

INDUCED OVULATION AND SPAWNING

In culture conditions, most fishes need to be induced before yielding their gametes during sexual reproduction. Two techniques can be used:

(1) Induced Spawning by Stimulation of Appropriate Environmental Conditions

Provision of natural nesting materials such as grasses in the littorals and slowly rising water level will stimulate nest building and subsequent spawning in *Heterotis* and *Gymnarchus*. The most frequently used artificial spawning substrate used for common carp, *Cyprinus carpio* and the mudfish, *Clarias* species, are known as “kakabans”. These are mat-like structures made of polythene fibers, pine tree branches or similar, materials each measuring up to several square meters in area. They are spread on the pond floors and anchored with sticks or suspended about 20 – 30cm below water surface. Small drums, cut bamboo stems and PVC pipes cut in one meter length and sealed at one end are required to act as spawning receptacles for brooders such as *Chryichthys* species in ponds.

(2) Inducing Ovulation and for Spawning by Hypophysation

In meter, ovulation in a fish is regulated and brought about by the gonadotrophic hormone produced and stored by the fish’s pituitary gland. The stored hormone is released into the blood when all requisite external and internal conditions become favourable. In hypophysation technique, gonadotrophic hormones extracted from the pituitary gland of another fish called the donor, is administered to the brooder. At appropriate dosage, this may bring about the ripening of the fish gonads and trigger spawning activities. Hypophysation can also be achieved by using artificial preparations containing human chorionic gonadotropin (HCG) or synthetic cortico-steroids e.g. decontrasterone acetate (DOCA) dissolved in glycerine. One to two milliliters of the extract is carefully injected into the dorsal muscle or the abdominal cavity of the fish. Extracts from the pituitary glands of ripe fish of the same species with matching weight are known to be most effective, though carp pituitary extracts are effective on several other especially salmonids and catfish.