1874. M'Intosh, William Carmichael.

On the Invertebrate Marine Fauna and Tides of St. Andrews. The Annals and Magazine of Natural History. No. 82. October 1874. Vol. XIV. Fourth Series. London, 1874. pp. 258-274. Also published separately.

The habits and special habitats of some of the sessile-eyed Crustacea are noticed. Acknowledgment is made to Mr. Spence Bate and the Rev. A. M. Norman for assistance in determining doubtful forms. In the list of Amphipoda, Allorchestes nilssonii of Bate and Westwood is transferred to "Hyale Nilssoni, H. Rathke;" the species monoculoides, Mont., marina, "Alderi," pollexiana, clypeata, assigned to Montagua by Bate and Westwood, are here referred to Stenothoë, Dana; their Anonyx denticulatus to Anonyx holböllii, Kröyer, their Ampelisca gaimardii to Ampelisca carinata, Bruzelius, their Ampelisca belliana to (=A.macrocephala, Lilljeborg ?). "Calliopius bidentatus (n. sp.), Norman, Nat. Hist. Trans. Northumb. & Durham, vol. i. 1865, p. 24," said by Mr. Norman to be not uncommon all along the east coast, is thus described :- "The body is about two-fifths of an inch long, of a pale straw colour, tinted with brownish at the joints and the bases of the limbs. Superior antennæ twice as long as the inferior, beautifully banded with red. irregularly rounded, brownish red or pale brick-red. The first and second gnathopods are nearly equal (the second, however, being larger) and similar in structure. Hand almondshaped, the palm being furnished with a series of very distinct stout spines, and a row of smaller spines reaching the base of the finger; the latter is long, boldly curved, and regularly divided on the concave side. The first and second pleopods [? pleon-segments] have spines, that of the former, however, being sometimes indistinct. A very characteristic convexity occurs at the junction of the third and fourth pleopods [?pleon-segments]; and the dorsal margin of the latter is concave."

Eiscludus longicaudatus of Bate and Westwood is here given as Heiscladius longicaudatus, their Amphithoë littorina as Amphithoë podoceroides, H. Rathke, and distinct from Amphithoë rubricata, Mont. "Most of the fine specimens," it is said, "have the hand of the second pair defined by a distinct tooth, as Rathke and Dr. Johnson state." Podocerus falcatus, Mont., is given as including Podocerus pulchellus and Podocerus pelagicus of Bate and Westwood, Podocerus variegatus, Leach, as including their Podocerus capillatus. "Siphonœcetus Whitei," Gosse, is said to be probably the female of "Siphonœcetus typicus," Kröyer. The three species, tuberculosa, rimapalmata and excavata, assigned by Bate to Nænia, are all recorded as found together in the "débris from the coralline ground." Hyperia medusarum, O. F. Müller, is given as including Hyperia galba of Bate and Westwood, with the remarks "The Lestrigonus Kinahani, Bate, is a sexual variety (male). Some large specimens are found swimming freely on the surface of the water." "Ægina phasma, Mont.; B. & W. op. cit. ii. p. 45," appears without notice that the authors quoted do not assign it to Ægina. "Caprella tuberculata, Guérin; B. & W. op. cit. ii. p. 68," is said to be common on Ceramium rubrum in rock-pools, and in the stomachs of cod and haddock. Mr. Norman's opinion is given that the Caprella hystrix of Bate and Westwood is not the Caprella hystrix of Kröyer, but rather is Caprella septentrionalis. The list includes several other Amphipoda, with occasional notes on colouring.