

I. Nest building fishes -

A. Those, showing the parental care -

(i) Nest, a circular depression -

(a) Nests in the bed of mud, silt and sands -

e.g. - Sunfishes

Rock basses (*Ambloplites*)

Bowfin (*Amia*).

(b) Nest in the gravel bottom -

e.g. - Rock basses (*Ambloplites*)

(ii) Nest, excavated under stones or other submerged objects -

e.g. - Johnny darters (*Etheostoma nigrum*)

Stream lined sculpine (*Cottus*)

(iii) Nest, made up of aquatic plants and is spherical or mound shaped -

e.g. - Gasterosteus aculeatus.

(iv) Nest, a tunnel -

e.g. - channel catfish (*Ictalurus punctatus*)

B. Those, deserting the nests after spawning -

e.g. - Lampreys

Salmons (*Salmo salar*)

II. Fishes, which do not build nests

A. Scattering the eggs on the aqu-

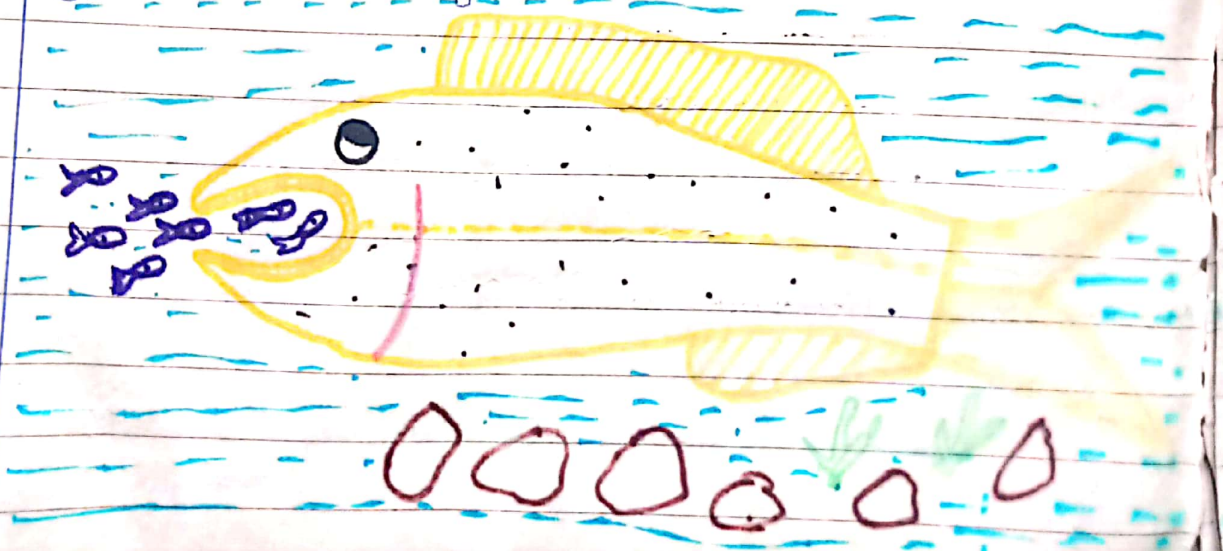
atic plants -
e.g. - Cyprinus carpio
Carassius auratus

B. Depositing the eggs in a
single mass -
e.g. - Yellow Perch
(Perca flavescens)



B. MOUTH CAVITY AS SHELTER -

Many fishes protect the eggs by using their mouth cavity as shelter. In case of Cichlids, the male carries the eggs into its mouth, laid by the female and protects these eggs until their development. In case of Tilapia marambica, the developed juveniles use the mouth cavity of the male as shelter for protecting themselves from the predators.



TILAPIA MARAMBICA

In case of a Catfish, Arius, the mouth cavity of male is used as the place of the shelter of eggs until their development into the young. In Sea catfish, Galeocephalus felis, the mouth cavity is used as an incubator for protecting the eggs. The mouth cavity of this catfish has the carrying capacity of 10-30 fertilized eggs. This also happens in case of the cardinal fishes, but here the carrying capacity of the mouth is about hundred or more eggs.

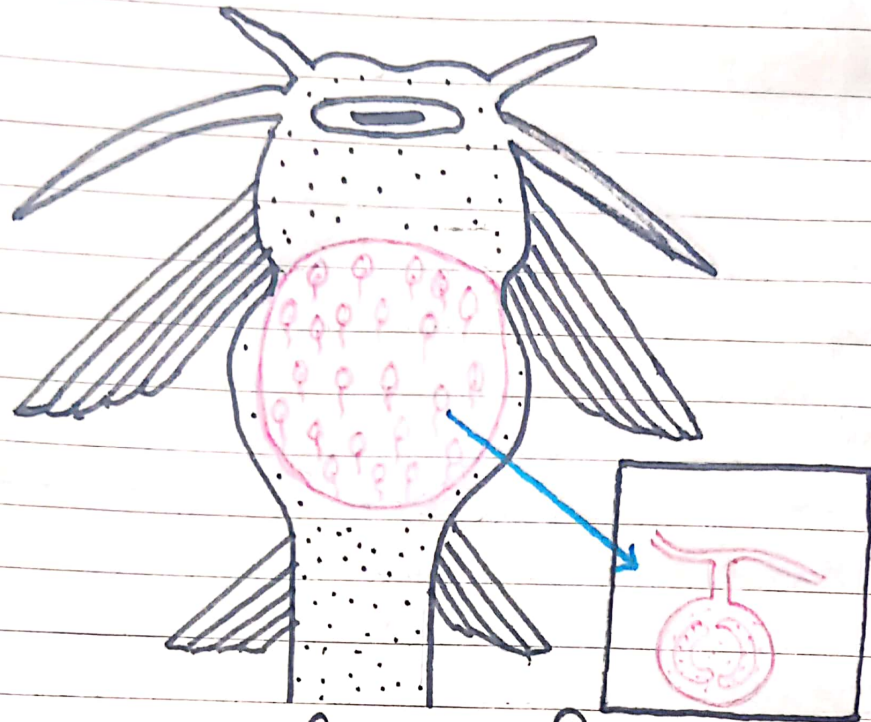
enclosed heated compartment in which a baby born prematurely can be kept.

C. FORMATION OF THE INTEGUMENTARY CUPS-

In case of an obstetrical catfish, Platyistichus, a peculiar type of parental care is seen. During the spawning season, the ventral surface of the body of the female becomes soft and spongy. After laying the eggs in such a way that they get attached to the ventral surface

branch of medicine and surgery dealing with child birth

of the female by their inconspicuous stalk until their development into the young.



OBSTETRICAL CATFISH, PLATYSTACHUS

D. **COILING AROUND THE EGGS** — In case of Pholis, the female lays eggs at suitable places and the male protects these eggs until their development by coiling around them.

E. **DEVELOPMENT OF THE BROOD POUCH** —

In case of Syngnathus and Hippocampus, the female lays and places the eggs