

Pacific. Its occurrence has been noted at seven localities, namely:—Port Stephens and Port Jackson, New South Wales, 2 to 10 fathoms; off Levuka, Fiji, 12 fathoms; off the New Hebrides, 125 fathoms; Torres Strait, 155 fathoms; Humboldt Bay, Papua, 37 fathoms; and Nares Harbour, Admiralty Islands, 17 fathoms.

*Bulimina contraria*, Reuss, sp. (Pl. LIV. fig. 18, *a.b.c.*).

*Rotalina contraria*, Reuss, 1851, Zeitschr. d. deutsch. geol. Gesell., vol. iii. p. 76 pl. v. fig. 37.

*Ataxophragmium simile*, Karrer, 1863, Sitzungsab. d. k. Akad. Wiss. Wien, vol. lvii. p. 126, pl. i. fig. 1.

*Pulvinulina auricula*, Jones and Parker, 1872, Quart. Journ. Geol. Soc., vol. xxviii. p. 126.

*Cassidulina jonesiana*, Brady, 1881, Quart. Journ. Micr. Sci., vol. xxi, N. S., p. 59.

The somewhat anomalous characters of *Bulimina contraria*, and its striking resemblance to certain *Rotalinæ*, have been the cause of the confusion revealed by the above synonymy of the species. The general contour of the test and the arrangement of the segments are precisely those of a depressed Rotalian, and at first sight it may easily be mistaken for *Pulvinulina auricula* or one of its immediate allies; nevertheless the aperture is always characteristic and distinctly Bulimine. Guided by the stout, subdiscoidal or rounded contour of the shell, and the loop-like orifice, I was myself led into an error of another sort, and in a former paper (*loc. cit.*), placed the species amongst the *Cassidulinæ*, overlooking the fact that there was no real alternation of segments. The salient difference between *Bulimina contraria* and the more typical members of the group depends upon the fact that the increase of the spire takes place in a lateral rather than in a vertical direction. *Ataxophragmium simile*, to judge by Dr. Karrer's drawings, differs from the recent examples of the present species in little else than its somewhat more distinct and inflated segments.

*Bulimina contraria* has been obtained at nine Challenger Stations. Of these, one is in the North Atlantic, off Cape de Verde Islands, 1070 fathoms; one in the North Pacific, the *Hyalonema*-ground, south of Japan, 345 fathoms; and the remaining seven are in the neighbourhood of the islands of the South Pacific, the depths ranging from 17 fathoms to 1350 fathoms.

The fossil specimens described by Reuss were from the Septaria-clay (Oligocene) of Hermsdorf, near Berlin; and those of Karrer's memoir from the Miocene of Kostej in the Banat.

*Bulimina convoluta*, Williamson (Pl. CXIII. fig. 6, *a.b.*).

*Bulimina pupoides*, var. *convoluta*, Williamson, 1858, Rec. For. Gt. Br., p. 63, pl. v. figs. 132, 133.

A somewhat obscure Rotaliform species, bearing a certain resemblance to that last described, but of longer oval outline and with a greater amount of lateral compression.