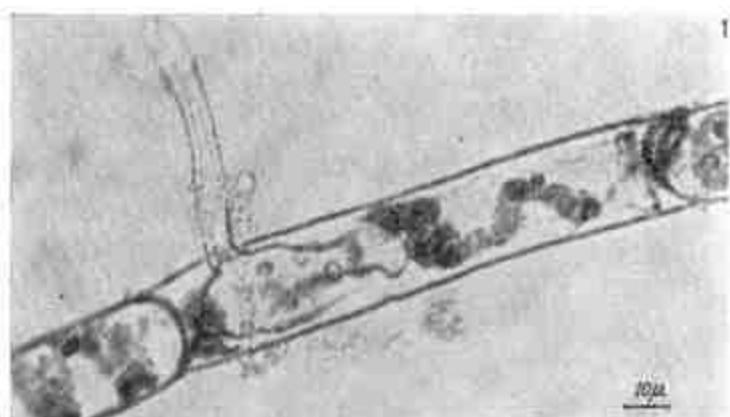
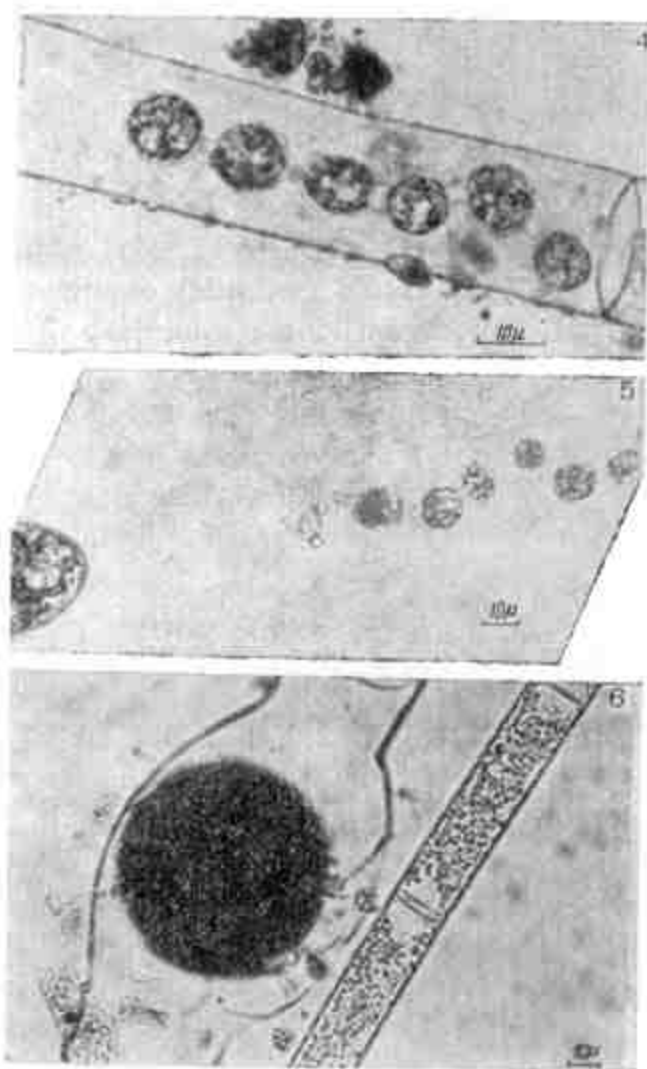


Fig. 1. *Olpidium entophyllum*. Sporangium and zoospores in the vegetative cell of *Spirogyra inflata*.

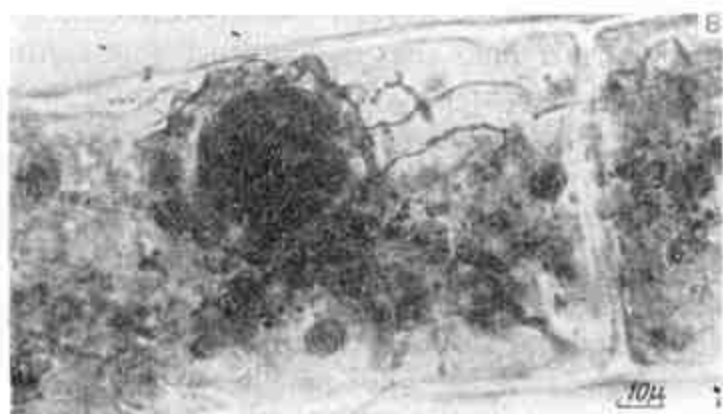
Fig. 2. *Olpidiopsis schenkiana*. Resting spore and companion cell in the vegetative cell of *Spirogyra majuscula*.

Fig. 3. *Entophlyctis bulligera* (Zopf) Fischer. Young organisms developing from zoospores in the vegetative moribund cell in *Spirogyra majuscula*.



- Fig. 4. *Myzocyttium proliferum*. Sporangia in the vegetative cell of *Spirogyra* sp.
 Fig. 5. *Myzocyttium proliferum*. Sporangia and zoospores in the vegetative cell of *Spirogyra grevilleana*.
 Fig. 6. *Lagenidium entophyllum*. Sporangia with a vesicle with zoospores on the zoospore of *Spirogyra silesiaca*.

Plate III



- Fig. 7. *Lagenidium rabenhorstii*. Thallus in the vegetative cell of *Spirogyra decimina*.
- Fig. 8. *Aphanomyces phycophilus*. Intramatrical oogonium in the vegetative cell of *Spirogyra nitida*.
- Fig. 9. *Pythium gracile*. Mycelium and sex organs in the vegetative cell of *Spirogyra majuscula*.