

A New Species of *Plesionika* (Crustacea, Decapoda, Pandalidae) from the Pacific Coast of Colombia¹

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THE SHRIMP SPECIES described in this work was taken during survey fishing for shrimps and fishes on the steep continental slope off the Pacific coast of Colombia in depths of 209 to 302 m. The bottom was of fine mud. Other species of decapod crustaceans present were *Heterocarpus vicarius*, *Pantomus* sp., *Solenocera agassizii*, and *Pleuroncodes monodon*.

FAMILY PANDALIDAE

Plesionika trispinus new species

Figures 1, 2

Material Examined

Off Cupica, Colombia, 06°34' N, 77°29' W; 256-265 m deep; 21 May 1971; *Choco* Station 575: 2 males, 4 females.

Off Cupica, Colombia, 06°32' N, 77°38' W; 265-275 m deep; 23 May 1971; *Choco* Station 583: 12 males, 13 females (2 ovigerous).

Off Bahía Humboldt, Colombia, 06°55' N, 77°46' W; 275 m deep; 25 May 1971; *Choco* Station 592: 1 male, 2 females.

Off Golfo de Tibugá, Colombia, 06°00' N, 77°25' W; 209-256 m deep; 26 May 1971; *Choco* Station 594: 6 males, 11 females (4 ovigerous).

Off Golfo de Tibugá, Colombia, 06°05' N, 77°25' W; 264-302 m; 26 May 1971; *Choco* Station 595: 10 males, 10 females (4 ovigerous).

Off Golfo Tibugá, Colombia, 05°54' N, 77°20' W; 285-296 m; 27 May 1971; *Choco* Station 598: 1 male, 1 female.

Off Pizarro, Colombia, 05°10' N, 77°25' W; 257-275 m; 28 May 1971; *Choco* Station 602; 11 males, 15 females (14 ovigerous). One of the males from this station is the holotype.

Type

The holotype, a mature male (carapace length 16 mm, total length 80 mm), USNM 151401, and paratypes 10 males and 10 females from off Pizarro, Colombia, USNM 151402, and paratypes 3 males and 1 female from off Cupica, USNM 151403, are deposited in the United States National Museum, Smithsonian Institution, Washington, D.C. Paratypes are also deposited in the Instituto de Ciencias Naturales, Universidad Nacional de Colombia, Bogotá. The figures are drawn from male and female paratypes.

Size

This is a small shrimp species with carapace lengths of adult males ranging from 13 to 17 mm (based on measurements of 17 specimens), and of females from 13 to 18 mm (28 specimens). The rostrum in males is 20 to 28 mm long and in females 19 to 27 mm.

Description

The species has a long up-curving rostrum about 1.5 times as long as the carapace. The rostrum has 11 to 14 spines above, the first three of which on the carapace are in front of the orbit and in rapidly ascending height, and form a group separated from the others by a short space. The group of three are sutured at the base and moveable. The others on the rostrum are not sutured but are fixed spines in an almost equidistant series. One subapical spine is separated from the others by a space almost

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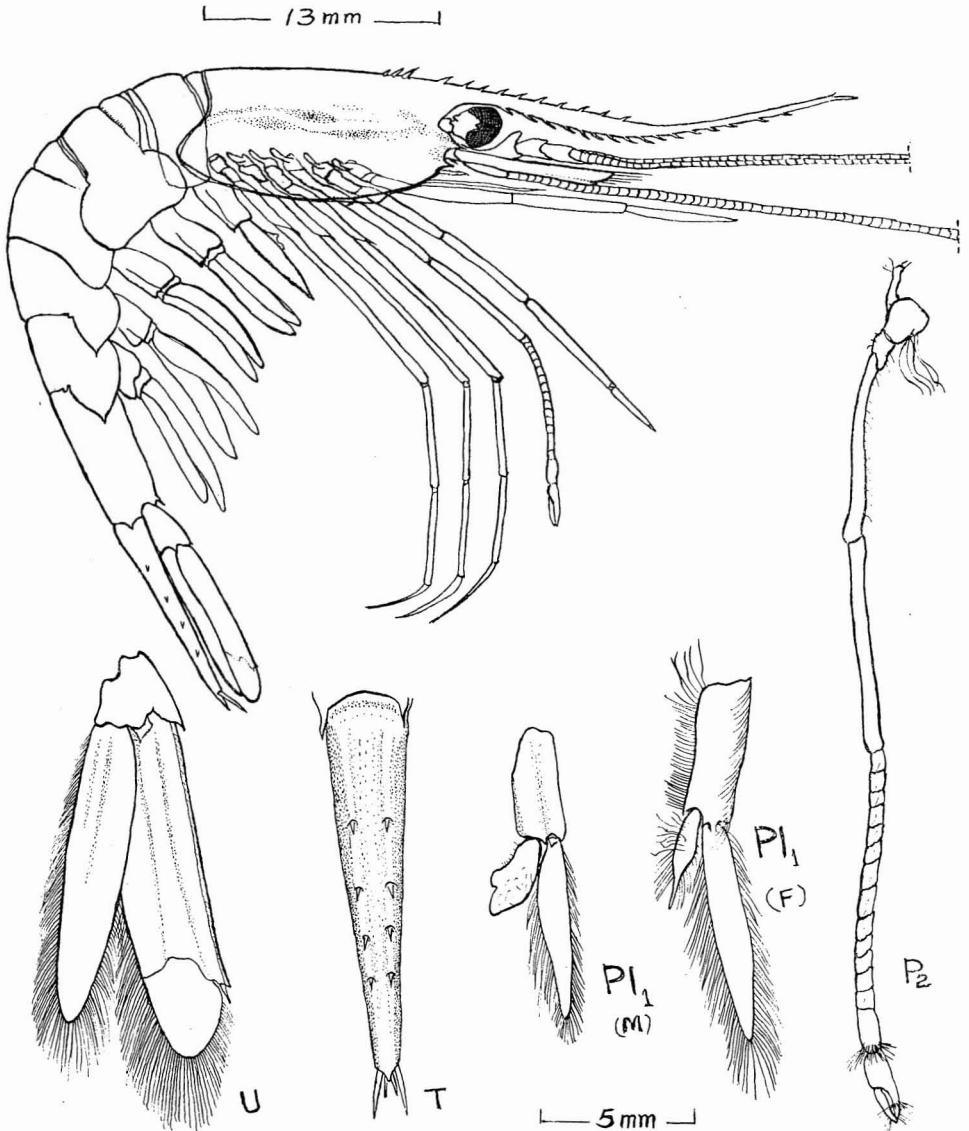


FIGURE 1. *Plesionika trispinus* n. sp., from the Pacific coast of Colombia. U, uropod; T, telson; PI_1 (M), first pleopod, male; PI_1 (F), first pleopod, female; P_2 , second pereopod.

one-half the length of the rostrum. Ventrally on the rostrum are 10 to 18 closely spaced and fixed spines progressively more separated distally (Figure 1).

The integument of the carapace appears to be minutely pitted, although no scales were seen such as those found in Gulf of Mexico species of *Plesionika*: *P. polyacanthomerus* and *P. acanthonotus* (Pequegnat 1970). The antennal spine is

very strong and has a low rounded carina. The pterygostomial spine is small. Laterally on the carapace is a low curving ridge extending from near the orbit to near the posterior edge. Beside and above the ridge in the hepatic region is one oval depression and two others below the ridge. There is also a faint impression of a cervical groove dorsally (Figure 1).

The abdomen has no dorsal spines on any of

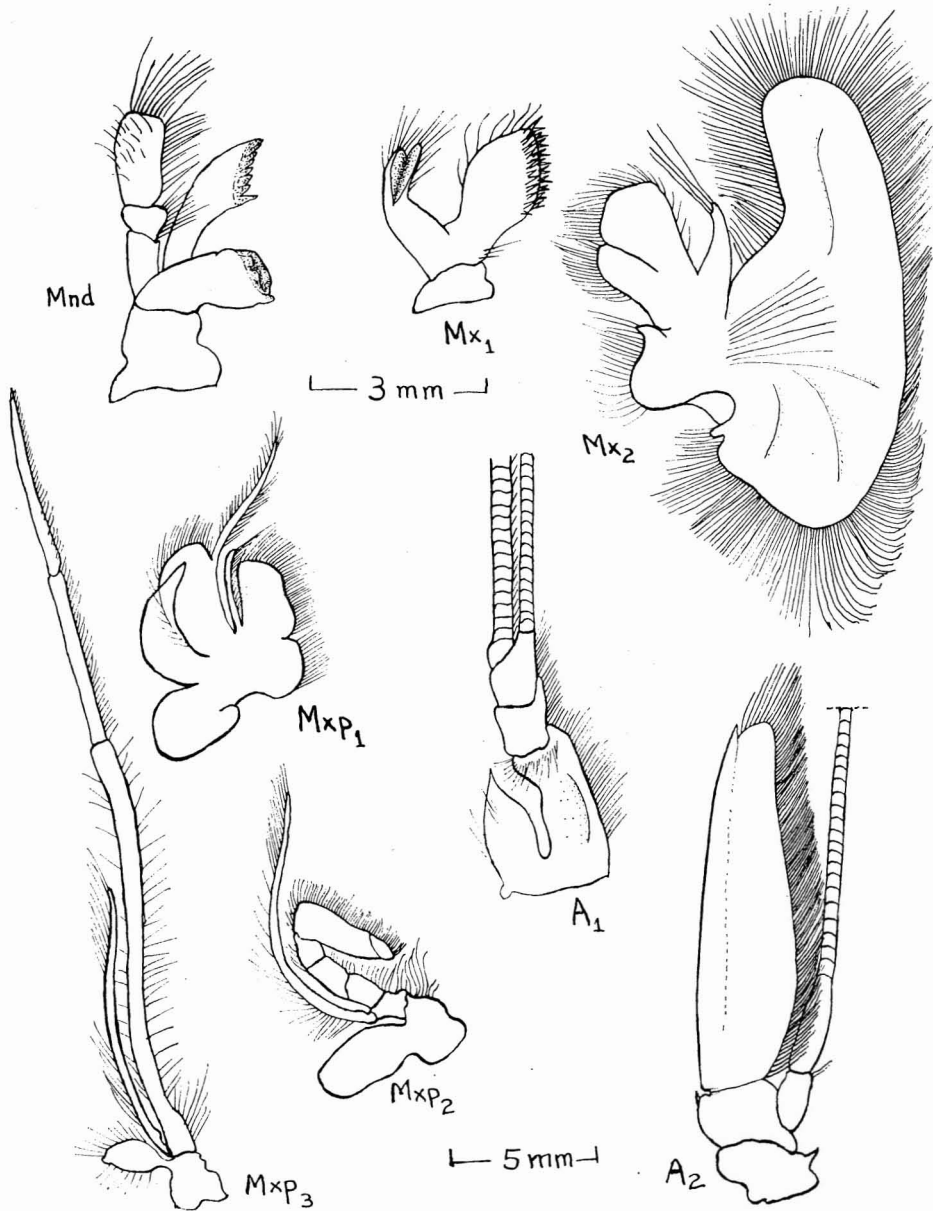


FIGURE 2. *Plesionika trispinus* n. sp., from the Pacific coast of Colombia. Mnd, mandible; Mx₁, first maxilla; Mx₂, second maxilla; Mxp₁, first maxilliped; Mxp₂, second maxilliped; Mxp₃, third maxilliped; A₁, antennule; A₂, antenna.

the tergites but the area of muscle attachment dorsally on the second and third segments is deeply indented transversely. The pleura of the fourth and fifth segments are produced posteriorly, each ending in a spine. The sixth segment is not quite twice the length of the fifth and has

a spine ventrolaterally at the posterior end. The telson is slightly (one-tenth) longer than the sixth segment and has two low carinae that bear four pairs of moveable spinules, the first pair of which is separated from the others. The apex is acuminate, with a lateral pair of long

spines and a median pair much smaller (less than half the length). The outer edges of the outer branches of the uropods end in a sharp projection in the axil of which is a large moveable spine. A fringe of short setae is inside the edge of this branch for its entire length (Figure 1).

The first and second pereopods are about the same length, reaching forward just beyond the series of dorsal spines on the rostrum. The first have microscopic chelae. The second pereopods are approximately equal to each other in size, length, etc., with 14 to 17 annulations on the carpus and with slender chelae. The third to fifth legs are longer than the first and about equal in length to each other (not quite reaching the tip of the rostrum when stretched forward), but their dactyli are unequal, decreasing in size from the third to the fifth leg. The dactylus of the fifth leg is a little more than one-half the length of the propodus (Figure 1).

The pleopods have endopods modified according to sex: in the male the first pleopod is short, wide, and foliaceous with a truncate appendix interna tipped with cinnicinnuli; in the female it is long and tapering to a point and with many setae (Figure 1, Pl₁). The appendix masculina of the otherwise unmodified second pleopod is slightly longer than the appendix interna in mature males and is tipped with several long setae.

Some other noteworthy characteristics illustrated in Figure 2 are:

1. The larger of the flagella of the antennule (A₁) is flattened and oval in cross section for the first (proximal) sixth of its length. The stylocerite is sharp-pointed and about equal in length to the first segment of the antennular peduncle. It has an outer projection proximally that can be seen in the orbit in entire specimens.
2. The scaphocerite of the antenna (A₂) is slightly shorter than the distance reached by the second series of dorsal spines on the rostrum. The distal spine of the outer edge is about even with the lamella.
3. The endopod of the maxillula (Mx₁) is incompletely bifid and with many setae.
4. The scaphognathite of the maxilla (Mx₂) is rounded posteriorly.
5. The epipod of the first maxilliped (Mxp₁) is divided, the distal section of which is long and pointed.

DISCUSSION

Differences between Chace's (1937) species and the present one are as follows. *P. mexicana*, from the collections of the Templeton Crocker Expedition in the Gulf of California, has unequal second legs, making it unlike both the present species and its companion species, *P. beebei*. The latter, however, has a comparatively short rostrum, scarcely exceeding the length of its carapace, the posterior spines of the rostracarapacial series are not separated from the others by a clear space, the spines on the rostrum are fewer than in the present species, and the numbers of annulations on the carpus of the second legs are fewer, making it also unlike the present species.

Distribution records of three Caribbean species of *Plesionika* were reported by Pequegnat (1970) who described and provided a key to nine species from the Gulf of Mexico. None of these appear to be similar to the present species.

Heterocarpus vicarius and *Solenocera agassizi* occurred almost invariably in catches, which included the present species off the coast of Colombia. Although Faxon (1895) reported these species in collections of the *Albatross* off the coasts of Central and South America, he made no mention of species of *Plesionika*.

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