

NOTES ON FISHES ALONG THE RIVER KWAE NOI
IN WESTERN THAILAND

By

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The river Menam Kwae Noi is watering the borderland between Thailand and Burma. It joins with the Menam Kwae Yai at the town Kanchanaburi and turns at the junction of these two branches into the river called Menam Meklong. This name may also be seen spelled Menam Mae Khlaung.

The sector of Kwae Noi, from which the present treated material was collected during November 1961-February 1962, is between the railway station Ban Kao and north to the waterfall at Sai Yok. The whole of this stretch is within the Kanchanaburi Province. The main part of the material was collected in Kwae Noi itself, but some fishes were caught also in small brooks running into Kwae Noi, or into one of its tributaries, namely the Huey Menam Noi. This river joins the Kwae Noi a few kilometres South of the Sai Yok waterfall.

The fishes were, among many other animals, collected during the author's stay in Thailand as an associate of *The Thai-Danish Prehistoric Expedition* 1961-62. An account of this expedition has been given by *Nielsen* (1962). Some pictures showing the scenery at the Kwae Noi are found as fig. 2, 5 and 6 in a paper by *Larsen* (1962).

The fishes of Thailand have recently been listed by *Smith* (1945). He only records a few species from Kwae Noi, and therefore this publication can at least contribute to the knowledge of specific distribution within Thailand.

It should be borne in mind that this list of species is far from complete. Only the species determined with certainty up till now are included. The remaining material will be published in due course when a decision as to specific affinity can be made. Several of the species in the material require supplementary material or comparison with the types



Fig. 1 Map of the area investigated.

before a name can be labelled to them, because several of the species occurring in the area have, in the literature, been described on a single specimen, sometimes even on juvenile individuals. Such factors sometimes make the determination as to species rather difficult.

The material is now partly in The Natural History Museum, Aarhus, partly in Zoological Museum, Copenhagen, both in Denmark.

The numbers of the material below are the author's journal numbers. The abbreviation TL stands for total length. The photos have been taken by *V.H. Jensen*.

NOTOPTERIDAE

Notopterus chitala (Hamilton).

Smith (1945) states that this species in Thailand always exhibits a longitudinal series of black spots on the side above the anal fin. In the Indo-Australian Archipelago the species is said to be without these spots (*Weber & Beaufort* 1913), except in rare cases. It is therefore of interest, that my two specimens from Kwae Noi were completely without spots, and thus seems to be the first record from Thailand of spotless individuals.

The local name given to me for individuals of *N. chitala* without black spots was *pla satu*. *Smith* indicates that a third species might occur in Thailand beside *N. chitala* and *notopterus*, because a Thai-name "pla satu" exists for a fish unknown by zoologists. It thus appears that *pla satu* is used to designate unspotted *N. chitala*, but have also heard this name utilized for another species of *Notopterus* without spots, which I have not yet been able to determine as to species.

Material : No. 112. Kwae Noi at Sai Yok 14.12.61. TL 409 mm
 — 726. — — — — 9.1.62. TL 420 mm
 — 2097. Bangkok fish market 23.2.62. normal Thai-specimen
 with black spots on side.

CYPRINIDAE

Macrochirichthys macrochirus Cuvier et Valenciennes. Fig. 2.

Not uncommon at Sai Yok, where it sometimes is seen rushing more than halfway out of the water over a considerable distance, I think

when scared by some larger carnivorous fish. I saw one attacked by an ectoparasite, an *Isopod*, the intestine of which was red from the blood of the host.

Material : No. 204. Kwae Noi at Sai Yok 29.12.61. TL 394 mm
 — 148. — — — — 17.12.61. TL 416 mm
 — 727. — — — — 12.1.62, skeleton

Luciosoma setigerum (Cuvier et Valenciennes).

Material : No. 187. Kwae Noi at Sai Yok 26.12.62. TL 157 mm
 — 174. — — — — 20.12.61. TL 173 mm
 — 854. — — — Lawa Cave 27.1.62. TL 205 mm

Luciosoma bleekeri Steindachner.

Very common in Kwae Noi at Ban Kao.

Material : No. 48. Kwae Noi at Ban Kao 25.11.61. TL 208 mm
 — 2095. — — — — 27.11.61. TL 141 mm
 — 2096. — — — — 27.11.61. TL 131 mm
 — 173. — — — Sai Yok 20.12.61. TL 220 mm

Leptobarbus hoeveni (Bleeker).

My only specimen is deviating from *Smith's* (1945) description by having 4.5 and not 3.5 scales from lateral line to midline of abdomen, that is in front of ventrals. Behind ventrals my specimen has also 3.5 scales. *Smith* describes the colours in a 30 cm long specimen, which is fully in accordance with my specimen, only he calls the pectorals hyaline, whereas they in my specimen are tinted with red, becoming fainter and fainter towards the distal part, thus only leaving the very edge hyaline, of a milky white colour.

Material : No. 80. Kwae Noi at Sai Yok 12.12.61. TL 344 mm

Mystacoleucus marginatus (Cuvier et Valenciennes). Fig. 3.

This is the only species among the fish dealt with in this paper, I have seen recorded from Kwae Noi in the literature. The yellow tinge to the fins makes the species easily recognisable, when observed in nature.

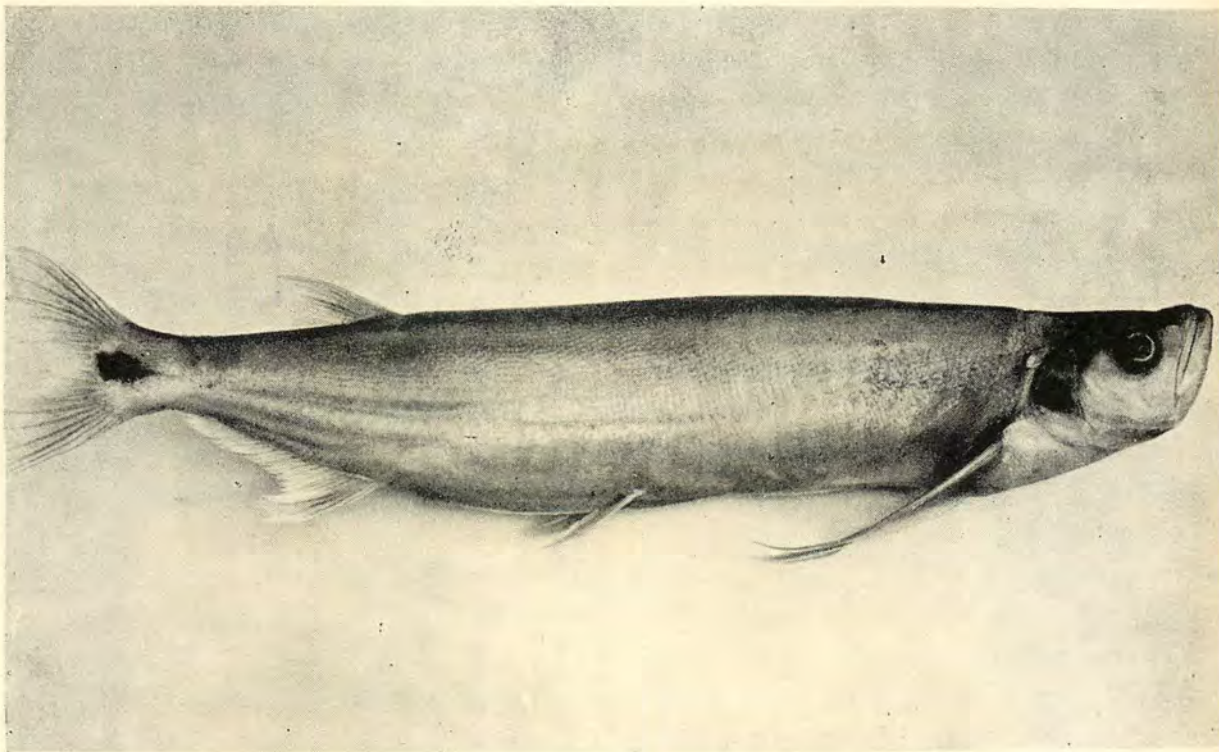


Fig. 2 *Macrochirichthys macrochirus*. TL 416 mm. Formaldehyde preparation.

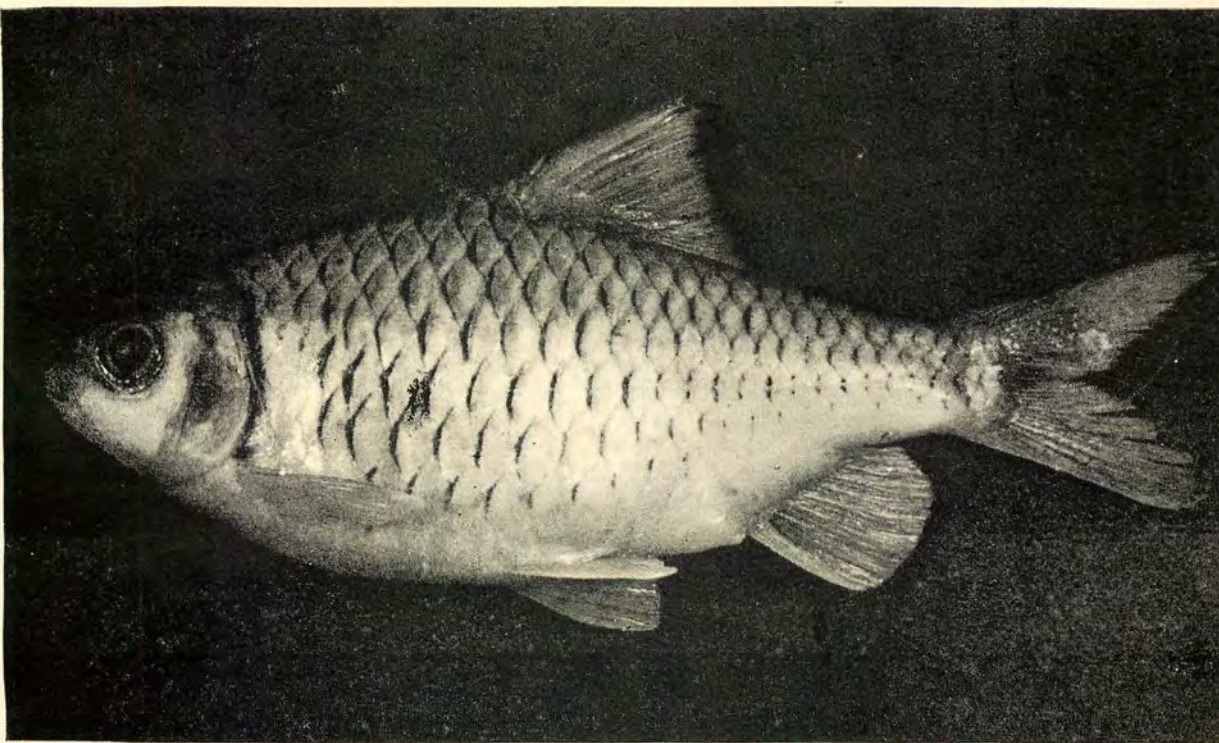


Fig. 3 *Mystacoleucus marginatus*. TL 151 mm. Formaldehyde preparation.

- Material : No. 50. Kwae Noi at Ban Kao 25.11.61. TL 84 mm
 — 57. — — — — — 27.11.61. TL 91 mm
 — 2092. — — — — — — — — — TL 107 mm
 — 136. — — — Sai Yok 16.12.61. TL 151 mm

Hampala macrolepidota van Hasselt

Seen several times at Sai Yok, but only a few were caught.

- Material : No. 106. Kwae Noi at Sai Yok 14.12.61. TL 228 mm
 — 1007. — — — Lawa Cave 29.1.62. TL 271 mm

Cyclocheilichthys repasson (Bleeker). Fig. 4 and 5

Occurred in Kwae Noi at Ban Kao as well as at Sai Yok. *Smith* (1945) records that the largest specimen caught in Thailand measured only 160 mm. whereas the species in the former Dutch East Indies reaches a length of 280 mm. That the species in respect of length is not deviating in Thailand from other habitats is seen from my measurements ranging from 73 to 231 mm.

In my field notes I have about one specimen (No. 154) recorded, that the black spot on caudal peduncle did not show while the fish was alive, but become evident when preserved in formaldehyde.

- Material : No. 168. Kwae Noi at Sai Yok 20.12.61. 220 mm, skeleton
 — 154. — — — — — 17.12.61. TL 220 mm
 — 100. — — — — — 13.12.61. TL 231 mm
 — 153. — — — — — 13.12.61. TL 69 mm
 — 83. — — — — — 17.12.61. TL 181 mm
 — 2093. — — — Ban Kao 27.11.61. TL 73 mm
 — 2094. — — — — — 27.11.61. TL 84 mm

Barilius guttatus (Day).

One fish, of which only a kodachrome picture was secured, was no doubt *B. guttatus*. The caudal fin reddish and with dark subapical band on ventral part, about half of dorsal, distal part dark blackish.

Puntius schwanefeldi Bleeker. Fig. 5.

This species was extremely numerous at Sai Yok, where large shoals constantly were seen under our rafts. It seem to be a well known

fact among the locals that this fish will gather at inhabited rafts, because at intervals we had visits from women from sites nearby, who came in a canoe with the sole object of fishing right up to our rafts. The method used was to stir the water eagerly with the hands and releasing some crushed bait in the water. This attracted no doubt through smell and hearing large number of *Puntius schwanefeldi* (some other species in minor numbers as well). Now they were caught by help of an about 30 cm long rod with a short line with a bit of crushed bait of same sort as released in the water. The speed with which the fish were pulled into the canoe sometimes seemed only limited by the speed with which they could be unhooked and stunned by smashing them against the bottom of the canoe. No doubt it is the waste from the cooking and the excrement from the dwellers on the rafts, which are attracting some of the fish living below the the rafts. Whenever we defaecated from the raft the excrement was devoured rapidly by fish, very often by *P. schwanefeldi*, easily recognisable under such circumstances. Sometimes the fish were so eager that you would be oversprinkled with water while trying to be private.

Some days one could see this species in large numbers around the rafts, other days they seemed to have disappeared completely, but only to return again later on.

Not previously reported from Kwae Noi, but from Meklong.

Material : No. 98. Kwae Noi at Sai Yok 13.12.61. TL 186 mm
 — 87. — — — — 13.12.61. TL 213 mm
 — 188. — — — — 27.12.61. TL 234 mm
 — 192. — — — — 27.12.61, skeleton

Puntius binotatus (Cuvier et Valenciennes).

Not previously recorded from western Thailand.

Material : No. 114. small brook near Sai Yok 14.12.61. TL 45 mm.

Puntioplites proctozyron (Bleeker).

My specimens had pectorals, ventrals and base of caudal with a red tinge. Dorsal and anal also with some red, but this was mixed with blackish to give a somewhat dirty appearance.

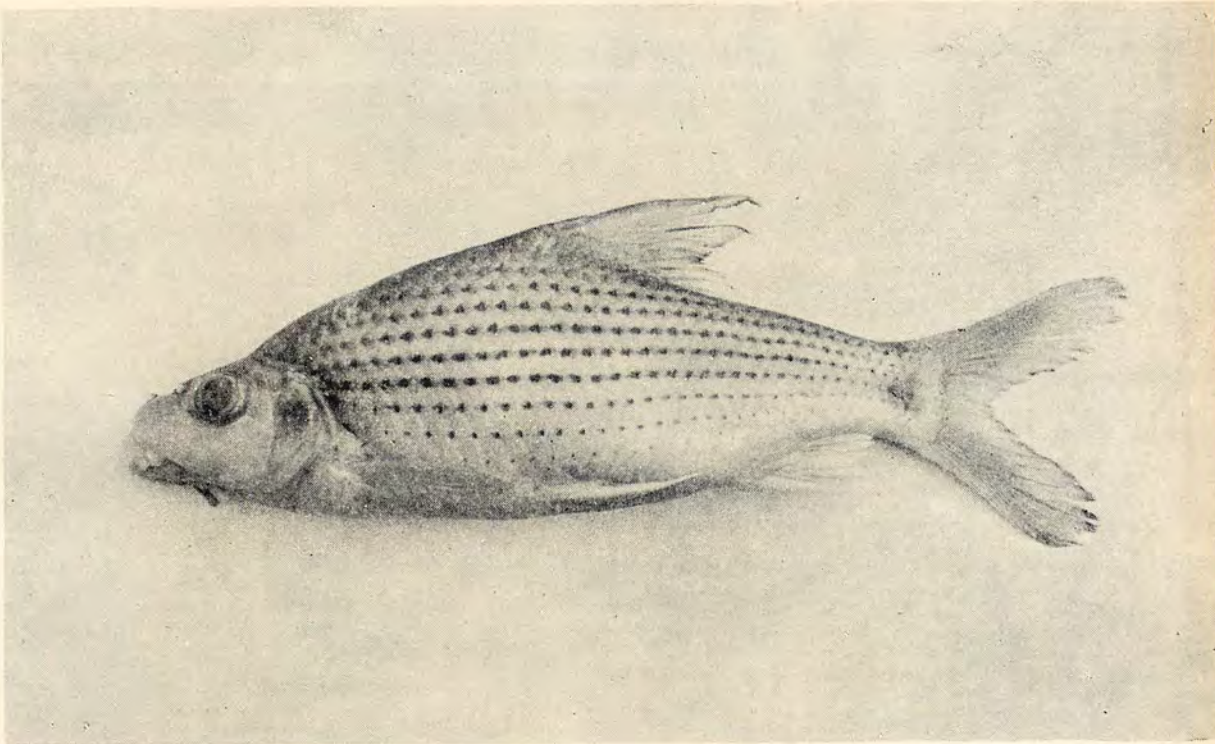


Fig. 4 *Cyclocheilichthys repasson*. TL 220 mm. Formaldehyde preparation.

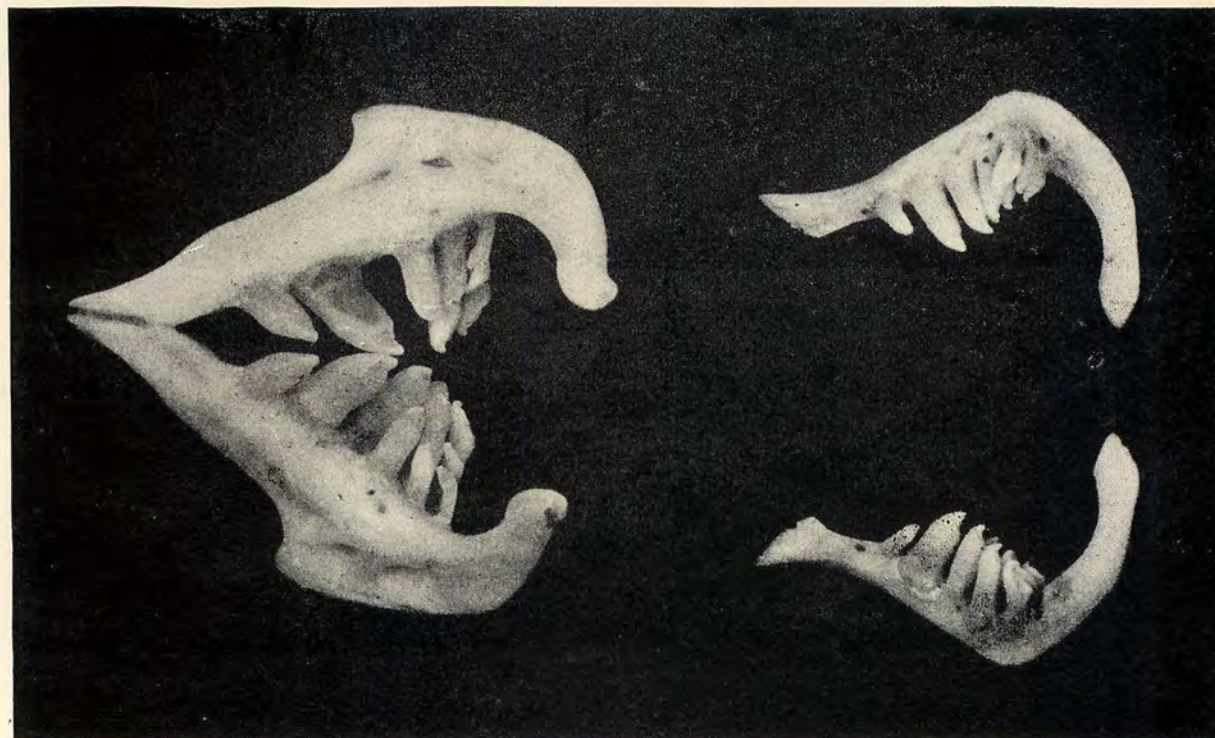


Fig. 5 To the right. *Cyclocheilichthys repasson*, pharyngeal teeth. To the left. *Puntius schwanefeldi*, pharyngeal teeth.

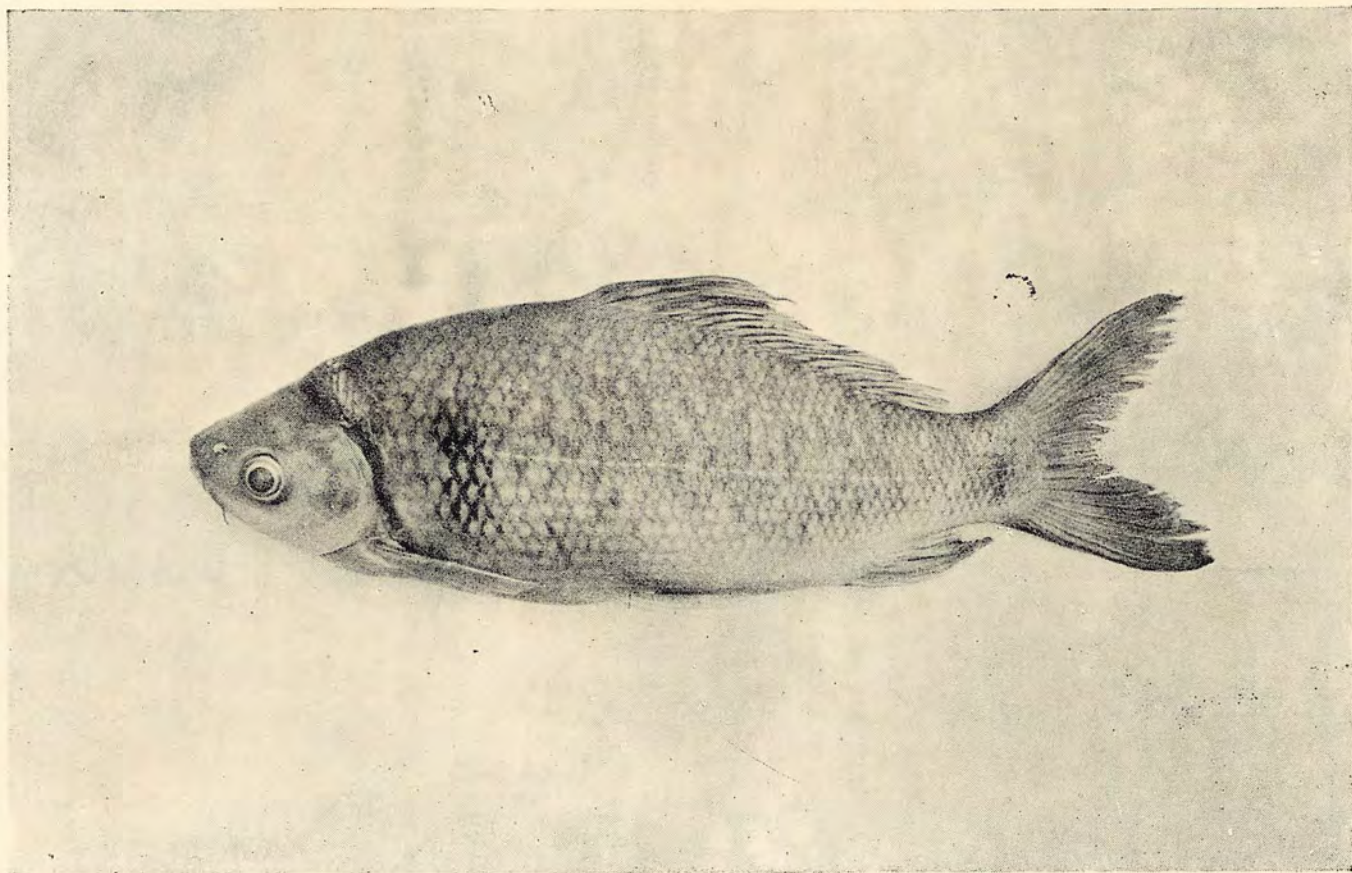


Fig. 6 *Osteochilus melanopleura*. TL 305 mm. Formaldehyde preparation.

Material : No. 186.	Kwae Noi at Sai Yok	27.12.61.	TL 162 mm
— 118.	— — — — —	15.12.61.	TL 205 mm
— 117.	— — — — —	15.12.61.	TL 222 mm
— 102.	— — — — —	14.12.61.	TL 229 mm

Osteochilus melanopleura (Bleeker). Fig. 6.

My specimen had when alive a faint pink tinge to the silvery scales, and anal fin was reddish in the soft part between the branched rays.

Material : No. 179. Kwae Noi at Sai Yok 23.12.61. TL 305 mm

Labiobarbus burmanicus (Day)

Three specimens must be referred to this species. They have black stripes following lines of scales, 16 circumpeduncular scales, 25-26 dorsal rays and 37-40 scales in lateral line.

These are also characters found in *L. lineatus* (Sauvage). According to the key in *Smith's* work (1945) the head of *burmanicus* should be smaller than in *lineatus*, 5,5 and 4,4-4,5 in standard length respectively. My specimens had head 5,1-5,2 and 5,5 respectively. The tubercles on front of snout are not in two transverse rows as described for *lineatus*. The snout tubercles seem not to be described in *burmanicus*, so I have made a sketch (Fig. 7) showing these in three specimens seen from the front. The tubercle's position in relation to rostral barbel and dorsal margin of mouth orifice is seen. One of the specimens have also been sketched in profile. In one of my specimens the maxillary barbel was a little longer than eye, in the two other about equal to length of eye. In life the pectoral, ventral and anal fins were of a faint reddish colour. The local name given to me sounded like *pla soi nok khao*.

Material : No. 138. Kwae Noi at Sai Yok 16.12.61. TL 473 mm
Dorsal rays 25, scales in lateral line 38.

No. 291. Kwae Noi at Sai Yok 1.1.62. TL 218 mm
Dorsal rays 26, scales in lateral line 37.

No. 736. Kwae Noi at Lawa 26.1.62. TL 431 mm
(Dorsal rays 17+ damaged, scales in lateral line 40).

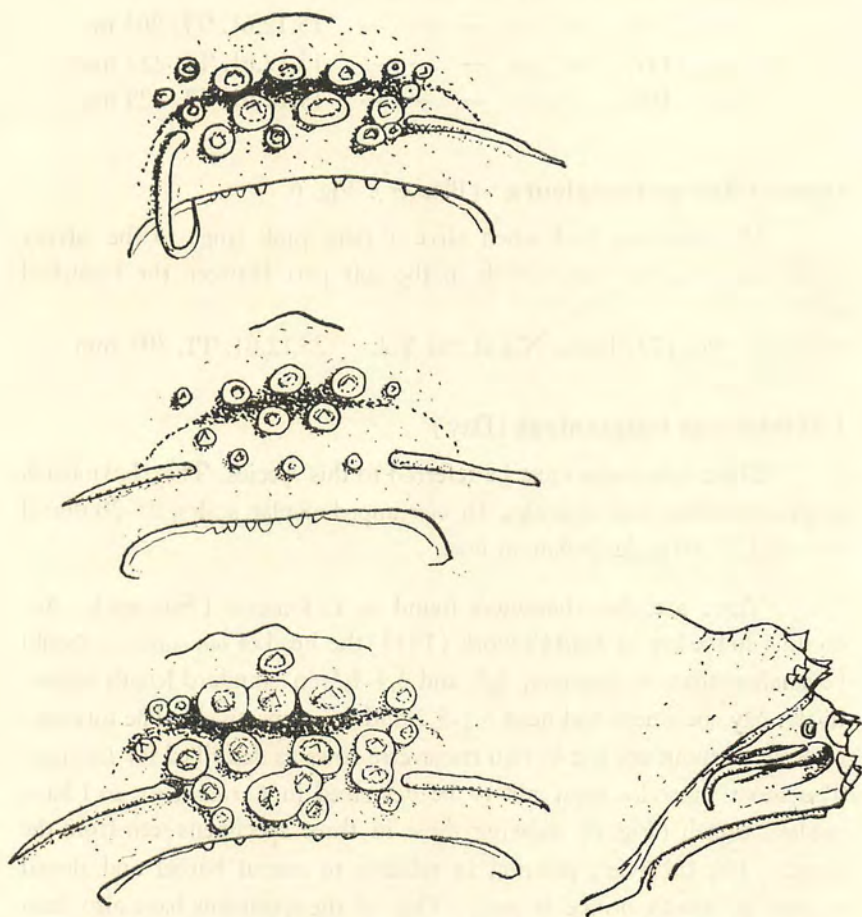


Fig. 7 *Labiobarbus burmanicus*. Tubercles on front of snout in three specimen.
 Top: The author's specimen no. 736. In the middle: The author's specimen
 no. 291. Bottom: The author's no. 138 in two figures, partly seen from the
 front, partly in side view. Author del.

***Amblyrhynchichthys truncatus* (Bleeker).**

All fins, except pectorals, in the fresh fish with a reddish colour.

Material: No. 109. Kwae Noi at Sai Yok 13.12.61. TL 206 mm
 — 104. — — — — — 14.12.61. TL 205 mm
 — 105. — — — — — 14.12.61. TL 204 mm

Barbichthys laevis (Cuvier et Valenciennes).

In the original description the colours of fins are described from a drawing sent from Java, and they are described thus: dorsal brown, caudal grey, the other fins of an orange colour. *Weber & Beaufort* mention the black band on middle of dorsal, which should be present in young specimens. All my specimens, mature ones, had this black band showing distinctly. In some of my specimens also the dorsal fin had a reddish tinge to the parts not covered by the black band, and the anal margin of caudal fin had a reddish band (missing in one specimen). I noted the pectorals and ventrals as reddish, whereas the anal fin was without red.

Material: No.	81.	Kwae Noi at Sai Yok	1.12.61.	TL 205 mm
—	85.	— — — —	13.12.61.	TL 251 mm
—	156.	— — — —	17.12.16.	TL 255 mm
—	163.	— — — —	19.12.61.	TL 242 mm
—	623.	— — — —	4.1.62.	TL 252 mm, skeleton

Morulus chrysophekadion (Bleeker)

Material: No. 147. Kwae Noi at Sai Yok 17.12.61. TL 280 mm

COBITIDAE**Botia modesto** Bleeker. Fig. 8.

Not previously recorded from Kwae Noi, but from Kwae Yai and Meklong. At Sai Yok the species was often seen moving around on the surface of bamboo poles below our rafts. Caught on hook with earthworms as bait or in cone basket with muntjak carcass as bait. All specimens seen were of a uniform bluish green colour with white belly, the fins lemon coloured, except the dorsal fin which was greyish.

Material: No.	115.	Sai Yok. Kwae Noi	14.12.16.	TL 161 mm
—	140.	— — — —	16.12.61.	TL 96 mm
—	141.	— — — —	16.12.61.	TL 101 mm
—	159.	Kwae Noi at Sai Yok	18.2.62.	TL 91 mm

SILURIDAE**Wallagonia attu** (Bloch)

Material: No. 625. Kwae Noi at Sai Yok 4.1.62. TL 500 mm
 — 167. — — — — 20.12.16. TL 448 mm

Kryptopterus bleekeri Günther.

Two individuals from Kwae Noi had both the maxillary barbels passing beyond angle of mouth, which is not normally the case. These barbels are so very thin, that they no doubt often will wear off. In other respects my specimens conform well with the description and figure of *Boucourt* (1866).

Material: No. 157. Kwae Noi at Sai Yok 18.12.61. TL 320+ mm
 — 162. — — — — 19.12.16. TL 310 mm

SCHILBEIDAE**Laiides hexanema** (Bleeker). Fig. 9.

One specimen caught 26.12.61 in Kwae Noi at Sai Yok measured 166 mm, which seems to be a record length for Thailand, where the species according to the literature is very rare. The Thai name given to me locally was *pla sankawad nōd*.

Material: No. 183. Kwae Noi at Sai Yok 26.12.61. TL 166 mm

SISORIDAE**Bagarius bagarius** (Hamilton).

I secured two specimens from Ban Kao. The variation of *B. bagarius* in Thailand illustrated by *Fowler* (1938) does not comprise the aspect of my largest specimens. They are closest to his fig. 41, but the dark pattern is even more extended, forming coherent (not spotted) dark areas below dorsal and adipose fin, and around peduncle, i.e. much like fig. 105 pag. 270 in *Weber & Beaufort* (Vol.2.1913) Also in one of my specimens the dorsal half of caudal fin is even more prolonged in a thin filament. Another specimen had a pattern close to *Fowler's* fig. 41.

Material: No. 2091. Kwae Noi at Ban Kao 27.11.61. TL 141 mm
 — 2087. — — — — 29.11.61. TL 340 mm

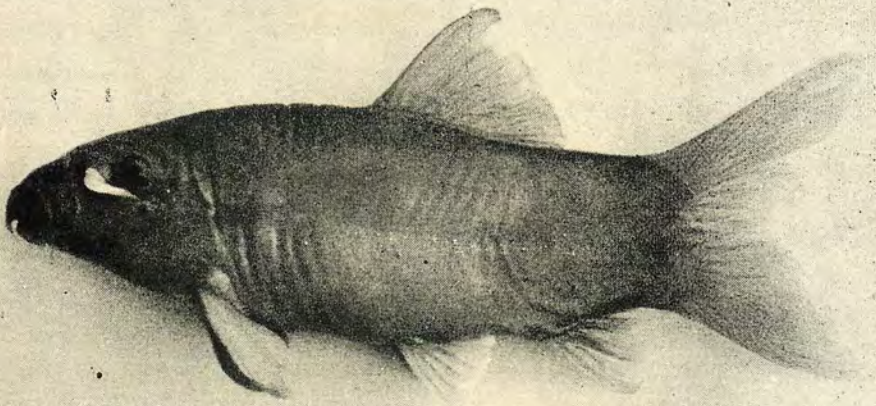


Fig. 8 *Botia modesta*. TL 161 mm. Formaldehyde preparation.

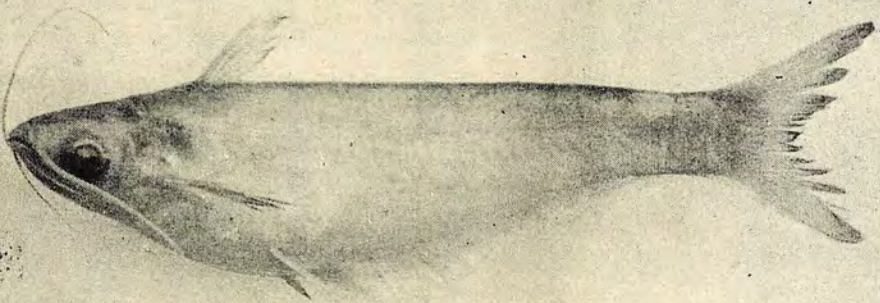


Fig. 9 *Lrides hexanema*. TL 166 mm. Formaldehyde preparation.

ANABANTIDAE**Osphronemus goramy** Lacèpede.

See both at Ban Kao and at Sai Yok. Some specimens cooked did not impress my palate very much, perhaps they were too large to be nice. This surprised me as it is reputed to be one of the most pleasant freshwater fishes.

Material: No. 2090. Kwae Noi at Ban Kao 27.11.61. TL 171 mm
 — 175. — — — Sai Yok 21.12.61. TL 226 mm

Trichogaster trichopterus (Pallas).

A single one (No. 56) caught 27.11.61. south of Ban Kao in a small pool used for watering cattle.

OPHICEPHALIDAE**Ophicephalus marulius** Hamilton.

One was bought from a local man at Sai Yok, it came from the Kwae Noi river itself, it was reported. *Smith* (1945) only records two specimens from Thailand, one of these came from Kanchanaburi, most likely caught in the Meklong.

Material: No. 185. Kwae Noi at Sai Yok 26.12.61. TL 140 mm

NANDIDAE**Pristolepis fasciatus** (Bleeker).

Caught with earth-worms as bait.

Material: No. 171. Kwae Noi at Sai Yok 20.12.61. TL 129 mm
 — 176. — — — — 21.12.61. TL 157 mm

Literature

Boucourt, F. 1866. Notes sur les reptiles, les batraciens et les poissons recueillies pendant un voyage dans le royaume de Siam. *Nouv. Arch. Mus. Hist. Nat. Paris. Bull.* 2. pp. 11-20.

- Fowler, H.** 1938. Zoological results of the third de Schauensee Siamese Expedition. Part 8. Proc. Acad. Nat. Sc. Phil. 89.
- Larsen, K.** 1962. Preliminary report on the Thai-Danish Botanical Expedition to the Kanchanaburi Province 1961/62. Nat. Hist. Bull. Siam Soc. 20 (2).
- Nielsen, E.** 1962. The Thai Danish Prehistoric Expedition 1960-62. Journ. Siam Soc. 50 (1).
- Smith, H. M.** 1945. The fresh-water fishes of Siam, or Thailand. Smithsonian Inst. U.S. Nat. Mus. Bull. 188.
- Weber, M. & de Beaufort** 1913-1962. The fishes of the Indo-Australian Archipelago. 1-11.