

### III. NOTES ON FISHES IN THE INDIAN MUSEUM.

#### I. ON A NEW GENUS OF FISH CLOSELY RESEMBLING *PSILORHYNCHUS*, McCLELLAND.

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While sorting out the fish of the genus *Garra* in the unnamed collection of the Indian Museum, I happened to mistake the specimen described below for one of *Garra*. On closer examination it has turned out to be an interesting species of a new genus, which I propose to describe in this paper.

#### ***Parapsilorhynchus*, gen. nov.**

The new genus consists of small hill-stream Cyprininae closely resembling *Psilorhynchus*, McClell., from which it differs in the following characters:—

(i) There are two blunt, cylindrical barbels on the snout in the new genus, while in *Psilorhynchus* barbels are absent.

(ii) In *Psilorhynchus* the air-bladder<sup>1</sup> is always more or less reduced, while in this genus it is large and is of the normal Cyprinid type.

(iii) In *Psilorhynchus* the upper lip is exposed, and the lower lip, though it may be glandular, is never prominent, while in *Parapsilorhynchus* the upper lip is concealed by a fringed, plicate, labial fold which is densely covered with minute tubercles; the lower lip is very prominent, and usually there is either an indication of or a rudimentary disc behind it.

(iv) In *Parapsilorhynchus* the origin of the dorsal is almost opposite to that of the ventrals, while in *Psilorhynchus* it is in advance of the ventrals.

Of this genus I regard *Psilorhynchus tentaculatus*, Annand.,<sup>2</sup> as the type-species. I assign to it also the new species described below. While dealing with the genus *Psilorhynchus* in a recent paper, I provisionally included Dr. Annandale's species in it, but the discovery of the second species in the same range of mountains makes it desirable to lay stress on the differences between the forms found in the north-east of India, and those inhabiting the hills in the western part of Peninsular India. Dr. Annandale tells

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<sup>1</sup> Hora, *Rec. Ind. Mus.* XIX, p. 209 (1920).

<sup>2</sup> Annandale, *Rec. Ind. Mus.* XVI, pp. 128-129 (1919).

me that he considers these forms to be probably convergent; but in describing *Psilorhynchus tentaculatus* preferred not to set up a new genus on a monotypic basis.

My new genus has some points in common with *Garra*; the main characters that distinguish it from this genus are the following:—

(i) The presence of two characteristic blunt barbels in a position quite different from that in any species of *Garra* with two barbels.

(ii) The gill-openings extend to the ventral surface, whereas in *Garra* they are usually restricted to the sides.

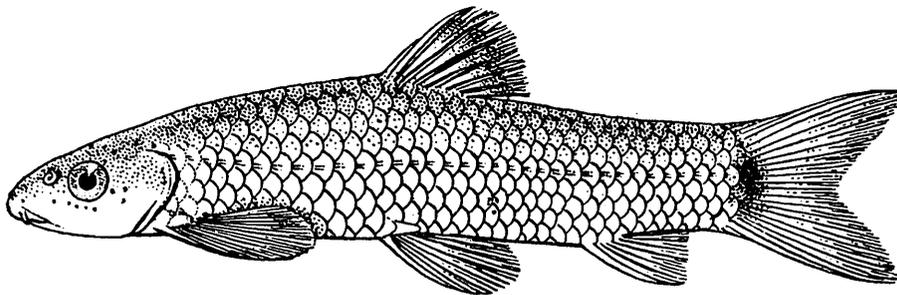
(iii) In *Parapsilorhynchus* the mouth is very small, while in *Garra* it is usually much wider.

***Parapsilorhynchus discophorus*, sp. nov.**

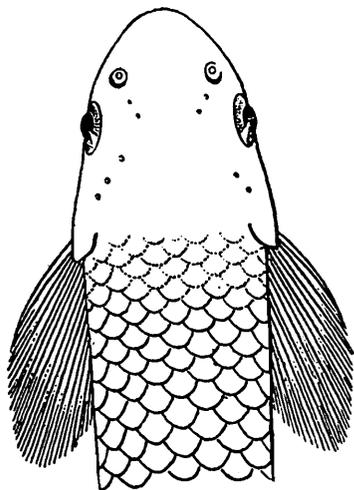
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This is a small-sized fish, with the back moderately elevated. The dorsal profile rises gracefully from the tip of the snout to the origin of the dorsal, beyond which it slopes imperceptibly down to the base of the caudal fin. The ventral surface is somewhat flattened and its profile is almost straight and horizontal. The length of the head is contained  $4\frac{1}{8}$  times, the depth of the body near the origin of the dorsal fin  $4\frac{1}{8}$  times, and the length of the caudal fin  $3\frac{2}{3}$  times in the total length without the caudal fin. The eyes are of a moderate size and are situated slightly nearer to the posterior margin of the operculum than to the end of the snout; their diameter is contained  $3\frac{2}{3}$  times in the length of the head, twice in the interorbital width and  $1\frac{1}{2}$  times in the length of the snout. The gape of the mouth is  $1\frac{1}{3}$  times the diameter of the eye. The head is short and narrow; its greatest width is contained  $1\frac{1}{4}$  times in its length. There are definite rows of open pores on the sides and upper surface of the head and also along the opercular borders on the under surface. The greatest height of the caudal peduncle is equal to its length. The vent is situated in the beginning of the last fourth of the distance between the end of the snout and the base of the caudal fin. There is a pair of short barbels on the snout. The barbels are thick and stumpy and are not pointed distally; they are situated ventrally, a short distance behind the anterior end of the snout and are partly visible from above. There is a deep groove on either side running from the base of the barbel to the angle of the mouth. The mouth is small and crescentic, and is situated on the ventral surface considerably behind the anterior end of the snout. The upper labial fold is long and fringed and is covered with minute tubercles. The lower lip forms the anterior free border of the mental disc and is studded with fairly big tubercles. The labial fold tapers towards the angle of the mouth and partially covers the lateral borders of the lower lip. The most significant point about this species is the presence of a small, rudimentary disc behind the lower lip. The

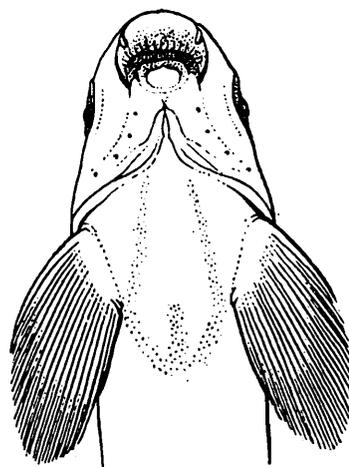
disc consists of an oval callous portion in the middle, with its longest diameter at right angles to the length of the fish and a well-



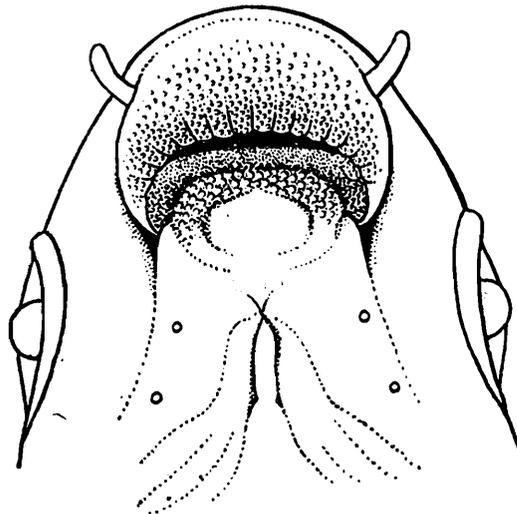
A.



B.



C



D.

*Parapsilorhynchus discophorus*, sp. nov.

- A. Lateral view of the type-specimen,  $\times 2$ .
- B. Dorsal surface of head of the same,  $\times 3$ .
- C. Ventral surface of head of the same,  $\times 3$ .
- D. Anterior part of the ventral surface of head of the same,  $\times 9$ .

defined tubercular border anteriorly, but becoming obscure behind. The opercular borders meet a short distance behind the mental

disc. The scales are small and are totally absent from the ventral surface, there are 34 scales along the lateral line and 9 rows between the bases of the dorsal and the ventral fins. The dorsal fin is  $\frac{3}{4}$  as high as the depth of the body below it; it is situated nearer to the base of the caudal than to the end of the snout and its origin is equidistant from the nostrils and the base of the caudal. The origin of the ventrals is almost opposite or slightly behind that of the dorsal fin. The pectorals are shorter than the head and are separated from the ventrals by a considerable distance. The caudal is forked and both the lobes are pointed. The ventrals are provided with a short fleshy appendage. The air-bladder is of the normal Cyprinid type.

The sides and the upper surface of the head are dusky; while the ventral surface is white. There is a dark bar across the dorsal fin near its free border and a short black bar at the base of the caudal.

*Type-specimen*.—F. 9952/1. *Zool. Survey of India* (Ind. Mus.).

*Locality*.—Only one specimen was obtained by Dr. F. H. Gravely at Pophli in the Vashishti valley, in the Western Ghats, Ratnagiri district, Bombay Presidency, at an altitude of 400 ft.

*Measurements in millimetres.*

Total length excluding caudal	33·0
Depth of body in front of dorsal	8·0
Length of head	· 8·0
Width of head	6·5
Diameter of eye	.. 2·2
Length of snout	· 3·3
Interorbital width	4·5
Gape of mouth	3·0
Length of caudal peduncle	5·5
Least height of caudal peduncle	5·0
Height of dorsal fin	6·5
Length of pectoral	7·5
Length of ventral	6·5
Length of anal	5·0
Length of caudal	8·5
Distance of vent from end of snout	24·0

The new species is closely related to *Parapsilorhynchus tentaculatus* (Annand.), recently described from the adjacent Poona and Satara districts of the Bombay Presidency. The fundamental points of resemblance are the presence of two short, stumpy and blunt barbels on the snout and also the presence of a well-defined air-bladder. The species are also alike in having a narrow and pointed operculum which is sharply marked off and bluntly truncate above. In both the species there is a black bar across the dorsal and a black spot at the base of the caudal fin. The

general facies in the two is similar as is also the position of the mouth and the structure of the labial fold. The points of differences are, however, numerous and important. In a well-preserved specimen of *P. tentaculatus* a small pad can be made out just behind the bilobed lower lip, while in the new species there is a distinct callous disc and the lower lip is not bilobed. In *P. discophorus* the ventral surface is more rounded and is absolutely devoid of scales, the head is shorter and narrower and the eyes are distinctly visible from below. The two species also differ in proportions and number of scales. The paired fins in *P. discophorus* are not so expanded as in *P. tentaculatus* and are not provided with muscles on their ventral aspect.

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