

*Mucronella canalifera*, Busk (Pl. III. fig. 44).*Mucronella canalifera*, Busk, Zool. Chall. Exp., part xxx. p. 159, pl. xxii. fig. 2.

There are several specimens from washings between Fayal and Pico.

The rule seems to be eight oral spines, and the lower edge of the aperture is nearly straight with two minute lateral denticles, giving the aperture the same character as that of *Cellepora albirostris*. I do not see any Mucronellidan character, and peristomial ones have never seemed to me satisfactory for generic divisions. There seems to be a relationship to *Lepralia*.

*Mucronella contorta*, Busk (Pl. I. fig. 24 ; Pl. III. fig. 30).*Mucronella contorta*, Busk, Zool. Chall. Exp., part xxx. p. 155, pl. xx. fig. 9.

In the specimen from Simon's Bay there are small round avicularia replacing many of the pores. In a specimen from Algoa Bay, in my collection, these round avicularia are still more numerous, in some cases there being as many as seven to a single zoecium. There are three distal rosette plates, and there is a round calcareous process on each side of the aperture, projecting into the interior of the zoecium, for the support of the operculum. In my Algoa Bay specimen there are very few of the large avicularia by the side of the aperture, but there is usually a small one on each side nearer to the operculum. The operculum is very characteristic, having a thick band crossing it transversely. The "mucro" of *Mucronella* occurs in very various ways, and I cannot see that the small projection, which we may call a lip in the present case, can be used as a generic character.

It seems that *Mucronella* may with advantage be dropped, and some, as the above, be placed with *Lepralia*, and the rest mostly show affinity with *Smittia*.

*Bracebridgia geometrica*, Reuss.*Bifustra geometrica*, Reuss, Foram. Anth. und Bryozoen des deutschen Septarienthones, Denkschr. Akad. Wiss. Wien, Bd. xxv. p. 189, Taf. vi. fig. 16.*Porella emendata*, Waters, Quart. Journ. Geol. Soc., vol. xxxvii. p. 336, pl. xvii. fig. 69.*Mucronella pyriformis*, Busk, Zool. Chall. Exp., part xxx. p. 155, pl. xx. fig. 5.*Bracebridgia pyriformis*, MacGillivray, Trans. Roy. Soc. Victoria, vol. xxii. p. 8 (sep.), pl. ii. figs. 6, 7; Zool. of Vict., dec. xvi. p. 219, pl. 158, figs. 6-8.

In the Challenger specimens the row of pores round the edge of the zoecium can be seen, entirely corresponding with those figured in the fossil, and in size the Australian fossil and recent are identical, though in the Challenger specimens I did not find any of the small diagonal avicularia. In one case, however, there was an appearance suggesting a broken down one. Also in the recent specimens from Victoria these avicularia are very