

## 1879. EDWARD, THOMAS.

Selections from the Fauna of Banffshire, by Thomas Edward, A.L.S., in Life of a Scotch Naturalist, by Samuel Smiles. Sixth Edition. London, 1879. pp. 391-438.

The list of Amphipoda extends from page 432 to page 435. Some notes are given on the colouring of various species, and on the times of the year at which specimens were taken with eggs. The colouring of the eggs of sundry species is also noticed. To *Nannia tuberculosa* the note is appended, "With eggs in December. The female has the palms of the two first pairs much narrower than the male." After the names *Lestrigonus exulans* and "Kinahani," *Hyperia galba* and *Hyperia oblivia*, the observation is made, "These are the only species of this family which I have ever found on the Medusæ. I consider *Lestrigonus Exulans* to be the male of *Hyperia Galba*, and L. Kinahani the male of *H. oblivia*." After the names "*Hyperia tauriformis*, n. s.," "*prehensilis*, n. s.," "*cyanea*, n. s.," he writes, "All these three new species were first taken at Banff by T. E.; the males and females of all three being procured. The males differ but little from the females, except that they are somewhat larger." No notice is taken of the name *Hyperia minuta*, which he spoke of in 1868. Of *Dulichia porrecta* and *Dulichia falcata* he says, "I look upon these as being male and female of the same species."

The list, like the rest of Mr. Smiles' entertaining book, is disfigured by numerous misprints. *Phocus* is given for *Phoxus*, *Zetlandica* for *Shetlandica*, *Bellomensis* for *Vellomensis*, *Phersua* for *Pherusa*, *grandaculis* for *grandoculis*, *Hora* for *Aora*, *Megamdera* for *Megamoera*, *Siphondecetes* for *Siphonocetes*, *Protomedia* for *Proto*, the last being perhaps due to a slip of the pen on the author's part.

## 1879. FRIES, S.

Mittheilungen aus dem Gebiete der Dunkelfauna. *Gammarus (Niphargus) puteanus*, Koch. Zoologischer Anzeiger. II. 1879. pp. 33-38, 56-60, 129-134, 309.

The occurrence of well-shrimps in the slightly brackish wells of Heligoland and in England is discussed, and the view advocated that they must have existed in these localities before the islands were separated from the mainland. Fries has examined specimens from the above mentioned wells of Heligoland, from the Falkenstein caverns, from the springs running out of the caverns, from the Hilgerhäuser caverns, and from the depths of the Lake of Geneva. In all he finds no greater differences than would justify the naming of varieties. He therefore adheres to the view of Rougemont in uniting the various so-called species of the well-shrimp, and considers that the name *Gammarus puteanus*, as the earliest and best known, should be retained, though appearing unduly to restrict the distribution of the species to wells. Humbert's definition of the genus *Niphargus*, he considers, may be applied to the specific definition of *Gammarus puteanus*. The addition, however, to "Oculi nulli" of "vel rudimentarii" must be struck out. In the second maxillæ, which according to Humbert have the setæ of the inner lobe only at the apex, specimens from the Falkenstein spring show three bristles somewhat further down the inner rim than is the case in Humbert's drawing, Pl. VI. Fig. 8a. A constant character in all specimens of *Gammarus puteanus* examined by Fries is, that the secondary flagellum of the upper antennæ has only two joints, not four or three as in *Gammarus pulex* ♂ and ♀ respectively.

At pages 129-134 he discusses the Isopod "*Asellus cavaticus*, Schiödte (in litt.) (= *Asellus Sieboldii*,