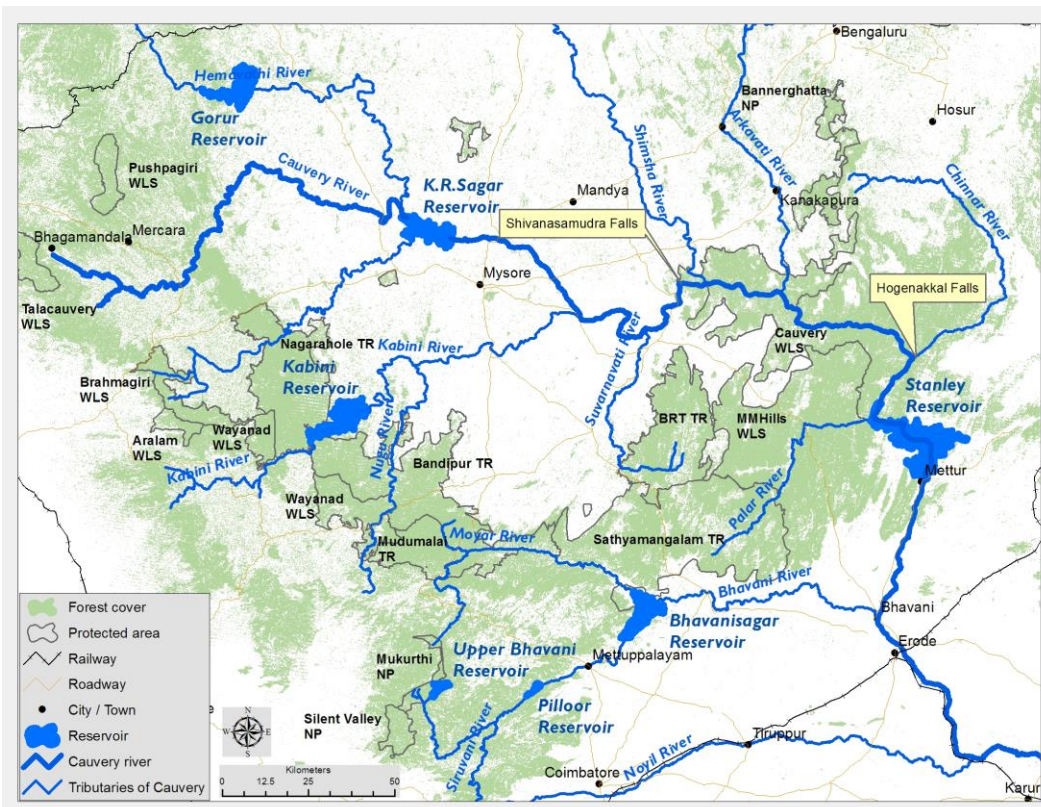


Bringing back the orange-finned mahseer

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The orange-finned mahseer is an iconic sport fish that is reported to be endemic to the Cauvery basin and which has broken thousands of fishing lines, hundreds of rods and reels and dragged numerous anglers into the water. It is also known as the hump-back mahseer, as the adults develop a dorsal hump. In addition to the Cauvery, the greater river basin includes tributaries such as the Kabini, Moyar and Bhavani.



Cauvery river basin with its tributaries and reservoirs , R. Raghunath, NCF, Mysore

Until some years ago the largest mahseer caught on record was 120 pounds from the Kabini river by J. Wet. Van Ingen on 22nd March 1946. However, only the fish caught with the rod and line is taken for records and not the ones caught in net or by other means such as dynamiting or poisoning or use of hand lines with bait.

But sadly, Kabini has lost all its mahseer after the construction of the dam in 1974 and as a result of decades of unregulated fishing. Interestingly on 13th March 2011, Ken Loughran, a British angler, caught a 130 pound (55kg) orange-finned mahseer in the Cauvery river in Kodagu and this reportedly stands as the record fish caught so far.



An orange-finned mahseer (95 pounds) caught in Cauvery river by *Alberto Parish*,
Photo: John Bailey.

One stretch of the river where angling benefitted the mahseer and the local people carried out until 2010, is the 40-km expanse of the Cauvery between Sivanasamudram waterfalls and Mekedaatu (the latter can be translated as 'where a goat can jump across' on account of its two prominent overhanging rocks across the gorge). In fact when the water level is high the mahseer habitat stretches from Sivanasamudram to Hogenekal falls where the river plunges into Tamil Nadu, a distance of 70 km and Mekedaatu may not be a barrier for a powerful swimmer like mahseer. Although the Cauvery Wildlife Sanctuary was established in 1987, angling camps, which were operational since 1972, continued but were eventually stopped in 2010 because a disgruntled individual, who was not permitted to run his fishing camp on the Cauvery, went to court. The Cauvery River is reported to have the orange-finned or humpback (also sometimes called golden, *Tor species not classified*) and introduced blue-finned mahseer (*Tor khudree*), plus a sizeable population of mugger crocodiles and otters.



The River Cauvery in monsoon, Photo: A.J.T.Johnsingh.

The first agency to care for this stretch of river was the Wildlife Association of South India (WASI). It ran temporary fishing camps from 1972 to 1999 and thereby saved the fish from dynamiting and gill-netting. Thereafter, Jungle Lodges and Resorts Ltd. an autonomous institution under the Karnataka Tourism Department took over this river stretch establishing the Bheemeshwari Fishing Camp in 1984. Eventually two other camps Doddamakkali and Galibore were established and catch, photograph and release angling of mahseer was carried out. The Doddamakkali camp protected the river stretch from poachers from the Sivanasamudram area and the Galibore camp from

the Arkavathy-Sangam area. The anglers and other wildlifers were staying in well-maintained tented accommodation.



Sivanasamudram falls, Photo: A.J.T.Johnsingh.

Angling and other related programs such as rafting, coracle rides, bird watching and trekking helped in raising significant revenue. In 2010, for example, non-Indian anglers paid US\$ 125 per person per night on a twin-sharing basis and non-anglers paid US\$ 70. The rates for an Indian angler and non-angler were Rs. 4900 and Rs. 3500 respectively. During 2009-2010 this angling and nature tourism program generated a little above 400 lakh rupees which enabled the management to employ **about 60** individuals from the local community. Local people were

employed as assistants, staff, and fish guards and were instrumental in reducing the incidents of fish poaching. This conservation measure, an excellent example of ecotourism in the country (fish got protection and locals benefitted), enabled the anglers to continue to catch several big fish weighing between 80 and 90 pounds.



Hogenakal falls, Photo: A.J.T.Johnsingh.

It is obvious that if this angling program had not been carried out, the poachers by this time would have wiped out the only population of large mahseer, possibly in the world. In the Bheemeshwari camp, a trophy-size 107-pound mahseer, which was caught in 1927, is kept on display. Sandeep Chakravarti, once an avid angler and a member of

WASI, keeps the history of the angling program on the Cauvery on his fingertips. Sadly this ancient and unique mahseer habitat will be destroyed forever if the proposed and highly controversial dam across Mekedaatu is built.

Regretfully without foresight a mistake was committed in the Cauvery waters. In the late 1970s the introduction of blue-finned mahseer from the Tata's hatchery at Lonavala was carried out. The hatchery in Lonavala was started with extremely good intentions, the company gave the fish when asked and it was introduced in the rivers and reservoirs even outside India. No one can be blamed for this mistake, as people then just didn't know that the blue-finned would replace the orange-finned. It should also be recorded that one unpardonable mistake committed by the Tata's hatchery was the unnecessary cross breeding of different species of mahseer, for example breeding of golden mahseer (*Tor putitora*) with blue-finned.



Blue-finned mahseer (40 pounds) caught by Owen-Bosen, *Photo: Sandeep Chakravarti.*

In 2014 when fish biologists Adrian Pinder, Mahseer Trust, United Kingdom; Rajeev Raghavan, St. Albert's College, Kochi; and J. Robert Britton, Bournemouth University; United Kingdom, analyzed angler catch data from Cauvery river from 1998 to 2012, based on 23,620 hrs. of fishing effort, they found that the weight of the fish caught ranged from 0.45 to 46.8 kg and the blue-finned phenotype contributed to the 95 percent of the catch and the orange-finned formed the balance. In 1998 the ratio of orange-finned to blue-finned was 1: 4 but by 2012 this dropped to 1: 218. Recruitment in the orange-finned was negligible and with an aging population it became obvious that the orange-finned was edging towards extinction. The blue-finned phenotype continues to

recruit strongly and it is clearly evident that the mahseer community in the Cauvery has undergone considerable shift in the last 30 years. The book *The Rod in India* by Henry Sullivan Thomas written in the late 1800s speaks about orange-finned mahseer in Cauvery.

Steve Lockett, a United Kingdom based angler and natural history photojournalist, rightly concludes that if the orange-finned were to gain an IUCN listing it would be Critically Endangered as it is an endemic fish only found in the Cauvery basin and thus a fish that would deserve the highest level of protection. Also the fish has to have a clear taxonomic identity (scientific name) and surprisingly for the orange-finned or the humpbacked mahseer we still do not have one. So unless we give the species a scientific name and identity its conservation status in the IUCN listing (Threatened, Endangered etc.) it will be difficult to get international support and funding to develop conservation planning for the species.

We understand that the Cauvery River is adulterated with blue-finned mahseer and the status of the Kabini River below the dam as a result of unregulated fishing is dismal. Even stretches of the Kabini upstream of the dam may have the problem of introduced blue-finned mahseer. Nearly 20 years ago the late Colonel John Wakefield, affectionately known as Papa John, who was living in and managing the Kabini River Lodge, one of the facilities of Jungle Lodges and Resorts Ltd; released some 3000 fry of blue-finned mahseer in the reservoir in front of the lodge. He used to lament in the subsequent years that there was no sign of the fish he had released in the reservoir waters! One possibility is that the introduced fish may have gone upstream into Wayanad

Wildlife Sanctuary from where the Kabini river arises. This warrants a survey of the upper reaches of Kabini River. Papa John died on 26th April 2010 at the age of 96 years and as he was very fond of angling for murrel (eg. *Channa marulius*) in Cauvery, as per his wish, his ashes were immersed in the Cauvery.



Moyar river may still have orange-finned mahseer, Photo: A.J.T.Johnsingh.

It appears that the remaining tributaries of Cauvery - Moyar and Bhavani - may not have the problem of introduced blue-finned mahseer. Late Major Richard Radcliffe, a keen angler and a hunter, who was living in the Nilgiris and was closely associated with Nilgiri Game Association (now Nilgiri Wildlife and Environment Association), who I

had been fortunate enough to have met on occasions, used to fish in Moyar. I have heard him speaking about orange-finned mahseer weighing about 10 kg. Radcliffe now has his eternal rest in the compound of Mukurthy Fishing Hut built by the Nilgiri Game Association near one of the scenic locations in the country, Mukurthy National Park in the high hills of the Nilgiris. The article by late Lt. Col. R. W. Burton in the *Journal of the Bombay Natural History Society* in 1940 has several exciting episodes of fishing in River Bhavani and there is a mention about a 30-pound fish with 'broad bullock-like back and bright red fins'. He gives tribute to malaria – the most efficient and ever watchful of all Game Wardens – which preserved the wild beasts and the fish from the all destructive hands of humans.



Bhavani river and the Pilloor dam may still have orange-finned mahseer, Photo: A.J.T.Johnsingh.

On 15th July 2013 Pradeep Damodaran wrote in his blog about a sexagenarian, Gordon Andrew Thompson from Karamadai, Mettupalyam, near Coimbatore, catching a four feet long and 28 kg mahseer from Bhavani River with distinct red caudal fin. This implies that still Bhavani River may hold some orange-finned mahseer, which therefore warrants a survey of the river.

Steve Lockett rightly concludes that once a brood stock of orange-finned mahseer is traced and correctly identified to the species level it will be possible for eggs and milt to be stripped and start a captive

breeding program to save this mighty fish. This is an endeavor towards which the Government of Karnataka, Tamil Nadu and Kerala should work single-mindedly and collaboratively to bring the iconic mahseer back to the Cauvery basin. One should also explore the possibility and need for controlling the numbers of blue-finned so as to give a much more secure habitat to the orange-finned.

My experiences with mahseer are largely along the streams and rivers in the foothills of Himalaya where I have tried to catch the golden mahseer , one of the most beautiful wildlife species in the country. Splendid habitats for this species are along the Ganga, Kolu, Ramganga, Nandhour, Ladhya, Yamuna and Sharada rivers and I am lucky enough to have explored all these rivers. In rivers like Kolu and Nandhour it is difficult to avoid stepping on the numerous tracks of tiger and elephant as one moves from pool to pool. In the Kolu river valley on seeing the angler the goral will give its sneezing alarm call from the steep ridge top; in Nandhour valley serow may watch an angler from its steep rocky nallah overgrown with bushes; Red-headed trogon will fly across the nallah, Indian pied and great hornbills will fly overhead and plumbeous and white-capped redstarts, stork-billed and crested kingfishers will shy away from the angler. In Nandhour river one day in October 1938 Jim Corbett and Ibbotson on their way to Chuka to kill the Thak man-eater caught 125 mahseer.



Nandhour valley in Uttarakhand, home to golden mahseer, goral, serow, sambar and tiger, Photo: A.J.T.Johnsingh.



Kolu river valley in Lansdowne Forest Division, Uttarakhand, home to golden mahseer, goral, sambar and tiger, Photo: A.J.T.Johnsingh.

The best epitaph for the mahseer comes from Jim Corbett. Mahseer was the fish of his dreams and he rightly opined that angling for mahseer in the Himalayan foothills is a sport fit for the kings. All across India let us try and recover the population of mahseer and revive angling by involving more youth in one of the finest forms of sport sadly neglected in India. This can bring in benefits to both the fish and the local people.



Golden mahseer being released after capture, *Photo: Misty Dillon.*