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Dwa interesujące gatunki z rodzaju *Oedogonium* występujące w Zbiorniku Goczalkowickim — Two interesting species of *Oedogonium* found in the Goczalkowice Reservoir

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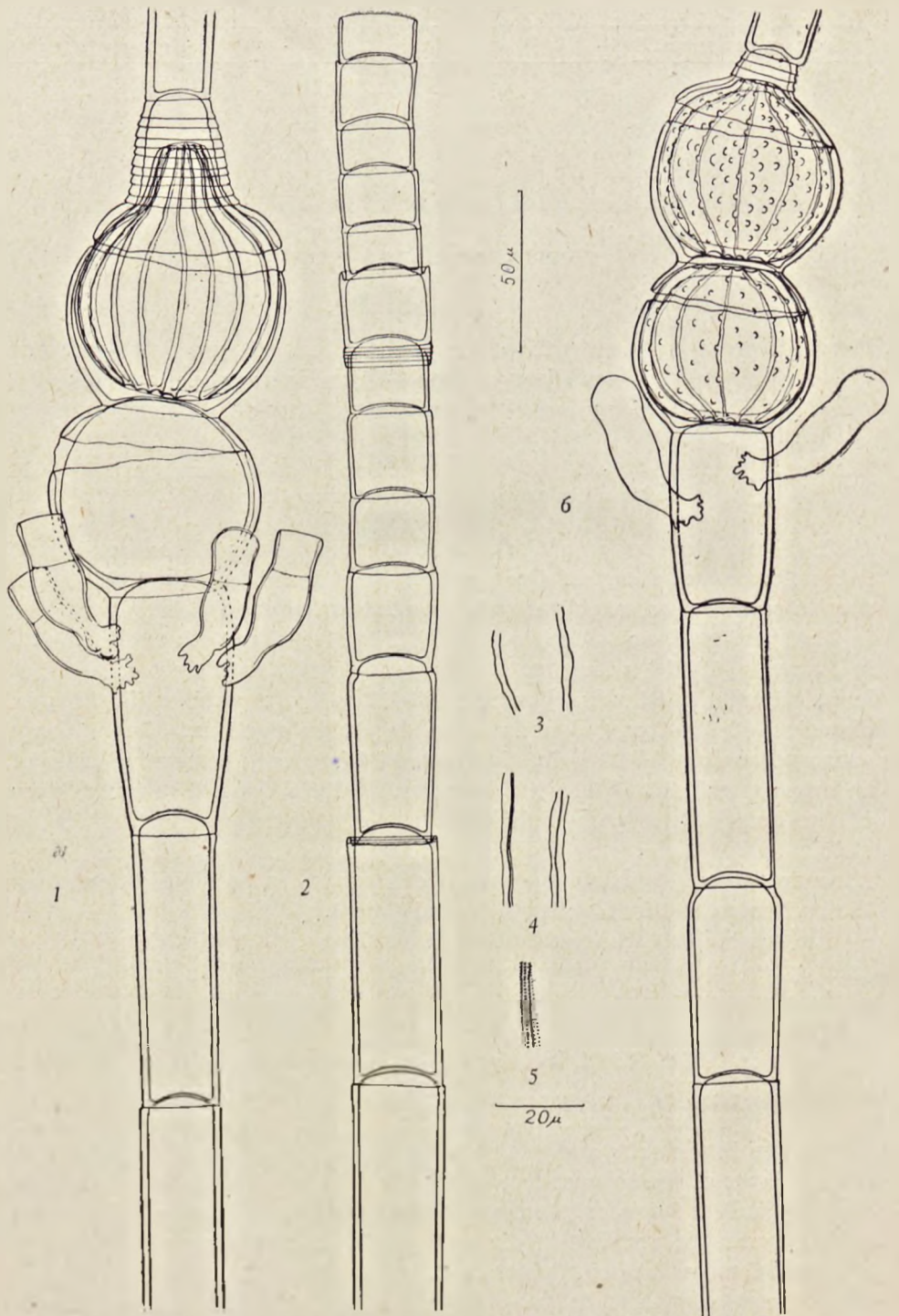
In the marginal region of the Goczalkowice Reservoir (Katowice district) two noteworthy species of *Oedogonium* were found in July 1961. These species appeared as epiphytes on the surface of aquatic macrophytes.

Oedogonium Croasdaleae J a o (1934) (Figs. 1-5). Vegetative cells 27-41 μ in diameter, 83-138 μ long; suffultory cells 40-49 μ in diameter, 90-111 μ long; oogonia 67-80 μ in diameter, 65-112 μ long; oospores 57-72 μ in diameter, 62-99 μ long; dwarf males 14-17 μ in diameter, 53-66 μ long; androsporangium 24-28 μ in diameter, 20-27 μ long; vegetative cells of androsporangial fil. 27-30 μ in diameter, 47-126 μ long. The inner layer of the oospore was very delicately granulated, the granulations being visible only under an immersion objective. The specimens were idioandrosporous (idioandrosporous specimens were previously found by the author in 1960 in Wuchang, Central China).

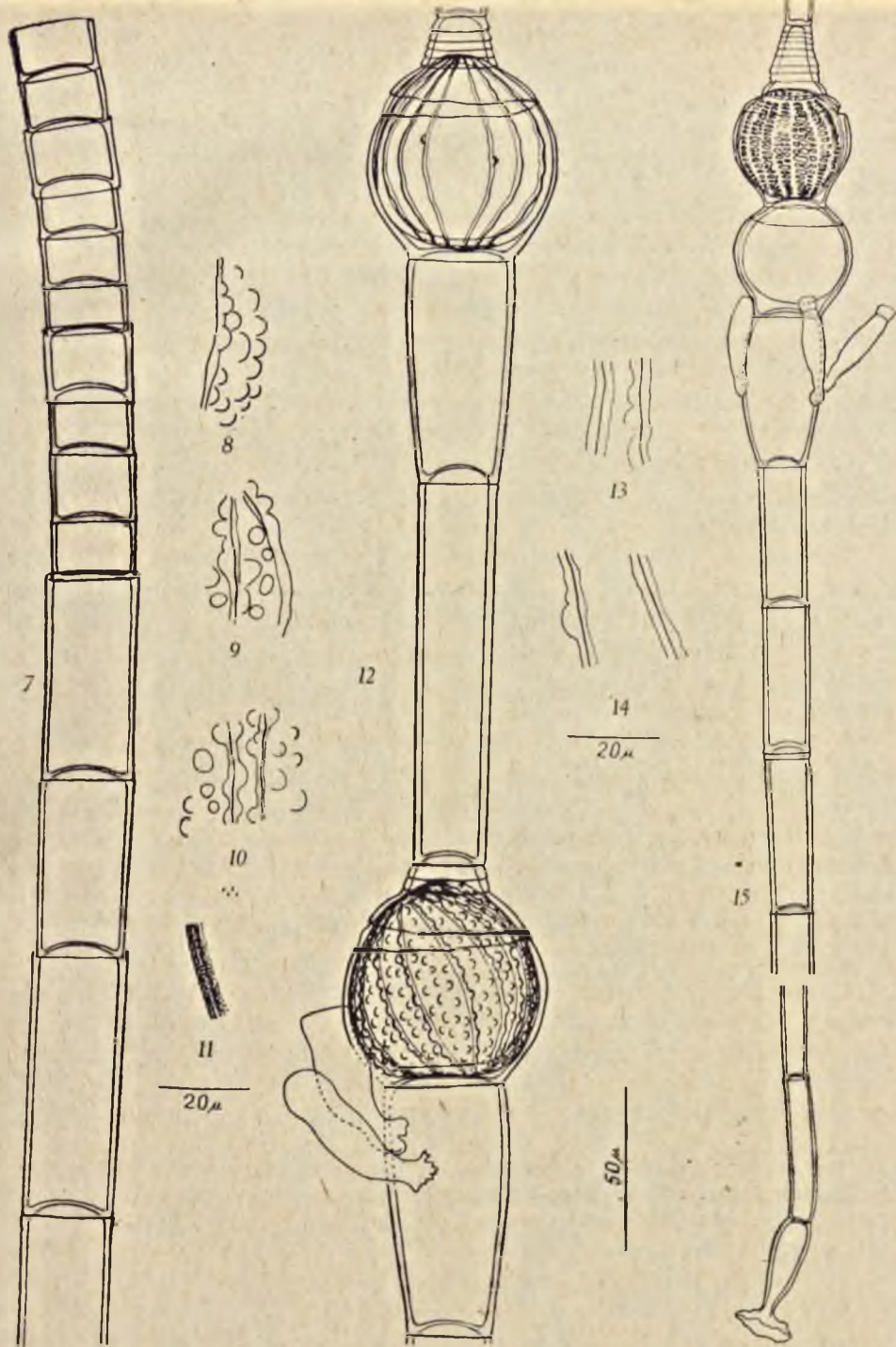
It appeared on the stems and leaves of *Glyceria aquatica* (L.) W a h l b and *Typha* sp. which were occupying the upper, rather shallow parts of the reservoir (near the village Wisła Mała).

The species was hitherto only known from North America (J a o 1934, Prescott 1951, Tiffany and Britton 1952) and Central China (unpublished). This species is new for Poland and Europe.

Some specimens occurring in the same material showed slight differences in the sculpture of the oospore and in the size of oogonia. The median layer of the oospore was thick and with longitudinal ribs; the ribs and the surface between them were, however, covered by almost semi-circular verrucae varying in diameter and number. Very rarely it was observed that on the same plant most oospore had many verrucae which covered not only the ribs but also the surface between them while one oospore had ribs with only a few verrucae (Fig. 12-14). On account of the differences of the morphological features these specimens were classified as a new form.



Figs. 1-6. 1-5. *Oedogonium Croasdaleae* Jao: 1. part of the filament with oogonia; 2. part of the androsporangial filament with androsporangia; 3-4. parts of the ribs covering the median layer of the oospore; 5. part of the inner layer of the oospore; 6. *Oedogonium Croasdaleae* Jao forma *Goczalkowiczensis* fo. nova, part of the filament with oogonia.



Figs. 7-15. 7-14. *Oedogonium Croasdaleae* Jao forma *Goczalkowicensis* fo. nova: 7. part of the androsporangial filament with androsporangia; 8-10. part of the ribs covering the median layer of the oospore; 11. part of the inner layer of the oospore; 12. specimen with two kinds of oospores; 13-14. part of the ribs covering the median layer of the upper oospore from fig. 12; 15. *Oedogonium Jaoui* Mroz., part of the filament with oogonia

Oedogonium Croasdaleae Jao forma *Goczalkowiczensis* fo. nova (Figs. 6-14).

Diagnosis: Oogoniis oosporisque paululum minoribus quam in forma speciei typica; oosporis membrana triplici: episporio laevi, tenui, haud colorato; mesosporio crasso, longitudinaliter costato, costis anastomosantibus, irregulariter undulato, tuberculis subhemisphaeroideis, dimensionibus et numero variabilibus, in costis et inter costae positis praedito; endosporio tenui, haud colorato, tenuiter granulato. Cell. veget. plant. fem. 24-31 μ diam., 83-131 μ long; oogonia 60-67 μ diam. 56-84 μ long; oosporae 42-63 μ diam., 55-70 μ long; cell. suffultoriae 33-43 μ diam., 60-126 μ long; nannandres 14-17 μ diam., 53-66 μ long; androsporangia 24-28 μ diam., 20-27 μ long; cell. veget. plant. androsp. 27-30 μ diam., 47-126 μ long.

The oogonia and oospores are usually smaller than in the species; the spore membrane has three layers: an outer layer smooth and thin, a median layer thick with anastomosing, irregularly undulated, longitudinal ribs; the ribs and the surface between them are covered by almost semi-circular verrucae, varying in diameter and number; the inner layer is very delicately granulated.

Oedogonium Jaoii Mrozińska (1960) (Fig. 15). Vegetative cells 9-17 μ in diameter, 47-58 μ long; suffultory cells 21-26 μ in diameter, 47-61 μ long; oogonia 32-36 μ in diameter, 35-55 μ long; oospores 29-35 μ in diameter, 32-36 μ long; dwarf male stipe 7-9 μ in diameter, 28-34 μ long; antheridium 5-6 μ in diameter, 4-7 μ long. The oogonia of this species open by a small, not easily found porus. It seems that later they split by a superior division as mentioned in the first description (Mrozińska 1960).

It was attached to the surface of *Glyceria fluitans* (L.) R. Br. in the upper parts of the drain. The pH of the water varied from 5,8 to 6,5. The same pH was noticed in the locality where this species was first found and described.

This is the second stand of this species in Poland and Europe.

The author would like to express her gratitude to Docent Jadwiga Siemińska for her correction and valuable advice. I am also deeply grateful to Dr. Tadeusz Tacik for the latin diagnose of the new type.

STRESZCZENIE

W przybrzeżnych partiach Zbiornika Goczalkowickiego (woj. Katowice), leżących niedaleko miejscowości Wisła Mała i Zarzecze, znaleziono w lipcu 1961 roku dwa interesujące gatunki z rodzaju *Oedogonium*.

Oedogonium Croasdaleae Jao znane było dotychczas z kilku stanowisk w Ameryce Północnej (Jao 1934, Prescott 1951, Tiffany i Britton 1952) a następnie (znalezione przez autorkę w 1960 roku) w Środkowych Chinach.

W tym samym materiale znaleziono okazy, które różniły się od *Oe. Croasdaleae* tym, że podłużne żeberka, występujące na środkowej błonie oospory, miały prawie półkuliste wyrostki. Wyrostki te występowały na ogół również pomiędzy żeberkami. Ze względu na to i na mniejsze wymiary oogoniów i oospor wyodrębniło je jako *Oe. Croasdaleae* Jao fo. *Goczatkowicensis* fo. nova.

Drugim interesującym gatunkiem, występującym na tym terenie, było *Oedogonium Jaoii* Mroz. Gatunek ten występował na powierzchni *Glyceria fluitans* (L.) R. Br. w górnej części kanału (nieдалeko miejscowości Zarzecze). Jest to drugie stanowisko tego gatunku na terenie Polski.

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