

Measurements in millimetres.

Total length	..	..	..	63.25	40.75	42.0	38.0	34.0	34.25	32.0	31.0
Standard length	..	..	..	50.0	32.5	33.25	31.0	2.0	28.0	26.0	24.5
Length of head	..	..	..	10.5	7.5	7.25	6.75	6.0	6.25	6.05	6.0
Height of head	..	..	..	5.25	4.0	4.05	3.75	3.25	3.25	3.0	3.0
Width of head	..	..	..	6.5	4.75	5.0	4.75	4.0	4.0	3.75	3.75
Diameter of eye	..	..	..	3.0	2.25	2.75	2.25	2.0	2.0	1.75	1.5
Length of snout	..	..	..	4.5	3.0	3.25	3.0	2.75	2.75	2.5	2.5
Inter-orbital distance	..	..	..	3.0	2.25	2.25	2.25	2.0	2.0	2.0	2.0
Depth of body	..	..	..	6.0	4.75	4.75	4.25	3.75	3.75	3.5	3.05
Width of body	..	..	..	5.75	4.5	4.5	3.75	3.0	3.05	3.0	3.0
Length of caudal peduncle	..	..	..	6.5	5.0	5.0	4.0	3.6	3.75	3.5	2.75
Least height of caudal peduncle	..	..	..	5.0	3.25	3.5	3.0	2.75	2.75	2.5	2.5
Length of dorsal fin	..	..	..	8.25	6.5	6.5	6.25	5.25	6.0	5.05	5.0
Length of pectoral fin	..	..	..	8.0	6.0	6.25	5.5	5.0	5.25	5.0	5.0
Length of pelvic fin	..	..	..	7.5	5.5	5.5	5.0	4.5	5.0	4.5	4.5
Length of anal fin	..	..	..	7.5	5.0	4.75	4.25	4.0	4.0	3.75	4.0
Length of rostral barbel	..	..	..	1.5	1.25	1.25	1.25	1.25	1.25	1.05	1.0
Length of inner max. barbel	..	..	..	2.75	1.5	1.75	2.0	2.0	2.0	1.75	1.5
Length of outer max. barbel	..	..	..	2.75	2.0	2.0	2.0	2.0	2.0	1.75	1.5

XLIII. ON A SMALL COLLECTION OF FISH FROM EAST PUNJAB.

In January 1949, Mr. H. Khajuria of the Zoological Survey of India made a small collection of fishes from the districts of Hoshiarpur and Gurdaspur in East Punjab. It was mainly obtained from Naya Pataya and Purana Pataya, two small tributaries of the river Ravi, and also from other brooks which ultimately join either the Ravi or the Chanab. The fish were collected either by netting or, for the most part, by damming smaller channels in the rocky portions of the bed of a stream. The entire collection comprises 304 specimens belonging to the following 19 species:—

Family CYPRINIDAE

Subfamily RASBORINAE

Specimens.

1. <i>Barilius vagra</i> Ham.	33
2. <i>Danio (Brachydanio) rerio</i> Ham.	7
3. <i>Danio devario</i> Ham.	10
4. <i>Esom usdanricus</i> (Ham.)	36

Subfamily *CYPRININAE*

5. <i>Aspidoparia moar</i> (Ham.)		7
6 <i>Barbus (Puntius) conchoni</i> (Ham.)		2
7. <i>Barbus (Puntius) pinnauratus</i> (Day)		4
. . <i>Barbus (Puntius) sophore</i> (Ham.)		33
. . <i>Barbus (Puntius) ticto</i> (Ham.)		28
10. <i>Crossochilus latius punjabensis</i> Mukerji		57
11. <i>Garra gotyla</i> (Gray)		1

Family *COBITIDAE*

12. <i>Lepidocephalichthys guntea</i> (Ham.)	..	22
13. <i>Nemachilus botia</i> (Ham.)		24
14. <i>Nemachilus corica</i> (Ham.)		1

Family *SILURIDAE*

15. <i>Callichrous pabda</i> Ham.	..	5
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Family *BAGRIDAE*

16 ¹ <i>Mystus bleekeri</i> (Day)	..	5
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Family *AMBLYCEPITIDAE*

17. <i>Amblyceps mangois</i> (Ham.)	..	22
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Family *OPHICEPHALIDAE*

18. <i>Ophicephalus gachua</i> (Ham.)	..	4
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Family *MASTACEMBELIDAE*

19. <i>Mastacembelus armatus</i> (Lacép.)		3
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The majority of the species listed above are fairly well known and are widely distributed. Such forms do not call for any special remarks. The presence in the collection of *Barbus (Puntius) pinnauratus* and *Amblyceps mangois* is, however, of special significance from a zoogeographical point of view and accordingly remarks are made below on these two species.

***Barbus (Puntius) pinnauratus* (Day).**

1937. *Barbus (Puntius) pinnauratus*, Hora, *Rec. Ind. Mus.* XXXIX, pp. 336, 337.

Barbus pinnauratus is represented by four specimens, ranging from 60.5 to 73.5 mm. in standard length, in the collection. Of these, three were collected from Purana Pataya at Mangyal in the Hoshiarpur District, and the fourth, the largest, measuring 94 mm. in total length, from Naya Pataya, 2 miles east of Mangyal, in the Gurdaspur district. In their general features, including the characteristic colouration of the species, these specimens agree well with the description given by Day and later workers.

According to Day¹, *Barbus (Puntius) pinnauratus* is found only in the "fresh waters at Coconada down the East Coast of India to Ceylon, and

¹Day, F., *Fish. India*, p. 561, pl. cxxxix, fig. 3 (1878).

inland as far as the Nilgherries, also along the Western Ghats and rivers at their bases" In 1937, Hora (*op.cit.*) recorded this species from the upper Chindwin and remarked on its discontinuous distribution in such widely separated areas. Its present record from the Western Himalayas shows the antiquity of the species and reminds one of the period when the Indo-Chinese fauna was gradually moving westwards along the newly-formed Himalayas, for it was much later that this fauna became diverted along the Satpura trend of mountains to Peninsular India and Ceylon.

Amblyceps mangois (Ham.).

1933. *Amblyceps mangois*, Hora, *Rec. Ind. Mus.* XXXV, pp. 617-621.

Amblyceps mangois is represented by 22 specimens in the collection ranging from 29.5 to 53 mm. in total length. They were collected from Naya Pataya at Pathankote in the Gurdaspur District, and resemble closely the typical specimens obtained in the Eastern Himalayas. There are, however, slight variations in the shape of the caudal fin. Hora (*op.cit.*) has already pointed out the great variety of shape and size of the caudal fin exhibited by the members of this species. In all the specimens under report the caudal fin is deeply forked with lobes of equal size. In specimens from other localities, when the caudal is forked, the upper lobe is generally considerably longer than the lower. This condition reaches its climax in the Siamese specimens, where the upper lobe is produced into a long thread-like process.

Day¹ had recorded this species from the Kangra Valley but no specimens from the Western Himalayas were present in the Museum collections. This species has, however, been collected from several localities along the Satpuras and its present western record is from the Hoshangabad District². It is likely that, if looked for in suitable localities at the foot of the hills, it may be found all along the Western Ghats and even in Ceylon. Its present-day distribution along the Himalayas on the one hand and the Satpuras on the other is, at any rate, very suggestive of its occurrence in Peninsular India and Ceylon from a purely zoogeographical point of view.

¹Day, F., *Fish. India*, p. 490 (1878).

²Hora, S. L. & Nair, K. K., *Rec. Ind. Mus.* XLII, p. 372 (1941).