

NOTES ON SOME FISHES COLLECTED BY THE
BIOLOGICAL LABORATORY, SCIENCE
SOCIETY OF CHINA

By

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Promotion of Education and Culture.*

The Fishes described in the present paper were collected from Szechuan, Hunan and Hupei by the staff of the Biological Laboratory of The Science Society of China 1928-1929. There are altogether fourteen species representing four families, of which four species are found new. The writer desires to express his indebtedness to the Biological Laboratory of the Science Society of China and the Laboratory of Ichthyology, Museum of Natural History, (Laboratoire d'Ichthyologie, Museum d'Histoire Naturelle) Paris, France for the privilege of using the working facilities.

List of the Fishes involved

Family Acipenseridae

1. *Acipenser dabryanus* Duméril, Mus. Bio. Lab. No. 268.

Family Cyprinidae

2. *Mylopharyngodon æthiops* (Basil.), M. B. L. No. 1005.
3. *Barilius (Ochetobius) elongatus* (Kner), M. B. L. Nos. 382, 385.
4. *Hemiculter leucisculus* (Basil.), M. B. L. No. 248.
5. *Hemiculter bleekeri* Warp., M. B. L. No. 672.

6. *Barbus (Labeobarbus) brevifilis* Peters, M. B. L. No. 1397.
7. *Paracanthobrama Pingi* sp. nov., M. B. L. No. 570.
8. *Saurogobio dabryi* Blkr., M. B. L. No. 1246.
9. *Carassius auratus* (L.), M. B. L. No. 1412.

Family Bagridae

10. *Aoria macroptera* (Blkr.), M. B. L. Nos. 1413, 1414.
11. *Pseudobagrus eupogoides* sp. nov., M. B. L. No. 3520.
12. *Pseudobagrus chinensis* sp. nov. M. B. L. No. 3521.

Family Epinephelidae

13. *Siniperca roulei* sp. nov., M. B. L. Nos. 1329, 1330.

Family Gobiidae

14. *Rhinogobius hadropterus* (Jord. & Sny.), M. B. L. No. 182.

Family ACIPENSERIDAE

1. *Acipenser dabryanus* Duméril

Acipenser dabryanus Dumeril, Nouv. Arch. Mus., 1868, IV, P. 98, Pl. XXII, Fig. 1.

One specimen, total length 313 mm., collected from Ichang on October 10, 1929. Snout nearly equal to the rest part of head; 10 fulcra in front of dorsal fin, 34 in the lateral series, 12 in the ventro-lateral series; skin between the rows of fulcra rough.

Family CYPRINIDAE

2. *Mylopharyngodon aethiops* (Basil.)

Leucisus aethiops Basil., Nouv. Mém. Soc. Imp. Nat. Moscou, 1855, X, P. 233, PL. 6, Fig. 1.

One specimen, total length 187 mm., collected from Hunan in October 1929. D. 2/7; A. 3/8. Scales 42, 6-5-v. Head 3.8, depth 3.8 in length without caudal. Eye 3.8, interorbital space

2.5 in head. Pharyngeal teeth in form of molar, 6-3. Body dusky with distinct paler blotches. Membranes of fins black.

The pharyngeal teeth of this species vary in a wide degree, Peters mentions 4-4, Garman mentions 5-5. Guenther was the first man paying attention to the structure of the pharyngeal teeth and put this species in a separate genus *Myloleucus* which had been applied by Cope, 1871, to other species not congeneric. I follow Dr. Rendahl's system to place it with *Mylopharyngodon* of Peters, 1880.

3. *Barilius (Ochetobius) elongatus* (Kner)

Opsarius (?) *elongatus* Kner, Novara. Fish., 1867, P. 358, Pl. XV, Fig. 1.

Two specimens, total length 206 and 240 mm. respectively, collected from Hunan in October 1929. D. 2/9., A. 2/9. Scales 68 to 70, 11/4-v. Head 4.8, depth 6.6 in length without caudal. Snout 3.5, eye 4.5 to 4.8 in head. Body greatly elongated. Pharyngeal teeth 5 or 4.4 or 3.2 or 11 or 2.3 or 4.4 or 5. Lateral line along lower part of tail and gradually bending upwards to terminate in middle of base of caudal. Peritoneum white. Air-bladder with two divisions, the posterior division extremely elongate and tapering, with spiral bands of muscles.

4. *Hemiculter leucisculus* (Basil)

Culter leucisculus Basil, Nouv. Mem Soc. Nat. Moscou, 1855, X, P. 238.

One specimen, total length 80 mm. collected from Hunan in October 1929.

5. *Hemiculter bleekeri* Warp. (?)

Hemiculter bleekeri Warpach., Bull. Acad. Imp. Sci. St. Petersb., 1888, xxxii, P. 20.

One specimen, total length 107 mm., collected from Hunan in October 1929. D. 2/6. A. 3/12. Scales 42, 7/3-v. Head 4.5, depth 4.4 in length without caudal. Snout 4, eye 3 in head.

Pectoral not reaching origin of ventral. Abdominal keel present in front of ventral.

6. *Barbus (Labeobarbus) brevifilis* Peters

Barbus (Labeobarbus) brevifilis, Peters, M. B. Akad. Ber., 1880, XLV, P. 1033, Fig. 4.

One specimen, total length 250 mm., collected from Hunan in October 1929. D. $3/8$, A. $2/5$. Scales 46, $6/4$ -v. Head 3.6, depth 4.3 in length without caudal. Snout 2, eye 5.1 in head. four barbels, anterior pair very minute. Dorsal fin with third osseous spine strongly toothed, commencing nearer tip of snout than base of caudal. Pharyngeal teeth. 5-3-2—2-3-5.

7. *Paracanthobrama pingi* sp. nov. (Fig. 1.)

One specimen, total length 195 mm., collected from Kiukiang in October, 1929.

D. $2/7$, A. $2/6$. Scales 46, $8/4$ -v. Head 4.5, depth 3.9 in length without caudal. Snout 3, eye 4.6, interorbital space 3.2 in head.

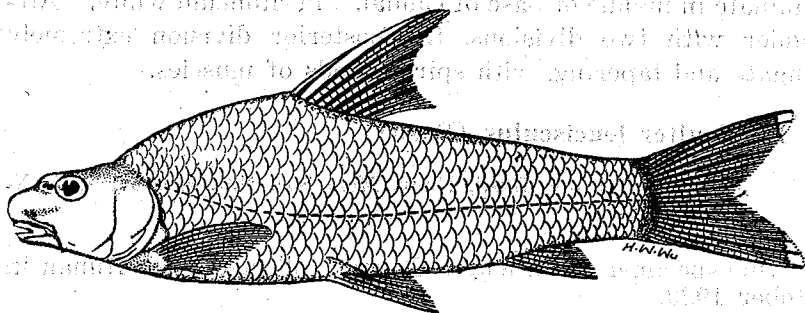


Fig. 1. *Paracanthobrama pingi* sp. n.

Body moderately compressed, nape suddenly elevated. Head more or less squarish, top of its posterior half somewhat horizontal, of its snout sloping towards the tip. Eye superolateral and slightly anterior, its diameter about 2.3 in postorbital part of head. Nostrils of either side close together, nearer the anterior margin of orbit than tip of snout which is more

or less bluntly pointed. Mouth subterminal, more or less transverse. Two barbels, behind the angle of mouth, slightly shorter than eye-diameter. Gill-rakers merely represented by two small tubercles in lower part of the anterior arch. Pharyngeal teeth slightly compressed, 4.2-2.5, tips somewhat hooked. Dorsal fin commencing much nearer tip of snout than base of caudal and considerably in front of the base of ventral, its second simple ray ossified, stout and smooth. Pectoral fin 1.3 in head, not reaching the origin of ventral fin which is as long as the pectoral fin and reaches the $\frac{3}{5}$ of the distance between its origin and that of the anal fin. Vent situated behind the middle of the distance between ventral axil and origin of anal, its distance from the former about two times of that from the latter. Longest ray of anal reaching about $\frac{2}{3}$ the base of caudal. Caudal fin deeply forked. Caudal peduncle nearly equal to head without snout, its greatest depth 1.3 times contained in its own length. Lateral line gently curved in trunk region and straight in tail. Scales large, with a few radii in the exposed portion, six rows from lateral line to middle of abdomen, base of ventral with scaly flap.

Color in formalin silvery; upper part of body, dorsal and caudal fins slightly dusky.

This species is nearly related to *P. guichenoti* Blkr. but differs in having smaller eye, longer snout and more anterior dorsal origin.

This species is named after Professor C. Ping, the Director of Biological Laboratory, Science Society of China.

8. *Saurogobio dabryi* Blkr.

Saurogobio dabryi Bleeker, Verh. Akad. Amsterd., 1871, XII, P. 27, Pl. V, Fig. 1.

One specimen, total length 152 mm., collected from Hunan in October 1929, D. 2/8., A. 2/6. Scales 50, 6/3-v. Head 4.7, depth 7.3 in length without caudal. Snout 2.4, eye 3.8, interorbital 5.2 in head. Upper profile of head convex, lower nearly horizontal with surface of abdomen. Interorbital space

furrowed. Snout in the region slightly anterior to the nostrils notched. Pharyngeal teeth 5-5. Mouth inferior. One pair of barbels, 1.8 in the horizontal diameter of the eye. Dorsal fin commencing much nearer tip of snout than base of caudal. Pectoral fin reaching nearly $4/5$ to origin of ventral which commences below the last third ray of the dorsal fin. Vent much nearer base of ventral than origin of anal, its distance from the former about $1/7$ of that from the latter. Caudal peduncle 1.3 in head, its greatest depth 2.8 in head. 12 scales in front of dorsal, breast naked. A bluish band along the middle of body, that in the region of trunk more or less broken up into blotches.

9. *Carassius auratus* (L.) (Fig. 2.)

Cyprinus auratus Lin., Syst. Nat., X, 1758. P. 322.

A monstrous dwarf fish, total length 150 mm.; collected from Pao-Chin in October 1929. D. $3/17$, A. $3/6$. Scales 28, $6/5\frac{1}{2}$ -v. Head 2.7, depth 1.7 in length without caudal. Snout 3.4; eye 4.3, interorbital space 2.6, length of caudal peduncle 6.5, its least depth 1.8 in head. Body very short and greatly high. Anterior end pointed and greatly elevated posteriorly. Pharyngeal teeth 4-4, the lower one concial, others greatly compressed. Dorsal fin commencing in equal distance from eye and from base of caudal, its last rays reaching beyond the latter. Anal fin with its base more or less vertical, its first soft ray reaching behind the vertical from the extremity of dorsal. Dorsal and anal spines normal. Pectoral fin extending slightly beyond origin of ventral. Distance between bases of pectoral and ventral fin (Präabdominallänge) about 1.7 in base of dorsal and 1.02 in head. Scales very broad, much closer in the region of caudal peduncle than in trunk.

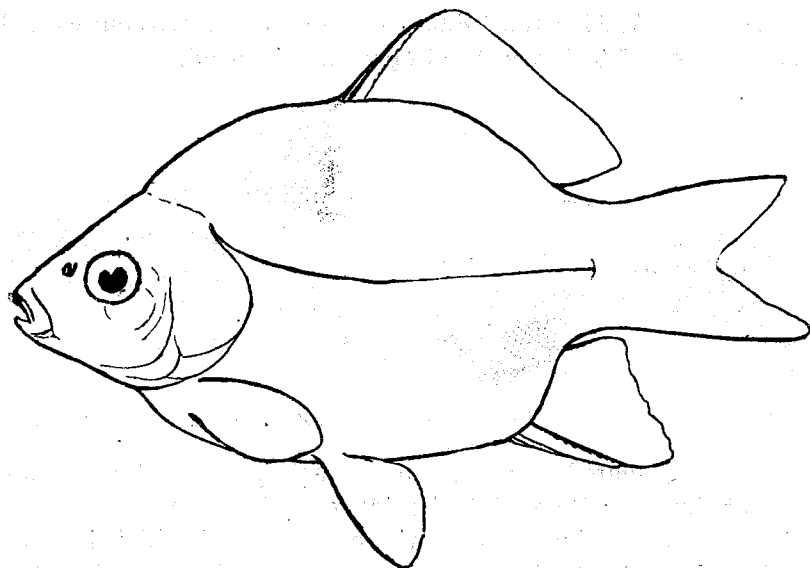


Fig. 2. *Carassius auratus* (L.)

Family BAGRIDAE

10. *Aoria macroptera* (Blkr.)

Hemibagrus macropterus Blkr., Versl. und Med. Akad. Amsterd., 1870, IV, P. 257.

Two specimens, total length 160, 175 mm respectively., collected from Pao-Chin in October 1929. D. $1\frac{1}{7}$., A. 15. Head 4.3 to 4.7, depth 7.5 to 8.1 in length without caudal. Snout 3, eye 4.5 in head. Head greatly depressed. Mouth inferior. Maxillary barbels very long, about two times of head. Adipose fin very long, more than two times of the base of anal. Dorsal spine smooth, weaker than pectoral. Caudal fin emarginated and oblique.

11. *Pseudobagrus eupogoides* sp. nov. (Fig. 3.)

One specimen, total length 245 mm. collected from Sze-Chuan, in 1928.

D. I/7. A. 24. Head 4.6, depth 5 in length without caudal. Snout 4.4, eye 5.5, interorbital space 2.1 in head.

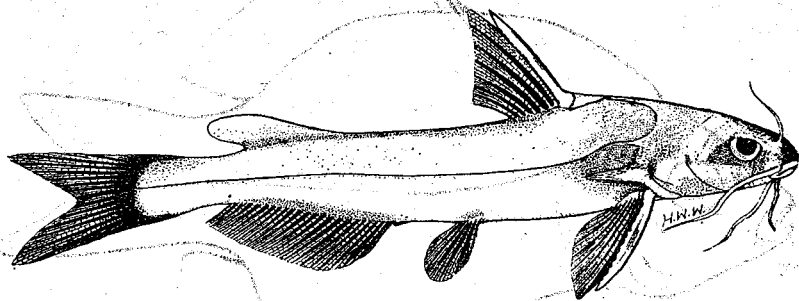


Fig. 3. *Pseudobagrus eupogoides* sp. n.

Body elongated, compressed posteriorly. Head depressed in front, broader than high, its top covered with smooth skin and gradually sloping towards the end of snout which is blunt and broad. Interorbital space broad and arched, median fonticulus extending to base of occipital process. Basal bone of dorsal spine triangular, concealed under skin, shorter than, and touching with, the occipital process which is slender, about four times longer than broad. Eye anterior in position, its upper rim free. Mouth inferior, its width slightly more than two times eye-diameter. Lower jaw shorter than upper, with broad lips which are continuous at the angles of mouth and slightly notched at the symphysis of mandibles. Teeth villiform, in band, on both jaws and vomer, vomerine band in form of crescent, continuous. Barbels thick, maxillary pair longest, nearly reaching the middle of pectoral spine, nasal pair twice diameter of eye, outer mandibular pair extending beyond the base of pectoral, inner mandibular pair about $2/3$ the outer. Gill-membrane free from isthmus, deeply notched at middle. Gill-rakers $3 + 9$ in anterior arch, shorter than filaments. Dorsal fin commencing slightly nearer base of pectoral than that of ventral; its spine slender, as long as pectoral spine, equal to head without snout, feeble teeth in its distal half of the hind margin. Adipose fin longer than dorsal, but shorter than anal. Pectoral inserted low, its spine with 16 teeth on posterior margin. Ven-

tral fin broad, reaching origin of anal which has the length of its base much greater than the head. Caudal fin deeply forked, having the median rays about half of the longest. Caudal peduncle as long as head with snout, its least depth 2.5 in its own length.

Color in formalin gray, upper surface of head brown; dorsal median line between dorsal and adipose black; adipose yellow; membranes of dorsal, anal and caudal fins dusky.

This species is nearly related to *P. eupogon* Boulenger, but it differs from the latter in having more slender occipital process and more anal rays.

12. *Pseudobagrus chinensis* sp. nov. (Fig. 4.)

One specimen, total length 135 mm., collected from Szechuan in 1928.

D. I/7., A. 22. Head 4.3, depth 4.8 in length without caudal. Snout 3.2, eye 4, interorbital space 2.2 in head.

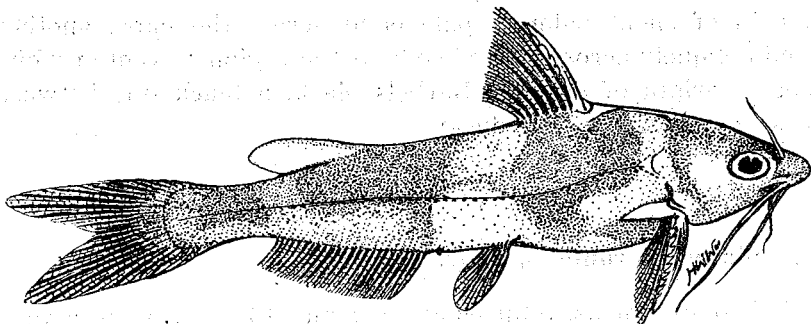


Fig. 4. *Pseudobagrus chinensis* sp. n.

Body compressed posteriorly and slightly depressed anteriorly. Top of head smooth covered with soft skin. Snout broad and slightly angulated in its tip. Interorbital space broad, slightly arched, its median fonticulus extending to the base of occipital process which is longer than, and in contact with, the basal bone of the dorsal spine, the width of occipital process 3 in its length. Eye anterior and superolateral in position.

Mouth inferior, slightly arched, its width 1.5 in eye-diameter. Teeth villiform, in band, on both jaws and vomer, vomerine band arched, continuous. Barbels very thick, nasal pair twice as long as eye-diameter, maxillary pair longest, nearly reaching tip of pectoral spine, outer mandibular pair reaching basal third of pectoral spine, inner mandibular pair about $\frac{3}{5}$ the outer. Gill-membrane deeply notched in the middle, free from isthmus, gill-rakers 13 in anterior arch, shorter than filament. Dorsal fin commencing slightly nearer base of pectoral than that of ventral, its spine slightly longer than the pectoral one, with feeble teeth behind. Pectoral fin inserted very low, its spine stronger than dorsal one, with 10 strong teeth on its posterior margin. Ventral fin extending beyond the origin of anal fin which is much longer than adipose, about as long as the head. Caudal fin deeply forked, its median rays shorter than half of the longest ones. Caudal peduncle as long as head without snout, twice as long as high.

Color in formalin, upper part blackish brown, anterior margin of snout paler, a pale band across the nape, another band obliquely across side of body at the region of vent, a white spot at origin of dorsal. Barbels black, a black line between dorsal and adipose, fins dusky.

Family EPINEPHELIDAE

13. *Siniperca roulei* sp. nov. (Fig. 5.)

Two specimens, total length 101 and 162 mm. respectively, collected from Pao-Chin, Hunan in October 1929.

D. XIII 10-11; A. III 6-7; P. 13; B. 7. Head 2.7 to 2.8 depth 5 to 5.3 in length without caudal. Snout 3.4 to 3.7, eye 4.4 to 4.8, interorbital bone 10 to 10.2 in head.

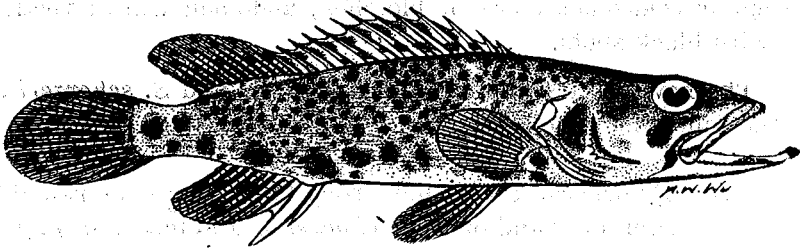


Fig. 5. *Siniperca roulei* sp. n.

Body elongated, more or less subcylindrical, tail compressed. Dorsal and ventral profiles equally arched. Mouth subterminal, nearly horizontal. Lower jaw pointed and projecting beyond the upper. Maxillary with supplementary bone, extending to below the anterior third of eye. Teeth villiform on side of upper jaw and in vomerine and palatine bands, but those on side of lower jaw and median portion of upper jaw more or less developed into canines. Eye large, anterior and superolateral, its diameter about $\frac{2}{3}$ its snout. Interorbital space slight concave. Nostrils of either side close together, the anterior one nearer the anterior margin of eye than tip of snout. Preorbital entire. Preopercle with 8 to 10 spines, those at its angle larger. Gill-rakers very rudimentary, merely represented by one or two blunt tubercles at the angle of the anterior arch. Dorsal fin single, its length of soft portion about 2.5 in spinous, commencing above the base of pectoral, its 7th or 8th spine longest. Pectoral fin with posterior margin rounded, reaching slightly beyond the middle of ventral which does not reach the origin of the anal fin. Origin of anal in midway between base of ventral and that of caudal, its second simple ray osseous and enlarged. Caudal fin rounded, length of caudal peduncles nearly 3 in head, its greatest depth 3.6. Lateral line along upper third of trunk and along middle line of tail. Scales very small, very feebly ctenoid, great part of the scale along lateral line occupied by the tube. Head and abdomen in front of ventral entirely naked.

Color in formalin gray; head, trunk and tail covered by irregular sized black spots or blotches; abdomen white; vertical fin with black spots.

The new species differs from *S. chuatsi* and *S. scherzeri* as in the following synopsis:

- A. Pyloric caeca very numerous (75 in *S. scherzeri* of 150 mm. long and 56 in *S. chuatsi* of 165 mm. long); gill-rakers slender, 4 to 7 in anterior arch; anal fin with III/8-9 rays; body usually high and compressed; maxillary broad, its greatest width being 1 to 1.7 in eye diameter. *S. chuatsi* (Basil.)
- B. Gill-rakers 5-7 in anterior arch, the longest ones longer than gill-filaments; depth of body 2.75 to 3.3 in length; ventral spine half of its longest ray. *S. chuatsi* (Basil.)
- BB. Gill-rakers usually 4, rarely 5 in anterior arch, shorter than gill-filaments; depth of body 3.5 to 3.7 in length; ventral spine less than 1/2 of its longest rays. *S. Scherzeri* Steind.
- AA. Pyloric caeca fewer in number (6 in a specimen of 101 mm. long); gill-raker rudimentary, one or two tubercles in anterior arch; body lower, subcylindrical; anal fin with III/6-7 rays; greatest width of maxillary 2.5 to 3 in eye diameter. *S. roulei* Wu

The new species is named after Professor L. Roule, Director of The Laboratory of Ichthyology, Museum of Natural History, Paris.

Family GOBIIDAE

14. *Rhinogobius hadropterus* (Jord. & Sny.)

Ctenogobius hadropterus Jord. & Snyd., 1902, Proc. U. S. Nat. Mus., XXIV, p. 60.

One specimen, total length 48 mm., collected from Ichang in October 1929. D. 5/9., A. 8. Head 3.4, depth 6.1 in length without caudal. Snout 3.2, eye 4.7, interorbital space 6 in head. Scales 28. Head naked. Mouth terminal, slightly oblique, without canine. lips very thick. Eye close together, superolateral. Dorsals separated. Pectoral very broad, nearly reaching the vertical of vent. Caudal peduncle about 1.2 in head. Side of body with 6 broad cross bands.

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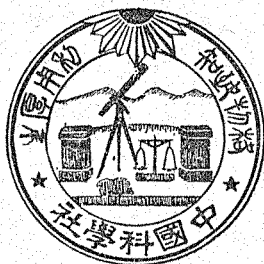
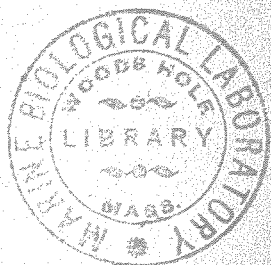
NO. 5

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長江上游數種魚類之研究

HSIEN WEN WU

伍 獻 文



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