ON A SMALL COLLECTION OF FISHES FROM SIKKIM

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INTRODUCTION

A faunastic survey tour to Sikkim was conducted by the author during March-April, 1996, with special reference to the collection of helminth parasites of vertebrates of Sikkim. In the field while examining the host material a good number of fish hosts were examined to investigate parasitic infection and host fishes were preserved for taxonomic studies. The present paper deals with the said fish material collected from a hill stream at the confluence of the river Ramam with the river Ranjeet at Nayabazar (Jorthang) District West Sikkim in April, 96 by the author. The river Ramam is essentially a hill stream which has close association with Darjeeling district of West Bengal.

McClelland (1845) described *puntius spinulosus* (McClelland), *Puntius clavatus* (McClelland) and *Ctenops nobilis* McClelland from Sikkim. Hora (1927 and 1935) in two reports recorded *Glyptothorax gracilis* (Gunther) and described two new species, *Noemacheilus devdevi* Hora and *Noemacheilus inglisi* Hora from Sikkim. In addition Gunther (1868), Day (1878), Hora and Silas (1951, 1952) and Menon (1954, 1964), in separate reports recorded the occurrence of 8 species under 6 genera from Sikkim. Raj Tilak (1972) compiled the earlier works and studying the collections present in the Zoological Survey of India made a consolidated list.

In the present communication a list of 30 species of fishes so far from the area are provided which include all the species mentioned above.

SYSTEMATIC LIST

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<th>Order</th>
<th>CYPRINIFORMES</th>
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<td>Family</td>
<td>CYPRINIDAE</td>
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<td>Subfamily</td>
<td>RASBORINAE</td>
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*Barilius bendelisis* (Hamilton-Buchanan)
*Barilius vagra* (Hamilton-Buchanan)
*Barilius barna* (Hamilton-Buchanan)
*Barilius* Sp.
*Brachydanio rerio* (Hamilton-Buchanan)
*Danio aequipinnatus* (McClelland)
Subfamily CYPRININAE

Accrossocheilus hexagonolepis (McClelland)
Crossocheilus latius (Hamilton-Buchanan)
Garra annandalei Hora
Garra gotyla gotyla (gray)
Garra lamia (Hamilton-Buchanan)
Labeo dyocheilus (McClelland)
Neolissochilus spinulosus (McClelland)
Puntius clavatus (McClelland)
Schizothorax plagiostomus Heckel
Schizothorax richardsonii (Gray)
Tor mosal (Hamilton-Buchanan)
Tor putitora (Hamilton-Buchanan)

Family : COBITIDAE

Noemacheilus devdevi Hora
Noemacheilus deTerrai Hora
Noemacheilus inglisi Hora
Noemacheilus rupicola (McClelland)
Pangio pangia (Hamilton-Buchanan)

Order : SILURIFORMES
Family : SISORIDAE

Euchiloglanis hodgarti (Hora)
Glyptothorax striatus (McClelland)
Glyptothorax gracilis (Gunther)
Glyptosternum maculatum (Regan)
Laguvia shawi Hora
Pseudochensis sulcatus (McClelland)

Order : PERCIFORMES
Family : BELONTIDAE

Ctenops nobilis McClelland

SYSTEMATIC ACCOUNT

Order : CYPRINIFORMES
Family : CYPRINIDAE
Subfamily : RASBORINAE

Genus Danio Hamilton-Buchanan, 1822

Danio aequipinnatus (McClelland)

1839. Perilampus aequipinnatus McClelland, Asiat. res., 19(2) : 393, pl. 60, fig. 1 (type-locality : Assam).

**Material**: 2 exs. (7.2-8 cm. total length) Ramam river, Nayabazar, West Sikkim, 2.iv.1996, D. K. Kundu coll.

**Diagnosis**: Head 5 in total length, Dorsal rays 1/11, Ventral rays 8, Pectoral rays 12, Anal rays 14-15. Lateral line scales 34-35. Barbels 2 pairs, snout obtuse. Mouth anterior, obliquely upwards, the end of lower jaw with a knob at symphysis.

**Distribution**: Widely distributed in India. Elsewhere: Bangladesh, Nepal, Malay, Myanmar, Sri Lanka, Sumatra, Thailand, Yunnan Provinces, China.

**Genus barilius** Hamilton-Buchanan, 1822

*Barilius bendelisis* (Hamilton-Buchanan)

1807. *Cyprinus bendelisis* (Hamilton-Buchanan), journey in Mysore, 3 : 345, pl. 32, (Type locality: Rivers of Mysore).


**Material**: 2 exs. (7.2-12.5 cm. total length), Ramam river, Nayabazar, West Sikkim, 2.iv.1996, D. K. Kundu coll.

**Diagnosis**: Adult specimen - Head 5 in total length, eye 6 mm. Lateral line scale 42-44. Maxillary barbel one pair (short). Pectoral fin rays 12. Absence of any band on the body. Black spot in between the scales all through the body. Lateral line scales low, above 3 transverse scales from abdomen. Transverse scales 11, snout with prominent tubercles.

Juvenile specimen-Total length 7.2 cm. Number of vertical bands 11 extend from back to lateral line. Lateral line scales all through the body.

**Distribution**: Through out India including Sikkim. Elsewhere: Bangladesh, Pakistan, Sri Lanka.

**Subfamily**: CYPRININAE

**Genus Crossocheilus** Van Hasselt, 1823

*Crossocheilus latius* (Hamilton-Buchanan)


**Material**: 1 ex. (18.2 cm. total length) Ramam river, Nayabazar, West Sikkim, 2.iv.1996, D. K. Kundu coll.

**Diagnosis**: Head 5.51 in total length. Lateral line scales 39-41, Rostral barbels 3 cm. long. Maxillary barbels could not be traced. D.3/7, V.9, A.2/5. 4.5 rows of scales between lateral line and pelvic base. Snout overhanging mouth. Upper lip indented on the edge.
Distribution: Drainage of the Ganga and Brahmaputra; Mahanadi river drainage in Orissa; and Western ghats, South to the head water of Krishna river. Sikkim and West Bengal.

Genus Garra Hamilton-Buchanan, 1822

Garra annandalei Hora

1921. Garra annandalei Hora, Rec. Indian mus., 22(5) : 657 (Type locality: Mahananda river, below Darjeeling).


Distribution: Assam, Bihar, Sikkim and West Bengal. Elsewhere: Nepal, Bangladesh.

Garra gotyla gotyla (Gray)

1832. Cyprinus gotyla Gray. Illust. Indian Zool. Hardwicke, 1, pl. 88, figs. 3, 3a (Type locality: Northern India).


Distribution: All along the Himalayas, Chotanagpur plateau and Vindya-Satpura mountains of the Indian Peninsula, Sikkim. Elsewhere: Bangladesh, Nepal, Upper Myanmar, Pakistan (Peshawar).

Genus Schizothorax Heckel, 1838

Schizothorax richardsonii (Gray)

1830-32. Cyprinus richardsonii Gray, Ill. Indian Zool., pl. 14, fig. 2 (Illustration only).


Material: 1 ex. (17.3 cm. total length), Ramam river, Nayabazar, West Sikkim, 2.iv.1996, D. K. Kundu coll.


Genus *Tor* Gray, 1834

*Tor putitora* (Hamilton-Buchanan)


Diagnosis: Head 5.03 in total length. Eyes 8 cm. Lateral line scales 27-28, Barbels 2 pairs, Maxillary barbels 1 cm. long, Rostral. 5 cm. long. Dorsal rays 3/7, Pectoral 15-16, ventral fin to lateral line 2.5 scales. Caudal rays 24-25, depth of body 3 cm.


Family: COBITIDAE

Subfamily: NOEMACHEILINAE

Genus *Noemacheilus* Van Hasselt, 1823

*Noemacheilus devdevi* Hora


Material: 1 ex. (5.5 cm. total length), Ramam river, Nayabazar, West Sikkim, 2.iv.1996, D. K. Kundu coll.

Diagnosis: Head 5 in total length. 7-8 irregular white bands from caudal base to middle of the body. Barbels 3 pairs, Nosal opening very prominent. A slender fish, upper profile slightly arched. Ventral profile straight. Caudal end furcate.

Distribution: Sikkim and West Bengal.

Subfamily: COBITINAE

Genus *Pangio*

*Pangio pangia* (Hamilton-Buchanan)


Distribution Sikkim and West Bengal. Elsewhere Bangladesh, Myanmar.

Order SILURIFORMES
Family SISORIDAE
Genus Laguvia Hora, 1921
Laguvia shawi Hora


Diagnosis Adhesive disc present on the chest is faintly developed. Pectoral spine serrated internally. Dorsal spine smooth. The skin is full of black spots. White vertical bands on the body as well as on the caudal fin.

Distribution West Bengal (Tista drainage, Darjeeling Himalaya) and Sikkim. Elsewhere : Bangladesh.

Genus Pseudecheneis Blyth, 1860
Pseudecheneis sulcatus (McClelland)

1842. Glyptosternon sulcatus McClelland, Calcutta J. nat. Hist., 2 : 587, pl. 6 (Type locality : Khasi Hills).


Diagnosis : Barbels 4 pairs, Dorsal 1/6, spine of ventral modified as adhesive apparatus, Thorax consisting of 14 transverse folds of skin.

Distribution : Meghalaya, Sikkim and West Bengal. Elsewhere : Bangladesh, Nepal.

SUMMARY

Eleven species of hill stream fishes belonging to ten genera under three families are reported here of them four species viz., Crossocheilus Latius Latius (Hamilton-Buchanan), Laguvia shawi
Hora, *Pangio pangia* (Hamilton-Buchanan) and *Tor putitora* (Hamilton-Buchanan) are first recorded from the state.

**ACKNOWLEDGEMENT**

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**REFERENCES**


Map of Sikkim showing the drainage and the places of collection.