

THE MASS PRODUCTION OF SILVER RASBORA *Rasbora argyrotaenia* SEEDLING IN THE TANKS AND PONDS

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Silver Rasbora (*Rasbora argyrotaenia*) is a small fish type from the Cyprinidae family which is generally found in clear water rivers or lakes. In a hatchery system which is carried out in tanks or ponds, it can be spawned massively throughout the year with just a little environmental manipulation. In the spawning system tank, the broodstock rearing tank is cleaned and the water media is replaced with new water. The broodstocks will spawn from night to morning and the eggs are harvested and hatched in a cone-shaped tank. The eggs will hatch into larvae after 30 hours of ovulation and will be harvested and stocked in larval rearing tanks on the third day after the eggs hatch at a density of 2-3 individuals/liter. Larvae is reared for 2 months successively and is given with infusorio, *Moina* sp. and artificial feed. In the spawning pond, the broodstocks are placed in happas. The pond functions as a place for spawning, hatching and rearing of larvae. In this system, the number of eggs and larvae cannot be known. The larvae in the pond are fed with powdered feed after the larvae begin to appear on the pond surface, generally after 10 days of spawning and the larvae are kept for the next 2 months.



Figure 1. Broodstock and spawning preparation of silver rasbora

Silver rasbora broodstocks with a total length of more than 10 cm will produce around 5,000 eggs per parent. Hatching of silver rasbora eggs is carried out in cone tanks containing 12 liters of water with egg density of 300, 450, 600 and 750 eggs/liter. The degree of egg hatching can be seen in Figure 3. The higher the egg density, the lower the egg hatching rate will be.

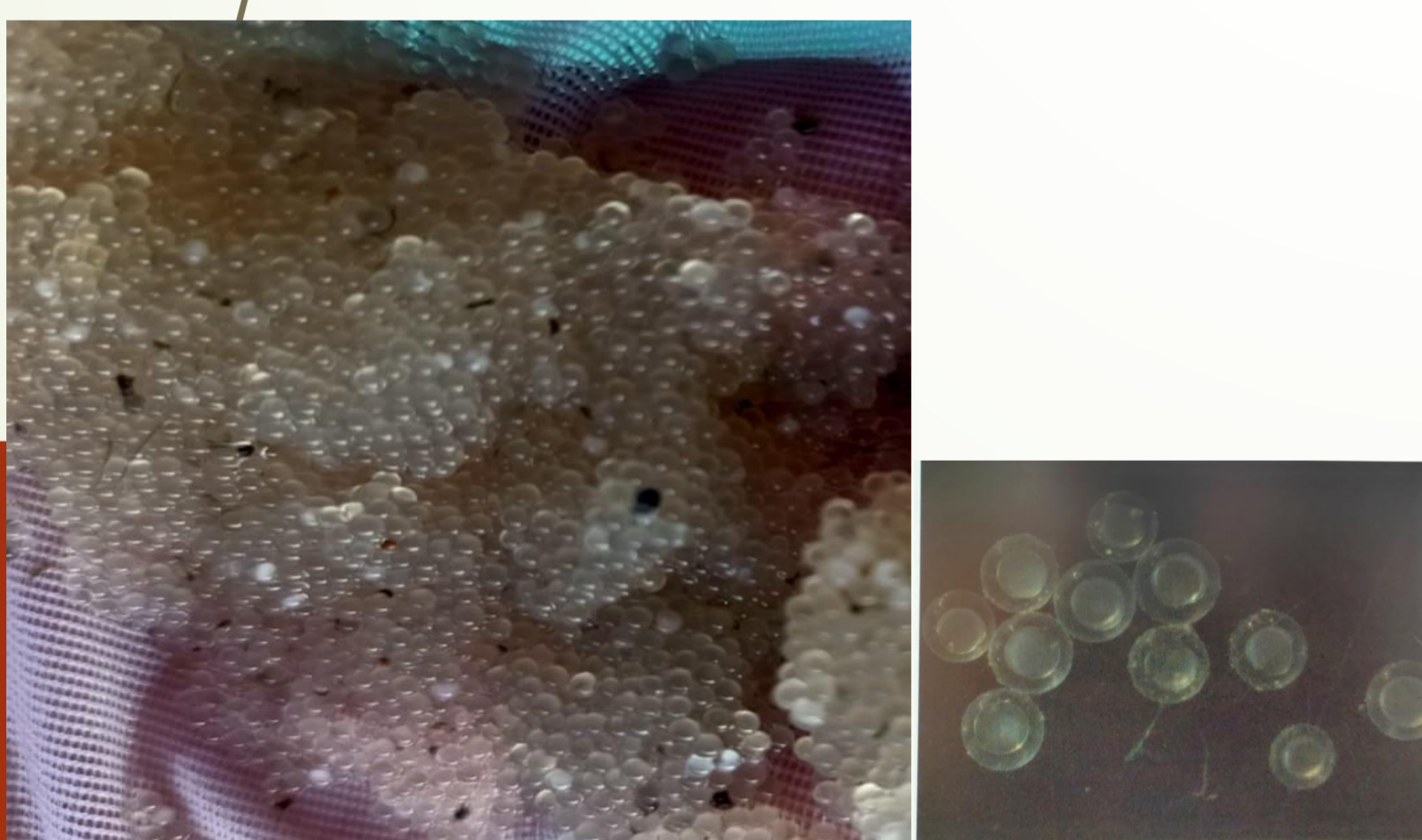


Figure 2. Eggs of silver rasbora

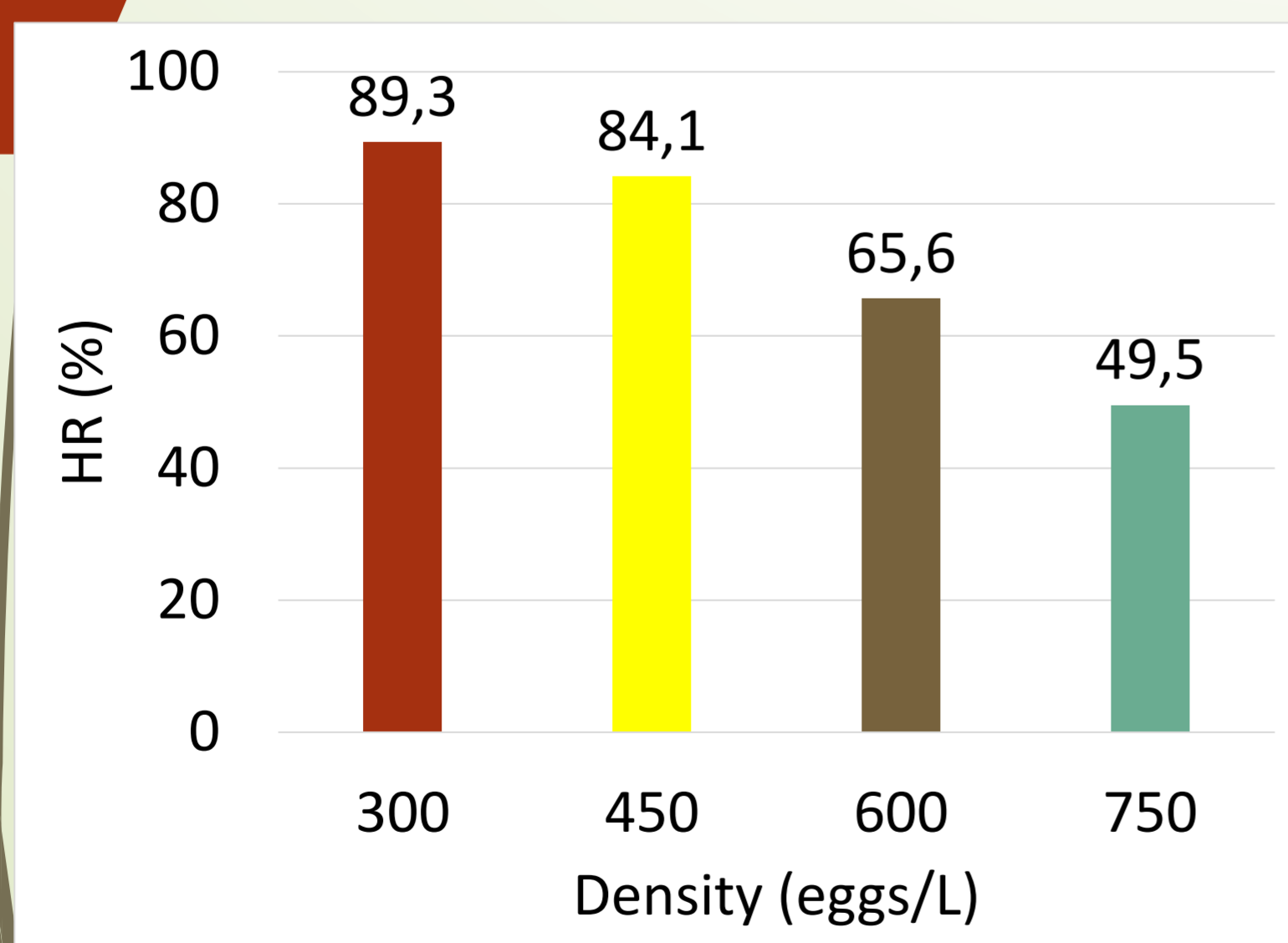


Figure 3. Hatching degree of silver rasbora eggs at several density levels

The results of rearing larvae for 2 months showed an average survival rate of $83.9 \pm 14.8\%$ with a daily growth rate of 7.4%. The increase in weight and total length of silver rasbora during 2 months of rearing is presented in Figure 5.



Figure 4. Stocking of silver rasbora larvae

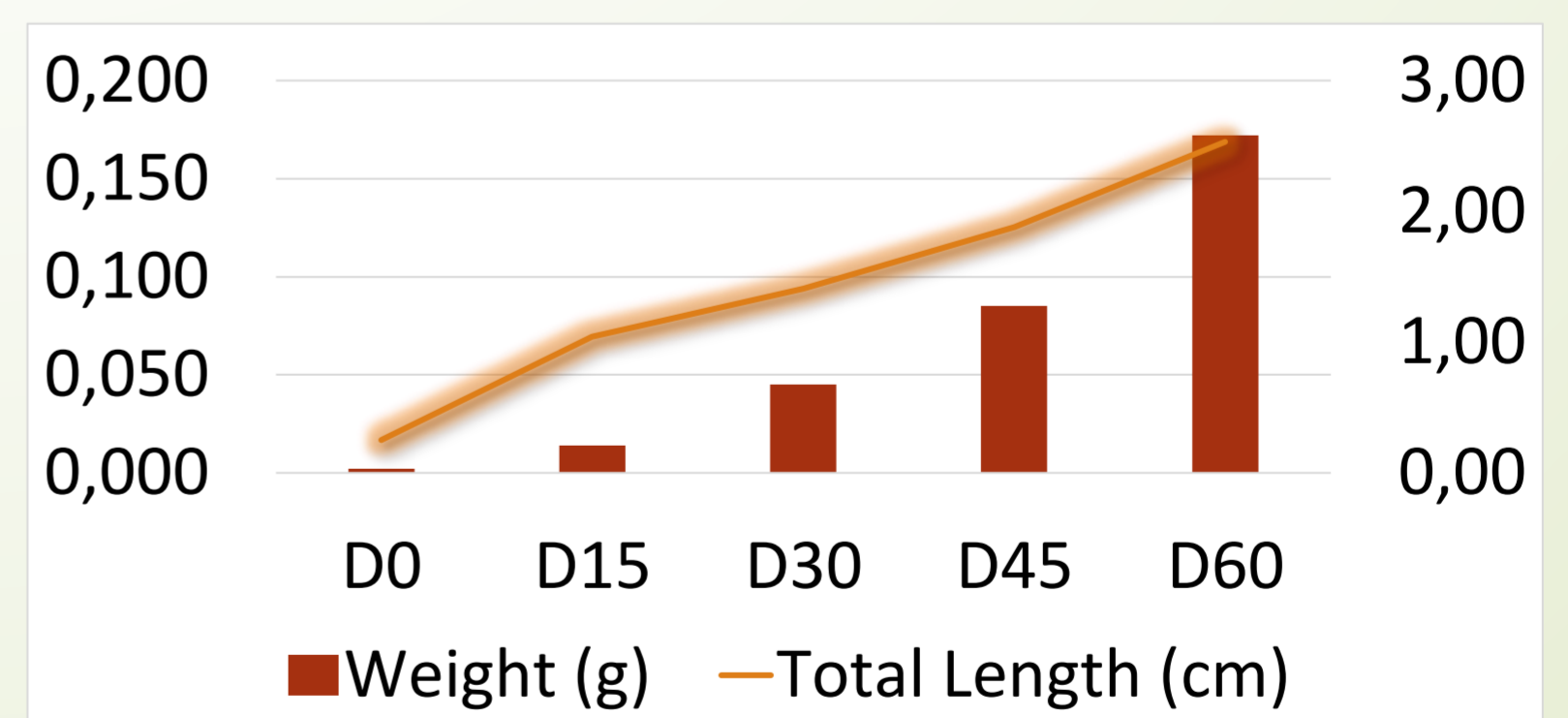


Figure 5. Increase in length and weight of silver rasbora during 2 months of maintenance

The advantage of hatching in tanks is the number of egg, larvae and fish fry is more measurable. Meanwhile, spawning fish in ponds with maintenance in happas makes the work more practical. There is no need to harvest and hatch eggs, as well as rear and harvest larvae.



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