

Flex. 230. Corall. 100. *Cuv. Reg. Anim.* iii. 299. *Bosc, Vers,* iii. 89, pl. 28, fig. 5. *Flem. Brit. Anim.* 552. *Johnston* in *Trans. Newc. Soc.* ii. 252. *Dalyell* in *Edin. New Phil. Journ.* xvii. 411; and xxi, 93; and in *Rep. Brit. Assoc.* an. 1834, 600. *Lister* in *Phil. Trans.* an. 1834, 366, pl. 8, fig. 1.—*Tub. calamaris, Pall. Elench.* 81.—*Tub. gigantea, Lamour.* *Soland.* 17, tab. 68, fig. 5.—*Tub. gracilis? Harvey* in *Proc. Zool. Soc.* no. 41, p. 54.—*La Tubulaire chalumeau, Blainv. Actinolog.* 470.

*Hab.* On shells and stones from deep water. Leith shore; Orkney and Shetland Islands, *Professor Jameson.* Scarborough, *Mr Bean.* Coast off Dunstanborough Castle, *Mr R. Embleton.* Cullercoats, Northumberland, *Mr J. Alder.* Berwick Bay.

The tubes are simple or sometimes divided once at the base, where they are twisted and flexuous, fistular, even, continuous or sometimes wrinkled at distant intervals with a few annulations, horn-coloured, from 6 to 12 inches in height, and about a line in diameter. Ellis's comparison of them to "part of an oat-straw, with the joints cut off," is very apt. They are filled with a soft almost fluid reddish-pink pulp in organic connection with the Polypes, which project from the open ends of the tubes, and are not retractile within them. The body, or naked portion, of the polype forms a globular knob of a scarlet colour, produced above into a sort of proboscis encircled with a series of numerous short tentacula of the same colour. Around the base of this body there is another circle of much longer tentacula from 30 to 40 in number; and between their insertion and the body clusters of ovi-form gemmules are produced at certain seasons. The neck of the polype is greatly constricted; and we find that the recent tube is marked with several longitudinal pale lines, placed at equal distances, and which are evidently caused by some structure of the interior pulp, for when empty the tubes exhibit no such appearance. What is their relation to the currents observed by Mr Lister?—As the animal becomes weak when kept in a basin of sea-water, the head drops off, like a flower from its stalk; and if it is immersed, even when most vivacious, in fresh-water, the pulp is expelled from the tubes until these are almost emptied. If this is effected by a contraction of the tube (and the phenomenon is not otherwise easily explained), does not this imply a degree of irritability in the polypidom inconsistent with the theory of its extravascular character?

I can find no characters either in the description or figure of *Tub. gigantea* which warrant its separation as a distinct species. The character of Lamouroux is: "T. tubulis rectis, simplicissimis, ad basim attenuatis, gradatim dilatatis, deinde æquali crassitie, lævibus nitidisque."—Neither do I find in Mr Harvey's description of his