

**STUDIES ON THE FISH FAUNA OF UTTAR PRADESH TERAI  
2. ON THE EXTENSION OF RANGE OF DISTRIBUTION  
OF PANGIO PANGIA (HAMILTON) WITH  
ZOOGEOGRAPHICAL REMARKS.**

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INTRODUCTION

The cobitid genus, *Pangio* Blyth is represented in India by only two species, *Pangio pangia* (Hamilton), so far recorded from North-east Bengal, Assam and Manipur in India and *Pangio goensis* Tilak, known only from Goa. During recent surveys of fish fauna of Sarda river in Pilibhit district and Suheli river in Dudhwa National Park, Lakhimpur Kheri, district Uttar Pradesh Terai, twenty two examples of *Pangio pangia* have been collected. Since the fish is of rare occurrence and shows discontinuous distribution, notes on this material have been given in this paper.

OBSERVATIONS

*Pangio pangia* (Hamilton)  
(Fig. 1)

1822. *Cobitis pangia* Hamilton, *Fishes of Ganges* : 355, 394 (Type-locality : North-eastern parts of Bengal).  
1889. *Acanthopthalmus pangia* : Day, *Fauna Brit. India, Fish*, 1 : 222.  
1889. *Acanthopthalmus pangia* : Vinciguerra, *Ann.Mus.Stor.Nat. Genova*, (2)IX : 347.  
1916. *Acanthopthalmus pangia* : Weber and Beaufort, *Fish. Indo-Austral. Archipel.*, III : 31.  
1921. *Acanthopthalmus pangia* : Hora, *Rec. Indian Mus.*, 22 : 197.  
1987. *Pangio pangia* : Kottelat, *Jap. J. Ichth.*, 33, p. 371.  
B.III, D.III/6, P.I/8, V.I/6, A.II/5, C.17.

It is an elongated fish with both the profiles of the body almost parallel to each other. The length of head is contained 7.06-7.6 times and the length of caudal fin 9.5-13.2 times in the total length of body. The snout lies 3.0-3.75 times and the eye diameter 7.5 times in the length of head. The height of caudal peduncle lies 1.2-1.4 times in its length. The height of dorsal fin is contained 1.66-1.87 times, the length of pelvic fin 2.14 times and the length of caudal fin 1.25-1.87 times in the length of head. The length of base of dorsal fin is contained 1.14-1.5 times in the height of dorsal fin. The body is covered with scales.

In life, the fish is pinkish in colour and slimy to touch. It lives at the bottom of the stream inbetween stones and algae.

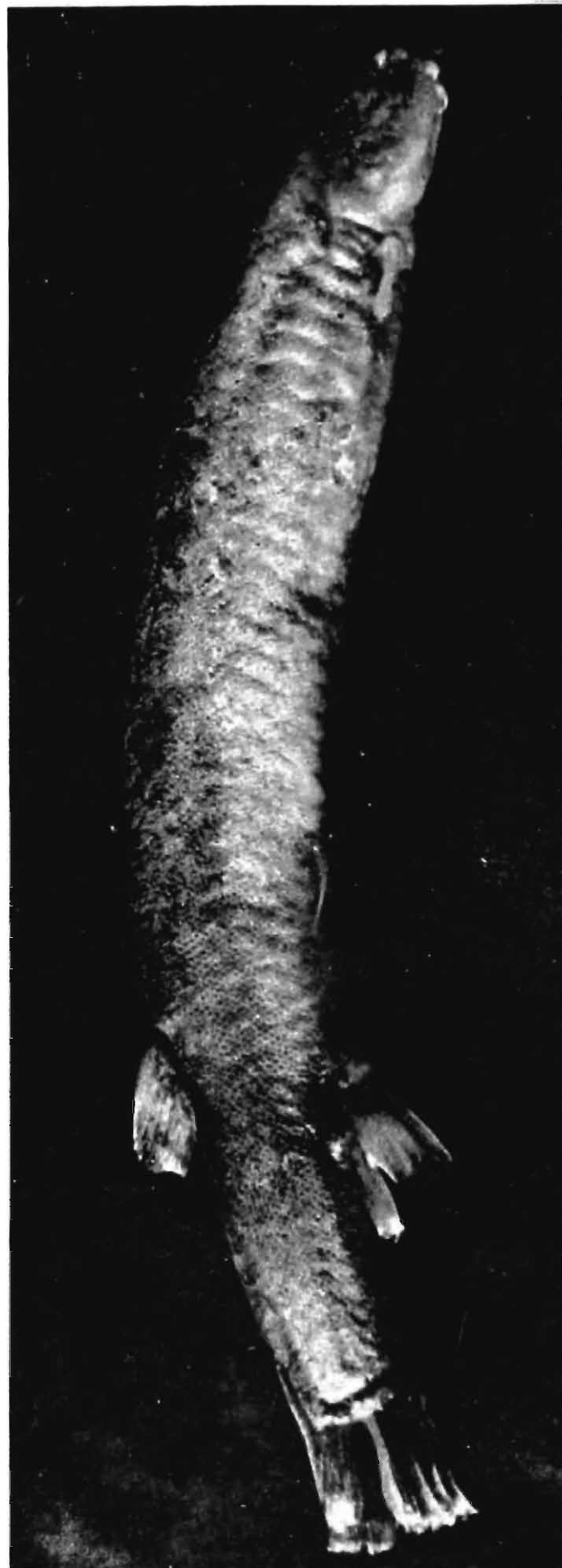


Fig 1. Photograph of *Pangio pangia* (Hamilton) from Sarda river, U. P. Terai.

**Remarks :** *P. pangia* (Ham.) was first described by Hamilton (1822) as *Cobitis pangia* from North-east Bengal and subsequently many authors (Day, 1878; Weber and Beaufort, 1916; Hora, 1920, 1921 b, 1930, 1935, 1941 a, 1941 b, 1944, 1952; Smith, 1945) recorded it from North-east Bengal, Assam, Manipur, Burma, Java and Sumatra. Weber and Beaufort (1916) recorded it from Java and Sumatra and considered *A. javanicus* Bleeker as its synonym but Smith (1943) did not agree with this treatment on the basis of his comparison of the material at his hand with the figure of *P. pangia* (*A. pangia*) given by Day (1878). Tilak (1972), while describing *A. goaensis* from Goa, clarified that Day's figure of *A. pangia* was incorrect in as far as the length of base of dorsal fin and its distance in relation to the tip of snout or the caudal base are concerned. Therefore, the resurrection of *A. javanicus* from the synonymy of *A. pangia* by Smith (1945) was not held valid. The present material agrees well with the description of *P. pangia* (*A. pangia*) which is, therefore, distributed very widely extending from U. P. Terai (district Pilibhit) to Manipur in India, Burma, Thailand, Java and Sumatra. Taxonomic status of *Acanthophthalmus* van Hasselt and *Pangio* Blyth.

Kottelat (1987) has pointed out that *Acanthophthalmus* Bleeker, 1859 is a subsequent erroneous spelling of *Acanthophthalmus* van Hasselt, 1853 and hence not available according to International Rules of Zoological Nomenclature. *Acanthophthalmus* is a junior synonym of *Cobitis* according to Kottelat (1987) and, therefore, the fishes usually described under the generic name *Acanthophthalmus* or *Acanthophthalmus* in fact are to be considered under *Pangio* Blyth, 1860 (type-species : *Cobitis cinnamomeum* McClelland, 1839, an unnecessary replacement name for *Cobitis pangia* Hamilton, 1822). Blyth (1860) also described *Apua* with *A. fusca* Blyth as its type-species but this species is a junior synonym of *Cobitis pangia* based on specimens lacking pelvic fins (Hora, 1921). *Apua* Blyth is, therefore, a synonym of *Pangio* Blyth. Kottelat (1987) has retained *Pangio* Blyth for these fishes and hence, this generic name is used here.

### ZOOGEOGRAPHICAL REMARKS

The present record of *P. pangia* from Sarda river in Pilibhit district and Suheli river in Dudhwa National Park, Lakhimpur Kheri district of Uttar Pradesh Terai extends the range of distribution of this species westwards and establishes a zoogeographic relationship of the eastern part of India with Western part of U. P. This is still another instance to strengthen the belief that the fish fauna travelled from the East to the West along Himalaya (Tilak and Hussain, 1975, 1978, 1980 and Tilak, in press). *P. pangia* is the third species identified from Sarda river to show its extended distribution from the eastern part of India towards the west; the other two species have been siluroids, *Conta conta* (Ham.) of the family Sisoridae and *Chandramara chandramara* (Ham.) of the family Bagridae (Tilak, in press). The evidence of the distribution of fish species common to eastern part of India and western part of Uttar Pradesh indicate that the distribution of

fish fauna from eastern part of India but also along the base of Himalaya with the similar intensity.

### SUMMARY

Two examples of *Pangio pangia* (Hamilton) have been collected from Sarda river in Pilibhit district and twenty two examples of this species from Suheli river in Dudhwa National Park, district Lakhimpur Kheri of Uttar Pradesh. This fish has so far been recorded from North Bengal and further east and the present record of this species in the west along the base of Himalaya as far west as Pilibhit and Lakhimpur Kheri districts is zoogeographically important and provides further support to the opinion that fish fauna got distributed from east to the west along Himalaya. Important morphological characters of this species, as studied in the present material have been mentioned. A photograph of the material is also presented.

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### REFERENCES

- Blyth, E. 1860. Report on some fishes received chiefly from the Sitang river and its tributary Streams, Tenasserim Provinces. *J. Asiat. Soc. Beng.*, **29** : 138-174.
- Day, F. 1878. *The Fishes of India*. London : 610.
- Hamilton, F. 1822. *An account of the fishes found in the river Ganges and its branches*. Edinburgh : 1-405, pls. 39.
- Hora, S. L. 1920. The fish of Seistan. *Rec. Indian Mus.*, **18**(4) : 186.
- Hora, S. L. 1921 a. Notes on the occasional absence of the paired fins in freshwater fishes, with some observations on the two apodal genera *Channa*, Gronow and *Apua*, Blyth. *Rec. Indian Mus.*, **22** : 27-32.
- Hora, S. L. 1921 b. Fish and fisheries of Manipur with some observations on those of the Naga hills. *Rec. Indian Mus.*, **22** : 165-214.
- Hora, S. L. 1930. Animal plasticity and environment. *Nature*, London, **126** : 435.
- Hora, S. L. 1935. Fish of Naga hills, Assam. *Rec. Indian Mus.*, **37**(3) : 383, 384.
- Hora, S. L. 1941 a. Notes on Malayan fishes in the collection of Raffles Museum. Parts. II-III. *Bull. Raffles Mus.*, Singapore, **17** : 44-47.

- Hora, S. L.** 1941 b. On a collection of fish from Kalimpong Duars and Siliguri Terai, Northern Bengal. *J. Asiat. Soc. Beng.*, 6(2) : 77-83.
- Hora, S. L.** 1944. Pollution of streams and conservation of fisheries. Effluent of the Quinine factory at Mungpoo, district Darjiling Bengal. *Proc. natn. Inst. Sci. India*, 10(1) : 154.
- Hora, S. L.** 1952. Adaptation and evolution-Presidential address to the National Institute of Science of India. *Proc. natn. Inst. Sci. India*. 18(3) : 164.
- Kottelat, Maurice** 1987. Nomenclatural status of the fish names created by J. C. van Hasselt (1923) and of some cobitoid genera. *Jap. J. Ichth.*, 33(4) : 368-375.
- Smith, H. M.** 1945. The freshwater fishes of Siam or Thailand. *Bull. U. S. natn. Mus.*, 188 : 293.
- Tilak, R.** 1972. A study of the freshwater and estuarine fishes of Goa. 1. *Acanthopthalmus goaensis*, a new cobitid from Goa, with notes on *Zenarchepterus striga* (Blyth). *J. Inland Fish. Soc. India*, 4 : 61-65.
- Tilak, R.** in press. Studies on the fish fauna of Uttar Pradesh Terai I. On the extension of range of distribution of *Conta conta* (Ham.) (Sisoridae) and *Chandramara chandramara* (Ham.) (Bagridae : Siluriformes). *Matsya*.
- Tilak, R. & Husain, A.** 1975. A new sisorid catfish, *Laguvia ribeiroi kapuri* (Sisoridae : Siluriformes) from Uttar Pradesh. *J. Inland Fish. Soc. India*, 6 : 1-5, figs. 1-3.
- Tilak, R. & Husain, A.** 1978. Redescription of *Glyptothorax saisii* (Jankins) (Sisoridae : Siluriformes) with notes on zoogeography. *Ann. Zool., Agra*, 14(1) : 33-40, figs. 18-22.
- Tilak, R. & Husain, A.** 1980. Description of a new psilorhynchid, *Psilorhynchus sucatio nudithoracicus* (Psilorhynchidae : Cypriniformes) from U. P. with notes on zoogeography. *Mitt. zool. Mus. Berl.*, 56(2) : 35-40, figs. 1-3.
- Weber, M. & deBeaufort, L. F.** 1916. *The fishes of the Indo-Australian Archipelago*. Leiden, 3 : 30-35.