

Campylodiscus, Ehrenb., Men.

As constituted by Ehrenberg and Meneghini, this genus embraced rotundo-elliptical forms with subradiate costules and canaliculi. By a greater development at the periphery than at the centre the frustule assumes a slightly tortuous aspect, and as this continues, the general aspect becomes more or less deeply curved, so as finally to resemble a saddle. The definition of the genus has been given by Pritchard¹ in the following words:—"Valves equidistant, frustules solitary, disciform; disc tortuous or saddle-shaped, rotundato-elliptic, costate, costæ mostly radiate."

The tortuous form of the frustules renders it difficult to obtain correct figures of them, particularly from their zonal aspects.

In this genus, as in *Surirella*, the valves are surrounded by elegant submarginal wings, which become elevated on parting from the zone or girdle, a circumstance which has caused difficulty in the determination of species.

Campylodiscus japonicus, n. sp. (Plate XI. fig. 1.)

Forma subrotunda, grandis, costularum vel potius canaliculorum brevium circulo numeroso (fere 80) marginali cincta; costulæ vel canaliculi a lineis spinulosis disseptæ, quæ dein evanescunt; area hyalina centralis subrotunda. In mari Japonico.

This Diatom possesses the form of a large disc with a number of short radial costules or canaliculi. These are separated by lines of short "thorns," which occur on the connecting zone, and run centripetally from the extreme margin. There is also present a hyaline central subrotund area, which approximately coincides in shape with that of the entire frustule. The specimen was collected in the Sea of Japan.

Campylodiscus zebuanus, n. sp. (Plate XI. fig. 10.)

Forma mediocris subrotunda, costis ab area lineari axiali hinc inde radiantibus, medio angulariter curvatis. Ad Zebu, in mari Philippinarum.

This moderately large frustule was collected in the neighbourhood of Zebu in the Philippine Sea. It possesses a rounded outline and a smooth narrow almost linear central area, which runs along its axis. From the margin of this area radial costules run across the surface of the valve, and are folded along a line almost concentric with the edge. The two extremities of the central area terminate at two points, which may be called the poles of the frustule, and they seem to indicate two centres of development for the valve, as structures which appear to be rudimentary costules are perceptible in these regions. It is worthy of remark that when the developmental significance of these two points is recognised it is easy to understand how the valve may become more and more winding and ephippiform.

¹ *Op. cit.*, p. 798.