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FISHES OF THE RIVER GOMAL AND ITS TRIBUTARIES IN PAKISTAN

MUHAMMAD RAMZAN MIRZA, MUHAMMAD NAEEM JAVED, ALAMGIR KHAN AND MEHBOOB HAIDER

Department of Zoology, Government College, Lahore, Pakistan

Abstract: Gomal is an important river of Pakistan with the river Zhob as its main tributary. The survey of Gomal drainage system (rivers Gomal, Zhob and Wana stream) was done between 1988 and 1994 in various seasons. The fishes were collected using all kinds of prevalent methods. Thirty two species belonging to 23 genera, 9 families, 5 orders and 2 superorders were collected. There are important food fishes and are consumed locally: *Tor Putitora* (Hamilton), *Naziritor zhobensis* (Mirza), *Cirrhinus mrigala* (Hamilton), *Schizothorax plagiostomus* Heckel, *Schizocypris brucei* Regan, *Labeo dero* (Hamilton), *Labeo dyocheilus pakistanicus* Mirza and Awan. Some other species including *Barilius pakistanicus* Mirza and Sadiq, *Barilius vagra* (Hamilton), *Barilius bicirrhatus* (McClelland), *Botia birdi* Choudhuri, *Schistura arifi* Mirza and Banarescu, *Schistura punjabensis* (Hora) and *Schistura pakistanica* (Mirza and Banarescu) are beautiful ornamental fishes. *Garra wanae* Regan. *Schistura arifi* Mirza and Banarescu and *Schistura pakistanica* (Mirza & Banarescu) are endemic to the Gomal drainage system. Zhob valley can be regarded as a paradise of mahasheers because two species of mahasheers *viz. Tor putitora* (Hamilton) and *Naziritor zhobensis* (Mirza) are found here in abundance and provide good game to the anglers.

Key words: Fresh water fishes, Gomal system, NWFP, Pakistan.

INTRODUCTION

The river Gomal originates from Afghanistan and enters into Pakistan through Gomal Pass. It passes towards east along the border of Balochistan and N.W.F. Province of Pakistan. At Khajuri Kach, it receives the river Zhob and then enters the Indus plain in Dera Ismail Khan district. After dividing into various branches, it joins the river Indus south of D.I. Khan during floods. Between Gul Kach and Khajuri Kach, it receives the Wana Toi from Wana.

The river Zhob is one of the largest rivers of Balochistan. It originates from the Kund mountains in between Muslimbagh and Kan Mehtarzai. It flows eastward and then takes a turn towards north near Gwal Haiderzai. After receiving several tributaries from the Toba Kakar Range in the north and the hill ranges between the Zhob and Loralai districts in the south, it ultimately falls into the river Gomal near Khajuri Kach. Its length between its source and the confluence with the Gomal is about 240 miles (384 km).

The fish fauna of the river Zhob was not discussed by Day (1880) and Zugmayer (1913). The first paper on the fish fauna of this river was by Mirza (1966), who recorded *Schizocypris brucei* Regan from this river.

Mirza (1967) described a new mahasheer from this river and named it as *Tor zhobensis*. This species now is known as *Naziritor zhobensis* (Mirza).

Mirza, Banarescu and Nalbant (1969) described *Noemacheilus pakistanicus* from

Kum Karez of Hindubagh (now Muslimbagh). This species is now known as *Schistura pakistanica* (Mirza and Banarescu).

Mirza (1969) discussed the systematics and zoogeography of the fishes of the genus *Cyprinion* Heckel and recorded *Cyprinion watsoni* (Day) from the river Zhob.

Mirza and Naik (1969) published the first comprehensive report on the fishes of Zhob district. They recorded 10 species including a new species, *viz.*, *Glyptothorax naziri*.

Mirza and Angvi (1972) revised the fish fauna of the Zhob district adding two more species, *viz. Noemacheilus rhadineus* Regan and *Mastacembelus armatus* (Lacepede). The record of *N. rhadineus* Regan, however, was based on a large specimen of *Schistura pakistanica* (Mirza and Banarescu).

Mirza (1972 and 1974) discussed the systematics and zoogeography of the freshwater fishes of Balochistan including the Zhob valley.

Mirza (1975) published a monographic paper on the freshwater fishes and zoogeography of Pakistan discussing the distribution of fishes in the river Zhob in addition to the other rivers of Pakistan.

Mirza (1980) revised the systematics and zoogeography of the freshwater fishes of Pakistan.

Coad (1981) in his checklist of the fishes of Afghanistan also dealt with the fishes of the Zhob river.

Mirza, Nalbant and Banarescu (1981) revised the fishes of the genus *Schistura* in Pakistan, and described *Schistura arifi* from the river Zhob.

Mirza (1989 and 1995) described the distribution of the freshwater fishes of Pakistan and adjoining areas.

Mirza, Javed and Tariq (1994) published a preliminary list on the fishes of the river Zhob based on the present collection.

The fish fauna of the Wana Toi was dealt with by Regan (1914), who described one new genus *Schizocypris* and two new species *viz.*, *Schizocypris brucei* and *Discognathus wanae*.

SYSTEMATIC ACCOUNT

The fishes of the river Gomal and its tributaries belong to the class *Teleostomi*, subclass *Actinopterygii* and infraclass *Teleostei*. So the account of fishes given in this paper starts from superorder. In addition to the fishes collected by us, the fishes recorded by Regan (1914) from Wana Toi and Mirza and Naik (1969) from the river Zhob have also been included. There are 32 species, belonging to 23 genera, 9 families,

5 orders and 2 superorders of the teleostean fishes.

SUPERORDER:	OSTARIOPHYSI
ORDER:	CYPRINIFORMES
FAMILY:	CYPRINIDAE

1. *Barilius modestus* (Day)

There are a few specimens of this species collected from the river Zhob near Khajuri Kach, which are without vertical bars. This species remains small in size and hence is of little economic importance from the fisheries point of view.

2. *Barilius pakistanicus* Mirza and Sadiq

This species is very common and is found almost throughout the river. It is clearly identified by the black bars extending from the back to the lateral line. The number of bars is variable from 3 to 9.

Since this species is also small in size, hence is of little economic importance. It is a beautiful fish and can be used for ornamental purposes.

3. *Barilius vagra* (Hamilton)

This species is found along with *Barilius pakistanicus* from which it can be distinguished by the short vertical bars not reaching the lateral line. This is also a small fish and of no economic importance but can be used for ornamental purposes.

4. *Barilius bicirrhatus* (McClelland)

This fish was previously described from Jalalabad in Afghanistan by McClelland in 1842. Now it is collected from river Gomal at Khajuri Kach in South Waziristan Agency. It does not grow to a large size so is of little economic importance but may be kept as an ornamental fish.

5. *Cirrhinus mrigala* (Hamilton)

This species is very rare in this river as only two specimens were collected from Mughal Kot. The larger specimen is 32.5 cm in length and 359 gm in weight.

6. *Crossocheilus diplocheilus* (Heckel)

This species is quite common in the rivers Gomal and Zhob. It was collected from the river Zhob near Zhob city, Mir Ali Khel, Viala, Mina Bazar etc. From river Gomal it was collected from Pir Kach, Basti Kowr and near Tank city. It was collected from Wana stream near Mughal Khel village and New Dubkot.

7. *Cyprinion watsoni* (Day)

This species is one of the commonest fishes of the Gomal river and its tributaries. A

large number of specimens were collected from various localities of the rivers Gomal, Zhob and Wana stream.

This species also remains small in size and hence is of little importance as food.

8. *Garra gotyla* (Gray)

This species is quite common in the river Zhob. Several specimens of this species were collected from Badain Zai, Brunj Kili, Musafirpur, Zhob city, Mir Ali Khel, Viala and Khajuri Kach. It is not recorded from Wana stream.

This species remains small in size and hence is of little economic importance.

9. *Garra wanae* (Regan)

This fish is endemic to South Waziristan Aagency (Wana). It is only found between village Dubkot and Wana Toi. *Garra wanae* is mostly found along the sides of the stream where water is slow and transparent. It is of no economic importance because its flesh is sour and its size remains small.

10. *Labeo dero* (Hamilton)

This species is also quite common in the river Zhob. It was collected from Zhob City, Viala, Badainzai, Mina Bazar, Brunj Kili, Mir Ali Khel and Khajuri Kach. It was not captured from the upper reaches of Gomal, nor it was found in Wana stream.

It grows to large size and is consumed as food. The longest specimen collected from this river is 30.9cm in length. This specimen was collected from Khajuri Kach.

11. *Labeo dyocheilus pakistanicus* Mirza and Awan

This species is less common as compared to *Labeo dero*. Its specimens were in the collection from Badain Zai, Brunj Kili, Naray Zai, Mughal Kot and Khajuri Kach. It is not found in Gomal upstream from Khajuri Kach.

It is a large-sized fish and is consumed as food. The longest specimen is 35.7 cm in length.

12. *Naziritor zhobensis* (Mirza)

This is the *Zhobi mahasheer* of Pakistan. It was originally described from Viala by Mirza (1967). Its range was sbsequently extended to NWFP (Mirza, 1990).

This is one of the commonest species of fishes found in the river Zhob. About one hundred specimens were collected from almost all the localities from where the collection was done from Muslimbagh to Khajuri Kach.

It is a large-sized fish and is consumed as food. The longest specimen collected is 33.7 cm in length and 338.8 gm in weight. Like the common mahasheer, it is also an omnivorous species mainly feeding upon diatoms, Algae and macrophytes along with aquatic insects *etc*. The fecundity of this fish is low. It is about ten eggs per gramme of body *weight* of the fish.

13. *Racoma labiata* McClelland

This species is one of the rarest species of this river. Only five (5) specimens were collected from the river Zhob at Safikot. The largest specimen is 23.8cm in length and 118gm in weight. Mirza and Naik (1969) reported this species from Kum Karez near Mulimbagh. It is usually found at higher elevations and might be quite common in upper tributaries of the river.

14. *Schizocypris brucei* Regan

This species is one of the commonest species of the rivers Gomal and Zhob. More than one hundred specimens were collected from almost all the localities visited. It is also common in the Wana Stream.

It grows upto about 17cm in length and is consumed as food.

15. *Schizothorax plagiostomus* Heckel

It is the rarest species in the river Zhob. Only one specimen, 23.7cm in length and 127gm in weight was collected from Safikot. It is less rare in Waziristan where it is quite common. The largest specimen in the collection from Waziristan is 28.5cm.

Mirza and Naik (1969) reported this fish from Kum Karez near Muslimbagh. This is a hill-stream fish living in cold and clear waters at higher elevations. So it may be common in the upper reaches of the tributaries of rivers Zhob and Gomal. Sexual dimorphism is conspicuous in this species. Males and females differ in breadth and depth of head, size and shape of snout, body form and length of barbels.

16. *Tor putitora* (Hamilton)

This is the famous *Himalayan mahasheer* or the common mahasheer of South Asia. It is quite common in the river Zhob and Gomal. More than 50 specimens were collected from various localities. The largest specimen is 51.5 cm in length and 1110 gm in weight. According to the local people, specimens more than a metre in length and upto 4kg in weight are common in the lower reaches of the river Zhob. It is the most popular game fish and is known as the "*pride of the anglers*." Its flesh is tasty and less bony.

The food and feeding of this fish was studied by Subhan and Hafeez (1994), who concluded that this mahasheer was omnivorous and adaptable to changing biotic conditions. The fecundity of this fish is quite low and was found to be about ten eggs per gramme of body weight (Subhan and Hafeez, 1993).

17. *Chela cachius* (Hamilton)

It is widely distributed in the subcontinent. From the river Gomal it was captured from Pir Kach and Basti Kowr. The largest specimen in our collection is 4.8 cm. It remains small and is of no economic importance.

18. *Puntius sophore* (Hamilton)

It is a small-sized fish, common in the lower reaches of the Gomal river, not recorded from Zhob and Wana streams. It was captured from Pir Kach and Tank from the river Gomal. The largest specimen in our collection is 68.00 mm. It does not grow to a large size and hence is of little food value.

19. *Puntius ticto* (Hamilton)

A small-sized fish, commonly found in the streams of lower mountanous regions and plains from Pakistan to Thailand. From Gomal river, it was captured near Pir Kach and Tank. It is not found in Zhob, Wana and upper reaches of Gomal. The largest soecimen is about 5cm in length. It is of no food value because it remains small in size.

FAMILY: COBITIDAE

20. *Botia birdi* Chaudhuri

This species is also one of the rarest species in the river Zhob. There is only one specimen 12.8cm long from Badain Zai. It is not found in the Gomal river.

This is a beautiful fish and is used as *an* ornamental fish all over the world. Its local name is Cheeta Machhli.

FAMILY: NOEMACHEILIDAE

21. *Noemacheilus corica* (Hamilton)

This species is also rarer in the river Zhob and Gomal. There are only a few small-sized specimens from Badain Zai (river Zhob) and only two specimens from Gomal river near Pir Kach. Its maximum size in the collection is about 4cm.

22. *Acanthocobitis botia* (Hamilton)

It was only captured from the Wana stream near Mughal Khel. No specimen is present in the collection from Gomal and Zhob rivers. It is a small sized fish hence of no food value.

23. *Schistura arifi* Mirza and Banarescu

This species was described from the river Zhob near Zhob city. There are 9 specimens from Zhob and Mina Bazar, a few specimens were collected from South Waziristan Agency near Wana camp and Mughal Khel village. Maximum length in present collection is 7.4cm.

It is a beautiful fish and can be used for ornamental purpose.

24. *Schistura punjabensis* (Hora)

This species is rare in the Gomal drainage system. A few specimens were collected

from the river Zhob near Zhob city and from Wana stream near Mughal Khel. In some specimens the vertical black bars are missing. It is also an ornamental fish.

25. *Schistura pakistanica* (Mirza and Banarescu)

This species was originally described from Kum Karez near Muslimbagh. It has subsequently been collected from the river Zhob near Zhob city and Wana stream near Ashraf Khel and Mughal Khel. It has vertical bars along both sides of the body. These bars fade away along with age. In a large specimen about 15cm in total length the bars were completely absent. This specimen was wrongly reported as *Noemacheilus rhadineus* Regan by Mirza and Angvi (1972) and as *Noemacheilus cristatus* by Mirza (1975).

ORDER: SILURIFORMES
FAMILY: SISORIDAE

26. *Glyptothorax naziri* Mirza and Naik

This species is quite common in the river Zhob and its tributaries. Eighteen specimens were collected from Zhob city, Viala and Khajuri Kach. It is a small-sized fish and hence is not used as food.

27. *Glyptothorax punjabensis* Mirza and Kashmiri

This species is rare in the river Zhob, only two specimens were collected from Viala and Badain Zai. It is not found in the river Gomal and Wana stream. The largest specimen is 9.4cm. This species remains small in size and hence is of no economic importance.

FAMILY: SILURIDAE

28. *Ompok pabda* (Hamilton)

This species was recorded by Regan (1914) from Wana Toi. It is not present in our collection.

SUPERORDER: ACANTHOPTERYGII
ORDER: MASTACEMBELIFORMES
FAMILY: MASTACEMBELIDAE

29. *Mastacembelus armatus* (Lacepede)

There is only one specimen of this species collected from Viala (river Zhob).
This species grows upto 60cm in other areas and is used as food. The specimen in the present collection is only 27.8cm in total length. It is also found in the Wana stream.

ORDER: CHANNIFORMES
FAMILY: CHANNIDAE

30. *Channa punctata* (Bloch)

It is a medium-sized fish common in the plains. It is not recorded from Zhob and Wana. A few specimens were collected from Gomal river (near Pir Kach).

ORDER: PERCIFORMES
FAMILY: BELONTIIDAE

31. *Colisa fasciata* (Bloch)

It is a beautiful fish and is common in streams of the plains. It was captured from Gomal river (near Pir Kach). The longest specimen in the collection is 3.8cm. There are coloured bands on the sides of the body. It is an ornamental fish.

FAMILY: GOBIIDAE

32. *Glossogobius giuris* (Hamilton)

One soecimen 6.9cm in total length and 5.4cm in standard length was collected from the Wana Toi near Muslim Kach between Wana and Khajuri Kach.

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