

the Pacific Ocean; but in the southern hemisphere it is found at all latitudes, from the equator to the Antarctic Ice-barrier.

The genus makes its earliest appearance near the beginning of the Tertiary epoch, and from the Eocene period to the present time it is represented in microzoic rocks of almost every geological age.

Clavulina communis, d'Orbigny (Pl. XLVIII. figs. 1-13).

Clavulina communis, d'Orbigny, 1826, Ann. Sci. Nat., vol. vii. p. 268, No. 4.

„ „ Id. 1846, For. Foss. Vien., p. 196, pl. xii. figs. 1, 2.

Verneuilina communis, Jones and Parker, 1860, Quart. Journ. Geol. Soc., vol. xvi. p. 303, No. 82.

Clavulina communis, Fischer, 1870, Actes Soc. Linn. Bordeaux, vol. xxvii. p. 393, No. 33.

Verneuilina communis, Vanden Broeck, 1876, Ann. Soc. Belg. Micr., vol. ii. p. 136, pl. iii. fig. 14.

The earlier segments of *Clavulina communis* are spiral and triquetrous, and form collectively a more or less pointed cone, round in transverse section, not angular as in *Clavulina parisiensis*. In much elongated specimens the triserial portion is broader than the uniserial segments immediately succeeding it, but this is not the case in shells of stouter build. The chambers of the linear series vary in number from two or three to twenty or more, and in the attenuated forms they gradually increase in diameter towards the distal end; the sutures are generally distinct, but only slightly excavated externally. The test is finely arenaceous, often built of calcareous rather than siliceous sand, and tolerably smooth externally. It presents a wide range in point of size, adult recent specimens varying in length from $\frac{1}{30}$ th to $\frac{1}{8}$ th inch (0·84 to 5·0 mm.).

M. Paul Fischer (*loc. cit.*), on the authority of de Folin, records the occurrence of *Clavulina communis* in the Bay of Biscay. The precise locality is not stated, but assuming it to be in the neighbourhood of Bayonne (say about lat. 43° N.), this is the northern limit, not only of the species, but, so far as at present known, of the genus. Beyond this latitude in the North Atlantic, its place appears to be occupied by the allied and in many respects similar type *Bigenerina*. In the Pacific the species has not hitherto been found further north than lat. 36° N. The Challenger collections furnish specimens from four Stations in the North Atlantic:—off the Canaries, off Sombrero and Culebra Islands in the West Indies, and off Bermuda, the depths varying from 390 to 620 fathoms; from three Stations in the South Atlantic, 350 to 2200 fathoms; from four in the Southern Ocean, reaching as far south as the Antarctic Ice-barrier, lat. 65° 42' S., depth 1675 fathoms; from fifteen in the South Pacific, 147 to 1375 fathoms; and from two in the North Pacific, 345 and 2300 fathoms respectively. The area of distribution includes also the Mediterranean and the Adriatic.