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LIRONECA INDICA EDWARDS, 1840 (*CRUSTACEA, ISOPODA*) FROM *SELAR CRUMENOPHTHALMUS* (BLOCH)

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Selar crumenophthalmus (fam. *Carangidae*) is a pelagic fish, seasonally demersal, widely distributed in the tropical and subtropical regions of the world oceans. It was taken in large numbers on the Mozambique shelf (the Zambezi estuary) and off the north-western coasts of Madagascar (Cape Saint Andre) during the period 25 - 31 May 1975.

The Mozambique shelf is a narrow, 20 mile-long belt reaching in some places a width of 60 - 70 miles. The sea floor is soft, sand-covered and moderately sloping in the region of the Zambezi delta. The influence of the river is mainly marked in the surface salinity, which is lower (about 32.2 promilles) than in the other parts of the Mozambique Channel (about 35 promilles). The movement of the water in the Mozambique Channel is longitudinal, due to the influence of the wanm South-Equatorial Current. The temperature of the surface waters was 26.9 - 27.4 °C during the observation period. The waters of this region contain large quantities of oxygen and few nutrients, thus creating a suitable habitat for many species, also fish and crustaceans.

The selars caught were 14 - 20 cm long, though mostly 17 cm long. The gonads indicated that the fish were approaching spawning. 24% of the individuals were at stage III and 72% were at stage IV. The female to male ratio was 1:1. 80% of the fish were not foraging. All examined fish (about 70) were infested by Isopods.

The species was described by Edwards (1840) based on a fish caught near Sumatra. It was also observed in the region of Sambelong (Heller, 1868; Schioedte and Meinert, 1884), Sumatra and the Phillipines (Schioedete and Meinert, 1884) New Guinea (Nierstrasz, 1915), Djakarta, Mayotte (Trilles, 1976) and of the north-western coast of Australia (Avdeev, 1978) in the gill cavity of Rastreliger kanagurta (Cuvier), (*Scombridae*) and Atule malam (Bleeker), (*Carangidae*). *

* Cit. partially after 3.

Thus it has been found in the eastern regions of the tropical zone of the Indian Ocean and in adjacent seas. The results of this investigation have proved the presence of this parasite in the opposite, western region of this ocean.

The parasites were found in the right or left gill cavity with an intensity of 1, and were situated with their ventral part towards the operculum of the fish (fig. 1), the anterior part of their body being directed towards the ventral part of the fish. The pressure by the parasite on the gills caused changes mainly in the I and II gill arches. Up to 1/3 of the lobes in gill arch I and up to 1/4 of gill arch II.

The individuals observed, 31 - 35 mm in length (fig. 1), do not differ from the description given of this parasite by Schioedte and Meinert (1884) and in the data given by Trilles (1976). According to Avdeev (1978), the genus *Lironeca* has a wide range of hosts, thus, for example, the species. *Lironeca raynaudi* has 12 hosts belonging to 2 families. It can thus beassumed that the number of unknown hosts of *L. indica* is still large. So far, 3 hosts of this parasite including *S. crumenophthalmus* have been determined: the fish are pelagic, seasonally demersal, inhabit the tropical and, less frequently, the subtropical zones. They are widely distributed in the Indopacific Ocean. It can be presumed that other hosts of *L. indica* are to be found among the *Scombridae* and *Carangidae* families.

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2. Schioedte, J. C., Meinert: *Naturhist. Tidsskr.*, ser. 3, 14, 221, 1884.
3. Trilles, J. P.: *Bull. Mus. Hist. nat.*, Paris, ser. 3e, 390, 777, 1978.

LIRONECA INDICA EDWARDS, 1840 (*CRUSTACEA, ISOPODA*) U SELAR *CRUMENOPHTHALMUS* (BLOCH)

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W jamie skrzelowej ryby *S. crumenophthalmus* (Bloch) stwierdzono występowanie równonoga *L. indica*. Ryby pochodziły z Kanału Mozambickiego i szelfu zachodniego Madagaskaru. Stwierdzono, że ucisk wywierany przez pasożyta na skrzela powodował w środkowej części, głównie w I i II łuku skrzelowym częściowy lub całkowity zanik płatków skrzelowych.

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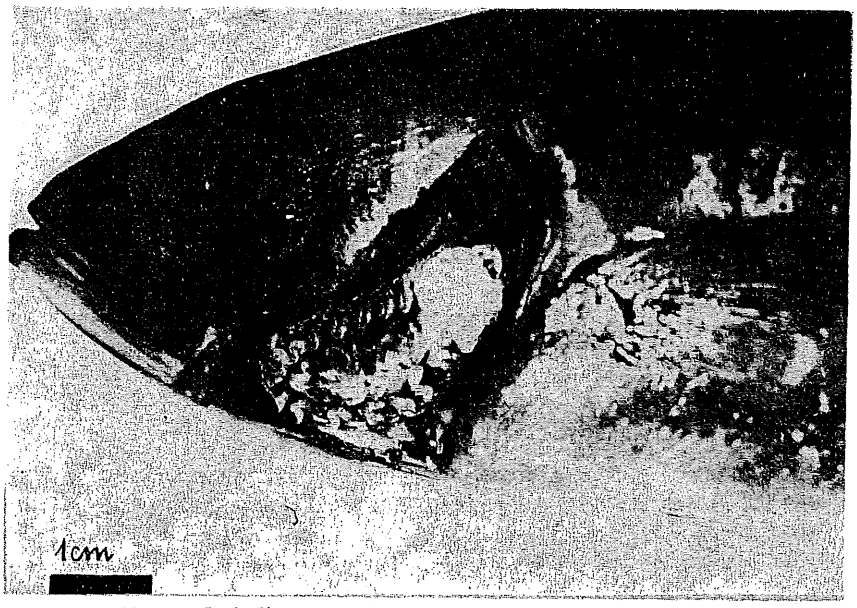
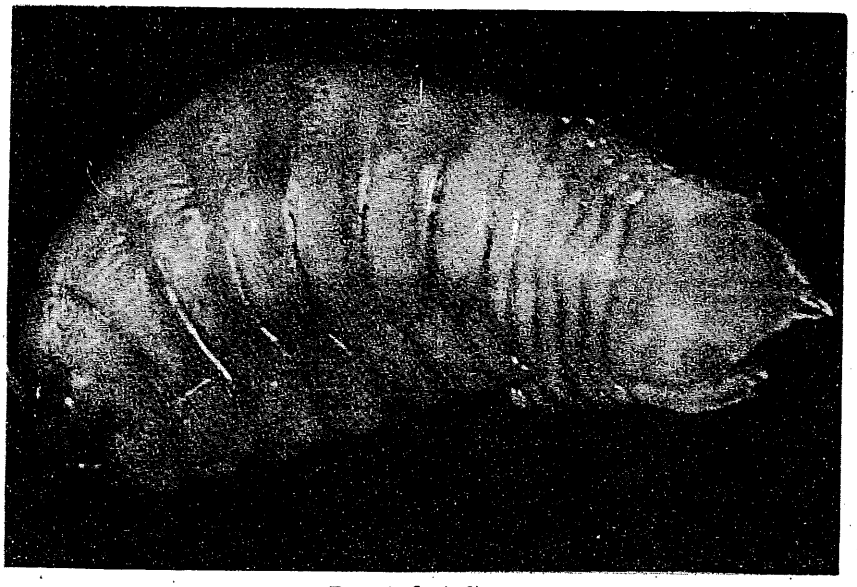
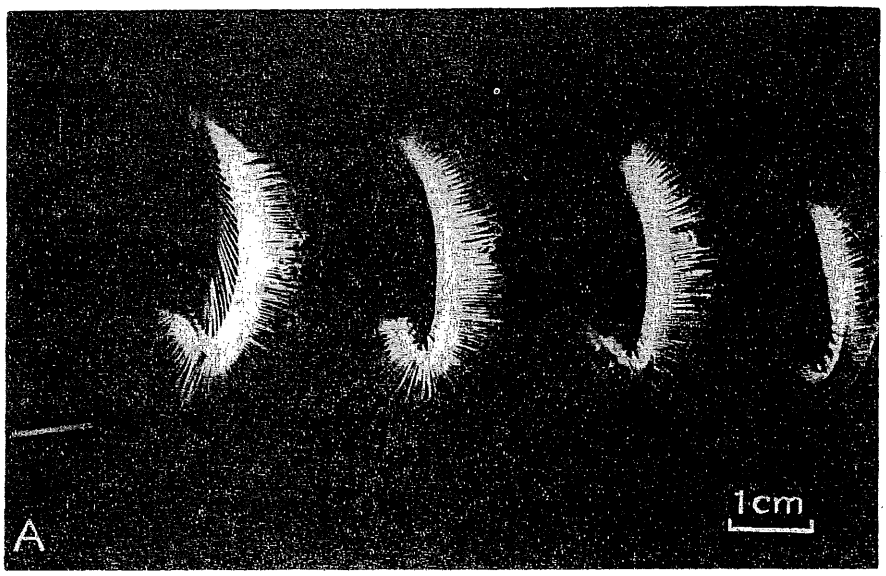
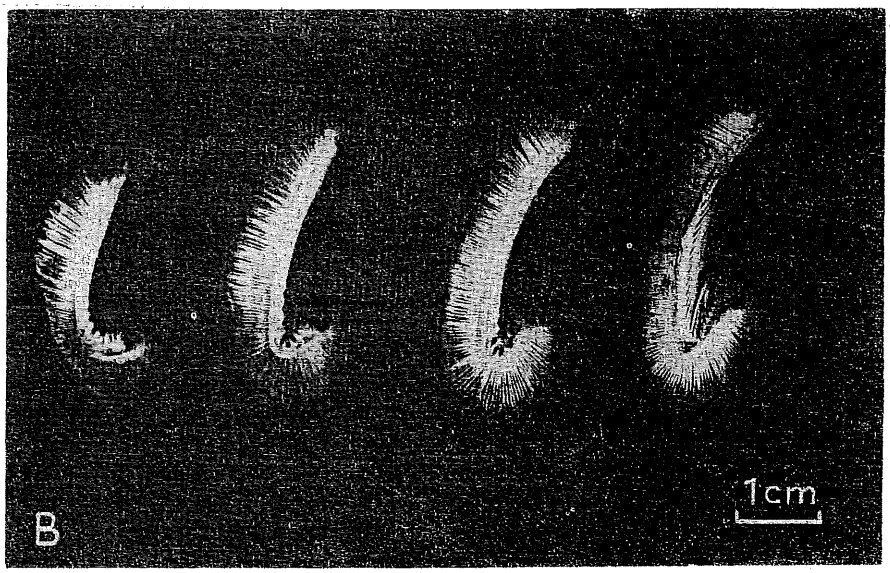


Ryc. 1. *L. indica* w jamie skrzelowej *S. crumenophthalmus*
Fig. 1. *L. indica* in gill cavity of *S. crumenophthalmus*



Ryc. 2. *L. indica*
Fig. 2. *L. indica*





Ryc. 3. Skrzela *S. crumenophthalmus* (Bloch.). Fot. Teresa Cieślak
Fig. 3. Gills of *S. crumenophthalmus* (Bloch.). Phot. Teresa Cieślak
A — skrzela prawe ze zmianami — right gills, with lesions caused by parasite; *B* — skrzela lewe, normalne — left gills, normal