

Trochammina inflata is easily recognised by its large inflated segments and by the dark colour of its central chambers. It is one of the few species of Foraminifera that survive removal to brackish water, though the altered life-conditions bring about a corresponding change in the characters of the investment. In specimens living on the sea-bed the sandy walls of the test are compact and firmly cemented; but those from brackish pools, whilst retaining the morphological characters of the type, have thinner walls, and the sand-grains are embedded in a chitinous envelope with scarcely any cementing material. The extreme modification in this direction is exemplified in *Trochammina macrescens*, in which the investment is a flexible membrane, with so little calcareous incrustation that it is scarcely altered by treatment with dilute acids.

Trochammina inflata occurs at intervals all round the British Islands. It frequents comparatively shallow water, and finds its way into estuaries and other brackish areas. It has been collected by M. Berthelin on the north-east shores of the Bay of Biscay, and Mr. Robertson's cabinet contains specimens from the south-east portion of the coast of Spain.

It is found in the Post-tertiary clay of the Fens near Peterborough (Parker), and of the north-east of Ireland (Wright). Dr. Haeusler reports its occurrence in various beds of Jurassic age in the Canton Aargau, Switzerland. Tate and Blake include the species in their list of fossils from the Lias of Yorkshire, but the single figure they give (*loc. cit.*), so far as it is distinctive at all, more nearly resembles *Trochammina squamata* than the present form.

Trochammina nitida, H. B. Brady (Pl. XLI. figs. 5, 6).

Trochammina nitida, Brady, 1881, Quart. Journ. Micr. Sci., vol. xxi., N. S., p. 52.

„ „ Id. 1881, Denkschr. d. k. Akad. Wiss. Wien, vol. xliii. p. 100, No. 25.

Test free, regular, Rotaliform, compressed; consisting of about three convolutions, the outermost of which has about nine segments. Superior face nearly flat; inferior convex, somewhat excavated at the umbilicus; peripheral edge rounded, only slightly depressed at the sutures; aperture a curved slit on the final segment, close to the margin of the previous convolution. Surface smooth, not polished; colour greyish-brown. Diameter, $\frac{1}{20}$ th inch (0.5 mm.).

This is a comparatively rare species, but easily identified by the complanate superior surface of the test, and its even margin, as well as by the number and regularity of the chambers. It may be distinguished from its isomorph of the Lituoline series, *Haplophragmium nanum*, which is found in similar localities, by its more symmetrical contour and larger number of segments, and by the finer texture of its walls.

Trochammina nitida was found in the northernmost area explored on the Austro-