

1876. CLAUS, C.

Untersuchungen zur Erforschung der genealogischen Grundlage des Crustaceen-Systems. Ein Beitrag zur Descendenz-lehre. Wien, 1876.

1876. FAXON, WALTER.

Exploration of Lake Titicaca by ALEXANDER AGASSIZ and S. W. GARMAN. IV. Crustacea. By WALTER FAXON. Bulletin of the Museum of Comparative Zoölogy, at Harvard College, Cambridge, 1876. Vol. iii. pp. 361-375.

Of the Crustacean fauna of the lake, Mr. Faxon says, "excepting a species of *Cypris*, all the specimens collected belong to one amphipodous genus, *Allorchestes*, which had hitherto afforded but one or two authentic fresh-water species, ranging from Maine to Oregon and the Straits of Magellan. Seven new species are described in this paper from Lake Titicaca. Several of them are remarkable among the *Orchestidae* for their abnormally developed epimeral and tergal spines. Some are also noteworthy as comparatively deep-water forms of a family commonly regarded as pre-eminently littoral."

The genus *Allorchestes* is thus defined:—"First maxillæ with small uniaarticulate palpi. Palpus of the maxillipeds composed of four segments, the distal segment usually bearing a movable spine at its apex. First antennæ shorter than the second antennæ, longer than the peduncle of the second antennæ. First and second thoracic legs subcheliform. Propodite of second pair larger than propodite of first pair, and much larger in the male than in the female. Telson short and entire." *Hyaella*, Smith, 1874, is given as a synonym. My reasons for preferring *Hyaella* to *Allorchestes* are given in Note on Rathke, 1837. Mr. Faxon describes *Allorchestes armatus*, n. s., figs. 1-18; *Allorchestes echinus*, n. s., figs. 19-21; *Allorchestes longipes*, n. s., figs. 22-25; *Allorchestes lucifugax*, n. s., fig. 26; *Allorchestes latimanus*, n. s., figs. 27-28; *Allorchestes longipalmus*, n. s., figs. 29-31; *Allorchestes cupreus*, n. s., figs. 32-34. He also figures *Allorchestes dentatus*, var. *inermis*, fig. 35, for *Hyaella inermis*, Smith. Of his specimens he says, "they differ from specimens from the United States in having a firmer and less transparent shell, and a little differently shaped propodite to the second pair of thoracic legs in the male; hardly enough to warrant the establishment of a new species when one considers the variability of the species within the limits of the United States."

In a note Mr. Faxon says, "Among the Crustacea collected by the Thayer Expedition in Brazil are two species of *Allorchestes*. One is represented by a unique female specimen taken from a canal at Campos by C. F. Hartt. It differs from *A. dentatus*, var. *inermis*, only in the second pair of antennæ, which are half as long as the body and twice as long as the first pair; flagellum composed of thirteen segments. Length of body, 4^{mm}. In the absence of more specimens, I would consider this a variety (*gracilicornis*) of *Allorchestes dentatus*," fig. 36. "The second species is represented by several specimens. It may be called *Allorchestes longistilus*, sp. nov." Fig. 37. "Differs from *A. dentatus*, var. *inermis*, in its slenderer body, longer antennæ, and especially in the length of the third pair of caudal stylets."