

# A new species of *Cerapopsis* Della Valle (Amphipoda: Isaeidae) from the Atlantic coast of Morocco

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A new species of *Cerapopsis* (*Cerapopsis takamado*) is described from the Atlantic coast of Morocco. The genus *Cerapopsis*, synonymized with *Photis* Kröyer for nearly a quarter of a century is re-established and now known to contain two species.

## INTRODUCTION

The amphipods of the coast of Morocco are less well known than those of the adjoining Mediterranean Sea. Since the early work of Chevreux (1891, 1900, 1927, 1935) there have been no published taxonomic studies on the amphipods of the area. Ecological and faunistic studies of the Moroccan coast have, however, been published by Menioui (1986, 1988a,b), Menioui & Bayed (1986), Bitar (1987), Menioui & Ruffo (1988) and Menioui et al. (1990).

During a recent study of the benthos of the Bay of Dakhla, Morocco, an undescribed species of amphipod was discovered which was clearly closely related to *Cerapopsis longipes* Della Valle, a monotypic genus reduced to the synonymy of *Photis* Kröyer by Krapp-Schickel (1976). We follow the recommendation of Barnard & Karaman (1991) that the genus *Cerapopsis* should be conserved, and assign *Cerapopsis takamado* sp. nov. to this genus.

All material is deposited in the National Museum of Ireland, Dublin (NMI) and the Museum de l'Institut Scientifique de Rabat (MISR), and Palais du Prince Impérial, Tokyo.

Genus *Cerapopsis* Della Valle  
*Cerapopsis* Della Valle, 1893: 388

### Type species

*Cerapopsis longipes* Della Valle, 1893.

Included species *C. takamado* sp. nov.

### Diagnosis

Head ocular lobes strongly produced forward, pedunculate, eyes situated entirely within lobe; antennae short subequal or A2 a little longer than A1, flagellum short composed of few articles, accessory flagellum absent; mandible palp article 3 shorter than 2, spatulate; maxilla 1 inner plate small with single terminal seta; coxae deep, coxa 1 anterodistally produced; female gnathopods small, gnathopod 2 larger than gnathopod 1; male gnathopod 1 slender, carpus elongate, subequal in length to or only a little longer than basis, propodus shorter than carpus

weakly subchelate; male gnathopod 2 grossly enlarged, carpus short, propodus enlarged, posterodistal margin complex, opposed by greatly enlarged dactylus; pereopods 5–6 basis expanded, pereopod 5 basis as broad as long; uropods 1–2 biramous, margins of rami asetiferous or with a few robust setae; uropod 3 uniramous or with vestigial inner ramus.

### Remarks

Krapp-Schickel (1976) synonymized *Cerapopsis* with *Photis* Kröyer. She did not doubt that *Cerapopsis* was very close to *Photis* but its maintenance as a monotypic endemic Mediterranean genus was considered untenable. Barnard & Karaman (1991) maintained *Cerapopsis* based on the anteriorly produced male coxa 1, small coxa 2, carpo-chelate male gnathopod 2 and lack of tooth on dactyl of pereopod 5. The description of the male gnathopod 2 as carpo-chelate is in error, the carpus being quite small. Coxa 2 is not particularly small and the dactyl of pereopod 5 does bear a tooth in the new species described herein. Thus the differences between *Cerapopsis* and *Photis* are principally in the elongate body form, anteriorly produced male coxa 1 and the grossly expanded dactylus of the male gnathopod 2. We would agree with Krapp-Schickel that *Cerapopsis* would remain of questionable value as a monotypic genus. However, the recent discovery of a second species of isaeid amphipod close to *C. longipes* Della Valle on the Atlantic coast of Morocco, suggests that it would be appropriate now to resurrect *Cerapopsis* as a genus which now includes two known species.

*Cerapopsis takamado* sp. nov. (Figures 1–3)

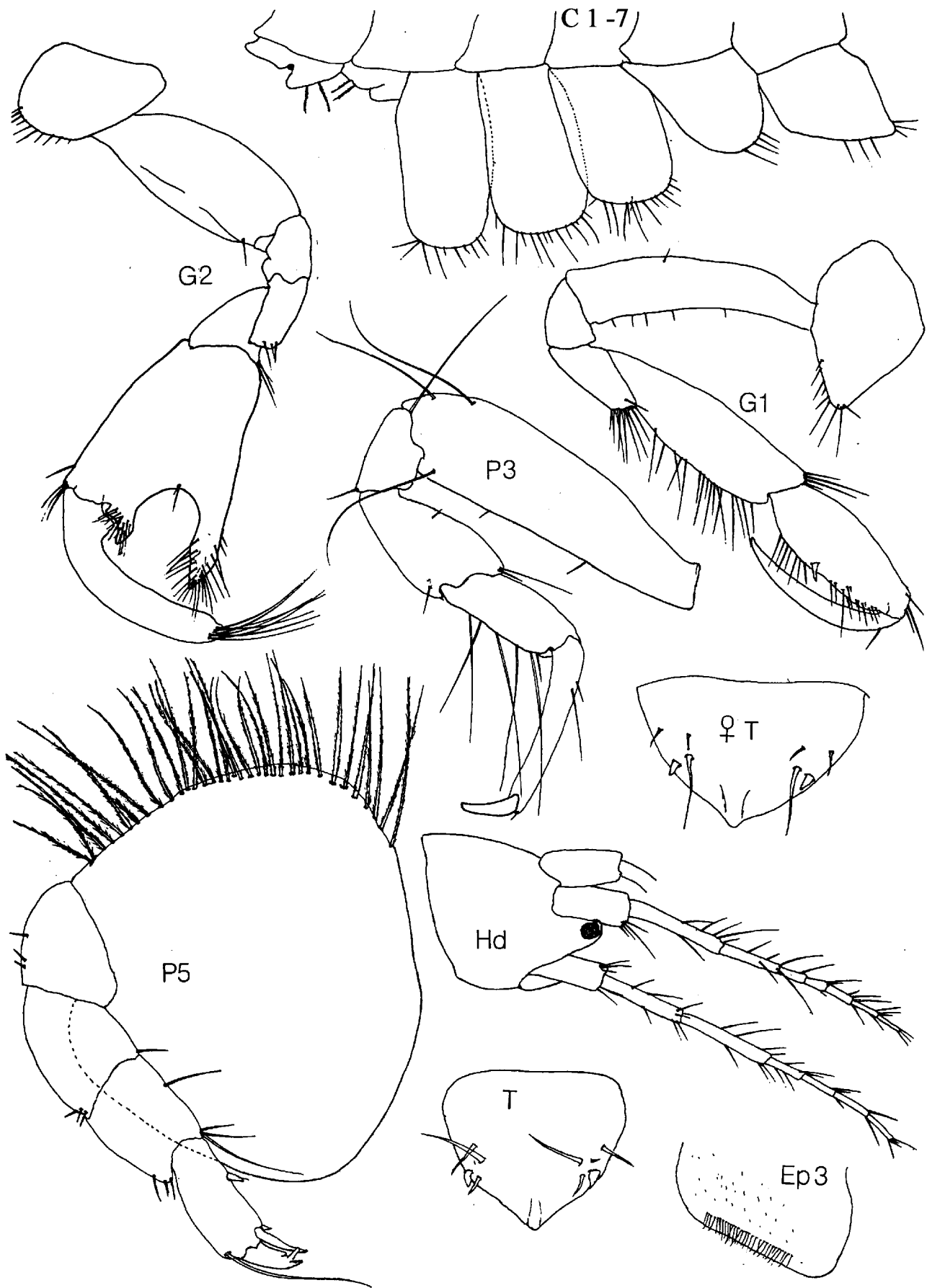
### Material examined

Holotype: male, 3.0 mm, Baie de Dakhla, Morocco, 23°43'N 15°49'W, sand, 12 m, 11 March 2000, NMI 27.2000.

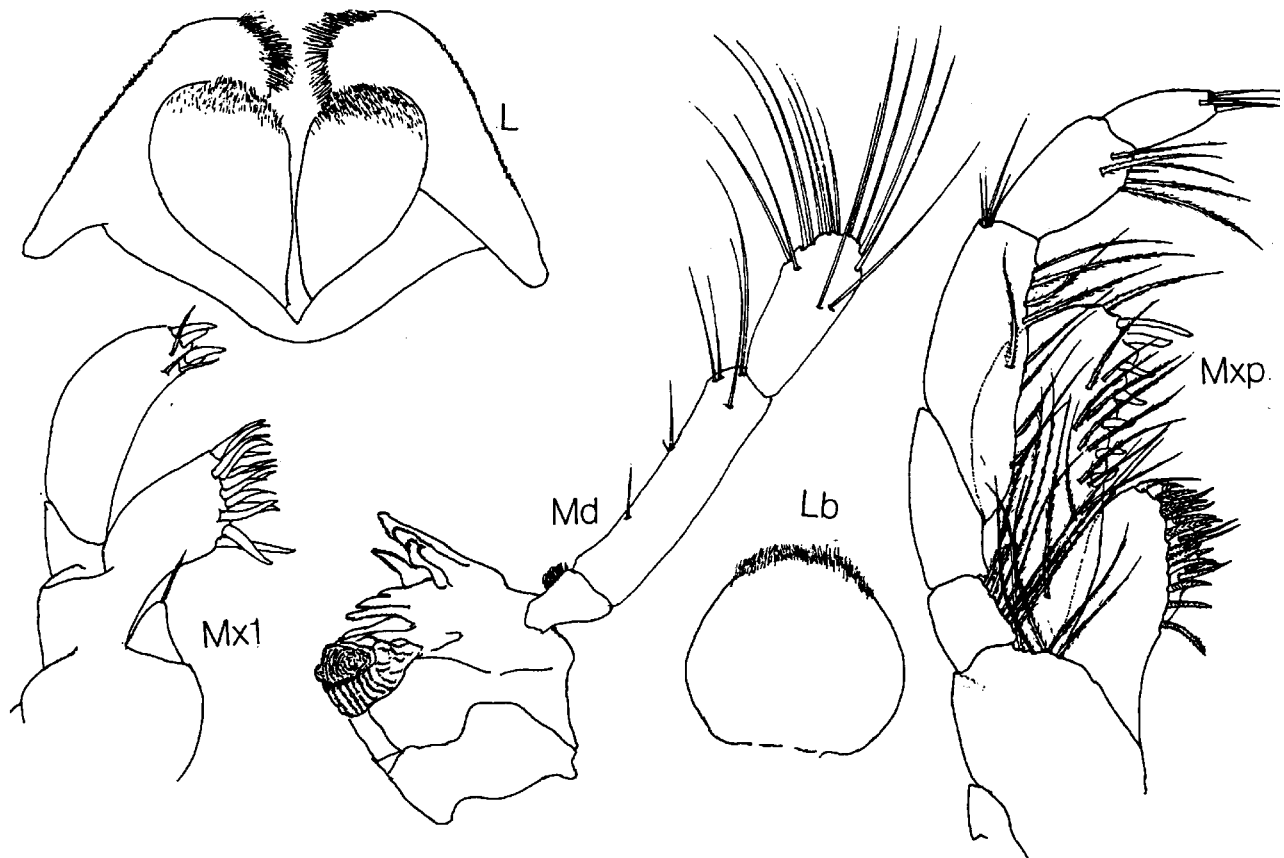
Paratypes: two males, same data as holotype NMI 28.2000, two males, one female, same data as holotype, MISR.

### Description

*Male.* Length 3.0 mm. Head with lateral cephalic lobes strongly produced. Eyes relatively small situated entirely



**Figure 1.** *Cerapopsis takamado* sp. nov., Bay of Dakhla, Morocco. Male unless otherwise stated. C, coxae; Ep, epimera; G, gnathopods; Hd, head; P, pereopod; T, telson.



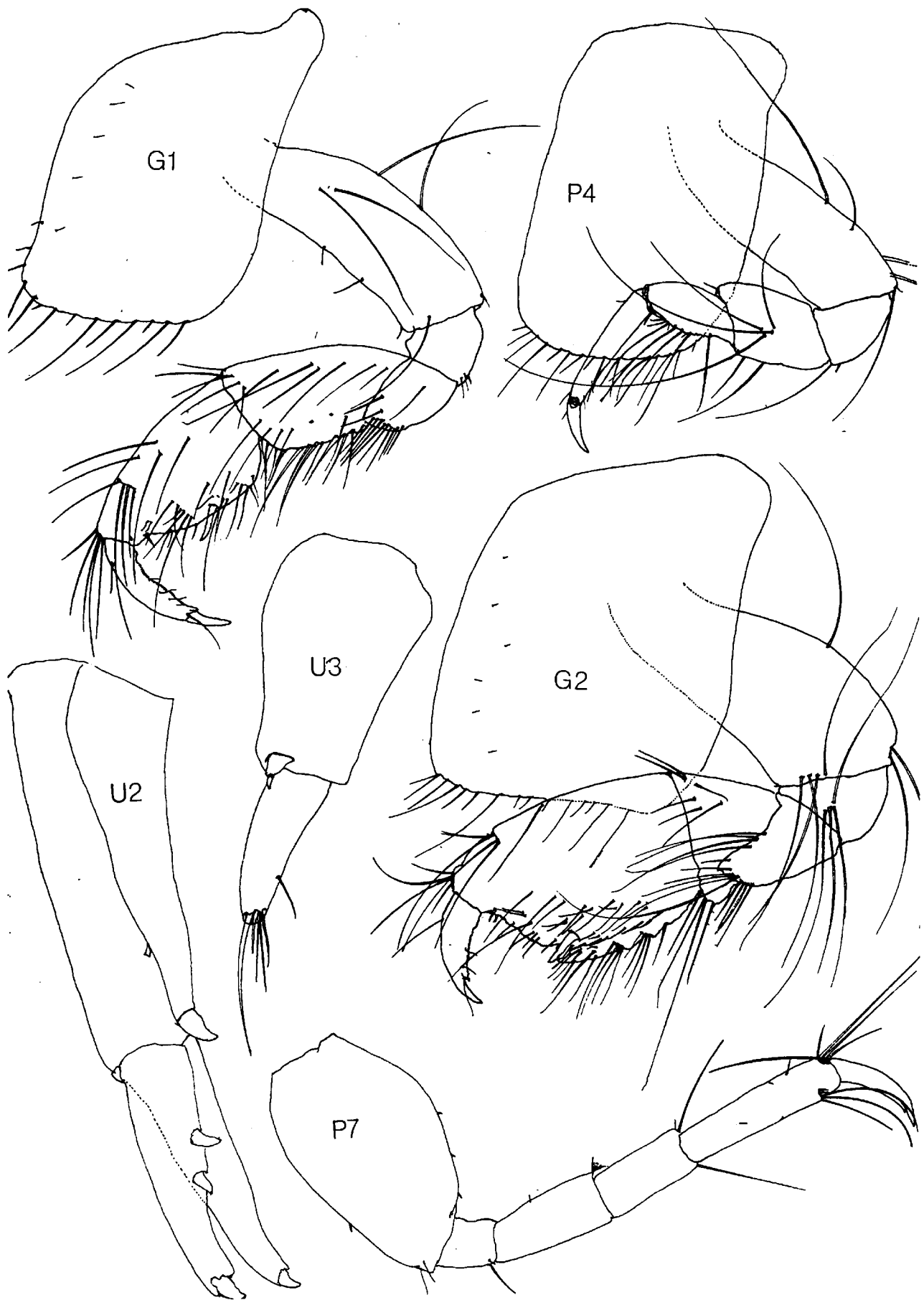
**Figure 2.** *Cerapopsis takamado* sp. nov., Bay of Dakhla, Morocco. Male. L, labium; Lb, labrum; Md, mandible; Mx1, maxilla 1; Mxp, maxilliped.

in terminal portion of lobes. Antenna 1 slightly shorter than antenna 2, peduncular article 1 stout, articles 2 and 3 slender, article 3 shorter than article 1, flagellum shorter than peduncle, with five articles. Antenna 2 with peduncular article 3 stout, article 4 slightly shorter than article 5, flagellum shorter than peduncle, with four articles. Labrum ventral margin rounded, setose. Mandible incisor and molar well developed, palp article 2 the longest, article 3 spatulate. Maxilla 1 inner lobe with one terminal seta, palp article 2 with 3 robust setae and 4–5 slender setae. Maxilla 2 inner plate lacking a facial row of setae. Labium mandibular processes elongate and terminally rounded. Maxilliped palp dactylus ovate.

Gnathopod 1 coxa produced anteriorly, subacute; basis slender, length  $>4\times$  breadth, slightly longer than carpus and twice length of propodus, carpus slender, less than twice length of propodus, propodus slender, ovoid, palm obsolete, dactylus elongate, slender, almost equal in length to propodus. Gnathopod 2 coxa subquadrangular to subtriangular, subequal in size with coxa 1, basis stout, subovoid, carpus very short, cup-shaped, the posterior distal margin produced into a short lobe, propodus enormous broadening distally, posterodistal margin produced into two teeth bearing many setae, separated by a deep round sinus, the outer tooth the longer; dactylus enormous, stout, terminally setiferous, with a strong lobe on its posterior proximal margin. Pereopods 3–4 slender, coxae deeper than coxae 1–2 basis anterior margin almost straight, posterior margin slightly convex. Pereopod 5 basis very expanded, subtriangular, slightly broader than long, anterior margin with long plumose

setae, propodus posterior margin with two small robust setae, one medial one distal and one very large distal robust seta equal in length to dactylus; dactylus toothed. Pereopod 6 basis expanded, subquadrangular, anterior margin with long plumose setae, propodus without robust setae on its posterior margin but with large distal robust seta, dactylus toothed. Pereopod 7 basis subovoid, anterior margin almost straight, posterior margin weakly excavate distally. Epimeron 1 with a few anterior setae. Epimeron 2 posterior margin almost straight, with a row of marginal short setae. Epimeron 3 posterior margin subround. Uropod 1 peduncle elongate, twice length of inner ramus, rami subequal, each ramus with a few short marginal robust setae and terminating in a single stout robust seta. Uropod 2 peduncle slightly longer than outer ramus, inner ramus slightly longer than outer, each ramus with a single marginal robust seta and terminating in a single stout robust seta. Uropod 3 stout, biramous, peduncle longer than outer ramus, inner ramus reduced, about  $1/5$  outer ramus, terminating in a single robust seta, outer ramus terminating in a long seta and 3–4 shorter setae. Telson distal margin produced into a triangular process, dorsolateral crests each with a stout, slightly hooked robust seta, a pair of long setae, two pairs of medium setae and one pair of small setae.

*Female.* Ovigerous (seven eggs) gnathopod 1 coxa not as produced anteriorly as the male, subtrapezoidal; basis robust, length about  $3\times$  breadth, longer than carpus and less than twice the length of propodus, carpus and propodus subequal, propodus subovoid, palm not defined. Gnathopod 2 coxa subtrapezoidal, carpus much shorter



**Figure 3.** *Cerapopsis takamado* sp. nov., Bay of Dakhla, Morocco. Female. G, gnathopods; P, pereopod; U, uropod.

than propodus and triangular, propodus subovoid, palm oblique, incised distally, followed by a small tooth and a robust seta; dactylus stout, without terminal setae, and without strong lobe on its posterior proximal margin.

#### Habitat

In shallow water (12 m) in sand.

### DISCUSSION

Two species of *Cerapopsis* are now known: *C. longipes* from the Mediterranean and Senegal and *C. takamado* sp. nov. currently known only from Atlantic Morocco. *Cerapopsis takamado* differs from *C. longipes* in several ways. In *C. takamado*, the propodus of pereopods 3 and 4 is very elongate, more than eight times as long as wide as opposed to about five times as long as wide in *C. longipes*, uropods 1 and 2 are stout, with marginal robust setae whereas they are slender and asetiferous in *C. longipes*. Uropod 3 bears a small inner ramus (uniramous in *C. longipes*) and the telson is distally triangular in *C. takamado* but rounded in *C. longipes*. In the male, the carpus and propodus of gnathopod 1 are much less elongate and slender in *C. takamado* than in *C. longipes* and the carpus of gnathopod 2 in *C. takamado* is much broader distally and has a deep round excavation between the distal and proximal lobes by contrast it is relatively shallow and triangular in *C. longipes*.

More detailed faunal studies along the West African and Iberian coasts will probably show this genus to be more widely distributed than current records suggest.

#### Etymology

The species is dedicated to Their Imperial Highnesses the Prince and Princess Takamado of Japan, for honouring the Institut Scientifique de Rabat with a visit and in thanks for the Japanese continued support of oceanographic research in Morocco.

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