

ON A SPECIES OF LOACH: MISGURNUS DECEMCIR-
ROSUS (BASILEWSKY) FROM NORTHERN CHINA.

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In a recent paper on the *Cobitidae*, or Loaches of Japan,^a Messrs. Jordan and Fowler have described the common Japanese species of *Misgurnus*, under the name of *Misgurnus anguillicaudatus* (Cantor), and have referred most of the nominal species of China to the synonymy of this species.

The examination of the specimens collected by Dr. Noah Fields Drake, at Tientsin, recorded by Professor James F. Abbott,^b shows that these belong to a species quite different from the Japanese. This seems to be the one described by Basilewsky from near Peking, under the name of *Cobitis decemcirrosus*.

The original types of *Cobitis anguillicaudata* Cantor came from Chusan. These are in the British Museum where they have been examined by Mr. C. Tate Regan. Mr. Regan writes: "In three of Cantor's specimens (130-140 mm.), I count 136 to 145 scales; longest dorsal ray, about $\frac{2}{3}$ length of head; length of head, about 6; length of caudal peduncle, 6 to $5\frac{2}{3}$ times in that of the fish."

These specimens agree in these respects with the ordinary Japanese species, which has been described by Jordan and Fowler as *Misgurnus anguillicaudatus*, and which seems to be entitled to this name.

The two species before us may be thus distinguished:

- a.* Scale relatively large, about 112 (105 to 118) in a lateral series; body plump, the depth $6\frac{2}{3}$ to $6\frac{3}{4}$ in body; head, $6\frac{1}{4}$ to $7\frac{1}{4}$ in length; barbels long, the longest $1\frac{3}{4}$ to $2\frac{3}{4}$ in head; eye, 2 to 3 in snout; color, relatively plain, the stripes and spots not very distinct. Streams of northeastern China *decemcirrosus* 1
- aa.* Scales relatively small, about 148 (143 to 154) in lateral series; body slender, the depth $6\frac{2}{3}$ to 8 in length; head, $6\frac{1}{2}$ to $6\frac{1}{4}$ in length; barbels short, the longest $3\frac{1}{4}$ to $4\frac{1}{2}$ in head; eye, $2\frac{2}{3}$ to 3 in snout; coloration rather brighter, but very variable; the body with dark lateral shades and more or less numerous small black spots. Streams of Japan, common everywhere in Hondo, Shikoku, and Kiusiu; also in southeastern China, Chusan, Shanghai, etc *anguillicaudatus* 2

^a Proc. U. S. Nat. Mus., XXVI, 1903, pp. 766 to 774.

^b Idem, XXIII, 1901, p. 483.

1. MISGURNUS DECEMCIRROSUS (Basilewsky).

Cobitis decemcirrosus BASILEWSKY, Mem. Soc. Nat. Moscow; 1855, p. 239, pl. VII, (tolerable figure); near Peking.

Misgurnus anguillicaudatus ABBOTT, Proc. U. S. Nat. Mus., XXIII, 1901, p. 489; Tientsin.

Of this species we have seen Abbott's specimens, 47 in number, from 50 to 250 mm. in length.

2. MISGURNUS ANGUILLICAUDATUS (Cantor).^a

Of this species we have many specimens from various parts of Japan. The specimen figured in this paper has a curious history. It was found alive in the bilge water of a coal steamer, the *Acapulco*, on its arrival in San Francisco from Nanaimo in British Columbia. It was



MISGURNUS ANGUILLICAUDATUS.

then kept alive in an aquarium at Stanford University for about a year. Apparently it had been brought alive from Japan by some Japanese laborer and had survived some accident which had thrown it into the hold of the ship. The specimen agrees fully with others from Yodo River at Osaka.

Two specimens from Shanghai seem to belong to this species, although having the head a little longer. Head, $5\frac{1}{2}$, $6\frac{1}{2}$ in length; depth, $7\frac{1}{2}$, 8, D, 138, 141. A specimen from Taihoku in Formosa has the head $5\frac{1}{2}$ in body; depth, $6\frac{1}{4}$; scales, 135; eye, $6\frac{1}{2}$ in head, $2\frac{1}{2}$ in snout; longest barbel, $2\frac{3}{4}$ in head. This may prove to be a distinct species. It is mentioned by Jordan and Evermann as *Misgurnus anguillicaudatus*.^b

^aFor synonymy, see Jordan and Fowler, Proc. U. S. Nat. Mus., XXVI, 1903, p. 766.

^bProc. U. S. Nat. Mus., XXV, 1902, p. 321.