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Oratosquilla septemdentata n.sp. (Crustacea: Stomatopoda: Squillidae), a New Species of Deep Water Stomatopod from Halmahera, Indonesia

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ABSTRACT. *Oratosquilla septemdentata* n.sp., is a new species of stomatopod from Halmahera. It is unique in *Oratosquilla* for bearing seven teeth on the raptorial claw. Although it corresponds to none of the current species groups within the genus, it comes closest to species of the *Oratosquilla woodmasoni* species group. *Oratosquilla septemdentata* is the only species of this genus known to occur in depths exceeding 400 m.

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During examination of unidentified stomatopods in the collections of the Australian Museum, two specimens collected from Halmahera in deep water, simply labelled "*Oratosquilla* sp." were found. Their dissimilarity to any known stomatopod prompted a description of this new species.

The type material is deposited in the Australian Museum, Sydney.

Total length is measured on the midline, from the anterior margin of the rostral plate to a line between the apices of the submedian teeth of the telson. Carapace length is measured along the midline and excludes the rostral plate. The corneal index (given as the carapace length divided by the cornea width multiplied by 100) follows the convention of Manning (1971).

Oratosquilla Manning, 1968

Oratosquilla septemdentata n.sp.

Fig. 1

Type material. HOLOTYPE, male, total length 81.3 mm (AM P41484), inner basin, Teluk Kau, Halmahera, Indonesia, 0°55'N 127°49'E, 460 m, 1.8 m beam trawl, Te Vega Expedition, coll. J. Bennett, Stn 56, 26 Sept. 1963. PARATYPE, male, total length 83 mm, type locality (AM P41839).

Diagnosis. Rostral plate length and breadth equal, lacking median carina; apex rounded; eye large, cornea set obliquely on stalk; corneal index 349; anterior margin of ophthalmic somite 3 pointed; anterior width of

carapace exceeding half median length; median carina of carapace poorly defined; anterior bifurcation of median carina of carapace absent; raptorial claw with 7 teeth, dorsal ridge of carpus tuberculate (2-3 tubercles), inferodistal margin of outer face of merus produced to a blunt projection; mandibular palp 3-segmented; epipod on first 4 maxillipeds; lateral processes of exposed thoracic somites bilobed; abdominal carinae armed on the following somites: submedian 5-6, intermediate 3-6, lateral 1-6, marginal 1-5; telson denticles: 4-5 submedian, 8-9 intermediate, 1 lateral; proximal segment of uropodal exopod 1.3 times length of distal; inner spine on basal prolongation of uropod with rounded lobe on outer margin, proximal margin of spine slightly concave.

Description. Size small to medium; total length of adults less than 83mm. Body appearing smooth and polished under magnification.

Eye (Fig. 1B) moderate to large with cornea bilobed and set obliquely on stalk. Eyes not extending beyond first segment of antennular peduncle. Corneal index 349. Ocular scales inclined laterally, separated mesially and subtruncate. Anterior margin of ophthalmic somite with three points.

Rostral plate length and breadth equal (Fig. 1A). Lateral margins convergent; apex rounded; median carina absent.

Antennal scale long and slender, 0.8 times the carapace length.

Carapace narrowing anteriorly. Anterior width of carapace exceeding half median length. Anterolateral spines strong, extending just beyond base of rostral plate. Median carina poorly developed. Anterior

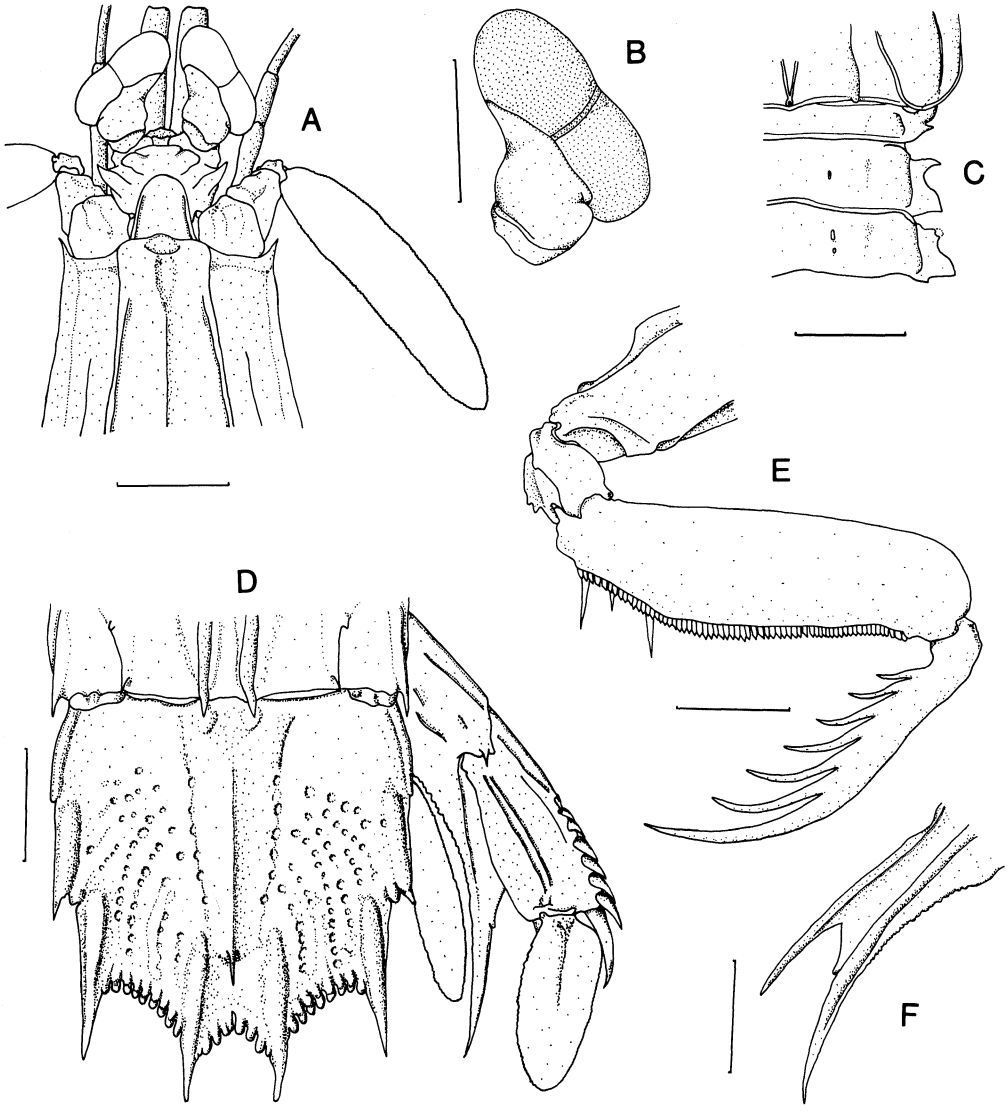

Fig. 1. *Oratosquilla septemdentata*, holotype, male, AM P41484, total length 81.3 mm, Halmahera: A, anterior portion of body; B, right eye; C, lateral processes of fifth, sixth and seventh thoracic somites; D, telson and right uropod; E, raptorial claw; F, basal prolongation of right uropod, ventral view. Setae have been omitted. Scale bars in A,C,D,E,F = 5 mm; B = 3 mm.

bifurcation of carina absent. A longitudinal depression lies posterior to rostral plate in normal position of anterior bifurcation (Fig. 1A). Posterior bifurcation of median carina well developed. Posterolateral angles broadly rounded; median spinule on posterior margin of carapace.

Mandibular palp 3-segmented; epipod present on first 4 maxillipeds. Ischium of fifth maxilliped armed with ventrally directed spine on posterior margin.

Dactylus of the raptorial claw (Fig. 1E) armed with 7 teeth; outer margin broadly curved, moderately sinuous proximally. Inferior margin of propodus pectinate with 3 movable spines. Dorsal ridge of carpus tuberculate (2-3 tubercles). Inferodistal angle on outer face of merus produced to a blunt projection.

Exposed thoracic somites (Fig. 1C) with unarmed submedian and intermediate carinae. Submedian carina poorly developed; incomplete. Lateral processes of fifth, sixth and seventh thoracic somites bilobed. Lateral processes of fifth somite with anterior lobe produced into a slender spine directed anterolaterally; posterior lobe acute and much smaller. Lateral processes of sixth somite strongly bilobed: anterior lobe spinous and moderately recurved posteriorly; posterior lobe triangular to subquadrate. Lateral processes of seventh somite with anterior lobe small and blunt; posterior lobe large and triangular to subquadrate.

Eight carinae present on anterior 5 abdominal somites. Six carinae present on sixth abdominal somite. Abdominal carina posteriorly spined on the following somites: submedian carina 5-6, intermediate carina 3-6, lateral carina 1-6, marginal carina 1-5.

Telson (Fig. 1D) flattened, length 1.1 times width. Prelateral lobe subequal in length to margin of lateral tooth. Dorsal surface of telson ornamented with curved rows of shallow pits. Median carina posteriorly armed. On posterior margin of telson, denticles present as follows: 4-5 submedian; 8-9 intermediate; 1 lateral. Ventral surface with low postanal keel.

Uropod slender (Fig. 1D,F); lobe on outer margin of inner spine of basal prolongation small and rounded, proximal margin slightly concave. Inner margin of inner uropodal prolongation sinuous; inner prolongation longer than outer. Lateroventral surface of sixth abdominal somite with small spine anterior to uropodal articulation. Proximal segment of uropodal exopod 1.3 times longer than distal. Outer margin of proximal segment of uropod with 8 movable spines.

Colour in alcohol. A rectangular concentration of dark pigment is present medially on the second abdominal somite. The posterior margin of the telson and the distal half of the uropods bear dark pigmentation. Colours are otherwise faded to creamy-yellow in the present specimens.

Measurements. Holotype male 81.3 mm long: carapace length 17.4 mm; corneal index 349; rostral plate length 3.0 mm, width 3.1 mm; telson length 18.2 mm, width 16.3 mm.

Etymology. The specific name is derived from the Latin *septem* and *dentis* referring to the seven-toothed raptorial claw.

Remarks. *Oratosquilla septemdentata* differs from other species presently assigned to *Oratosquilla* in bearing seven teeth on the raptorial claw. Whilst the most striking feature of *O. septemdentata* is the dentition of the raptorial claw, the condition of the median carina of the carapace is significant. In other species of *Oratosquilla*, the median carina of the carapace is almost always well developed despite the presence or absence of the anterior bifurcation. In *O. septemdentata*, although the medial region of the carapace is elevated and peaks along the midline, the median carina is only barely distinguishable. While stage of growth may affect resolution of structures such as the median carina, as in post larvae and juveniles, the present specimens appear to be adults as suggested by the well-developed penes. The rudimentary condition of the median carina is likely to be a normal character in adults of this species.

Within *Oratosquilla*, *O. septemdentata* corresponds to none of the current species groups though it most closely resembles species of the *O. woodmasoni* species group (Manning, 1978). As in other species of the *O. woodmasoni* group, the anterior carapace width exceeds half the carapace length, the body surface is smooth, the carpal crest of the raptorial claw is tuberculate and the anterior bifurcation of the median carina of the carapace is absent (as in some members of this group). However, the inferodistal spine on the outer merus of the raptorial claw is unarmed resembling species of the *O. gonypetes* group (Manning, 1978) and the anterior margin of the ophthalmic somite is three-pointed rather than broadly curved, with or without a median spinule as is characteristic of the *O. woodmasoni* group. All present members of the *O. woodmasoni* group have six teeth on the raptorial claw. This is the only species in the genus bearing seven teeth on the raptorial claw. Further study may indicate separate generic status, but at this stage it would be premature to erect a new genus based essentially on what may be an odd apomorphic character.

Most species of *Oratosquilla* inhabit the shallow sublittoral zone though *O. perpensa* (Kemp, 1911) has been taken from 73-91.5 m (Manning, 1978) and *O. massavensis* (Kossmann, 1880) at 100 m (Makarov, 1971). *Oratosquilla septemdentata* appears to be a deep water form as no other oratosquillid is known to occur below 400 m (Manning, 1991).

Distribution. Known only from the type locality.

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