

NOTES ON THE DISTRIBUTION OF FOUR CARIDEAN SHRIMPS
(CRUSTACEA: DECAPODA) IN THE NORTHEASTERN GULF OF MEX-
ICO—M. R. Dardeau, D. L. Adkison, J. K. Shaw and T. S. Hopkins, Dauphin Island Sea
Laboratory, P. O. Box 386, Dauphin Island, Alabama 36528

ABSTRACT: We report northward range extensions of *Gnathophyllum modestum* Hay and *Lysmata intermedia* (Kingsley) of 203 and 445 km, respectively. A new bathymetric record (91 m) is recorded for *L.amboinensis* (DeMan). The continuous distribution of *Trachycaris restrictus* (A. Milne-Edwards) in the Gulf of Mexico is clarified by heretofore obscured data on geographic station locations.*

ALTHOUGH the marine decapod Crustacea in the northeastern Gulf of Mexico have been surveyed by Wass (1955), Hulings (1961), Abele (1970), Lyons et al. (1971), Soto (1972) and Hopkins et al. (1977) and collections made by the R/V *Oregon* in the Gulf were recorded by Chace (1956), our knowledge of the Decapoda in this area is still incomplete. We report on recent collections from the continental shelf of the northern Gulf of Mexico made by the Bureau of Land Management and the University of South Alabama. The collections have (a) provided new range extensions for *Gnathophyllum modestum* Hay and *Lysmata intermedia* (Kingsley), (b) established a new bathymetric range for *L.amboinensis* (DeMan), and (c) clarified the distribution of *Trachycaris restrictus* (A. Milne-Edwards) in the northern Gulf.

Collections were made by SCUBA divers or by using a 9.1 m semi-balloon trawl or a rigid iron frame Capetown dredge lined with 1.3 × 1.3 cm vinyl clad hardware cloth. Synonymies are restricted to original descriptions and any nomenclatural revisions. Carapace length (c.l.) was measured dorsally from the posterior margin of the orbits to the posterior margin of the carapace. The specimens are deposited in the invertebrate collections at Dauphin Island Sea Laboratory (DISL), Dauphin Island, Alabama and the University of South Alabama (USA), Mobile, Alabama.

FAMILY GNATHOPHYLLIDAE

Gnathophyllum modestum Hay

Gnathophyllum modestum Hay, 1917:72.

MATERIAL EXAMINED: 1 male (with branchial bopyrid isopod); c.l. = 3.6 mm; 29°45'30" N, 86°00'30" W; 41 m; 21 April 1974; Capetown dredge; R/V *Bellows*; DISL.

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TYPE LOCALITY: Beaufort, North Carolina.

REMARKS: This species was previously known only from Beaufort, North Carolina (Hay, 1917), Biscayne Bay, Florida (Manning, 1963) and the Florida Middle Ground (Hopkins et al., 1977). A single male specimen was taken approximately 75 km southwest of Panama City, Florida in 41 m of water. This represents a northwestward range extension from the Florida Middle Ground of approximately 203 km and a bathymetric extension of 14 m.

FAMILY HIPPOLYTIIDAE

Lysmata intermedia (Kingsley)

Hippolysmata intermedia Kingsley, 1878:90.

Lysmata intermedia—Sivertsen, 1933:5, pl. 2, figs. 9-15.

MATERIAL EXAMINED: 1 ovigerous female; c.l. = 4.5 mm; 28°29'45" N, 84°19'30" W; 37 m; 25 July 1975; trawl; R/V *Bellows*; DISL.

TYPE LOCALITY: Dry Tortugas, Florida.

REMARKS: Chace (1972, p. 128) reports the distribution of this species as "Florida Keys to Tobago and Curaçao; Azores; Galapagos Islands; to a depth of 22 meters." *L. intermedia* has since been reported from the Indian River region in central eastern Florida (Gore, Scotto and Becker, 1978). The Florida Middle Ground specimen, the first record from the northern Gulf of Mexico, represents a range extension northward from the Florida Keys of 445 km, and a bathymetric extension of 15 m.

Lysmata amboinensis (DeMan)

Hippolysmata vittata amboinensis DeMan, 1888:495.

Hippolysmata amboinensis—DeMan, 1907:426.

Hippolysmata grabhami Gordon, 1935:319, figs. 10, 11.

Lysmata grabhami—Chace, 1972:128.

Lysmata amboinensis—Hayashi, 1975:286-288, figs. 1, 2.

MATERIAL EXAMINED: 1 female; c.l. = 9.5 mm; 28°25'45" N, 84°55'30" W; 91 m; 20 October 1975; trawl; R/V *Gyre*; DISL.

TYPE LOCALITY: Amboina, Indonesia.

REMARKS: Based on a re-examination of DeMan's and Gordon's types, Hayashi (1975) placed *Hippolysmata grabhami*, the specific name under which previous western Atlantic specimens were reported, in the synonymy of *Lysmata amboinensis*. A circum-tropical species, *L. amboinensis* was previously recorded from the northern Gulf of Mexico (Chace, 1956). Our specimen, taken near the Florida Middle Ground, extends the known bathymetric range from 55 to 91 m.

Trachycaris restrictus (A. Milne-Edwards)

Hippolyte restrictus A. Milne-Edwards, 1878:231.

Platybema rugosus Bate, 1888:579.

Platybema rugosum—Bate, 1888:pl. CIV, fig. 2.

Trachycaris rugosum—Calman, 1906:33.

Trachycaris restrictus—Holthuis, 1949:233, figs. 2, 3.

MATERIAL EXAMINED: 1 ovigerous female; c.l. = 3.5 mm; 29°56'00" N, 86°06'30" W; 38 m; 3 April 1974; diver collected; R/V *Bellows*; DISL. 1 ovigerous female; c.l. = 3.6 mm; 1 juvenile; c.l. = 3.1 mm; 30°07'30" N, 86°45'00" W; 46 m; 8 March 1977; Cape-town dredge; R/V *Rounsefell*; USA.

TYPE LOCALITY: Cape Verde Islands.

REMARKS: Although it is clear that *Trachycaris restrictus* is found on both sides of the Atlantic Ocean (Holthuis, 1949), the status of the species in the Gulf of Mexico has been perplexing. Chace (1972, p. 142) reported its distribution as "Bermudas to Estado do

Pará, Brazil; eastern Atlantic from the Canary Islands to Saint Helena Island. . . .” More recently, Hopkins et al. (1977) reported *T. restrictus* from the Florida Middle Ground as a new distribution record from the northeastern Gulf of Mexico. However, Rathbun (1901) had previously established the presence of *T. restrictus* (as *Platybema rugosum* Bate) in the northern Gulf, but reported it only as “Gulf of Mexico, 25-38 fathoms, stations 2369 to 2374 (*Albatross*) and stations 5073 and 5093 (*Grampus*).” Corresponding longitudes and latitudes were not given, no doubt obscuring the fact that the *Albatross* stations were in the northern Gulf. To correct this oversight, the corresponding coordinates are given in Table 1. The above localities, with our material, thus establishes a continuous range for *T. restrictus* from the southeastern Gulf of Mexico northward to Cape San Blas, Florida.

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TABLE 1. Station coordinates of U.S.F.C. Steamer *Albatross*, and U.S.F.C. Schooner *Grampus*, for specimens of *Trachycaris restrictus* referred to in the text.

<i>Albatross</i> Station	2369	29°16'30"N, 85°32'00"W
	2370	29°18'15"N, 85°32'00"W
	2371	29°17'00"N, 85°30'45"W
	2372	29°17'30"N, 85°29'30"W
	2373	29°14'00"N, 85°29'15"W
	2374	29°11'30"N, 85°29'00"W
<i>Grampus</i> Station	5073	25°23'00"N, 83°28'00"W
	5093	25°54'02"N, 83°09'00"W

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