described from Travancore, appears to be a new variety having a wide distribution both in the sea as well as in the lakes.

A list of prawns recorded from Travancore is given below:—

I wish to express my grateful thanks to Dr. C. C. John for all the help and guidance rendered during the investigation.

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[1] *Journ. Bombay Nat. Hist. Soc.*, **39**, No. 2.

[2] *Bull. Bingham Oceanographic Coll.*, **4**, 7, 7.

PRELIMINARY OBSERVATIONS ON MYXOSPORIDIA FROM SHARKS

THE meagreness of our knowledge of myxosporidia is surprising despite the widespread occurrence of this group both in marine and fresh-water fishes. Myxosporidia, as is well known, are found mostly in the gall bladder of fishes, but they have also been observed in other organs, such as, testis, ovaries, urinary bladder, brain, etc. Very few species of Myxosporidia have been recorded in India and for such knowledge as we have of this group we are indebted mainly to the studies of Southwell (1915), Southwell and Prashad (1918 and 1933), Ray (1933), Ganapati (1936) and Chakravarty (1939 and 1941). Most of the species described by these workers are of fresh-water fish from Bengal. These workers have not, however, investigated the occurrence of the parasites in particular groups of fishes but described them as they have found them in certain fishes. In this respect their work differs from that of Kudo, in Japan, who investigated numerous species of both marine and fresh-water fishes; or from that of Davis in Florida, who worked on representative groups of both marine and fresh-water fishes of the Beaufort region in North Carolina (U.S.A.). Both Kudo and Davis investigated the ocurrence of the parasite in whole groups of fishes, and their investigations have thus added considerably to the literature on the subject.

The need for similar study of myxosporidia infection among our fishes has long been overdue and the present investigation, conducted by Miss S. D. Mistry, B.SC., which is confined to the Elasmobranchs (sharks, skates and rays) only, has accordingly been undertaken. In this preliminary conspectus of the work done, I desire to place on record a list of hosts examined and the parasites found in them for the first time in this country. The list does not, however, include a number of hosts which appeared to be free from infection. A special feature worthy of mention is that invariably more than one species of the parasite has been found infecting the same organ. Thus, the gall bladder of *Cestracion zygœna* was found to contain a large number of trophozoites and spores of three species of myxosporidia, while *Caracharinus limbatus* contained no fewer than five species. Another striking fact disclosed during the investigation seems to be that Elasmobranchs are infected exclusively by three genera of myxosporidia. The genera, in the order of frequency in which they are encountered, are Ceratomyxa, Chloromyxum and Leptotheca. The absence of any other genus of myxosporidia in this group is indeed remarkable in view of the fact that they feed on a large variety of marine fishes, which, in their turn, are infected by other genera of myxosporidia. The three genera referred to above seem to be specially characteristic of Elasmobranchs not only in India but also elsewhere in the world and seem to be most suited for life in them.

Kudo, in his "Studies on the Myxosporidia", published in 1919, includes all forms reported in the world till then. He has listed 223 fishes as hosts, of which 24 belong to the Elasmobranchs, including the genus Raja, which, however, is not represented in Bombay waters. Kudo's observations, also, support the view that the Elasmobranchs are specially infected by the three genera of parasites enumerated above. Kudo, however, adds a fourth genus,

namely, Myxidium, found in representatives of the family Rajidæ.

Several species representing the three genera are new, and a detailed description of these will soon be published.

Host	Number of species from each host	Genus	Seat of Infection
1. *Carcharinus pleurotænia*	1	Ceratomyxa	Gall bladder
2. *Cestracion blochii*	2	Ceratomyxa Chloromyxum	do
3. *Cestracion zygæna*	3	Ceratomyxa Ceratomyxa Chloromyxum	do
4. *Chiloscyllium griseum*	1	Chloromyxum	do
5. *Carcharinus menisorrah*	2	Ceratomyxa Ceratomyxa	do
6. *Carcharinus limbatus*	5	Leptotheca Chloromyxum Ceratomyxa Ceratomyxa Ceratomyxa	do
7. *Hemigaleus balfouri*	3	Ceratomyxa Ceratomyxa Chloromyxum	do
8. *Pristis cuspidatus*	2	Chloromyxum Ceratomyxa	do
9. *Rhynchobatus djeddensis*	2	Chloromyxum Ceratomyxa	do
10. *Scoliodon sorrakowah*	3	Chloromyxum Ceratomyxa Leptotheca	do Kidney
11. *Scoliodon* sp.	2	Chloromyxum Ceratomyxa	Gall bladder
12. *Scoliodon walbeehmi*	3	Ceratomyxa Ceratomyxa Chloromyxum	do
13. *Scoliodon palasorrah*	2	Ceratomyxa Chloromyxum	do
14. *Carcharinus bleekeri*	3	Ceratomyxa Ceratomyxa Chloromyxum	do
15. *Hypoprion macloti*	2	Ceratomyxa Ceratomyxa	do
16. *Carcharinus melanopterus*	2	Ceratomyxa Chloromyxum	do
17. *Trygon bleekeri*	1	Chloromyxum	do
18. *Rhynoptera javanica*	1	Chloromyxum	do

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THE EFFECT OF DAMS ON THE MIGRATION OF THE HILSA FISH IN INDIAN WATERS

IN the October issue of *Current Science*,[1] Devanesen has done a great service by directing attention to the fact that the construction of weirs in the Godavari, the Kistna and the Cauvery rivers has reduced the spawning areas of the Hilsa fish with disastrous results to its fisheries in South India. His presumption that before the erection of dams "the spawning Hilsa had the whole run of the river excepting the upper reaches" is abundantly borne out by the fact that in the Ganges the young of Hilsa have been collected as high up as Allahabad[2] and the fish is known to ascend as far as Agra and Delhi. The reported destruction of Hilsa in roe in immense numbers below the first anicut by fishermen is to be greatly deprecated and certainly calls for some protective, legislative measures.

After discussing the futility of the existing fish-passes and the establishment of hatcheries for the resuscitation of the depleted rivers, Devanesen suggests that "prohibiting fishing within a five-mile (?) length of the river from the first weir, observing a closed season of a few weeks or restricting fishing below the first weir to three days in a week may produce a salutary effect on the Hilsa-fisheries". There can hardly be any two opinions regarding the utility of these measures and the beneficial effects they are likely to have in adding to the stock of the existing population of Hilsa in the Indian waters.

The readers of *Current Science* will recall that a short time ago[3] the present writer in reviewing a symposium held in America, on 'Dams and the problems of migratory fishes', *inter alia* directed attention to similar problems in India. This subject was thoroughly discussed by the Fish Committee of the Imperial Council of Agricultural Research in October 1941, and on its recommendations the Governing Body of the Council requested "all provinces and State Governments to give due consideration to the fishery resources of the