

NOTES ON SOME SIAMESE FISHES.

BY HUGH M. SMITH.

THE CYPRINOID FISH PUNTIUS PROCTOZYSRON.

In the Proceedings of the Biological Society of Washington (vol. 40, p. 195, December 2, 1927), under the title "The Siamese Fish *Puntius proctozysson* Bleeker", the present writer published a note on this interesting species which was described by Dr. Bleeker in 1865. The type appears to have been collected by Mons. F. Bocourt at Petchaburi, but recent collecting in the Petchaburi River has failed to disclose the species. The fish is fairly common however, in the Menam Chao Phya and other rivers of Central Siam and is distinguished from related species by the vernacular name of pla kamang. The characteristic feature is the presence in the anal fin of a large, ossified, denticulated third spine.

In the Journal of the Natural History Society of Siam (vol. VI, 1923, p. 156—158, pl. II, fig. 2), Dr. Sunder Lal Hora, of the Indian Museum of Calcutta, described under the name *Puntius smithi* a fish collected in the Menam Chao Phya at Bangkok by Dr. Malcolm Smith, the claim made for the new species being that it "differs from all the known species of the genus in the possession of a strong, denticulated anal spine".

The article by the present writer before cited pointed out that *Puntius smithi* Hora (1923) is a synonym of *Puntius proctozysson* Bleeker (1865).

This fish may be made the type of a distinct genus, for which the name *Puntioplites* is now proposed. The essential generic character is the ossified and denticulated third anal spine.

In March, 1929, I found a similar fish common in the Mekong basin—in the Mekong itself, in Nong Han at Sakon Nakhon, and in the Menam Mun. The local name is pla takang. It reaches a larger size (30 cm. or more) than the form in the Menam Chao

Phya; furthermore, the anterior dorsal rays are greatly elongated and falciform. This fish appears to represent an undescribed species which may be called *Puntioplites falcifer*.

FIRST SIAMESE RECORD FOR THE CATFISH *MYSTUS WYCKI*.

Among a collection of fishes from the Meyom, in northern Siam, recently obtained by Phya Darupan Pitak, Chief Conservator of Forests, and presented to the Department of Fisheries, is a fine specimen of the catfish *Mystus wycki* (Bleeker), 40.4 cm. long. The local name given to this fish at Ban Wang Paen according to Phya Darupan, is pla kot kang mor (pot-sided catfish). This species has heretofore been known only from rivers of Sumatra and Java.

A SECOND SPECIES OF FIGHTING-FISH (BETTA) IN SIAM.

Until the appearance in 1910 of Regan's revision of "The Asiatic Fishes of the Family Anabantidae" (Proceedings Zoological Society of London, 1909), it was generally believed that the celebrated Siamese fighting-fish was *Betta pugnax* (Cantor). Regan showed that *Betta pugnax* was restricted to the island of Penang and that the Siamese fish was unnamed. He called it *Betta splendens*, basing the new species on specimens in the British Museum collected in Bangkok and Penang by Capt. S. S. Flower. This fish has been found to be widely distributed in Siam, and until recently was supposed to be the only one in this country.

In July, 1928, I collected 9 specimens of a peculiar fighting-fish in a small weedy stream within the town of Nakon Sritamarat, Peninsular Siam. These fish bore a strong superficial resemblance to *Ctenops vittatus* (pla krim), and were known locally as pla krim hua mong (big-head pla krim). They agreed most closely with Regan's *Betta taeniata*, from Sarawak, Borneo, and were provisionally identified as that species. A specimen sent to the British Museum was courteously examined by Mr. J. R. Norman of the fish department of that institution who reported: "I have carefully compared the specimen of *Betta* with the types of *B. taeniata*, Regan, and after

some hesitation conclude that it represents that species. The body is a little shorter, the head larger, and there are two or three more rays in the anal fin, but all these seem to me to be within the limits of variation."

This species is now known also from Chantabun (clear streams on Kao Sabap), where a number of specimens were collected in July and September, 1928, by Luang Masya Chitrkarn, of the Department of Fisheries.

A BORNEAN CATFISH (GLYPTOSTERNON) IN SOUTH-EASTERN SIAM.

A small species of catfish, *Glyptosternon major* (Boulenger) heretofore known only from rivers of Borneo, has been ascertained to exist in a hill stream near the base of Kao Sabap, Chantabun South-eastern Siam. Of two specimens collected in April, 1929, by Luang Masya Chitrkarn, of the Department of Fisheries, the larger, 6.5 cm. long, was a female with well-developed ova; the other was, sent to the British Museum, compared by Mr. J. R. Norman with Boulenger's type, and found to agree perfectly therewith.

This genus has as a characteristic feature a thoracic adhesive apparatus which enables the fish to maintain a stationary position in swift water. Representatives occur also in India and Sumatra, and a second Siamese species, *G. siamensis* (Hora), has been described from the Nakon Sritamarat hills.

A NEW PHALLOSTETHID FISH FROM SIAM.

Since the publication in 1913 and 1916 of Regan's accounts of two new genera and three new species of remarkable tiny fishes from the Malay Peninsula representing a new family (Phallostethidae), with anatomical characters possessed by no other known fishes, this family has been recognized as occurring in the Philippine Islands, and Herre in 1925 and 1926 described therefrom two new genera and three new species. The family likewise has several members in Siam, one of them apparently *Neostethus lankesteri* Regan, common in the Bangkok region, previously known from Singapore and the Muar River, and another, belonging to a new

genus and species, described in 1928 by Myers (American Museum Novitates, No. 295, February 1, 1928) under the name *Phenacostethus smithi* from specimens sent by the present writer from Bangkok. This genus is characterized (1) by the presence of a toxactinium (a bony appendage peculiar to the family), (2) a spinous dorsal fin with a single spine, (3) an anal fin with 14 or 15 rays, and (4) a strongly projecting lower jaw. This fish, which attains a maximum length of less than 20 mm., is as yet known only from small water courses in Bangkok.

ADVENT OF GAMBUSIA INTO SIAM.

At some future time it may be a matter of historical interest to know the date at which non-indigenous fishes were introduced into Siam, and it is now purposed to record the facts regarding the advent into Siam of the American mosquito-eating fish *Gambusia holbrooki* Girard.

In January, 1929, Mrs. Emily Collins brought to Bangkok and presented to the Department of Fisheries 12 immature specimens of *Gambusia* which she had obtained at Haifa, Palestine; these were the survivors of 50 fish with which the journey was begun.

On February 11 an accident befell the fish and all but 2 succumbed. These were females with young. On March 3 there were produced by these females 4 young (2 males, 2 females); on April 14 one female gave birth to 8 young, and on April 18 the other female was found to have produced 7 young. A young male born March 3 was placed with the original parent females on April 17 and a brood was born on May 17. On May 21 and 27 broods were obtained from females born on March 3. The second generation thus became fully mature and reproduced when less than 3 months old. Other and larger broods continued to arrive in rapid succession; by June 30 the two original parents had produced four broods, and several hundred fish of all ages were on hand.

The first plant of fish in open waters was made on June 4, in a small klong, with dense vegetation and ample natural food, on the compound of the Department of Fisheries in Bangkok. The deposit consisted of 4 males and 14 females, 3 of the latter containing young that would shortly be expelled.