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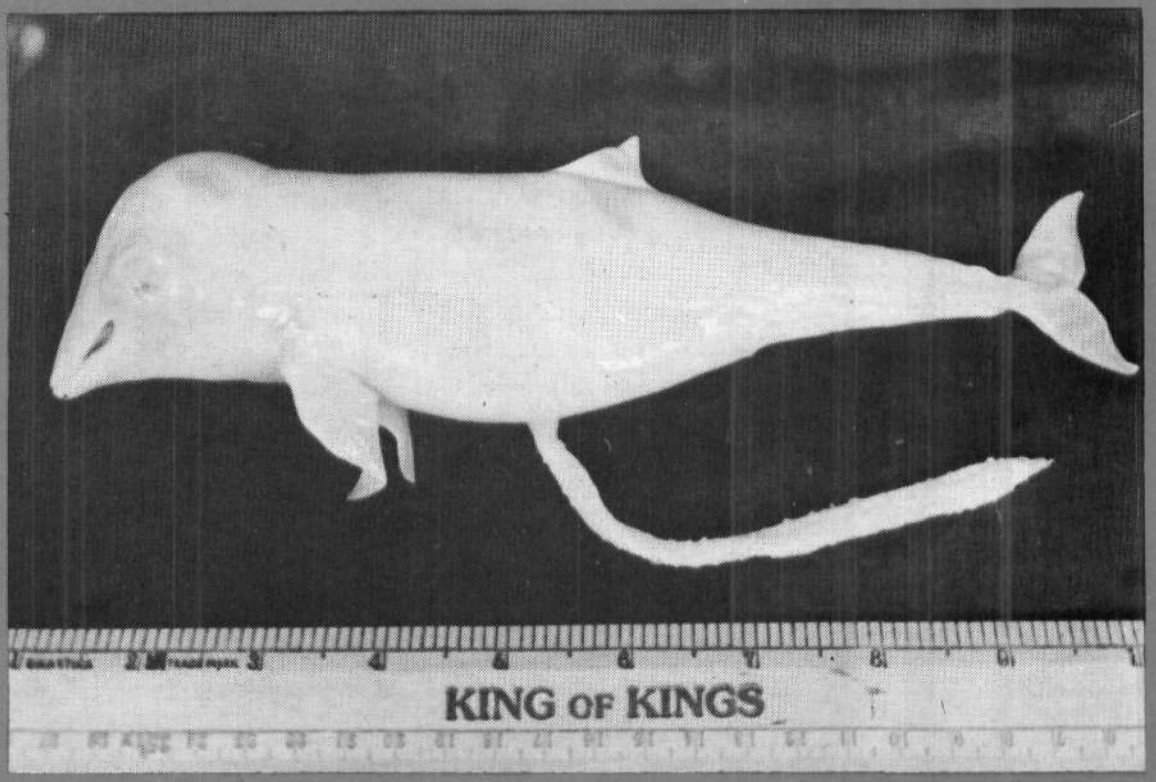

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SOME OBSERVATIONS ON THE RARE BOW-MOUTH GUITAR FISH *RHINA ANCYLOSTOMA**

Introduction

The bow-mouth guitar fish, *Rhina ancylostoma*, the only species of the genus *Rhina* is found distributed in the tropical Indo-Pacific regions. It is a rare fish caught mostly in the bottom trawl and bottom set nets. The species with its round head, heavy ridges with greatly enlarged denticles on the back, over eyes and spiracles on scapular region and grey rough skin with numerous dots of pale brown hue on the dorsal side gives a very distinct appearance. Its name in Tamil is *Kal ulluvai*.

Information on this elasmobranch fish is scarce. Its occurrence in the inshore waters of Porto Novo, Tamil Nadu Coast was recorded recently by Venkenteswaralu, T. (*J. Bombay nat. Hist. Soc. 64, 1967*) and P. Devadoss (*Ph.D. Thesis, Annamalai Univ.*, 1977). The present record of a female specimen of 2,360 mm in total length is the largest size recorded from our coast. The morphometric measurements are given in Table 1. A specimen in British Museum which was sent from Madras measured 6' 10" (205 cm) in total length. In the length-weight relationship of the species no significant

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TABLE 1. *Morphometric measurements in mm. of the largest bow-mouth guitar fish,* Rhina ancylostoma

Characters	Length (mm)	Percentage of the total length
Total length	2,360	-
Disc length	980	41.5
Snout to origin of first dorsal	1,020	43.2
Snout to origin of second forsal	1,545	65.5
Snout to anterior end of orbit	225	9.5
Disc width	1,310	55.5
First dorsal base	145	6.1
First dorsal origin to apex	365	15.5
Between dorsal bases	360	15.2
Second dorsal base	130	5.5
Second dorsal origin to apex	300	12.7
Horizontal diameter of orbit	60	2.5
Distance between orbits	220	9.3
Distance between spiracles	215	9.1
Snout to tip of lower jaw	110	4.6
Snout to anterior end of cloaca	1,190	50.4
Mouth width	220	9.3
Distance between inner ends of nostrils	170	7.2
Distance between first pair of gill slits	445	18.9
Distance between Fifth pair of gill slits	295	12.5

difference was found between sexes. The relative condition factor (Kn) ranged from 0.7 to 1.2 for females and 0.9 to 1.0 for males.

Maturity

Specimens upto 140 cm were in immature condition. In males, the development of claspers as a rigid organ is the external indication for the attainment of maturity. In mature females development of ovary and uterus was observed. The fish measuring 2,360mm carried nine embryos in their mid - term developing stage with yolk sac hanging on. The embryos, 8 of them being males, ranged in size from 268 to 310 mm in total length (Table 2). The embryos with yolk sac containing full yolk remained in the uterus without any kind of attachment. The yolk stalk originating at a mid-point between the pectoral fins on the ventral side measured 75-80 mm in length connecting the yolk sac at the distal end (Fig. 1).

In other feamles 7-9 fully mature and yolked ova measuring 40-60 mm in diameter were recorded.

TABLE 2. *Total length and sex of the embryos*

Right uterus		Left uterus	
Total length of embryos (mm)	Sex	Total length of embryos (mm)	Sex
307	F	280	M
276	M	282	M
280	M	268	M
290	M	270	M
310	M	-	-

F = Female, M = Male

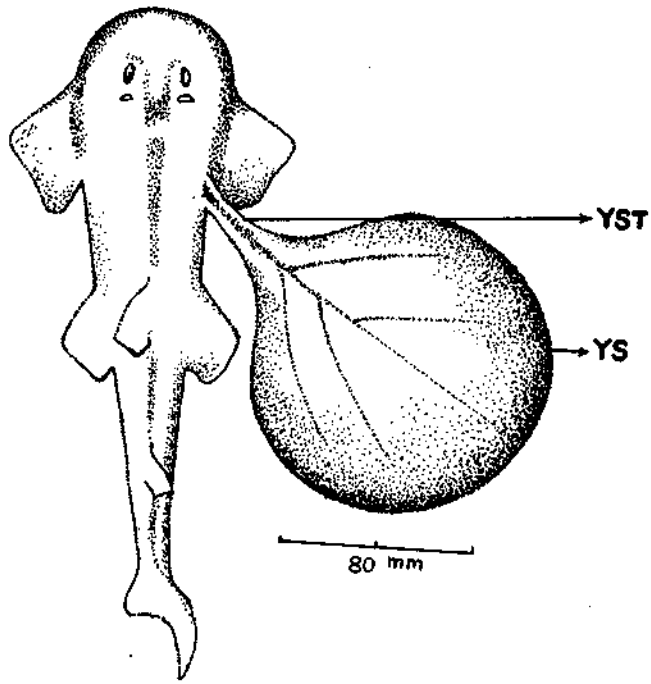

Fig. 1. Embryo (280 mm in TL) of *Rhina ancylostoma. UST : Yolk stalk, YS : Yolk sac.*

Food

The guitar fish with its characteristic body and colour pattern is adapted to the bottom conditions of the sea and hence the food consisted of bottom living forms like the crab, prawn, squilla and other crustaceans.

Disposal

The flesh of the guitar fish is well relished and the fins are of quality fetching a very high price in the export market. A guitar fish weighing 70 kg fetched a price of Rs. 3,000. The fins are removed after auctioning and are sun-dried in the beach. One kg of dried fins is quoted at Rs. 2,500 to 3,000. The fish is sliced into marketable pieces which are washed thoroughly in the sea water and sold fresh.