

right angles to the axis. They are arranged in six rows around the stem, the members of each row being almost in a plane, so that when seen from above the pinnules are arranged in six subregular groups radiating from a common centre. The pinnules are arranged in interrupted spirals, the six adjoining ones, making one revolution of the axis, being disposed in two half spirals in opposite directions. The members of one half spiral are placed in ascending series, from left to right, and subequidistant; each succeeding pinnule only slightly above its predecessor. The members of the second half spiral are similarly related to one another, but in this case the ascent is made from right to left, and the series is so placed that its lowest member is slightly above the highest of the first series. The two highest and the two lowest pinnules of each half spiral form adjoining longitudinal rows. Of those pinnules disposed in one vertical plane there are about eleven to 3 cm.

The arrangement of the spines near the apex of a pinnule has been figured by Lacaze Duthiers (45, pl. iv. figs. 23-25). They are there relatively long and bent inwards towards the axis, and usually very far apart. Towards the middle of a pinnule (Pl. XII. fig. 20) the spines are disposed in regular spirals, which probably pass from left to right, but a spiral of the opposite direction is almost equally well marked. There are only three longitudinal rows visible from one aspect of a pinnule, and the spines are longer on one side than on the other. The short spines are triangular with a sharp apex; the others are more or less hooked upwards. Towards the base of a branch, and also on the stem, all the spines become reduced to the short triangular type, with a slender apex standing out horizontally. The polyps of this species have been described under the genus. About four or five are arranged to a centimetre on the pinnules.

*Habitat.*—Mediterranean (Esper, Lacaze Duthiers); Bay of Naples in 54 fathoms (Naples Zool. Stat.); ? Martinique (M.-Edw., Duch.).

*Parantipathes? tetrasticha* (Pourt.).

*Antipathes tetrasticha*, Pourtalès, Bull. Mus. Comp. Zoöl., No. 7, 1868, p. 133; Cat. Mus. Comp. Zoöl., pt. iv., 1871, p. 53; Bull. Mus. Comp. Zoöl., 1880, pl. iii. figs. 1 and 30.

Corallum a simple stem, pinnate, branchlets alternate and double, *i.e.*, two starting from the same point at an acute angle, thus forming four rows, two on each side of the stem. In some specimens only a few of the branchlets are double, in others nearly all. Towards the base one of the branchlets of a pair is often abortive.

Sclerenchyma black, nearly smooth, showing very short blunt spines only under a magnifier. There is no succession of swellings on the branchlets as in *Aphanipathes filix*, &c.

The spines are short, blunt, and somewhat triangular, and not very close-set. Three