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APPENDIX F.—No. XI.

NOTES ON ENTOMOSTRACA. By G. S. BRADY, M.D., F.R.S.,
F.L.S., with Plate XIX.

THE Entomostraca here referred to are only the more interesting and scarcer species from gatherings which have been sent to me at various times by Mr Thomas Scott. Though, as is well known, Entomostraca of various kinds constitute a large part of the food of fishes, it is probable that the Ostracoda—and especially the marine Ostracoda—are less important in this respect than the softer kinds, Copepoda and Cladocera, which, owing to their immense fecundity, occur in prodigious numbers, and on account of their free-swimming habits fall an easy prey to fishes.

OSTRACODA.

Cypris cinerea, Brady. Pools near high water, head of West Loch Tarbert.

Cypris tumefacta, Brady. Tarbert, Loch Fyne.

Cypris virens var. *monilifera*, Brady. Ditches near Loch Ascog and Loch Fadd.

Cypris Jurinei, Zaddach?

Cypris Browniana, Jones. Pools by the side of Loch Fadd.

Candona Kingsleii, Brady and Robertson. Pools near Loch Fadd and Loch Ascog.

Potamocypris fulva, Brady. Marshy place by the side of Loch Ascog.

Aglais complanata? Brady and Robertson. East Tarbert; one specimen.

Cythere semipunctata, Brady. Loch Fyne, near Tarbert; not uncommon.

Cythere Cluthæ, Brady, Crosskey, and Robertson. Loch Fyne, near Tarbert; scarce.

Cytheridea subflavescens, Brady. Loch Fyne, near Tarbert; not uncommon.

Cytheropteron angulatum, Brady and Robertson. Rothesay Bay and East Loch Tarbert.

Cytherideis subulata, Brady. Rothesay Bay.

Paradoxostoma obliquum, G. O. Sars. Rothesay Bay.

Asterope teres, Norman. East Loch Tarbert; not very common.

COPEPODA.

Peltidium purpureum, Philippi. East Loch Tarbert, 3 to 4 fathoms; not common.

PELTIDIUM PURPUREUM, Philippi.

Up to the present time we have no published information of the occurrence of this species in the British seas. Its occurrence in the Loch Fyne dredgings of the Fishery Board is therefore specially interesting, inasmuch as we are now in a position to define accurately the genus *Peltidium* from an examination of the species to which the name was originally applied. The little creature appears to be very scarce, Mr T. Scott

(from whom I received the specimens) never having found more than one or two examples at a time. These were taken in the dredge in a depth of from 3 to 5 fathoms.

Philippi's figures, as far as they go, are characteristic and fairly accurate, agreeing with the Loch Fyne specimens, and with no other British species. I have doubtfully (in the monograph of the British Copepoda vol. ii., *Ray Society*, 1880) quoted Philippi's specific name as a synonym of *Peltidium depressum*, Baird. This is a mistake; the difference between the two forms is of generic importance, and the term *Peltidium* must be held to apply by right of priority to Philippi's species only. The three species referred in my monograph to the genus *Peltidium* should henceforth take Dr Baird's generic name *Alteutha*.*

Genus PELTIDIUM, Philippi.

Body depressed, deeply incised between the segments, ovate, abdomen not distinctly separated from the cephalothorax; caudal segments small; anterior antennæ short, 9-jointed; posterior 4-jointed, and bearing a secondary branch of two small joints. Mandibles slender, bidentate, palp composed of two branches attached separately, one composed of two, the other of one joint, setose at the apex. Maxilla not found. First pair of footjaws 2-jointed, the last joint divided into two elongated setiform segments, one of which ends in two lash-like filaments, the other trifid, with a delicately pectinated subchelate apex, and a rather broad, lateral segment; the large basal joint has two finger-like marginal processes, which end respectively in one and two setæ. Second pair 2-jointed, the second joint armed with a long terminal claw. Inner branch of the first pair of swimming feet short, and composed of two joints only; second, third, and fourth pairs with both branches 3-jointed; fifth pair simple, 2-jointed; last joint elongated and bearing six stout marginal ciliated setæ; first joint with two slender apical setæ.

The most important distinctive characters are those of the first foot jaw and the first swimming foot, together with the abnormal mandible-palp. It is possible, however, that one of the appendages here referred to the palp may be homologous with the maxilla. At any rate, with the most careful dissection, I have not been able to find a maxilla proper.

The carapace has a curiously reticulated appearance, owing to a thickening of the coat in certain definite lines, thus leaving large pellucid areas, which are enclosed by lines of dense darkly-coloured chitine.

OSTRACODA.

Cypris virens, Jurine, var. *monilifera*, nov.

Shell rather tumid, subovate; seen from the side subreniform, greatest height situated in the middle, and equal to rather more than half the length; anterior extremity evenly, posterior somewhat obliquely rounded; dorsal margin well arched, almost angular in the middle; ventral straight, except for a slight bulging near the front: seen from above the outline is ovate, twice as long as broad, widest in the middle, posterior extremity subacuminate, anterior showing a broad keeled median prominence. The surface of the shell is smooth, colour olivaceous, with oblique bands of dark green and orange. Just within the anterior border is a row of about eight polished bead-like tubercles. Length, 8-100th of an inch.

* Goodsir's species *Carillus oblongus* seems to be identical with *Alteutha depressa*, Baird, and was published in the same year (1845). Which of the two was really first in the field I do not know.

Found in ditches by the side of Loch Ascog, near Rothesay, and in Loch Fadd.

I at first supposed this to be specifically distinct, but further research convinces me that it must be looked upon as a variety of *C. virens*, intermediate forms between it and the type being not uncommon.

Cypris Browniana, Jones.

Jones, *Entomostraca of the Tertiary Formation*, p. 13, pl. i. fig. 1a, 1b, and fig. 2a, 2b.

Shell ovate, excessively tumid, height and width equal to two-thirds of the length: seen from the side subreniform, highest in the middle; extremities well rounded, dorsal margin boldly arched, ventral straight; seen from above the outline is elliptical, scarcely narrower in front than behind. Colour ashy grey, clouded, surface smooth. Length, 1-30th of an inch.

Found in pools by the side of Loch Fadd.

Judging simply from the figures given by Professor Rupert Jones in his excellent monograph of the Tertiary Entomostraca, it would seem that the so-called variety *tumida*, may probably be only the young condition of the type *Browniana*. The recent specimens agree in size with the typical form, but in contour are more like the variety. This is one of the most interesting "finds" among the fresh-water Ostracoda.

EXPLANATION OF PLATE.

- Fig. 1. *Cypris virens* var. *monilifera*, seen from left side, $\times 16$.
 Fig. 2. The same seen from below, $\times 16$.
 Fig. 3. *Cypris Browniana*, seen from left side, $\times 40$.
 Fig. 4. " " seen from below, $\times 40$.
 Fig. 5. *Pelididium purpureum*, male, $\times 80$.
 Fig. 6. " " anterior antenna of female.
 Fig. 7. Posterior antenna of same.
 Fig. 8. Mandible (and palp?) of same.
 Fig. 9. Anterior footjaw " "
 Fig. 10. Posterior footjaw " "
 Fig. 11. Foot of first pair " "
 Fig. 12. Foot of fifth pair " "
 Fig. 13. Tail.

