Beaufort, N. C., and West Florida (Kingsley). Egmont Key, Fla., No. 981, and Fort Macon (Yale Mus.).

Achelous depressifrons Stimp.

Amphitrite depressifrons Stimpson, Notes, No. I, Annals Lyc. Nat. Hist. N York, vii, p. 58 [12],1859.

Achelous depressifrons Stimp., op. cit., p. 223 [95], 1860. A. Milne-Edw., Arch. Mus. Nat. Hist., x, p. 342, 1861 ; Miss. Sci. Mex., v, p. 230, pl. xl, fig. 4, 4*a*, 1879. Coues, Proc. Acad. Nat. Sci. Philad., for 1872, p. 121 (Fort Macon). Kingsley, Proc. Acad. Nat. Sci., Philad., for 1878, p. 5. Rankin, N. York Acad. Sci., p. 233, 1898.

Neptunus depressifrons Miers, op. cit., p, 181, 1886. Rankin, Annals N. Y. Acad. Sci., xii, p. 531, 1900 (Bermuda).

Portunus (*Achelous*) *depressifrons* M. J. Rathbun, Bull. Lab. Nat. Hist. Univ. Iowa, 1878, p. 27 ; Brach. and Macr. Porto Rico, p. 45, 1901.

FIGURE 36. PLATE XX, FIGURE 3.

This is easily distinguished from most of the other Bermuda species by the shorter posterior lateral spine, which is scarcely longer than those in front of it. The front is not at all prominent;

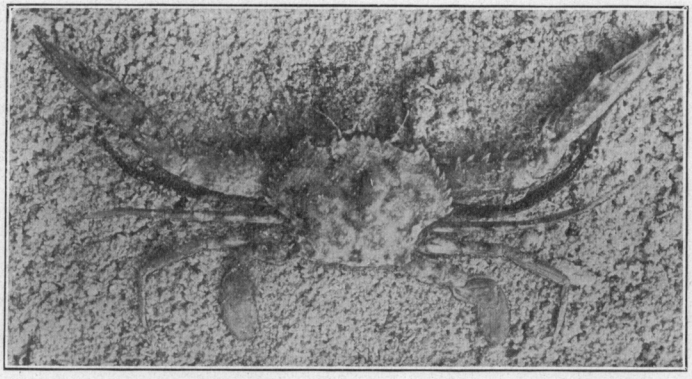

Figure 36.—*Achelous depressifrons*, resting on shell-sand, to show protective coloration. Nat. size. Phot. A. H. V.

its four rostral or true frontal teeth are very short, blunt, subequal, and close together ; most frequently the middle two are a little smaller than the others; in other cases they equal or a little exceed them in length.

The inner orbital tooth is broad, with the frontal angle dentiform and the middle of the margin a little concave, but not bilobed.

The carapace is strongly areolated and has prominent, but thin, curved transverse ridges or crests, sharply granulated on their edges. The areolations of the gastric region form a conspicuous mask-like figure, when dry. The depressed areas are mostly covered with minute, sharp, but not very close granules, which bear minute rough hairs to which dirt often adheres; the legs are similarly clothed, except the small glossy areas. The edges of the carapace and marginal teeth are fringed with longer hairs.

The chelipeds are unusually long. The ambulatory legs are notably long and slender, the first pair rather longer than the others; the three distal segments of the front legs are somewhat flattened and well fringed with long hairs below, thus somewhat approaching the form seen in those of *Portunus Sagi*, but less flattened and less remiform. The legs of the second and third pairs are only slightly flattened and lightly fringed. The basal and merus segments of the swimming feet are unarmed; the distal end of the merus is rounded.

The marginal teeth are all similar in form and size, very acute, curved forward and upward.

The merus of the chelipeds has an anterior row, usually of six, slender, sharp spines, unequally spaced, the first very small, increasing in size distally, the last at the distal angle; posterior distal spine reduced to a tubercle or obsolete; carpal spines two, the inner longer, of moderate length, banded with red. The manus has a prominent dorsal carina, curved over to the inside, leaving a fringed groove beside it; it bears, at the extreme distal end, a single, acute, nearly straight tooth, directed forward. The dactylus is strongly grooved; the dorsal side is fringed with long hairs; the thumb has two fringes. The hand has five ribs on the outer, under, and upper sides; the middle outer one is much the stronger, so that the form of the hand is rather triquetral in an end view. There are small smooth areas between the ribs and on the carpus and fingers, which are glossy or lustrous when dry.

In life the carapace is irregularly mottled with light and dark gray, closely imitating the colors of the sand; the chelipeds and posterior legs are similar, though paler; but the first pair of ambulatory legs, which are longer than the others, are bright purple or deep blue in the larger specimens, while some portion of the same color is usually seen on the next two pairs, but the color of the first pair is in striking contrast with that of the rest of the crab. This has, no doubt, some useful purpose, but as it appears in specimens apparently too young to mate, it is probably not a sexual attraction.

Perhaps these long slender legs may be spread out on the surface of the sand to imitate annelids and so serve as a lure for small fishes. We had no opportunity to test this proposition. The very young specimens did not show this distinction in the color of the legs, so far as observed.

Measurements of Bermuda specimens.

		Carapace			Front	Chelæ	
No.	Sex	length	breadth total	breadth —spines	bet. orbits	length	height
4048	♀	20	28	27	7	21	7
4055*a*	♂	17	25	24	6	25	6.5
4055*b*	♂	16	23	22	5	22	5
4055*c*	♀	15	22	21	4		
3038	♂ fig.	17	25	24	5.5	24	6

The total expanse of the extended chelæ in 4055*a* was 104^{mm}; total length of cheliped, 47^{mm}; extent beyond the edge of the carapace, 40^{mm}.

When recently dried there are small smooth areas on the carapace and legs, especially the last pair, that are lustrous and somewhat iridescent; most of the under side of body and legs is smooth and shining.

At Bermuda it is a very common species. We found it abundant in shallow water in April, 1898 and 1901, on the sandy bottoms of sheltered coves and inlets, as near Walsingham Bay, Coney Island, Hungry Bay, etc.

It was also contained in the early collections of J. M. Jones, Dr. F. V. Hamlin, G. B. Goode and others. Most of the more recent collectors have also taken it, but all the specimens that I have seen are small and probably immature, for none bear eggs. It was originally described by Dr. Stimpson from Charleston, S. C. and Beaufort, N. C. Its range extends from Cape Hatteras to the Antilles. Fort Macon, N. C. (Dr. Yarrow); Bahamas (Rankin); Culebra (Miss Rathbun).

Charybdella tumidula (Stimp.) Rathbun.

Achelous tumidulus Stimpson, Bull. Mus. Comp. Zoöl., ii, p. 149, 1871.

Neptunus tumidulus A. M.-Edw., Miss. Sci. Mex., Crust., p. 218, 1879. Rankin, Annals N. York Acad. Sci., xi, p. 233, 1898 (Nassau).

Cronius bispinosus Miers, Voy. Chall., Zoöl., vol. xvii, p. 188, pl. xv, fig. 2, 1879.

Charybdella tumidula M. J. Rathbun, Brach. and Macr. Porto Rico, p. 51, 1901.

PLATE XIX, FIGURE 1.

Our single Bermuda specimen is considerably larger than those from Porto Rico, described by Miss Rathbun, and very much larger

than Stimpson's type. On this account, probably, it does not fully agree with either description.

The carapace is relatively wider than stated by Stimpson; the ratio of length to breadth, minus lateral spines, is 1:1.33. The carapace is strongly areolated, and has conspicuous, curved transverse ridges with sharp, granulated anterior edges. Its surface is well covered with fine and rather short hairs, arising from fine granulations, and with a fringe of longer hairs on the lateral and frontal margins. The legs are also pubescent and fringed with slender hairs.

The four true frontal teeth are conspicuous; a little prominent; and all are of nearly the same form and breadth; they are obtusely rounded at the end; the two middle ones are a little longer and a trifle narrower than the others, with the middle notch a little narrower; the notch between the outer of these and the next tooth (bilobed orbital) is deeper and narrow. The orbital is distinctly bilobed, the outer lobe being a little larger and longer than the other, but not so long or large as the true frontal teeth.

The nine marginal teeth are alternately large and small; the small ones, which are the 2d, 4th, 6th and 8th, lack the naked sharp tips seen on the 3d, 5th, 7th and 9th. The 8th is the smallest. The first, or outer orbital, is broader than the others, with the outer side broadly arched. The others are all strongly curved forward and acute, fringed with hairs on the edges. The last, or 9th, is not much longer than the 7th, but twice as long as the 8th; it is less curved forward than the others and bends a little upward.

The chelipeds are long and large; about two-thirds of the merus projects beyond the edge of the carapace; it has four stout, naked-tipped, sharp granulated spines on its front edge, of which the proximal is smallest; the distal posterior spine, usually present in this group, is lacking.

The carpus has a very small outer spine, and a much larger inner one, which is slightly curved forward and very sharp, but it reaches less than one-third the length of the upper side of the manus, being, therefore, much shorter than in Stimpson's and Miss Rathbun's specimens. The proximal or articular spine of the manus is of moderate size; the distal dorsal one is rather larger, strong at base, very sharp, divergent; its front edge is situated at about the distal third of the dorsal edge. The surface of the chelæ is covered with short hairs and is granulated; there are four strongly granulated ribs besides the dorsal one on the outer surface, but no additional spine.

The dactylus has two sharply denticulated dorsal carinæ and two strong granulated lateral ribs on the outside, with deep grooves between them.

The left cheliped is considerably smaller, but otherwise is much like the right, though the dorsal carina of the manus, in this, ends in a prominent angle distally, but not forming a true spine.

Ambulatory legs are of moderate length, not much flattened, finely fringed. The merus of the swimming feet has the distal posterior end rounded and very finely denticulated, but without a spine. The segments of the male abdomen are crossed by depressed areas, covered with fine scale-like hairs. The male generative organs are thick at base, strongly convergent, then divergent, with slender flexuous tips, which reach a little beyond the middle of the penultimate segment.

The color of the alcoholic specimen is pale orange yellow, with a pair of ill-defined rounded spots of light red on the flanks, and pale red bands on the legs and chelæ. The fingers have blackish tips and inner edges; the dactylus is crossed by a pale band; the proximal half is red above.

Measurements.

		Carapace			Front	Chelæ		
			br'dth	br'dth	bet'wn		height	
No.	Sex	length	total	—spines	orbits	length	—spine	Locality
692 F. M.	♂	27	41	36	12	r. 35	r. 12.5	Bermuda
——	♂	21	31.2	—	—	l. 33.5	l. 10	Porto Rico

The type described by Stimpson* was only .20 of an inch in length; total breadth, .31; breadth minus spines, .25; ratio of length to latter breadth, 1:1.25.

The second, given in the above table, is that measured by Miss Rathbun, from Porto Rico. The ratio of length to breadth decreases with growth.

Our specimen, as stated above, differs from the smaller ones. According to Stimpson his had the front more prominent and the two middle teeth were "smaller and more prominent, and separated from the lateral ones by a rather broad and shallow sinus." This inequality is not so evident in ours. He says there is no notch in the inner orbital tooth. It was present in Miss Rathbun's specimens, and she considers its absence due to immaturity. In Stimpson's type "the inner spine of the carpus is long, reaching to the middle of the palm of the hand." It is much shorter in the Bermuda specimen. Probably this is a character only of the very young.

* Dr. Stimpson's types of Crustacea were all burned in the great Chicago fire.

Stimpson did not notice the alternation of smaller and larger marginal teeth, but that condition was described by Miss Rathbun. Notwithstanding these and other differences I do not doubt the identity of the Bermuda example.

The only Bermuda specimen known to me was taken Sept. 30, 1905, at Long Bird Island (probably in a fish seine), by the expedition from the Field Natural History Museum.

Stimpson's types were from off the Florida Reefs in 37 to 40 fathoms (Pourtalès coll.). Porto Rico, four stations (Rathbun). Bahia, Brazil (Miers).

Doubtful Species.

According to M. Walter Faxon there is in the Museum of Comparative Zoology, Cambridge, Mass., a specimen of *Cancer borealis* Stimpson, labelled as from Bermuda.

My belief is that its label is erroneous, or has been accidentally transposed. It is a large northern species, common at low tide on some of the rocky shores of Casco Bay, Me., and ranging southward in the deeper water of the arctic current as far as off Cape Hatteras.

Boscia ?, sp.

Willem.-Suhm states that he collected a species in Bermuda "allied to *Boscia*." No such species was mentioned in the final report by Miers. To what he refers is problematical. *Boscia* is a fresh-water genus (=*Pseudothelphusa*). See Bibliography, below.

Libinia emarginata Leach=*L. canaliculata.*

This species is recorded by Hurdis (Rough Notes, p. 361), without any notes. It has not been found by anyone else. Probably his identification was erroneous. It is common from Cape Cod to Florida.

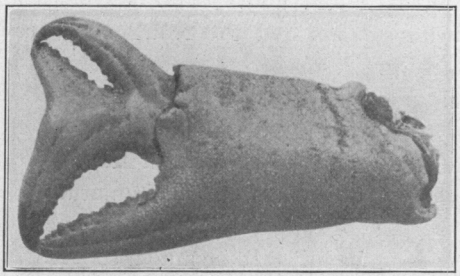

Figure 37.—Deformed claw of an undetermined cancroid crab, from the collection of J. M. Jones, but without a special label. Supposed to be from Bermuda, × 1⅔.

OXYRHYNCHA = MAIOIDEA. (See p. 305.)

Family INACHIDÆ. *Spider Crabs.*

Basal joint of antennæ narrow. Orbits incomplete, sometimes absent; eyes not completely retractile. Chelipeds feeble; legs often long; rostrum well developed.

Stenorhynchus sagittarius (Fabr.). Rathbun.

Cancer sagittarius Fabr., Ent. Syst., ii, 442, 1793.

Maia sagittaria Bosc, Hist. Crust., ii, p. 253, 1801. Latreille, Gen. Crust., i, p. 38, 1806.

Leptopodia sagittaria Leach, Zoöl. Miscell., ii, p. 16, pl. lxvii, 1815. Latreille, Encycl. Meth., Insects, pl. 299, fig. 1, 1818. Desm., Consid. Crust., p. 155, pl. xvi, fig. 2, 1825. Latr. in R. Anim., Cuvier, ed. ii, p. 64, 1829. Guerin, Iconog. Reg. Anim., pl. ii, fig. 4. Von Martens, Cuban Crust., Arch. Naturg., p. 79, 1872. Smith, Ann. Rep. U. S. Fish Com. for 1885, p. 16. H. Milne-Edw., Hist. nat. Crust., i, p. 276, 1874; Atlas, reg. anim., Cuv., Crust., pl. xxxvi, fig. 1. A. M.-Edw., Mission Sci. Mex., part v, vol. i, p. 172, 1878; Bull. Mus. Comp. Zoöl., viii, p. 6, 1880. M. J. Rathbun, Proc. U. S. Nat. Mus., xvii, p. 44, 1895 (distr.).

Leptopodia ornata Guilding, W. Ind. Crust., Trans. Linn. Soc., p. 335, 1825 (*t.* Edw.).

Leptopodia lanceolata Brullé, Hist. Nat. Canaries, Crust., fig. 1, 1844 (*t.* Edw.).

Stenorhynchus sagittarius M. J. Rathbun, Ann. Inst. Jamaica, i, p. 4, 1897; Decapod Crust. West Africa, Proc. U. S. Nat. Mus., xxii, p. 293, 1900; Brach. and Macr. Porto Rico, p. 53, 1901. Verrill, these Trans., vol. x, p. 577, 1900 (Bermuda).

PLATE XXII, FIGURES 1–1*d*.

A specimen of this species was contained in the local collection of the late J. T. Bartram, of St. Georges. While Mr. Goode was in Bermuda, 1877, he made a drawing of Mr. Bartram's specimen and sent it to Professor S. I. Smith for identification. There is no other Bermuda record. Probably the specimen referred to was obtained through the deep-water fisheries or in lobster-pots.

Its range is from Cape Hatteras to Florida and throughout the West Indies, to Rio Janeiro, Brazil; Madeira; Cape Verde; and Canary Is.; Mediterranean and West Africa.

Off Cape Hatteras, 11–27 fathoms, Albatross dredgings, 1885 (Smith). West Indies, Blake Exp., dredged in 27–115 fathoms. West Indies, Albatross dredgings, 9–130 fath. (Rathbun). Dominica Island, 100–140 fathoms (A. H. Verrill, 1906, Yale Univ. Mus.). Porto Rico, 6–76 fathoms (Rathbun). It has been recorded from 2 to 814 fathoms.

Podochela Riisei Stimp.

Podochela (*Podonema*) *Riisei* Stimp., Ann. Lyc. Nat. Hist. N. York, vii, pp. 196, 197, pl. ii, fig. 6, 1860 (descr.); Bull. Mus. Comp. Zoöl., ii, p. 126, 1870.

Podochela Reisei A. Milne-Edw., Crust. Miss. Sci. Mex., v, p. 193, pl. xxxiv, fig. 1, 1879.

Podochela Riisei Miers, Voy. Challenger, Zoöl., xvii, p. 11, 1886. Smith, Ann. Rep. U. S. Fish Comm. for 1885, p. 16, 1886. M. J. Rathbun, Proc. U. S. Nat. Mus., xvii, p. 48, 1895 (distr.); Amer. Naturalist, xxxiv, p. 508, fig. 1, 1900; Brach. and Macr. Porto Rico, p. 54 (descr.).

Corychynchus Riisei Kings., Amer. Nat., xiii, p. 585, 1879; Proc. Acad. Nat. Sci. Philad., xxxi, p. 384, 1879.

PLATE XXII, FIGURE 2.

This species has been taken at Bermuda only by the Challenger Expedition, by which it was dredged in shallow water. It is rarely obtained except by dredging.

Bermuda (Miers, Chall. Exped.). Off Cape Hatteras, 13–49 fath. (Smith, 1886). West Indies to Pernambuco, Brazil. St. Thomas and Tortugas (Stimpson). Gulf of Mexico and Caribbean Sea, 3–30 fath. (Rathbun). Bahia Honda, Cuba, on wharf (Rathbun). Key West and Sarasota Bay, Fla. (Kingsley). Off Pernambuco, 30+ fathoms (Miers).

Chorinus heros (Herbst) Latr.

Cancer heros Herbst, Krabben und Krebse, ii, p. 165, pl. xlii, fig. 1; pl. xviii, fig. 102, 1796.

Chorinus heros Leach, Mss., in Latreille, Encyc. Meth., x, p. 139, 1825. M.-Edw., in Cuvier, Illust. ed., Crust., p. 85, pl. xxix, fig. 2. A. M.-Edw., Miss. Sci. Mex., part v, vol. i, p. 86, 1873. Von Martens, Arch. für Naturg., xxxviii, p. 80, pl. iv, fig. 2 (Cuba). Kingsley, Proc. Acad. Nat. Sci. Philad. for 1879, p. 385 (measurements, Florida specimens). M. J. Rathbun, Proc. U. S. Nat. Mus., xvii, p. 65, 1894; Brach. and Macr. Porto Rico, p. 61, 1901 (descr.).

PLATE XXIV, FIGURE 3.

This appears to be a very rare species at the Bermudas, at least in shallow water. It probably inhabits the rough bottoms off the reefs. The only Bermuda specimen known is a carapace, found on the beach (coll. J. M. Jones, Yale Mus., No. 3126).

Its range extends from Florida to Bahia, Brazil. Off Florida, 12 fath. (Stimpson). Key West (Gibbes). Barbados and Martinique (M.-Edw.). Bahia (Rathbun). Porto Rico, 9½ to 16 fath. (Rathbun).

Epialtus bituberculatus (M.-Edw.) var. **bermudensis** Ver.

Epialtus bituberculatus H. M.-Edw., Hist. nat. Crust., i, p. 345, pl. xv, fig. 11, 1834. A. M.-Edw., Miss. Sci. Mex., Crust., p. 139, pl. xxvii, figs. 1-3, 1878. M. J. Rathbun, Proc. U. S. Nat. Mus., xvii, p. 67, 1895 (distrib.); Brach. and Macr. Porto Rico, p. 60, 1901.

Epialtus sulcirostris and *E. longirostris* Stimpson, Ann. Lyc. Nat. Hist., vii, pp. 198, 199, 1860; A. M.-Edw., op. cit., p. 141, pl. xxvii, figs. 5, 6.

Epialtus dilatatus A. M.-Edw., op. cit., p. 140, pl. xxvii, fig. 4, 1878 (*t.* M. J. Rathbun).

Epialtus bituberculatus, var. *bermudensis* Verrill, these Trans., xi, p. 16, pl. i, fig. 1, 1907 (descr.).

PLATE XXIV, FIGURE 1.

A single specimen (see figure) taken by A. H. Verrill, March, 1901, is the only one known from Bermuda. It was found in a small cavity in a ledge, between tides. The entrance to the cavity was so small that the stone had to be cut away with a chisel before the crab could be extracted. That specimen is fully described in the place quoted above. The species has a wide range, with several local varieties or races. It extends from Indian River, Fla., to Rio Janeiro, Brazil. Egmont Key, West Florida (Yale Mus.). The West Coast form ranges from Southern California to Chili (var. *minimus* Lockington).

Family **Pericerida** (=**Maiidæ**,* some authors). *Spider Crabs.*

Basal joint of the antennæ well developed, inserted beneath the eyes, and usually forming a large part of the inferior boundary of the orbits. Chelipeds not of unusual size, often not much larger than the other legs. Orbits complete; eyes retractile.

This family, as here understood, includes several groups that have been regarded as subfamilies, or even families : *Pericerinæ*, *Mithracinæ*, *Orthoninæ*, *Paramayinæ*, etc.

Probably many more species of this family than are here recorded inhabit the rough bottoms at moderate depths around the outer reefs.

* The generic name *Maia*, as shown by Miss Rathbun, cannot be used for a genus of this group. Therefore this family name should also be changed.

More recently (1905) Miss Rathbun has stated that *Paramaya* de Haan, 1837, is identical and should have priority.

Mamaiidæ Stebbing (S. African Crust., Part iii, p. 22, 1905) has been proposed for the group here regarded as a subfamily, *Paramayinæ*.

Mithrax (including *Mithraculus*).

Analytical Key to the Bermuda Species of Mithrax and some allied species
(Modified from that of Miss Rathbun).

A. Carapace without oblique, parallel, branchial grooves.
B. Manus of chelipeds spinulose. Carapace with conical spines; not setose.
a, Two distal segments of ambulatory legs stout, very setose; spines of manus in one dorsal row ..... *spinosissimus*
a', Two distal segments of ambulatory legs long and slender, sparsely hairy. Spines of manus in two dorsal rows ..... *cornutus*
B'. Manus smooth, without spinules.
C. Rostral horns short, blunt or tuberculiform.
D. Spines or tubercles of antero-lateral margin four, behind orbitals, simple or bifid: basal joint of antennæ with inner tooth longest.
E. Carapace not multi-tuberculate; carpus often nearly smooth; merus of chelipeds multispinose; basal joint of antennæ narrow, with two denticles. *hispidus*
E'. Carapace and carpus of chelipeds tuberculate; merus spinose; rostral horns about as long as broad, obtuse; basal joint of antennæ wider, with two acute spines ..... (*depressus*)
C'. Rostral horns long and slender ..... *acuticornis*
A'. Carapace with oblique, parallel, branchial grooves; antero-lateral margins with four acute spines; carapace broader than long in adults. *forceps* (*hirtipes*)

Mithrax cornutus Saussure. *Coral Crab, Red Spider Crab.*

Mithrax cornutus Saussure, Mem. Crust. nouv. Mex. et Antilles, p. 7, 1858. A. M.-Edw., Miss. Sci. Mex., v, i, p. 97, pl. xxii, 1875.

FIGURE 38.

This species grows to rather large size in the West Indies. The only Bermuda specimen known is young.

It closely resembles *M. spinosissimus* of the West Indies* in the form and spinulation of the carapace and chelæ, but it can easily be distinguished by the longer and more slender chelipeds and legs, and especially by the far more slender distal two segments of the ambulatory legs, which are nearly destitute of spines and have only short, sparse hairs, while in the latter these segments are stout, not abruptly attenuated, and are thickly covered with strong dark colored hairs.

In both species the merus and carpus of the chelipeds are covered with numerous strong and acute curved spines; in this species the merus is longer and has about eight or nine very acute spines on the posterior border, and near them another irregular row of nearly the

* This species is likely to occur on the rough grounds outside the Bermuda reefs. Hence I have given the most obvious distinctions here.

same number and size on the upper surface; numerous smaller unequal conical spines are scattered on the upper surface or form broken rows, while the anterior margin bears a row of about five or six obtuse spines, much smaller than those of the other margin; there is also a row of three or four still smaller ones on the under side.

In *M. spinosissimus* the spines of the merus are not so numerous, but larger, longer, more equal, more curved and very acute and bear rough, divergent stiff hairs; about ten to twelve large, nearly equal spines stand on the posterior border; two or three large and some small ones on the anterior border; the upper surface bears about six large spines and a few very small ones; the largest are distally situated and some of them are larger than the marginal ones; there

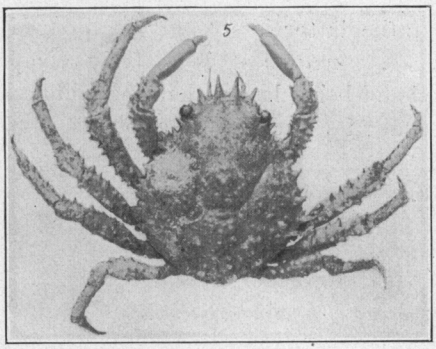

Figure 38.—*Mithrax cornutus*, from Bermuda; young with eggs, about ⅞ nat. size. Phot. A. H. V.

is a row of about three short spines on the under side; the carpus is also covered with numerous (about twenty-five to thirty) very unequal, very acute, divergent spines, some on the inner edge as large as those of the merus.

In *M. cornutus* the carpus bears rather more numerous spines, but they are mostly smaller and less acute, more than half of them being mere conical tubercles.

The manus in this species bears two distinct rows of eight to ten spines on the upper edge, which is not much compressed; these spines are short and obtuse.

In *M. spinosissimus* the dorsal spines of the manus, of which there are about eight to ten, form a single zigzag row; they are also longer and usually more acute, but in large specimens often become blunt. The dorsal part of the manus is strongly compressed.

The frontal horns in *cornutus* are rather larger and straighter than in the other, and the subrostral process, between the antennulæ, is narrow and directed strongly backward, while in the other it is wider, thick, and nearly perpendicular, with an acute, excurved tip.

The buccal area has the anterior, lateral sinuses more strongly arched in *M. cornutus*, and the corresponding parts of the outer maxillipeds are, therefore, more convex.

There are other distinctions that might be noticed, but the wide difference in the tips of the legs is the most convenient diagnostic character.

In *M. cornutus* the ratio of the proximal vertical diameter of the propodus of first pair of ambulatory legs to its length is 1:4.5 to 1:5; of the dactylus, 1:6. In *M. spinosissimus* the corresponding ratios are 1:3 and 1:4.

The propodus in the latter is strongly compressed and decidedly tapered, but in *M. cornutus* it is scarcely compressed, and not tapered, the distal end being larger than the middle and about equal to the proximal end; its dactylus is also less curved and the tip very slender.

The color of *M. cornutus* in life is bright red above, lighter below; when recently dried it soon changes to pale red, yellowish red, or terra-cotta color, by exposure to light.

Measurements.

		Carapace				Chelæ		
	Sex	total length	length —rostum	breadth total	breadth —spines	length	height	
4069	♂	64	58	62	53	46	13	Dominica
453 F.M.	♀ eggs	29	26	25.5	22	14	4	Bermuda
4070	♀ eggs	68	59	60	52	33	8	Dominica

In No. 4069 the merus of chelipeds is 35^{mm} long; greatest thickness, without spines, 9^{mm}; merus of first amb. leg, 28^{mm}; thickness in middle, 6^{mm}; its propodus, length, 21^{mm}; thickness, 4.5; dactylus, 18^{mm}; proximal diameter, 3^{mm}.

M.-Edwards gives for his largest (♂) specimen: length of carapace, 92^{mm}; breadth, 90^{mm}; length of chela, 82^{mm}.

The only specimen known from Bermuda (453 F. M.) was taken October 12, 1905, in 30 fathoms on the Challenger Bank, by the expedition from the Field Museum of Natural History. It is a small and evidently young female, but it carried a considerable mass of eggs.

At Dominica Island, in 1906, Mr. A. H. Verrill obtained a number of much larger perfect specimens, taken in fish-pots, in rather deep water (40–150 fathoms) where it was associated with *M. spinosissimus*, of very large size, and other large spider crabs.

It is a comparatively rare species, recorded by few authors. A. M.-Edwards knew only two specimens, from Martinique, in the Paris Museum. It was not mentioned by Stimpson, nor was it in the Porto Rico collection, studied by Miss Rathbun. It was not represented in the large collections of the National Museum enumerated by her in 1892.

Mithrax (Nemausa) acuticornis (Stimpson).

Mithrax acuticornis Stimpson, Bull. Mus. Comp. Zoöl., ii, p. 116, 1870. A. M.-Edw., Miss. Sci. Mex., v, p. 98, 1875. M. J. Rathbun, Amer. Naturalist, xxiv, p. 512, fig. 8, 1900.

Nemausa rostrata A. M.-Edw., Miss. Sci. Mex., Part v, i, p. 81, pl. xvii, figs. 4–4*d*, 1875. Miers, Voy. Challenger, Zoöl., p. 85, 1886 (Bermuda).

Mithrax (Nemausa) acuticornis M. J. Rathbun, Proc. U. S. Nat. Mus., xv, p. 260, pl. xxxvii, fig. 1, 1892; Bull. Labr. Nat. Hist. Univ. Iowa, iv, p. 259, 1898. Brach. and Macr. Porto Rico, p. 66, 1901.

FIGURE 39.

This species is characterized by its elongated and narrow carapace, the sharp lateral spines, and especially the unusually long and acute rostral horns.

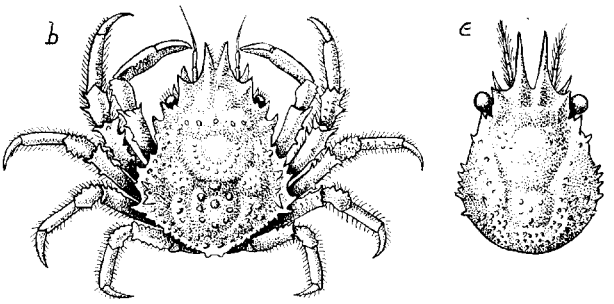

Figure 39.—*Mithrax acuticornis*; *c*, the same, the carapace of a younger specimen, × about three times. After A. M.-Edwards.

Recorded from Bermuda by Miers (Voy. Chall.), but not obtained by later collectors. Florida, West Indies and Gulf of Mexico, shore to 164 fathoms. Off Key West, 60 fathoms (Rathbun).