

The small but distinct projecting processes which are sometimes present in the centre of the valves have also been regarded as having but a varietal significance.

The specific name which has been adopted, will serve to remind the observer of the curious form of the setæ or processes.

Chætoceros, sp. (?) nov.



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The annexed woodcut represents a *Chætoceran* valve with long denticulate awns, but hitherto insufficient material has been observed to enable a complete account to be given of its specific characters. It must, therefore, be indicated as a doubtful species. It was obtained in a surface collection made to the south of Heard Island.

Chætoceros incurvum, Bail., var. *umbonatum*, nov.
(Plate XXIX. figs. 10 and 16.)

An examination of the contents of the alimentary tube of two Echini dredged in the North Atlantic at Station 47, from a depth of 1340 fathoms, revealed the presence of numerous Diatoms, which were no doubt serving as food to the animals in question. One of the most frequent of these was the very small *Chætoceros* shown in the present figures. Its oval valves are provided with short recurved filaments, and the frustules are never found in series. Hence the entire genus *Chætoceros* may be divided into two sections, namely—(a.) *Chætocerotidæ gregariæ*, comprising all those forms that occur in chains, and (b.) *Chætocerotidæ solitariæ*, embracing all free species—as, e.g., *Chætoceros radiculum*, and the form now before us.

The chief point of distinction between this form and *Chætoceros incurvum*, Bail.,¹ consists in the notable swelling at the centre of the valve which is to be found in the former. This, however, can hardly be regarded as a difference of specific importance.

In the genus *Chætoceros*, I include three genera established by Ehrenberg,² namely—*Di-cladia*, *Goniothecium*, and *Syndendrium*. These have from the first presented great difficulties, and, in the words of Brightwell,³ “much must yet be brought to light before a satisfactory classification of this group can be effected.” The uncertainty in connection with them is owing to the fact that they have hitherto only been observed in a fossil condition in deposits, so that it has been found impossible to understand their form when in a state of actual vegetation sufficiently well to enable the observer to ascribe to them their proper place in a system of classification.

¹ *Micr. Journ.*, vol. iv. pl. vii. figs. 9–11.

² Ehrenberg, *Mikrogeologie*.

³ *Quart. Journ. Micr. Sci.*, vol. iv. p. 105–109, pl. vii.