

are dilated and shortly setiferous on their inner margins, the last lobe (or palp) elongated, two-jointed, setiferous, and bearing at the apex three or four slender claws; a branchial plate attached to the base of the maxillæ; second pair geniculated, three or four-jointed, the basal joint produced into an angular setiferous lobe, the apical portion biarticulate, slender, bearing numerous marginal setæ, and three or four slender apical claws. Two pairs of feet; first pair elongated, slender, the two basal joints dilated, and bearing a branchial lamina, the apical portion more slender, and having three or four long terminal setæ; in the male this limb is larger, and has three long, equal terminal setæ; second pair of feet rudimentary, two-jointed, and bearing two unequal apical setæ. Post-abdomen composed of two short, marginally-clawed flat laminae.

Though closely related to the Cypridinidæ, the Conchœciadæ are clearly separated from the former group by several well-marked characters. The remarkable organ found between the anterior antennæ, called by Dana "spiculum," by Sars "frontal tentacle," is, perhaps, as regards function, an organ of touch. A structure agreeing with this in general character is figured by Grube as occurring in *Cypridina oblonga*, but no other author appears to have noticed anything similar amongst the Cypridinidæ. In Grube's figure two of these organs are shown, whereas in the Conchœciadæ one only is present, situated in the median line. The apparent duplication of the mandible by the abnormal development of the basal joint of the palp is another very extraordinary family mark. The second pair of feet is very small, so as readily to escape observation, and is indeed left without notice by Dana, Lubbock, and Claus.

The animals belonging to this family appear to be generally of pelagic and natatory habit, though Sars' specimens were obtained by dredging in depths of 200 to 300 fathoms. They abound more especially in the tropical seas, few surface-net gatherings made in those regions being without some representatives of the family of which *Halocypris atlantica*, Lubbock, seems to be by far the most abundant and most widely distributed. In the Challenger dredgings I have not recognised any trace whatever of their shells; this, together with a consideration of their structure, which specially fits them for a natatory life, the females being (unlike those of the Cypridinidæ) little less adapted for this mode of existence than the males, leads me to believe their life on the sea bottom to be an exceptional occurrence. Seeing the immense numbers of *Halocypris* which evidently swarm in some parts of the ocean, one might perhaps expect to find their empty shells in plenty at the bottom, but their subsidence in any great numbers would probably be prevented by the abundance of predaceous animals, of whose food these little creatures doubtless form an essential part, and by the excessive lightness and delicacy of their shell-structure which would render subsidence so long a process as probably to ensure the solution or decomposition of the shell before its full accomplishment.

After a careful comparison of Dana's descriptions and drawings of the two genera,