

Following Verrill's example (Trans. Connect. Acad., vol. i. p. 481), I have separated the genus *Calliactis* from *Sagartia*, as in it we find distinct cinclides constantly present in a circle above the base. They are easily made out in a fresh state, and often after treatment with reagents as warts, into which a small evagination protrudes from the gastric space, so that the membrane of the wall becomes much thinned away; an opening, which it is more difficult to find, lies in the middle of the knob. If the knobs do not project sufficiently above the surface, it is merely necessary to remove the uppermost layer of the wall by means of a section parallel to the surface in order to make the cinclides which traverse the thickness of the supporting substance distinctly visible; this method answers very well, if we wish to determine the number of cinclides in preserved specimens of *Calliactis*.

The forms belonging to this genus agree so far in their manner of life that they are only found upon Gasteropod shells, the interior of which is occupied by a *Pagurus*. Their best known representative is *Calliactis (Sagartia) parasitica*, in which my brother and I have made out and described the cinclides; other forms are *Calliactis polypus*, *Calliactis decorata*, and *Calliactis variegata*. All these species are difficult to distinguish in a preserved state, as the colour has usually formed an important point in their definition. The forms of *Calliactis* in the Challenger material appear to me identical with *Calliactis polypus*; none of them belong to *Calliactis parasitica*.

Calliactis polypus.

Priapus polypus, Forskål, Descriptiones animalium, p. 102, tab. xxvii. fig. C, 1775.

Cribrina polypus, Ehrenberg, Corallen. d. roth. Meeres, p. 40, 1834.

Adamsia priapus, Milne-Edwards, Hist. des Corall., tom. i. p. 280, 1857.

Calliactis polypus, Klunzinger, Korall. d. roth. Meeres, i. p. 76, taf. v. fig. 1, 1877.

Wall smooth, with a circle of 24 cinclides; tentacles long and slender, above 600 in number, placed in numerous circles, decreasing in size from within outwards; twelve tentacles in the innermost circle, twelve in the next, twenty-four in the third, and so on.

Habitat.—(a) Station 208. January 17, 1875. Lat. 11° 37' N., long. 123° 32' E. Depth, 18 fathoms. Three specimens on one Gasteropod shell. (b) St. Vincent, Cape Verde Islands. Six specimens on one Gasteropod shell.

Dimensions.—Breadth of pedal disk up to 4 cm.; height up to 3 cm.

The specimens of *Calliactis polypus*, taken at two different places, lay, in the one case, in a group of six individuals on the shell of a *Natica*, and in the other in a group of three on the shell of a *Murex*. They were, however, all contracted into a shallow conical mass, at the point of which the tentacles appeared here and there, as Klunzinger has already described in this Actinia.

The pedal disk is very large, and firmly fastened to the shell by means of a brownish mass. The wall is smooth, and only folded longitudinally above in consequence of contraction; it is tough and opaque except in a small portion adjoining the pedal disk,