CHAPTER I

SYSTEMATIC POSITION
PLATE : I

A : Lateral view of male Chanda ranga

B : Lateral view of female Chanda ranga
SYSTEMATIC POSITION

*C. ranga*, is a freshwater teleost fish, commonly known as 'Glass fish' and locally called as 'Bhingrya', comes under the family *Chandidae*, which includes a vast majority of marine fishes and some freshwater species. Atlantic, Indian, Pacific. It comprises species of very transparent small fishes which inhabit salt, brackish and freshwater.

In the present work on the systematic position of *C. ranga* the description of the family, genus and the species is based on the account given by Day (1878); Gunther (1900), Hora (1938), Berg (1947), Jayaram (1981) and actual observations made during the course of this study.

Family - *Chandidae*

Body short, elevated, oblong, compressed, slightly translucent. Moderate to small, deciduous cycloid scales on head and body. *Pseudobranchia* well developed. Branchiostegals six. Lower point of preopercle with a double serrated edge. Opercle without spine. Teeth
on jaws and palate, canines occasionally present.
Two dorsal fins, with a spinous and soft part.
Anal fin with spines. A forwardly directed recumbent spine in front of dorsal fin present. Lateral line complete, interrupted, incomplete or absent.

SYNOPSIS OF THE GENERA

1. Scales large 25 to 30 in longitudinal series; 1 or 2 rows on cheek. Teeth present on tongue. Lateral line continuous, interrupted or absolute ... ... ... Ambassis Cuvier.

2. Scales smaller, 40 or more in longitudinal series; 3, 4 or more on cheek. No teeth on tongue. Lateral line continuous ... Chanda Hamilton
   Genus Chanda Hamilton

   Body short, deep, compressed more or less diaphanous. Abdomen rounded. Head short, compressed. Snout sharp. Mouth wide, protractile, one extending to front border of orbit or slightly beyond. Eyes large, superior, may be visible from below ventral surface. Lips thin. Lower jaw larger than upper. Jaws, palate, and tongue with villiform teeth; canine teeth rarely present. Lower limb of preopercle with a double
serrated edge; opercle without a prominent spine. Two dorsal fins, the first with about seven spines; and second 9 - 18 rays (One simple), the two fins continuous. A forwardly directed recumbent spine present in the dorsal fin. Anal fin with three spines and 9 - 17 rays. Caudal fin forked. Scales cycloid, small or moderate, frequently deciduous. Lateral line complete, incomplete, interrupted or absent.

As per opinion 1121 of the International commission of Zoological Nomenclature (Talwar, 1971), the genus Chanda is now restricted to its type species, Chanda nama. All the remaining species come under the genus Parambassis Bleeker, 1874.

Distribution - Shores of the India ocean entering freshwater.

Chanda ranga (Hamilton)


C. 17, L.R. 60 - 70 L. tr. 13/-.

In the adult, length of head 4/13 to 1/4, of caudal 1/4 to 2/9, height of body 2/5 to 3/7 of the total length.
Eyes - Diameter 2/5 of length of head, 1/2 a diameter from end of snout, and 3/4 of a diameter apart. Dorsal and abdominal profiles both very convex, but the profile over the eyes is slightly concave. The maxilla reaches to below the middle of the orbit, vertical limb of preopercle sometimes entire, more commonly finely serrated, but in some specimens, especially on the Bombay side of India, and in Burma, rather coarsely so: the double margin of horizontal limb of the preopercle serrated; sub and interopercles entire. Preorbital with about six denticulations on its inferior edge, and a strong one on its anterior superior angle directed towards the eye and about five more along the upper edge of that bone. Another spine at the middle of the posterior edge of the orbit, with five more, but decreasing in size along its upper half. Teeth villiform in the jaws, vomer, and Palate, none on the tongue.

Fins - Second spine of the dorsal equals the distance from the middle of the orbit to the posterior end of the head, and is generally as long although sometimes shorter than the third; the ventral almost reaches to the commencement of the anal; second anal spine of equal strength but slightly shorter than the third which equals two - fifth of the height of the body above it. Caudal
deeply forked. In Burma the second anal spine is comparatively shorter than in Indian specimens.

Colours - Olive, having a dark mark composed of spots on the shoulder, being the remains of a band present in the young. The margins of the vertical fins are usually somewhat dark.

In the young, termed by Buchanan *lala*, the fish is a bright yellow or orange colour, with four to five dark vertical bands which are formed of fine black dots. The first dorsal is nearly black, the second and the anal as well as occasionally the ventral have deep black edges. Buchanan mentions yellow spots as sometimes present.

SYNONYMY

*Chanda ranga*, Ham. Buch. Fish Ganges, pp. 113, 371, pl. 16, f. 38.


A. alta, Cuv. and Val. ii, p.183; Gunther, Catal, i. p.227
A. lala, McClelland, Cal. Journ. Nat. Hist. U.P. 150, t. 4, Fig. 1.

Chandee, Beng and N.W. Prov: Pee-dan, Sind:
Laal - Chandee, Ooriah.

Chanda Hamilton, 1822, fish Ganges, pp. 103, 270
(type - species, Chanda nalua Hamilton) - Talwar, 1971
Hamilton proposed as type species) - Greenwood, 1976;