

## Status of Golden Mahseer (Pisces: Cyprinidae) of the Indus River System

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### Abstract

There are only two valid species of mahseer occurring in Pakistan the Zhobi mahseer and the golden mahseer. Although a number of names are in use for these two species, however, the correct name of the Zhobi mahseer is *Naziritor zhobensis* (Mirza) whereas the golden mahseer of the Indus River system may be called *Tor macrolepis* (Heckel) instead of *Tor putitora* (Hamilton) which is commonly used in literature on the fishes of the Indus river system. *Tor putitora* (Hamilton) is found in the Ganges-Brahmaputra River systems and not in the Indus River system.

Key word: Mahseer, Indus river system, *Tor putitora*, *T. macrolepis*, *Naziritor zhobensis*

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### Introduction

There are only two species of mahseer known to occur in the Indus river system in Pakistan. The Zhobi mahseer which is correctly known as *Naziritor zhobensis* (Mirza) is restricted to the River Zhob, Kundar, Gomal, Shahur, Tochi, Kurram, Kabul and their tributaries in Balochistan and NWFP. This species is not recorded from the Punjab, Sindh, Kashmir or India, thus, endemic to Pakistan (Balochistan and NWFP). The second species of the Indus River system is the golden mahseer. Its correct scientific name is *Tor macrolepis* (Heckel). Heckel (1838) described this species as *Labeobarbus macrolepis* from Kashmir. It was accepted as *Barbus macrolepis* (Heckel) by early ichthyologists (Valenciennes, 1841, 1842 and Gunther, 1868). Day (1871) included it doubtfully in the synonymy of *Barbus tor*. However, this species was merged into the synonymy of *Tor putitora* (Hamilton) by Silas (1960). Since then it has been treated as *Tor putitora* by various ichthyologists in Pakistan and India. It was pointed out by Mirza and Awan (1976) that the golden mahseer of the Salt Range was subspecifically distinct from *Tor putitora* (Hamilton). Mirza and Bhatti (1996), thus, referred the Indus golden mahseer as *Tor putitora macrolepis* (Heckel). It has been gradually realized that the golden mahseer of the Indus river system should be named as *Tor macrolepis* (Heckel).

To test this proposal the morphometric measurements of 142 specimens of the golden mahseer collected from Pakistan and Azad Kashmir were analyzed. The criterion used to separate *Tor putitora*, *Tor tor* and *Tor mosal* is based on head length/body depth ratios (Hora, 1939). According to him if the head length is greater than body depth the specimen is identified as *Tor putitora* (Hamilton). If the body depth is greater than head length the mahseer specimen is identified as *Tor tor* (Hamilton), and if the head length and body depth are equal, the golden mahseer is identified as *Tor mosal* (Hamilton). Unfortunately, this criterion does not work in the case of the golden mahseer of the Indus River system as in the young specimens the head length is usually equal to the body depth, in the male specimens, the head length is usually greater than body depth and in the mature female specimens the body depth is mostly greater than the head length. This was the reason that three species of the golden mahseer in Pakistan were recognized (Mirza, 1975, 1980). However, it was soon realized that there was only one species of golden mahseer in the Indus river system (Mirza, 1990). Rainboth (1991) pointed out that *Tor putitora* (Hamilton) is restricted to Ganges-Brahmaputra River system. Mirza and Bhatti (1996) recognized the Indus golden mahseer as a distinct subspecies, viz. *Tor putitora macrolepis* (Heckel, 1838).

Javed (1985) studied 142 specimens of golden mahseer collected from various water bodies in Pakistan and Azad Kashmir. In 40 specimens the head length and body depth were equal, in 11 specimens the head length was lesser than body depth, in 91 specimens, the head length was greater than body depth. This means that there were about 64% specimens approaching *Tor putitora* (Hamilton), 28% specimens approaching *Tor mosal* (Hamilton) and only 8% specimens were approaching *Tor tor* (Hamilton). There was overlapping of characters in all the specimens. It was realized that the body depth was greater or equal in female specimens and that head was longer than body depth in male specimens. In immature specimens, the head length and body depth were almost equal. In colour pattern there is no clear cut distinction. It is variable according to the habitat.

It is, therefore, concluded that the species of golden mahseer found in the Indus river system is different from those found in the other river systems of South Asian subcontinent. Since the name *Labeobarbus macrolepis* Heckel is available for this species, the correct scientific name for the Indus golden mahseer is *Tor macrolepis* (Heckel). Thus the literature published on *Tor putitora* in Pakistan is really on *Tor macrolepis* and not on *T. putitora* (Subhan and Hafeez, 1993, 1994, 1998). The same is the case about the literature published on the golden mahseer of the rivers and reservoirs of the Indus River system in India (Johal *et al.*, 1999, 2000).

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