

## Ropsha scaly and Felsomogy mirror carp (*Cyprinus carpio*, Linnaeus, 1758)

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1. Common carp (*Cyprinus carpio*) is a very important candidate fish in mid Himalayan region and widely practiced in polyculture cement tanks/ponds owing to hill geomorphological features and lower thermal regime.
2. In order to obtain higher fish productivity in uplands, two improved Hungarian strains of common carp "Ropsha scaly" and "Felsomogy mirror carp" were introduced at Champawat Experimental Farm in the year 2007. These species are found more suitable for hill farming due to their fast growth and wide temperature tolerance (5-32°C).
3. Male attains maturity in 1<sup>st</sup> year, while female in 2<sup>nd</sup> year at a water temperature range of 5.0-23.0°C. Mature female show bulging belly, pinkish vent and smooth pectoral fins. Oozing milt could be seen in mature males upon slight pressure on abdomen. The species spawn twice, March-May and July-August. Fecundity is 1.5-2.0 lakh/kg. Fertilized eggs are yellowish in colour and adhesive having diameter ranging from 1.4 - 2.5mm.
4. Mature female and male brooders are selected for breeding at water temperature >18°C with a ratio of 1:3. Aquatic weed or nylon strips are used for egg attachment. Inducing hormones @2.0-3.0ml/kg body weight may be injected at lower water temperature < 17 °C for achieving better spawning.
5. Female start laying eggs after 6 -10 hours depending on thermal regime. fertilization percentage of 84-94 has been achieved at a temperature range of 18-20°C. The duration of hatching is 84-112 hrs and yolk absorption takes place within 72-90hrs at 18-22°C. Larvae start external feeding after 4-5 days and are transferred to FRP tanks @800-1000/m<sup>2</sup> for 15 days. They are then transferred to the nursery tanks @200-400/m<sup>2</sup> for 2 months.
6. Formulated balanced feed containing rice polish, soybean cake, MOC with vitamin mineral mix (protein 28%) is provided ad libitum.
7. 30-35% higher weight gain is observed in "Ropsha scaly" and "Felsomogy mirror carp" during nursery rearing and 40-50% during grow out phase with a survival of 80-82% over the existing common carp.

# Photographs



**Female and male of Ropsha scaly common carp**



**Ropsha scaly & Felsomogy mirrie carp**



**Hungarian common carp advance fry**



**Ropsha scaly**



**Carp Tanks**