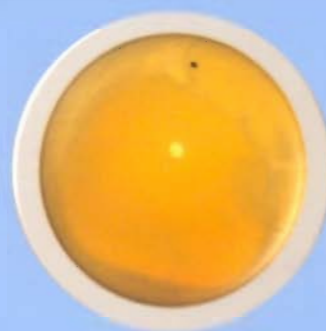
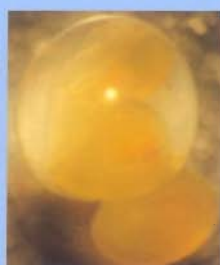


Culture and breeding of chocolate mahseer

(Neolissochilus hexagonolepis)



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



Directorate of Coldwater Fisheries Research
(Indian Council of Agricultural Research)

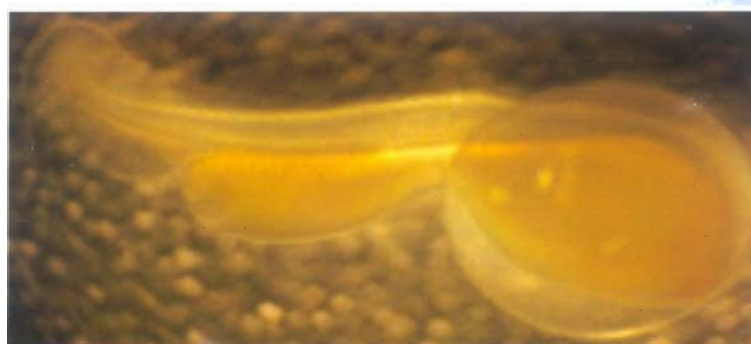
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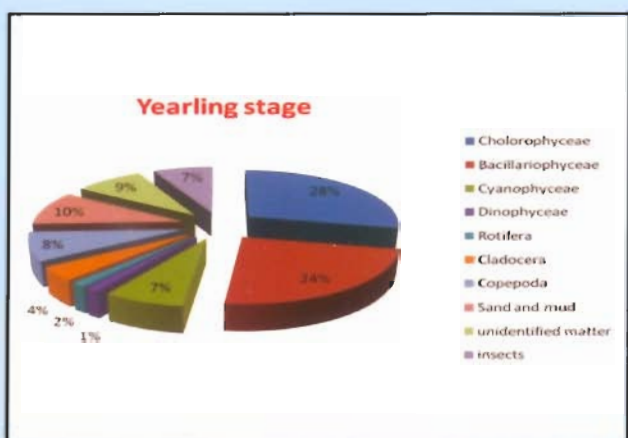
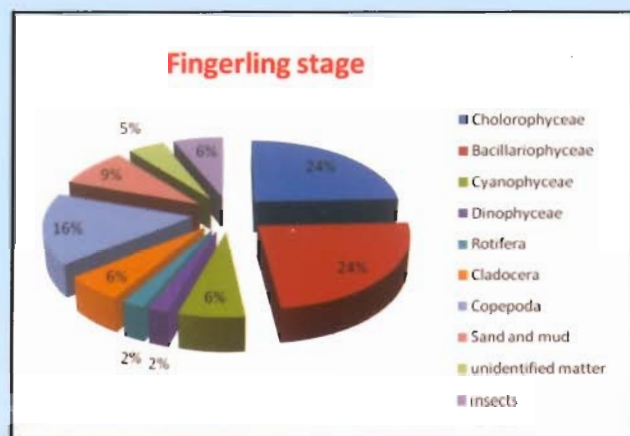
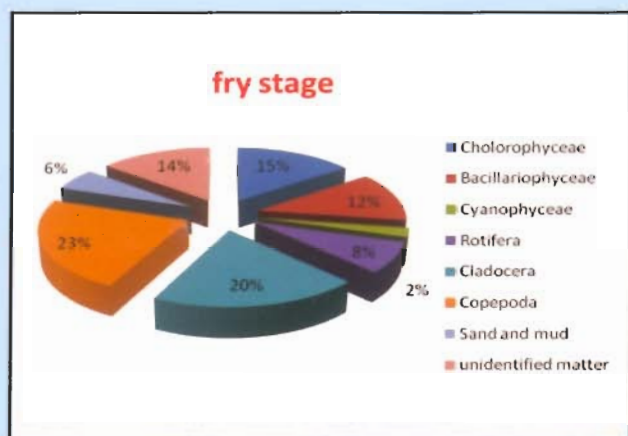
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- ❖ Mahseer fishery in the Indian sub-continent is constituted by seven species out of which six species are placed under the genus *Tor* and other in *Neolissochilus*.
- ❖ *Neolissochilus hexagonolepis* is a coldwater fish species belonging to the 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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