

NLASM
Aek

| | | | | | |
|----------------------------|---------|--------|-------|-----------|-----------------------|
| Veröff. Überseemus. Bremen | Reihe A | Band 4 | Nr. 2 | Seite 3—5 | Bremen, 30. Juli 1969 |
|----------------------------|---------|--------|-------|-----------|-----------------------|

The identity of *Hippolyte amabilis* LENZ, 1901,
with *Heptacarpus tenuissimus* HOLMES, 1900 (Crustacea Decapoda)

by L. B. HOLTHUIS

Rijksmuseum van Natuurlijke Historie, Leiden

with 1 figure in the text

LENZ (1901: 432, pl. 32 figs. 2, 3) described a new species of Hippolytid shrimps under the name *Hippolyte amabilis* from Bare Island. In 1904 the species was listed by RATHBUN (1904: 79) under the name *Spirontocaris amabilis*; RATHBUN only referred to LENZ's description and gave no new data, as no material was seen by her. DE MAN (1907: 418, 454) reexamined LENZ's type and compared it with his *Spirontocaris alcimede* (= *Heptacarpus geniculatus* [STIMPSON]), and gave additional information on the specimen. TAYLOR (1912: 197, as *Spirontocaris amabilis*), WILLIAMSON (1915: 375, as *Hippolyte amabilis*) and CLEMENS (1933: 50, as *Spirontocaris amabilis*) listed the species without giving new information. HOLTHUIS (1947: 21) in his list of Hippolytidae included LENZ's species under the species incertae. BAUMANN (1958: 78) listed the two type specimens of *Hippolyte amabilis* preserved in the Überseemuseum in Bremen and made one the lectotype of the species.

Through the kindness of Prof. Dr. HERMANN BAUMANN of the Überseemuseum I have been able to examine the paralectotype of LENZ's species and could prove that the species is identical with *Heptacarpus tenuissimus* HOLMES, 1900. The name *amabilis* LENZ, 1901 thereby falls as a junior synonym.

LENZ's (1901: 432, 433) description is short and inadequate from a modern point of view. It also contains some minor mistakes. DE MAN's (1907) additional remarks apart from correcting a few errors add very little positive information. None of the other authors dealing with the species contributed anything to a better understanding of it.

As pointed out by HOLTHUIS (1947), the fact that the branchial formula was not known, made it impossible to assign the species even to its proper genus. The type examined by me now, possesses no exopod on the third maxilliped, making it clear that the species has to be placed in the genus *Heptacarpus*, which also is consistent with the other characters (no supra-orbital spine, carpus of second leg with 7 segments, etc.). Furthermore it showed that epipods are not present on the third maxilliped nor on any of the pereopods, a character in the genus *Heptacarpus* only shown by *H. tenuissimus*. As in all other respects the specimen also agrees fully with HOLMES's species, it can safely be identified with it.

In his description LENZ remarked that the lower orbital angle bears two small spines. Actually, as DE MAN (1907) already pointed out, the upper of these so-called spines is the lower orbital angle, which is not pointed, but rounded. The second is the antennal spine.

The rostrum is correctly described by LENZ. In the paratype the lower margin, however, bears only 5 teeth in all. The antennular peduncle is not described by LENZ, but the drawing shows the stylocerite reaching distinctly beyond the basal antennular segment, while actually it does not reach the end of the segment. The rostrum reaches far beyond the antennular peduncle and about as far as the scaphocerite. LENZ's figure of the scaphocerite is misleading, as it shows the final tooth distinctly overreaching the lamella, while the opposite is true. As was to be expected the carpus of the second pereiopod consists of 7 segments and not of 6 as shown in LENZ's drawing. In the type examined most pereiopods and the last two abdominal somites are missing. The third abdominal somite is produced in the median posterior part as is well shown in LENZ's figure. His figure of the telson also is consistent with what is found in *H. tenuissimus*.

Heptacarpus tenuissimus is best known as *Hippolyte* (or *Spirontocaris*) *gracilis* STIMPSON. As HOLTHUIS (1947: 43) pointed out *Hippolyte gracilis* STIMPSON, 1864 is preoccupied by both *Hippolyte gracilis* LILLJEBORG, 1850, and *Virbius gracilis* HELLER, 1862; therefore the next younger synonym *Heptacarpus tenuissimus* HOLMES, 1900, has to be used for the species.

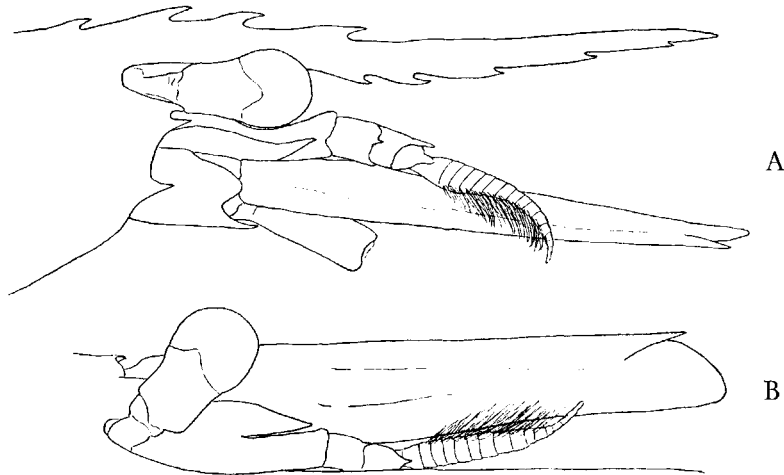


Fig. 1. *Heptacarpus tenuissimus* HOLMES, paralectotype of *Hippolyte amabilis* LENZ. a, anterior part of body in lateral view; b, eye, antennula and scaphocerite, in dorsal view. x 10.

It is interesting to note that LENZ (1901: 432, 433) did remark on the close resemblance between his new species and STIMPSON's: "Die Art erinnert durch ihre schlanke Körperform an *H. gracilis* STps." and "Die Art steht zwischen *H. gracilis* STps. und *H. stylus* STps." Though differences from *H. stylus* were mentioned by LENZ, he gave no indication of any difference separating his *Hippolyte amabilis* from *Heptacarpus gracilis*.

Another confusing item is the type locality of *Hippolyte amabilis*. LENZ (1901: 433) in his description gave the locality as "Bare Island". In his introduction this is more accurately indicated as "zwischen Vancouver Island und dem Festland gelegen", meaning therefore Bare Island in San Juan Co., Washington, U.S.A., a small island situated slightly north of Waldron Island at 48°43.8'N 123°0.7'W. However, DE MAN (1907: 454), acting upon

information which he received from LENZ, stated that the locality was incorrectly indicated in the original publication and that actually "this very small island is situated close to the east coast of the northern island of New Zealand, between lat. 40° and Cape Kidnappers". The type specimen also bears the indication "[S.W.-Pazifik (bei Neuseeland): bei] Bare Island". RATHBUN (1904), TAYLOR (1912), WILLIAMSON (1915), and CLEMENS (1933) all indicated the position of Bare Island to be off the N.W. coast of North America, while BAUMANN (1958) cited the New Zealand locality. HOLTHUIS (1947: 21, footnote) pointed out that all the other Crustacea collected by SCHAUINSLAND at Bare Island are typically northern forms most of which are common in the Vancouver Island area and many not known outside the N.E. Pacific, while not a single of these species has ever been reported from New Zealand. Also the fact that *Hippolyte amabilis* proves to be identical with *Heptacarpus tenuissimus*, a species whose range extends from Alaska to California is indicative that the type locality of *Hippolyte amabilis* is Bare Island, U.S.A. and not Bare Island, New Zealand. Reports on collections of other groups made by SCHAUINSLAND at Bare Island also indicate Bare Island as near Vancouver Island. There can therefore not be the least doubt that LENZ was mistaken when he gave DE MAN the information that the latter published in 1907.

Acknowledgement. — It is a pleasure to thank Prof. Dr. HERMANN BAUMANN of the Bremen Überseemuseum for his kindness to place one of LENZ's types at my disposal.

References

- BAUMANN, H. 1958: Die Typen und Typoide des Überseemuseums Bremen, 6: Crustacea. — Veröff. Überseemus. Bremen, Reihe A, 3; 75—78, Bremen.
- CLEMENS, W. A. 1933: A check list of the Marine Fauna and Flora of the Canadian Pacific Coast: 1—88, Ottawa.
- DE MAN, J. G. 1907: On a Collection of Crustacea, Decapoda and Stomatopoda, chiefly from the Inland Sea of Japan; with descriptions of New Species. — Trans. Linn. Soc., ser. 2, Zool., 9: 387—454, Taf. 31—33, London.
- HOLTHUIS, L. B. 1947: The decapoda of the Siboga Expedition Part IX. The Hippolytidae and Rhynchocinetidae collected by the Siboga and Snellius-Expeditions with remarks on other species. — Siboga Exped. Livr. 140: 1—100, Leiden.
- LENZ, H. 1901: Ergebnisse einer Reise nach dem Pacific (SCHAUINSLAND 1896—1897). Crustaceen. — Zool. Jb. (Syst.) 14 (5): 429—481, Taf. 32, Jena.
- RATHBUN, M. J. 1904: Decapod Crustaceans of the Northwest Coast of North America. — Harriman Alaska Exped., 10: 1—210, 10 Taf., 95 Abb., Washington D.C.
- TAYLOR, M., 1912: Preliminary list of one hundred and twenty-nine species of British Columbia Decapod Crustaceans. Contributions to Canadian Biology, 1906—1910 (xl): 187—214, Ottawa.
- WILLIAMSON, H. C., 1915: Crustacea Decapoda, Larven. — Nordisches Plankton 18 (= Zool. 3): 315—588, Abb. A-F, 1—529, Kiel und Leipzig.

Anschrift des Verfassers:
Prof. Dr. L. B. HOLTHUIS
Rijksmuseum van Natuurlijke Historie
Raamsteeg 2
Leiden, Nederland