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A NEW *COLLICHTHYS*, WITH REMARKS ON THIS GENUS OF FISHES

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Fowler (1933, Bull. U. S. Natl. Mus., 100, vol. 12, pp. 361–364) synonymizes the several nominal oriental species of this genus with *Collichthys lucidus* (Richardson), as also *Laramichthys rathbunae* Jordan and Starks (1905, Proc. U. S. Natl. Mus., vol. 28, p. 204, fig. 8). In comparing two specimens from near Canton (of 96 and 101 mm. standard length) and one from the Min River, China (of 88 mm.), with five from New Guinea (of 46 to 70 mm.), and with various type descriptions and figures involved, I conclude that there are at least two quite dissimilar fishes here.

The Canton specimens, which are silvery in color, have scales on sides of the head adherent, and have lost most of those on sides of body, scales along the lower surface with specialized, supposedly luminous spots. They have 26 and 29 soft dorsal rays, 12 and 11 anal, and the second anal spine notably short, 4 and 5 times in the head. The Min River specimen has lost all color. The sides of its head are well scaled, most scales lost from the body, those remaining on the lower surfaces without specialized spots. Its dorsal soft rays number 25, anal $12\frac{1}{2}$, and its second anal spine is short, 4 in the head.

These three fit reasonably well both *Sciaena lucida* Richardson (1844, The zoology of the voyage of H.M.S. Sulphur, Ichthyology, p. 87, pl. 44) with 26 dorsal and 11 anal soft rays and *Collichthys fragilis* Jordan and Seale (1905, Proc. U. S. Natl. Mus., vol. 29, p. 522, fig. 4) with 28 dorsal and 13 anal. *Collichthys niveatus* Jordan and Starks (1906, Proc. U. S. Natl. Mus., vol. 31, p. 519, fig. 2), with 23 to 25 dorsal and 11 or 12 anal rays, seems more different, though close. The statement by Jordan and Starks

(1906) that *lucidus* has more dorsal rays than either *fragilis* or *niveatus* is not correct; it is described with 26, halfway between the two.

Supposing the above to be variations of *lucidus*, the New Guinea specimens differ from them in having scales more adherent on the sides of the body than on the head and, more tangibly, longer second anal spine, 2.2 to 2.9 in the head, and fewer anal soft rays, dorsal 27 to 29; anal 7 in four specimens, 8 in one. Presence or absence of specialized spots on the lower scales may be due to size or age.

Laramichthys rathbunae, with 35 or 37 dorsal and 10 anal soft rays, is very likely closer to our New Guinea fish than to *Collichthys lucidus*. Its supposedly scaleless head and relatively long second anal spine (from figure) suggest this. Its anal count is low for *lucidus*, and if it had a tropical representative in New Guinea, this might reasonably have an appreciably still lower anal and considerably lower dorsal count, the latter being much the more variable in this genus.

Günther (1860, Catalogue of fishes, vol. 2, p. 312) has confused the issue by ascribing 33 dorsal and only eight anal soft rays to *lucida* Richardson, but this is no reason for questioning the accuracy of fin counts in the type description and figure of that species, especially when the one later called *rathbunae* by Jordan and Starks might have been confused with it.

A description of the New Guinea form follows:

***Collichthys novaeguineae*, new species**

DESCRIPTION OF TYPE: No. 18729, the American Museum of Natural History, from the Merauke River, New Guinea (as were *Harpodon*, *Polynemus*, and *Trichiurus*), August, 1941, collected by the Instituut voor de Zeevisscherij of Batavia.

Length to base of caudal, 63 mm. Depth in this length, 3; head, 3. Eye in head, 7; snout, 3.5; interorbital, 2.5; maxillary, 1.6; greatest width (at back of head), 1.6; depth of peduncle, 4; its length, 3; longest dorsal spine, 2.5; second anal spine, 2.9; dorsal rays (estimated, broken), 2.6; caudal, 1.1; pectoral, 1.2¹/₂; ventral, 1.7.

Dorsal, X, 27; anal, II, 7. Scales, about 50.

Head heavy and globose, greatest depth above pectoral, body tapering rapidly and becoming more compressed from there to the narrow peduncle. Eye small, anterior. Sides of the head with

large pits, which appear to be open with ridges between when the delicate membrane which covers them is collapsed. Mouth large, oblique, extending well beyond the eye; tip of the lower jaw ending in a point about in line with that of the upper, otherwise the mouth is slightly included, and the upper jaw teeth are outside the lower jaw when it is closed. Good-sized, slightly curved, conical, pointed, well-spaced teeth in a single row in the upper jaw; those in the lower jaw considerably smaller and more crowded.

First dorsal spine small, one-fifth as long as the second; first anal spine small, two-sevenths the second, which is about two-thirds as long as the rays (estimated, the rays are broken). Caudal pointed. Body covered with scales which extend forward on the top of the head to well before the nostrils; those on top of the head cycloid, on the sides of the body distinctly ctenoid, those along the lower surface without specialized spots. A few larger, very delicate cycloid scales (easily overlooked) remain on the sides of the head, whence others have presumably been lost.

Color in preservative pale pinkish brown, paler below, without markings. Fins pale, a darker triangle, pointing backward, on the base of the caudal.

I realize that oriental *Collichthys* present a problem by no means solved with our scanty material for comparison, but follow Fowler in synonymizing *Laramichthys* with *Collichthys*, and for the present *C. fragilis* with *lucidus*, tentatively consider *C. niveatus* a recognizable related form, and am convinced that *C. rathbunae* and *novaeguineae* are different.

