

# BULLETIN

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DESCRIPTION OF A NEW CAPRELLA-SPECIES FROM THE NETHERLANDS:  
*CAPRELLA MACHO* NOV. SPEC.  
(CRUSTACEA, AMPHIPODA, CAPRELLIDEA)

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### ABSTRACT

A description is given of a new *Caprella*-species, *Caprella macho* nov. spec., found in the summer of 1995 on two localities in the southern part of the Netherlands. Differences with the closely related Asian species *Caprella acanthogaster* Mayer, 1890 are discussed.

### INTRODUCTION

In august 1995, during inventarisations within the framework of the 'Stichting ANEMOON' monitoring program, a great number of specimens of a rather large *Caprella*-species were found on two localities in the southern part of the Netherlands. Further research and comparison with other species showed the species not only to be unknown from Dutch coastal waters, but also undescribed. The species is hereby described as *Caprella macho* nov. spec.

### *CAPRELLA MACHO* NOV. SPEC.

#### Material

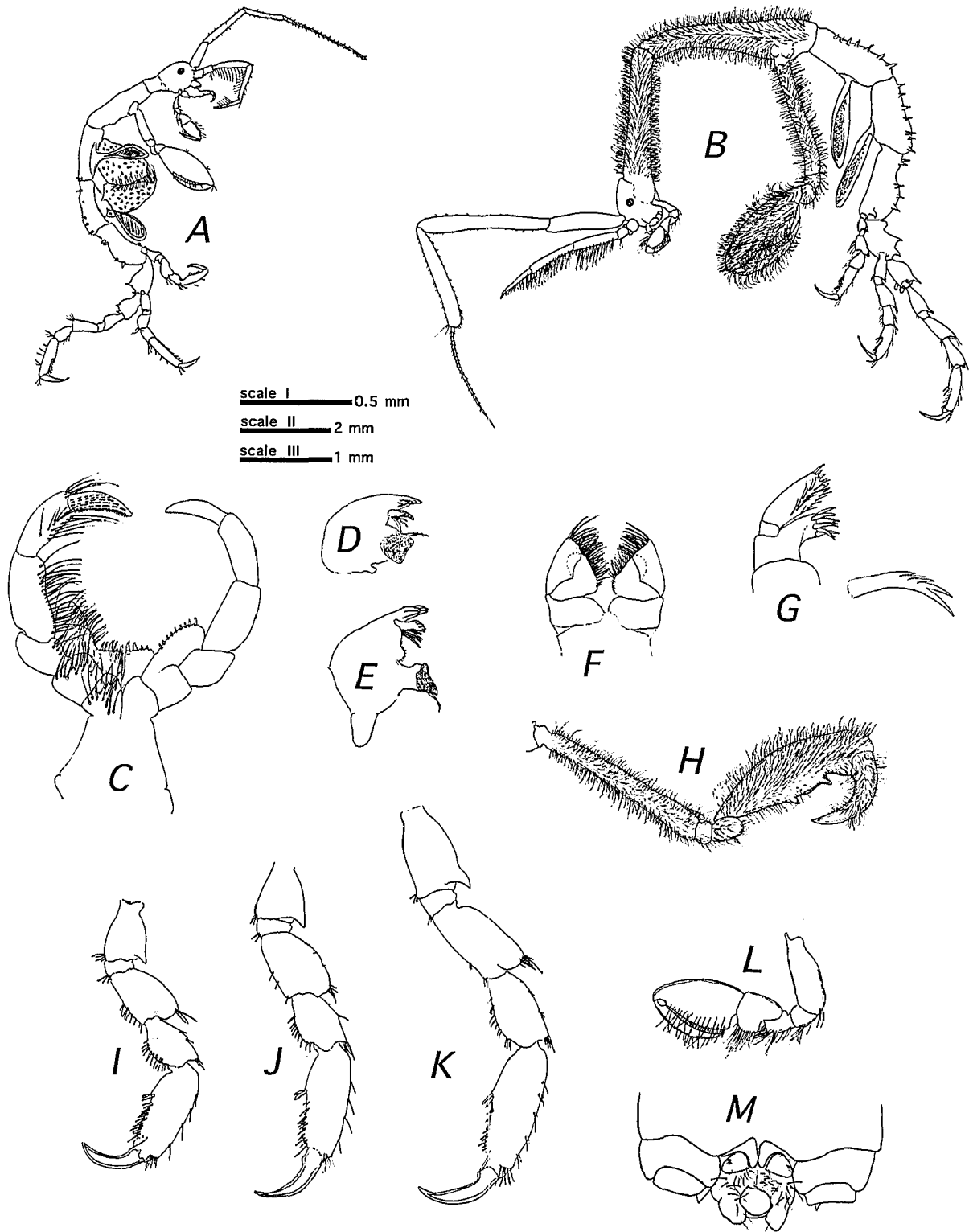
Holotype (male) in ZMA (Crust. Amph. 201.674a). Allotype

(female) in ZMA (Crust. Amph. 201.674b). Paratypes: 40 specimens in ZMA (Crust. Amph. 201.674c) and 24 specimens in CA (collection st. ANEMOON). Type locality = Neeltje Jans, loc. 1 (see below). Leg. A.W. Gmelig Meyling & R.H. de Bruyne, 12.08.1995.

Other material examined: locality 1, 17.08.1995, Leg. A.W. Gmelig Meyling & M. v. Eijdsden: 30 specimens in ZMA (Crust. Amph. 201.675), 16 specimens in CA and 3 specimens in coll. M. v. Eijdsden. Locality 2: 31.08.1995, leg. A.W. Gmelig Meyling: 6 specimens in CA. Locality 3: 4.10.1995, collected during combined inventarisation 'Stichting ANEMOON' and students of 'Hogeschool Zeeland'; 15 specimens in ZMA (Crust. Amph. 201.676) and 6 in CA.

### LOCALITY

1. The Netherlands; province of Zeeland. West-side of storm surge barrier; former work-island 'Neeltje Jans'; pontons and scaffolding about 100 m SW of 'Roompotsluis' (type locality).



*Caprella macho* (nov. spec). 1A) female allotype (11m); 1B) male holotype (24 mm); 1C) maxilliped (scale III); 1D) right mandible (III); 1E) left mandible (III); 1F) second maxilla (III); 1 G) first maxilla (III); 1H) second pereopod (I); 1I) fifth pereopod (I); 1J) sixth pereopod (I); 1K) seventh pereopod (I); 1L) first pereopod (II); 1M) pleo- and urosome (III).

2. The Netherlands; province of Zeeland. East-side of storm surge barrier: former work-island 'Neeltje Jans'; pontons and scaffolding about 100 m SE of 'Roompotsluis'.
3. The Netherlands; Eastern Scheldt; Burghsluis; pontons and scaffolding of harbour.

## DESCRIPTION

Dimensions: largest male specimen examined 24 mm, largest female 11 mm (both locality 1). In Table I dimensions are given of all specimens. The specimens of locality 1 and 2 are on average longer than those of locality 3. Holotype (male specimen): 24 mm, figs 1B-M). Allotype (female): 11 mm, fig. 1A.

Male: First and second pereionites densely covered with setae, third to seventh segment with spines only. Head without dorsal spine. Antennule long, about 3/4 of body length, peduncle 3 times as long as 22-segmented flagellum. Peduncle covered with short setules only. Antenna less than half the length of antennule, ventrally with two rows of setae. Mandibles (fig. 1D and E) with molar, without palp. Left and right lacinia with equal dentation. Maxillule (fig. 1G) with 2-segmented palp. Fourth segment of maxillipedal palp (fig. 1C) covered with rows of very fine setules. First pereopod (fig. 1L) short, with setation on posterior margin only. Second pereopod (fig. 1H) long, densely covered with setae. Pereopod 5 < than 6 < 7

(figs. 1I, 1J, 1K).

Female: no setation on the first and second pereionite, dorsal and lateral spines on pereionites 3 to 7.

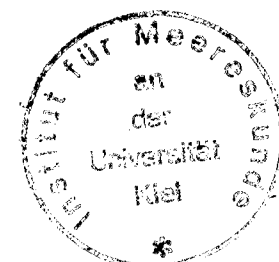
Appearance in live: live specimens of both male and female *Caprella macho* are brightly orange to red in colour, the broodpouch of the female (fig. 1A) being pale white with dark red dots. The living animals observed were very active, both free-swimming as hiding between the accompanying flora and fauna. In the localities examined, this consisted -among others- of molluscs (*Crassostrea gigas*; *Mytilus edulis*); tunicates (*Styela clava*; *Molgula manhattensis*, *Asci-diella aspersa*, *Botryllus schlosseri*; *Cione intestinalis*); sponges (*Scypha ciliata*; *Haliclona oculata*); anthozoans (*Metridium senile*); bryozoans (*Bugula avicularia* & *Bugula sp.*); hydrozoans (*Obelia geniculata*, *Electra pilosa*); crustaceans (among which *Jassa marmorata*; *Phthisica marina*; *Palaemon elegans*, *P. adspersus*, *Balanus crenatus* & *Elminius modestus* and algae, among which *Ulva spec.*, *Antihamnion spec.*, *Ceramium rubrum*, *Callithamnion spec.*, *Bryopsis hypnoides*, *Bryopsis plumosa* & *Cladophora spec.*

## RELATED SPECIES

In the Atlantic there are no Caprellid species comparable with *C. macho* (Sars, 1895; Chevreux & Fage, 1925; Schellenberg, 1942; McCain, 1968; Cattrijsse, Mees & Hamerlynck, 1993). The only closely related

Table I: Average size in mm (av.), standard deviation (st. dev.), maximum (max.) and minimum (min.) length of three samples. Loc. = locality, N = number of specimens.

	av.	st. dev.	min.	max.	N
Loc. 1:					
males	14.8	4.0	7	24	23
fem.	9.2	1.1	7	11	18
juv.	4.3	1.7	2	7	14
Loc. 2:					
males	15.5	3.0	10	21	19
fem.	9.1	1.1	7	11	15
juv.	5.7	2.0	3	8	15
Loc. 3:					
males	11.4	2.4	7	15	10
fem.	6.0	0.7	5	7	5
juv.	6.6	1.5	4	8	6



species seems to be *Caprella acanthogaster* Mayer, 1890, from east Asia and South America. However, the characteristic spine on the head of *C. acanthogaster* is missing in *C. macho*, and the structure of the palm in gnathopod 2 is different: the two teeth on the palmar margin are subequal in *C. macho* and unequal in *C. acanthogaster* (fig. 2A). Also the distal notch is less deep in *C. macho*.

## DISCUSSION

It is not clear why the species escaped attention until now, since the animals are clearly different from the other autochthonous species. Although described from the Netherlands, it is not likely that the species is endemic. Most probably it was somehow imported from elsewhere, as did so many other species in the last decennia. Whether the relatively high water-temperature in the summer of 1995 had any influence on the settlement and/or increase of the species is not clear.

## ETYMOLOGY

The name *macho* is proposed because of the 'hairy' appearance of the male; the first and second pereopods being densely covered with setae.

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