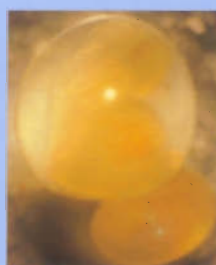


Culture and breeding of chocolate mahseer

(Neolissochilus hexagonolepis)



**New candidate species for diversification of hill
aquaculture having sports and ornamental value**



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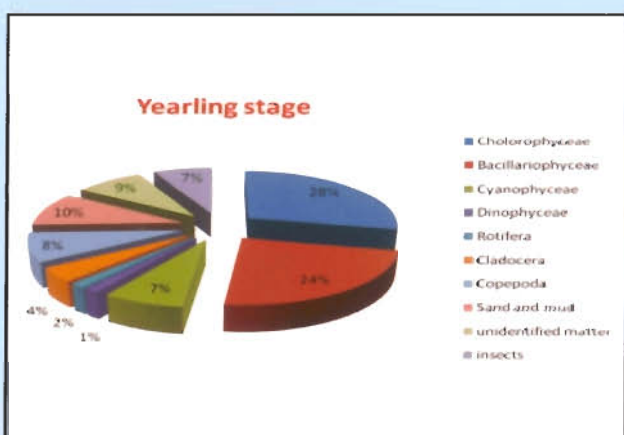
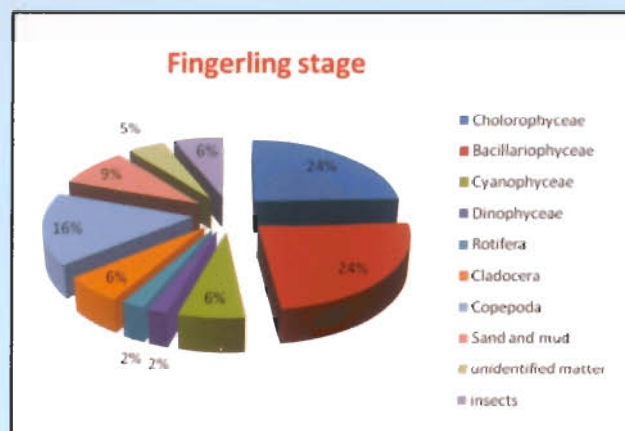
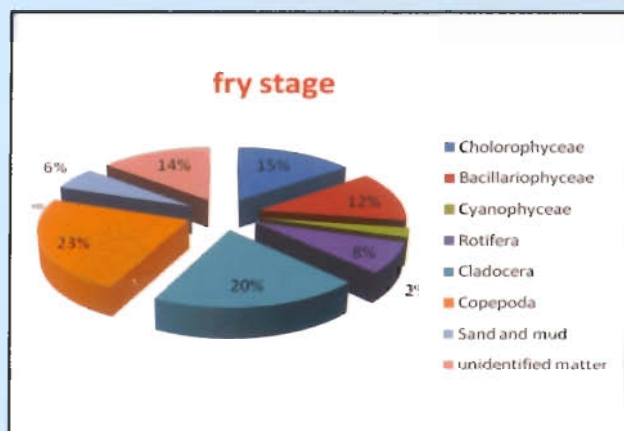
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- ❖ Mahseer fishery in the Indian sub-continent is constituted by seven species out of which six species are placed under the genus *Tor* and other in *Neolissochilus*.
- ❖ *Neolissochilus hexagonolepis* is a coldwater fish species belonging to the family Cyprinidae and is one of the member of the pride indigenous mahseer group.
- ❖ In India it is present in the hill stream water bodies of North-Eastern states.
- ❖ *Neolissochilus hexagonolepis*, the snub nosed chocolate mahseer is an economically important game as well as food fish.
- ❖ Distinguishing character-back olive green, silvery white on the belly, scales above the lateral line coppery colored, fins dark gray paling towards the margins.
- ❖ It is recognized as a cultural icon in the water bodies of high lands of Eastern Himalayan region.
- ❖ Chocolate mahseer is easily adaptable in comparison to other mahseer species.
- ❖ It thrives well in captive environment and can be grown well with other Indian major carps and Chinese carps in pond culture.
- ❖ The species have the potential to become a candidate species in the hill aquaculture systems in the Kumaun Himalayan regions of India considering the similarities of climatic conditions and as well is its adoption in captive rearing.
- ❖ The distribution of chocolate mahseer is available upto a gradient of 1500 msl in coldwater N-E states.
- ❖ It prefers an optimum temperature in the range of 19-23 degree centigrade for desirable growth.





Food content present in the gut of chocolate mahseer

- ❑ The study at DCFR, Bhimtal revealed that chocolate mahseer under temperature 19 – 23 °C (March) gained high body weight as compared to the other months in both the culture systems.
- ❑ Chocolate mahseer doesn't show any competition while culturing with golden mahseer. Their growth performance results also indicate that both the species under culture were highly correlated with each other.
- ❑ The fecundity of chocolate mahseer is 6000-8000 eggs/kg. body weight, breeding period August-September, Fertilization- 95%, hatching- 80%, Incubation period 38-40 hrs., egg colour light yellow- lemon yellow.

- It is a coldwater rheophilic fish
- Column to **bottom dweller** and occasionally rise to the surface for nibbling the flowing food item.
- Carni-omnivore in fry and fingerling stage & herbi-omnivore in juvenile stage.
- RGL values increased with the increase in length of the fish. RGL value is lowest in fry stage and intermediate in juvenile stage.
- Fry of chocolate mahseer are carni-omnivore, while the advanced fingerling and yearling are herbi-omnivore. Presence of sand and mud in the gut shows that fish is column to bottom dweller.



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