

A NOTE ON THE SYSTEMATIC POSITION OF *PSILORHYNCHUS* *AYMONIERI* TIRANT FROM CAMBODIA.

By SUNDER LAL HORA, D.Sc., F.R.S.E., F.A.S.B., Assistant Superintendent, Zoological Survey of India.

In 1883, Tirant¹ described a new species in the genus *Psilorhynchus* McClelland² from Cambodia and remarked: "Espèce nouvelle appartenant au groupe intéressant des Homaloptérinés, qui habitent les ruisseaux des montagnes boisées de l'Indo-Malaisie. On a décrit deux espèces seulement du genre *Psilorhynchus*: les *P. sucatio*, et *P. balitora*, des torrents montagneux N.-E. du Bengale et de l'Assam." The description is accompanied by 4 outline drawings which are not only inaccurate but in several respects misleading. Two years later, Tirant³ included the description of this species in his "Notes sur les Poissons de la Basse-Cochinchine et du Cambodge" and in referring to the genus *Psilorhynchus* remarked: "Les *Psilorhynchus* ont une apparence de Cyprin à forme peu ordinaire, en raison de leurs pectorales horizontales et de leur bouche de forme bizarre placée en dessous de la tête. Ils habitent les ruisseaux de montagnes." He included this genus in the family Homalopteridae which he characterised by the absence of an air-bladder. He distinguished *Homaloptera* from *Psilorhynchus* principally by the character of the barbels which are absent in the latter and present (6 in number) in the former. It seems probable, however, that in describing his new species of *Psilorhynchus* he did not study the character of the air-bladder for the unique specimen of *P. aymonieri* Tirant in the Lyon Museum is intact and there is no reference to the structure of the air-bladder in the description of the species. After Tirant no author seems to have referred to this species till Chevey⁴ in 1934 published a "Révision synonymique de l'Oeuvre ichthyologique de G. Tirant" and regarded the species as having been correctly assigned to the genus *Psilorhynchus*.

The systematic position of the genus *Psilorhynchus* remained obscure for a long time and it is not surprising that earlier authors referred some of the flattened fishes of the mountain torrents of China and Siam without or with minute barbels to this genus. In another place I⁵ defined the generic limits of *Psilorhynchus* after examining fresh material of Hamilton's⁶ two species from India, and showed that they are sufficiently distinctive from other members of the Cyprinoidea to constitute a separate family of that order; this view has been strengthened by the researches of Mukerji⁷ on a much larger collection of these peculiar fishes. The

¹ Tirant, *Bull. Soc. Etudes Indochinoises Saigon* (1883); Chevey, *Notes de l'Institut Océanographique de l'Indochine*, No. 6, pp. 35-37, pl. i (1929).

² McClelland, *As. Res.*, XIX, pp. 300, 428 (1839).

³ Tirant, *Excursions et Reconnaissances*, IX (1885); Chevey, *loc. cit.*, p. 136 (1929).

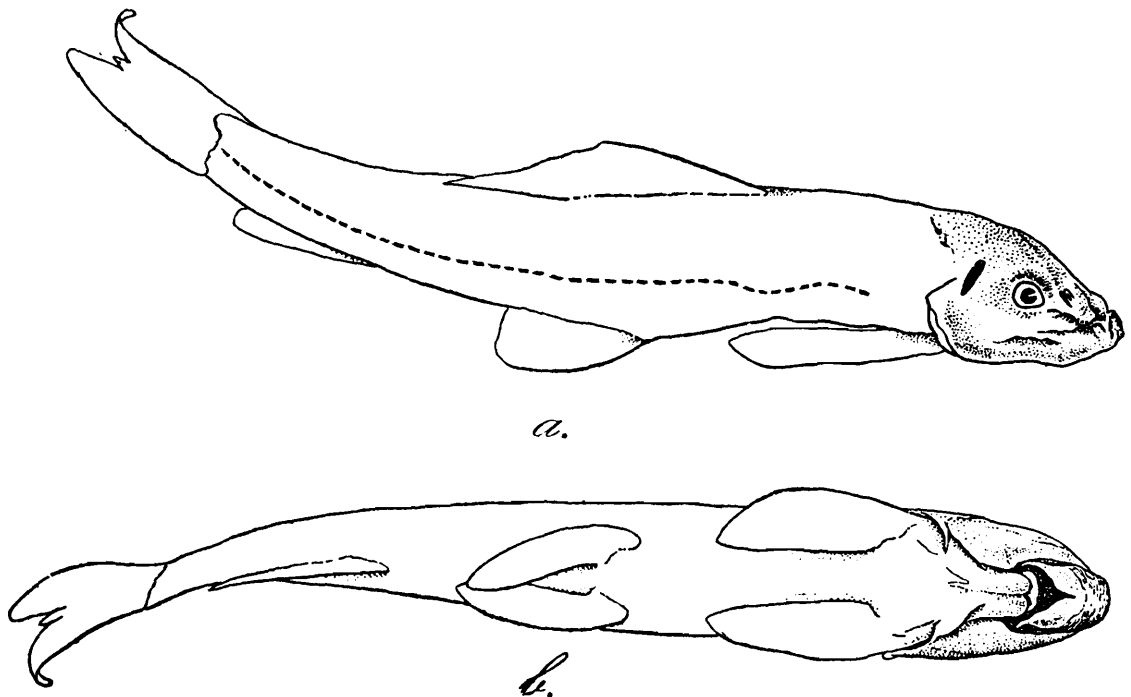
⁴ Chevey, *loc. cit.*, No. 7, p. 43 (1934).

⁵ Hora, *Rec. Ind. Mus.*, XXVII, p. 457 (1925).

⁶ Hamilton, *Fish. Ganges*, pp. 347, 348 and 393 (Edinburgh: 1822).

⁷ Mukerji, *Journ. Bombay Nat. Hist. Soc.*, XXXVI, pp. 823-828 (1933).

two Chinese species of *Psilorhynchus*, *P. sinensis* Sauvage & Dabry de Thiersant¹ and *P. fasciatus* Sauvage² were, on examination, found to belong to the Homalopterid genera *Hemimyzon* and *Pseudogastro-myzon*³ respectively. In view of the poor figures and inadequate description it was not possible, however, to evaluate the exact nature of Tirant's *Psilorhynchus* from Cambodia. In a description of the new species of *Psilorhynchus* from the Naga Hills, Assam, Mukerji and I⁴ referred to *P. aymonieri* Tirant and remarked that "The descriptions and figures of the species recently reprinted by Chevey do not show its *Psilorhynchus* affinities, but it is difficult to assign any systematic position to it without examining the specimens" To clear up the distribution of this Indian genus, the Director of the Museum of Natural Sciences, Lyon, was requested for the loan of the type-specimen of Tirant's species. As the unique specimen could not be sent by post, Dr. Claude Gaillard, Director of the Museum, very kindly sent me photographs of the lateral and ventral views of the type-specimen. These photographs show very clearly that *P. aymonieri* must be referred to the genus *Gyrinocheilus* Vaillant⁵. I take this opportunity to publish fresh drawings of *P. aymonieri* which are prepared from the photographs supplied by Dr. Gaillard.



Gyrinocheilus aymonieri (Tirant) $\times \frac{3}{5}$.

a : Lateral view of type-specimen ; *b* : Ventral view of same.

Only two species have so far been described in the genus *Gyrinocheilus*, one from Borneo—*G. pustulosus* Vaillant⁶ and the other from Siam and Cambodia—*G. kaznakoi* Berg.⁷ In describing the Siamese species,

¹ Sauvage & Dabry de Thiersant, *Ann. Sci. Natur. Paris*, (6) I, Art. 5, p. 14 (1874).

² Sauvage, *Bull. Soc. Philom. Paris*, (7) II, p. 88 (1878).

³ Hora, *Mem. Ind. Mus.*, XII, pp. 299, 314 (1932).

⁴ Hora & Mukerji, *Rec. Ind. Mus.*, XXXVII, p. 397 (1935).

⁵ Vaillant, *Notes Leyden Mus.*, XXIV, p. 107 (1902).

⁶ Weber & Beaufort, *Fish Indo-Austral. Archipel.*, III, pp. 224-225, figs. 89, 90 (1916).

⁷ Berg, *C. R. Trav. Soc. Nat. St. Petersb.*, XXXVII, pp. 305, 307 and 364-366 (1906).

Berg referred at length to the distinctive characters of the two species and later I¹ discussed the taxonomic importance of these characters and the systematic position of the genus *Gyrinocheilus*. Vaillant referred his genus to the Homalopterinae, but Boulenger² constituted a new sub-family Gyrinocheilini to accommodate it. Agreeing with Boulenger's view, I proposed the family Gyrinocheilidae for the genus.

G. aymonieri was found in a small stream called Prek-Tenot in the Samrong-Tong Mountains about 75 kilometres from Phnom-Penh, Cambodia. *G. kaznakoi* was described from the same river system; two specimens were obtained at Pai-lin between Battambang and Schantabun. I recorded the latter species from Nontaburi, while Smith³ collected specimens "in the Menam Chao Phya at Nontaburi and Paknam; in Bung Borapet and Klongs draining that swamp, Central Siam; in mountain streams in the Pak Jong district, Central Siam; in the Menam Pong at Udon, Northeastern Siam; in mountain streams in Peninsular Siam east of Bandon; in the Menam Wang at Lampang, Northern Siam; and in the Meklong at Potaram and in the west branch of the Meklong north of Kanburi in Western Siam" From the wide distribution of *G. kaznakoi* and the occurrence of *G. aymonieri* in an adjacent locality, it seems to me certain that the two species are identical.

The structure of the snout in *G. aymonieri* is described by Tirant as follows:—"Un tubercule recouvert de pores à l'extrémité du museau; un autre tubercule médian sur le front, avec deux groupes de pores latéraux en triangle de chaque côté, deux autres tubercules latéraux très saillants un peu en arrière du front chacun d'eux accompagné d'une ligne latérale de 9 pores." According to Berg, *G. kaznakoi* is distinguished from the Bornean species, among other characters, by the possession of a large central and two small lateral proboscides on the snout. I have compared the specimens of *G. kaznakoi* from Siam with the photographs and descriptions of *G. aymonieri* and am of opinion that the two species are identical.

In view of what is stated above *Gyrinocheilus kaznakoi* Berg 1906 has to be regarded as a synonym of *G. aymonieri* (Tirant) 1883.

In conclusion I have to offer my sincere thanks to Dr. Claude Gail-
lard, Directeur du Museum des Sciences Naturelles de Lyon, for his
kindness in sending me photographs of the unique specimen of *Psi-
lorhynchus aymonieri* Tirant.

¹ Hora, *Journ. Nat. Hist. Soc. Siam*, VI, p. 159 (1923).

² Boulenger, *Cambridge Nat. Hist.*, VII, p. 582 (1909).

³ Smith, *Journ. Siam Soc. Nat. Hist.*, Suppl., VIII, p. 187 (1931).