

Cypridæ—except, perhaps, *Potamocypris*, the animal of which is as yet imperfectly known—the characters of the shell afford amply sufficient distinction. The anatomical points which want still further elucidation are, chiefly, the presence or absence of a second maxilla,—(though, considering its close affinity with *Bairdia*, the absence of this organ may perhaps be safely assumed),—the number and characters of the feet, and the real nature of the rudimentary organ here called the second foot.

1. *Bythocypris reniformis*, n. sp. (Pl. V. fig. 1, *a-l*).

Carapace reniform; seen laterally, the greatest height situated in the middle, and equal to more than half the length; extremities rounded, the anterior broader than the posterior, ventral margin sinuated in the middle, dorsal boldly and evenly arched; seen from above, the outline is narrowly ovate, about thrice as long as broad and widest in the middle, tapering evenly to the extremities, of which the anterior is pointed, the posterior narrowly rounded; end view ovate, the width equal to about two-thirds of the height. The left valve is more rounded in contour, and is also much more strongly arched dorsally than the right valve, the hinge margins overlapping along almost its entire length; its lower margin also forms a curved flange, which overlaps the right valve in the middle of the ventral aspect. The shell is smooth, thin, and homogeneous in structure, but marked with irregularly scattered translucent spots; muscle spots arranged irregularly near the centre of the valves. Length, 1-20th of an inch (1·3 mm.).

A considerable number of detached valves, together with a few entire specimens, of the shell of this species were found in dredgings from 390 fathoms, off Culebra Island, West Indies, mud (Station 24); off North Brazil, in 675 fathoms and 350 fathoms, mud (Stations 120 and 122); off Prince Edward's Island, in 50 to 150 fathoms; and off East Monceour Island, Bass' Straits, in 38 to 40 fathoms, sand.

[Pl. V. fig. 1, *a-l*. *a* Carapace, magnified 40 diameters, seen from left side, *b* from right side, *c* from above, *d* from below, *e* from front, *f* anterior antenna, *g* posterior antenna, *h* mandible with palp, *i* maxilla with palp, *j* first foot, *k* second foot (?), *l* abdominal ramus.]

2. *Bythocypris* (?) *compressa*, n. sp. (Pl. XXXV. fig. 5, *a-d*).

Carapace compressed, elongated, subreniform, greatest height situated in the middle, and equal to half the length. Seen laterally the anterior extremity is broad, obliquely rounded, and somewhat produced at its lower end, the posterior much narrower and evenly rounded; dorsal margin well arched, ventral gently sinuated; seen from above, the outline is compressed, ovate, widest in the middle, and tapering evenly to the extremities, which are not very acute; width equal to about one-third of the length. The end view is subovate, rounded above, and rather suddenly narrowed below the middle. Shell smooth and structureless. Length, 1-33d of an inch (·77 mm.).