



# Building artificial habitats

A native of mountainous and sub-mountainous regions, golden mahseer (*Tor putitora*) is one of the 15 species of mahseer found in India, and is known to be the toughest among fresh water sport fish.

But over the last few decades, many in the fisheries field, including anglers and conservationists, have seen a decline in their numbers.

While biological factors like a substantially long-hatching period of the fish is one of the reasons, experts point at human interferences like pollution, construction of dams and indiscriminate fishing (of brood and juvenile fish) that has led to the destruction of their natural habitat.

According to information on WWF-India's webpage, 'Mahseer is a sensitive species that can barely tolerate a modified water environment. This is evident from the decrease in its size (length) recorded over the last century, size composition (predominance of young/immature individuals) and reduced share in the catch (as low as five per cent from 40-50 per cent) from its distribution ranges.'

This has prompted both government and private organisations to set up artificial habitats to conserve the species — and



**“Following no-fishing policy during breeding season can widely help conserve mahseer's natural habitats.”**

**Vivek Vishwasrao**

are showing results.

In what they claim is the first “big breakthrough” in Himachal Pradesh (HP), the survival rate of artificially bred golden mahseer fingerlings (young fish) was found to be 60-70 per cent — an indication that the damage done to the population of the longest-living freshwater fish can be controlled, if not reversed.

“Keeping the alarming stats in mind, we began an artificial propagation programme for its



**TAKING ACTION** Government and private organisations have set up artificial habitats to conserve mahseer fish.

rehabilitation and conservation,” says Gurcharan Singh, director, department of fisheries, HP, who is managing the hatchery set-up at Machhial near Jogindernagar town in Mandi district.

By consulting fish biologist S N Ogale, the fisheries department in HP started to raise brooders in 2012, which matured last year, and were then, bred in captivity in their farm nursery ponds. “It is the first time that a government

division has been able to raise brooders and enable breeding as well,” Singh tells *Metrolife*, adding that once hatched, they release the fingerlings into “rivers and reservoirs”.

Aimed at spreading awareness about the mighty fish, in May 2015, Tata Power launched ‘Act for Mahseer’, a nationwide programme, which has a three-pronged approach — to educate, engage and empower people. “The programme involves the

participation of the company employees as volunteers as well as public at large. We are also open to educational institutions to visit us,” mentions Vivek Vishwasrao, head, biodiversity, Tata Power.

The initiative, ‘Mahseer Conservation Programme’ was started by the company in 1975. “After studying available literature and observing the fish in its natural habitat, the company under the guidance of Dr C V Kulkarni



(the director of fisheries for Maharashtra), transported healthy mahseer from Himalayan habitat to the company's facility at Lonavla near Mumbai,” informs Vishwasrao.

“The first batch of approximately 14,000 eggs was procured through a process known as dry stripping. These were artificially fertilised and 10,000 were brought to maturity,” he adds.

Today, the hatchery in Lonavla has the capacity to

hatch over half-a-million eggs at a time, and it has successfully produced four lakh semi-fingerlings of golden mahseer in the last five years.

“Fry and fingerlings of major species are being distributed to many states of India and to angling associations in the country by the company as a measure of rehabilitation and conservation. Transport of mahseer eggs by air in moist cotton has also been successful,” he says,

referring to how breeding success has raised new hopes and prospects for mahseer fishery.

However, experts feel that there exists a need to intensify these efforts. “For instance, protecting spawning grounds, stopping pollution, checking illegal fishing and strictly following no-fishing policy during the breeding season (July-August) can widely help conserve their natural habitats,” says Vishwasrao. **Jayashree Narayanan**