Descriptors of a Red Variant of *Labeo rohita* Cuvier (Teleostei: Cyprinidae)

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I. GENERAL DESCRIPTION

1.	**Name of the Finfish Species (Scientific Name)**	*Labeo rohita* (Hamilton)
2.	**Name of the Variant**	Red variant of rohu
3.	**Local Name & Language**	Sundari Rohu (Bengali)
4.	**Background of the local name**	This new variants has been named after its species specific rosy pink coloration over the body.
5.	**Close related common species/variant**	*Labeo rohita* (rohu)
6.	**Max. Size Reported**	502 mm TL/ 2.0 kg
7.	**Common Habitat**	Rivers, Freshwater Ponds, Acclimatized to Farm Conditions.
8.	**Native Distribution**	This red variant is so far only known from River Punarbhava North Bengal.
9.	**River basin/ Major River**	Ganga River System
10.	**Reservoir/ Any other water body**	Not Known Yet
11.	**Local region of High Abundance (if any)**	a. Punarbhava is a rain fed perennial Small River flowing in southeastern part of Maldah district in West Bengal. Originating from the Himalayan foot hills at Darjeeling, North Bengal it flows about 400 km. in the Indian Territory and finally meets into Bay of Bengal, Bangladesh. In India near Maldah, the river flows all along the international border with Bangladesh. b. Silty clay substrate having submerged aquatic vegetation.
12.	**Collection site (Name & Lat. - Long., Altitude)**	Beldanga, District Malda, North Bengal N 25^0 56.570', E 088^0 20.641; altitude 155 ft.

13.	**Nearest Railway Station**	Maldah
14.	**Specific Gear Used**	
15.	**Known Economic Importance**	a. The new variant can be considered as a potential food fish due its size, which comparable to other commercially important *Labeo*. b. The new variant can also be used as ornamental fish due to presence of attractive rosy coloration (Figure 1). c. Captive breeding was successful through induced spawning and upto F2 generations red variant was produced. Captive bred individuals are being maintained at NBFGR wet laboratory and in the farmer's farm at Beldanga, District Malda, North Bengal. **d.** Growth performance: Attained 500 - 700 gm per year under pond culture system at Beldanga, Malda, and North Bengal.
16.	**Local Importance**	Food Usage**,** Potential food fish
17.	**Any specific use such as Medicinal / Local Dish & Recipe/Special occasions/Tribal**	Not known
18.	**Traditional knowledge (Give Details): Ref. In Local/Community/tribal mythology**:	Not known
19.	**Restrictions/Protection/ Conservation / under any localRegional/ Community/ Religious sentiments.**	Not known

II. DIAGNOSTIC TAXONOMIC CHARACTER (Description)

iv	**Source/**	The red variant of rohu was collected during germplasm exploration in the river Punarbhava, North Bengal under National Agricultural Technology Project, Indian Council of Agricultural Research, New Delhi, entitled" Germplasm inventory, evaluation and gene banking of freshwater fishes".
i.	**Morphological and Meristic Characters**	a. Body moderate (163.2-302 mm), deep (29.55-33.53 mm in % of SL). b. Abdomen rounded, mouth moderate (27.93-34.63 in % of head length), subterminal and slightly overhanging, snout blunt and without any tubercles, broadly rounded and projecting beyond mouth c. Eyes are moderate (13.81-17.11 mm in % of HL), dorso-lateral in position and placed at the commencement of the posterior half of the head and are visible from underside of head, barbel not visible. d. Dorsal fin concave with 3 branched and 11 unbranched, inserted anterior to origin of pelvic fins, with total 14 rays. e. Pectoral fin laterally positioned on the body, reaching beyond the origin of dorsal fin and is longer than head length excluding snout. f. Pelvic fins insert in the third dorsal fin ray and reach beyond anus. g. Anal fin short consists of 2 branched and 4 unbranched rays. h. Caudal fin deeply forked with somewhat rounded dorsal and ventral lobes consisting 10 upper and 9 lower principal rays along with 12 upper and 10 lower procurrent rays. i. Pelvic fin consists of one branched and 7-8 unbranded rays. j. Lateral line complete, straight, running in the centre of the caudal peduncle upto tail with 40 scales of which 36 in the body and 4 in the base of the caudal fin, predorsal scale 11. 7.5 scale rows between dorsal fin origin and lateral line and 6.5 scales between lateral line and origin of pelvic fin.
v	**Collected by**	Dr. U.K. Sarkar, Senior Scientist, National Bureau of Fish Genetic Resources, Lucknow-226002 Sri. Dipak Roy, Progressive Fish farmer, Beldanga, Dist. Maldah, West Bengal
ii.	**Coloration**	a. Live specimen with bright pink color over the dorsal profile (three fourth of the body depth) of fish (starting from tip of the mouth to posterior region), the fins are more deeply colored as compared to ventral profile (Fig.1). **b.** The pupil of the eye is also encircled by deep pink color. Belly creamy white. No differences in coloration were observed in male and female. Fixed specimen rosy in dorsal profile, belly creamy white, base of the pelvic, anal and caudal has faded pink.
iii.	**Ref. Taxonomic Key**	Jayaram, K .C. (1999) *The freshwater fishes of the Indian region*. Narendra Publ. House, New Delhi, pp. 551. (For Rohu)

iv. Morphometric characters and measurements of red variant of *L. rohita*

Morphometric descriptors	403 mm. TL	502 mm TL,
Total length (mm.)	403	502
Total body weight (kg.)	1.05	2.0
Fork length (mm.)	307	406
Standard length (mm.)	304	403
Head Length (mm.)	89.98	100.99
Lateral transverse rows	½ 7 / ½ 6	½ 7 / ½ 6
Lateral line scale	42	40
Predorsal scale	11	11
Barbels	Not visible	Not visible
	In relation to % of standard length (SL)	
Head length	29.59	25.05
Insertion of dorsal fin	49.34	47.14
Body depth	33.55	25.55
Height of dorsal fin	23.02	19.85
Height of pectoral fin	21.38	19.85
Height of pelvic fin	21.21	18.61
Height of anal fin	21.38	19.6
Length of caudal fin	26.41	24.81
	In relation to % of head length (HL)	
Inter orbital distance	87.59	69.78
Head width	57.83	60.37
Eye diameter	13.81	14.84
Width of mouth	27.93	34.63
Interorbital distance	87.59	69.78
Snout length	22.87	27.68

FIGURE 1. Lateral, dorsal and ventral view of new variant of *Labeo rohita*