

- Amphistegina gibbosa*, Williamson, 1851, Trans. Micr. Soc. Lond., ser. 1, vol. iii. p. 110, pl. xvii. figs. 1, 2.
- „ *lessoni*, Parker, Jones, and Brady, 1865, Ann. and Mag. Nat. Hist., ser. 3, vol. xvi. p. 34, pl. iii. fig. 92.
- „ *semicostata*, Kaufmann, 1867, Geol. Beschreib. des Pilatus, p. 149, pl. viii. fig. 18.
- „ *lessonii*, Moebius, 1880, Foram. von Mauritius, p. 99, pl. x. figs. 10-14; pl. xi. figs. 1-3.
- „ *parisiensis*, Terquem, 1882, Mém. Soc. géol. France, sér. 3, vol. ii. Mem. III. p. 124, pl. xiii. fig. 3, *a. b.*

Thick forms, still more inequilateral, sometimes dome-shaped, fig. 7.

Amphistegina mamillata, d'Orbigny, 1846, For. Foss. Vien., p. 208, pl. xii. figs. 6-8.

„ *rugosa*, Id. Ibid. p. 209, pl. xii. figs. 9-11.

Hemistegina rotula, Kaufmann, 1867, Geol. Beschreib. des Pilatus, p. 150, pl. viii. fig. 19.

It is impossible to separate, even by varietal characters, the various forms of *Amphistegina* represented by the drawings Pl. CXI. figs. 1-7.

The typical aspect of *Amphistegina lessonii* is that represented by d'Orbigny in the plates accompanying the "Tableau Méthodique," and well rendered in fig. 3 of our illustrations. D'Orbigny's Model of the same species (No. 98) portrays a much thicker shell with fewer segments, resembling our fig. 5. The Model, No. 40, named *Amphistegina vulgaris*, is founded upon a more outspread and less regularly constructed specimen, something like our fig. 2, but thicker just at the centre.

Owing to the peculiar form and disposition of the segments, the test of *Amphistegina* is almost necessarily more or less inequilateral. The superior face is nearly always more convex than the inferior, but the degree of asymmetry differs in different individuals, and specimens like fig. 7, in which the superior side is highly convex and the inferior nearly flat, are by no means unfrequent. Such forms constitute the *Amphistegina mamillata* of d'Orbigny, and the *Hemistegina rotula* of Kaufmann.

Wherever *Amphisteginae* are abundant, and at the shallow-water margins of warm seas they sometimes form the principal constituent of the bottom-sand, all these variations of the typical structure are met with, together with every intermediate condition; and in such profusion as to make it impossible to conceive that the differences between the extremes of the series are anything more than individual peculiarities.

Within certain limits as to depth, *Amphistegina lessonii* is generally distributed over the tropical portions of the Atlantic, Indian, and Pacific Oceans. In the Atlantic it reaches northward as far as Bermuda and Teneriffe, and in the Red Sea to the Gulf of Suez; but, with these exceptions, there is no record of its occurrence outside the tropical zone. It is commonest on bottoms of less than 30 fathoms depth, but is found with some frequency down to 300 or 400 fathoms, below which it is rare. The occurrence of specimens in deeper water has been noted at two Stations in the North Atlantic, 1070 and 1750 fathoms respectively; at one in the South Atlantic, south-east of Pernambuco, 675 fathoms; and at one in the South Pacific, off Tahiti, 620 fathoms.