

CONTRIBUTIONS TO NEW GUINEA CARCINOLOGY. II  
ON MERGUA OLIGODON (DE MAN)

by

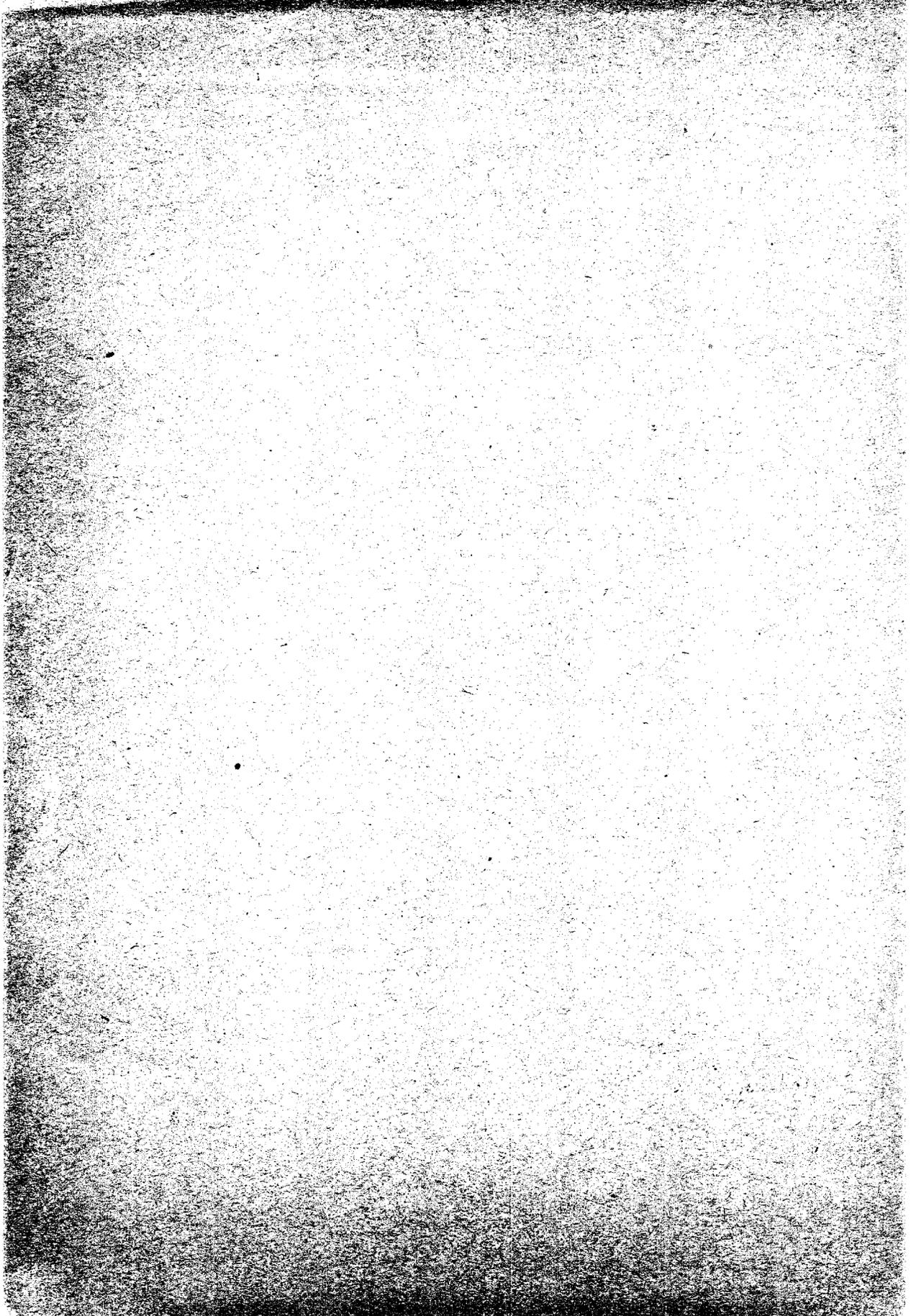
L. B. HOLTHUIS

Rijksmuseum van Natuurlijke Historie, Leiden

*From*: NOVA GUINEA, new ser., Vol. 9, Part 2, p. 231-234  
Dec. 20, 1958



LEIDEN  
E. J. BRILL



CONTRIBUTIONS TO NEW GUINEA CARCINOLOGY. II<sup>1</sup>  
ON MERGUIA OLIGODON (DE MAN)

by

L. B. HOLTHUIS

Rijksmuseum van Natuurlijke Historie, Leiden

In 1888 DE MAN (p. 277, pl. 18 figs. 1-6) described a peculiar new species of Hippolytid prawn, which he named *Hippolyte oligodon*. This new species was based on a single male specimen from Elphinstone Island, Mergui Archipelago. Twenty six years later the species was reported upon for the second time, when KEMP (1914, p. 121, pl. 7 figs. 8, 9), after examination of DE MAN's material, made *Hippolyte oligodon* the type species of a new genus *Merguia*. It was not until 1925 that a second find of the species was reported: KEMP (1925, p. 338) mentioned a specimen from Jack and Una Island, Mergui Archipelago. The species was then considered for a long time to be extremely rare and to have a very limited range. It came as a surprise therefore that among the Hippolytidae collected by the Siboga and Snellius Expeditions in the eastern part of the Malay Archipelago no less than 24 specimens of *Merguia oligodon* from 11 localities were found (HOLTHUIS, 1947, p. 75, fig. 15). These localities are as follows: Sulu Islands (islet east of Bongao, Tawitawi Group), Celebes (islet near Menado; east side of Pajunga Island, Kuan-dang Bay; Donggala, Palu Bay), Moluccas (Morotai; Taliabu, Sula Islands; Haruku), Tanah Djampea in the Flores Sea, Lesser Sunda Islands (Bay of Bima, Sumbawa; Bay of Badjo, Flores; Semau near Hainsisi, Timor). In the present paper the species is reported for the first time from New Guinea.

During my short stay in the island of Japen, in the Geelvink Bay, Netherlands New Guinea, the head of the local government, Mr. H. VAN ANDEL at Serui, had the extreme kindness to place the motorboat "Tonijn II" of the New Guinea Fisheries Service at my disposal. This made it possible for me to visit the village of Sarawandori, situated on the south coast of Japen Island, west of Serui, the main settlement on the island. On the sea shore near Sarawandori a specimen of *Merguia oligodon* was collected on 24 February 1955.

The species has been excellently described and figured by DE MAN and KEMP, while HOLTHUIS gave some details concerning immature specimens. In HOLTHUIS's

---

1) No. 1 of these contributions was published in Nova Guinea, new ser., 7, pt. 2 (1956), p. 123-137.

description a lapsus occurs on p. 77 line 10 from top, where it is stated that the first maxillipede reaches beyond the scaphocerite, while actually the third maxillipede is meant. The Japan specimen is an ovigerous female of 23 mm. It agrees in every important point with the published descriptions. The second legs have the merus subdivided into 10 articles. The right second leg is somewhat longer than the left, its carpus consists of 22 articles, while in the carpus of the left leg 19 articles are visible. The eggs are numerous; they are elongate and measure 1.0 and 0.5 mm in longer and shorter diameter.

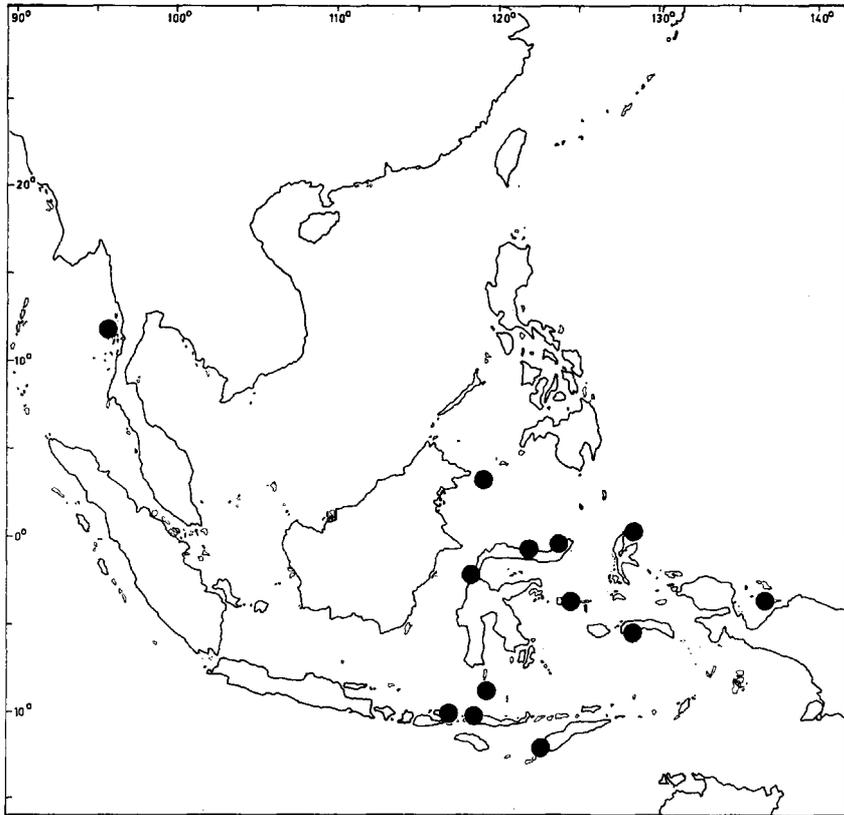


Fig. 1. Distribution of *Merguia oligodon* (DE MAN).

Colour. — No data on the colour of living specimens have ever been published. The following colour notes were made after the living Sarawandori female. The body is of a very dark brown, almost black, colour. In the posterior part of the carapace a transverse white line extends over the median and submedian regions. In its distal part this line is directed obliquely backwards (fig. 2). A similar transverse white line is visible in the posterior part of the third and in that of the fifth

abdominal somite, while furthermore such a line runs across the basal part of the tailfan. The second legs are very pale. The third, fourth and fifth have a dark brown colour with a white spot at the end of the merus and one in the middle of the carpus; the dactylus shows no brown colour at all.

Habitat. — Very little was known about the conditions under which this species lives. No information on this point is given in the original description. KEMP (1925) stated that his specimen "was found when shore-collecting". The Siboga and Snellius specimens were reported to have been collected on the shore or on reefs, but more exact information is lacking. At Sarawandori the species was found in a most peculiar habitat. The village of Sarawandori is situated at the mouth of a small river. My collecting was done on the sea shore just west of the river mouth. The actual beach here is rather narrow and exposed at low tide only; the coast behind it rises vertically as a steep calcareous wall. The *Merguia* specimens were found under the loose bark of a tree which was lying on the beach. They were dis-

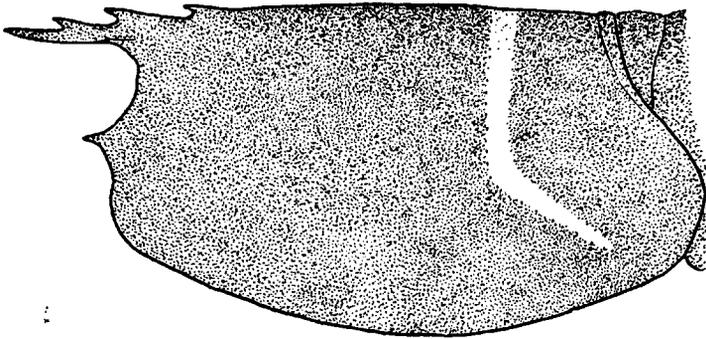


Fig. 2. Colour-pattern of the carapace of a living specimen of *Merguia oligodon* (DE MAN). x 11.

covered when I tried to tear the bark off the tree in order to look for Isopods. The shrimps then jumped away from their shelter; I was so surprised to find them in this unusual place that all but one escaped. The only one collected is the ovigerous female described above. The spot where the shrimps were found was situated at a distance of several meters from the water line. This distance must have been much greater at ebb-tide, since the tide had already come in for some time when the specimens were discovered. Though the place where the *Merguia* specimens were found was shaded and quite humid, it is a most unusual habitat for a Natant Decapod. The presence of more than one specimen and the liveliness with which they fled, makes it probable that the shrimps are more or less adapted to the circumstances under which they were found, and that it were not abnormal conditions which caused them to live in this habitat. It is likely that, when at high tide the trunk of the tree was submerged, the shrimps had entered their shelter under its bark, and remained there when the trunk became exposed at low tide.

This species in its general appearance so strongly resembles species of the genus *Processa*, that in the field the Sarawandori female was incorrectly identified as a

Processid; only a more careful examination revealed its true identity. Though *Merguia* and *Processa* belong to different families (Hippolytidae and Processidae, respectively), which by some authors even are placed in different superfamilies, numerous characters show that the two genera are rather closely related and that their families should at least be placed in the same superfamily.

It is possible that *Merguia*, like *Processa*, is nocturnal in its habits, which would explain the fact that the Japen specimens were hiding in a dark spot in the daytime. This may also have been the cause that *Merguia* has so rarely been collected.

#### LITERATURE

- HOLTHUIS, L. B., 1947. — The Hippolytidae and Rhynchocinetidae collected by the Siboga and Snellius Expeditions with Remarks on other Species. The Decapoda of the Siboga Expedition. Part IX. Siboga Exped., 39a<sup>8</sup>, p. 1-100, figs. 1-15.
- KEMP, S., 1914. — Hippolytidae. Notes on Crustacea Decapoda in the Indian Museum. V. Rec. Indian Mus., 10, p. 81-129, pls. 1-7.
- , 1925. — On various Caridea. Notes on Crustacea Decapoda in the Indian Museum. XVII. Rec. Indian Mus., 27, p. 249-343, figs. 1-24.
- MAN, J. G. DE, 1887-1888. Report on the Podophthalmous Crustacea of the Mergui Archipelago, collected for the Trustees of the Indian Museum, Calcutta, by Dr. John Anderson, F. R. S., Superintendent of the Museum. Journ. Linn. Soc. Lond. Zool., 22, p. 1-312, pls. 1-19. (pp. 1-128 are published in 1887, pp. 129-305 in 1888).