A NEW SPECIES OF PALAEMON (NEMATOPALAEMON) (DECAPODA, PALAEMONIDAE) FROM THE PACIFIC COAST OF COLOMBIA

BY

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INTRODUCTION

Holthuis (1950) described a new species and a new subgenus of palaemonid shrimp, Palaemon (Nematopalaemon) schmitti, from the coast of Surinam, where it had been taken in the same localities as Xiphopenaeus kroyeri (Heller). Both these species of shrimp are of commercial importance in Surinam and in British Guiana, the latter species being the most abundant (Holthuis, 1959).

Holthuis (1952) referred to the three species then known to belong to the subgenus Nematopalaemon: P. tenuipes (Henderson) from the Indo-Westpacific region, P. hastatus Aurivillius from West Africa and P. schmitti Holthuis from the Atlantic coast of South America. The differences between the former two and P. schmitti quoted from Holthuis indicate that these two are also different from the present new species in the following characters: (a) "... the sixth abdominal segment in P. schmitti is longer than that in P. tenuipes, being more than 2/3 of the length of the carapace"; in the new species the sixth abdominal segment is about 3/4 of the length of the carapace. (b) "P. schmitti differs from ... P. hastatus in the rostral formula ... [which in the latter species] is \( \frac{7 - 11 + 1}{3 - 6} \); in the new species the rostral formula is \( \frac{4 - 6 + 1}{4 - 7} \).

The main differences between the new species and P. schmitti are as follows: (a) The rostral formula of P. schmitti is \( \frac{3 - 4 + 1}{7 - 9} \) and of the new species it is as given above. (b) The first pereiopod reaches with the tips of the fingers beyond the scaphocerite in P. schmitti and in the new species generally does not nearly reach the end of the scaphocerite.

The new species from the Pacific coast of Colombia was found in shallow coastal water in catches containing mostly Xiphopenaeus riveti Bouvier. It resembles Palaemon schmitti in the habitat and in the fact that it is usually caught together with a Xiphopenaeus species. However, the new species seems to occur in relatively much smaller numbers. This is also the reason why the fishermen of Colombia do not keep this species, but discard it with the smaller shrimps of the catches.
Palaemon (Nematopalaemon) colombiensis new species (fig. 1)

Material examined. —

Off Pizarro, Colombia, 5°09'N 77°28'W; 9.1 m (= 5 fathoms) deep, 1 August 1969; "Cacique" Sta. 136; leg. H. J. Squires and O. Mora. — 4 males, 12 females (10 ovigerous). One of the ovigerous females is the holotype.

Off Tortugas, Colombia, 3°41'N 78°18'W; 9.1 m (= 5 fathoms) deep; 28 October 1969; "Cacique" Sta. 187. — 23 males, 8 females (5 ovigerous).

Bahia Humboldt, Colombia, 7°57'N 77°25'W; 9.1 m (= 5 fathoms) deep; 30 November 1969; "Chocó" Sta. 108. — 5 females (non-ovigerous).

Off San Juan del Sur, Colombia, 2°17'N 78°14'W; 18.3 m (= 10 fathoms) deep; 12 December 1969; "Chocó" Sta. 140. — 1 ovigerous female.

Off Naya, Colombia, 3°13'N 77°76'W; 9.1 m (= 5 fathoms) deep; 15 December 1969; "Chocó" Sta. 142. — 6 females (5 ovigerous).

Type. — The holotype, an ovigerous female (carapace length 12 mm, total length 75 mm) (USNM 128121) and 14 paratypes (USNM 128122), all from off Pizarro are deposited in the United States National Museum, Smithsonian Institution, Washington, D.C. Paratypes are also deposited at the Institute de Ciencias Naturales at the Universidad Nacional de Colombia at Bogotá, and in the Rijksmuseum van Natuurlijke Historie, Leiden, Netherlands (reg. no. Crust. D. 26547). The figures given here are made after female paratypes.

Colour. — In the living animal the colour was whitish translucent with patches of red chromatophores as follows: dorsally over the stomach (seen through the carapace), and dorsally along the posterior edges of each abdominal segment. The dorsal and ventral fringes of setae of the rostrum and those of the tips of the uropods and the telson, as well as those fringing the pleopods and the mouthparts (including the third maxilliped) are red.

Size. — A small species: the carapace length of the males (based on 17 specimens) ranges from 8 to 12 mm, that of the females (10 specimens) from 9 to 14 mm. The rostrum in the males is 14 to 19 mm long, in the females 13 to 23 mm. The length of the sixth abdominal somite in the males (18 specimens) ranges from 6 to 9 mm, in the females (16 specimens) from 7 to 10 mm.

Description. — The species has a long upcurved rostrum, which is longer than the carapace. At the base of the rostrum over the eyes there is a moderately high crest with 4 to 6, mostly 5, spines directed forward and preceded by a small notch. Between each pair of spines are intercalated 4 to 16 setae, which are of about the same height as the spines. There are no other spines dorsally on the rostrum except for one subapical spine, but ventrally there are 4 to 7, mostly 5, evenly spaced spines. Ventrally on the rostrum there are numerous setae beginning near the eye, and continuing as far as the third dorsal spine. The carapace is smooth, with antennal and branchiostegal spines only. The branchiostegial spine is preceded by a short carina on the carapace.

The first pereiopods do not quite reach the end of the scaphocerite. They are