

of deep water, these localities ranging from 1375 to 2050 fathoms, while, as to geographical distribution, the range is over the Pacific Ocean, from Japan to Patagonia; and probably also over the Atlantic, seeing that the neighbourhood of the Azores also yielded specimens.

[Pl. XXXIII. fig. 8, *a-d*. *a* Shell seen from left side, *b* from above, *c* from below, *d* from front. All magnified 50 diameters.]

*Bythocythere*, G. O. Sars (1865).

Valves subequal, smooth, or sparingly sculptured, almost destitute of hairs; thin and fragile; hinge-joint quite simple, or composed of a slight bar and furrow; no teeth. Anterior antennæ elongated, seven-jointed; the second joint large and thick, and bearing a seta on its anterior and posterior margins; the other joints suddenly much narrower, forming a long slender lash, which bears several setæ; penultimate joint linear, and destitute of setæ. Posterior antennæ tolerably robust, four-jointed; second joint large; flagellum long, biarticulate, its last joint long and setiform. Mandibles constricted above the distal extremity, and strongly toothed; palp four-jointed, bearing a well-developed branchial plate, which is set with numerous ciliated setæ. Terminal lobes of the first pair of jaws very short and thick; branchial plate large, ovate, bearing numerous marginal ciliated setæ, and at the base four long, deflexed simple setæ. Feet elongated, terminal claw very long and slender, second and third joints bearing each a short apical setæ; basal joint of the first pair furnished at the base with a small lobe which bears two very large and densely ciliated, and two smaller and simple setæ. Abdomen ending in a very large and acuminate process; postabdominal lobes narrow and bearing three hairs. Eyes mostly absent.

This genus is very nearly allied to *Cytheropteron*, and, like it, is represented in the Northern Seas, and in the British Post-Tertiary deposits, by two tolerably abundant species,—*Bythocythere simplex* (Norman), and *Bythocythere constricta*, G. O. Sars,—as well as by others which are less common.

1. *Bythocythere orientalis*, G. S. Brady (Pl. VI. fig. 6, *a-d*, and Pl. XXXII. fig. 2, *a-c*).

*Bythocythere orientalis*, Brady, Les Fonds de la Mer, tom. i. p. 159, pl. xvi. figs. 21–23.

The outline of the shell of this species is very closely similar to that next to be described (*Bythocythere arenacea*), differing from it chiefly in having the lateral view less acutely pointed behind, the surfaces, both ventral and lateral, less convex, and the shell quite devoid of tubercular ornamentation. The ventral surface is marked with irregular, sinuous, longitudinal furrows, and the general surface is vaguely undulated. Length, 1-48th of an inch (.52 mm.).

One or two detached valves only found in anchor mud, from a depth of 7 fathoms in Hong Kong Harbour, from which place the type-specimens also were brought. Specimens,