First record of *Thambema* (Isopoda: Acellota) in the Mediterranean: *T. ? amicorum* Stebbing from the Gulf of Naples (Italy), and remarks on the diagnosis of the genus

by

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3 Plates

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**Zusammenfassung.** Der Fund eines fast unbeschädigten Weibchens von *Thambema*, eines vom Mittelmeer bisher nicht gemeldeten Acelloten, ermöglicht die Vervollständigung und teilweise Korrektur der Originalbeschreibung. Es wird eine neue Gattungsdiagnose gegeben.

**Summary.** The record of a female specimen of *Thambema*, an Acellota Isopod found for the first time in the Mediterranean Sea, allows the original description to be completed and partly corrected. A new genus diagnosis is given.

**Riassunto.** Il ritrovamento di un esemplare femmina di *Thambema*, un Isopode Acellote rinvenuto per la prima volta nel Mediterraneo, permette di completare e parzialmente correggere la descrizione originale. Si da una nuova diagnosi del genere.

**INTRODUCTION**

The family of Thambematidae at present comprises two monotypic genera: *Thambema* Stebbing, 1913 and *Microthambema* Birstein, 1961. Both are known only from abyssal depths of the Atlantic (*Thambema*) and Pacific Ocean respectively and have been exclusively described in the male sex. The record of a female of the first genus in almost perfect state in the Gulf of Naples notably enlarges the known area of distribution and, furthermore, allows the diagnosis to be completed.

**MATERIAL**

181970; Secca Lo Bianco (Bay of Naples), top area; mixture of sand and mud: depth 140 m: 1 female and 1 juvenile.
The lack of males in my material, on the one hand, and the imprecise and partially faulty description of *Thambema amicorum* by STEBBING (see also BIRSTEIN 1961, p. 153) as well as the damaged specimens of that author call for caution in the erection of a new species, even if there are certain differences, as in the structure of the first antenna and in the mouth parts. In this respect one must also consider the unknown variability, the good agreement in the remaining important morphological features and the Atlantic origin of almost all elements of the recent Mediterranean marine fauna.

A complete redescription of *T. amicorum* or the erection of a new species are, therefore, postponed till new specimens have been found. The drawings presented here of all body features with the exception of the lacking distal portion of the second antenna ensure, in my opinion, the recognition of the species recorded by me. The following statements are confined to the differences to STEBBING'S text and drawings (loc. cit.; p. 237-239, pl. XXVI) accompanied by the description of the so far unknown female pleopods and uropods.

**Cephalothorax** (Pl. 1,C): in the Mediterranean specimen with the frontal margin more truncate.

**First antenna** (Pl. 1,C): presents the most notable differences to STEBBING's drawings and descriptions, especially in the distal portion. The specimen from the Gulf of Naples shows an indistinct separation between the third and fourth segments, the fifth is relatively longer than indicated by STEBBING and reaches distally the minute terminal segment which appears to be much smaller than drawn by STEBBING. The last two segments of the flagellum are each furnished with a sensory filament. The first antenna is altogether more robust than in the drawing of the Atlantic specimen.

**Second antenna** (Pl. 1,C): the most striking feature is the persistence of the original exopodite in the form of a subtriangular scale, neither mentioned nor drawn by STEBBING.

**Mouth parts. Labrum** (Pl. 1,C): with medial portion convex. Mandibles (Pl. 1,D,E): pars incisiva provided with five (STEBBING: four) teeth; lacinia mobilis of the left mandible with five teeth (STEBBING: three) of very different size. Spine-row of the left mandible with four (STEBBING: six), that of the right with six (STEBBING: seven) elements; mandibular palp with three (STEBBING: two) stout spines at the margin of the second segment. First maxilla (Pl. 2,A) with five (STEBBING: three) spines on the inner lobe and ten (STEBBING: eight or ten) on the outer. In the second maxilla (Pl. 2,B) the inner of the two distal lobe is relatively shorter than in STEBBING's drawing. Labium (Pl. 2,C) with two stronger spines on the outer distal margin. Maxilliped (Pl. 2,D): in my specimen the epipodite is terminally more rounded and, on the whole, wider, but the distally not extended margin may be due to first and second segment, loc. cit., on the inner side.

**First peracaridic ischium** appears as in STEBBING.

**Pleon** (Pl. 3): with six pleopods but distinctly thicker than peraeonite; pleon almost parallel-sided, as in STEBBING's specimen: the border. Pleon then tapering and separated by a small ridge at the posterior margin. Second pair of uropods which is persistent while in STEBBING (Pl. 3,H) the exopodite of the endopodite was drawn.

**Uropod** (Pl. 4): exopodite elongate, almost horizontally extending, as long as the second spine of the endopodite, bearing some spines.

**Remarks:** Even the validity of the current species is in doubt. This also according to WOOD, however, there is some indication of BIRSTEIN (loc. cit., p. 133) that the presence of six segments is a constant feature.

Omitting the first and second segments, in the first antenna on the outer distal margin.

This feature may be due to first and second segment. The exopodite of the endopodite was drawn. The pleon almost parallel-sided, as in STEBBING's specimen: the border. Pleon then tapering and separated by a small ridge at the posterior margin. Second pair of uropods which is persistent while in STEBBING (Pl. 3,H) the exopodite of the endopodite was drawn. The exopodite elongate, almost horizontally extending, as long as the second spine of the endopodite, bearing some spines.
First record of *Thambema* in the Mediterranean

...may be due to the different position in which it was drawn by Stebbing; the first and second segments of the palp are distinctly separated (see also Birstein, loc. cit., p. 135), the first less than half as large as the second, provided on the inner and outer border with a terminal seta; third segment of palp distally not expanded (as indicated in Stebbing's drawing), but tapering; the distal margin of the epipodite shows some small appendages of different form.

**First peraeopod** (Pl. 2, E, F): in the specimen from the Gulf of Naples the ischium appears, in relation to the basis and merus, shorter than indicated by Stebbing.

**Pleon** (Pl. 3, E): consists of two segments, the first of which is minute, but distinctly free, in dorsal view partly hidden under the tergum of the last peraeonite; pleotelson in the female in dorsal view in the proximal half with almost parallel margins, then notably tapering distally, not regularly rounded as in Stebbing's drawing of the male pleon, subterminally slightly concave at the border. Pleopods: operculum (Pl. 3, E, F) widening in the proximal third, then tapering and with somewhat concave margins, ending in two rounded lobes separated by a deep incision, each of the lobes bears two small setae; the following pair of pleopods (Pl. 3, G) with the exopodite larger than the endopodite which is provided distally with two strong setae; in the penultimate pair (Pl. 3, H) the exopodite is slightly falcate and does not reach terminally the end of the endopodite which bears a strong terminal seta.

**Uropod** (Pl. 3, E, K): inserted subterminally at the ventral side of the pleotelson, almost half as long as the latter; protopodite stout, longer than wide, as long as the slender exopodite and on its inner margin provided with a short spine; endopodite somewhat less than three times as long as the exopodite, bearing some sensory setae and a terminal tuft of simple setae.

**Remarks:** Even the corrections and additions presented here confirm the validity of the diagnosis given by Wolff (1962, p. 49) for the family *Thambe- 

This also applies to the number of segments in the first antenna (six, according to Wolff) in the case of *Thambema*. Concerning *Microthambema*, however, there is a contradiction between the text and the respective drawing of Birstein (loc. cit., p. 133 a. 134). This author noted: «...first antenna... consists of six segments», but his Fig. 2a clearly shows seven of them.

Omitting the elements of the diagnosis of the family in that of the genus, there remain, in my opinion, the following characteristic features for *Thambema*:

1. First antenna with six segments; second antenna with squama (but see also footnote 1, p. 2 of this paper). Palp of mandible with the third segment falcate (this feature may apply to all members of this family). Palp of maxilliped with first and second segment wider than the endite (the addition «third seg-

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1. This feature has to be regarded as a primitive one.

2. Thambema (s squama lacking)
iment narrower than the endite may be valid only on the species level. First peraeopod is equally formed in both sexes, stronger than the following ones, not clearly subchelate; second thru seventh peraeopod similar in structure to the first and to one another, on all peraeopods the dactylus is provided with one claw only. Pleon, consists of two segments, the first of which is very short. First pleopod of the male with insignificant outer lobe, original third and fourth pleopods biramous; operculum of the female distally bilobous.

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First record of *Thambema* in the Mediterranean

Plate 1. *Thambema amicorum* (Gulf of Naples). A: Habitus, dorsal view; B: Habitus, lateral view; C: First and second (proximal portion) antennæ; D, E: Left and right mandible.
PLATE 2. *Thambema ? amicorum* (♀, Gulf of Naples). A: First maxilla; B: Second maxilla; C: Labium; D: Maxilliped; E, F: First pereopod; G-I: Second to fourth pereopod.
First record of *Thambema* in the Mediterranean

**PLATE 3. Thambema ?amicorum (9, Gulf of Naples).** A: Second pereopod, distal part; B-D: Fifth to seventh pereopod; E: Pleon, ventral view; F: Operculum; G-I: Third to fifth pleopod; K: Uropod.