

## BALITORA NANTINGENSIS (TELEOSTEI: BALITORIDAE), A NEW HILLSTREAM LOACH FROM SALWEEN DRAINAGE IN YUNNAN, SOUTHWESTERN CHINA

Xiao-Yong Chen, Gui-Hua Cui and Jun-Xing Yang

Department of Systematic Zoology, Kunming Institute of Zoology, Chinese Academy of Sciences, Kunming, Yunnan, 650223, China

Email: chenxy@mail.kiz.ac.cn; yangjx@mail.kiz.ac.cn (All correspondence to Jun-Xing Yang)

**ABSTRACT.** – A new species of hillstream loach genus *Balitora* Gray is discovered from Nanting River drainage, which drains to Salween, Yongde County, Yunnan, China. *Balitora nantingensis* can be distinguished from *B. lancangjiangensis* by a triangle-like blotch in nape absent vs. present; area from halfway of pelvic-fin ray to anus covered by scales vs. no scales in this area; the first pectoral ray thickened vs. not; posterior end of pelvic-fin surpasses middle point from posterior end of pelvic-fin base to anal-fin origin vs. the end from posterior extremity of pelvic-fins to anus; fewer lateral line scales, 59-64 vs. 66-70; slightly longer head, SL 4.2-5.1 (4.6) times of HL vs. 5.0-5.9 (5.4); slightly larger eyes, HL 4.0-6.4 (5.1) times of eye diameter vs. 5.5-7.5 (6.3). *Balitora nantingensis* can be distinguished from *B. burmanica* by body rounded vs. slender in dorsal view; pointed snout vs. blunt in dorsal view; a deeper body, body depth 12.5-16.9% of SL vs. 10-12%; a deeper caudal-peduncle, length of caudal-peduncle 2.0-2.8 times of its depth vs. 3.0-4.2; a shorter caudal-peduncle, 14.3-15.6% of SL vs. 16-21%; the average ratio of body width at pelvic-fin origin and distance between inner pelvic-fin base 2.0 vs. 3.4; body width 1.1-1.5 times of body depth vs. 1.5-1.6; posterior end of pelvic-fin almost one or slight more than one eye diameter from anus vs. closet to anus; outside rays of pelvic-fin extend more posteriorly than inside rays and make posterior outline of fin acclivitous and straight vs. the outside ones almost equal to the inside ones and make the fin slightly convex.

**KEY WORDS.** – *Balitora*, new species, Nanting River, Salween, Yunnan, China.

### INTRODUCTION

The genus *Balitora* Gray is a genus of hillstream loaches identified by following diagnoses: body strongly depressed; head and abdomen ventrally flattened; mouth inferior, arched, with both jaws covered by a horny sheath; rostral flap divided into three lobes, the median one the largest, between rostral barbels; both lips with one or two rows of papillae; lower lip not interrupted; one (two in *B. longibarbata*) maxillary barbel at the corner of mouth; gill-openings extending on the ventral surface of head; two simple pelvic rays; 8-10 simple and 10-12 branched pectoral rays; adhesive pads present on ventral surface of the 8-11 anterior most pectoral rays and 3-4 anterior most pelvic rays; principal caudal fin rays 10+9, the 4-5 lower ones very closely set, without membranes between them along most of their length (Kottelat, 1988). There are totally 26 nominal species of *Balitora* mainly distributed in China, India and Indochina (Eschmeyer, 1998). Kottelat & Chu (1988) and Kottelat (1988) reviewed *Balitora*. Excluding synonyms and misidentifications, there are 12 valid species and subspecies. They are *B. annamitica* Kottelat from Grande Cascade, Boun Long, Mekong basin, northeastern Cambodia, *B. brucei* Gray from Priang R., Assam, India, and also occurring in Bhutan and Bangladesh, *B. burmanica* Hora from

Salween and Irrawaddy basins in Myanmar and Thailand, also found in Irrawaddy of Yunnan, *B. elongata* Chen & Li from Mekong basin, China, *B. kwangsiensis* Fang from Linyun, Xiyang Jiang (upper Pearl R.), Guangxi and also

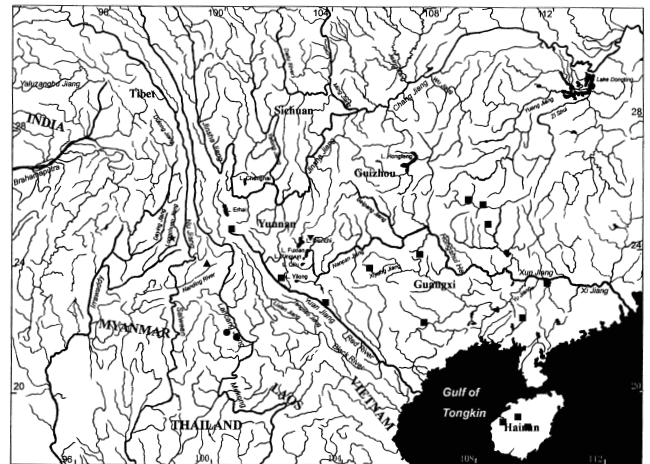


Fig. 1. Distribution of *Balitora* fishes in China. ■ *B. kwangsiensis*; ▼ *B. longibarbata*; ▲ *B. nantingensis*; ● *B. lancangjiangensis*; ★ *B. burmanica*.

occurring in Red River and Upper Pearl River, Yunnan, China as well as Vietnam and Laos, *B. lancangjiangensis* (Zheng) from Liusha He at Menghai, a tributary of Mekong, southern Yunnan, China, *B. longibarbata* Chen from Yiliang county, upper Nanpan Jiang, eastern Yunnan, China, *B. meridionalis* Kottelat from Chan R. headwaters, Kao Soi Dao, Chantaburi Prov., southeastern Thailand, *B. mysorensis* Hora from Sivasamudram, Cauvery R. system, Karnataka, India, *B. nujiangensis* Zhang & Zheng from Liuku, middle Salween, northwestern Yunnan, China, *B. pengi* Huang 1982 from Menghai, lower Mekong, southern Yunnan, China, and *B. tchangii* Zheng from Jinhong, Mekong, northwestern Yunnan, China. Besides *B. kwangsiensis*, *B. lancangjiangensis* and *B. longibarbata* kept in genus *Balitora*, other four species in China were already transferred into genus *Hemimyzon* Regan (Kottelat & Chu, 1988). Therefore, there are totally eight valid species of *Balitora* in the world (Kottelat, 1988).

In June, 2002, we made a survey of fishes in drainages within and around Daxueshan Nature Reserve in Yongde County, Yunnan, China, and collected a series of hillstream loach from Nanting River drainage, a tributary of Salween and these fish represent a new species of genus *Balitora*.

## MATERIALS AND METHODS

Counts and measurements follow Kottelat (1988, 2001b). Examined materials belong to the collection of Kunming Institute of Zoology (KIZ), Chinese Academy of Sciences and Zoological Reference Collection (ZRC) of the Raffles Museum of Biodiversity Research, National University of Singapore.

**Comparative material examined.** – *Balitora burmanica*, 2 ex., KIZ 200309245-246, 53.6, 63.6 mm SL, Longchuan Jiang at Tenglong Bridge, Longling, Baoshan, Yunnan, China, coll. X. Y. Chen, D. Catania, W. Poly; Sep.2003.

## TAXONOMY

### *Balitora nantingensis*, new species

(Figs. 1-3)

**Material examined.** – Holotype, KIZ 20026475, 63.8 mm SL; Mangjiu R. (23°58'55"N, 99°41'17", Alt. 730m), a tributary of Nanting R., Daxueshan Township, Yongde Co., Lincang Prefecture, Yunnan Province, China; coll. X. Y. Chen, H. C. Gui & D P Kong; Jun.2002.

Paratypes – 11 ex., 42.0-70.5 mm SL; KIZ 20026423, 434, 442, collected in Baishitou [=White rock] River (24°04'10"N, 99°47'37"E, Alt. 792m), drained into Nanting River; coll. X. Y. Chen, H. C. Gui & D P Kong; Jun.2002; KIZ 20026461, 464, 468, 470-472, 474, ZRC 20026476, collected with holotype.

**Diagnosis.** – *Balitora nantingensis* is distinguished from *B. longibarbata* by one pair of maxillary barbel vs. two; lateral-line scales 59-64 vs. 74-76. From *B. kwangsiensis*, distance from pelvic-fin origin to pectoral-fin origin equal to distance

from pelvic-fin origin to between anus and anal-fin origin vs. pelvic-fin origin locates at the middle point from pectoral-fin origin to anus; branched pelvic-fin rays nine vs. eight. From *B. lancangjiangensis*, *B. nantingensis* can be distinguished by a triangle-like blotch in nape absent vs. present; area from halfway of pelvic-fin ray to anus covered by scales vs. no scales in this area; the first pectoral ray thickened vs. not; posterior end of pelvic-fin reaching beyond middle of distance from posterior end of pelvic-fin base to anal-fin origin vs. from posterior extremity of pelvic-fins to anus; lateral line scales 59-64 vs. 66-70; slightly longer head, HL 4.2-5.1 (4.6) times in SL vs. 5.0-5.9 (5.4); slightly larger eyes, 4.0-6.4 (5.1) times in HL vs. 5.5-7.5 (6.3). *Balitora nantingensis* can be distinguished from *B. burmanica* by pointed snout in dorsal view vs. blunt; body depth 12.5-16.9% of SL vs. 10-12%; length of caudal-peduncle 2.0-2.8 times of its depth vs. 3.0-4.2; caudal-peduncle length 14.3-15.6% of SL vs. 16-21%; the average ratio of body width at pelvic-fin origin and distance between inner pelvic-fin base 2.0 vs. 3.4; body width 1.1-1.5 times of body depth vs. 1.5-1.6.

**Description.** – Counts and morphometric data are listed in Table 1.

Head pointed and heavily depressed. Head length larger than head width. Head width much larger than head height and almost equal to body width between pelvic-fin origins. Head usually shorter than pectoral-fin, almost equal to dorsal and pelvic fins, much longer than anal-fin and shorter than lower lobe of caudal-fin. Eyes usually slightly posterior of the mid point of head, not visible from ventral view. A deep preoral

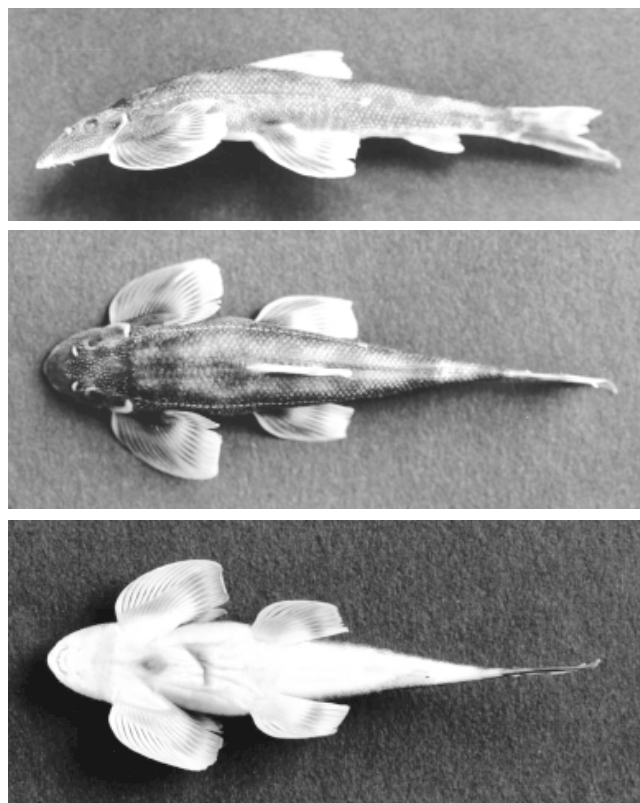


Fig. 2. *Balitora nantingensis*, holotype, KIZ 20026475, 63.8 mm SL.

groove present between rostral cap and upper lip, extending across corners of mouth and postlabial groove ended at outer base of the 2 big papillae in the outer row of the lower lip in the middle. Mouth inferior, small and curved. Head width 2.7-3.5 times of gape width. Rostral cap around upper lip and divided into 3 lobes. The middle lobe smaller. 2 short rostral barbels in each lateral lobe. Upper lip covered with 2 rows of prominent papillae. The outer row with 8-10 bigger papillae, while inner row with 10 smaller ones between the ones in outer row. Upper jaw separated from upper lip by a deep groove, its edge not covered by upper lip and visible from outside. Lower lip with 2 rows of papillae as well. The inner row with 8-10 papillae almost as big as the ones in outer row of upper lip. The outer row with 2 big papillae in the middle and 2 small ones on each side. The out-most papilla of outer row slightly elongated but not into a barbel. One pair of short maxillary barbel on corner of mouth. Gill opening from level of middle of eye to middle point of pectoral-fin base in the pelvic side.

Dorsal profile of body convex and ventral profile flat. Body slightly depressed and caudal-peduncle slightly compressed. The highest point of body is at dorsal-fin origin, the widest part is between pectoral-fin base and head width is slightly shorter than width of this part. Body width is apparently larger than body depth. Dorsal-fin ray 3,8. Posterior profile of dorsal-fin straight. Dorsal-fin origin slightly anterior to pelvic-fin origin and nearer to snout tip than caudal-fin base.

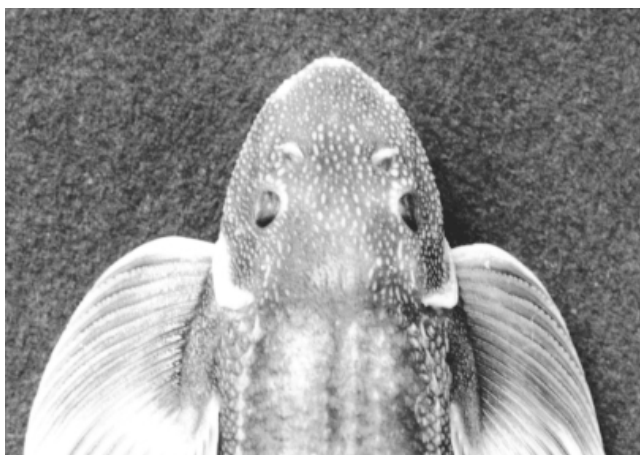


Fig. 3. Head and mouth of *Balitora nantingensis*, holotype, KIZ 20026475, 63.8 mm SL.

Dorsal-fin almost equal to head length. Pectoral-fin ray 8-9, 10-12. Pectoral-fin elongated and developed, longer than head, its origin behind the posterior edge of orbital. Anterior edge of the 1<sup>st</sup> pectoral simple ray thickened, straight or slightly curved. Posterior profile of pectoral-fin straight or rounded. Posterior end of pectoral-fin reaches about 2/3 distance from posterior end of pectoral-fin base to pelvic-fin origin. Pectoral-fin usually shorter than head length and some time equal to. Pelvic-fin ray 2,9. Pelvic-fin closer to snout tip than caudal-fin base and closer to anal-fin origin than snout tip. Distance from pelvic-fin origin to pectoral-fin origin equal to distance from pelvic-fin origin to between anus and anal-fin origin. Posterior end of pelvic-fin almost one or slightly more than one eye diameter from anus. Pelvic-fin almost equal to head length. Head width 1.6-2.5 times of distance between inner side of pelvic-fin base. Anus about 2/3 distance from posterior end of pelvic-fin base to anal-fin origin. Anal-fin ray 2,5. Posterior profile of anal-fin straight. Anal ray becoming shorter from the 1<sup>st</sup> to the last. Tip of anal fin blunt. Anal-fin closer to caudal-fin base than posterior end of pelvic-fin base. Anal-fin reaches halfway from anal-fin origin to caudal-fin origin. Anal-fin much shorter than other fins. Caudal-fin rays 17. Caudal-fin forked, lower lobe 1.1-1.3 times upper lobe and usually shorter than head length. Caudal peduncle slender, its length 2.0-2.8 times its depth.

Dorsal side of head densely covered by white and slightly elongated tubercles. Snout with smaller and round horny tubercles. A semi-circle of tubercles around anterior and dorsal-edge of orbital. Whole body covered with scales with longitudinal ridge in the middle except ventral side from between pelvic fins. Scales forwards between pelvics and anal-fin origin covered by skin. Lateral line complete, slightly bending downward above posterior end of pectoral-fin base, lateral-line scales 59-64.

Size up to 70.5mm SL.

**Color pattern (fresh).** – Dorsal and lateral sides of body bronze, ventral side white; head black, snout tip lighter, dorsal-central part from interorbital to posterior end of head bronze; two transverse black bars from nape to dorsal-fin origin and not reaching lateral line; one transverse black bar under middle of dorsal-fin base; three bars from behind dorsal-fin base to caudal-fin base; a broad longitudinal black band along lateral line; pore on each lateral line scale prominent bronze on black background; dorsal-fin almost hyalin with a black bar in the middle 1/3 of rays; pectoral and pelvic fin bases black from dorsal view; pectoral and pelvic fins with anterior curving black stripe; pectoral and pelvic fin rays dark bronze, membrane lighter; distal tip of pectoral and pelvic fin rays hyaline and colorless; anal-fin hyalin with a light black bar on proximal rays; central caudal-peduncle base with a black blotch; lower lobe of caudal-fin with a prominent longitudinal black stripe and two light anterior curving bars in the middle; distal tip of caudal-fin rays hyalin and colorless.

**Color pattern (preserved in formalin).** – Dorsal and lateral sides of body dark gray; dorsal head dark gray; gill membrane hyalin; with 6 transverse black bars on the back; a broad

Table 1. Counts and morphometric data of *Balitora nantingensis*.

Characters	KIZ_20026423	KIZ_20026434	KIZ_20026442	KIZ_20026461	KIZ_20026464	KIZ_20026468	KIZ_20026470	KIZ_20026471	KIZ_20026472	KIZ_20026474	KIZ_20026475	KIZ_20026476	Min	Max	Average	SD
SL (mm)	60.5	48.0	42.0	57.0	50.7	56.3	58.0	59.5	54.6	70.5	63.8	62.0	42.0	70.5	56.6	7.8
In percentage of SL																
Body depth	14.9	12.5	14.3	15.9	14.5	13.7	14.9	15.4	14.3	16.9	16.7	16.9	12.5	16.9	15.1	1.4
Body width	18.2	18.2	17.9	18.5	16.7	16.4	18.9	18.2	17.9	19.6	20.4	19.2	16.4	20.4	18.3	1.1
Head length	22.2	22.7	23.8	21.3	22.7	19.6	23.3	20.8	21.3	22.2	20.4	21.7	19.6	23.8	21.8	1.2
Head width	17.2	18.9	18.9	19.2	18.2	17.5	18.2	20.0	17.9	16.9	18.9	17.5	16.9	20.0	18.3	0.9
Pectoral-fin length	25.6	26.3	26.3	24.4	23.3	24.4	25.6	24.4	23.3	26.3	26.3	25.6	23.3	26.3	25.2	1.2
Lower lobe of caudal-fin length	25.6	27.8	29.4	26.3	23.8	25.6	27.8	27.8	25.6	27.0	26.3	25.6	23.8	29.4	26.6	1.5
In percentage of head length																
Head depth	47.6	45.5	50.0	55.6	47.6	71.4	47.6	55.6	45.5	43.5	52.6	52.6	43.5	71.4	51.3	7.5
Head width	76.9	83.3	76.9	90.9	76.9	90.9	76.9	90.9	83.3	76.9	90.9	83.3	76.9	90.9	83.2	6.3
Snout length	52.6	58.8	58.8	55.6	45.5	55.6	55.6	58.8	47.6	52.6	62.5	52.6	45.5	62.5	54.7	4.9
Eye diameter	20.0	22.7	25.0	22.2	15.6	20.8	18.5	20.0	17.9	15.9	19.2	20.8	15.6	25.0	19.9	2.7
Interorbital width	40.0	35.7	40.0	41.7	38.5	41.7	38.5	41.7	37.0	38.5	45.5	37.0	35.7	45.5	39.6	2.7
Pectoral-fin length	111.1	111.1	111.1	111.1	100.0	125.0	111.1	111.1	111.1	125.0	125.0	111.1	100.0	125.0	113.7	7.5
Pelvic-fin length	90.9	100.0	90.9	100.0	90.9	100.0	90.9	100.0	90.9	100.0	111.1	100.0	90.9	111.1	97.1	6.3
Anal-fin length	62.5	66.7	58.8	71.4	58.8	71.4	62.5	62.5	62.5	62.5	71.4	52.6	52.6	71.4	63.6	5.8
Lower lobe of caudal-fin length	111.1	125.0	125.0	125.0	100.0	125.0	125.0	142.9	125.0	125.0	125.0	111.1	100.0	142.9	122.1	10.6
Caudal-peduncle length/depth	2.5	2.1	2.0	2.3	2.8	2.5	2.3	2.2	2.8	2.3	2.2	2.5	2.0	2.8	2.4	0.3
Head width/Gape width	2.8	3.0	2.7	3.4	2.9	3.0	3.5	3.4	3.3	3.0	3.4	2.9	2.7	3.5	3.1	0.3
Body width/Head width	1.0	1.0	0.9	1.0	0.9	0.9	1.0	0.9	1.0	1.1	1.1	1.1	0.9	1.1	1.0	0.1
Body width/distance between inner pelvic-fin base	1.8	1.8	2.3	2.1	2.1	1.8	1.9	2.0	1.8	1.8	2.0	1.8	1.8	2.3	2.0	0.2
Body width/depth	1.2	1.5	1.3	1.2	1.2	1.2	1.3	1.2	1.3	1.1	1.2	1.1	1.1	1.5	1.2	0.1
Head width/distance between inner pelvic-fin base	1.8	1.9	2.5	2.2	2.2	1.9	1.8	2.2	1.8	1.6	1.8	1.7	1.6	2.5	2.0	0.3
Head width/depth	1.6	1.8	1.6	1.6	1.7	1.3	1.6	1.7	1.8	1.7	1.7	1.6	1.3	1.8	1.7	0.1
Lower lobe of caudal-fin length/upper lobe length	1.2	1.3	1.3	1.2	1.1	1.3	1.2	1.3	1.3	1.2	1.2	1.3	1.1	1.3	1.3	0.1
Lateral-line scales	62	59	59	63	60	61	63	62	59	61	62	64	59	64	61	2
Pectoral simple ray	9	9	9	9	9	9	9	9	8	8	9	9	8	9	8.8	0.4
Pectoral branched ray	12	12	11	11	11	11	10	12	12	12	12	11	10	12	11.4	0.7

longitudinal black band along lateral line; gray stripe on dorsal, pectoral, pelvic and anal fins; caudal-fin base with a black blotch; lower lobe of caudal fin with a longitudinal black stripe and two light gray stripes.

**Etymology.** – Named for Nanting river, (also spelled Nanding).

**Distribution.** – Nanting River drainage, which borders Yongde County and Gengma County, Yunnan, China, which drains into the upper Salween River.

**Habitat and diet.** – This fish mostly lives in streams with clear and swift current, rocky bottom, seldom in the main course. Other species of fishes that live in the same streams include: *Barilius caudiocellatus*, *Neolissochilus baoshanensis*, *Crossocheilus burmanicus* (being wrongly identified as *C. latius* and later as *C. multirastellus*, see Kottelat, 2003), *Glyptothorax cavia*, *Glyptothorax zainensis*, *Glyptothorax dorsalis*, *Glyptothorax trilineatus*, *Schistura* sp., *Oreoglanis* sp. Its ecology is little known. By dissecting 2 specimens from Baishitou River, KIZ 20026440, 58 mm SL and KIZ 20026437, 50 mm SL, a few algae fragments and a lot of sand grain found in its intestine.

**Remarks.** – There is only one species of *Balitora* recorded in Salween, *Balitora nujiangensis* Zhang et Zheng. *Balitora nujiangensis* was transferred into genus *Hemimyzon* by Kottelat & Chu (1988), and it was kept as *Balitora nujiangensis* by Chen & Tang (in Yue et al., 2000). Their disagreement is mainly in the using of maxillary barbel in classification. Chen & Tang (in Yue et al., 2000) mainly used maxillary number to distinguish *Balitora* and *Balitoropsis* from other genera of subfamily Homalopterinae, while Kottelat & Chu (1988) already pointed out that the number of maxillary barbels had great intra- and interspecific variations. Seeing the unreliability of the character maxillary barbel number, Kottelat & Chu (1988) used character simple pelvic rays number to separate *Balitora* from other genera in China including *Hemimyzon*, and took *Sinomaloptera* as a synonym of *Balitora* on the same cause. *Balitora kwangsiensis* and *B. longibarbatas* are still assigned to genus *Sinomaloptera* Fang 1930 by Chen & Tang (in Yue et al., 2000). Apparently Kottelat & Chu's important work was overlooked by most Chinese ichthyologists. In *B. longibarbata* and *B. kwangsiensis*, the inner maxillary barbel is only a tiny barbel slightly longer than papilla in similar position in the other *Balitora* species. We agree with Kottelat & Chu (1988) and take *Sinomaloptera* as a synonym of *Balitora*. *Balitora nujiangensis* with three simple pelvic rays vs. only two in *B. nantingensis*, can be easily distinguished from *B. nantingensis* by its developed pectoral-fin rays which surpass pelvic-fin base. *Hemimyzon nujiangensis* only distributes in upper reach of Salween from Liuku to the reach border Longling County and Zhenkang County and has no record in Nanting River as well as in this survey.

*Balitora longibarbata* with a slightly elongated papilla which looks like another maxillary barbel vs. only one maxillary barbel in other *Balitora* fishes and 74-76 lateral line scales

vs. fewer than 70 in others. It can be distinguished from other *Balitora* fishes in China by these two characters. *Balitora longibarbata* occurs in Nanpan Jiang (upper Pearl River).

Pelvic-fin origin of *B. kwangsiensis* locates at the middle point from pectoral-fin origin to anus vs. distance from pelvic-fin origin to pectoral-fin origin equal to distance from pelvic-fin origin to between anus and anal-fin origin in *B. nantingensis*; branched pelvic-fin rays eight vs. nine in *B. nantingensis*. This fish occurs in the upper Red River, Nanpan Jiang and Xiyang Jiang (a tributary of Pearl River), as well as northern Vietnam (Kottelat, 2001a).

Among its congeners, *B. nantingensis* is most related to *Balitora lancangjiangensis* and *Balitora burmanica* in morphology. They share following characters: similar color pattern, pointed head, pectoral-fin origin posterior of eye, extend of pelvic-fin not reach anus, pectoral-fin not reach pelvic-fin origin, tubercles on anal area absent, one maxillary barbel at each corner of mouth, uncini on dorsal surface of the first to fourth pectoral rays absent, simple anal-fin not modified, pelvic-fin origin under the first branched dorsal ray.

*Balitora nantingensis* and *B. lancangjiangensis* share following characters: similar body size, up to 70 mm SL; similar color pattern, with six to seven black transverse blotches on the back, a deep longitudinal band along lateral-line, gray stripe on dorsal, pectoral and pelvic fins, anal-fin colorless, caudal-fin base black, lower lobe of caudal-fin with a longitudinal black stripe; pointed head; dorsal-fin origin slightly anterior of pelvic-fin origin, closer to snout than to caudal-fin base; posterior end of anal-fin not reach caudal-fin base, closer to caudal-fin base than to pelvic-fin base; pelvic-fin origin at the middle point from pectoral-fin origin to anal-fin origin; posterior end of pelvic-fin not reach anus.

*Balitora nantingensis* can be distinguished from *B. lancangjiangensis* by a triangle-like blotch in nape absent vs. present; area from halfway of pelvic-fin ray to anus covered by scales vs. no scales in this area; the first pectoral ray thickened vs. not; posterior end of pelvic-fin surpasses middle point from posterior end of pelvic-fin base to anal-fin origin vs. the end from posterior extremity of pelvic-fins to anus; fewer lateral line scales, 59-64 vs. 66-70; slightly longer head, SL 4.2-5.1 (4.6) times of HL vs. 5.0-5.9 (5.4); slightly larger eyes, HL 4.0-6.4 (5.1) times of eye diameter vs. 5.5-7.5 (6.3).

*Balitora nantingensis* can be distinguished from *B. burmanica* by body rounded vs. slender in dorsal view; pointed snout vs. blunt in dorsal view; a deeper body, body depth 12.5-16.9% of SL vs. 10-12% (Kottelat, 1988); a deeper caudal-peduncle, length of caudal-peduncle 2.0-2.8 times of its depth vs. 3.0-4.2 (Kottelat, 1988); a shorter caudal-peduncle, 14.3-15.6% of SL vs. 16-21% (Kottelat, 1988); the average ratio of body width at pelvic-fin origin and distance between inner pelvic-fin base 2.0 vs. 3.4 (Kottelat & Chu, 1988); body width 1.1-1.5 times of body depth vs. 1.5-1.6 (calculated from Kottelat, 1988); posterior end of pelvic-fin almost one or slight

more than one eye diameter from anus vs. closet to anus; outside rays of pelvic-fin extend more posteriorly than inside rays and make posterior outline of fin acclivitous and straight vs. the outside ones almost equal to the inside ones and make the fin slightly convex.

The distribution ranges of these three fishes are not overlapped. *Balitora nantingensis* is only in Nanting River drainage, a tributary of Salween in Yunnan, China until now; *B. lancangjiangensis* is only in Mekong basin in Yunnan and Laos; *B. burmanica* is in Irrawaddy and Salween basins in Myanmar, Thailand as well as Irrawaddy in Yunnan.

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