B-30 Cross breeding of common carp (*Cyprinus carpio* L.) and gold fish (*Carassius auratus* L.) by hypopysation

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Successful ornamental fish production is dependent on producing new strains. This phenomenon could be achieved by cross breeding or hybridization among

species or genera, which have desirable characters. Although there are some ornamental fish farms available in Sri Lanka, the practice of producing new strains of fish is not common.

For this experiment 6 males and 3 females were selected from each breeding stock of common carp and the calico variety of gold fish. The sex ratio of male : female was 2 : 1. Three glass tanks were used as replicates for the male common carp x female gold fish combination and another 3 tanks for male gold fish x female common carp combination and they were conditioned for breeding for a 2 week period. Both males and females were injected intramuscularly with the pituitary extract and placed together in tanks with spawning material constructed with coconut fibre.

All the tanks were provided with optimum physico-chemical conditions.

After spawning, the total number of eggs, the percentage fertility 24 h after spawning and the percentage hatchability after 72 h spawning were calculated.

The total egg number, percentage fertility and percentage hatchability of male common carp x female gold fish were found to be significantly higher [$p < 0.05$] than that of male gold fish x female common carp.

These results indicate that gold fish bred with common carp by induction and common carp males x gold fish female was the better combination for cross breeding. These results could be used to produce new strains of fish by crossing different varieties of gold fish with common carp.