

ends projecting from the outer surface being usually broken off; piercing the wall perpendicularly to the longitudinal axis of the Sponge.

*Colour*.—Pale-yellowish.

*Habitat*.—Station 163A, June 3, 1874; off Port Jackson, Australia; depth, 30 to 35 fathoms; rock.

*Amphoriscus elongatus*, n. sp. (Pl. IV. fig. 5; Pl. V. figs. 4a-4e).

This species is represented in the Challenger collection by one specimen in the form of an elongated tube, 50 mm. long., 3.5 mm. broad, growing rather narrower towards the lower end; near its free end the Sponge divides into two tubes, standing close together, and each terminating with a naked osculum. The outer surface is roughened by the cortical spicules, the inner surface is similarly roughened by the apical rays of the gastric quadriradiate spicules. The thickness of the walls does not exceed 0.6 mm. By its subdermal quadriradiate spicules the species can be distinguished from *Amphoriscus glacialis* (*Sycaltis glacialis*, H.), the corresponding spicules in the form just named being triradiate; the subgastric triradiate spicules differentiate this form from *Amphoriscus oviparus*, *urna*, *chrysalis*, &c., the corresponding spicules being represented in these latter species by quadriradiate ones.

The important anatomical peculiarity of *Amphoriscus elongatus*, namely, the tendency of the radial tubes to meet in threes, in fours, or in larger numbers around the same shallow invagination of the gastric cavity, is represented on Pl. IV. fig. 5.

*Skeleton*.—The skeleton consists of gastric quadriradiate, of subgastric triradiate, of subdermal quadriradiate, of dermal triradiate, and of minute dermal acerate spicules, sparsely scattered in the cortex perpendicularly to the outer surface of the Sponge.

*Gastric quadriradiate spicules*.—All rays of the same diameter (0.016-0.02 mm.), either sharply or bluntly pointed; basal ray straight, reaching 0.45 mm. in length, forming with each lateral ray an angle varying from 115° to 122°; lateral rays either straight or slightly curved inwards, usual length 0.25 mm.; apical ray stout, curved, its length not exceeding 0.18 mm.

*Subgastric triradiate spicules*.—Sagittal; rays of the same dimensions and showing the same variations with regard to their angles as those of the corresponding spicules in *Amphoriscus poculum*, the sole distinction concerning the form of the lateral rays, these latter being not angularly curved but undulating. In accordance with the strong development of the subdermal quadriradiate spicules, the subgastric ones are not numerous, and show a tendency to grow smaller and thinner.

*Subdermal quadriradiate spicules*.—Sagittal; all rays sharp-pointed, usually of the same dimensions, their average length being 0.6 mm. and diameter 0.07 mm.; basal ray—occasionally rather shorter than lateral rays—straight; lateral rays slightly curved inwards, each forming with basal ray an angle of about 118°; apical ray straight, either of the length of facial rays or rather longer.