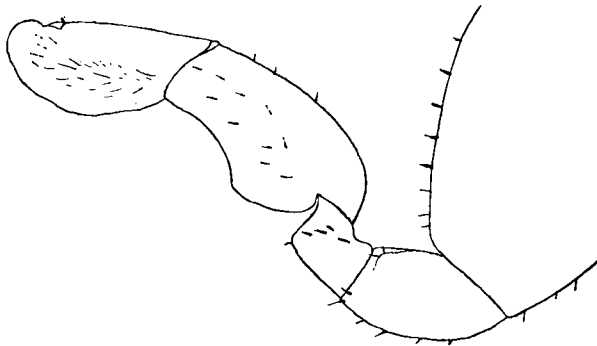


XI. — ON THE DISTINCTIVE CHARACTERS OF *TALORCHESTIA BRITO* Stebb. ♀ AND *TALITRUS SALTATOR* (Mont.) ♀.  
 BY K. SCHIJFSMA. (WITH 4 TEXTFIGURES).

The distinction between the genera of the Talitridae is mainly based — at least where the Dutch species are concerned — upon the shape and size of propodite and dactylus of the gnathopods (cf. TESCH: *Talorchestia brito* etc. in Zoologische Mededeelingen, 's Rijks Museum van Nat. Hist., Leiden, Dl. II, 1916).

Intermediate between the genera *Talitrus* and *Orchestia* is the remarkable genus *Talorchestia*, which STEBBING christened with that compound name because the females should be referred to *Talitrus*, but the males to *Orchestia*, if we ignored that they belong together. For the second gnathopod of the males carries the huge hand, which distinguishes *Orchestia* ♂♂ from *Talitrus* ♂♂. The females, however, differ from those of *Orchestia* in that their 1st gnathopod is not feebly subchelate, but simple as in *Talitrus*.

With the males the species can be easily recognized by the typical



*Talitrus saltator* (Mont.) ♀, 2nd gnathopod.

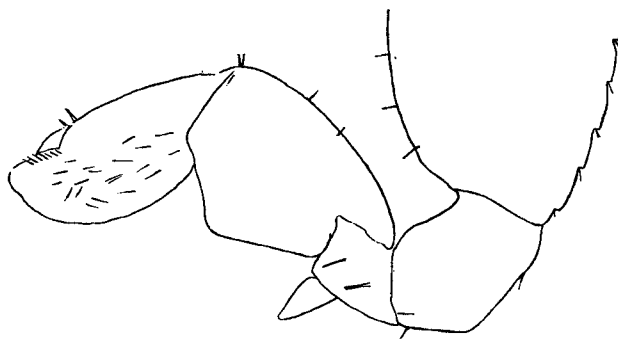
form of the propodite of the second gnathopod. With the females this is by no means so easy. In Holland two species of *Talorchestia* occur, viz., *Talorchestia deshayesi* Aud. and *Talorchestia brito* Stebb. *T. deshayesi* Aud. can be readily distinguished by its smaller size and more slender form. Besides the eyes are comparatively smaller.

The female *Talorchestia brito* Stebb., however, resembles *Talitrus* ♀ so closely „that they are scarcely if at all to be distinguished from each other.” This is quoted from Dr. TESCH, who in 1916 recorded *T. brito* for the first time as belonging to the Dutch fauna. But in the same paper

he hints at the possibility — judging from STEBBING's figures — of finding distinctive characters in the carpopodite of the second gnathopod.

I had the opportunity of examining in this respect a fairly large material of both *Talitrus saltator* (Mont.) and *Talorchestia brito* Stebbing, collected by Dr. J. VERWEY, who has made a biological study of these amphipods.

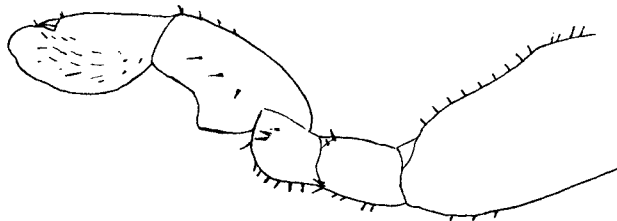
As a matter of fact the second gnathopods of the ♀♀ offer quite suffi-



*Talorchestia brito* Stebb. ♀, 2nd gnathopod.

cient characteristics to discern *Talorchestia brito* Stebbing from *Talitrus saltator* (Mont.):

1°. In *Talitrus* the carpopodite is rather slender and has evenly curved outlines. The greatest breadth lies approximately in the middle, never above it. In *Talorchestia brito* Stebbing the carpopodite is broader and far more angular. The greatest breadth lies decidedly above the middle. This is the character at which Dr. TESCH hinted in 1916.



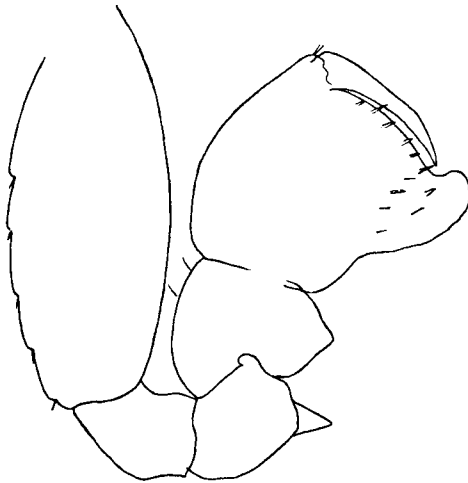
*Talorchestia deshayesii* Aud. ♀, 2nd gnathopod.

2°. In *Talorchestia brito* the meropodite has a thin walled conical process, which is very typical for the species. This is the most conspicuous character, which also distinguishes *Talorchestia brito* Stebb. from *Talorchestia deshayesii* Aud., in which it is lacking as well as in *Talitrus*.

As for the carpopodite *Talorchestia deshayesii* Aud. is intermediate between *Talitrus* and *Talorchestia brito* Stebb., the carpopodite being

more angular than in *Talitrus*, but the greatest breadth lying below the middle.

Of course there are minor differences in the shape of all the articles of the legs, but they are so slight that it is difficult to describe them and they cannot be used as distinctive characters.



*Talorchestia brito* Stebb., young ♂, 2nd gnathopod.

When alive *Talitrus* and *Talorchestia brito* Stebb. can be readily distinguished from each other by their slightly different colour and the conspicuous white rim round the eyes of *Talorchestia brito* Stebb., which only very old *Talitri* have in common with them. Moreover the urosome in *Talorchestia* is somewhat more slender than in *Talitrus*.

I take the opportunity to figure a transitional form of the propodite of the second gnathopod of a young male. The slim hand of the females and very young males can still be recognized, at the top of the hinder margin, but the rest of the article is growing into the formidable hand of the adult male. Also the dactylus has already much increased in size.

Incidentally Dr. TESCH's remark was confirmed that *Talorchestia brito* Stebbing is rather common on our shores during summer months, my material being collected in July, August, and the first part of September.

#### LITERATURE.

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