Rising awareness and efforts to conserve the Indian mahseers

Prakash Nautiyal

The elegant group of sport fish, the mahseer – the tiger of water is in peril. Is it in peril only in pockets or in its total range of distribution? We need to have a scientific basis to examine these issues before we embark upon measures to conserve this 'tribe'. The word 'tribe' does not have taxonomic sense but has been used because now mahseer is not one biological species but an assortment of more than one genera, the genus *Tor* being the major component, *Neolissocheilus* being the other. People have differences of opinion regarding the number of species in this genus. Do we know the range of each species? Probably yes, but now there is a need to reinforce these limits. Here we can talk of at least five species which have been cited by one and all, beginning from Hora, Menon and Rainboth[1,2]; the Putitor or Golden or Himalayan Mahseer *Tor putitora*, the Jungha *Tor progenius*, the Deep bodied or Tor Mahseer *Tor tor* and the Deccan or Khudree Mahseer *Tor khudree* and *Tor mussullah*. These species have a wonderful distribution as each one of the mahseer species is restricted to a major geographical region of India and hence a major river system. The Himalayan mahseer, as the name suggests, is restricted to the Himalayan foothills from northeast to northwest in the Indus, Ganga and Brahmaputra river basins. The Jungha is also a Himalayan species but extends from northeast to Central Himalaya (Nepal), only. Thus three species of the genus *Tor* occur in the Himalaya, *Tor putitora*, *T. tor* and *T. progenius*; the former is prevalent in Jammu & Kashmir, Himachal Pradesh, Uttaranchal, Nepal and even the northeast.

Three events organized in the recent past have sensitized the scientific and angler community in the Indian subcontinent as well as southeast Asia on this subject. The events in chronological order were by the following meetings:

Mahseer 2006, International Symposium on the Mahseer, Kuala Lumpur, Malaysia (30 March 2006). 125 delegates from 10 Asia-Pacific nations attended 'Mahseer 2006', a 2-day symposium organized by the Malaysian Fisheries Society in collaboration with several organizations. It was recognized at this symposium that: (i) The mahseer is a cultural icon of diverse economic, recreational and conservational value in rivers of eleven Asian nations, with many species transcending country/national boundaries. (ii) The mahseer is an integral component of the aquatic ecosystem and an important indicator of its health and supports the livelihood of many rural, indigenous ethnic groups in Asia. (iii) The strategies that need to be developed to maintain the sustainability of mahseer populations are dependent on the effective utilization of available information on this important and iconic group of fishes. (iv) There is an urgent need to collate the available information and synthesize them through appropriate mechanisms to facilitate policy developments.

The group is unanimous in its suggestion that the FAO, in conjunction with regional and national organizations, as well as other concerned organizations, take the initiative to launch the above activities in the immediate future. The delegates recognize the urgent need to improve the information on the status and trends of this important group of fishes.

Writeshop on the Mahseer Conservation and Management (organized by Tata Power Company, Lonavla and Central Institute of Fisheries Education, Mumbai, 17–21 June 2006). This was a unique experience where over 40 participants from all over the country (India) sat through 6 days of gruelling schedule to prepare a manuscript. The invited write-ups were subjected to several rounds of successive threadbare discussion by the participants for refinement and in the production of the ready-to-print version, on the following aspects of mahseer: (i) Taxonomy, morphology and distribution; (ii) Ecology, biology and reproduction; (iii) Breeding and hatchery management; (iv) Larval rearing and nursery management; (v) Grow-out technology; (vi) Nutrition and feed; (vii) Genetic resource characterization and biodiversity; (viii) Sport fisheries and ecotourism; (ix) Conservation and management measures and (x) Indigenous knowledge.

The beauty of the book lies in its capability to make a layman understand the subject without losing its scientific value.

National Seminar on Conservation and Rehabilitation of the Golden Mahseer in the Rivers of North East India. Organised by Assam (Bhorelli) Angling and Conservation Association (26–27 October 2006, Eco-Camp, Potasali, Sonitpur, Assam). The seminar was attended by a select number of scientists. The Assam (Bhorelli) Angling and Conservation Association introduced 3000 fingerlings gifted by Tata Power Company, Lonavla at Eco-Camp, Potasali on 25 October 2006. Resolutions were drafted to the effect that the Association take up conservation work through artificial propagation of the Golden mahseer in the confines of the camp located near Jai Bhorelli river at Potasali, Sonitpur. The scientists shared their knowledge with respect to artificial propagation, diet and dietary habits. Enthusiastic anglers were keen to ranch the rivers and seek funds to develop a hatchery at the eco-camp which could also be used for training and spreading awareness on this species which is considered to have dwindled perilously in certain sections of the Himalayan drainage.

Such activities indicate growing awareness towards protecting and conserving the mahseer not only in India but also internationally. It is no more a national or a regional issue. The Himalayan mahseer in particular needs immediate attention as all major Himalayan rivers forming the natural habitat of mahseer will have hydroelectric projects developed in immediate future. The dams will fragment its habitat all along the Himalaya thus posing threat to this species, restricted to Himalaya only.

1. Nautiyal, P., *Mahseer – The Game Fish*, Jagdamba Prakashan, Dehradun, 1994.
2. Nautiyal, P., *Northern India Patrika*, 26 July 2003.

Prakash Nautiyal is in the Department of Zoology, HNB Garhwal University, Srinagar 246 174, India
e-mail: nautiyalp@hclinfinet.com