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A CURIOUS MARINE INSECT, *HERMATOBATES**by*

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The genus *Hermatobates* was included in the family Gerridae (Hemiptera: Heteroptera) by most hemipterists but treated as a distinct subfamily, the Hermatobatinae. Matsuda (1960) in his monograph of the world Gerridae excluded it from that family as he considered it sufficiently different from the rest of the Gerridae to be given family rank. The systematic status of this genus is, therefore, still debatable. The genus differs from the other gerrids in having granulated eyes, an extremely short pronotum, completely fused meso- and metanota, a three-segmented front tarsus, and a number of other structural differences (Matsuda, 1960).

This genus is one of the least known and rarest of marine bugs. A total of eight species have been recorded but they are all very poorly represented in the collections. Many of the species were described from single specimens and are only known from the type material (Herring, 1965). The genus has, however, quite a wide distribution occurring in the Australian region, the Philippines, Japan, Hawaii, the Atlantic Ocean, and the Red Sea (China and Usinger, 1950; China, 1957; Herring, 1965). It has never been recorded from Malaya before and the present record appears to be the first from the Sundaic region.

During a recent survey of the Malayan Gerridae, three specimens of this genus were collected together with specimens of *Halobates*, another marine gerrid, near a kelong off the Siglap coast of Singapore about three miles from the shore. These insects are dark brown in colour with the ventral surface very much paler than the dorsal. The body and all appendages are densely covered with short velvety hairs that appear silvery in colour. They are quite small measuring about 3.5 mm in length. The females are slightly smaller than the males and can be easily separated from them by the peculiar lateral extensions of the thorax which flank the abdomen on both sides dorsally (Figs. 1 & 2). In the species collected, there is striking sexual dimorphism. In the male, the front femur and tibia, and the middle femur are armed with teeth and spines, and the front femur is greatly swollen (Fig. 4). In the female, the teeth and spines are absent, and the front femur is not swollen (Fig. 3).

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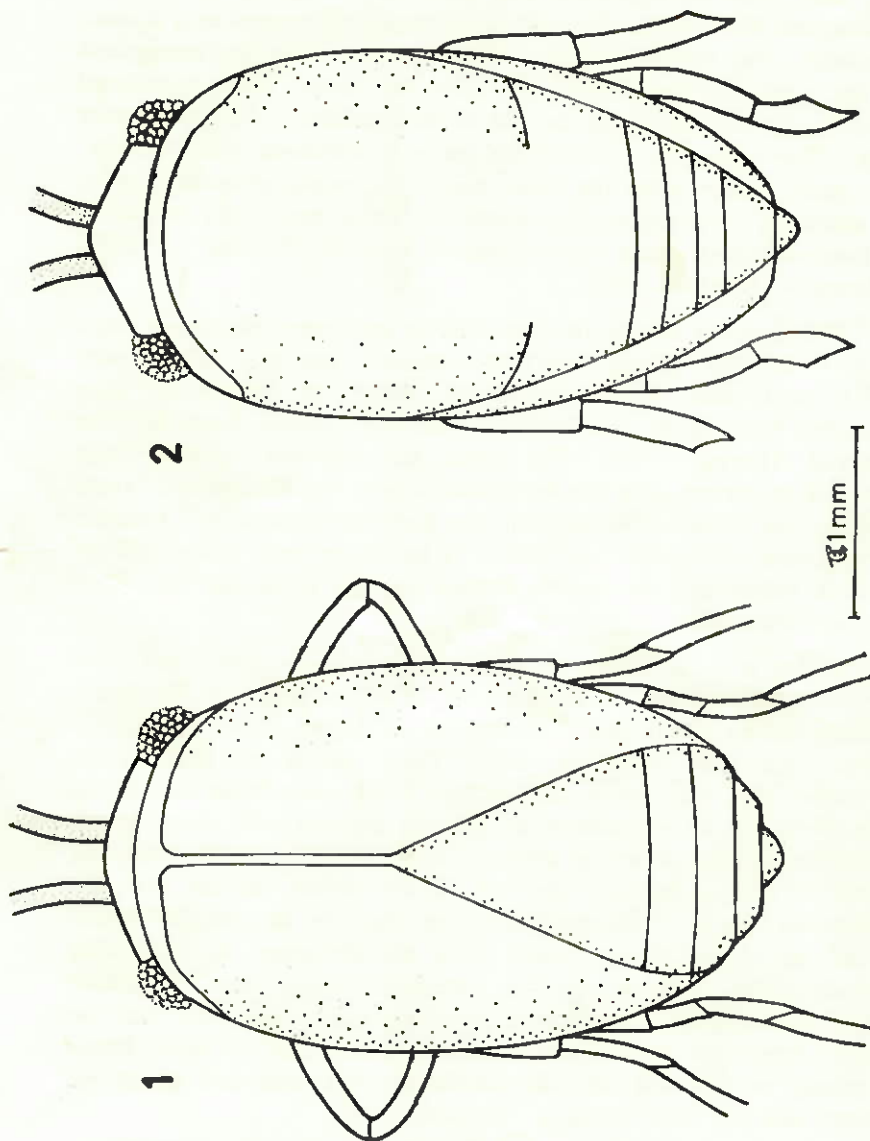


Figure 2. Male

HERMATOBATES SP.

Figure 1. Female.

3



4



1mm

Figure 3. Foreleg of female.

Figure 4. Foreleg of male.

Very little is known about the life history or biology of this curious marine insect. Esaki (1947) has given an interesting account of the habits of one of the species. He stated that they inhabit coral reefs that are exposed for short periods at low tide. During such periods, these bugs could be seen climbing or walking on the corals or skating on the surface of tide pools. At high tide, they hide in crevices of the corals or dead *Tridacna* shells or under blocks of loose corals. It is interesting to note that they may be submerged under as much as 10 feet or more of water during high tide! They have been found in association with marine Collembola, midges and *Halovelie* (Veliidae). It is quite probable that they feed on these smaller marine insects. There do not seem to be any other accounts concerning the biology of these curious marine insects. It would be most interesting if further information could be obtained on the biology and habits of the *Hermatobates* around Malayan waters. Since we have such extensive and easily accessible coral reefs around Malaya, it should not be too difficult to find and observe these curious creatures.

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