

A NOTE ON THE FISH FAUNA OF CHASHMA LAKE, PAKISTAN, WITH THE
RECORD OF *RACOMA LABIATA* McCLELLAND (PISCES : CYPRINIDAE)

M.R. MIRZA AND SADAQAT HUSSAIN

Department of Zoology, Government College, Lahore (MRM) and WAPDA Fisheries,
Chashma, District Mianwali (SH), Pakistan

Abstract: Some fishes were sent by the junior author from Chashma Lake, Mianwali District. In addition to the fishes already known from the Chashma Lake, there was a large specimen of *Recoma labiata* McClelland belonging to the subfamily Schizothoracinae, family Cyprinidae of the teleostean fishes. This specimen is 445 mm in total length and weighs 860 grams. This species has been recorded from Kalabagh in the sub-mountainous Indus Region about 80 km upstream. It is normally found in the hill streams from 300 m upto about 4500 m above sea level. In the Punjab Plain, it was previously reported from the upper Jhelum canal near Chechian (Gujrat District) and the Trimmu Lake of river Chenab (Jhang District). The present specimen is the third specimen of *R. labiata* collected from the Punjab Plain. It is the new record for species, genus and subfamily from the Chashma Lake and is being recorded from the river Indus downstream of Jinnah Barrage for the first time.

INTRODUCTION

The Chashma Lake is formed as a result of the storage of water of rivers Indus and Kurram by the Chashma Barrage (32.28 N, 71.20 E) at Chashma in Mianwali District. The maximum water area of the Barrage is about 36000 hectares. Its gross storage capacity is 0.497 (MAF). Its bed elevation is 188 m from S.P.D.

The fish fauna of the lake was studied by Naik (1985), Mirza and Abubakr (1988) and Hussain and Mirza (1996). The total number of species recorded by these authors was 57 belonging to 17 families and 8 orders. No High Asian species was reported.

During December, 1997, the following three species of fish were presented by contractor to the junior author:

Tor putitora macrolepis (Heckel, 1838).
Labeo dero diplostomus (Heckel, 1838).
Recoma labiata McClelland, 1842.

Among these, *R. labiata* belongs to the snow-carp subfamily Schizothoracinae (Family Cyprinidae) and hence is a new record for the species, genus and subfamily from the Chashma Lake. The other two species are already known from this lake.

RESULTS AND DISCUSSION

The general features of the specimen of *R. labiata* fall within the range of variations of this species as described by Mirza and Awan (1979). However, the lower lip of the present specimen is poorly developed. This is probably due to the physical conditions of the lake as there is no need for a highly developed lower lip for the attachment to the substratum. The lower lip is clearly trilobed, which is a characteristic of this species.

The size of the fish is large: about 445 mm in total length and 860 grams in weight. It is a bottom feeder. The gut was long, highly coiled and full of algal matter. It was 114 cm which is 2.56 times of the total length of the fish.

Racoma labiata is normally found in the hilly areas upto about 4500 m above sea level in Tibet (Zhang *et al.*, 1995). Its presence in the Chashma Lake is interesting. It has been previously recorded from the river Indus near Kalabagh about 214 m in elevation, and more than 80 km upstream from Chashma by Mirza and Jan (1993). It is widely distributed in the Northern Areas and Azad Kashmir. In NWFP, it has been recorded from the Chitral, Swat, Kabul, Kurram rivers and the Indus itself. It has also been reported from northeastern Baluchistan in the headwaters of the rivers Zhob, Bolan and Nari. In the Punjab, it has been collected from the Indus near Attock Khurd, from the river Haro near its confluence with the Indus at Gharyala (Attock District), from the upper Jhelum canal near Chechian (Gujrat District), and from the river Chenab near Trimmu (District Jhang) which is about 150 m above sea level. This is the lowest elevation for any member of Schizothoracinae. But this is not the normal range of the species. The fishes collected from Trimmu and Chashma lakes are, most probably, stray specimens washed down during the floods. The lower lip of the specimen collected from Trimmu Lake was also poorly developed quite similar to that of the present specimen. Due to the poorly developed lower lip, these fishes could not resist the fast water current in upper parts of the rivers and thus were washed down.

The lower lip of the mahseer specimen from the same locality is also poorly developed, just like that of *R. labiata* mentioned above. The similarity of the trilobed labial fold in *R. labiata* and *T. punitora* is remarkable and is a good example of convergent evolution. The lips in both species are highly variable depending upon the habitat, force of the water current and nature of substratum.

The Trimmu specimen was collected on 23rd March, 1980 about one and a half km upstream from Trimmu by a fisherman, Mr. Allahyar. It was 36 cm in total length (Hassan, 1982). It has not been collected since then from Trimmu (Afzal *et al.*, 1995). *R. labiata* has been recorded from the rivers Kabul and Helmand in Afghanistan also (Coad, 1981).

REFERENCES

- AFZAL, M., JAVED, M.N. AND MIRZA, M.R., 1995. Fishes of the river Chenab in District Jhang. *Biologia (Pakistan)*, **41**: 133-137.
- COAD, B.W., 1981. *Fishes of Afghanistan* - an annotated checklist. National Museum of Canada: Publications in Zoology No.14.
- HASSAN, M.M., 1982. Record of *Schizothorax labiatus* (McClelland) from the river Chenab near Trimmu. *Pakistan J. Zool.*, **14**: 108.
- HUSSAIN, S. AND MIRZA, M.R., 1996. A contribution to the fish fauna of Chashma Lake. *2nd Symp. Fish and fisheries, Pakistan*: 18-19 (abstract).
- MIRZA, M.R. AND ABUBAKR, K., 1988. Fishes of Chashma Lake, Pakistan. *Biologia (Pakistan)*, **34**: 45-47.
- MIRZA, M.R. AND AWAN, A.A., 1979. Fishes of the genus *Schizothorax* Heckel, 1938 (Pisces, Cyprinidae) from Pakistan and Azad Kashmir. *Biologia (Pakistan)*, **25**: 1-21.
- MIRZA, M.R. AND JAN, M.A., 1993. Fish fauna of Kalabagh, Pakistan. *Biologia (Pakistan)*, **38**: 17-22.
- NAIK, I.U., 1985. *WAPDA Fisheries Gazetteer*. WAPDA House, Lahore.
- ZHANG, C., CAI, B. AND XU, T., 1995. *Fishes and fish resources in Xizang, China*. Beijing: China.

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