MATERIAL AND METHODS
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*Ambassis ranga* (Cuv. & Val.) (*Chanda ranga* Hamilton) is a common Percoid fish, found in tanks, lakes and rivers of India. It breeds mostly during the first half of the rainy season i.e. from July to September. The eggs are laid in shallow water which adhere to the leaves of aquatic plants.

For the present work embryos were collected by netting directly from the Sagar lake and were fixed in aqueous Bouin's fluid for 12 to 24 hours depending upon the size of the specimen. After fixation they were repeatedly washed in running water to remove the excess of picric acid and then upgraded in alcohol and finally stored in 70% alcohol. Some adults were directly fixed and preserved in 80% alcohol.

Embryos of selected lengths were dehydrated and embedded in paraffin wax. Serial transverse sections, 8 μm in thickness
were cut. The later stages in which ossification had occurred, were first decalcified by a 3% hydrochloric acid solution in 70% alcohol, then dehydrated and embedded in paraffin wax. The sections were stained with Mallory's triple stain and Delafield's Haematoxylin and Eosin stains. For the study of the development of the lateral line canal system and the associated bones in the head, Mallory's triple stain was found to be more suitable, and then the sections were mounted in D.P.X. and Max mountants. The sections were studied both visually under a microscope as well as by graphical reconstruction method of Woodworth (1897).

For the study of the lateral line canals in the adults the author used the India ink injection method of Tretiakov (1944) as well as the Haematoxylin solution injection method of Jakubowski (1967). It was observed that the latter method is quicker and easier than the former. By the Haematoxylin solution injection method good results are obtained by the simple method of staining the lateral line canals with a solution of Haematoxylin. The dye is blown into the canals by means of a very small glass capillary tubing. The procedure is carried out on the fish immersed in water under the binocular microscope. During injections streaks of the dye pass out of the canaliculi and the fish gently stirred to avoid the staining of its epidermis. Before injecting, the fishes were kept for one to two days in 3-5% hydrogen peroxide. Deprived
of pigments, they were processed and after staining they were dehydrated and cleared in methyl benzoate or xylol. Thus all the canals and canaliculi became visible in contrast with the translucent tissue. The fishes should be dehydrated in alcohol with an alkaline pH, otherwise the colouration of canals disappears after a few weeks of storage in a clearing agent.

In order to examine the distribution of neuromasts in the canals about 0.5% aqueous solution of methylene blue is also introduced into the canals. Following removal of the external walls of the canals the neuromasts become clearly visible under the magnifying glass, since they stain more intensely than the epithelium with which the canals are lined.

For the study of the bones associated with the canal system in addition to the graphical reconstruction, mounts of dried skulls of adult fishes were made by clearing them in a 2% solution of potassium hydroxide, washing with soap water, bleaching with hydrogen peroxide and drying in sunlight. Study of bones was also made both in young as well as adults by alizarine-red-sulphonate and potassium hydroxide glycerine clearing method as advocated by Davis and Gore (1936).

In addition, the lateral line system and associated bones were also studied in specimens prepared by the tissue transparency method as advocated by Rahimullah and Das (1933).