prora, while the general characters of the shell prevent it from being confounded with the Synedra.1

The Nitzschiæ are abundantly represented, both in freshwater and in marine collections; but in the latter case they especially belong to the littoral flora, a circumstance which sufficiently explains the fact that observers have in recent times failed to meet with so many new species of this genus as in the case of many others which do not flourish so abundantly in the neighbourhood of the sea-shore. Among the numerous soundings made by the Challenger in different localities many species of the genus were recognised, but of these only the following are worthy of special attention:—

Nitzschia plana, W. Sm., var. zebuana, nov. (Plate XIII. fig. 10.)

This specimen greatly resembles the Nitzschia plana of Smith when its outline is considered, although its extremities can hardly be called acute. Its valve is obscurely striated, while the keel, instead of bearing a single band of larger granules, is marked at intervals by small irregularly disposed but very prominent lines. It is also to be borne in mind that the species of Smith is a brackish-water form, while the present frustule is marine, having been collected in the canal of Zebu among the Philippine Islands. Notwithstanding these differences the latter must be viewed as only a variety of the former, especially when the great resemblance of the two forms and the identity of the interrupted striation of the two valves is kept clearly in view.

Nitzschia obesa, n. sp. (Plate XIII. fig. 11.)

Duplo longior quam latior; medio angulariter constricta; apicibus obtusis; striis dense decussatis; carina lata distinctioribus lineolis inordinate signata. In mari Philippinarum prope Zebu.

This form, which is also from Zebu, is remarkable in being only twice as long as it is broad. It is angularly constricted in the middle, its extremities are obtuse, and the striæ are densely decussate. The valve is flanked by a large keel, which is traversed by prominent lines of irregular distribution and direction.

Nitzschia obesa, n. sp., var. nov. (Plate XIII. fig. 13.)

We have here represented a frustule from the port of Tahiti, which is somewhat less obese than that just described, and which is provided with somewhat cuneate extremities. Its striation, however, is of equal delicacy, and the keel though narrower bears short but equally prominent lines. From such characteristics it can only be looked upon as possessing a varietal importance.

¹ See Pritchard, op. cit., p. 779. ² Synopsis of the British Diatomacese, vol. i. p. 42, pl. xv. p. 114.