

eastern United States, Florida, Gulf of Mexico, Antilles, Guianas, northern South America and Brazil. Depth: 90–1823 m. According to Williams (1984), adult specimens have been collected at 0–9 m in the water column over water 384–402 m deep.

Remarks. — The larger male examined and the female differ very slightly from the specimen of *M. valida* described. These differences consist in the number of spines on the second and third abdominal tergites and in the length of supra-oculars, which do not extend past the cornea. Comparison of the *Challenger* specimens of *M. valida* with specimens of *M. miles* collected by the *Blake* (MNHN Ga 545 and 546) verified the practically unanimous opinion that these species are distinct (Benedict 1902, Chace 1942, Williams 1984). *Munida valida* is a much larger species, with longer and more divergent supra-oculars, lacking an epigastric spine row (always present in *M. miles*), and with post-cervical spines (absent in *M. miles*). In addition, the ornamentation of the carapace in *M. miles* differs in the more continuous, less distinct lines and in having a smoother surface.

Apparently *M. valida* is not morphologically very variable, an uncommon situation in the genus. All the specimens studied agree with the description of Smith (1883).

Discussion

The taxonomic complexity of the genus *Munida* derives chiefly from the high degree of morphological variation shown by many of its species (Zariquiey Alvarez 1952). This characteristic renders the dividing lines between many similar species fragile. The tendency to gregariousness and syntopy (relatively large populations of several species frequently are found in the same locality), makes it difficult to identify specimens correctly. For this reason, availability of type material is often critical. Characters fixed for a particular group of species can vary in

other groups. Thus, the use of such characters in identification keys renders these keys unreliable. The older, original descriptions tend to be vague and generally based on extensive syntype series. It is therefore not surprising that Henderson mistakenly identified the numerous specimens from station 122. His opinion (Henderson 1888: 126) that *M. valida* was synonymous with *M. miles*, was certainly conditioned by the brevity of the initial description of the latter species (A. Milne Edwards 1880), which was described in detail only later by A. Milne Edwards & Bouvier (1897).

The study of the *Munida* material from the *Challenger*, *Blake*, *Albatross* and *Atlantis*, as well as abundant material collected recently off the Brazilian coast, strongly suggests the presence of four large species-complexes in the Atlantic: the *miles* complex (*Munida miles*, *M. benguela*, *M. constricta*, *M. forceps*, *M. microphthalma*, *M. sanctipauli* and *M. valida*); the *spinifrons* complex (*Munida spinifrons*, *M. angulata* and *M. pusilla*); the *stimpsoni* complex (*Munida stimpsoni*, *M. benedicti*, *M. flinti* and *M. striata*), and the *irrasa* complex (*Munida irrasa*, *M. iris*, *M. sculpta* and *M. simplex*). The latter complex is the only one not represented in the *Challenger* collections.

Reexamination of the species of *Munida* collected by the H.M.S. *Challenger* off the Brazilian coast leads us to conclude that of the four species collected in this region, two (*M. spinifrons* and *M. sanctipauli*) were described as new, and the other two were erroneously identified: *M. stimpsoni* (St. 122) was really *M. flinti*, and the material from the same station determined by Henderson as *M. miles*, in reality consists of three species: *M. constricta*, *M. forceps* and *M. valida*. Based on these observations we conclude that *M. stimpsoni* and *M. miles* are not known to occur off the Brazilian coast, whereas *M. flinti*, *M. forceps*, *M. constricta* and *M. valida* are cited for the first time from this area.

Acknowledgments

The authors thank P. Clark, The Natural History Museum, for the loan of material from the *Challenger* Expedition, and Janet W. Reid, Smithsonian Institution, for assistance with the English text. Financial support was provided by the Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) Proc. 830373/89-6 for GASMF, and Proc. 303224/87-8/ZO/FV for GASM.

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