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Additions to the Fish Fauna of River Zhob, Balochistan, Pakistan

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Abstract: A survey of fish fauna of river Zhob (Balochistan) was conducted by the present authors during July to August 2001. As a result, 22 species belonging to fifteen genera, four families and three orders of the Teleostean fishes were collected. Out of these, 10 species are new record from the river Zhob while *Mastacembelus pancalus* a new record from Balochistan and *Discognathus lamta* and *Discognathus modestus* are the new record from Pakistan. Most of the species were comparatively larger in size but *Puntius ticto*, *Barilius pakistanicus*, *Schistura arifi* and *Botia lohacheta* were found to be of small size. Species of *Cyprinion* Heckel, one species of *Schizocypris* Regan, *Crossocheilus* Heckel and *Tor* Gray grow to a large size and are also used locally as food.

Key words: Fish, river Zhob, fauna

INTRODUCTION

The fresh water fishes of Balochistan were discussed by Mirza and Naik^[1-4]. The fish fauna of river Zhob was first discussed by Mirza^[5] who recorded the *Schizocypris brucei* Regan from this river. Mirza^[6] described a new "Masheer" from river Zhob and named it as "*Tor zhobensis*" which is now also known as *Naziritor zhobensis* Mirza. Mirza and Naik^[7] described *Noemacheilus pakistanicus* from Kumkarez of Muslimbagh. This species is now known as *Schistura pakistanica* Mirza and Banareseu. Mirza^[8] discussed the systematic and zoogeography of the fishes of the genus *Cyprinion* Heckle and recorded *Cyprinion watsoni* Day from the river Zhob. Mirza and Naik^[7] published the first comprehensive report of the fishes of the Zhob district. They recorded 10 species including a new species viz., *Glyptothorax naziri*. Mirza and Angvi^[9] revised the fish fauna of the Zhob district adding two more species, viz., *Noemacheilus rhadineus* Regan and *Mastacembelus armatus* Lacepede. Mirza^[10,11] discussed the Systematic and Ichthyogeography of the freshwater fishes of Balochistan including the Zhob valley. Mirza^[12] published a monographic paper on the fresh water fishes and zoogeography of Pakistan discussing the distribution of fishes in the river Zhob in addition to the other rivers of Pakistan. Mirza^[13] revised the systematic and zoogeography of the freshwater fishes of Pakistan.

Coad^[14] in his checklist of the fishes of Afghanistan also dealt with the fishes of the river Zhob. Mirza and Javed^[15,16] discussed Mahsher with a new species *Naziritor* and *Tor*-gray. Mirza and Saboohi^[17] discussed fishes from Dasht river and described a new subgenus *Tariqi labeo*. Mirza^[18] discussed the systematic of *Schizothoracine* fishes. Mirza^[19] reported fishes of the Rakhshan river with the record of *Garra rossica*. Mirza *et al.*^[20] discussed the fish fauna of the river Zhob. Mirza and Javed^[21] reported 22 species from the Zhob River viz., 1-*Barilius modestus* Day, 2-*Barilius pakistanicus* Mirza and Sadiq, 3- *Barilius vagra* Hamilton, 4-*Cirrhinus mrigala* Hamilton, 5-*Crossocheilus diplocheilus* Heckel, 6-*Cyprinion watsoni* Day, 7-*Gara gotyla* Gray, 8-*Labo dero* Hamilton, 9-*Labeo dyocheilus pakistanicus* Mirza and Awan, 10-*Tor (Naziritor) zhobensis*. Mirza, 11-*Racoma labita* Meeleiland, 12-*Schizocypris brucei* Regan, 13-*Schizothorax plagiostomus* Heckel, 14-*Tor- putitora* Hamilton, 15-*Botia birdi* Chaudhuri, 16-*Noemacheilus corica* Hamilton, 17-*Schistura arifi* Mirza and Banareseu, 18-*Schistura punjabensis* Hora, 19-*Schistura pakistanica* Banareseu and Nalbant, 20-*Glyptothorax naziri* Mirza and Naik, 21-*Glyptothorax punjabensis* Mirza and Kashmiri, 22-*Mastacembelus armatus* Lacepede. Jan^[22] reported 19 species from the Zhob river viz., 1-*Barilius pakistanicus* Mirza and Sadiq, 2-*Barilius vagra* Hamilton, 3-*Cirrhinus mrigala* Hamilton, 4-*Crossocheilus*

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diplocheilus Heckel, 5-*Cyprinion watsoni* Day, 6-*Labeo dero* Hamilton, 7-*Labeo dyocheilus* McClelland, 8-*Tor (Naziritor) zhobensis* Mirza, 9-*Schizocypris brucei* Regan, 10-*Schizothorax plagiostomus* Heckel, 11-*Torputitora* Hamilton, 12-*Salmostoma bacaila* Hamilton-Buchanan, 13-*Garra gotyla* Gray, 14-*Schistora corica*, 15-*Glyptothorax naziri* Mirza and Naik, 16-*Glyptothorax punjabensis* Mirza and Kashmiri, 17-*Schistura punjabensis* Hora, 18-*Botia lohachata* Chaudhuri, 19-*Mastacembelus armatus* Lacepede.

Fish fauna of river Zhob was still poorly known. Thus, to fill the gap of knowledge, a comprehensive study was conducted by the authors to study the fish fauna of river Zhob.

The present study deals with the survey of fishes of river Zhob, yielding 22 species belonging to 15 genera, four families and 3 orders of the Teleostean fishes out of which 12 species are the new record from the river Zhob and 1 species is new record from Balochistan while 2 species are the new record from Pakistan^[23].

MATERIALS AND METHODS

Fishes were caught through nets at different localities of district Zhob during July 2001 to August 2001.

Study area: River Zhob, a largest river of Balochistan originates from Kunder Mountains in between Muslimbagh and Khanmehtarzai and after five kilometer flows northward to Zhob city. Then it flows eastwards and takes a turn toward north near Gawal Haiderzai where it is joined from the south by the Landai and from north by river Ghazlai. A good stream of excellent water known as "Sawara" falls into the Zhob River from the east about thirteen miles from the Kandil junction. Thereafter it still flows, takes a north eastern course and flows northeastern and passes about two miles to the west of Zhob and near Dera (about 29 miles from Sawara junction) enters the hills. Further, about two miles to the south of Mir Ali khel, it is jointed by the SirToi river from the west passing to the north of Mughalkot fort (about 14 miles from Mir Ali khel) and finally falls into the Gomal river near Khajuri kach. The total length of the river Zhob from its origin to its junction with the river Gomal is of about 240 miles.

Fishes were identified following the keys furnished by Day^[24], Mirza and Angvi^[9], Mirza and Naik^[7] and Mirza and Omar^[25].

Systematic account: The specimens collected during the present study from River Zhob were belonging to the class Teleostomi, subclass Actinopterygii, infraclass Neopterygii and division Teleostei.

1. Super order Ostariophysii

1. Order Cypriniformes

1. Family Cyprinidae

Sub family Barbinae

1. *Discognathus lamta* Hamilton and Buchanan: Day^[24] reported this species from Syria and throughout India and Ceylon. This species is being reported here as a first record from river Zhob. It was found very common in Mina bazar, Laka band, Ghosa areas of district Zhob. 15 specimens were collected during the present survey. The larger specimen was observed to be of 12.6 cm in length. These fishes are not consumed as food. Mirza^[10] reported this species from Sariab, Balelli, (Quetta District), Bund Khushdil Khan, Barshore (Pishin District) Mastung, Kalat (Kalat District), Sheikh Wasil (Chagi District) of Balochistan.

2. *Discognathus modestus* Day: Day^[24] reported it from north India. This is the first record of this species from Pakistan, river Zhob. During present survey, this species was found very common in Mina bazar, Laka band, Ghosa areas. 13 specimens were collected. Specimens were small in size. The largest was being about 14.5 cm in length. This fish is not generally used as for food.

3. *Cyprinion watsoni* Day: This species is one of the commonest fish of the river Zhob. It was usually found in every tributaries of the river Zhob. 49 specimens were collected during the present study. All were of small size and the largest was being of about 17 cm. in length.

4. *Labeo dyocheilus pakistanicus* Mirza and Awan: Mirza and Javed^[21] collected this fish from Badenzai, Khajuri kach, Mughal Kot, Narazai and Brunj areas of district Zhob. Jan^[22] while surveying fish fauna of river Zhob did not report this species. However, during present survey, two specimens were collected from Badenzai locality. The larger specimen was about 23 cm in length.

5. *Labeo rohita* Hamilton: This species is being reported first time from river Zhob. Four specimens were collected from Badenzai locality during the present survey. Previously, Mirza and Javed^[21] and Jan^[22] while surveying fish fauna of river Zhob, did not come across this species. It was found to be very clever during the catching time. The larger specimen was 24 cm in length.

6. *Cirrhinus reba* Hamilton and Buchanan: This species is being reported for the first time from river Zhob and was found to be very common in Mina bazar and Ghosa localities. Previously Mirza and Javed^[21] and Jan^[22] while

surveying fish fauna of river Zhob did not report this species. During the present survey, 9 specimens were collected. Larger specimen was of 13.8 cm in length. This species has a less economic value since local people usually do not eat it.

7. *Cirrhinus* sp. 1

8. *Cirrhinus* sp. 2: Two and four specimens of *Cirrhinus* sp.1 and *Cirrhinus* sp. 2 were collected, respectively from Badenzai locality during the present survey. Previously, *Cirrhinus mrigla* was reported from Mir Ali khel (Zhob) area by Mirza and Javed^[21] and Jan^[22]. However, the present collection of species 1 and species 2 were found quite different among themselves as well as from their known species of the genus *Cirrhinus* Cuvier viz., *C. cirrhosus* Bloch, *C. fulungee* Sykes, *C. macrops* Steindachner, *C. mrigala* Hamilton and Buchanan, *C. reba* Hamilton and Buchanan. Here these unidentified species are considered as a new recorded from river Zhob. However, further studies are required in this direction.

9. *Puntius ticto* Hamilton: During the present survey, eleven specimens of this species were collected from Viahla locality of river Zhob. This is the first record of this species from river Zhob. Mirza and Javed^[21] and Jan^[22] while surveying fish fauna of river Zhob did not come across of this species. This species was found to be a rare species in the river Zhob. Adult specimens were very small in size and the largest one was 6.3 cm. in length.

10. *Crossocheilus latius* Hamilton: During the present survey, 18 specimen of this species were collected from Badenzai and Mir Ali khel areas of river Zhob. However Mirza and Javed^[21] and Jan^[22] while studying fish fauna of river Zhob did not report this species. In the present collection the largest specimen was measured to be of 15.2 cm in length. The local inhabitants consume this fish generally as a food.

11. *Aspidoparia* sp. Heckel: This species is very rare in the river Zhob. Mirza and Javed^[21] and Jan^[22] did not come across this genus from river Zhob. However, here, for the first time this species is being reported from river Zhob. Two specimens 1 male and 1 female (13.6 cm. in length) were caught during the present survey from Viahla locality. During study, male and female of this species were found swimming together.

12. *Barilius pakistanicus* Mirza and Sadiq: This species is very common and is found almost throughout the river Zhob. These fishes are small in size (10 cm). One of the basic taxonomic characters of this species is the presence

of black bars (4 to 9) extending from the backside to the lateral line of the body. This fish has a little economic importance. It is a beautiful fish and can be used for ornamental purposes.

13. *Tor-putitora* Hamilton: The common mahsher (*Tor-putitora*) or Himalayan mahsher of South Asia. It is very common in the Zhob river. The largest specimen was measured to be 19 cm in length. Its head being longer than the width of the body. Larger scales are represented by the cross lines, is the important diagnostic feature of this fish. During the present survey, the author did saw a specimen in Mir Ali khel area of about one meter in length. The meat of this fishes is very testy and with out bones, also people like to eat it very much.

14. *Tor-(Naziritor) zhobensis* Mirza: The Zhobi mahsher (*Tor-(Naziritor) zhobensis*) was described from the river Zhob by Mirza^[9]. It was subsequently reported from N.W.F.P. by Mirza and Javed^[16]. This is also a common species in river Zhob. It is also of large size fish and consumed as for food by the local people. These fishes are small in size and the largest was being about 15.4 cm in length. This species like the Himalayan mahsher, during the dissection the author did saw, the stomach of this fish was found filled with algae, insects and macrophytes. Its breeding period starts from the June Mirza and Javed^[16].

Subfamily Schizothoracinae

15. *Schizocypris* sp.: This species is rare in the river Zhob. Mirza and Javed^[21] and Jan^[22] reported *Schizocypris brucei* from all localities of the river Zhob. Nine specimens of the genus *Schizocypris* sp. collected during the present survey from Brunj and Viahla areas of river Zhob were found to be quite different with *S. brucei*. Hence it appears to be a new species.

16. *Schizopygopsis stolizkae* Steindachner: This species is also common in the river Zhob. However, Mirza and Javed^[21] and Jan^[22] did not report this species from the river Zhob. During the present survey, eighteen specimens of this species were collected from Mina bazar, Deragai and Brunj areas of the river Zhob. It is the first record of this species from river Zhob. The largest specimen of this species was 8.7 cm in length. This fish is usually consumed as food by the inhabitants of the areas.

2. Family Cobidae

Subfamily Botinae

17. *Botia lohacheta* Chaudhuri: This species is very rare in the river Zhob. Mirza and Javed^[21] did not mention this species in the final report. However, Jan^[22] reported it from Mir Ali khel and Narazai area of the river Zhob. During the

present survey two specimens were collected from Viahla area. The largest specimen was to be measured in 15.4 cm in length. This fish is locally known as “commando machli” or “cheeta machli”. It is not consumed as for food.

3. Family Sisoridae

18. *Glyptothorax naziri* Mirza and Naik: This species is quite common in the river Zhob and in its tributaries. 21 specimens were collected from Ghosa, Viahla, Narazai, Laka band and Mina bazaar during present study. The larger specimen was about 13.3 cm in length. The people do not use it for food.

19. *Schistura kessleri* Gunther: This species is also rare in the river Zhob. During the present survey two specimens of this species were found in Mina Bazar locality of river Zhob. Previously, Mirza and Javed^[21] and Jan^[22] did not report this species from the river Zhob. This is the first record from river Zhob. It is also beautiful fish and can be used for ornamental purposes.

20. *Schistura arifi* Mirza and Banarescu: During the present survey 17 specimens of this species were collected from Laka band and Ghosa areas of river Zhob. It is a beautiful fish and can be used for ornamental purposes.

2. Super order Acanthopterygii

3. Order Mastacembeliformes

1. Family Mastacembelidae

21. *Mastacembelus pancalus* or Gro-age Lacepede: This species appears to be a new record from Balochistan. Only one specimen of it was collected from Viahla locality of river Zhob. This species size very small and measured total length 10 cm. Mirza and Javed^[21] and Jan^[22] could not record it from Zhob river. Local people also do not consume this fish so it has a little economic importance.

22. *Mastacembelus armatus* or Bahm Lacepede: During present survey only four specimens of this species were collected from Viahla and Mina bazar localities of river Zhob. Previously, Mirza and Javed^[21] and Jan^[22] also reported it from this river. The largest specimen was about 39 cm in length. Local people usually do not consume these fishes therefore it has a little economic value.

DISCUSSION

Previously Mirza and Javed^[21] reported 22 specie viz., *Barilius modestus*, *Barilius pakistanicus*, *Barilius vagra*, *Cirrhinus mrigala*, *Crossocheilus diplocheilus*,

Cyprinon watsoni, *Gara gotyla*, *Labeo dero*, *Labeo dyocheilus pakistanicus*, *Naziritor zhobensis*, *Racoma labiata*, *Schizocypris brucei*, *Schizothorax plagiostomus*, *Tor.putitora*, *Botia birdi*, *Noemacheilus corica*, *Schistura arifi*, *Schistura punjabensis*, *Schistura pakistanica*, *Glyptothorax naziri*, *Glyptothorax punjabensis*, *Mastacembelus armatus*. belonging to five families namely; Cyprinidae, Cobidae, Noemacheilidae, Sisoridae, Mastacembelidae from Zhob river.

Jan^[22] reported 19 species from Zhob river in which 17 were old record and only two species namely *Salmostoma bacaila*, *Botia lohachata* were new record.

During present survey 22 species were collected. Out of them, ten species namely, *Schizopygopsis stolizkae*, *Schizocypris* sp; *Labeo rohita*, *Cirrhinus* sp. I, *Cirrhinus* sp. II, *Aspidoparia* sp; *Cirrhinus reba*, *Puntius ticto*, *Schistura kessleri* and *Discognathus lamta* are a new record from Zhob river and one species namely *Mastacembelus pancalus* for the first time from Balochistan province and one species and *Discognathus modestus* is recorded for the first time from Pakistan. Remaining ten species are those already recorded from river Zhob.

Out of this, the following species were found to be of the larger size and are locally consumed as for food: *Tor (Naziritor) zhobensis* Mirza, *Tor-putitora* Hamilton, *Schizopygopsis stolizkae* Steind, *Schizocypris* sp., *Crossocheilus latius* Hamilton, *Cyprinion watsoni* Day, *Labeo dyocheilus pakistanicus* Mirza and Awan, *Labeo rohita* Hamilton-Buchanan.

The river Zhob is the only river in Pakistan in which the two species of mahsher, viz., *Naziritor zhobensis* Mirza and *Tor putitora* Hamilton were found through out the years and are quite common. So this river can be regarded as a mahsher paradise^[21]. However, during the present study six more species namely, *Tor (Naziritor) zhobensis* Mirza, *Tor-putitora* Hamilton, *Schizopygopsis stolizkae* Stien, *Schizocypris* sp; *Crossocheilus latius* Hamilton and *Cyprinion watsoni* Day were recorded and were found to be more common.

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