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FRESHWATER MEDUSAE IN LAKE KYOGA

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FRESHWATER MEDUSAE have been observed in Lake Kyoga by several members of the Fisheries Department on a few isolated occasions over the past two years. Sightings have been made at Lwampanga at the western end of the lake, at Bukungu near the inlet of the River Nile into Lake Kyoga, and at Lalle, on the eastern extremity of the main lake. Most sightings have been made near the margin of the lake under very calm conditions. At Lalle and Lwampanga large numbers of medusae have been seen swimming near the surface; on these occasions, the medusae were pulsating regularly and maintained a position within a few inches of the surface. Apart from noting that sightings have occurred under calm conditions near the lake margin, no other observations to indicate when medusae are likely to be seen have been made. Most of the medusae are of similar size, the largest being 12 mm in diameter (Plates I, II and III).

Freshwater medusoid forms of coelenterates are very uncommon, and only a few genera have been described. All known freshwater medusae are members of the class *Hydroza,* order *Trachylina,* sub-order *Trachomedusae;* it has, however, been noted that their inclusion in the order *Trachylina* is only provisional.

The salient features of the *Trachylina* are as follows:

(*a*) The medusoid develops direct from the egg.

(*b*) The polyp stage is reduced to a minute fixed individual or represeuted only by the planula larva which metamorphoses into a medusae.

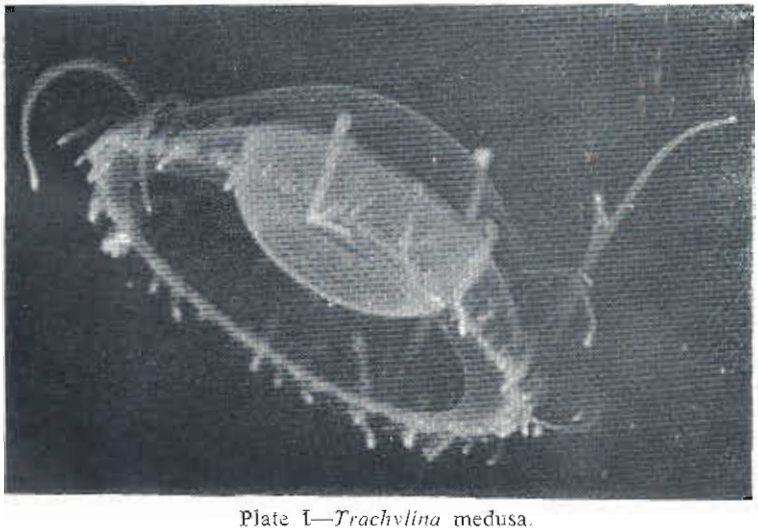

Plate I—*Trachylina* medusa.

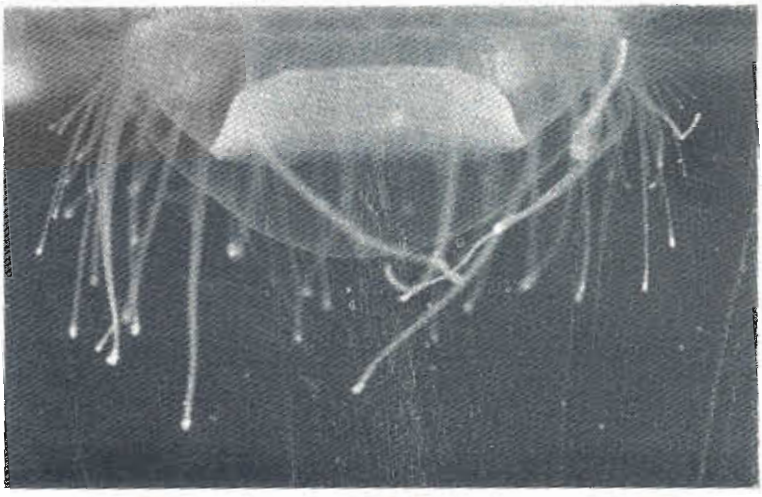

Plate II—*Trachylina* medusa.

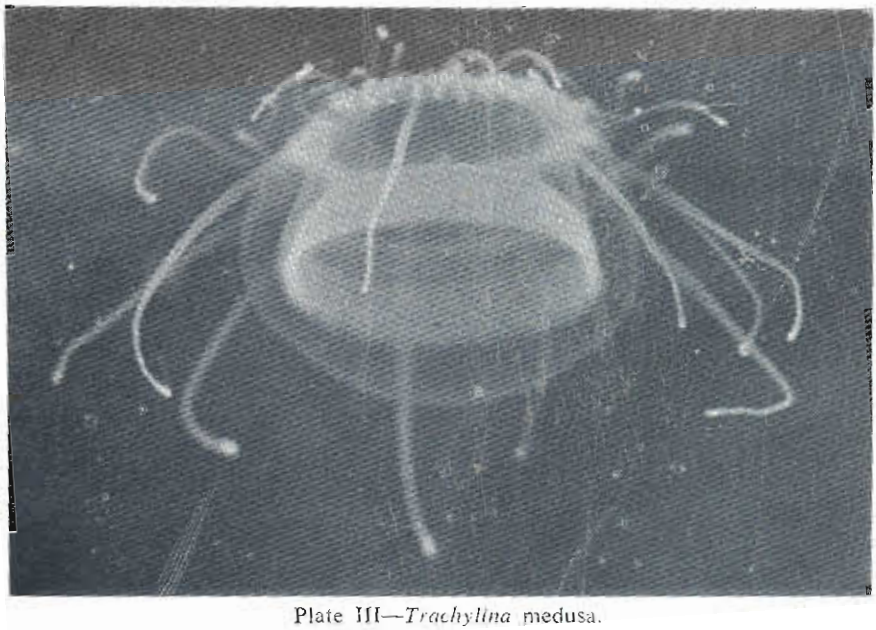

Plate III—*Trachylina* medusa.

I presume that the specimens collected from Lake Kyoga are of the species, *Limnocnida tanganicae,* which has been recorded for Lake Victoria and Lake Tanganyika. B.E.P.S. 1961, records that only male medusae have been found in Lake Tanganyika, and females in Lake Victoria. Asexual reproduction by budding takes place from the margin of the bell. Other species of *Limnocnida* have been described for Southern Africa and India. *Craspedocusta* and *Microhydra* are two other genera recorded from North America and Europe.

In a simple experiment in Fisheries Headquarters, Soroti, a single medusa was introduced into an aquarium containing several small *Tilapia* and *Barbus,* with violent results. For several minutes the fish ignored, or did not see, the colourless and almost transparent medusa; finally one small *Tilapia* (3 inches long) took a tentative bite at the medusa. The effect was immediate and startling; the *Tilapia* shook itself violently, with mouth and gill covers fully open, for several seconds, and, for the next 20–30 seconds, swam around the aquarium in an obviously distressed condition. Two other *Tilapia* and a *Barbus* attempted to bite the medusa, and suffered a similar experience. Unfortunately the medusa, by the end of these attacks, was seriously damaged, and sank to the bottom of the aquarium.

Obviously the medusae are equipped with penetrant nematocysts that are capable of deterring other, possibly predatory, animals. It would be of interest to introduce a number of medusae into an aquarium to find out if the fish would learn to avoid them.

REFERENCES

BORRODAILE EASTHAM POTTS and SAUNDERS, 1961.—Cambridge University Press.

NOTES AND ADDENDA

THIS SECTION of the Occasional Papers is intended for the permanent record of notes of interest, and minor additions and amendments to previously published papers.

1. *Crocodile Breeding in Captivity*

Occasional Papers No. 2, 1969, gave a discussion of Crocodile Farming in Uganda, in which it was stated that *Crocodilus niloticus* had not been bred in captivity. Since that time, a record of successful breeding, *i.e.* copulation, eggs laying and hatching, has come to hand in the Livingstone Game Park. The crocodile rearing pens described in the Occasional Papers have now been superceded by larger fenced enclosures, which has resulted in considerable changes in the crocodile behaviour, and has greatly enhanced growth rates.

2. *Largest Nile Perch*

The largest Nile Perch (*Lates* sp.) from Lake Kyoga at the time of writing was a 138-kg. fish from Galiraya in May, 1970.

REFERENCES

STONEMAN, J., 1969.—Crocodile Industry in Uganda. Occasional Papers No. 2. Fisheries Department.

HADLEY, D., 1969.—Breeding of Crocodile in Livingstone Game Park. The Puku, No. 5, pp. 226–228.

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