

1886. FORSSTRAND, CARL.

Det arktiska hafsområdets djurgeografiska begränsning med ledning af skalkräftornas (crustacea malacostraca) utbredning. Upsala, 1886. 55 pages and map.

It is mentioned in a note, p. 4, that L. K. Schmarda, in Die geographische Verbreitung der Thiere, Wien, 1853, calls the Arctic maritime region "Reich der Meersäugethiere und Amphipoden." The circumpolar realm is thus divided, starting eastward from Behring Strait; 1. *Amerikas ishaf*, from Behring Strait to Smith Sound and Baffin's Bay; 2. *Vestgrönländska hafvet*, the tract of sea between the American Archipelago and mainland and Greenland; 3. *Europeiska Nordhafvet*, between East Greenland, West Finmarken and Spitzbergen; 4. *Barentz' haf*, between East Spitzbergen, Franz Joseph Land, Nova Zembla, Northern Russia and East Finmarken; 5. *Kariska hafvet*, from the east coast of Nova Zembla to Cape Chelyuskin; 6. *Sibiriens ishaf*, from Cape Chelyuskin to Behring Strait; 7. *Beaufort's haf*, the sea immediately north of Behring Strait and south of it to the Aleutian Islands and Sea of Ochotsk.

Referring to the Royal Society Manual of the Natural History, etc. of Greenland, London, 1875, containing the "*Crustacea of Greenland* by Chr. Lütken," he says that the West Greenland Sea has eighty species of Amphipoda, of which the following are not yet known from other seas, "*Ægina longicornis* Kr., *Cercops Holboelli* Kr., *Cleippides tricuspis* (Kr.), *Cyamus monodontis* Ltk., *mysticeti* Ltk. och *nodosus* Ltk., *Cyphocaris anonyx* Ltk., *Monoculodes affinis* (Bruz.) och *Parathemisto compressa* (Goës)." At page 36 he remarks that many species, especially pelagic and surface-living animals, such as *Themisto*, *Hyperia*, and many Copepoda, may be subject to a *passive* distribution, due to marine currents. He finishes by giving a list of 304 Crustacea, of which those numbered 135 to 304 are Amphipoda, showing their distribution in the regions above-mentioned, of which he subdivides the third into "Ö. Grönland, Ishafsdjupet, Spetsbergen." He adds for comparison two other regions, Great Britain and the Baltic. To the list of species an addendum gives "*Lanceola Clausii* Bovall," from West Greenland. Hoek's new species, 1882, are not included in the list.

1886. FOWLER, GEORGE HERBERT, born September 4, 1861 (G. H. F.).

List of the Amphipoda of the L. M. B. C. District: *in* the first Report upon the Fauna of Liverpool Bay and the neighbouring seas, written by the members of the Liverpool marine biology Committee, and edited by W. A. Herdman, D.Sc., F.L.S., &c. London, 1886. pp. 212-218. Pl. IV. fig. 1. [Proc. Lit. Phil. Soc. Liverpool. Vol. XL. Appendix.]

Forty-five species of Amphipoda are enumerated, with here and there a synonym and occasional notes by Mr. Fowler and Mr. A. O. Walker. "*Bathyporeia pelagica*, var. *robertsoni*, Sp. Bate," is separated from *Bathyporeia pilosa*, Lindström, by an accidental misapprehension. On *Dexamine spinosa*, Leach, the remark is made that "two very small specimens lack the characteristic tooth on the first antennæ, = *Dex. tenuicornis*?"; on *Gammarus locusta*, Linn., "a black form is common; the red spots on the abdominal segments are not always present;" on *Gammarus marinus*, Leach, "some specimens dredged from Welshman's Gut are apparently a variety between *G. locusta* and *G. marinus*, having the first two abdominal segments rounded off, but still not agreeing with *G. campylops* in the form of the last pair