

A NEW SISORID CATFISH OF THE GENUS *MYERSGLANIS* HORA & SILAS 1951, FROM MANIPUR, INDIA¹

WAIKHOM VISHWANATH AND LAISHRAM KOSYGIN²

(With one plate and one text-figure)

Key words: Catfish, Sisoridae, *Myersglanis jayarami* sp. nov., Manipur

A new freshwater sisorid catfish, *Myersglanis jayarami* is described here based on eight specimens collected from Laniye river (Chindwin drainage) of Manipur, India. It is characterised by a band of transverse teeth in the upper jaw which is slightly indented in the middle anteriorly, and conical and pointed teeth in the jaws. The species is also distinct in having 10 branched pectoral rays, 5 branched anal rays, 15-16 branched caudal rays and an adipose dorsal fin confluent with caudal fin. A key to the species of genus *Myersglanis* is also given.

INTRODUCTION

Day (1869) described *Exostoma blythi* without mentioning its type locality. The species was assigned to the genus *Glyptosternum* McClelland by Hora (1923) and to *Euchiloglanis* Regan by Norman (1925). Hora and Silas (1951) proposed a new genus *Myersglanis* to accommodate Day's species as it had characters distinct from species of other glyptosternoid genera. *Myersglanis* is distinct in having conical and pointed teeth on both the jaws, a transverse band of teeth in the upper jaw which is not produced backwards at the sides, and continuous lower labial fold. Other characters include a dorso-ventrally flattened body with laterally compressed caudal peduncle, gill openings restricted to the dorsal surface, weak dorsal spine, lunate caudal fin, first ray of paired fins corrugated ventrally in pinnate folds for adhesive purpose and absence of thoracic adhesive apparatus. This peculiar monotypic genus occurs only in Nepal (Misra, 1976; Jayaram, 1979; Talwar and Jhingran, 1991). Recently, one of us (L. Kosygin) collected eight specimens of

Myersglanis during an investigation of hill stream fishes in Ukhrul dist., Manipur, India. They differ from *M. blythi* in many respects. The fish is described here as a new species.

The specimens were fixed and preserved in 10% formalin. Measurements and counts followed Jayaram (1981). All measurements were made with a calliper to the nearest 0.1 mm. The type specimens of the new species have been deposited in the Manipur University Museum of Fishes (MUMF).

Abbreviations: ASB, Asiatic Society of Bengal; ZSI, Zoological Survey of India, Calcutta; SL, standard length; HL, head length; SD, standard deviation; M, mean.

Myersglanis jayarami sp. nov.

Material examined: *Holotype*: 82.0 mm SL, Regn. No. MUMF 2138, Locality: Laniye river at Jessami, Manipur, India (94° 32' E, 25° 38' N), Coll. L. Kosygin, 15.viii.1994.

Paratypes: 7 exs., 54.0-75.0 mm SL, Regn. No. MUMF 2105, 2139-2144, collection data same as holotype.

Diagnosis: *Myersglanis jayarami* sp. nov. is easily distinguished from its only congener *M. blythi* in having less branched pectoral rays (10 against 16-17); more branched caudal rays (15-16 against 13); anal fin origin equidistant

¹Accepted August 1997

²Department of Life Sciences,
Manipur University
Canchipur 795 003, Manipur.

TABLE 1
MORPHOMETRIC DATA OF *MYERSGLANIS JAYARAMI*
SP. NOV. HOLOTYPE (MUMF 2138) AND
7 PARATYPES (MUMF 2105, 2139-2144)

	Holotype	Holotype & Paratypes		
		Range	Mean	SD
Standard Length (mm)	82.0	54.5-82.0	-	-
In % SL:				
Head length	20.1	20.1-23.8	22.1	1.2
Body depth	15.2	12.9-17.7	16.3	1.6
Head height at occiput	11.6	11.2-14.7	13.1	1.2
Head height at orbit	9.7	9.5-12.0	10.5	0.6
Head width	20.1	19.2-22.0	20.9	0.9
Snout length	9.7	9.7-11.1	10.4	0.3
Eye diameter	1.8	1.8-2.4	2.1	0.2
Inter-orbital space	5.5	5.2-7.3	6.2	0.7
Internasal space	4.3	4.3-5.3	4.8	0.4
Mouth width	7.9	7.9-9.0	8.5	0.4
Caudal peduncle length	20.7	19.0-21.8	20.3	0.9
Caudal peduncle height	12.8	11.5-14.0	12.8	0.9
Dorsal fin height	15.2	14.3-16.7	15.6	0.7
Adipose dorsal fin length	31.7	27.2-34.3	31.4	2.1
Adipose dorsal fin height	2.4	1.5-3.0	2.4	0.5
Pectoral fin length	17.7	16.8-19.3	18.3	0.8
Pelvic fin length	15.8	15.3-16.7	16.0	0.6
Anal fin height	12.8	12.2-14.7	13.6	0.9
Upper Caudal fin lobe length	17.1	16.0-17.5	16.8	0.6
Lower Caudal fin lobe length	18.3	17.2-19.3	18.1	0.8
Distance between snout tip &:				
Dorsal fin insertion	39.0	37.4-42.1	39.8	1.6
Pectoral fin insertion	15.2	14.5-17.2	15.7	0.9
Pelvic fin insertion	44.5	44.5-47.4	46.4	1.0
Anal fin insertion	73.2	73.2-75.2	74.0	0.7
Vent	67.1	67.1-69.5	68.2	0.9
Posterior margin of lower labial fold	7.8	7.8-10.0	9.3	0.8
Inter-dorsal space	19.3	18.4-25.3	20.9	2.3
Ventral fin to anal fin origins	26.4	25.7-27.5	26.8	0.9
Anal fin origin to caudal base	27.8	25.2-27.5	26.5	0.6
Maxillary barbel length	16.5	16.3-19.3	17.6	1.1
Nasal barbel length	8.5	8.4-10.5	9.1	0.7
Outer mandibular barbel length	6.7	6.1-8.8	7.2	0.8
Inner mandibular barbel length	2.4	2.3-3.5	2.8	0.4

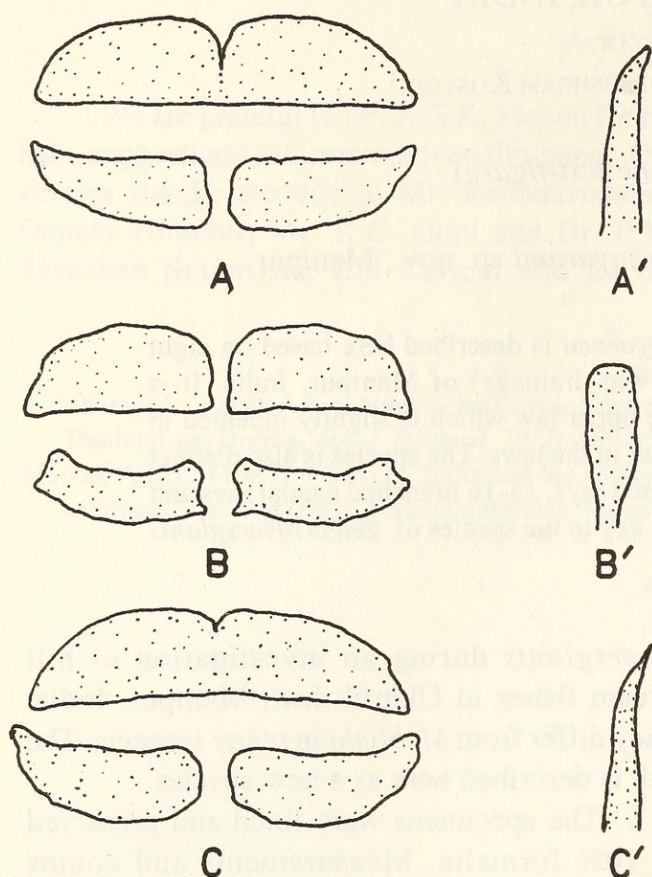


Fig. 3: Nature of teeth band along with shape of tooth:

Myersglanis jayarami (A, A'),
Exostoma vinciguerrae (B, B')
Euchiloglanis sinensis (C, C')

from pelvic fin origin and caudal fin base (against nearer caudal base) and also in having an adipose dorsal fin which is confluent with caudal fin.

DESCRIPTION

The lateral view of the fish is shown in Plate 1, Fig. 1. Morphometric data of holotype and 7 paratypes are given in Table 1. Head and body depressed. Ventral surface flattened from snout to vent, caudal peduncle laterally compressed, its depth 59.4 - 69.2% its length (M= 63.1; SD=3.4). Head broad, width 88.9-100.0 % HL (M= 94.7; SD= 4.1), height at occiput 48.1-68.3% HL (M=59.2; SD=4.9). Eye very small, subcutaneous, not visible from ventral surface, almost in the middle of HL, diameter 8.4 - 10% HL (M=9.3; SD=0.5). Snout obtuse, length 44.4-49.7 % HL (M= 47.3; SD= 1.9).

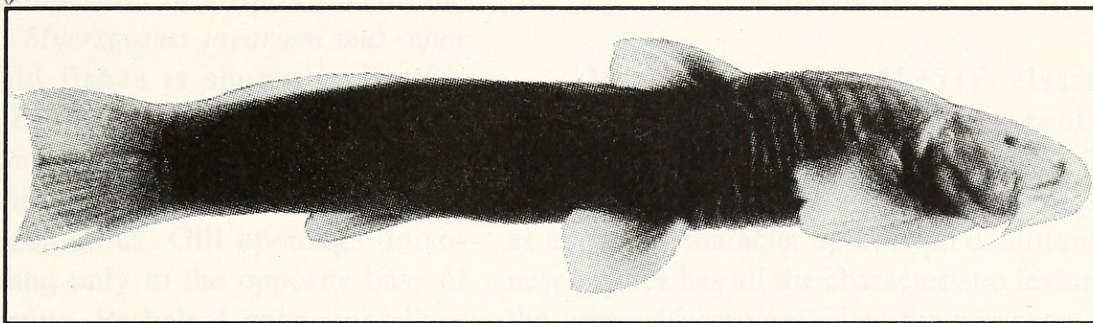


Fig. 1: Lateral view of *Myersglanis jayarami* sp. nov.
(Holotype, 82.0 mm Standard length)

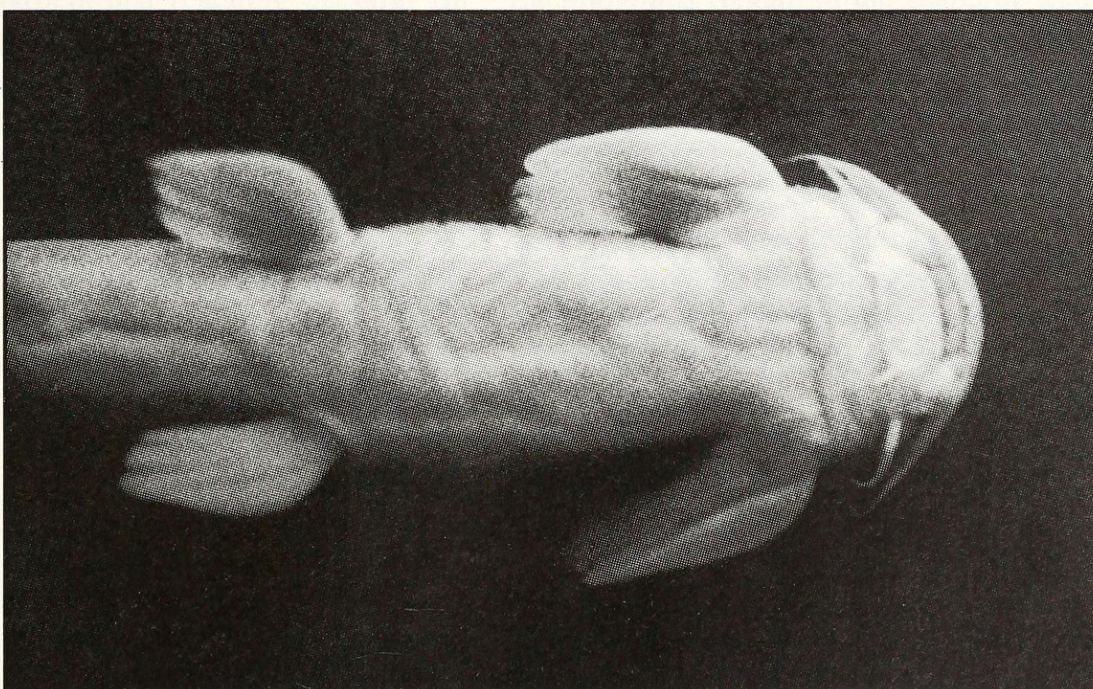


Fig. 2: Ventral view of *Myersglanis jayarami*

Mouth inferior, transverse, surrounded by fleshy lips, width 34-41% HL (M=38.5; SD= 2.0). Lower labial fold continuous. Teeth conical, pointed and directed backwards in both jaws. The band of teeth in the upper jaw slightly indented in the middle and not produced backwards at the sides (a comparison of shape of teeth and teeth bands of *Myersglanis jayarami* and other Glyptosternoid fishes is shown in Fig 3). However, the bands are not separated into two as in *Exostoma* Blyth. Teeth band in lower jaw is divided in the centre and pointed towards the sides. Plate edentulous. Gill openings dorso-lateral, extending only to the opposite base of the pectoral spine. Barbels 4 pairs, maxillary barbels with broad base and its ventral surface provided with pinnate folds. It extends to one-third of the length of pectoral fin base. Nasal barbels exceed posterior margin of orbit, outer mandibular barbels just reaching pectoral fin origin. Inner mandibular barbel very short. Chest transversely striated on the sides, gradually becoming posteriorly directed skin folds on the extremities (Plate 1, Fig. 2).

Rayed dorsal without strong spine. It has one simple and 6 branched rays. Its origin lies nearer to snout tip than to caudal base. Adipose dorsal fin low, long and confluent with caudal fin. Paired fins are broad, rounded, their inner half vertical and outer half horizontal in position. The first ray of paired fins flattened and ventrally corrugated in pinnate folds. Pectoral fin with one simple and 10 branched rays. Pelvic fin with one simple and 5 branched rays. Pectoral and pelvic fins are separated by a considerable distance. Anal fin with one simple and 5 branched rays. Its origin lies equidistant from pelvic fin origin and caudal fin base. Caudal fin lunate, lower lobe slightly longer than the upper with 15-16 branched rays. Lateral line distinct. Skin soft and smooth.

Colour of live specimen: Yellowish grey to dingy olive brown with pale white ventral surface. Head, dorsal streak and lateral line darker; caudal fin dusky.

Distribution: Lainye river at Jessami, Manipur (Chindwin drainage), India.

Etymology: The new species is named after Dr. K.C. Jayaram who encouraged us in this work and provided relevant literature.

DISCUSSION

Hora and Silas (1951) classified Glyptosternoid fishes based on the nature of teeth and form of teeth bands in the jaws. They considered the nature of the fold of lower lip also as a generic character apart from dentition. The new species has all the characteristic features of the genus *Myersglanis*, i.e., the presence of (i) all conical and pointed teeth in both jaws, (ii) a continuous teeth band in the upper jaw, and (iii) a continuous lower labial fold.

The species described here is similar to *Euchiloglanis* Regan, in the shape of teeth and nature of teeth bands. However, it differs in having a continuous lower labial fold compared to the widely interrupted fold of the latter. Hora and Silas (*op. cit.*) considered this a major character in distinguishing the two genera. The new species has a continuous lower labial fold as in *Exostoma* Blyth. But *Exostoma* is distinct in having oar-shaped teeth and two clearly separated upper teeth bands.

With this report, the genus *Myersglanis* is no more monotypic and its range of distribution extends up to Manipur, India (Chindwin drainage).

Comparative materials: *Myersglanis blythi*: ASB Cat. F 599 in ZSI, 2 ex., 55.0-57.5 mm SL, Pharping, Nepal, Coll. F. Day, no date. *Euchiloglanis kamengensis*: ZSI F 2106/2, 2 ex., Paratype, Norgum river, Kalaktang Kameng Frontier Division, NEFA, Coll. K.C. Jayaram, 22.iii.1961. *Exostoma vinciguerrae* - ZSI F6667/1, ZSI F6671/1, 2 exs, 34.0-37.5 mm SL, Pazi, Moughong, N. Shan States, Myanmar. Coll. J. Coggin Brown, no date, MUMF 2356, 4 ex., 50.6-76.7 mm SL, Adaiki stream, Manipur, Coll. M.G. Sharma, no date; *E. berdmorei*, ASB cat

597, type, 64 mm SL., Tenasserim, Myanmar, Coll. Maj. Berdmore, no date. *E. stuarti*, Holotype, 44 mm SL, ZSI F 9742/1, Putao plains, Tanja, Tibetan Frontier, Myanmar, Coll. Dr. Murray Stuart, no date.

KEY TO SPECIES OF GENUS
Myersglanis Hora & Silas

Pectoral fin with 16-17 branched rays; Caudal fin with 13 branched rays *Myersglanis blythi*

Pectoral fin with 10 branched rays, Caudal fin with 15-16 branched rays *M. jayarami*

ACKNOWLEDGEMENTS

We thank Mr. T.K.Sen, Head, Freshwater Fish Section, Dr. Karmarkar, Zoological Asst. and Miss Lina Sarkar, Project Fellow, Z.S.I., Calcutta for their valuable help during the junior author's study at the Indian Museum, and the Ministry of Environment & Forests, New Delhi (Project No. 1141/IFD/97) for financial assistance.

REFERENCES

- DAY, F. (1869): Remarks on the fishes of the Calcutta Museum. *Proc. Zool. Soc. London.*, 511-527.
- HORA, S.L. (1923): Notes on the fishes of the Indian Museum 5. - on the composite genus *Glyptosternum* McClelland. *Rec. Ind.* 25: 1-44.
- HORA, S.L. & E.G. SILAS (1951): Notes on the fishes of Indian Museum, 47. Revision of the Glyptosternoid fishes of the family Sisoridae, with description of new genus and species. *Rec. Ind.* 49: 5-29.
- JAYARAM, K.C. (1979): Aid to the identification of the sisorid fishes of India, Burma, Sri Lanka, Pakistan and Bangladesh, 3, Sisoridae. *Occ. Pap. Zool. Surv. India*, No. 14: 1-62.
- JAYARAM, K.C. (1981): The freshwater fishes of India, Pakistan, Bangladesh, Burma and Sri Lanka - a handbook. Zoological Survey of India. p. 475.
- MISRA, K.S. (1976): The Fauna of India and the adjacent countries, Pisces 3. Zoological Survey of India. p. 367.
- NORMAN, J.R. (1925): Two new fishes from Tonkin. *Ann. Mag. Nat. Hist.* 15(9): 570.
- TALWAR, P.K. & JHINGRAN, A.G. (1991): Freshwater Fishes of India and adjacent countries, 2. Oxford & IBH, New Delhi pp. 543-1158.





Vishwanath, Waikhom and Kosygin, Laishram. 1999. "A new sisorid catfish of the genus *Myersglanis* Hora & Silas 1951, from Manipur, India." *The journal of the Bombay Natural History Society* 96, 291–296.

View This Item Online: <https://www.biodiversitylibrary.org/item/189533>

Permalink: <https://www.biodiversitylibrary.org/partpdf/155558>

Holding Institution

Smithsonian Libraries and Archives

Sponsored by

Biodiversity Heritage Library

Copyright & Reuse

Copyright Status: In Copyright. Digitized with the permission of the rights holder

License: <http://creativecommons.org/licenses/by-nc/3.0/>

Rights: <https://www.biodiversitylibrary.org/permissions/>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.