

Figure 5-7. A, Side view of carapace of male *Munidopsis alaminos* (type-specimen); B, right chela of male *M. alaminos* showing teeth on occlusal surfaces of fingers.

Holotype

Male, from *Alaminos* station 68-A-13-4, 25° 38.4'N, 96° 18.3'W. 280 fms. (512 m), NW Gulf of Mexico, November 12, 1968. Deposited in the Smithsonian Institution (USNM No. 128810).

Allotype

Ovigerous female from the same station. Differs slightly from holotype, as noted below. Also deposited at the Smithsonian Institution (USNM No. 128811).

Description

Carapace with rostrum is 1.4 to 1.5 times as long as broad; excluding rostrum, length and breadth are about equal. Sides of the carapace are subparallel.

The dorsal surface of the carapace is strikingly "hummocky" as a result of inflation of the anterior hepatic, mesogastric, metabranchial, and cardiac regions. Although the dorsal surface lacks transverse ciliated ridges, it is covered with a short, dense pubescence. The carapace is also characterized by the absence of large spines on the dorsal

surface and lateral margins. The female carapace is slightly more spinose than that of the male, but inflation of regions is more pronounced in the male.

The rostrum is elongate, and the sides are nearly parallel except at the broadened base and near the moderately sharp tip. The female rostrum is narrower than that of the male and is much more spinose on the upper surface and margins. The lower surface of the rostrum is without spines but is evenly pubescent.

The remainder of the anterior carapace margin is marked by a moderately deep supraocular notch, along the lateral border of which is a row of short spines; by a minutely spinose rounded lobe; and by the anterior edge of the inflated hepatic region.

There are no anterolateral spines. The upper carapace surface is covered with scattered spinules, and the posterior margin is sinuate and armed with small, blunt spinules.

The eyestalks are movable and unarmed, as are the eyes.

The basal segment of the antennule is relatively large as a result of lateral inflation, slightly flattened, and bears two slender and sharp-pointed spines on the anterior edge. The lateral one of the above two spines is longer than the other and is bifid in some females.

The segments of the antennal peduncle are very hairy. The ventromesial border of the basal segment ends in a stout spine; the second segment bears a short, sharp spine on the lateral margin. The third segment bears two such spines, one dorsomesial and the other lateral; the fourth segment bears a single spine in the middorsal region.

The merus of the third maxilliped ends in a sharp and slightly curved spine dorsally, and the ventral margin bears three (male) to five (female) spines of unequal size, generally large alternating with small.

Chelipeds are equal and only about 1.4 times as long as the carapace and rostrum. Chela is only slightly enlarged; the occlusal surfaces of fingers, including the tips, are fitted with interlocking teeth. The carpus has no distal spine and only a

few scattered spinules on the upper surface. The merus has five obscure spines on the distal border: one each on the lower corners and three on the upper margin with one on the medial edge and two near the center. The upper surface of the merus is spinose with somewhat longer spines on the mesial surface. The ischium of the cheliped has a rather stout and erect dorsal spine distally and tapers somewhat to a point at the distal articulation below.

No epipods are on the chelipeds or on the ambulatory legs.

The abdomen is only slightly narrower than the carapace. The second somite bears a central tuberosity and has 16 spinules more or less evenly spaced along the middle third of the posterior margin. The third somite bears a much smaller tuberosity and has only about 10 widely spaced, minute spinules on the posterior margin. Subsequent somites have neither a tuberosity nor posterior spinules.

Size

Carapace of male holotype 15 mm long with rostrum, 11 mm without rostrum, and 11 mm wide; allotype 15 mm x 10 mm wide. Chelipeds about 21 mm long.

Remarks

M. alaminos is closely related to *M. riveroi* but differs from it as follows: (1) the rostrum has small but distinct spines; (2) the rostrum is not excavated; (3) the chelipeds are not as long in comparison to carapace length; (4) the inflation of the carapace, especially in the branchial and cardiac regions, is more pronounced; and (5) the chela has many interlocking teeth on the occlusal surfaces.

This species is named after the R/V *Alaminos*. In turn, the ship was named in honor of Anton de Alaminos, who accompanied Christopher Columbus to the New World in 1499 and 1502. He became an esteemed pilot and served in this capacity with Cordova's 1517 expedition to Yucatan. He also guided Cortez to the West Indies in 1519. Finally, the first detailed maps of the southern

United States and the Gulf of Mexico, as published by Navarette (in Madrid, circa 1829), are credited to the work and notes of Alaminos.

***Munidopsis armata* (A. Milne Edwards, 1880)**

Elasmonotus armatus A. Milne Edwards, 1880, p. 61. — Henderson, 1888, p. 159. — A. Milne Edwards and Bouvier, 1894, p. 282.

Munidopsis armata. — Benedict, 1902, pp. 276 and 316. — Chace, 1942, p. 90.

Previous Gulf of Mexico Records

Southeast Gulf: *Atlantis* stations 2995 and 2996 (370-665 fms.), (Chace, 1942).

Alaminos Material

None.

Distribution

This species is distributed primarily in the West Indies, extending into the Gulf of Mexico only in the eastern part of the Florida Straits.

***Munidopsis barbarae* (Boone, 1927)**

Galacantha barbarae Boone, 1927, p. 66, text-fig. 13.

Munidopsis barbarae. — Chace, 1942, p. 81.

Previous Gulf of Mexico Records

Northeast Gulf: *Blake* station 45 (101 fms.), (Chace, 1942).

Alaminos Material

None.

Remarks

Only two specimens of *M. barbarae* have been recorded—the type from Green Cay, Bahamas, and the *Blake* specimen from 101 fathoms in the NE Gulf of Mexico. Chace (1942) discusses differences

in arrangement of spines on the carapace in the two specimens.

***Munidopsis bermudezi* Chace, 1939**

(Figure 5-8)

Munidopsis bermudezi Chace, 1939, p. 46; 1942, p. 83, figs. 29 and 30. — Sivertsen and Holthuis, 1956, p. 44, pl. 4, fig. 3 (not fig. 2).

Previous Gulf of Mexico Records

None.

Alaminos Material

Northwest Gulf: 69-A-11-17 (1,800 fms.), 1 ♀.

Remarks

There is no doubt that Sivertsen and Holthuis (1956) reversed Figures 2 and 3 of pl. IV. Figure 3 is *Munidopsis bermudezi*, not *M. sundi* as indicated. *M. bermudezi* is characterized by a single pair of gastric spines, immovable eyestalks with a small cornea, and only one large ocular spine on the internal side of the eye. The *Alaminos* specimen measures 10 mm carapace length (15 mm, including the rostrum), which is quite small in comparison to the type material of 37.7 mm and 40.2 mm (length of carapace including the rostrum).

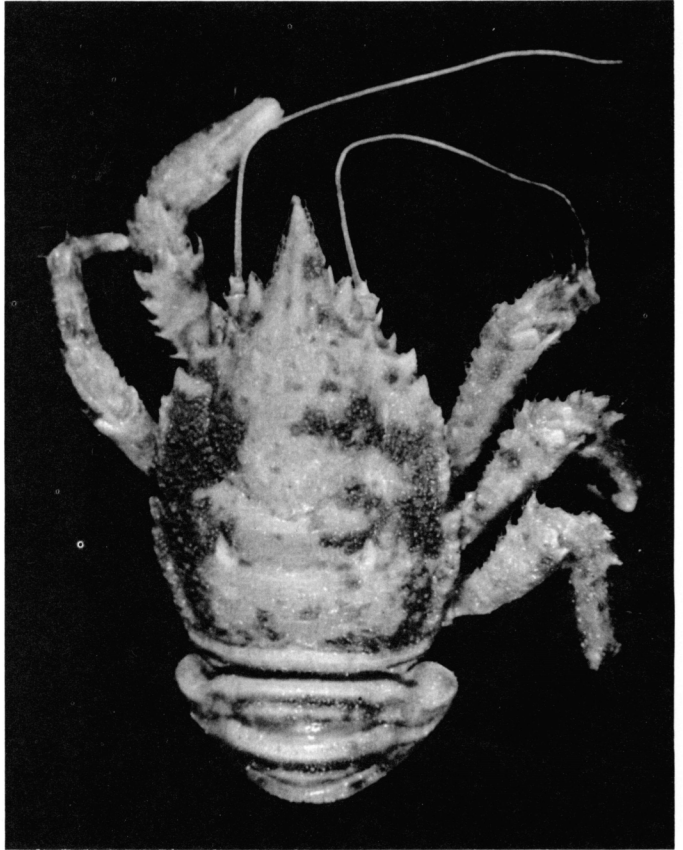
Distribution

The *Alaminos* specimen is a first record for this species in the Gulf of Mexico. Taken by the *Michael Sars* expedition north of the Azores (45° 26' N, 25° 45' W) at 1,733 fathoms. Also taken by the *Atlantis* off the north and south coasts of Oriente Province, Cuba, in 1,330-1,650 fathoms.

***Munidopsis brevimanus* (A. Milne Edwards, 1880)**

Elasmonotus brevimanus A. Milne Edwards, 1880, p. 60. — A. Milne Edwards and Bouvier, 1894, p. 282.

Figure 5-8. *Munidopsis bermudezi*
Chace. x 4.6.



Munidopsis brevimana. — Chace, 1942, p. 96,
text-fig. 33.

Previous Gulf of Mexico Records

Southeast Gulf: *Atlantis* station 3003 (240-300
fms.), (Chace, 1942).

Alaminos Material

None.

Remarks

Judging from our series of *Munidopsis longi-*
manus, we agree with Chace (1942) that *M. brevi-*
manus should stand as a separate species.

Distribution

This species is presently known only from Bar-
bados and off northern Cuba, where it was taken
by the *Blake* and *Atlantis*, respectively.

Munidopsis erinacea
(A. Milne Edwards, 1880)

Galathodes erinaceus A. Milne Edwards, 1880, p.
53.

Munidopsis erinacea. — Henderson, 1888, p. 149,
pl. 16, fig. 4. — A. Milne Edwards & Bouvier,
1894, p. 275; 1897, p. 67, pl. 7, figs. 9-12. —
Benedict, 1902, p. 277. — Boone, 1927, p. 60.
— Chace, 1942, p. 90.

Previous Gulf of Mexico Records

Southeast Gulf: *Atlantis* stations 2995, 3305, and 3306 (330-605 fms.), (Chace, 1942).

Alaminos Material

Five specimens from three stations in 280-450 fms. as follows:

Northwest Gulf: 68-A-13-4 (280 fms.), 1 ♀; 68-A-13-15 (360-470 fms.), 1 ovig. ♀; 68-A-13-21 (350-280 fms.), 1 ♀, 2 ♂.

Remarks

Alaminos specimens range in size from 7 to 19 mm carapace length. The ovigerous female measures 19 mm and was collected in November.

Distribution

M. erinacea is distributed from the SE Gulf of Mexico off the north coast of Cuba and the NW Gulf through the Lesser Antilles to British Honduras and Pernambuco, Brazil. The *Alaminos* material is a first record for this species from the western Gulf of Mexico. Depth range: 151 to 555 fathoms.

***Munidopsis espinis*
Benedict, 1902**

Munidopsis espinis Benedict, 1902, p. 282, text-fig. 25. — Chace, 1942, p. 80.

Previous Gulf of Mexico Records

Southeast Gulf: *Albatross* station 2351 (426 fms.), (Benedict, 1902).

Alaminos Material

None.

Remarks

This is a very rare species. The only two specimens of *M. espinis* that have been recorded are the above referenced *Albatross* specimen from Yucatan and the *Atlantis* male from off northern Cuba that was assigned to this species by Chace (1942). There is even some doubt that the latter specimen is *M. espinis* in that Benedict's description of the species is in error. Our examination of his type-specimen revealed that it has three spines on the inner margin of the merus of the external maxilliped instead of the two given in the description. It differs further from the *Atlantis* specimen in that the carapace is smooth and decidedly punctate and the lateral lobe of its carapace is definitely double-pointed.

***Munidopsis expansa*
Benedict, 1902**

Munidopsis expansa Benedict, 1902, p. 282. — Chace, 1942, p. 81.

Previous Gulf of Mexico Records

Southeast Gulf: *Atlantis* stations 2995 and 3306 (330-605 fms.), (Chace, 1942).

Alaminos Material

None.

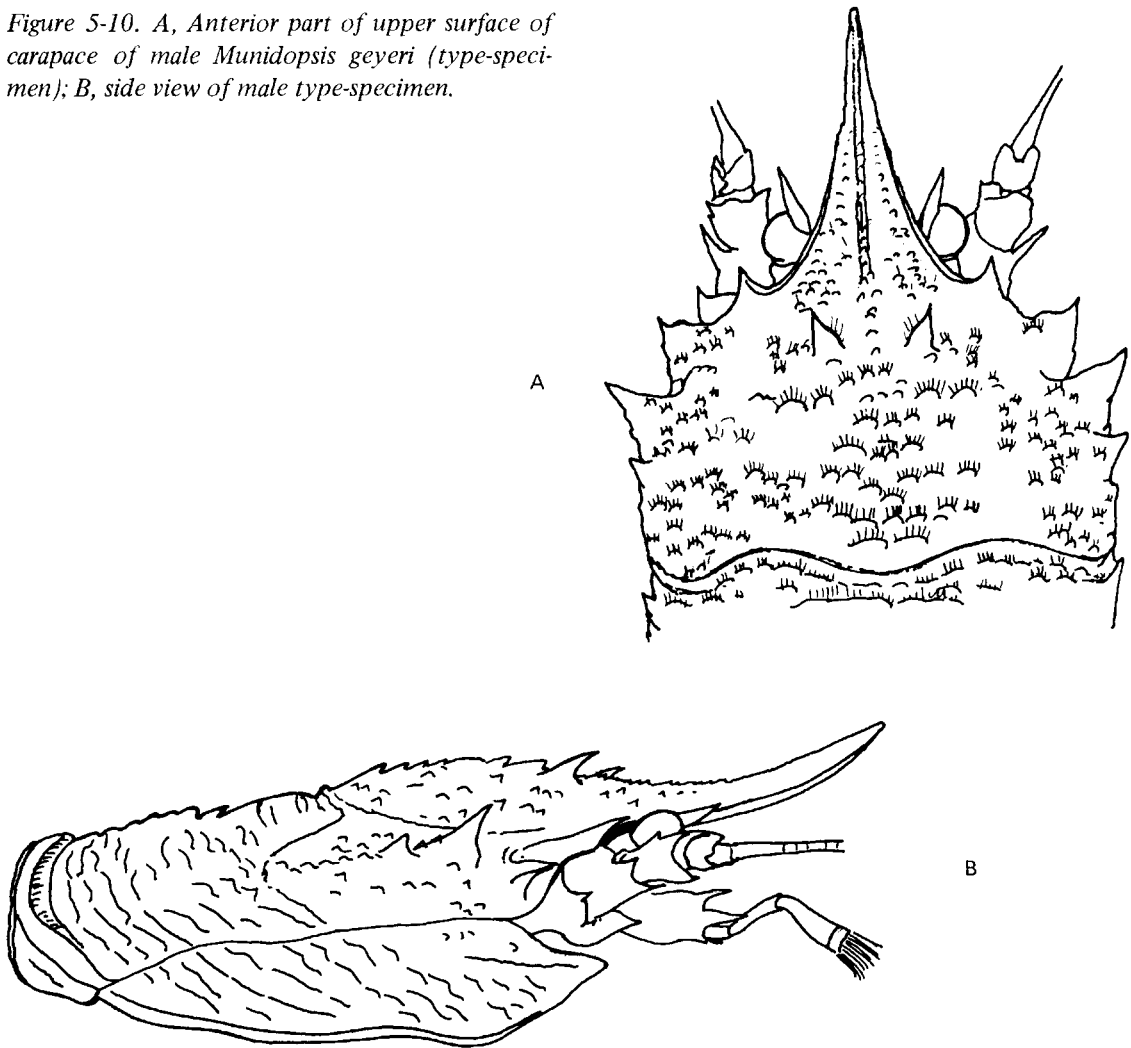
Remarks

So far as we are aware, only three specimens of *M. expansa* have been reported: the type was taken by the *Albatross* (Stn. 2663) in the Atlantic off the northern coast of Florida, and two specimens were taken in the entrance to the Florida Straits by the *Atlantis*.



Figure 5-9. Munidopsis geyseri n. sp. Male. Type-specimen from station 69-A-11-92 (1,600-1,640 fms.). x 3.2.

Figure 5-10. A, Anterior part of upper surface of carapace of male *Munidopsis geyeri* (type-specimen); B, side view of male type-specimen.



Munidopsis geyeri n. sp.
(Figures 5-9, 5-10)

Alaminos Material

Southwest Gulf: 69-A-11-92, (1,600-1,640 fms.), 23° 30' N, 95° 32' W, 1 ♂.

Holotype

Male, from *Alaminos* station 69-A-11-92, 23° 30' N, 95° 32' W, 1,600-1,640 fms., (2,926-2,999 m), SW Gulf of Mexico, August 27, 1969. Deposited in the Smithsonian Institution (USNM No. 128812).

Description

The carapace is slightly longer than broad and is provided with ciliated transverse ridges, with those in front of the posterior cervical groove irregularly crescent shaped and those behind the groove longer and straighter. The frontal margin is provided with strong, acute antennal spines and anterolateral spines of about the same size. Just behind the anterior hepatic groove is a large dentiform spine, much larger than the anterolateral spine. Behind this large spine only two definite spines occur on the lateral margin of the carapace. One lies just behind the above tooth, and the other emerges just behind the posterior cervical groove. The gastric region is prominent and armed with only one pair of spines. The cardiac and branchial regions are covered throughout with interrupted ridges that are beaded, ciliated, and separated by smooth spaces. There is a broader, smooth space near the posterior margin. The latter is provided with two beaded and ciliated ridges of which the anterior is more prominent and regularly beaded.

The rostrum is triangular and upturned. It has a strong median dorsal carina and is tuberculate over the entire upper surface; it is smooth and acarinate below. Only the lateral edge of the distal half of the rostrum bears minute teeth (8 to 10).

The eyes are white, immovable, and bear a strong medial spine, which is about as long as the diameter of the eye. A lateral eye spine is lacking.

The anterior edge of the basal segment of the antennule is armed (1) with two prominent lateral spines, the lower of which is longer and curved slightly mediad, and (2) with a ventral truncate and minutely dentate process.

The basal segment of the antenna bears broadly triangular and minutely denticulate teeth on the inner and outer aspects of the distal margin. The second segment bears a much longer and more slender spine on the outer distal margin and a broadly triangular and denticulate tooth on the medial margin. The two distal segments are much less conspicuously armed.

The merus of the third maxilliped ends in a short but sharp dorsal spine. The ventral margin bears five conical spines of unequal size.

The right cheliped of the male holotype is only slightly larger than the left and is about 1.24 times the length of the carapace (including rostrum). The anterior margin of the carpus of the cheliped bears several teeth on the upper half; but the medial one is the longest and most acuminate, the others being flat, triangular, and having dentate margins. The anterior margin of the merus of the cheliped has four sharp teeth: two on the outer and inner angles of the lower surface; one in the center of the dorsal surface, where it ends a longitudinal row of 3-5 spines of unequal size; and one toward the medial angle of the dorsal surface. The ischium of the cheliped bears a strong and slightly down-curved dorsal spine and a very stout tooth-like process below.

Epipods occur on the chelipeds but not on the ambulatory legs.

The abdomen is narrower (13 mm wide) than the carapace and tapers only slightly posteriorly. It lacks longitudinal carinae, teeth, and spines. Each somite bears two transverse ridges separated by a deep transverse groove.

This species is named in honor of Dr. Richard A. Geyer, head of the Department of Oceanography at Texas A&M University and a geophysicist who has more than a perfunctory interest in the biological sciences.

Size

Carapace with rostrum 25 mm long (17 mm without rostrum) and 14 mm wide; right cheliped 31 mm long.

Remarks

This species is allied with *Munidopsis subsquamosa* Henderson, which exists in the Pacific; but the latter has movable eyes, the abdominal somites bear punctations, and the merus of the third maxilliped has only three denticulate spines on the ventral (inner) margin. *Munidopsis geyeri* is also closely related to *Munidopsis aculeata* (Henderson), but the latter has many more spines in the gastric region of the carapace. *M. aculeata* has been

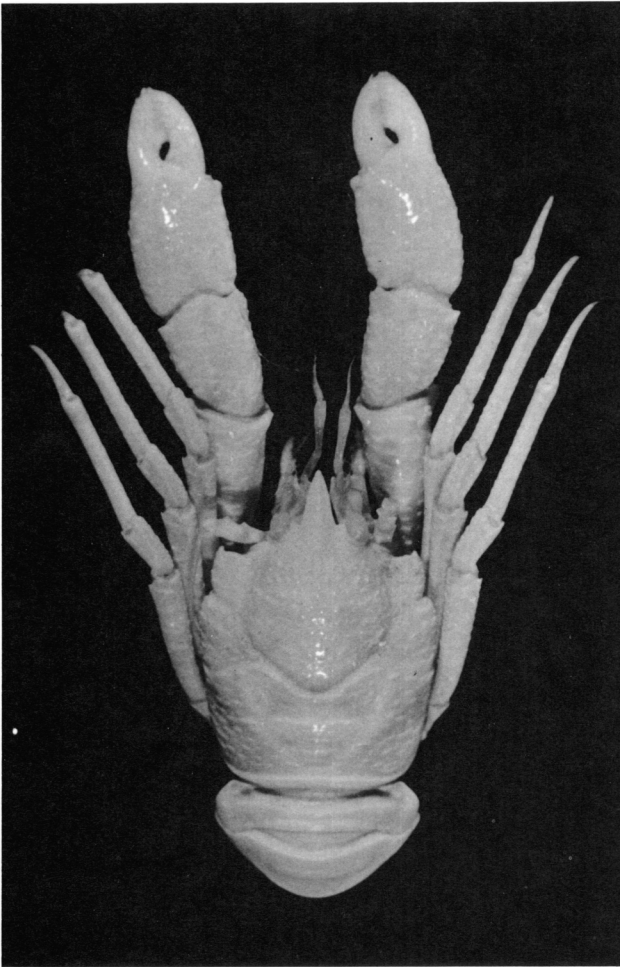


Figure 5-11. *Munidopsis gulfensis* n. sp.
Holotype. Male from 69-A-11-7 (765
fms) x 4.2.

found in the Indian Ocean and in the Pacific off Valdivia, Chile. We have, therefore, three closely related species that occur in the three major oceans.

Munidopsis geyeri is similar to *M. bermudezi* but differs from it as follows: (1) it is less pubescent; (2) the rostrum is longer, narrower, and more upturned; and (3) its eyes are not movable. *M. geyeri* also bears some relationship with *M. crassa*, but the latter is (1) larger, (2) has a shorter and stouter rostrum, (3) has a lateral ocular spine, and (4) has two pairs of gastric spines and eight spines behind the antero-lateral spine.

Munidopsis gulfensis n. sp.
(Figure 5-11)

Alaminos Material

Northwest Gulf: 69-A-11-7 (765 fm.), 1 ♂.

Holotype

Male, from *Alaminos* station 69-A-11-7, 27°01.3' N and 94° 43.5' W, 765 fm. (1,380 m), NW Gulf of Mexico, August 7, 1969.(USNM No. 128821).

Description

The carapace length (8 mm), excluding the rostrum, is equal to its width. The most prominent feature of the dorsal aspect of the carapace is the sinuous cervical groove that sets the slightly inflated gastric region off from the flat and triangular cardiac region. Just posterior to the middle of the cervical groove is a smooth transverse sulcus. The carapace is devoid of pubescence, but is covered with small elevations that tend to be rounded and randomly spaced over the gastric region and are oblong and arranged into interrupted ridges elsewhere, especially on the branchial regions. The carapace is spineless, but the anterolateral angle is prominent and terminates in a small blunt tooth. The tooth scarcely reaches the level of the orbit. The posterior margin of the carapace forms a smooth ridge.

A tiny triangular spine can be seen from above to emerge from the dorsal aspect of the epistome between the eye and the antennal peduncle.

The rostrum is triangular with the sides converging to a moderately sharp point. It is about 2½ times as long as broad in the middle and is recurved very slightly. It is weakly carinate.

The eyes are white and fused to the rostrum and anterior edge of the carapace. They are also spineless.

The basal segment of the antennule is only moderately inflated, and the anterior edge is armed with one prominent lateral spine and a shorter mesial spine.

The basal segments of the antenna are spineless, but the first and second segments bear small denticulate teeth on the distal margin.

The dorsal, distal margin of the merus of the third maxilliped ends in a very small tooth; the ventral margin bears four teeth, of which the second (proximally) is by far the largest and the fourth is minute.

The chelipeds of the male holotype are subequal and are about 1.8 times the length of the carapace, including the rostrum. The tip of the movable finger bears a sharp tooth that fits between a pair of sharp teeth on the other finger. An

oval gape occurs in the chela only at the articulation of the movable finger. Small teeth are borne on the occlusal edges of both fingers, but the most proximal tooth of the movable finger is large and triangular. The fixed finger bears an enlargement on its cutting edge that forms the distal limit of the gape in the closed chela. The only spine projecting beyond articulations on the segments of the cheliped is a very sharp one found on the anteromesial angle of the ventral surface of the merus. All other spinelike prolongations of the segments of the cheliped do not project beyond their articular involvement.

Epipods are on the chelipeds and the first two pairs of ambulatory legs.

The abdomen is only slightly narrower (7 mm) than the carapace and tapers very little posteriorly. It is remarkably smooth, lacking carinae, teeth, and spines. Only the second somite bears a very faint transverse groove.

Size

Carapace with rostrum 10.5 mm long (8 mm without rostrum) and 8 mm wide. Right cheliped is 19 mm long, and the palm is 4 mm wide.

Remarks

Munidopsis gulfensis is similar to *M. espinis* but differs from it as follows: (1) the tooth on the anterolateral angle does not reach the base of the rostrum (level of the orbits); (2) there is no double-pointed tooth on the margin behind the anterolateral tooth; (3) there are four (not three) teeth on the merus of the third maxilliped; (4) the dorsal surface of the carapace lacks punctations; and (5) the cheliped is massive, and the chela gapes proximally.

Munidopsis latifrons (A. Milne Edwards, 1880)

Galathodes latifrons A. Milne Edwards, 1880, p. 57. – A. Milne Edwards and Bouvier, 1894, p. 279; 1897, p. 94.

Munidopsis latifrons. – Benedict, 1902, p. 321. – Chace, 1942, p. 87.

Previous Gulf of Mexico Records

Southeast Gulf: *Atlantis* station 2995 (370-605 fms.), (Chace, 1942).

Alaminos Material

None.

Remarks

Chace (1942) was unable to find the type-specimen of this species in the Museum of Comparative Zoology, but suggests that it might be in the Paris Museum (personal communication).

Distribution

Type was taken off Barbados by the *Blake*. *Atlantis* specimens (3 males) were taken in Florida Straits, barely within the Gulf proper.

Munidopsis longimanus (A. Milne Edwards, 1880)

Elasmonotus longimanus A. Milne Edwards, 1880, p. 60. — A. Milne Edwards & Bouvier, 1894, p. 282; 1897, p. 106, pl. 9 figs. 1-6.

Munidopsis longimana. — Benedict, 1902, p. 277. — Chace, 1942, p. 95.

Previous Gulf of Mexico Records

Southeast Gulf: *Atlantis* stations 2995 and 2996 (370-665 fms.), (Chace, 1942).

Alaminos Material

A total of 11 specimens from eight stations in approximately 300 to 640 fathoms as follows:

Northwest Gulf: 68-A-13-8 (400 fms.), 1 ovig. ♀; 68-A-13-21 (350-280 fms.), 1 ♂; 68-A-13-24 (480 fms.), 1 ♂; 68-A-13-27 (600-640 fms.), 1 ovig. ♀.

Northeast Gulf: 68-A-7-1A (472-289 fms.), 1 ovig. ♀; 68-A-7-12B (492 fms.), 1 ovig. ♀; 68-A-7-17B (492 fms.), 2 ♂; 69-A-13-44 (411 fms.), 1 ovig. ♀, 2 ♂.

Remarks

Chace (1942) points out the distinction between *M. longimanus* and *M. brevimanus*. This includes margins of the carapace that are subparallel in *M. longimanus* compared to convex margins in *M. brevimanus*; rostrum slightly longer and more rounded at the tip in *M. longimanus*; and chelipeds longer and thinner. There is also a difference in depth range. *M. longimanus* has been taken in 300-690 fathoms, while *M. brevimanus* is usually shallower.

Alaminos specimens range in size from 6 to 12 mm carapace length. The smallest ovigerous female measures 8 mm. Ovigerous females were taken in July, August, October, and November in approximately 300-640 fathoms.

Distribution

M. longimanus is distributed in the West Indies and off the north and south coasts of Cuba. *Alaminos* specimens are the first record in the northern Gulf of Mexico.

Munidopsis nitida (A. Milne Edwards, 1880)

(Figure 5-12)

Orophorhynchus nitidus A. Milne Edwards, 1880, p. 59.

Orophorhynchus spinosus A. Milne Edwards, 1880, p. 58.

Munidopsis nitida. — A. Milne Edwards & Bouvier, 1894, p. 275; 1897, p. 74, pl. 6, figs. 6 and 7.

Previous Gulf of Mexico Records

None.

Alaminos Material

Six specimens from three stations in 750-1,160 fathoms as follows:

Southwest Gulf: 69-A-11-44 (1,160 fms.), 1 ovig. ♀; 69-A-11-69 (750 fms.), 1 ♂; 69-A-11-87 (970 fms.), 1 ovig. ♀, 3 ♂.

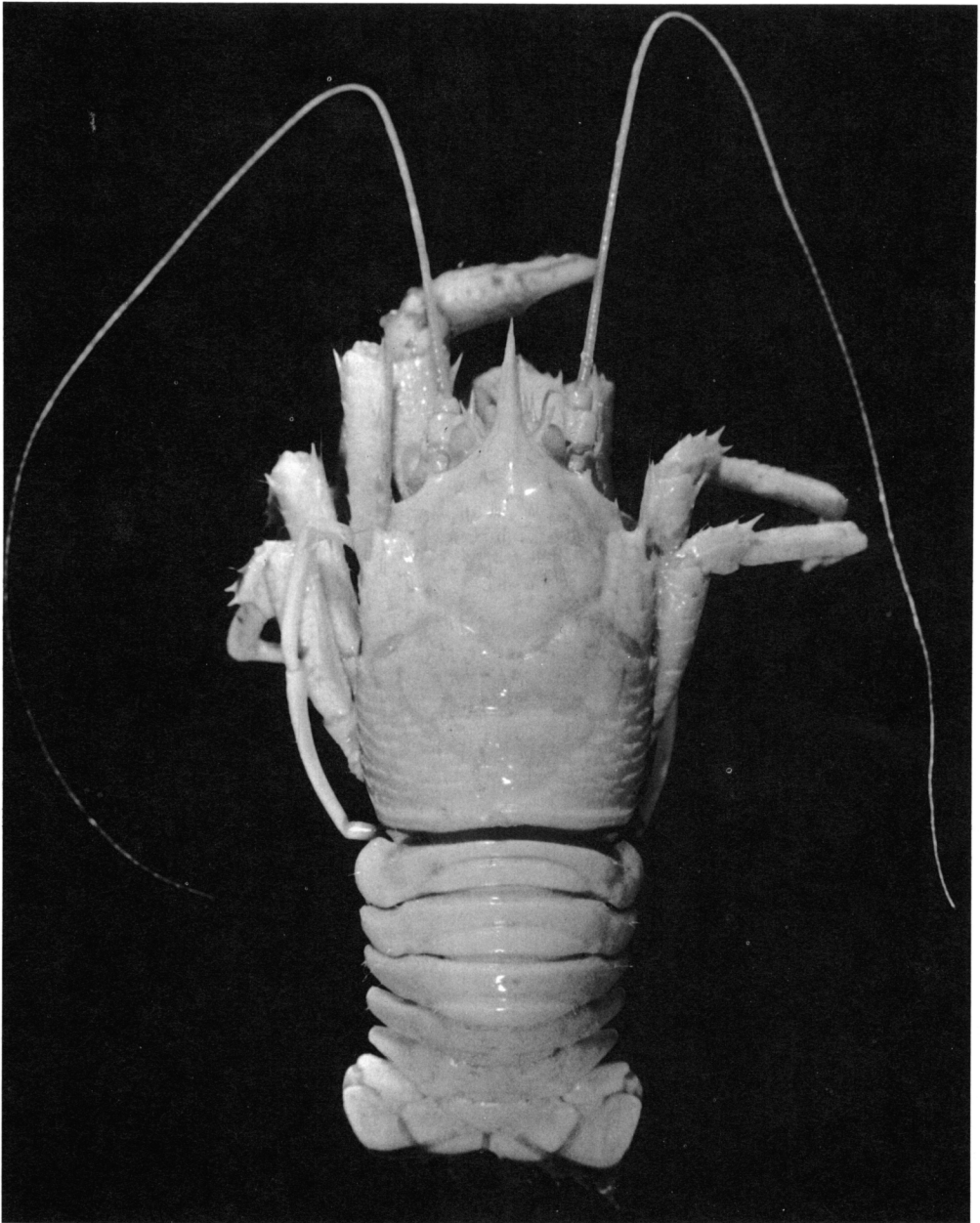


Figure 5-12. *Munidopsis nitida* (A. Milne Edwards). Ovigerous female from station 69-A-11-44 (1,160 fms.). Eyes of this species are bright orange in life. x 3.9.

Remarks

These are the first *M. nitida* specimens since the *Blake* material from Guadeloupe and Dominica in 769 and 982 fathoms and a first record in the Gulf of Mexico. It is interesting that the *Alaminos* material should come from the SW corner of the Gulf at so great a distance from the *Blake* specimens in the West Indies and, as yet, from nowhere in between.

Alaminos specimens measure 9 to 18 mm carapace length. The smallest ovigerous female measures 13 mm. Ovigerous females were taken in August only.

Munidopsis polita (Smith, 1883)

Anoplomotus politus Smith, 1883, p. 50, pl. 2, fig. 1, pl. 3, figs. 1-5.

Munidopsis polita. — Benedict, 1902, p. 324.

Previous Gulf of Mexico Records

None.

Alaminos Material

Northwest Gulf: 64-A-10-2-dredge (207 fms.), 1 ♂; 68-A-13-4 (280 fms.), 1 ovig. ♀; 68-A-13-15 (360-470 fms.), 1 ♂.

Remarks

Alaminos specimens range in size from 6 to 10 mm carapace length. The ovigerous female, which was taken in November, measures 9 mm carapace length.

Distribution

M. polita is distributed off the east coast of the United States (off Martha's Vineyard) and in the NW Gulf of Mexico. The *Alaminos* specimens are the first record in the Gulf of Mexico.

Munidopsis robusta (A. Milne Edwards, 1880)

Galathodes robustus A. Milne Edwards, 1880, p. 54.

Munidopsis robusta. — A. Milne Edwards & Bouvier, 1894, p. 275; 1897, p. 69, pl. 6, figs. 15-20, pl. 7, fig. 1. — Benedict, 1902, p. 325. — Chace, 1956, p. 15. — Bullis & Thompson, 1965, p. 9.

Previous Gulf of Mexico Records

Northeast Gulf: *Oregon* stations 127, 270, 272, 273, 351, 489, 603, 1238, 1276, (60-254 fms.), (Springer & Bullis, 1956).

Southeast Gulf: *Oregon* stations 1015 and 1326 (150-350 fms.), (Springer & Bullis, 1956).

Alaminos Material

Five specimens from five stations in 250 to 450 fms. as follows:

Northwest Gulf: 68-A-13-4 (280 fms.), 1 ♀; 68-A-13-22 (260 fms.), 1 ovig. ♀.

Southwest Gulf: 69-A-11-59 (250-450 fms.), 1 ovig. ♀.

Northeast Gulf: 68-A-7-10A (309 fms.), 1 ♀; 69-A-13-40 (260 fms.), 1 ♀.

Remarks

Alaminos specimens range in size from 7 to 18 mm carapace length. The ovigerous females measure 13 and 20 mm and were taken in November and August.

Distribution

M. robusta is distributed in the Lesser Antilles (near Grenada) and throughout the Gulf of Mexico.

Munidopsis serratifrons
(A. Milne Edwards, 1880)

Galathodes serratifrons A. Milne Edwards, 1880, p. 55.

Munidopsis serratifrons. — Henderson, 1888, p. 149. — A. Milne Edwards and Bouvier, 1894, p. 275; 1897, p. 78. — Benedict, 1902, pp. 277, 326. — Chace, 1942, p. 85.

Previous Gulf of Mexico Records

Southeast Gulf: *Albatross* station 2154 (310 fms.), (Benedict, 1902); *Atlantis* station 3305 (330 fms.), (Chace, 1942).

Alaminos Material

None.

Distribution

This species is distributed from Bermuda to Dominica and the SE Gulf of Mexico via Florida Straits, from 310 to 1,075 (?) fathoms.

Munidopsis sigsbei (A. Milne Edwards, 1880)

Galathodes Sigsbei A. Milne Edwards, 1880, p. 56.
Munidopsis sigsbei. — Henderson, 1888, p. 150, pl. 18, fig. 2. — Milne Edwards & Bouvier, 1894, p. 275; 1897, p. 83, pl. 5, figs. 8-26. — Benedict, 1902, p. 276. — Chace, 1942, p. 82; 1956, p. 15.

Previous Gulf of Mexico Records

Southeast Gulf: *Blake* stations 29 (955 fms.) and 35 (804 fms.), (Milne Edwards, 1880). *Atlantis* stations 2995 and 2996 (370-665 fms.), (Chace, 1942).

Northeast Gulf: *Oregon* station 640 (355-475 fms.), (Springer & Bullis, 1956).

Alaminos Material

A total of 51 specimens from 13 stations in 400-800 fathoms as follows:

Northwest Gulf: 68-A-13-11 (580-750 fms.), 1 ♀, 1 ♂; 68-A-13-12A (580-720 fms.), 3 ♀ (2 ovig.), 4 ♂; 68-A-13-14 (530 fms.), 1 ovig. ♀; 68-A-13-15 (360-470 fms.) 1 ♀; 68-A-13-24 (480 fms.), 1 ♀;

68-A-13-26 (750-785 fms.) 13 ♀ (2 ovig.), 7 ♂, 2 juv.; 68-A-13-27 (600-640 fms.), 1 ovig. ♀. 69-A-11-2 (515 fms.), 1 ♀; 69-A-11-4 (550 fms.), 1 ♂; 69-A-11-7 (765 fms.), 1 ovig. ♀; 69-A-11-13 (800 fms.), 6 ♀ (4 ovig.), 3 ♂, 1 juv.

Southwest Gulf: 69-A-11-86 (530-590 fms.), 2 ♂.

Northeast Gulf: 68-A-7-15H (500 fms.), 1 ♀.

Remarks

Alaminos specimens range in size from 5 to 18 mm carapace length. The smallest ovigerous female measures 10 mm. Ovigerous females were taken in August and November.

Distribution

M. sigsbei is distributed in the Lesser Antilles, off the north coast of Cuba, and throughout the Gulf of Mexico. Depth range: 400-975 fathoms.

Munidopsis simplex (A. Milne Edwards, 1880) (Figure 5-13)

Galathodes simplex A. Milne Edwards, 1880, p. 56.

Munidopsis simplex. — A. Milne Edwards & Bouvier, 1894, p. 275; 1897, p. 89, pl. 5, figs. 2-7. — Benedict, 1902, p. 277. — Chace, 1942, p. 92.

Previous Gulf of Mexico Records

None.

Alaminos Material

A total of 18 specimens from eight stations in 547 to 1,000 fathoms as follows:

Northwest Gulf: 68-A-13-26 (750-785 fms.), 2 ♂; 69-A-11-7 (765 fms.), 1 ovig. ♀, 2 ♂.

Southwest Gulf: 69-A-11-39 (710-760 fms.), 1 ovig. ♀; 69-A-11-69 (750 fms.), 1 ♀, 1 ♂; 69-A-11-74 (650-700 fms.), 1 ovig. ♀; 69-A-11-83 (725 fms.), 2 ♀, (1 ovig.), 4 ♂.

Northeast Gulf: 66-A-9-15 (MWT #1 hit bottom at 547 fms.), 2 ♀; 67-A-5-2H (1,000 fms.), 1 ovig. ♀.

Remarks

M. simplex is distinguished from *M. curvirostra* Whiteaves by the shorter rostrum, which is less curved than in the latter species. Chace (1942) points out that the rostrum of *M. simplex* is only 41-53% of the carapace length, while it is 71-76% in *M. curvirostra*.

Alaminos specimens range in size from 6 to 11 mm carapace length. The smallest ovigerous female measures 8 mm. Ovigerous females were taken in July and August.

Distribution

M. simplex is distributed in the Lesser Antilles, off the north coast of Cuba, and throughout the Gulf of Mexico. The *Alaminos* specimens are the first record in the Gulf of Mexico.

Munidopsis spinifer (A. Milne Edwards, 1880)

Galathodes spinifer A. Milne Edwards, 1880, p. 54.

Munidopsis spinifer. — A. Milne Edwards & Bouvier, 1894, p. 275; 1897, p. 64, pl. 7, figs. 6-8. — Benedict, 1902, p. 277. — Chace, 1942, p. 91.

Previous Gulf of Mexico Records

Southeast Gulf: *Atlantis* stations 3302, 3303, (230-260 fms.), (Chace, 1942).

Alaminos Material

None.

Remarks

Chace (1942) indicates that there is a spine on the frontal margin behind the base of the antenna,



Figure 5-13. *Munidopsis simplex* (A. Milne Edwards). x 4.6.

contrary to Milne Edwards' and Bouvier's statement for this species.

Distribution

M. spinifer is distributed from the SE Gulf off Cuba to Barbados in 151 to 400 fathoms.