

A NEW GENUS OF SIAMESE CATFISHES.

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Smith,¹⁾ in his account of the Siamese Catfishes of the genus *Pseudeutropius*, made a reference to Sauvage's²⁾ inadequate description of *P. siamensis* and doubtfully assigned a number of specimens collected by himself from Menam Chao Phya in the vicinity of Paknampo and in the Nakon Nayok River, Central Siam, to Sauvage's species. At the same time he recorded the presence of a specimen of "*P. taakree* (Sykes)" from Siam in the collection of the British Museum³⁾. In my revision of the Indian Schilbeidae⁴⁾ I have shown that Day's⁵⁾ *P. taakree* from Burma is in reality Blyth's⁶⁾ *Eutropius macrophthalmus* and that Sykes'⁷⁾ species is more or less confined to Peninsular India. Through the kindness of Mr. J. R. Norman I received for examination the Siamese specimen of *P. taakree* in the collection of the British Museum and have found it to be identical with *P. siamensis* Sauvage. With regard to the form identified by Smith as *P. siamensis*, the Zoological Survey of India has received through the courtesy of Luang Choola, Officer-in-Charge, Bureau of Fisheries, Bangkok, Siam, several old and freshly collected specimens from Paknampo and two from Nakon Nayok River. I have thus been able to study the systematic position of this Siamese fish and find that though it belongs to Sauvage's species, it cannot be included in *Pseudeutropius* (S. str.) and accordingly a new genus *Platytropius* is proposed here for its reception.

Sauvage characterised *Pseudeutropius siamensis* as follows:

"D. 1, 6; A. 48; p. 1, 8.

"Hauteur du corps contenue cinq fois et demi, longueur de la tête quatre fois et demie dans la longueur totale. Machoire inférieure à peine plus courte que la supérieure; dents du palais formant quatre amas distincts,

1) Smith, *Journ. Siam Soc., Nat. Hist. Suppl.*, IX, p. 297 (1934).

2) Sauvage, *Bull. Soc. Philom. Paris* (7), VII, p. 154 (1883).

3) In a recent publication entitled "Index to Fishes of Siam", Chote Suvatti has included only two species of *Pseudeutropius*, *P. siamensis* Sauvage and *P. taakree* (Sykes).

4) This revision will be published in the *Records of the Indian Museum* for 1937.

5) Day, *Proc. Zool. Soc. London*, p. 617 (1869).

6) Blyth, *Journ. As. Soc. Bengal*, XXIX, p. 156 (1860).

7) Sykes, *Trans. Zool. Soc. London*, II, p. 369 (1841).

bien que séparés par un faible intervalle; bande vomérienne un peu lusp large que la bande formée par les dents maxillaires; barbillon nasal s'étendant presque jusqu'au niveau de la terminaison de l'anale; barbillons maxillaires externes un peu plus longs que les barbillons internes; yeux grands, placés très bas. Ventrals insérées au-dessous de la partie postérieure de la dorsale. Épine dorsale dentelée, ayant les trois quarts de la longueur de la tête. Anale se terminant à une certaine distance de la caudale. Épine pectorale forte, dentelée, s'étendant jusqu'à la base des ventrals, qui sont petites. Corps de couleur argentée, olivâtre en dessus; rayons externes des pectorales, partie supérieure de la dorsale noirs. Œil entouré d'un cercle noir; barbillon nasal de couleur très foncée. Longueur, 0,135."

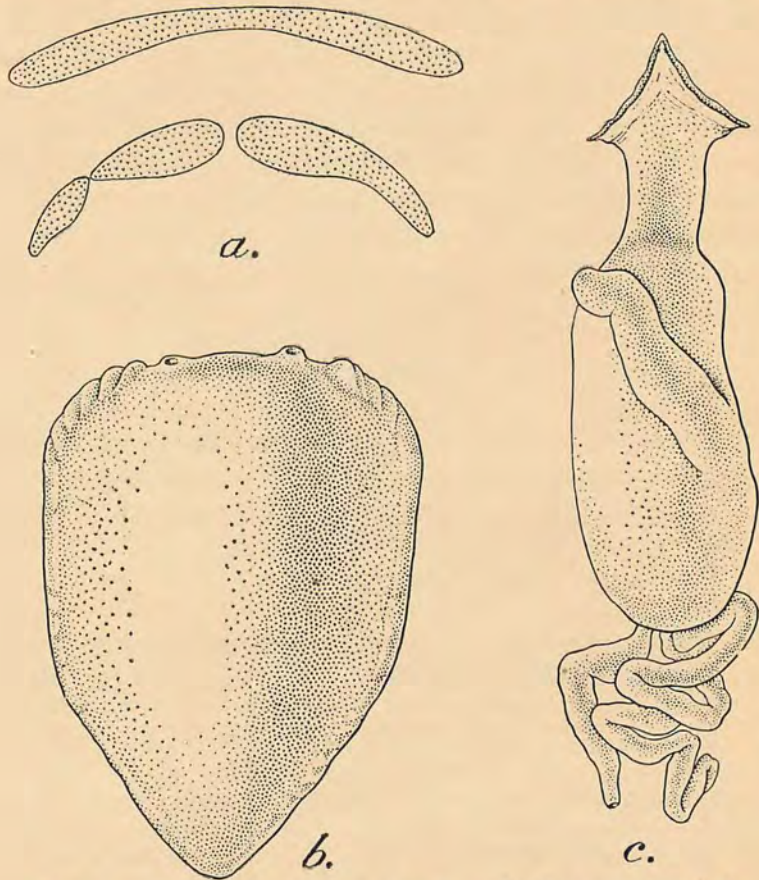


Fig. 1.—Upper dentition, air-bladder and alimentary canal of *Platytropius siamensis* (Sauvage).

a. Upper dentition. $\times 4\frac{1}{2}$; b. Ventral view of air-bladder. $\times 3$;
c. Ventral view of alimentary canal. $\times 2$.

Smith noted that his specimens bore

"a close resemblance to *P. siamensis* as described by Sauvage, but all are more slender. The vomero-palatine teeth would come within the imperfect original description but are quite different from those figured by Day for *P. taakree*. The anal fin rays are as given by Sauvage, but the dorsal fin formula is properly 1, 5, not 1, 6. In one of the Nakon Nayok River specimens the nasal barbels extend to the last fifth of the anal fin; in the other specimens they are somewhat shorter. These differences may be attributable to differences in size of specimens; and I am inclined to refer the specimens in hand to *P. siamensis* pending a comparison with Sauvage's type specimen."

The differences noted by Smith are not of specific value, at any rate in the case of the Schilbeid fishes, and I am definitely of the opinion that the specimens before me represent Sauvage's species. The accompanying table of measurements clearly brings out the points in which the relative proportions of the various parts of the fairly grown-up specimens differ from those of the young individual described by Sauvage.

In the specimens before me dentition on the palate consists of a broad, lunate band which is broader than the maxillary band and is usually constricted or divided in the middle and on the sides so that the vomerine and palatine teeth form distinct patches. In some cases the band is divided into 3 parts on each side.

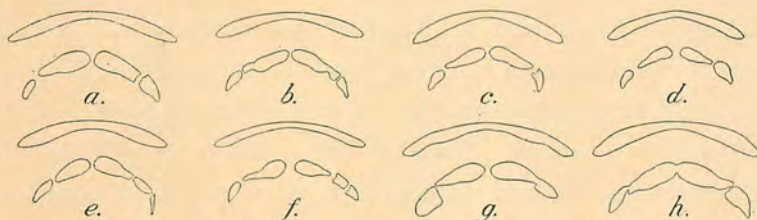


Fig. 2.—Outline sketches of the upper dentition of 8 specimens of *Platyptropius siamensis* (Sauvage), showing variation in the nature of the maxillary and palato-vomerine teeth-bands. $\times 1\frac{1}{2}$.

The head is relatively longer in the smaller specimens and during growth it appears to become broader and deeper. In young individuals the body is less deep and the eyes are proportionately smaller. The relative proportions of the length of the snout and the

interorbital width to the diameter of the eye do not appear to undergo much change; but the body becomes more compressed with the growth of the fish. The length of the barbels varies considerably with age and locality, for instance the nasal barbels are about half the length of the body in the largest specimen (213 mm. without the caudal, from Paknambo), while in a considerably smaller individual (190 mm. without the caudal, from Nakon Nayok River) they are three-fourths the length of the body. It is not surprising, therefore, if in Sauvage's example, which was much smaller, only 135 mm. in total length, the nasal barbels reached almost to the end of the anal fin. In all essential features the specimens before me agree fairly closely with Sauvage's description of *Pseudeutropius siamensis*.

While there can be no doubt about the specific identity of the specimens referred to above, their inclusion in the genus *Pseudeutropius* is not justified. *Pseudeutropius* was proposed by Bleeker¹⁾ to accommodate his *Eutropius brachypterus* in which the teeth on the palate were described as: "Dentes vomerini in vitam transversam dispositi, palatini distincti nulli". A year later, however, he²⁾ stated "Dentes vomero-palatini in vitam transversam indivisam dispositi." Günther³⁾, who had the typical specimen of *P. brachypterus*, stated that its vomerine teeth "form a very narrow band, which is angularly bent, and continuous with the palatine teeth." According to Weber and de Beaufort⁴⁾ the dentition of the species consists of "Minute teeth in narrow bands on the jaws; on the vomer in two small patches connected by an angular line of teeth." In the second species known from Sumatra—*P. moolenburghae* Weber and de Beaufort—the teeth in the jaws form a narrow band while those on the palate are "in two widely separate elliptic patches." A number of diverse forms have hitherto been grouped in the genus *Pseudeutropius*, but I have found that if the character of dentition

1) Bleeker, *Versl. Akad. Amsterdam*. XIV, p. 398 (1862).

2) Bleeker, *Ned. Tijdschr. Dierk.*, I, p. 106 (1863).

3) Günther, *Cat. Fish. Brit. Mus.*, V, p. 58 (1864).

4) Weber & de Beaufort, *Fish. Indo-Austral. Archipel.*, II, p. 249 (1913).

is associated with that of the air-bladder the composite assemblage can be easily divided into a number of well-defined genera. These genera will be discussed in detail in my revision of the Indian forms, but it may be stated here that in *Pseudeutropius* the air-bladder is large, and thin-walled; moreover, it comes in contact with the skin above the pectoral fins and forms a blister-like, translucent area on either side.

It is clear from the above that if the genus *Pseudeutropius* is restricted to forms in which the dentition corresponds with that of *P. brachypterus*, Sauvage's species from Siam cannot be included in it. Moreover, the modifications of its air-bladder, which is an almost solid, dorso-ventrally compressed structure, lying close to the dorsal wall of the abdominal cavity throughout its length and giving space to the kidneys in their normal position, between itself and the dorsal wall of the body cavity, are remarkable features of the Siamese fish. The spatulate and greatly flattened head of the species is another characteristic feature. On account of these special modifications I propose for it a new genus *Platytrapius* and designate *Pseudeutropius siamensis* Sauvage as its type-species.

The air-bladder of *Platytrapius siamensis* agrees in certain respects with that of *Osteogeniosus*¹⁾; it is conical in outline with a broad anterior end and a bluntly pointed posterior end. The lateral and posterior margins of the bladder are compressed into a solid, crenulated rim, while its walls with the exception of the dorsal wall of the anterior chamber are very thick and fibrous. The cavity of the bladder is greatly obliterated by the growth of the fibrous tissue, especially along the ventral and lateral walls. The apparent size of the air-bladder, relatively to the size of the fish, is fairly large but the actual capacity of the internal cavities, and especially of the lateral compartments, is very small indeed. This condition is due, as in *Osteogeniosus*, not only to the extraordinary thickness of the walls of the air-bladder and to the stoutness of the different internal

1) Bridge & Haddon, *Phil. Trans. Roy. Soc. London* (B) CLXXXIV, p. 141, fig. 51 (1893).

septa, but also in a great measure to the flattened condition of the entire organ.

In the young specimens, 121 mm. in total length (94 mm. without caudal), preserved in the British Museum under the name "*Pseudeutropius taakree*," the ventral wall of the air-bladder is not so thick and the internal cavities do not appear to be filled up with fibrous tissue to the same extent as in the adult specimens. The crenulation of the rim can be seen to be due to strong fibrous growths.

I take this opportunity to thank the Bureau of Fisheries, Siam, for its kindness in presenting seven specimens of *Platytrapius siamensis* to the Zoological Survey of India. My special thanks are also due to Luang Choola for the courtesies so kindly extended to me on several occasions in connection with my work on Indian and Siamese fishes.

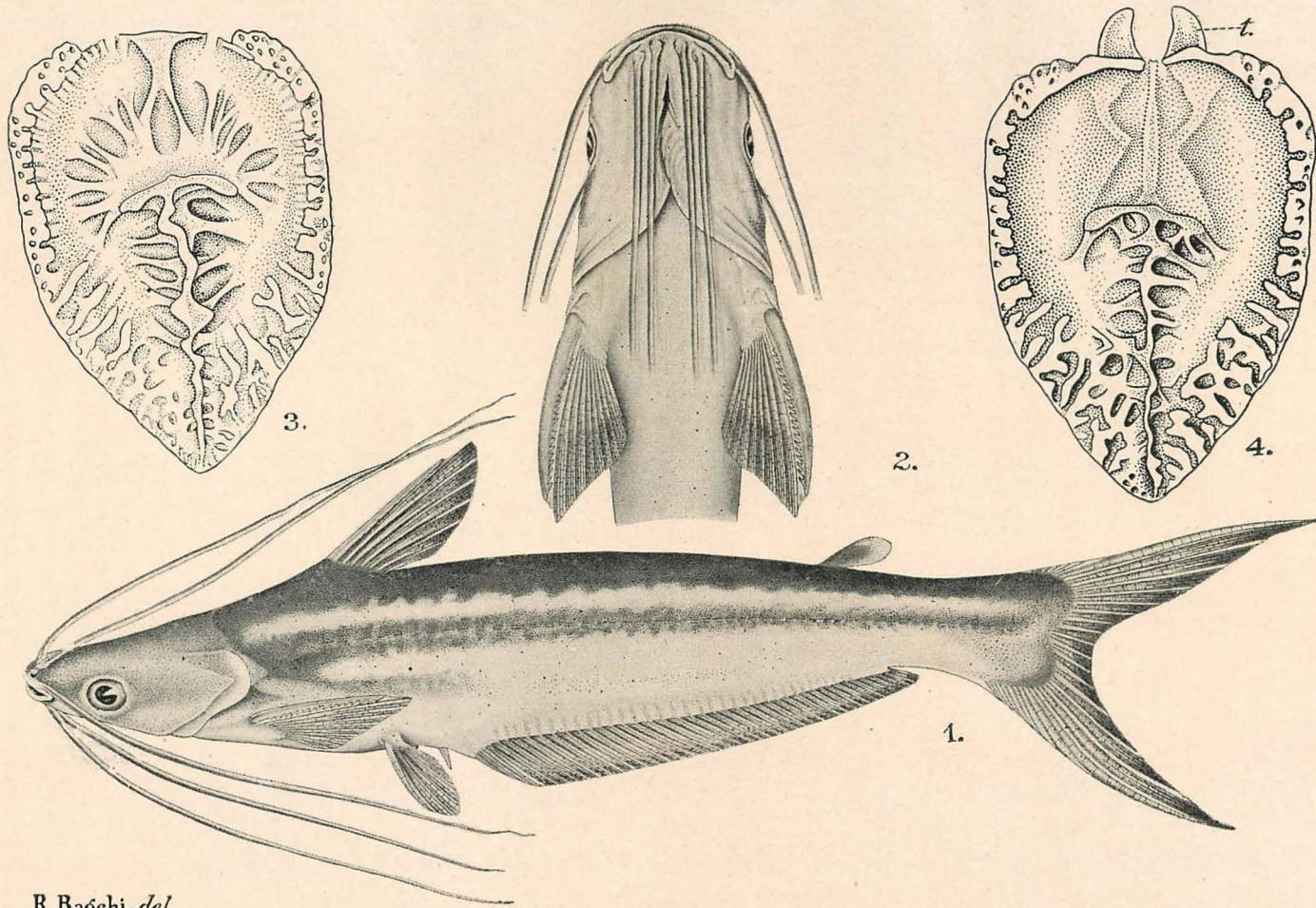
MEASUREMENTS IN MILLIMETRES.

			Nakon Nayok River.		P a k n a m p o					
Total length without caudal	...	...	187.0	190.0	175.0	181.0	188.0	196.0	200.0	213.0
Length of head	...	...	41.2	41.5	38.0	39.0	40.0	42.5	43.0	44.5
Width of head	...	...	26.0	27.0	23.0	24.0	25.0	29.0	28.0	33.0
Height of head at occiput	...	...	22.0	22.0	21.0	22.0	22.0	24.0	25.0	26.0
Depth of body	...	...	32.0	32.0	30.0	33.0	32.0	34.0	36.0	37.0
Width of body	...	...	19.0	18.0	19.0	19.0	19.0	18.5	21.0	19.0
Diameter of eye	...	...	7.0	7.0	7.0	7.0	7.0	7.5	7.3	8.0
Length of snout	...	...	15.5	15.5	14.0	15.0	15.0	16.0	16.0	17.0
Interorbital width	...	...	17.5	17.0	16.5	17.0	17.0	18.0	18.0	19.0
Length of dorsal spine	...	...	28.0	32.0	27.0	28.0	D a m a g e d			34.0
Length of pectoral spine	...	...	28.0	29.5	25.0	27.0	27.0	30.0	29.0	31.0
Length of caudal peduncle	...	...	26.0	26.0	26.0	25.0	26.0	26.5	27.0	27.5
Least height of caudal peduncle	...	...	16.5	16.0	15.0	16.0	16.0	16.3	17.0	17.0
Length of nasal barbel	...	...	130.0	142.0	102.0	121.0	126.0	130.0	131.0	117.0
Length of maxillary barbel	...	...	112.0	120.0	86.0	106.0	101.0	Damaged	106.0	103.0
Length of outer mandibular barbel	...	...	108.0	108.0	77.0	97.0	96.0		96.0	101.0
Length of inner mandibular barbel	...	...	109.0	109.0	78.0	99.0	98.0		97.0	102.0
No. of rays in anal fin	...	...	47	46	47	46	47	45	48	47

EXPLANATION OF PLATE.

Platytrypius siamensis (Sauvage).

- Fig. 1.—Lateral view of a specimen from Paknampo. $\times ca \frac{3}{4}$.
Fig. 2.—Ventral surface of head and anterior part of body
of same. Almost Nat. Size.
Fig. 3.—Inside view of ventral wall of air-bladder. $\times ca 3$.
Fig. 4.—Inside view of dorsal wall of air-bladder. $\times ca 3$.
 t =Tripus.



R. Bagchi, *del.*

