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Nowe stanowisko *Pinnularia Debesi* Hust. — New Locality of *Pinnularia Debesi* Hust.

Mémoire présenté le 8 juin 1959 dans la séance de la Commission Biologique de l'Académie Polonaise des Sciences, Cracovie

In several carp ponds in the Fishery Experimental Farm of the Polish Academy of Sciences in Gołysz (district Cieszyn) a rarely occurring alga *Pinnularia Debesi* Hust. has been found.

This interesting diatom, one of the few species forming colonies within the genus *Pinnularia* was described by Hustedt (1926) from the pond Wedel in Holstein. Hustedt (1930) gives, moreover, that Krasske found this species in the outflow of the pond „Gr. Kasimirteich” by Königswartha. Santibanez (1939) found it in Urugwaj, and Zabelina (1951) mentions the river Kama as its only locality in the Soviet Union. This species is regarded by Cleve-Euler (1955) as a synonym of *P. macilenta* (E.) Cleve. She gives with it two localities on the Scandinavian Peninsula for *P. macilenta* (E.) Cleve a *genuina* (A. Cl.) Cleve-Euler found in the form of the type „f. *Debesi*” colonies.

In Gołysz, this species was met in the plankton of the ponds of the pond group „Wyszni” and in the pond „Lipowy” in Summer 1956/57. These ponds are shallow (averagely 1 m deep) with muddy bottoms partly grown over with higher vegetation. Water of these ponds is always let out for Winter.

Comparatively, colonies were most frequently observed in the pond Wyszni I in samples collected in May 29 and June 14, and 29 in the year 1956. This species was looked for in the above mentioned ponds in the year 1958, without any positive result, however. Looking for it in the upper mud layer of the bottom — as it is doubtlessly a benthic species — was also unsuccessful. It came into the plankton most probably carried by the water movement caused by the wind respectively by feeding carps.

Colonies were formed of 2—8 cells, 111—152 μ long. Valves were 19,4—27,7 μ wide. Costae a little radial or parallel, at the valve poles a little convergent, 7—8 in 10 μ . The axial area occupies 1/4 of the valve width, and is a little enlarged in the middle part. (Fig. 1, 5). These dimensions are, as a rule, in agreement with those given by Hustedt (length 110—140 μ , width about 20 μ , 7—8 costae in 10 μ) and Cleve-Euler (for *P. macilenta* a *genuina* length 110—150 μ , width 17—20 μ , 8—9 costae in 10 μ).

In the colony, cells are aranged oblique to one another as it is drawn by Hustedt but in a more compact way. Small notched ledges comming out of the velve edge and joining the neighbouring cells were distinctly visible (Fig. 2-4, 6, 7). Their quantity was 8 in 10 μ .

STRESZCZENIE

Rzadki gatunek okrzemki *Pinnularia Debesi* Hust. znaleziony został w próbkach planktonu kilku stawów Gospodarstwa Doświadczalnego PAN w Gołyszu (powiat Cieszyn).

Kolonie utworzone były z 2—8 komórek ustawionych ukośnie względem siebie. Ząbkowane listewki wystające z brzegów okryw i łączące sąsiadujące ze sobą komórki były wyraźnie widoczne. Wymiary okryw: długość 111—152 μ , szerokość 19,4—27,7 μ ; żeberka promieniste lub równoległe, przy końcach okryw lekko konvergentne, 7—8 w 10 μ . Pole podłużne zajmowało 1/4 szerokości okrywy.

References

- Cleve-Euler A., 1955. Die Diatomeen von Schweden und Finnland. Teil IV. Stockholm, Almqvist & Wiksell's Boktryckeri AB.
- Hustedt F., 1926. Untersuchungen über den Bau der Diatomeen, II—III. Ber. d. deutsch. bot. Ges. 44. 394—402.
- Hustedt F., 1930. Bacillariophyta (Diatomeae). A. Pascher. Die Süßwasser-Flora Mitteleuropas. H. 10.
- Santibanez I., 1939. Contribution al conocimiento de las diatomeas uruguayas. Revista Sudamer. de Bot. 6. 1—2, 6—9.
- Zabelina M. M., 1951. Podporiadok Diraphineae. Opredelitel' presnovodnykh vodoroslej SSSR. 4. Diatomovye vodorosli. Moskva, „Sovetskaja Nauka”.

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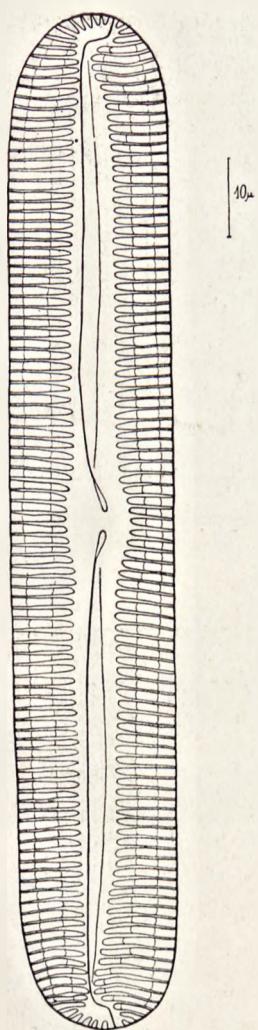


Fig. 1

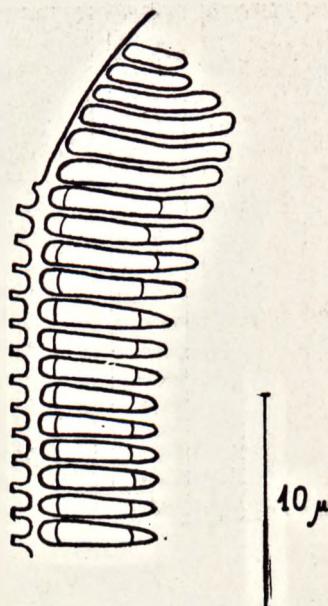


Fig. 2

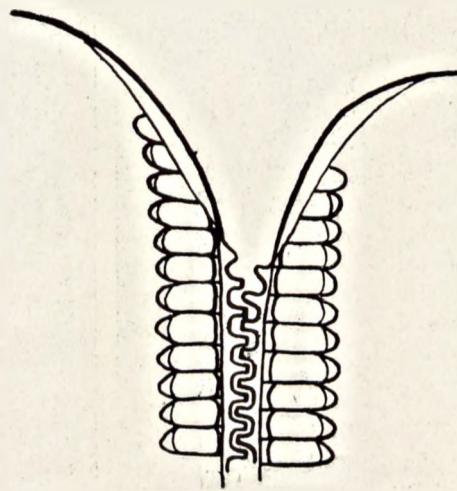


Fig. 3

Fig. 1—3. *Pinnularia Debesi*: Fig. 1. valva; Fig. 2. serrated list seen from the side of the valva; Fig. 3. serrated lists seen from the side of the pleurae.

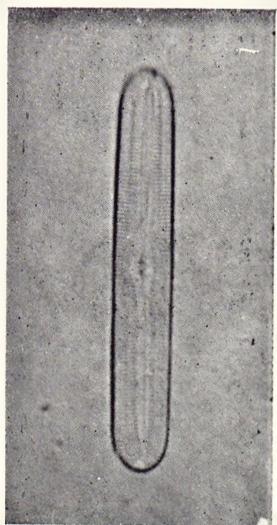


Fig. 4

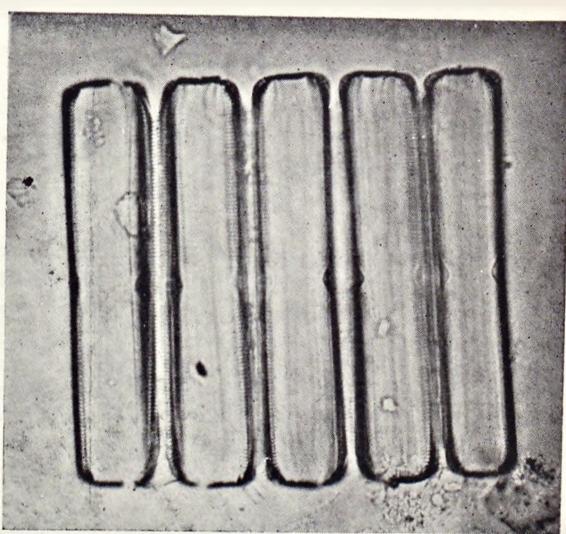
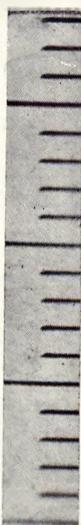


Fig. 5

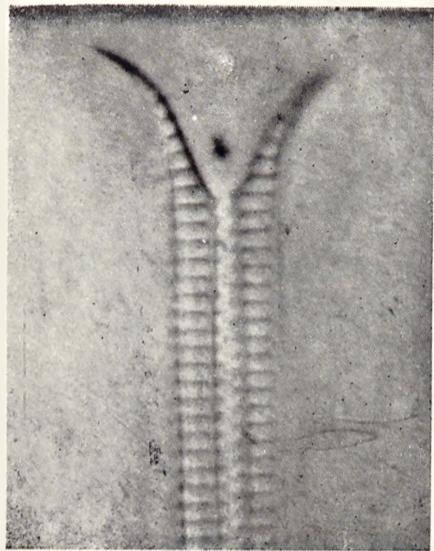


Fig. 6

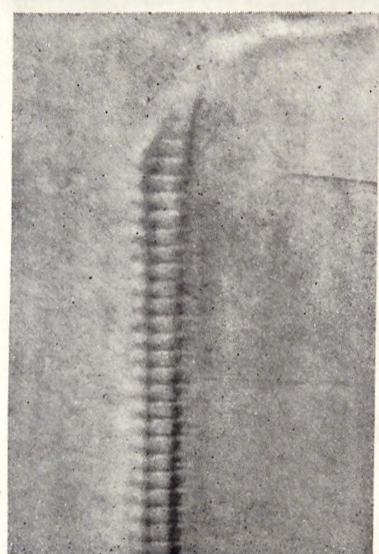


Fig. 7

Fig. 4—7. *Pinnularia Debesi*: Fig. 4. valva; Fig. 5. colony; Fig. 6, 7. serrated lists seen from the side of the pleurae.