SEGREGATION AND MATCHING OF BREEDERS

The first spawners or virgins are usually used for artificial propagation. Larger fish produce more eggs, but the handling of giants weighing over 10-15kg is rather difficult and tiresome. The most suitable size of spawners is 3-5kg. Larger specimens are convenient if breeders spawn spontaneously without having to be stripped. Very large fishes are less suitable for hormone treatment, because of the requirement of large doses of hormones and the difficulties in handling them.

Before releasing the breeders in special spawning ponds for spontaneous spawning, or before they are prepared for induced spawning, the fish culturist should make sure that they are in a "ready-for-spawning" condition. Unless their gonads have developed up to the resting or dormant stage, they will not respond to any propagation technique. Therefore, sorting out of the right breeders is very important for successful artificial propagation.

In general, mature females are selected as follows:

- A well distended, swollen abdomen from which ripe eggs can be obtained by slightly pressing the abdomen toward the genital papilla. Ripe eggs are generally uniform in size and an experience breeder can see the nucleus as a small dark part in the centre of the egg.
- A swollen sometimes reddish or rise coloured genital papilla.
- They should be larger than 200g and not less than seven months old.
- The release of few drops of thick milt when its abdomen is probed slightly.

Many fishes exhibit distributive sexual demonstration which is necessary to examine the female of some fishes that are fed, to ensure that the abdominal fullness and size of gonads and not gorged food. Some of the above mentioned symptoms may kill some fishes while there may be additional symptoms in others. In the case of *colosssoma oculus,*the belly of the female becomes soft and rounded only a little before the actual spawning. This hard-bellied condition is a sort of adaptation for the co-existence of this fish.

If both sexes are together in the same pond or cistern, as soon as the males indicate their readiness for spawning the females also achieve the same condition. Since the river spawners do not breed in confined water; there is no need to segregate their sexes. On the other hand, the segregation of sexes is mostly necessary in the case of uncontrolled pond spawners, since otherwise it may lead to uncontrolled spawning in the storing pond or unnecessary fighting among males.

It is important that the culturist carefully observe the brood fish with respect to their anatomical and behavioral changes during their readiness for spawning.