

This generic or sub-generic group includes all the non-septate tubular *Trochammininæ*. In its typical condition the test is spiral; and the various subordinate forms differ from each other chiefly in the manner in which the convolutions are arranged. The tube itself is sometimes of nearly uniform diameter from end to end, but more frequently increases in width more or less with each convolution.

The genus *Ammodiscus* is represented in one form or other in almost every part of the world, and at every depth at which the sea-bottom has been explored, from the estuarine shallows of our own coast down to 3000 fathoms or more; and its geological history extends as far back as the earliest part of the Carboniferous epoch.

Ammodiscus incertus, d'Orbigny, sp. (Pl. XXXVIII. figs. 1-3).

- Operculina incerta*, d'Orbigny, 1839, Foram. Cuba, p. 71, pl. vi. figs. 16, 17.
Orbis infimus, Strickland, 1848, Quart. Journ. Geol. Soc., vol. ii. pl. xxx. fig. a.
Spirillina arenacea, Williamson, 1858, Rec. For. Gt. Br., p. 93, pl. vii. fig. 203.
Trochammina squamata incerta, Jones and Parker, 1860, Quart. Journ. Geol. Soc., vol. xvi. p. 304.
 „ *incerta*, Carpenter, 1862, Introd. Foram., p. 141, pl. xi. fig. 2.
 „ *squamata*, var. *incerta*, Parker and Jones, 1862, Ibid. Appendix, p. 312.
Involutina silicea, Terquem, 1862, Mém. Acad. imp. Metz, 1860-1, p. 450, pl. vi. fig. 11.
 „ *aspera*, Id. 1863, Ibid. 1862-3, p. 221, pl. x. fig. 21.
Cornuspira hoernesii, Karrer, 1866, Sitzungs. d. k. Ak. Wiss. Wien, vol. lii. p. 495, pl. i. fig. 10.
Cornuspira oolithica, Schwager, 1867, In Waagen's Ueber die Zone des Amm. sowerbyi, vol. i. pt. iii. p. 655, pl. xxxiv. fig. 4.
Trochammina incerta, Brady, 1876, Monogr. Carb. and Perm. Foram., p. 71, pl. ii. figs. 10-14.
Ammodiscus miocenicus, Karrer, 1877, Geol. K. F.-J. Wasserleitung, p. 372, pl. xvi. a., fig. 2.
Ammodiscus incertus, Berthelin, 1878, Foram. de Bourgneuf et Pornichet, p. 23, No. 17.
Trochammina incerta, Hauser, 1882, Ann. and Mag. Nat. Hist., ser. 5, vol. x. p. 52, pl. iii. figs. 1-4.

Test spiral, discoidal, thin; peripheral edge rounded; consisting of numerous narrow convolutions on one plane of a non-septate tube of slightly increasing diameter. Aperture usually formed of the open unstricted end of the tube. Texture very finely arenaceous, exterior smooth; colour (of recent specimens) ruddy brown. Diameter, $\frac{1}{100}$ th to $\frac{1}{5}$ th inch (0.25 to 2.8 mm.).

Owing to the very frequent occurrence of *Ammodiscus incertus* in the fossil condition, and to the extent of its geological range, few species of Foraminifera have been described under so many different names. Of these only the more important appear in the above synonymy, and a much longer list might easily be compiled.

In an organism so simple that the essential characters of the test may be summed up in half a dozen words—a smooth arenaceous planospiral tube—the points open to variation are necessarily few; in fact they are almost limited to the size of the disk, the diameter of the tube, the shape of its transverse section, and the number of convolutions; and all these are more or less dependent on one another.