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DESCRIPTION OF A NEW SPECIES OF *BRACHYDANIO* WEBER AND DE BEAUFORT, 1916 (PISCES : CYPRINIFORMES : CYPRINIDAE) FROM MEGHALAYA, NORTH EAST INDIA WITH A NOTE ON COMPARATIVE STUDIES OF OTHER KNOWN SPECIES

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INTRODUCTION

While studying some fishes collected from Jaintia Hills district, Meghalaya during June, 2005, the author came across a good number of *Brachydanio* specimens which on examination proved to be new to science. Seven species, namely *B. acuticephala* (Hora), *B. albolineatus* (Blyth), *B. choprai* (Hora), *B. nigrogasciatus* (Day), *B. rerio* (Hamilton-Buchanan), *B. shanensis* (Hora) and *B. sondhii* (Hora and Mukherjee) have so far been reported from India and adjacent countries namely Myanmar, Bangladesh, Nepal and Pakistan (Jayaram 1999), Talwar and Jhingran 1991). Out of these *B. acuticephala* is having its restricted distribution in North East India and *B. rerio* throughout India, Bangladesh Nepal and Pakistan. The rests are from Myanmar region.

Though the present specimens shares some similarity with *B. acuticephala* and *B. rerio* but the differences reveals it's separate identity. Comparative charts of different species of Indian region have also been incorporated.

MATERIAL EXAMINED

21 examples (28-46 mm TL)

Holotype : 1 ex., (42 mm TL), locality : The Rangriang Jowai, Jaintia Hills district, Meghalaya, Coll. J. Lyngdoh and party, 17.06.2005 (Long. 92°11'8.7" Lat. 25°26'11.9"; alt. 1234 mts.), Reg. No. V/A/ERS/1933.

Paratype : 15 exs., (32-46 mm TL), locality : Tre Rangriang, Jowai, Jaintia Hills district, Meghalaya, Coll. J. Lyngdoh and party, 17.06.2005 (alt. 1234 mts.), Reg. No. V/A/ERS/1934.

Paratype : 5 exs., (28-31 mm TL), locality : Thlu Muwi, Amlarem road, Jaintia Hills district, Meghalaya, Coll. J. Lyngdoh and party, 17.06.2005 (Long. 92°08'37.55" Lat. 25°20'48.6" alt. 1248 mts.), Reg. No. V/A/ERS/1935.

***Brachydanio jaintianensis* sp. nov.**

(Plate I, A)

D.ii.7, P.i.9-10, V.i.6, A.ii-iii.9-10, C.18-19.

Description : Body elongate, laterally compressed its depth 3.8-4.2, head length 3.6-4.0 both in standard length; snout length 3.2-3.9, eye diameter 3.2-3.9 both in head length. Mouth oblique, barbels two pairs, well developed; rostral barbels extends to middle of eye, sometimes end of eye (in bigger specimens), maxillary barbels extends generally upto preopercle, occasionally upto opercle. Caudal fin deeply emarginated; lateral line absent; scales along normal course of lateral line 31-32; predorsal scales 16-17.

Colouration : Back grey in colour, belly creamish white. Laterally two dark bands; one broader band from behind opercle to base of caudal fin; another thin band above it. Dorsal, anal or caudal fins are without any band.

Affinities : In fin formula and colouration it is closer to *B. acuticephala* but differs in presence of two pairs of well developed barbels (absent in *acuticephala*).

The present specimens differs from *B. rerio* in colouration; branched anal fin rays (10-13 in *rerio* var. 9-10), caudal finrays (16 in *rerio* var. 18-19); lateral line scales (26-30 in *rerio* var. 31-32) and length of barbels (Plate I B, Plate II A, B).

Etymology : The species has been named *B. jaintianensis* after the district from where the collections were made.

Remarks : Barman (1991) and Menon (1999) kept both the species *acuticephala* and *rerio* under the genus *Danio*. As per current online information the species *acuticephala* is under the genus *Devario* and the species *rerio* is under the genus *Danio*. Until further studies of both the genera *Devario* and *Danio*, the present new species is kept under the genus *Brachydanio*.

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COMPARATIVE CHARTS FOR DIFFERENT *BRACHYDANIO* SPP FROM INDIAN REGION

		<i>B. acuticephala</i>	<i>B. rerio</i>	<i>Brachydanio</i> n. sp.	<i>B. choprai</i>	<i>B. nigrofasciatus</i>	<i>B. albolineatus</i>	<i>B. shanensis</i>	<i>B. sondhi</i>
1.	Barbels	Absent	Present : well developed 2 pairs; rostral considerably longer than eye diameter; maxillary extends beyond half of pectoral fin. In N.E. specimen length sometimes smaller.	Present . well developed 2 pairs; rostral extends to middle of eye; sometimes end of eye; maxillary generally upto preopercle, occasionally upto opercle.	Present : well developed 2 pairs; rostrals about equal to eye diameter; maxillary upto preopercular region.	Present 1 pair of maxillary only.	Present · well developed 2 pairs; rostral longer than eye diameter; maxillary extends considerably beyond base of pectoral.	Generally absent; if present short maxillary pair only.	Absent
2.	Lateral lines	Absent	Usually absent, if present incomplete or rudimentary; often extends upto base of pelvic fins.	Absent	Absent rarely present on anterior few scales	Absent	Incomplete, extending upto base of pelvic fins	Incomplete, usually end near or slightly beyond anal fin.	Incomplete, piercing only anterior 7-8 scales
3.	Lateral line scales	30-32	26-30	31-32	32-33	28-32	30-32	33-34	32-34
4.	Fin formula	D.ii.6-7, A.ii.9-10, P.i.10-11, V.i.6	D.ii.6-7, A.ii-iii.10-13, P.i.9-12, V.i.6	D.ii.7, A.ii-iii.9-10, P.i.9-10, V.i.6	D.ii.6-7, A.iii.12-13, P.i.11-12, V.i.6	D.ii.7, A.ii.11, P.i.14, V.i.6	D.ii.7, A.iii.13-14, P.i.11-12, V.i.6	D.ii.7, A.ii-iii.11-15, P.i.11-12, V.i.6	D.ii.7, A.ii.10-11, P.i.11-12, V.i.6
5.	Body depth	3.2-4.0 in SL	3.4-4.2 in SL	3.8-4.2 in SL	3.2-3.5 in SL	3.0 in SL	3.7-4.2 in SL	3.3-3.7 in SL	3.5-4.0 in SL
6.	Head length	3.7-4.0 in SL	3.8-4.5 in SL	3.6-4.0 in SL	3.5-3.8 in SL	4.6 in SL	4.0-4.3 in SL	3.6-4.1 in SL	3.7-4.2 in SL
7.	Snout length	3.7-4.5 in HL	3.0-4.7 in HL	3.2-3.9 in HL	5.0-6.0 in HL	6.0 in HL	4.7-6.0 in HL	4.5-5.5 in HL	3.2-4.5 in HL
8.	Eye diameter	3.0-3.5 in HL	3.0-3.5 in HL	3.2-3.9 in HL	2.5-3.0 in HL	5.0 in HL	2.8-3.0 in HL	3.0-3.7 in HL	2.7-3.6 in HL
9.	Predorsal scales	16-17	15-16	16-17	14-15	12	16-17	15-16	14-15

(Cont'd.).

		<i>B. acuticephala</i>	<i>B. rerio</i>	<i>Brachydanio</i> n. sp.	<i>B. choprai</i>	<i>B. nigrofasciatus</i>	<i>B. albolineatus</i>	<i>B. shanensis</i>	<i>B. sondhi</i>
10.	Caudal fin shape	Deeply emarginate	Forked	Deeply emarginate	Emarginate	Lunate	Emarginate	Forked	Emarginate
11.	Colouration	Brownish with a longitudinal broad band along side; a black narrow streak along dorsal surface extending from head to caudal fin base.	Back silvery grey; belly yellowish white; flanks shining prussian blue; 4 well defined beautiful shining gold stripes from head to end of caudal fin. Blue stripes on anal and dorsal fins also.	Back darker; belly whitish; laterally 2 bands; 1 broader band from behind opercle to base of caudal fin; another thin streak above it. No bands on anal and dorsal fins.	Olivaceous with several dark, broad, vertical bars in anterior half which gradually reduces to mere rows of dots at the posterior half; 2 indistinct longitudinal bands in upper half of body & a black streak along the back. Dorsal & anal fins with longitudinal bands. Caudal fin with a longitudinal band on each lobe.	Nape & back olive brown; belly orange to yellowish white; a golden to brownish longitudinal stripe on flanks from behind head & tapers to a point at the end of caudal fin; bordered above & below by a blue black band; beneath the lower dark band a series of bluish dots run for much of its length extending on to anal fin. Ventral fins yellowish brown to yellowish	Dark brown, lighter on flanks and belly; 2 distinctive scarlet longitudinal bands from base of caudal fin to a point under or before dorsal fin.	Silvery with occasionally a metallic patch on gill-cover; a dark broad lateral longitudinal band narrows posteriorly; with growth, anterior half of band breaks up into 5-10 dark green iridescent crossbars with lighter interspace, ultimately narrow posterior half of the lateral band only persists.	Back dark greenish, flanks silvery with an iridescent lateral band which is almost indistinguishable in anterior part of body; a dark prominent spot near upper angle of gill-opening; edges of scales on back with small dark spots; fins without colour markings.