

NOTES ON THE INFESTATION OF CHANOS CHANOS BY A PARASITIC ISOPOD

By INOCENCIO A. RONQUILLO and PRISCILLA CACES-BORJA
Of the Philippine Fisheries Commission

ONE TEXT FIGURE

The occurrence of infestation of parasitic isopods in brackish water ponds for baños (*Chanos chanos* Forskal) has been noted in Central Luzon.

Sometime during the rainy season in 1958, attention was called to the occurrence of swarms of crustacean ectoparasites in a baños fishpond in Dampalit, Malabon, Rizal. A few specimens were submitted to this Office, and review of literature, revealed that they were isopods.

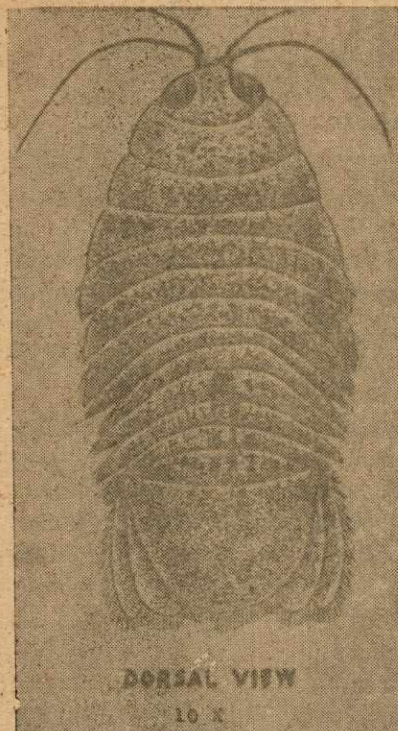
In 1962, an infestation was reported by the District Fishery Officer of Pangasinan in baños fishponds in Binmaley, Pangasinan. The parasite was first observed just after the floods caused by Typhoon Kate, one of the worst that struck Luzon sometime in August, 1962. Specimens were collected by fishpond caretakers and were sent to this Office but were not saved. Some observations were made of the salinity which was at zero and the water temperature at 31.5°C.

The third report was made by Mr. Roman Abalos of Maligaya Experimental Station, Muñoz, Nueva Ecija, who brought 28 specimens, ranging from 7.0 to 10.0 mm. in length, also from Binmaley, Pangasinan, collected on October 21, 1962.

The ectoparasite appears when the salinity of the water is very low and the appearance is sporadic but once the pond is infected, great quantities are found at any one time. The infestation is so bad that the irritated fish loses much energy in moving about to shake off the parasites, so they have to be harvested and disposed off even when small. The fishpond caretakers who go into the infested ponds are also irritated by the great number that cling to their bare legs.

Another incidence of the ectoparasite was reported in 1963 from Parañaque, Rizal.

The fifth report was made by Felipe A. Maclang of the Shell Chemical Company who brought 79 specimens of the ectoparasite to our attention, informing us of the control they had developed which they claimed to be effective. We have not tried the same as no new occurrences have been reported. The specimens were also taken from Binmaley, Pangasinan, July

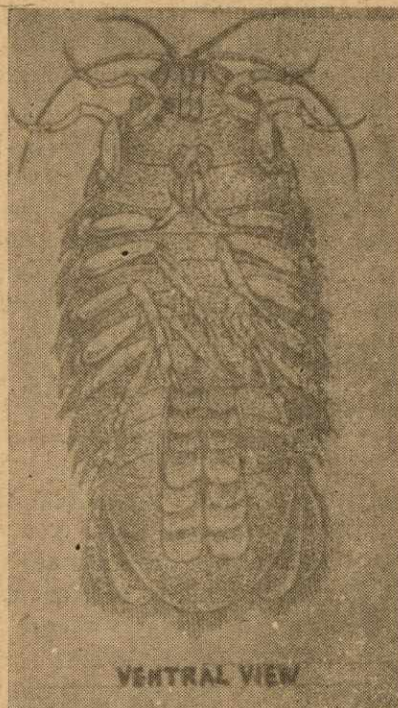
Parasitic ISOPOD on *Chanos chanos*

Taxonomy—

Class—Crustacea
 Subclass—Malacostraca
 Order—Isopoda
 Suborder—Flabellifera
 Family—Cymothoidae
 Subfamily—Cymothoinae

25, 1964, and collected by Mr. Lazaro Tañedo. Likewise, the collection was made during the rainy season. Of the incidents here reported, three were from the Agno River basin and two from the Manila Bay area. It is possible that, as reported by Sachlan (1952) in his "Notes on Parasites of Freshwater Fishes in Indonesia," this is a related isopod in freshwater.

Previous reports (Sachlan, *op. cit.*) stated that the isopod (*Ichthyoxenus jellinghausii*) infects various carps and other river fish but not cultured fish. As far as we know, this is the first record of the ectoparasite (isopod) attacking *Chanos chanos*, the most important pond fish in the Philippines. The



fact that it is very destructive once infection starts, requires utmost diligence to prevent the spread of this ectoparasite.

When a pond is heavily infected, the fish thereat undergo a peculiar uneasiness in view of the irritation brought about by the great number of the parasites. The parasites normally stayed near the pond bottom and were found to attach to any object, especially moving ones. They were observed to attach themselves even to humans. Other species of fish like the *Gerres*, eels, slipmouths, mullets, tilapia, gobies, and tarpons were also found to have this parasite attached to the bases of the fins, to the head, to the gills and membrane underneath the operculum and at the vent.

A brief description of the animal follows.—It has a somewhat oval body with 13 segments including the shield-like telson; triangular head with two pairs of segmented antennae, the first with 7 very short cylindrical segments about 1/4 the length of the 2nd and the second with about 15 cylindrical segments. The head has a pair of large, faceted eyes.

The body is provided with 7 pairs of walking legs (pereopods) provided with hooks, 4 pairs of swimmerets (pleiopods) and 1 pair of uropods.

The width is about 2.5 mm. in length.

Upon dissection, the biggest ones (10 mm. long) showed developing ovaries at the region of the 3rd and 4th pairs of walking legs. No sign of a brood pouch was visible. A smaller specimen was also dissected and it showed 3 locules of testes transforming into the ovary. It appeared that the specimens were still young but were in the process of transforming into the female sex.

In view of the rare and sporadic occurrences of the parasite, no detailed study has been made on its life history, inasmuch as the attention of the fisheries officials are called only when infestation is so severe, and when the fish are already harvested and disposed of. In view thereof, no description of the infected fish could be included in this report.

LITERATURE CITED

- SACHLAN, M. 1952. *Notes on Parasites of Fresh-Water Fishes of Indonesia*, Contr. Int. Fish. Res. St. No. 2 p 1-60 Bogor, Dec. 1952.

ILLUSTRATION

TEXT FIGURE

FIG. 1. Parasitic isopod on chanos chanos.