

has lost its palp." He also remarks that "the Amphipoda appear to be only now developing terrestrial forms, and a splendid series could be made out of existing species, from *Nicea*, living wholly in the water, through *Allorchestes*, etc., which live in rock-pools, but can walk and live (leap, MS. correction) on land with great agility, *Talorchestia*, etc., living just above high-water mark, and only occasionally splashed with salt water, to species of *Orchestia* and *Talitrus*, such as *O. Sylvicola*, which live far away from the sea."

1884. CHILTON, CHARLES.

The New Zealand Journal of Science. Vol. II. No. 5. September 1884.
p. 230.

This note identifies *Mæra petrii*, G. M. Thomson, with *Megamæra (Mæra) subcarinata*, Haswell, the latter name having the priority.

1884. CLAUS, C.

Elementary Text-book of Zoology. General part and special part; Protozoa to Insecta. By Dr C. Claus. Translated and edited by Adam Sedgwick, M.A., with the assistance of F. G. Heathcote, B.A. London, 1884.

At page 405, the Arthropoda are defined as "*Laterally symmetrical animals with heteronomously segmented body and jointed segmental appendages; with brain (supraoesophageal ganglia) and ventral nerve cord (ganglionic chain).*"

At page 411, Class I.—Crustacea are defined as "*Aquatic Arthropoda, which breathe by means of gills. They have two pairs of antennæ; numerous paired legs on the thorax, and usually also on the abdomen.*" It is observed that "some forms, however, can live on land, and possess respiratory organs adapted for breathing air." "The mandibles are simple but very rigid and hard masticating plates, which are usually toothed and correspond morphologically to the coxal joint of a limb, the following joints developing into a palp-like appendage (*mandibular-palp*)." "The delicate hairs and filaments of the anterior antenna are probably *olfactory organs.*" "The so-called shell glands of the lower *Crustacea* are regarded as urinary organs, as are also the glands opening at the base of the posterior antenna in the *Malacostraca*. In the *Entomostraca* the latter are only preserved during larval life. Short tubes, which correspond to the Malpighian tubes of the Tracheata, may also be present on the rectum (*Amphipoda*)." [This correspondence, however, is denied by P. Mayer, 1882, and W. B. Spencer, 1885.]

The Crustacea are divided into four groups, Entomostraca, Malacostraca ("the higher *Crustacea* characterised by a definite number of segments and appendages"), Leptostraca (for *Nebalia*), and Gigantostaca. The Malacostraca include the two orders, Arthrostraca (*Amphipoda* and *Isopoda*), and Thoracostraca.

At page 449, the Arthrostraca are defined as "*Malacostraca with lateral sessile eyes, usually with seven, more rarely with six or fewer separate thoracic segments, and the same number of pairs of legs. Without a reduplication of the skin.*" "The head bears four antennæ, the two mandibles, four maxillæ, and a pair of maxillipeds; in all six pairs of appendages. A small bilobed plate, distinguished as the underlip, behind the pair of mandibles, marks the boundary of the *primary* region of the head. The two pairs of maxillæ as well as the maxillipeds are secondary cephalic appendages derived from the thoracic region of the body." I do not know how this last statement is to be reconciled with the previous