1887. BOVALLIUS, C.

Arctic and Antarctic Hyperids.   With eight Plates.   [Ur "Vega-expeditionens vetenskapliga iakttagelser," Bd. IV., Stockholm, 1887.]   pp. 545–582.

In the introductory part Bovallius says, "In my opinion the limits of the zoo-geographical regions must be taken more generally with regard to truly pelagic animals than regarding the inhabitants of the depths and the shores.   Therefore I shall fix the southern limit of the Arctic region at Lat. 60° N., and the northern limit of the Antarctic region at Lat. 50° S.   Certainly a part of the Gulf Stream will thus be included within the limits of the Arctic region, but this seems to do but little harm, as is shown by the diagram of the geographical distribution of the species given below."   Then tracing the history of the discovery of Arctic and Antarctic Hyperids, he says, "after reducing the various synonyms to the names, which in my opinion are the true ones, we find in the above cited literature altogether 15 species mentioned from the *arctic* region, viz., *Tyro borealis* G. O. Sars. *Lanceola Lovéni* C. Bovallius.   *Lanceola Clausi* C. Bovallius.   *Hyperia medusarum* O. F. Müller.   *Hyperia Latreillei* H. Milne-Edwards.   *Hyperia galba* Montagu.   *Hyperoche Kroeyeri* C. Bovallius.   *Hyperoche abyssorum* A. Boeck.   *Parathemisto oblivia* Kröyer. *Parathemisto compressa* A. Göes.   *Parathemisto abyssorum* A. Boeck.   *Euthemisto libellula* Mandt.   *Euthemisto bispinosa* A. Boeck.   ? *Euthemisto Nordenskiöldi* C. Bovallius. *Tryphæna Malmi* A. Boeck.   From the *antarctic* region 10 species, viz., *Cyllopus magellanicus* Dana.   *Cyllopus Lucasi* Spence Bate.   *Cyllopus Danæ*, Spence Bate.   *Tauria macrocephala* Dana.   *Parathemisto trigona*, Dana.   *Euthemisto Gaudichaudi* Guérin. *Euthemisto antarctica*, Guérin [Dana].   *Anchylomera abbreviata* Spence Bate.   *Anchylomera antipodes* Spence Bate.   *Thamyris antipodes* Spence Bate."   In this paper the number of the Arctic species is raised to twenty-two, and the Antarctic to thirteen.

In the descriptive part, *Clydonia borealis*, Sars, 1882, becomes *Tyro borealis*.   Brief descriptions are given of "*Tyro Clausi*," Pl. 40, figs. 1–3, "*Syn.* 1885. *Tyro Clausii*, C. Bovallius;" "*Tyro Tullbergi*," Pl. 40, figs. 4–10, "*Syn.* 1885. *Tyro Tullbergii*, C. Bovallius;" "*Lanceola Clausi*," Pl. 41, figs. 11–14, "*Syn.* 1885. *Lanceola Clausii*, C. Bovallius;" "*Lanceola Lovéni*, C. Bovallius," 1885; "*Lanceola serrata*, C. Bovallius," 1885; "*Vibilia Kroeyeri*, C. Bovallius," 1887; "*Cyllopus magellanicus*, Dana, 1852;" "*Cyllopus Lucasi*, Spence Bate, 1862.   *Syn.* 1862. *Cyllopus Lucasii*, Spence Bate"; "*Cyllopus Danæ*, Spence Bate, 1862;" "*Cyllopus armatus*, C. Bovallius, 1887. Pl. 41, fig. 15–25;" "*Thaumatops longipes*, C. Bovallius, 1886," on which Bovallius remarks, "One specimen taken just at the southern limit of the Arctic region, at Lat. 59° 38′ N.; Long. 5° 24′ W. The other known specimen is taken off the western shore of the Australian mainland. Indeed a wide distribution for the species;" "*Mimonectes Steenstrupi*," Pl. 47, figs. 111– 115.   "*Syn.* 1885. *Mimonectes Steenstrupii*, C. Bovallius;" "*Hyperia medusarum*, O. F. Müller, 1776.   Pl. 42, fig. 26–33;" "*Hyperia Latreillei*, H. Milne-Edwards, 1830.   Pl. 42, fig. 34–39; Pl. 43, fig. 40–46; *Hyperia galba*, Montagu, 1813.   Pl. 43, fig. 47–54;" "*Hyperoche Kroeyeri*, C. Bovallius, 1885," which would rather seem to be entitled to the name *Hyperoche medusarum*, since Bovallius gives as its earliest synonym "*Metoecus medusarum*, Kroyer," 1838; "*Hyperoche abyssorum*, A. Boeck, 1870.   Pl. 44, fig. 55–62," the opinion of Sars, 1882, that this is the same species as the preceding, not being noticed; "*Hyperoche Luetkeni*, C. Bovallius, 1887.   Pl. 44, fig. 63–71;" "*Hyperiella antarctica*, C. Bovallius, 1887.   Pl. 45, fig. 72–80;" "*Parathemisto abyssorum*, A. Boeck, 1870. Pl. 45, fig. 81–89;" "*Parathemisto compressa*, A. Göes, 1865," transferred from *Themisto* by Boeck in 1870; "*Parathemisto oblivia*, Kroeyer, 1838," transferred from *Hyperia* by Bovallius in 1887; "*Parathemisto trigona*, Dana, 1852," in like manner transferred by