

KRYSTYNA KYSELOWA

Kilka interesujących gatunków glonów ze stawów — Some interesting species of algae from ponds

Mémoire présenté le 6 avril 1964 dans la séance de la Commission Biologique de l'Académie Polonaise des Sciences, Cracovie

In the course of researches on plankton from carp-ponds situated in the basin of the Upper Vistula (Wisła) four rarely occurring species of algae were found. The material was examined after treatment with 2% formalin.

Nephrochlamys Willeana (Printz) Korschikov 1953 (fig. 1). Cells 3.5 μ long, about 2 μ wide, colonies of four cells about 25 μ in diameter. Size of colony larger than given in Korschikov's diagnosis and than was described from Hungary (Hortobágyi 1962; he considered a colony as a cell, and cells as autospores).

The species occurred in small quantities in nanoplankton samples collected from the ponds „Chyliński Wielki II”, „Baginiec III”, and „Bażyniec Dolny” at the Experimental Farm of the Polish Academy of Sciences at Gołysz (district Cieszyn), from the pond „Landecki Wielki” at the farm Landek (district Bielsko), and from the pond „Maciek Wielki” at the farm Pszczyna (district Pszczyna) on 10th August 1962.

Not hitherto reported from Poland.

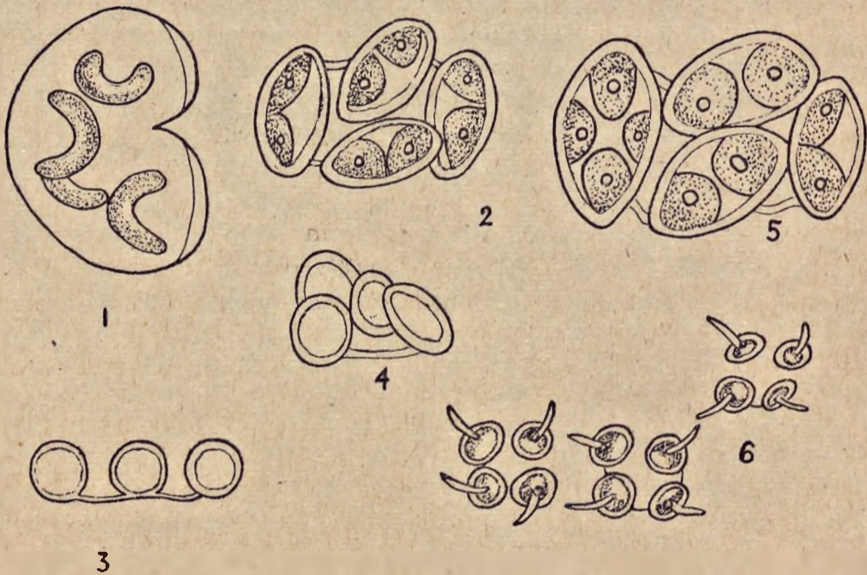
Tetrachlorella alternans (G. M. Smith) Korschikov 1953 (figs. 2—5). Cells 9.9 μ long, 6.3 μ wide, colonies always of four cells about 23 μ in diameter. The inner cells of the coenobe arranged always more obliquely in relation to each other than was shown in Korschikov's figure.

The cells are connected with a membrane, this being distinctly visible in a side-view of the colony (figs. 3—4). The presence of a gelatinous sheath was not observed. The remaining characteristics corresponded to the species diagnosis.

Some cells of a coenobe with divided chloroplasts were observed before the division of the cell as was observed by Heynig (1962). Single colonies were found in nanoplankton taken from the carp-pond „Książek Środkowy” at the farm of the Polish Academy of Sciences at Landek (district Bielsko) on 13th June 1963.

This species was also found by Gazdowa (1964) in other ponds in South Poland.

Hofmania regularis Korschikov 1953 (?) (fig. 6). Cells about 2.5μ in diameter with hyaline remains about 3.3μ long of the old mother-cell wall. Only one colony composed of three four-celled coenobes was found, a gelatinous sheath probably connecting the coenobes was not seen. Cells



Figs. 1—6: 1. *Nephrochlamys Willeana*; 2—5. *Tetrachlorella alternans*: 2. colony, 3. and 4. side-view of a colony, 5. division of chromatophores preceding the divisions of cells; 6. *Hofmania regularis*, colony composed of 3 four-celled coenobes.

did not contact directly and between some of them thin connectives, mentioned by Korschikov, were seen. In some cells a pyrenoid in a parietally placed chromatophore was visible without staining.

The diameter of cells was smaller than that given by Korschikov and similar to specimens found in Sweden by Willén (1963) and identified by him as *Hofmania* c.f. *regularis* Korsch. As it was impossible to get a side-view of the cells it was difficult to say whether they were ellipsoid like Korschikov's or nearly spherical like those described by Willén.

This species appeared in nannoplankton collected from the pond „Bonar Mały” at the carp farm Osiek (district Oświęcim) on 10th August 1962.

Not hitherto reported from Poland.

Dichotomococcus curvatus Korschikov 1939 (*D. elongatus* Fott 1948). At first this species was included into *Chlorococcales* by Korschikov and later into *Xanthophyceae* by Fott, as no starch could be found in it. It was noticed fairly numerously in the pond „Bażyniec Dolny”, in small numbers in the pond „Okragły Dolny” at the farm of the Polish Academy of Sciences at Gołysz (district Cieszyn) and in the pond „Pilawa” at the farm at Przeręb of the Institute of Zootechnics at Zator (district Oświęcim), and singly in the pond „Chyliński Wielki” at the farm at Gołysz.

Besides being mentioned in a general way by Fott and Komárek (1960) this species is also noted by Krzeczowska-Wołoszyn (1964) from the farm at Gołysz.

I am very indebted to my friend Jadwiga Siemińska for her interest and help in preparing this note.

STRESZCZENIE

W nannoplanktonie kilku stawów położonych w dorzeczu górnej Wisły w latach 1962 i 1963 napotkano cztery rzadko spotykane gatunki glonów.

Nephrochlamys Willeana (Printz) Korschikov (ryc. 1). Występował w formie kolonii o nieco większych wymiarach niż podaje Korschikov (1953) i Hortobágyi (1962). Gatunek z Polski nie podawany.

Tetrachlorella alternans (G. M. Smith) Korschikov 1953 (ryc. 2—5). Tworzył 4-komórkowe cenobia, o bardziej skośnym ułożeniu wewnętrznych komórek niż podaje Korschikov. Między komórkami występowało połączenie błoną. W niektórych komórkach stwierdzono, zgodnie z obserwacją Heyniga (1962) dzielenie się chloroplastów, jako początek stadium podziałowego komórki. Gatunek był podawany z Polski przez Gazdową (1964).

Hofmania regularis Korschikov 1953 (ryc. 6). Spotkano kolonię utworzoną z 3 czterekomórkowych cenobii. Ponieważ nie udało się uzyskać bocznego ustawienia, trudno było ustalić kształt komórek. Wymiary ich odpowiadały raczej podawanym przez Willéna (1963). Komórki posiadały resztki dawnej błony macierzystej oraz cienkie, wzajemne połączenia. Gatunek z Polski nie podawany.

Dichotomococcus curvatus Korschikov (*D. elongatus* Fott 1948). Gatunek zaliczany przez Korschikova (1953) do *Chlorococcales*, a przez Fotta (1948) do *Xanthophyceae*. Gatunek ten napotymano niejednokrotnie w planktonie; podawała go również Krzeczowska-Wołoszyn (1964).

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Adres autorki — Author's address

mgr K. Kyselowa

Zakład Biologii Wód, Polska Akademia Nauk, Kraków, ul. Sławkowska 17.