

# Ichthyofauna of Lower Subansiri district, Arunachal Pradesh w.s.r. to Ranga River

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## Abstract

67 species under 38 genera belonging to 14 families of 3 Orders of fishes from the Lower Subansiri district of Arunachal Pradesh were reported. Cyprinidae with 38 species followed by Nemacheilidae with 7 species and Sisoridae with 6 species are the dominant families of the district. *Garra* is the dominant genera with 13 species followed by *Barillius*, *Garra* and *Schizothorax* are the most abundant genera. The impact of the Ranganadi dam on the distribution of fishes up and downstream of the dam is discussed.

**Keywords:** Distribution, Eastern Himalaya, Fish diversity, Impact, Panyor River

## Introduction

Arunachal Pradesh, with a forest cover of 68,045 sq. km. is the state with highest forest area to geographic area ratio (0.81) in the country. It lies in one of the 12 mega biodiversity hotspots of the world, the Eastern Himalayas and located in the transitional zone between the Himalayan and Indo-Burmese region. The topography is predominantly hilly and mountainous, and largely covered with extremely varied and thick vegetation/forests, crisscrossed by many rivers and their tributaries (Kalita and Haridasan, 2001). Though considerable work has been done on exploring the faunal diversity of the state, a lot more awaits their exploration. This is evident from frequent and regular reporting of new species of vertebrates as well as invertebrates. Some of these are new report to the state; some are new to the nation while some are new to science. There is no doubt that the faunal diversity of the state is yet to be explored properly, probably due to the tough terrain and harsh climatic conditions particularly in the upper reaches.

The state is rich in water resources, aquatic systems (rivers/streams, lakes, beels etc.) which accounts for more than 2% of the total geographic area of the state (SAC,

2009). This vast wetland system harbours diverse aquatic fauna including freshwater fishes of which many are reported to be endemic to this landscape. The state is also regarded as the type locality of more than 20 species of freshwater fishes in the world. Ichthyological exploration of the state started probably with the work of McClelland (1839) followed by the pioneering works of Chaudhuri (1913), Hora (1921). After that several authors have explored the ichthyofauna of the state such as Srivastava (1966), Choudhury and Sen (1977), Ghosh (1979), Ghosh & Lipton (1982), Sen (1985, 2006), Sen (1999) and Nath and Dey (1997, 2000). Most recently Bagra et al., (2009) reported a total of 213 species of fish from the state. Since then many more new species of fishes have been reported from the state.

Though considerable progress has been made in documenting the fish fauna of the state, those from Lower Subansiri district seems to have been less explored. There is no detailed study of fish fauna of the district except for some scattered reports. Sen (2006) reported 21 species of fishes from the district. Bagra et al. (2009) did not provide any district-wise account of fish diversity of the state. The Ranga River, locally known as *Panior debru* is one of the major river of Lower

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Subansiri district; is a sub-basin of the river Subansiri. It originates at an elevation of about 3440 m in the upper areas of Subansiri basin, flows through Lower Subansiri district and further flowing through Papumpare district it confluences with river Subansiri. So far, 41 species of fishes have been reported from Ranga River (Nath and Dey, 2000). But this 41 species includes record of fishes from the river flowing through other districts of the state.

## Objectives

The main objective of the study is to document the fish diversity of Lower Subansiri district with special reference to Ranga (Panior) river and its tributaries. The study emphasized on the Ranga River as a 68 m high hydropower dam has been constructed at Yazali. So, it is imperative to study the impact of the dam on the fish fauna of the river by documenting the fish fauna on both upstream as well as downstream of the dam.

## Study Area

Lower Subansiri district is one of the 16 administrative districts of the state of Arunachal Pradesh. It was created when the original Subansiri district was split into Upper and Lower Subansiri district in 1987. In 1999, Papumpare district was carved out from the Lower Subansiri district. Again in the year 2000, Kurung Kumey district was created from Lower Subansiri district. So, the present Lower Subansiri district occupies an area of approx. 3460 km<sup>2</sup>. It is bounded on the north by the Upper Subansiri and Kurung Kumey district of Arunachal, on the south by Papum Pare District of the state and Assam, on the east by W. Siang and some part of U. Subansiri, and on the west by East Kameng, Kurung-Kumey and Papumpare districts.

The district lies approx. between 92°40' to 94°21' E and 26°55' to 28°21' N. The topography is mostly mountainous terrain, most part of it falls within the higher mountain zone consisting of tangled peaks and valleys. The climatic condition of the district highly varies from place to place as well as season to season. In the foot hills or low belt areas, the climatic is moderate in comparison to high belt areas, where as during winter it is very cold and chill, and in summer it is pleasant.

The vegetation of the district is very rich in valuable species of trees and a lot variety of shrubs, cane and bamboo grow abundantly, and the exquisite floral treasures of wilder species may often be found in the shadowy regions. The district is also very rich in wild fauna such as tigers, panthers, leopard, cats, bear, boars, antelopes and barking deer etc. Lower Subansiri district became home to the Talley Valley Wildlife Sanctuary in 1995, with an area of 337 km<sup>2</sup> (Department of Environment and Forests, Government of Arunachal Pradesh). The total wetland area of the district is estimated as 3607 ha accounting for about 0.48% of the total geographic area of the district and 2.32% of the total wetland area of the state. The major wetland types are River/stream and high altitude lakes. Kurung Kumey (Kamala) and Panior (Ranga) with a number of small tributaries are the main rivers that drain most part of the district.

Ziro is the headquarter town of Lower Subansiri district. It lies at 27.63°N and 93.83°E at an elevation range of about 1600 m to 2500 m. The climate remains pleasant throughout the year but with chilling winter. The valley is famous for its scenic beauty and the famous traditional paddy-cum-fish culture practice of the Apatani tribe, the main inhabitants of the area. Owing to this and other sociological issues Ziro valley was shortlisted by the Archaeological Survey of India in 2012 in the tentative list for further nomination to UNESCO for inscription in the World Heritage. Kelle River and Pange River are the two main drainage systems of the Ziro valley area. Two micro hydels, Mai hydel and Tago hydel have been installed on the Kelle River. The Pange river meets Kelle river just few meters down of Tago Hydel near Yazali and thereafter known as Kelle-Pange river which ultimately flows into the Panior river near the Yazali town. Other township of the ditrict are Yazali, Tamen and Raga.

Yazali is one of the 3 circles under Yachuli sub-division of the district. It is located at about 27°24'28"N and 93°44'41"E. This small township is located on the bank of the Ranga River. It is about 12 km from Yazali where NEEPCO has commissioned a 68 m (223 ft) tall dam on the Ranga River which is one of the main sources of power in the state. A number of small and turbulent tributaries like Piit, Pow, Piew, Kelle, Pein etc. feed the Ranga river.

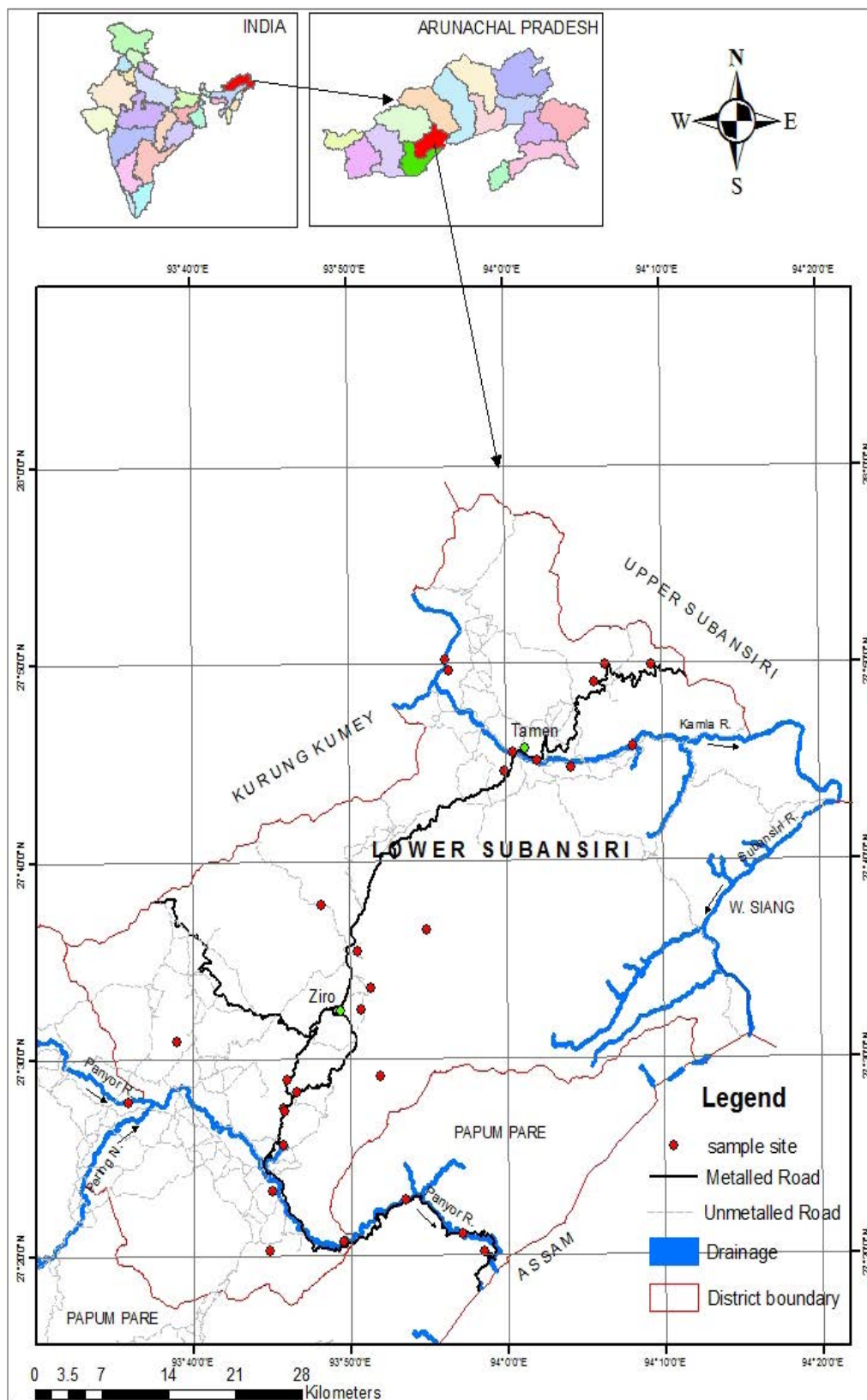


Figure 1. Map of Lower Subansiri District, Arunachal Pradesh showing sampling sites.

Raga is one of the 3 sub-divisions of Lower Subansiri district. It comprises of 3 (three) circles namely Raga, Kamporijo and Dollungmukh. The Kurung river and Kumey river which originates in South China, after flowing separately through the entire patch of Kurung-Kumey district, unites in the Kamporijo block of Lower Subansiri district. It finally drains out in the Subansiri River somewhere in the Raga circle. The Kumey River which is popularly known as Kamla River has a number of turbulent tributaries which drains different areas of the Raga sub-division. A 1600 MW hydro-electric project is being commissioned on the Kumey River at around 2 km up from the Tamen township.

## Methodology

The survey and sampling was done in the major rivers and their tributaries and lentic bodies of the district. Fish specimens were collected using cast net, trap net and traditional fishing methods and with the help of local fisherman. Immediately after collection, fishes were preserved in 10% formalin and brought to laboratory for further identification. Fish identification was done using standard literature like Talwar and Jhingram (1991), Nath and Dey (2000) and Jayaram (2013).

## Systematic List of Fishes

Order CYPRINIFORMES

Family CYPRINIDAE

Genus *Cyprinion* Heckel, 1843

1. *Cyprinion semiplotum* (McClelland, 1839)  
Genus *Megarasbora* Günther, 1868
2. *Megarasbora elanga* (Hamilton, 1822)  
Genus *Neolissochilus* Rainboth, 1985
3. *Neolissochilus hexagonolepis* (McClelland, 1839)  
Genus *Tor* Gray, 1833
4. *Tor putitora* (Hamilton, 1822)
5. *Tor tor* (Hamilton, 1822)  
Subfamily CYPRININAE  
Genus *Cyprinus* Linnaeus, 1758
6. *Cyprinus carpio* (Linnaeus, 1758)  
Subfamily BARBINAE  
Genus *Pethia* Pethiyagoda Meegaskumbura & Maduwage, 2012

7. *Pethia conchoni* (Hamilton, 1822)\*
8. *Pethia ticto* (Hamilton, 1822)  
Genus *Puntius* Hamilton, 1822
9. *Puntius sophore* (Hamilton, 1822)
10. *Puntius terio* (Hamilton, 1822)  
Genus *Schizothorax* Heckel, 1838
11. *Schizothorax esocinus* Heckel, 1838\*
12. *Schizothorax progastus* (McClelland, 1839)
13. *Schizothorax richardsoni* (Gray, 1832)\*  
Subfamily LABEONINAE  
Genus *Bangana* Hamilton, 1822
14. *Bangana dero* (Hamilton, 1822)\*  
Genus *Crossocheilus* Kuhl van Hasselt, 1823
15. *Crossocheilus latius* (Hamilton, 1822)\*  
Genus *Garra* Hamilton, 1822
16. *Garra annandalei* (Hora, 1921)\*
17. *Garra arunachalensis* Nebeshwar & Vishwanath, 2013\*
18. *Garra birostris* Nebeshwar & Vishwanath, 2013\*
19. *Garra gotyla* (Gray, 1830)\*
20. *Garra kalpangi* Nebeshwar, Bagra & Das, 2012
21. *Garra lissorhynchus* (McClelland, 1842)\*
22. *Garra maclellandi* (Jerdon, 1849)
23. *Garra naganensis* Hora, 1921\*
24. *Garra quadratiostris* Nebeshwar & Vishwanath, 2013\*
25. *Garra* sp. 1\*
26. *Garra* sp. 2\*
27. *Garra* sp. 3\*
28. *Garra* sp. 4\*  
Subfamily XENOCYPRINAE  
Genus *Hypophthalmichthys* Bleeker, 1860
29. *Hypophthalmichthys molitrix* (Valenciennes, 1844)\*  
Subfamily DANIONINAE  
Genus *Aspidoparia* Heckel, 1847
30. *Aspidoparia jaya* (Hamilton, 1822)  
Genus *Barilius* (Hamilton, 1822)
31. *Barilius bendelisis* (Hamilton, 1807)
32. *Barilius vagra* (Hamilton, 1822)\*
33. *Barilius tileo* (Hamilton, 1822)  
Genus *Danio* Hamilton, 1822
34. *Danio dangila* (Hamilton, 1822)\*
35. *Danio rerio* (Hamilton, 1822)  
Genus *Devario* Heckel, 1843
36. *Devario aequipinnatus* (McClelland, 1839)

37. *Devario* sp. 1\*
38. *Devario* sp. 2\*  
 Family PSILORHYNCHIDAE  
 Genus ***Psilorhynchus*** McClelland, 1839
39. *Psilorhynchus arunachalensis* (Nebeshwar, Bagra & Das, 2007)\*
40. *Psilorhynchus homaloptera* Hora & Mukerji, 1935  
 Family COBITIDAE  
 Subfamily BOTIINAE  
 Genus ***Botia*** Gray, 1831
41. *Botia rostrata* (Gunther, 1868)\*  
 Subfamily COBITINAE  
 Genus ***Pangio*** Blyth, 1860
42. *Pangio pangia* (Hamilton, 1822)\*  
 Family BALITORIDAE  
 Genus ***Balitora*** Gray, 1830
43. *Balitora brucei* Gray, 1830  
 Family NEMACHEILIDAE  
 Genus ***Aborichthys*** Chaudhuri, 1913
44. *Aborichthys elongatus* Hora, 1921\*
45. *Aborichthys kempfi* Chaudhuri, 1913\*
46. *Aborichthys* sp. 1\*
47. *Aborichthys* sp. 2\*
48. *Aborichthys* sp. 3\*  
 Genus ***Acanthocobitis*** Peters, 1861
49. *Acanthocobitis botia* (Hamilton, 1822)\*  
 Genus ***Schistura*** McClelland, 1839
50. *Schistura rupecula* McClelland, 1838\*  
 Order SILURIFORMES  
 Family BAGRIDAE  
 Genus ***Batasio*** Blyth, 1860
51. *Batasio fasciolatus* Ng, 2006  
 Genus ***Mystus*** Scopoli, 1777
52. *Mystus tengara* (Hamilton, 1822)\*  
 Family SILURIDAE  
 Genus ***Ompok*** Lacépède, 1803
53. *Ompok bimaculatus* (Bloch 1794)  
 Genus ***Pterocryptis*** Peters
54. *Pterocryptis gangetica* Peters, 1861\*  
 Family AMBLYCIPITIDAE  
 Genus ***Amblyceps*** Blyth, 1858
55. *Amblyceps apangi* Nath & Dey, 1989\*
56. *Amblyceps mangois* (Hamilton, 1822)\*  
 Family SISORIDAE  
 Subfamily GLYPTOSTERNINAE  
 Genus ***Creteuchiloglanis*** Zhou *et al.*, 2011
57. *Creteuchiloglanis arunachalensis* Sinha & Tamanag, 2014\*  
 Genus ***Exostoma*** Blyth, 1860
58. *Exostoma labiatum* (McClelland, 1842)\*  
 Genus ***Glyptothorax*** Blyth, 1860
59. *Glyptothorax brevipinnis* Hora, 1923\*
60. *Glyptothorax trilineatus* (Blyth, 1860)\*  
 Genus ***Oreoglanis*** Smith, 1933
61. *Oreoglanis pangenensis* Sinha & Tamanag, 2015\*  
 Genus ***Pseudecheneis*** Blyth, 1860
62. *Pseudecheneis sulcata* (McClelland, 1842)  
 Family HETEROPNEUSTIDAE  
 Genus ***Heteropneustes*** Muller, 1840
63. *Heteropneustes fossilis* (Bloch, 1794)  
 Family OLYRIDAE  
 Genus ***Olyra*** McClelland, 1842
64. *Olyra longicaudata* (McClelland, 1842)\*  
 Order PERCIFORMES  
 Suborder PERCOIDEI  
 Family NANDIDAE  
 Genus ***Nandus*** Valenciennes, 1831
65. *Nandus nandus* (Hamilton, 1822)  
 Family BADIDAE  
 Genus ***Badis*** Bleeker, 1853
66. *Badis badis* (Hamilton, 1822)  
 Suborder Channoidei  
 Family CHANNIDAE  
 Genus ***Channa*** Scopoli, 1777
67. *Channa gachua* (Hamilton, 1822)\*

\* new record to the district

## Systematic Account of Fishes

Order CYPRINIFORMES

Family CYPRINIDAE

Genus ***Cyprinion*** Heckel, 1843

1. ***Cyprinion semiplotum*** (McClelland, 1839)

1839. *Cyprinus semiplotus* McClelland, *Asiat. Res.*, **19**(2): 274, 346, pl. 37, Figure 2 (type locality: Brahmaputra river, Upper Assam)

1860. *Semiplotus macclellandi* Bleeker, *Acta Societatis Regiae Scientiarum Indo-Neerlandicae*, **7**: 115

2006. *Semiplotus semiplotus* Sen, *Pisces. Fauna of Arunachal Pradesh, State Fauna series*, **13**(Part-I): 347, Figure 4

*Common Name(s)*: Assamese Kingfish

*Local Name(s)*: Orche (Adi), Ngogir pech (Nyishi)

*Material consulted*: Sen (2006)

*Distribution*: INDIA: Arunachal Pradesh-Lower Subansiri, Upper Subansiri; Assam, Meghalaya, West Bengal (N. Bengal). *Elsewhere*: Nepal, Bhutan, Pakistan, Sri Lanka and Myanmar

*Habit and Habitat*: Freshwater; benthopelagic.

*Remarks*: Contributes a small fishery in Arunachal Pradesh.

*IUCN Status*: Vulnerable

Genus *Megarasbora* Günther, 1868

2. *Megarasbora elanga* (Hamilton, 1822)

1822. *Cyprinus elanga* Hamilton, Fish Ganges,: 281, 386 (type locality: West Bengal)

2006. *Rasbora elanga* Sen, Pisces. *Fauna of Arunachal Pradesh, State Fauna series*, **13**(Part-I): 334.

*Common Name(s)*: Bengala barb

*Material consulted*: Nath & Dey (2000)

*Distribution*: INDIA: Arunachal Pradesh-Lower Subansiri, West Kameng, Tirap; Bihar, Uttar Pradesh, West Bengal and Assam. *Elsewhere*: Bangladesh, Myanmar, Nepal and Pakistan.

*Habit and Habitat*: Freshwater; demersal. Found in the middle and lower reaches of rivers and ponds

*IUCN Status*: Least Concern

Genus *Neolissochilus* Rainboth, 1985

3. *Neolissochilus hexagonolepis* (McClelland, 1839)

1839. *Barbus hexagonolepis* McClelland, *Asiatic Res.*, **19**(2): 270, 336, pl. 41, Figure 3 (type locality, Upper Assam).

*Common name(s)*: Copper mahseer.

*Local Name(s)*: Ngoge (Nyishi)

*Material examined*: ZSI/V/APFS/P-205, 5 exs., 102.5 to 114.7 mm, Subansiri River, Tale WLS, Lower Subansiri district, Arunachal Pradesh, 11. iii. 2003, P. T. Bhutia;

ZSI/V/APFS/P-286, 3 exs., 132.5 to 168 mm, Hapoli, Lower Subansiri district, Arunachal Pradesh, 16.ii.1996, G. Thirumalai; ZSI/V/APFS/P-330, 1 ex., 147.2, Ranga River, Yazali, Lower Subansiri district, Arunachal Pradesh, 05.xi.1989, P.T. Bhutia; ZSI/V/APFS/P-527, 1 ex., 213.9 mm, Ranga (Panyor) River, Yazali, Lower Subansiri district, Arunachal Pradesh, 19.i.2012, B. Bhutia & party; ZSI/V/APFS/P-553, 4 exs., 59.8 to 147 mm, Ranga (Panyor) River, Yazali, Lower Subansiri district, Arunachal Pradesh, 24.vi.2012, B. Sinha & party; ZSI/V/APFS/P-569, 3 exs., 144.4 to 156.9 mm, Ranga (Panyor) River, Yazali, Lower Subansiri district, Arunachal Pradesh, 05.ix.2012, B. Sinha & party; ZSI/V/APFS/P-571, 6 exs., 56.6 to 76.1 mm, Kelle-pein stream, Yazali, Lower Subansiri district, Arunachal Pradesh, 07.ix.2012, B. Sinha & party; ZSI/V/APRC/P-573, 12 exs., 30.5 to 53.8 mm, Pein stream, Tamen, Lower Subansiri district, Arunachal Pradesh, 10.ix.2012, B. Sinha & party; ZSI/V/APRC/P-595, 3 exs., 66.3 to 67.3 mm, Paa stream, Tamen-Lakhimpur new road, Lower Subansiri district, Arunachal Pradesh, 08.ix.2012, B. Sinha & party; ZSI/V/APRC/P-621, 1 ex., 52.2 mm, Kamla (kurunkumey) river, Tamen, Lower Subansiri district, Arunachal Pradesh, 10.ix.2012, B. Sinha & party; ZSI/V/APRC/P-626, 1 ex., 66.7, Pow river, Takam Pasa village, Yazali, Lower Subansiri district, Arunachal Pradesh, 17.iii.2013, B. Sinha & party; ZSI/V/APRC/P-631, 1 ex., 133.9, Ranganadi dam, Yazali, Lower Subansiri district, Arunachal Pradesh, 18.iii.2013, B. Sinha & party; ZSI/V/APRC/P-639, 2 exs., 58.0 to 68.8 mm, Ranga (Panyor) river, Rub Village, downstream of rangnadi dam, Lower Subansiri district, Arunachal Pradesh, 18.iii.2013, B. Sinha & party; ZSI/V/APRC/P-757, 2 exs., 35.1 to 51.0 mm, Pai stream, Pai Village, tamen, Lower Subansiri district, Arunachal Pradesh, 13.vi.2013, B. Sinha & party; ZSI/V/APRC/P-768, 6 exs., 94.5 to 115.6 mm, Pipik stream, Tamen-Lakhimpur new road, Lower Subansiri district, Arunachal Pradesh, 14.vi.2013, B. Sinha & party; ZSI/V/APRC/P-775, 2 exs., 36.5 to 44.6 mm, Pein river, Tamen, Lower Subansiri district, Arunachal Pradesh, 15.vi.2013, B. Sinha & party.

*Distribution*: INDIA: Arunachal Pradesh-Lower Subansiri, Upper Subansiri, West Siang, East Kameng, Papumpare, East Siang, Lohit, Tirap; Assam, Meghalaya, Mizoram, Nagaland, Sikkin, West Bengal, Bihar, Jharkhand, Uttar Pradesh. *Elsewhere*: Bangladesh, Myanmar, Nepal, Pakistan, Indonesia, Mayasia, Thailand.

*Habit and Habitat:* Freshwater. Inhabits fast flowing streams in high gradient and low gradient riffles and pools.

*IUCN Status:* Near Threatened

Genus *Tor* Gray, 1833

**4. *Tor putitora*** (Hamilton, 1822)

1822. *Cyprinus putitora* Hamilton, *Fish Ganges*, pp. 303, 388 (type locality, Eastern part of Bengal).

1822. *Cyprinus mosal* Hamilton, *Fish Ganges*, 306, 388.

1839. *Barbus progeneius* McClelland, *Asiatic Res.*, **19**(2): 270, 334, pl. 56, Figure 3.

*Common name(s):* Putitor mahseer.

*Local Name(s):* Ngauch (Nyishi)

*Material examined:* ZSI/V/APFS/P-586, 2 exs., 82.1 to 88.3 mm, Ranga (Panyor) River, Yazali, 5 km up from town, Lower Subansiri district, Arunachal Pradesh, 05.ix.2012, B. Sinha & party.

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri, Upper Subansiri, East Kameng, Papumpare, East Siang, West Siang, Lohit, Tirap; Foothills of Himalayas, Assam, West Bengal, Bihar, Madhya Pradesh, Jammu & Kashmir, Himachal Pradesh, Uttar Pradesh, Maharashtra, Nagaland, Manipur, Mizoram, Sikkim and Meghalaya. *Elsewhere:* Afganisthan, Bangladesh, Bhutan, China, Myanmar, Nepal and Pakistan.

*Habit and Habitat:* Freshwater. Inhabits quick streams with rocky bottom, riverine pools and lakes.

*IUCN Status:* Endangered

**5. *Tor tor*** (Hamilton, 1822)

1822. *Cyprinus tor* Hamilton, *Fish Ganges*, pp. 305, 388 (type locality, Mahananda river, West Bengal).

1834. *Tor hamiltonii* Gray, *Ill. Indian Zool.*: no p. pl. 96, Figure 1, upper.

1839. *Barbus megalepis* McClelland, *Asiatic Res.*, **19**(2): 271, 337.

1853. *Tor mosal mahanadicus* var. David, *J. Zool. Soc. India*, **5**(2): 246, Figure 1a

*Common name(s):* Tor barb.

*Local Name(s):* Ngorika (Nyishi)

*Material examined:* ZSI/V/APFS/P-294, 1 ex., 75.7 mm, Hapoli, Lower Subansiri district, Arunachal Pradesh, 16.ii.1996, G. Thirumalai; ZSI/V/APFS/P-554, 12 exs., 53.1 to 89.6 mm, Ranga (Panyor) river, Yazali, Lower Subansiri district, Arunachal Pradesh, 24.vi.2012, B. Sinha & party.

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri, Upper Subansiri, East Kameng, Papumpare, East Siang, Lohit, Tirap; All along Himalays, Assam, Manipur, Meghalaya, Sikkim, Uttar Pradesh. *Elsewhere:* Bangladesh, Bhutan, Myanmar, Nepal and Pakistan.

*Habit and Habitat:* Freshwater. Inhabit rivers and lakes, and rapid streams with rocky bottom.

*IUCN Status:* Near Threatened

Subfamily CYPRININAE

Genus *Cyprinus* Linnaeus, 1758

**6. *Cyprinus carpio*** (Linnaeus, 1758)

1758. *Cyprinus carpio* Linnaeus, *Syst. Nat.*, **10**(1): 320 (type locality, China, Korea, Japan).

*Common name(s):* Common carp.

*Material examined:* ZSI/V/APFS/P-292, 1 exs., 242.5 mm, Hapoli, Lower Subansiri district, Arunachal Pradesh, 16.ii.1996, G. Thirumalai; ZSI/V/APFS/P-525, 4 exs., 55.2 to 68.6 mm, Siro river, Siro village, Lower Subansiri district, Arunachal Pradesh, 17.i.2012, B. Sinha & party.

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri, Changlang; Introduced in 1939. *Elsewhere:* Asia, Europe, America, Africa.

*Habit and Habitat:* Freshwater, brackish; benthopelagic. Inhabits Warm, deep, slow-flowing and still waters, well vegetated lakes.

*IUCN Status:* Vulnerable

Subfamily BARBINAE

Genus *Pethia* Pethiyagoda Meegaskumbura & Maduwage, 2012

**7. *Pethia conchoni*** (Hamilton, 1822)

1822. *Cyprinus conchoni* Hamilton, *Fish Ganges*, pp. 317, 389 (type locality, Ponds of N-E Bengal and river Kosi).

1839. *Systomus pyrropterus* McClelland, *Asiatic Res.*, **19**(2): 285, 383, pl. 44, Figure 1.

1988. *Puntius conchoniis khagariensis* Srivastava & Datta Munshi, Datta Munshi & Srivastava, pp. 186, pl. 23, Figure 4.

*Common name(s)*: Rosy barb.

*Material examined*: ZSI/V/APFS/P-540, 8 exs., 17.8 to 40.2 mm, Siro River, Siro village, Lower Subansiri district, Arunachal Pradesh, 21.vi.2012, B. Sinha & party; ZSI/V/APFS/P-542, 8 exs., 31.4 to 35.5 mm, Paddy field, Ziro, Lower Subansiri district, Arunachal Pradesh, 21.vi.2012, B. Sinha & party; ZSI/V/APRC/P-546, 2 exs., 36.1 to 42.2 mm, Sunya stream, Ziro, Lower Subansiri district, Arunachal Pradesh, 21.vi.2012, B. Sinha & party; ZSI/V/APRC/P-550, 1 ex., 40.3 mm, Ranga (Panyor) river, Yazali, Lower Subansiri district, Arunachal Pradesh, 24.vi.2012, B. Sinha & party; ZSI/V/APRC/P-558, 1 ex., 41.7 mm, Ranga (Panyor) river, Yazali, Lower Subansiri district, Arunachal Pradesh, 05.ix.2012, B. Sinha & party.

*Distribution*: INDIA: Arunachal Pradesh-Lower Subansiri, East Kameng, Papumpare, East Siang, Tirap, Changlang; Assam, West Bengal, Bihar, Uttar Pradesh, Punjab, Maharashtra, Ganges, Brahmaputra, Mahanadi and Cauvery river systems. *Elsewhere*: Afganistan, Bangladesh, Myanmar, Nepal, Pakistan, Singapore, Mexico, Puerto Rico and Colombia.

*Habit and Habitat*: Freshwater. Inhabits inhabit lakes and fast flowing hill streams.

*Remarks*: New record for the district.

*IUCN Status*: Least Concern

#### 8. *Pethia ticto* (Hamilton, 1822)

1822. *Cyprinus ticto* Hamilton, *Fish Ganges*, pp. 314, 389, pl. 8, Figure 87 (type locality, southeastern Bengal).

1849. *Systomus tripunctatus* Jerdon, *Madras J Lit. Sci.*, **15**(2): 316.

*Common name(s)*: Two spot barb.

*Material examined*: ZSI/V/APFS/P-629, 2 exs., 43.0 to 45.1 mm, Pow River, Takam Pasa village, Yazali, Lower Subansiri district, Arunachal Pradesh, 17.iii.2013, B. Sinha & party; ZSI/V/APFS/P-746, 18 exs., 36.7 to 44.9 mm, Kelle river, Ziro, Lower Subansiri district, Arunachal Pradesh, 08.vi.2013, B. Sinha & party; ZSI/V/APRC/P-748, 1 ex., 37.5 mm, Supyo stream, Old Ziro, Lower Subansiri

district, Arunachal Pradesh, 10.vi.2013, B. Sinha & party; ZSI/V/APRC/P-755, 6 exs., 33.8 to 46.5 mm, Sikhe stream, Old Ziro, Lower Subansiri district, Arunachal Pradesh, 08.vi.2013, B. Sinha & party; ZSI/V/APRC/P-763, 8 exs., 31.6 to 48.4 mm, Shia stream, Hari village, Lower Subansiri district, Arunachal Pradesh, 08.vi.2013, B. Sinha & party.

*Distribution*: INDIA: Arunachal Pradesh-Lower Subansiri, Upper Subansiri, East Kameng, West kameng, Papumpare, East Siang, West Siang, Lohit, Tirap, Changlang, Dibang Valley; Throughout India. *Elsewhere*: Bangladesh, Bhutan, China, Laos, Myanmar, Nepal, Pakistan, Sri Lanka & Thailand.

*Habit and Habitat*: Freshwater, brackish; benthopelagic. Inhabits still, shallow, and marginal waters of tanks and rivers, mostly with muddy bottoms.

*IUCN Status*: Least Concern

Genus *Puntius* Hamilton, 1822

#### 9. *Puntius sophore* (Hamilton, 1822)

1822. *Cyprinus sophore* Hamilton, *Fish Ganges*, pp. 310, 389, pl. 19, Figure 86 (type locality, Ponds and rivers of Gangetic plains).

1839. *Systomus chrysopterus* McClelland, *Asiatic Res.*, **19**(2): 285, 381.

1924. *Barbus annandalei* Fowler, *Proc. Aca. Nat. Sci. Philadelphia*, 76: 87, Figure 6.

*Common name(s)*: Pool barb.

*Material examined*: ZSI/V/APFS/P-295, 1 ex., 58.7 mm, Khud River, Kimin, Lower Subansiri district, Arunachal Pradesh, 11.ii.2003, G. Thirumalai.

*Distribution*: INDIA: Arunachal Pradesh-Lower Subansiri, Upper Subansiri, East Kameng, Papumpare, East Siang, West Siang, Lohit, Tirap; Throughout India. *Elsewhere*: Afganistan, Bangladesh, Bhutan, China, Myanmar, Nepal and Pakistan.

*Habit and Habitat*: Freshwater. Inhabits inhabit rivers, streams, ponds in plains and submontane regions.

*IUCN Status*: Least Concern

#### 10. *Puntius terio* (Hamilton, 1822)

1822. *Cyprinus terio* Hamilton, *Fish Ganges*: 313, 389 (No types known)



2006. *Systemus gibbosus* McClelland, Asiatic Researches. 19 (pt 2): 286, 385, Pl. 44, Figure 7

*Common Name(s)*: Onespot barb

*Local Name(s)*: Gali Metak (Adi)

*Material consulted*: Sen (1999)

*Distribution*: INDIA: Arunachal Pradesh-Lower Subansiri, East Siang (Jha *et al.*, 2013); Assam, Bihar, Manipur, Meghalaya, Tripura, Orissa, Uttar Pradesh, West Bengal, Punjab, record from Hyderabad (Chandrsekhar 2004) needs to be confirmed. *Elsewhere*: Pakistan, Nepal, Bangladesh and Myanmar.

*Habit and Habitat*: Freshwater; benthopelagic. Inhabits rivers, canals, ponds, ditches and inundated fields.

*IUCN Status*: Least Concern

Genus *Schizothorax* Heckel, 1838

**11. *Schizothorax esocinus* Heckel, 1838**

1838. *Schizothorax esocinus* Heckel, *Fish Cashmir*, pp. 48, pl. 9 (type locality, Kashmir).

1842. *Racoma nobilis* McClelland, *Calcutta J. Nat. Hist.*, 2 (8): 577, pl. 15, Figure 4.

1877. *Schizothorax punctatus* Day, *Proc. Zool. Soc. London* 1876, 4: 785

1909. *Schizothorax montanus* Zugmayer, *Ann. Mag. Nat. Hist. Series* 8, 3(23): 434.

*Common name(s)*: Chirruh snowtrout.

*Material examined*: ZSI/V/APFS/P-207, 1 ex., 100.8 mm, Subansiri River, Tale WLS, Lower Subansiri district, Arunachal Pradesh, 11.ii.2003, P.T. Bhutia.

*Distribution*: INDIA: Arunachal Pradesh-Lower Subansiri, Upper Subansiri; Kashmir, Ladak, Leh. *Elsewhere*: Afganistan, China, Nepal and Pakistan.

*Habit and Habitat*: Freshwater. Occurs in mountain streams, rivers and lakes. Inhabits sandy and gravel-bottomed rivers.

*Remarks*: New record for the district.

*IUCN Status*: Not Evaluated

**12. *Schizothorax progastus* (McClelland, 1839)**

1839. *Oreinus progastus* McClelland, *Asiatic Res.*, 19(2): 274, 343, pl. 40, Figure 4 (type locality, Upper Assam

1861. *Oreinus hodgsonii* Günther, *Proc. Zool Soc. London*, pt 2: 224.

*Common name(s)*: Dinnawah snowtrout.

*Material examined*: ZSI/V/APFS/P-361, 2 exs., 47.0 to 50.6 mm, Subansiri River, Tale WLS, Lower Subansiri district, Arunachal Pradesh, 09.ii.2003, P.T. Bhutia.

*Distribution*: INDIA: Arunachal Pradesh-Lower Subansiri, Upper Subansiri, East Kameng, West Kameng, East Siang, West Siang, Lohit, Tirap; Jammu and Kashmir Valley, Ganges river in Uttar Pradesh, and Brahmaputra river in Assam, Bagmati and Gandak Rivers in Uttar Pradesh (Ref. 41236). *Elsewhere*: Bhutan, China, Nepal.

*Habit and Habitat*: Freshwater. Inhabits hill-streams, deep run backwaters.

*IUCN Status*: Least Concern

**13. *Schizothorax richardsoni* (Gray, 1832)**

1832. *Cyprinus richardsonii* Gray, *Ill. Indian Zool.*, 1: no p. pl. 94, Figure 2.

1838. *Barbus (Oreinus) guttatus* McClelland, *J. Asiatic Soc. Bengal*, 7: 946.

1838. *Barbus (Oreinus) maculatus* McClelland, *J. Asiatic Soc. Bengal*, 7: 946, pl. 56, Figure 3.

1839. *Gonorhynchus petrophilus* McClelland, *Asiatic Res.*, 19(2): 281, 371, pl. 39, Figure 1.

1907. *Diptychus annandalei* Regan, *Rec. Indian Mus.*, 1: 157.

*Common name(s)*: Snowtrout.

*Local Name(s)*: Ngaka (Nyishi)

*Material examined*: ZSI/V/APFS/P-563, 4 exs., 49.4 to 54.4 mm, Ranga (Panyor) River, Yazali, Lower Subansiri district, Arunachal Pradesh, 24.vi.2012, B. Sinha & party; ZSI/V/APFS/P-568, 2 exs., 73.6 to 199.2 mm, Ranga (Panyor) River, Yazali, Lower Subansiri district, Arunachal Pradesh, 05.ix.2012, B. Sinha & party; ZSI/V/APFS/P-582, 2 exs., 40.1 to 106.9 mm, Pein river, Tamen, Lower Subansiri district, Arunachal Pradesh, 09.ix.2012, B. Sinha & party; ZSI/V/APFS/P-588, 2 exs., 64.3 to 110.1 mm, Panya stream, Kicho village, Raga, Lower Subansiri district, Arunachal Pradesh, 23.vi.2012, B. Sinha & party; ZSI/V/APFS/P-635, 9 exs., 41.9 to 80.9 mm, Ranganadi dam, Yazali, Lower Subansiri district, Arunachal Pradesh, 16.iii.2013, B. Sinha & party; ZSI/V/APRC/P-708, 2 ex.,

137.5 to 149.3 mm, Ranga (panyor) river, Near Silsango village, Pistana, Lower Subansiri district, Arunachal Pradesh, 20.iii.2013, B. Sinha & party; ZSI/V/APFS/P-752, 20 exs., 34.6 to 79.9 mm, Sikhe stream, Hong village, Ziro, Lower Subansiri district, Arunachal Pradesh, 10.vi.2013, B. Sinha & party; ZSI/V/APRC/P-760, 2 exs., 37.7 to 50.1 mm, Pai stream, Pai village, Lower Subansiri district, Arunachal Pradesh, 13.vi.2013, B. Sinha & party; ZSI/V/APRC/P-764, 2 exs., 52.2 to 135.5 mm, Pange river, Arolencing, Ziro, Lower Subansiri district, Arunachal Pradesh, 09.vi.2013, B. Sinha & party; ZSI/V/APRC/P-766, 15 exs., 42.0 to 101.3 mm, Shim stream, Godak, Raga, Lower Subansiri district, Arunachal Pradesh, 12.vi.2013, B. Sinha & party; ZSI/V/APRC/P-767, 2 exs., 88.8 to 90.1 mm, Pipik stream, Tamen, Lower Subansiri district, Arunachal Pradesh, 14.vi.2013, B. Sinha & party; ZSI/V/APRC/P-779, 4 exs., 31.0 to 96.9 mm, Pein river, Tamen, Lower Subansiri district, Arunachal Pradesh, 15.vi.2013, B. Sinha & party.

**Distribution:** INDIA: Arunachal Pradesh-Lower Subansiri, Upper Subansiri, East Kameng, W. Kameng, Papumpare, East Siang, West Siang, Lohit, Tirap; Assam, Bihar, Darjiling, Haryana, Himachal Pradesh, Jammu-Kashmir, Jharkand, Manipur, Meghalaya, Nagaland, Punjab, Sikkim, Uttaranchal, Uttar Pradesh. *Elsewhere:* Afganisthan, Bhutan, China, Nepal and Pakistan.

**Habit and Habitat:** Freshwater. Inhabits rivers, preferably near big submerged stones.

**Remarks:** New record for the district.

**IUCN Status:** Vulnerable

Subfamily LABEONINAE

Genus **Bangana** Hamilton, 1822

**14. *Bangana dero*** (Hamilton, 1822)

1822. *Cyprinus dero* Hamilton, *Fish Ganges*, pp. 277, 331, 385, pl. 22, Figure 78 (type locality, Brahmaputra river).

1844. *Chondrostoma semivelatus* Valenciennes, *Histoire naturelle des poissons* 17: 402.

1912. *Labeo rilli* Chaudhuri, *Rec. Indian Mus.*, 7(5): 439, pl. 38, Figure 4.

**Common name(s):** Kalabans.

**Local Name(s):** Ngope ngoie (Nyishi)

**Material examined:** ZSI/V/APFS/P-287, 5 exs., 86.8 to 99.4 mm, Hapoli, Lower Subansiri district, Arunachal Pradesh, 16.ii.1996, G. Thirumalai; ZSI/V/APRC/P-641, 2 exs., 87.8 to 111.6 mm, Ranga (Panyor) river, Rub village, Yazali, Lower Subansiri, 18.iii.2013, B. Sinha & party.

**Distribution:** INDIA: Arunachal Pradesh-Lower Subansiri, Upper Subansiri, East Kameng, West Kameng, Papumpare, East Siang, Lohit, Tirap, Changlang; All along the Himalayas, Assam, Manipur, Punjab, Uttaranchal, Uttar Pradesh. *Elsewhere:* Afganisthan, Bangladesh, Bhutan, China, Iran, Myanmar, Nepal and Pakistan.

**Habit and Habitat:** Freshwater. Inhabits torrential hill-streams in shallow waters.

**Remarks:** New record for the district.

**IUCN Status:** Least Concern

Genus **Crossocheilus** Kuhl van Hasselt, 1823

**15. *Crossocheilus latius*** (Hamilton, 1822)

1822. *Cyprinus latius* Hamilton, *Fish Ganges*, pp. 345, 393 (type locality, Tista River, at base of Darjeeling Himalayas, India).

1822. *Cyprinus gohama* Hamilton, *Fish Ganges*, 346, 393.

1822. *Cyprinus sada* Hamilton, *Fish Ganges*, 344, 393.

1934. *Crossocheilus latius punjabensis* Mukerji, *J. Bombay Nat. Hist. Soc.*, 37(1): 53, Figure 7.

1839. *Gonorhynchus brevis* McClelland, *Asiatic Res.*, 19(2): 373, pl. 43, Figure 6.

1839. *Gonorhynchus fimbriatus* McClelland, *Asiatic Res.*, 19(2): 282, 375, pl. 43, Figure 3.

1839. *Gonorhynchus macrosomus* McClelland, *Asiatic Res.*, 19(2): 282, 372, pl. 43, Figure 7.

**Common name(s):** Gangetic latia, Stone roller.

**Local Name(s):** Ngoku ngoi (Nyishi)

**Material examined:** ZSI/V/APFS/P-206, 5 exs., 101.3 to 123.3 mm, Subansiri River, Tale WLS, Lower Subansiri district, Arunachal Pradesh, 11.iii.2003, P.T. Bhutia; ZSI/V/APFS/P-293, 2 exs., 67.9 to 91.9 mm, Hapoli, Lower Subansiri district, Arunachal Pradesh, 16.ii.1996, G. Thirumalai; ZSI/V/APRC/P-765, 2 exs., 85.9 to 88.5 mm, Pein stream, Tamen, Lower Subansiri district, Arunachal Pradesh, 09.ix.2012, B. Sinha & party.

**Distribution:** INDIA: Arunachal Pradesh-Lower Subansiri, Upper Subansiri, East Kameng, Papumpare, East Siang, Lohit, Tirap; Ganga, Brahmaputra & Barrak river systems, Maharashtra, Bihar, Manipur, Meghalaya, Mizoram, Tripura, Punjab, Orissa, Karnataka, Kerala, Uttarakhand. *Elsewhere:* Afganisthan, Bangladesh, Bhutan, China, Iran, Myanmar, Nepal and Pakistan.

**Habit and Habitat:** Freshwater, brackish; benthopelagic. Inhabits streams, rivers and lake with gravelly bottom.

**Remarks:** New record for the district.

**IUCN Status:** Least Concern

Genus *Garra* Hamilton, 1822

**16. *Garra annandalei*** (Hora, 1921)

1921. *Garra annandalei* Hora, *Rec. Indian Mus.*, **22**(5): 657 (type locality, Mahananda River).

1921. *Garra chaudhurii* Hora, *Rec. Indian Mus.*, **22**(5): 671, pl. 25, Figure 3.

1974. *Garra satyendranathi* Ganguly & Datta, *Indian Biologist*, **5**(1-2): 91, Figs. 1-2.

**Common name(s):** Annandalei garra.

**Local Name(s):** Ngop (Nyishi)

**Material examined:** ZSI/V/APFS/P-549, 6 exs., 47.6 to 58.8 mm, Ranga (Panyor) river, Yazali, Lower Subansiri district, Arunachal Pradesh, 24.vi.2012, B. Sinha & party; ZSI/V/APFS/P-615, 2 exs., 69.9 to 82.4 mm, Kelle stream, Yachuli, Lower Subansiri district, Arunachal Pradesh, 07.ix.2012, B. Sinha & party; ZSI/V/APFS/P-618, 3 exs., 68.2 to 96.1 mm, Ranga (Panyor) river, Yazali, Lower Subansiri district, Arunachal Pradesh, 05.ix.2012, B. Sinha & party; ZSI/V/APFS/P-520, 2 exs., 67.3 to 105.2 mm, Kamla river, Tamen, Lower Subansiri district, Arunachal Pradesh, 10.ix.2012, B. Sinha & party; ZSI/V/APRC/P-743, 7 exs., 51.7 to 86.5 mm, Pein river, Tamen, Lower Subansiri district, Arunachal Pradesh, 09.ix.2012, B. Sinha & party; ZSI/V/APRC/P-744, 5 exs., 32.8 to 50.0 mm, Piit stream, Pitapool-Sagalee road, Lower Subansiri district, Arunachal Pradesh, 16.iii.2013, B. Sinha & party; ZSI/V/APRC/P-745, 14 exs., 33.7 to 52.0 mm, Ranganadi dam, Yazali, Lower Subansiri district, Arunachal Pradesh, 18.iii.2013, B. Sinha & party; ZSI/V/APRC/P-758, 4 exs., 53.8 to 67.3 mm, Pai stream, Pai village, Tamen, Lower Subansiri district, Arunachal Pradesh, 13.vi.2013, B. Sinha

& party; ZSI/V/APRC/P-785, 9 exs., 57.0 to 80.9 mm, Pow river, Takam Pasa village, Yazali, Lower Subansiri district, Arunachal Pradesh, 17.iii.2013, B. Sinha & party.

**Distribution:** INDIA: Arunachal Pradesh-Lower Subansiri, Upper Subansiri, East Kameng, Papumpare, East Siang, West Siang, Tirap; Assam, Bihar, Manipur, Meghalaya, West Bengal, Nagaland. *Elsewhere:* Bangladesh, Bhutan, Myanmar, Nepal.

**Habit and Habitat:** Freshwater. Inhabits swift and clear mountain streams hving rocks and boulders.

**Remarks:** New record for the district.

**IUCN Status:** Least Concern

**17. *Garra arunachalensis*** Nebeshwar & Vishwanath, 2013

2013. *Garra arunachalensis* Nebeshwar & Vishwanath, *Ichthyol. Explor. Freshwaters*, **24**(2): 101, Figure 3 (type locality, Deopani river, Lower Dibang Valley district, Arunachal Pradesh, India).

**Material examined:** ZSI/V/APRC/P-780, 5 exs., 42.3 to 120.5 mm, Pai stream, Pai village, Tamen, Lower Subansiri district, Arunachal Pradesh, 13.vi.2003, B. Sinha & party.

**Distribution:** INDIA: Arunachal Pradesh - Lower Subansiri, East Kameng, West Siang, Lower Dibang Valley.

**Habit and Habitat:** Freshwater. Inhabits swift-running streams and rivers.

**Remarks:** Endemic to India (Arunachal Pradesh). New record for the district.

**IUCN Status:** Not Evaluated.

**18. *Garra birostris*** Nebeshwar & Vishwanath, 2013

2013. *Garra birostris* Nebeshwar & Vishwanath, *Ichthyol. Explor. Freshwaters*, **24**(2): 104, Figure 5 (type locality, Dikrong river, Doimukh, Papumpare district, Arunachal Pradesh, India).

**Material examined:** ZSI/V/APRC/P-801, 2 exs., 78.61 to 83.79 mm, Ranga (Panyor) River, Yazali, Lower Subansiri district, Arunachal Pradesh, 05.ix.2012, B. Sinha & Party.

**Distribution:** INDIA: Arunachal Pradesh-Lower Subansiri, West Kameng, Papumpare.

*Habit and Habitat:* Freshwater. Inhabits streams, rivers with gravelly bottom.

*Remarks:* Endemic to India (Arunachal Pradesh). New record for the district.

*IUCN Status:* Least Concern

**19. *Garra gotyla*** (Gray, 1830)

1830. *Cyprinus gotyla* Gray, *Ill. Ind. Zool.*, pl. 88, Figure 3 (type locality, Tista River at Rangpo, Sikkim, India).

1919. *Discognathus kangrae* Prasad, *Rec. Ind. Mus.*, **16**(1): 163, Figure 1.

1921. *Garra montisalsi* Hora, *Rec. Ind. Mus.*, **22**(pt 5, no. 29): 651.

*Common name(s):* Sucker head.

*Local Name(s):* Nagoyou totum (Nyishi)

*Material examined:* ZSI/V/APFS/P-548, 2 exs., 55.3 to 80.6 mm, Ranga (Panyor) River, Yazali, Lower Subansiri district, Arunachal Pradesh, 24.vi.2012, B. Sinha & party; ZSI/V/APRC/P-644, 2 exs., 37.0 to 38.7 mm, Ranganadi dam, Yazali, Lower Subansiri district, Arunachal Pradesh, 18.iii.2013, B. Sinha & party.

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri; Sikkim.

*Habit and Habitat:* Freshwater. Inhabits streams and rivers with gravelly bottom.

*IUCN Status:* Not Evaluated

**20. *Garra kalpangi*** Nebeshwar, Bagra & Das, 2012

2012. *Garra kalpangi* Nebeshwar, Bagra & Das, *J. Threatened Taxa*, **4**(2): 2355 (type locality, Kalpangi River, Yachuli [Brahmaputra basin], Lower Subansiri district, Arunachal Pradesh, India).

*Material consulted:* Bagra *et al.* (2009)

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri.

*Habit and Habitat:* Freshwater.

*Remarks:* Endemic to India (Arunachal Pradesh)

*IUCN Status:* Not Evaluated

**21. *Garra lissorhynchus*** (McClelland, 1842)

1842. *Platycaera lissorhynchus* McClelland, *Calcutta J. Nat. Hist.*, **2**(8): 587. Pl. 18, Figure 2 (type locality, Kasyah [Khasi] Hills, Meghalaya, India).

1868. *Discognathus macrochir* Günther, *Cat. Fish. British Mus.*, **7**: 70.

1870. *Mayoa modesta* Day, *Proc. Zool. Soc. London*, **3**: 553.

*Common name(s):* Khasi Garra.

*Material examined:* ZSI/V/APRC/P-781, 16 exs., 39.0 to 60.8 mm, Pipik stream, 15 km on Tamen-Lakhimpur new road, Tamen, Lower Subansiri district, Arunachal Pradesh, 14.vi.2013, B. Sinha & party; ZSI/V/APRC/P-799, 6 exs., 46.61 to 67.26 mm, Kelle river, Ziro, Lower Subansiri district, Arunachal Pradesh, 08.vi.2013, B. Sinha & party; ZSI/V/APRC/P-805, 13 exs., 33.04 to 40.02 mm, Pein stream, Tamen, Lower Subansiri district, Arunachal Pradesh, 09.ix.2012, B. Sinha & party.

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri, Papumpare, Tirap; Assam, Manipur, Meghalaya, Mizoram, Nagaland. *Elsewhere:* Afganisthan, Bangladesh, Bhutan, China, Iran, Myanmar, Nepal and Pakistan.

*Habit and Habitat:* Freshwater. Inhabits hills stream with rocky bed.

*Remarks:* Endemic to India (northeastern India). New record for the district.

*IUCN Status:* Least Concern

**22. *Garra maclellandi*** (Jerdon, 1849)

1849. *Gonorhynchus maclellandi* Jerdon, *Madras J. Lit. Sci.*, **15**: 305 (type locality, Bhavany River at foothills of Nilgiri Hills)

*Common Name(s):* Cauvery Garra

*Material consulted:* Nath & Dey (2000)

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri, East Kameng, Papumpare, East Siang, Lower Dibang Valley, Lohit, Tirap; Manipur, Meghalaya, Mizoram, Sikkim, Cauvery drainage, Nilgiri Hills, Kerala, Karnataka, Tamil Nadu. *Elsewhere:* None

*Habit and Habitat:* Freshwater; benthopelagic. Occurs in mountain streams.

*Remarks:* Endemic to India

*IUCN Status:* Least Concern

**23. *Garra naganensis*** Hora, 1921

1921. *Garra naganensis* Hora, *Rec. Indian Mus.*, **22**(5): 667, pl. 25, Figs. 2, 2a (type locality, Senapati stream, Kairong, Naga Hills, Assam, India).

*Common name(s):* Naga Garra.

*Material examined:* ZSI/V/APFS/P-201, 4 exs., 40.7 to 52.6 mm, Subansiri River, Tale WLS, Lower Subansiri district, Arunachal Pradesh, 11.iii.2003, P. T. Bhutia.

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri, East Siang, West Siang, Tirap; Assam, Manipur, Meghalaya, Mizoram, Nagaland.

*Habit and Habitat:* Freshwater. Inhabits hill streams and river with moderate to fast flowing water.

*Remarks:* Endemic to India (Northeastern India). New record for the district.

*IUCN Status:* Least Concern

**24. *Garra quadratiostris*** Nebeshwar & Vishwanath, 2013

2013. *Garra quadratiostris* Nebeshwar & Vishwanath, *Ichthyol. Explor. Freshwaters*, **24**(2): 107, Figure 6 (type locality, Tista river at Rangpo [Ganga basin], Sikkim, India).

*Material examined:* ZSI/V/APRC/P-797, 1 ex., 86.22 mm, Pein River, Tamen, Lower Subansiri district, Arunachal Pradesh, 15.vi.2013, B. Sinha & party.

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri, East Siang, Lower Dibang Valley; Sikkim.

*Habit and Habitat:* Freshwater.

*Remarks:* Endemic to India (Northeastern India). New record for the district.

*IUCN Status:* Least Concern

**25. *Garra* sp. 1**

**26. *Garra* sp. 2**

**27. *Garra* sp. 3**

**28. *Garra* sp. 4**

Subfamily XENOCYPRINAE

Genus *Hypophthalmichthys* Bleeker, 1860

**29. *Hypophthalmichthys molitrix*** (Valenciennes, 1844)  
1844. *Leuciscus molitrix* Valenciennes, *Histoire naturelle des poissons* v. **17**: 360 (type locality, China).

*Common name(s):* Silver carp.

*Material examined:* ZSI/V/APFS/P-366, 1 ex., 226.4 mm, Ranga (Panyor) River, Yazali, Lower Subansiri district, Arunachal Pradesh, 05.xi.1989, P.T. Bhutia.

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri; Throughout India (introduced). *Elsewhere:* China, Mongolia, Russia.

*Habit and Habitat:* Freshwater.

*Remarks:* New record for the district.

*IUCN Status:* Near Threatened

Subfamily DANIONINAE

Genus *Aspidoparia* Heckel, 1847

**30. *Aspidoparia jaya*** (Hamilton, 1822)  
1822. *Cyprinus jaya* Hamilton, *Fish Ganges*, 333, 392 (type locality, Northern Bihar).  
1839. *Leuciscus margarodes* McClelland, *Asiat. Res.*, **19**(2): 294, 411.

*Common Name(s):* Jaya

*Material consulted:* Sen (2006)

*Distribution:* India: Arunachal Pradesh-Lower Subansiri, East Kameng, Papumpare, East Siang, Lohit, Tirap; Assam, Tripura, Gangetic provinces, Uttar Pradesh, Uttaranchal, West Bengal. *Elsewhere:* Bangladesh, Nepal, Afghanistan.

*Habit and Habitat:* Freshwater; benthopelagic. Inhabits streams and ponds in plains and mountainous regions.

*IUCN Status:* Least Concern

Genus *Barilius* (Hamilton, 1822)

**31. *Barilius bendelisis*** (Hamilton, 1807)

1807. *Cyprinus bendelisis* Hamilton, *Journ. Mysore*, **3**: 345, pl. 32 (type locality, head waters of Vedawati stream, Krishna near Mysore).
1822. *Cyprinus chedra* Hamilton, *Fish Ganges*, 273, 385 (rivers of northern Bengal).
1822. *Cyprinus tila* Hamilton, *Fish Ganges*, 274, 385.
1839. *Leuciscus branchiatus* McClelland, *Asiatic Res.*, **19**(2): 293, 409, pl. 42, Figure 5 (Assam and northern parts of Bengal).
1840. *Cyprinus apiatus* Valenciennes, *Voyage dans l'Inde pendant les années 1828 à 1832*, no p., pl. 15, Figure 3, 3a-b.
1986. *Barilius howesi* Barman, *J. Bombay Nat. Hist. Soc.*, **83**(1): 171, Figure 1 (Stream near Sulkapara, Jalpaiguri District, West Bengal, India).

*Common Name(s)*: Hamilton's barila

*Local Name(s)*: Rebio tapio, Ngaba ngata (Nyishi)

*Material examined*: ZSI/V/APFS/P-208, 4 exs., 61.6 to 75.5 mm, Subansiri River, Tale WLS, Lower Subansiri district, Arunachal Pradesh, 11.iii.2003, P.T. Bhutia; ZSI/V/APFS/P-288, 1 ex., 66.6 mm, Hapoli, Lower Subansiri district, Arunachal Pradesh, 16.ii.1996, G. Thirumalai; ZSI/V/APFS/P-593, 1 ex., 77.5 mm, Pein stream, Tamen, Lower Subansiri district, Arunachal Pradesh, 09.ix.2012, B. Sinha & party; ZSI/V/APFS/P-624, 3 exs., 101.6 to 111.8 mm, Ranga (Panyor) river, Rub village, downstream of Ranganadi dam, Lower Subansiri district, Arunachal Pradesh, 18.iii.2013, B. Sinha & party; ZSI/V/APRC/P-756, 1 ex., 71.4, Pai river, Pai village near boundary of Lower Subansiri & Kurung Kumey district, Lower Subansiri district, Arunachal Pradesh, 13.vi.2013, B. Sinha & party.

*Distribution*: INDIA: Arunachal Pradesh-Lower Subansiri, Upper Subansiri, East Kameng, Papumpare, East Siang, West Siang, Lohit, Tirap; Assam, West Bengal, Bihar, Madhya Pradesh, Uttar Pradesh, Punjab. *Elsewhere*: Bangladesh, Nepal, Pakistan, Sri Lanka, Bhutan, Myanmar and Thailand.

*Habit and Habitat*: Freshwater; benthopelagic. Inhabits streams and rivers along base of hills with pebbly and rocky bottom.

*IUCN Status*: Least Concern

**32. *Barilius vagra*** (Hamilton 1822)

1822. *Cyprinus vagra* Hamilton, *Fish Ganges*, pp. 269, 385 (type locality, Ganges river near Patna, India).
1839. *Opsarius isocheilus* McClelland, *Asiatic Res.*, **19**(2): 298, 421, pl. 56, Figure 1.
1842. *Opsarius bicirratus* McClelland, *Calcutta J. Nat. Hist.*, **2**(8): 582.
1842. *Opsarius piscatorius* McClelland, *Calcutta J. Nat. Hist.*, **2**(8): 582.
1868. *Barilius alburnus* Günther, *Catalogue of the fishes in the British Museum v. 7*: 289.
1972. *Barilius (Pachystomus) bleekeri* Day, *J. Asiatic Soc. Bengal*, **41**(2): 5.

*Common Name(s)*: Vagra baril

*Local Name(s)*: Rebio tapio (Nyishi)

*Material examined*: ZSI/V/APFS/P-552, 9 exs., 71.5 to 94.6 mm, Ranga (Panyor) river, Yazali, Lower Subansiri district, Arunachal Pradesh, 24.vi.2012, B. Sinha & party; ZSI/V/APFS/P-634, 3 exs., 84.0 to 102.2 mm, Ranga (Panior) river, Rub village, downstream of Ranganadi dam, Lower Subansiri district, Arunachal Pradesh, 18.iii.2013, B. Sinha & party.

*Distribution*: INDIA: Arunachal Pradesh-Lower Subansiri, Upper Subansiri, East Kameng, East Siang, Tirap; Assam, Indus, Ganga, Yamuna and Brahmaputra river system. *Elsewhere*: Afganistan, Bangladesh, Nepal, Pakistan, Sri Lanka.

*Habit and Habitat*: Freshwater; benthopelagic. Inhabits hill streams with gravelly and rocky bottom.

*Remarks*: New record for the district.

*IUCN Status*: Least Concern

**33. *Barilius tileo*** (Hamilton, 1822)

1822. *Cyprinus tileo* Hamilton, *Fish Ganges*, 276 (type locality, Kosi river).
1839. *Opsarius brachialis* McClelland, *Asiat. Res.*, **19**(2): 297, 418, pl. 48, Figure 6. (type locality, Assam)
1976. *Barilius menoni* Sen, *Cur. Sci.*, **45**(2): 59, Figure 1 (type locality, Gomatidhara, Madhepura, Saharsa District, northern Bihar)

*Common Name(s)*: Tileo baril

*Local Name(s)*: Rebio tapio (Nyishi)

*Material consulted:* Nath & Dey (2000)

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri, East Kameng, West Kameng, Papumpare, East Siang, Lohit, Tirap, Changlang; Assam, Bihar, Jharkand, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, Uttaranchal, West Bengal. *Elsewhere:* Bangladesh, Nepal, probably Myanmar.

*Habit and Habitat:* Freshwater; benthopelagic. Found in hill streams and rivers with pebbly or sandy bottom.

*IUCN Status:* Least Concern

Genus **Danio** Hamilton, 1822

**34. *Danio dangila*** (Hamilton, 1822)

1822. *Cyprinus dangila* Hamilton, *Fish Ganges*, pp. 32145, 390 (type locality, Mountain streams of Monghyr, Bihar).  
 1839. *Perilampus reticulatus* McClelland, *Asiatic Res.*, **19**(2): 290, 397, pl. 45, Figure 1.  
 1985. *Danio deyi* Sen in Sen & Dey, *J. Assam Sc. Soc.*, **27**(2): 61, Figure 1 (Umroi stream, Khasi Hills, Meghalaya, India).

*Common name(s):* Dangila danio.

*Local Name(s):* Tapio (Nyishi)

*Material examined:* ZSI/V/APFS/P-543, 2 exs., 45.3 to 47.5 mm, Sunya stream, Ziro, Lower Subansiri district, Arunachal Pradesh, 21.vi.2012, B. Sinha & party; ZSI/V/APFS/P-570, 5 exs., 38.1 to 54.1 mm, Ranga (Panyor) river, Yazali, Lower Subansiri district, Arunachal Pradesh, 05.ix.2012, B. Sinha & party; ZSI/V/APFS/P-636, 2 exs., 45.6 to 47.0 mm, Ranganadi dam, Yazali, Lower Subansiri district, Arunachal Pradesh, 18.iii.2013, B. Sinha & party; ZSI/V/APRC/P-750, 3 exs., 42.4 to 45.4 mm, Supyo stream, Ziro, Lower Subansiri district, Arunachal Pradesh, 10.vi.2013, B. Sinha & party.

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri, Upper Subansiri, East Kameng, Papumpare, East Siang, Lohit, Tirap, Changlang; Assam, Manipur, Meghalaya, Mizoram, Tripura, West Bengal, Bihar, Uttar Pradesh, Madhya Pradesh. *Elsewhere:* Bangladesh, Bhutan, Myanmar, Nepal.

*Habit and Habitat:* Freshwater. Inhabits mountain streams.

*Remarks:* New record for the district.

*IUCN Status:* Least Concern

**35. *Danio rerio*** (Hamilton, 1822)

1822. *Cyprinus rerio* Hamilton, *Fish Ganges*, pp. 323, 390 (type locality, Kosi River, India).  
 1822. *Cyprinus chapalio* Hamilton, *Fish Ganges*, 324, 390.  
 1839. *Perilampus striatus* McClelland, *Asiatic Res.*, **19**(2): 290, 397, pl. 46, Figure 1.  
 1868. *Danio lineatus* Day, *Proc. Zool. Soc. London.*, pt. **1**: 198.  
 1963. *Brachydanio frankei* Meinken, **42**: 39.

*Common name(s):* Zebra danio.

*Local Name(s):* Tapio (Nyishi)

*Material examined:* ZSI/V/APFS/P-541, 5 exs., 19.7 to 22.9 mm, Pond, Siro village, Ziro, Lower Subansiri district, Arunachal Pradesh, 21.vi.2012, B. Sinha & party; ZSI/V/APFS/P-551, 2 exs., 25.6 to 26.9 mm, Pond, Yachuli, Lower Subansiri district, Arunachal Pradesh, 24.vi.2012, B. Sinha & party.

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri, Upper Subansiri, East Kameng, Papumpare, East Siang, West Siang, Lohit, Tirap, Changlang; Throughout eastern and northeastern India upto Krishna river systems. *Elsewhere:* Bangladesh, Bhutan, Japan, Myanmar, Nepal, Pakistan, Phillipines, Sri Lanka.

*Habit and Habitat:* Freshwater, brackish; benthopelagic. Inhabits slow-moving to stagnant standing water bodies like streams, canals, ditches, ponds and beels.

*IUCN Status:* Least Concern

Genus **Devario** Heckel, 1843

**36. *Devario aequipinnatus*** (McClelland, 1839)

1839. *Perilampus equipinnatus* McClelland, *Asiatic Res.*, **19**(2): 3973, pl. 60, Figure 1 (type locality, Assam).  
 1858. *Leuciscus lineolatus* Blyth, *J. Asiatic Soc. Bengal*, **27**(3): 289.

*Common name(s):* Giant danio.

*Local Name(s):* Tapio (Nyishi)

*Material examined:* ZSI/V/APFS/P-539, 7 exs., 17.9 to 47.9 mm, Siro River, Siro village, Ziro, Lower Subansiri

district, Arunachal Pradesh, 21.vi.2012, B. Sinha & party; ZSI/V/APFS/P-544, 3 exs., 46.9 to 61.9 mm, Sunya stream, Old Ziro, Lower Subansiri district, Arunachal Pradesh, 21.vi.2012, B. Sinha & party; ZSI/V/APFS/P-555, 16 exs., 31.3 to 56.6 mm, Ranga (Panyor) river, Yazali, Lower Subansiri district, Arunachal Pradesh, 24.vi.2012, B. Sinha & party; ZSI/V/APFS/P-567, 29 exs., 26.2 to 65.2 mm, Ranga (Panyor) river, Yazali, Lower Subansiri district, Arunachal Pradesh, 05.ix.2012, B. Sinha & party; ZSI/V/APFS/P-574, 11 exs., 44.9 to 77.7 mm, Kelle stream, Yachuli, Lower Subansiri district, Arunachal Pradesh, 07.ix.2012, B. Sinha & party; ZSI/V/APFS/P-575, 8 exs., 33.4 to 57.5 mm, Pein river, Tamen, Lower Subansiri district, Arunachal Pradesh, 09.ix.2012, B. Sinha & party; ZSI/V/APFS/P-581, 6 exs., 47.8 to 58.7 mm, Kelle-Pein stream, Yazali, Lower Subansiri district, Arunachal Pradesh, 07.ix.2012, B. Sinha & party; ZSI/V/APFS/P-628, 5 exs., 35.6 to 65.1 mm, Pow river, Takam Pasa village, Yazali, Lower Subansiri district, Arunachal Pradesh, 17.iii.2013, B. Sinha & party; ZSI/V/APFS/P-633, 3 exs., 61.5 to 71.7 mm, Ranga (Panyor) River, Rub village, Downstream of Dam, Lower Subansiri district, Arunachal Pradesh, 18.iii.2013, B. Sinha & party; ZSI/V/APFS/P-761, 8 exs., 45.6 to 56.3 mm, Pai stream, Pai village, Tamen, Lower Subansiri district, Arunachal Pradesh, 13.vi.2013, B. Sinha & party; ZSI/V/APRC/P-770, 7 exs., 69.6 to 76.3 mm, Sim stream, Godak, Raga, Lower Subansiri district, Arunachal Pradesh, 12.vi.2013, B. Sinha & party.

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri, Upper Subansiri, East Kameng, Papumpare, East Siang, West Siang, Lohit, Tirap, Changlang; Throughout India. *Elsewhere:* Bangladesh, Bhutan, Cambodia, China, Laos, Myanmar, Nepal, Pakistan, Sri Lanka and Thailand.

*Habit and Habitat:* Freshwater, brackish; benthopelagic. Inhabits low-lying streams.

*IUCN Status:* Least Concern

### 37. *Devario* sp. 1

### 38. *Devario* sp. 2

Family PSILORHYNCHIDAE

Genus *Psilorhynchus* McClelland, 1839

### 39. *Psilorhynchus arunachalensis* (Nebeshwar, Bagra & Das, 2007)

2007. *Psilorhynchoides arunachalensis* Nebeshwar, Bagra & Das, *Zoos' Print J.*, **22**(3): 1632, pl. 1, Figs. 2, 3b, 4b, 5b (type locality, Dirang River at Dirang, West Kameng District [Brahmaputra basin], Arunachal Pradesh, India).

*Material examined:* ZSI/V/APFS/P-547, 1 exs., 36.8, Ranga (Panyor) River, Yazali, Lower Subansiri district, Arunachal Pradesh, 24.vi.2012, B. Sinha & party; ZSI/V/APFS/P-637, 12 exs., 25.4 to 28.9 mm, Piit stream, Pitapool-Sagalee road, Lower Subansiri district, Arunachal Pradesh, 16.iii.2013, B. Sinha & party; ZSI/V/APFS/P-759, 22 exs., 35.3 to 45.6 mm, Pai stream, Pai village, Tamen, Lower Subansiri district, Arunachal Pradesh, 13.vi.2013, B. Sinha & party; ZSI/V/APFS/P-769, 5 exs., 33.0 to 53.1 mm, Pipik stream, Tamen-Lakhimpur road, Lower Subansiri district, Arunachal Pradesh, 14.vi.2013, B. Sinha & party; ZSI/V/APRC/P-774, 7 exs., 36.3 to 41.7 mm, Pein river, Tamen, Lower Subansiri district, Arunachal Pradesh, 15.vi.2013, B. Sinha & party.

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri, West Kameng,

*Habit and Habitat:* Freshwater. Inhabits streams and rivers with stony bottoms.

*Remarks:* Endemic to India (Arunachal Pradesh). New record for the district.

*IUCN Status:* Data deficient

### 40. *Psilorhynchus homaloptera* Hora & Mukerji, 1935

1935. *Psilorhynchus homaloptera* Hora & Mukerji, *Rec. Indian Mus.*, **37**(3): 391, pl. 7, Figs (1-6) (type locality: Emiliomi, Keleki stream, Naga Hills, Assam).

1941. *Psilorhynchus homaloptera rowleyi* Hora & Misra, *J. Bombay nat. Hist. Soc.*, **42**(3): 478-482, Pl. 1.

*Common Name(s):* Torrent stone carp

*Material consulted:* Bagra *et al.*, 2009

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri, Upper Subansiri, Tirap; Assam, Nagaland, Manipur, Meghalaya. *Elsewhere:* Nepal, Myanmar, China (Tibet).



*Habit and Habitat:* Freshwater; demersal. Inhabits pebbly beds of small rapid running streams at the base of hills and pools with muddy bed.

*IUCN Status:* Least Concern

Family COBITIDAE  
Subfamily BOTIINAE  
Genus *Botia* Gray, 1831

**41. *Botia rostrata*** (Gunther, 1868)

1868. *Botia rostrata* Günther, *Cat. Fish. Brit. Mus.*, 7: 367 (type locality: Bengal).

1932. *Botia dayi* Hora, *Rec. Indian Mus.*, 34(4): 571 (Mahananda at Siliguri, at base of Darjiling, Himalayas, West Bengal, India)

*Common Name(s):* Gangetic loach

*Local Name(s):* Pan ngoi (Nyishi)

*Material examined:* ZSI/V/APFS/P-632, 1 ex., 91.3 mm, Ranga (Panyor) River, Rub village, downstream of rangnadi dam, Lower Subansiri district, Arunachal Pradesh, 18.iii.2013, B. Sinha & party.

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri, Upper Subansiri, Papumpare, East Siang, Lohit, Tirap; Assam, Darjeeling Himalayas, West Bengal, Meghalaya. *Elsewhere:* Bangladesh, China, Myanmar and Thailand.

*Habit and Habitat:* Freshwater, demersal. Occurs in hill streams and mainstream rivers.

*Remarks:* New record for the district.

*IUCN Status:* Vulnerable

Subfamily COBITINAE  
Genus *Pangio* Blyth, 1860

**42. *Pangio pangia*** (Hamilton, 1822)

1822. *Cobitis pangia* Hamilton, *Fish Ganges*, pp. 355, 394 (type locality, Northeastern Bengal, India).

1839. *Cobitis cinnamomea* McClelland, *Asiatic Res.*, 19(2): 304, 435, pl. 51, Figure 5b.

1839. *Canthophrys rubiginosus* Swainson, *The natural history and classification*, 2: 310

*Common name(s):* Gangetic latia, Stone roller.

*Local Name(s):* Ngoku ngoi (Nyishi)

*Material examined:* ZSI/V/APFS/P-587, 1 ex., 52.2 mm, Pein river, Tamen, Lower Subansiri district, Arunachal Pradesh, 10.ix.2012, B. Sinha & party.

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri; Assam, Manipur, West Bengal. *Elsewhere:* Bangladesh, Myanmar, Nepal.

*Habit and Habitat:* Freshwater. Inhabits slow moving rivers with sandy bottom.

*Remarks:* New record for the district.

*IUCN Status:* Least Concern

Family BALITORIDAE  
Genus *Balitora* Gray, 1830

**43. *Balitora brucei*** Gray, 1830

1830. *Balitora brucei* Gray, *Ill. Ind. Zool.* 1, pl. 88, Figure 1 (type locality: Priang River, Cherrapunji, Assam).

1842. *Platyacara anisura* McClelland & Griffith, *Calcutta J nat. Hist.*, 2(8): 587, Pl. 18, Figure 1 (Kassiyah [Kasiah] Hills, Assam)

1932. *Balitora brucei melanosoma* var. Hora, *Mem. Indian Mus.*, 12(2): 291, Pl. 10, Figure 6

*Common Name(s):* Gray's stone loach

*Material consulted:* Bagra *et al.*, 2009

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri, Tirap; Assam, Bihar, Manipur, Meghalaya, Mizoram, Tripura, North Bengal. *Elsewhere:* Tibet, Nepal, Bhutan, Myanmar, Thailand, Pakistan, Sri Lanka and Bangladesh.

*Habit and Habitat:* Freshwater; demersal. Occurs in torrential hill streams. Prefers backwater and quiet eddies.

*IUCN Status:* Near Threatened

Family NEMACHEILIDAE  
Genus *Aborichthys* Chaudhuri, 1913

**44. *Aborichthys elongatus*** Hora, 1921

1921. *Aborichthys elongatus* Hora, *Rec. Indian Mus.*, 22: 735 (type locality: Reang river, Darjeeling Himalayas, India, elevation 2000 feet).

1987. *Noemacheilus elongatus* Menon, *Fauna of India (Pisces, Cobitoidea, Homalopteridae: Noemachellidae)*. *Zool. Surv. India*, 4: 184, Figure 6, pl. 7.

*Local Name(s)*: Reibo (Nyishi & Adi)

*Material examined*: ZSI/V/APFS/P-202, 9 exs., 56.9 to 84.8 mm, Subansiri River, Tale WLS, Lower Subansiri district, Arunachal Pradesh, 11.iii.2003, P.T. Bhutia.

*Distribution*: INDIA: Arunachal Pradesh-Lower Subansiri, Tirap, East Kameng, Papumpare, East Siang, Lower Dibang Valley, Lohit; Assam, Darjeeling Himalayas, West Bengal. *Elsewhere*: Not known.

*Habit and Habitat*: Freshwater, demersal. Inhabit streams with pebbly bottom, most likely in clear oxygenrich water.

*Remarks*: Endemic to India. New record for the district.

*IUCN Status*: Least Concern

**45. *Aborichthys kemp*** Chaudhuri, 1913

1913. *Aborichthys kemp* Chaudhuri, *Rec. Indian Mus.*, 8: 245, pl. 7, Figure 1, 1a, 1b (type locality Egar stream between Renging and Rotung, Dihang River near Yembung, and Sirpo River near Renging, Abor Hills, India).

1987. *Noemacheilus kemp* Menon, *Fauna of India (Pisces, Cobitoidea, Homalopteridae: Noemachellidae)*. *Zool. Surv. India*, 4: 188, Figure 5, pl. 7.

*Local Name(s)*: Rebio (Nyishi & Adi)

*Material examined*: ZSI/V/APFS/P-203, 3 exs., 30 to 44.4 mm, Subansiri River, Tale WLS, Lower Subansiri district, Arunachal Pradesh, 11.iii.2003, P.T. Bhutia; ZSI/V/APRC/P-800, 14 exs., 43.96 to 97.56 mm, Pow River, Takam Pasa village, Yazali, Lower Subansiri district, Arunachal Pradesh, 17.iii.2013, B. Sinha & Party; ZSI/V/APRC/P-824, 3 exs., 28.4 to 41.3 mm, Stream on road to Sagalee, Lower Subansiri district, Arunachal Pradesh, 14.ii.1996, G. Thirumalai.

*Distribution*: INDIA: Arunachal Pradesh-Lower Subansiri, East Kameng, Papumpare, East Siang, Lohit, Tirap; Meghalaya. *Elsewhere*: Myanmar.

*Habit and Habitat*: Freshwater, demersal. Inhabits streams with pebbly bottoms; clear oxygenated water.

*Remarks*: New record for the district.

*IUCN Status*: Near Threatened

**46. *Aborichthys* sp. 1**

**47. *Aborichthys* sp. 2**

**48. *Aborichthys* sp. 3**

Genus *Acanthocobitis* Peters, 1861

**49. *Acanthocobitis botia*** (Hamilton, 1822)

1822. *Cobitis botia* Hamilton, *Fish Ganges*, pp. 350, 394 (type locality: rivers of north eastern parts of Bengal).

1860. *Botia nebulosa* Blyth, *J. Asiatic Soc. Bengal*, 29(2): 165 (Darjeeling, India).

1910. *Nemachilus mackenziei* Chaudhuri, *Rec. Indian Mus.*, 5(3): 183 (northern India).

*Common Name(s)*: Mottled loach

*Local Name(s)*: Reibo (Nyishi & Adi)

*Material examined*: ZSI/V/APFS/P-383, 2 exs., 25.7 to 27.5 mm, Khud River, Kimin, Lower Subansiri district, Arunachal Pradesh, 19.x.1989, P.T. Bhutia.

*Distribution*: INDIA: Arunachal Pradesh-Lower Subansiri, East kameng, Papumpare, East Siang, Lower Dibang Valley, Lohit, Tirap; Manipur, Meghalaya, Tripura, Western Ghats, Maharashtra, Uttarakhand. *Elsewhere*: Pakistan, Nepal, Sri Lanka, Bhutan, Bangladesh, Myanmar, Thailand and China.

*Habit and Habitat*: Freshwater. Inhabits fast flowing hilly streams with clear water and rocky, pebbly and sandy bottoms.

*Remarks*: New record for the district.

*IUCN Status*: Least Concern

Genus *Schistura* McClelland, 1839

**50. *Schistura rupecula*** McClelland, 1838

1838. *Schistura rupecula* McClelland, *J. Asiatic Soc. Bengal*, 7: 948, pl. 55, Figure 3 (type locality, mountain streams of Shimla).

1935. *Nemachilus rupecola inglisi* var. Hora, *Rec. Indian Mus.*, 37(1): 58, pl. 3, Figs. 9-10.

*Local Name(s)*: Reibo ngilang (Nyishi)

*Material examined:* ZSI/V/APFS/P-559, 3 exs., 57.7 to 73.7 mm, Ranga (Panyor) River, Yazali, Lower Subansiri district, Arunachal Pradesh, 24.vi.2012, B. Sinha & party; ZSI/V/APFS/P-566, 1 ex., 64.1 mm, Ranga (Panyor) River, Yazali, Lower Subansiri district, Arunachal Pradesh, 05.ix.2012, B. Sinha & party; ZSI/V/APFS/P-584, 9 exs., 30.4 to 41.2 mm, Pein river, Tamen, Lower Subansiri district, Arunachal Pradesh, 10.ix.2012, B. Sinha & party; ZSI/V/APFS/P-627, 4 exs., 50.9 to 68.4 mm, Pow River, Takam Pasa village, Yazali, Lower Subansiri district, Arunachal Pradesh, 17.iii.2013, B. Sinha & party; ZSI/V/APFS/P-762, 1 ex., 51.9 mm, Pai stream, Pai village, Tamen, Lower Subansiri district, Arunachal Pradesh, 13.vi.2013, B. Sinha & party; ZSI/V/APFS/P-776, 1 ex., 61.6 mm, Pein River, Tamen, Lower Subansiri district, Arunachal Pradesh, 15.vi.2013, B. Sinha & party.

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri, East Kameng, West Siang, Tirap; Assam, Nagaland, Manipur, West Bengal, Bihar, Uttarakhand, Uttar Pradesh, Himachal Pradesh. *Elsewhere:* Nepal.

*Habit and Habitat:* Freshwater. Inhabits shallow water riffles and spring pools, streams with pebbly bottom.

*Remarks:* New record for the district.

*IUCN Status:* Least Concern

Order SILURIFORMES

Family BAGRIDAE

Genus *Batasio* Blyth, 1860

**51. *Batasio fasciolatus*** Ng, 2006

2005. *Batasio fasciolatus* Ng, *J. Fish Biol.*, 68 (suppl. A): 107, Figure 4 (type locality: Market at Malbazar, West Bengal, India).

*Material consulted:* Bagra *et al.*, 2009

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri; Tista River, Brahmaputra river basin, West Bengal, probably Assam. *Elsewhere:* Not known, probably Bangladesh.

*Habit and Habitat:* Freshwater, demersal. Inhabits swift rivers with sandy or muddy bottom.

*Remarks:* Endemic to India

*IUCN Status:* Least Concern

Genus *Mystus* Scopoli, 1777

**52. *Mystus tengara*** (Hamilton, 1822)

1822. *Pimelodus tengara* Hamilton, *Fish Ganges*, pp. 188, 377, pl. 3, Figure 61 (type locality, Ponds of India).

*Common name(s):* Tengara mystus.

*Material examined:* ZSI/V/APFS/P-291, 3 exs., 55.3 to 72.3 mm, Hapoli, Lower Subansiri district, Arunachal Pradesh, 16.ii.1996, G. Thirumalai.

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri; Assam, Bihar, Chandigarh, Chattisgarh, Darjiling, Delhi, Haryana, Himachal Pradesh, Jharkand, Manipur, Meghalaya, Mizoram, Nagaland, Punjab, Sikkim, Tripura, Uttaranchal, Uttar Pradesh, West Bengal. *Elsewhere:* Afganisthan, Bangladesh, Myanmar, Nepal and Pakistan.

*Habit and Habitat:* Freshwater. Inhabits flowing and standing waters.

*Remarks:* New record for the district.

*IUCN Status:* Least Concern

Family SILURIDAE

Genus *Ompok* Lacépède, 1803

**53. *Ompok bimaculatus*** (Bloch 1794)

1797. *Silurus bimaculatus* Bloch, *Ichthyol. Hist. Nat. d. Poiss.*, 11(2): 17, pl. 364 (type locality: Malabar).

1822. *Silurus chechra* Hamilton, *Fish Ganges*,: 152, 375, Kusi River, India

1839. *Silurus nebulosus* Swainson, *Spottiswoode & Co., London*. 2: 306, Kusi River, India

1840. *Silurus microcephalus* Valenciennes, *Histoire naturelle des poissons*, 14: 365

1860. *Pseudosilurus macrophthalmos* Blyth, *J Asiatic Soc. Bengal*, 29(2): 156, Tenasserim, Myanmar.

*Common Name(s):* Indian Butter catfish

*Material consulted:* Bagra *et al.*, 2009

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri, West Siang, East Siang; Throughout. *Elsewhere:* Afghanistan, Nepal, Myanmar, Thailand, Malaya,

Sumatra, Borneo, Vietnam, Yunan, Pakistan, Sri Lanka and Bangladesh.

*Habit and Habitat:* Freshwater. Inhabits plains and submontane regions, and is found in rivers, lakes, tanks and ponds.

*IUCN Status:* Near Threatened

Genus *Pterocryptis* Peters

**54. *Pterocryptis gangetica* Peters**

1864. *Silurus afghana* Günther, *Cat. Fish. Brit. Mus.*, **5**: 34 (type locality, Assam, India).

1873. *Silurus dukai* Day, *Proc. Zool Soc. London*, **1**: 239.

*Common name(s):* Afghanistan silurus.

*Local Name(s):* Tayek (Nyishi)

*Material examined:* ZSI/V/APRC/P-807, 1 ex., 67.7 mm, Ranga (Panyor) river, Lichi village, Lower Subansiri district, Arunachal Pradesh, 20.vi.2012, B. Sinha & party.

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri, Upper Subansiri, East Kameng, Papumpare, East Siang; Assam, Meghalaya, West Bengal, Kashmir, Ganges river. *Elsewhere:* Afghanistan, Bangladesh, and Pakistan.

*Habit and Habitat:* Freshwater. Inhabits hill streams with gravelly and sandy bottom.

*Remarks:* New record for the district.

*IUCN Status:* Data Deficient

Family AMBLYCIPITIDAE

Genus *Amblyceps* Blyth, 1858

**55. *Amblyceps apangi* Nath & Dey, 1989**

1989. *Amblyceps Apangi* Nath & Dey, *J. Assam Sci. Soc.*, **32**(1): 2, Figure 2 (type locality: Dikrong River, Arunachal Pradesh, India).

*Local Name(s):* Tayek (Nyishi)

*Material examined:* ZSI/V/APFS/P-209, 2 exs., 66.8 to 107.2 mm, Subansiri River, Tale WLS, Lower Subansiri district, Arunachal Pradesh, 11.iii.2003, P.T. Bhutia; ZSI/V/APFS/P-630, 9 exs., 77.2.8 to 113.6 mm, Pow River, Takam Pasa village, Yazali, Lower Subansiri district, Arunachal Pradesh, 17.iii.2013, B. Sinha.

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri, Papumpare. *Elsewhere:* Not known.

*Habit and Habitat:* Freshwater. Inhabit fast-flowing hill streams, sometimes seen in slower-flowing streams.

*Remarks:* Endemic to Arunachal Pradesh. New record for the district.

*IUCN Status:* Least Concern

**56. *Amblyceps mangois* (Hamilton, 1822)**

1822. *Pimelodus mangois* Hamilton, *Fish Ganges*, pp. 199, 379 (type locality: Dikrong River, Arunachal Pradesh, India).

1842. *Pimelodus indicus* McClelland, *Calcutta J. Nat. Hist.*, **2**(8): 584.

*Common Name(s):* Indian torrent catfish

*Local Name(s):* Tayek (Nyishi)

*Material examined:* ZSI/V/APFS/P-210, 2 exs., 58.6 to 60 mm, Subansiri River, Tale WLS, Lower Subansiri district, Arunachal Pradesh, 11.iii.2003, P.T. Bhutia.

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri, Papumpare, East Siang, Lower Dibang Valley, Lohit, Tirap, West Kameng; Along the foothills of Himalays from Punjab to Assam, Meghalaya, West Bengal, Krishna river system. *Elsewhere:* Pakistan, Nepal, Bangladesh, Myanmar, Thailand, Laos, Cambodia.

*Habit and Habitat:* Freshwater, benthopelagic. Inhabits fast flowing upland streams with rocks and boulders on the bottom.

*Remarks:* New record for the district.

*IUCN Status:* Least Concern

Family SISORIDAE

Subfamily GLYPTOSTERNINAE

Genus *Creteuchiloglanis* Zhou *et al.*, 2011

**57. *Creteuchiloglanis arunachalensis* Sinha & Tamang, 2014**

2014. *Creteuchiloglanis arunachalensis* Sinha & Tamang, *Ichthyol. Res.*, **62**: (type locality: Pange River, Aro-Lencing, Ziro, Lower Subansiri district, Arunachal Pradesh, India).

*Material examined:* ZSI/V/APRC/P-844, 1 ex., 87.1 mm, Pange River, Aro-Lencing, Ziro valley, Lower Subansiri district, Arunachal Pradesh, 09.vi.2013, B. Sinha & party.

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri.

*Habit and Habitat:* Freshwater, occurs in moderate to swift running waters.

*Remarks:* Endemic to India (Arunachal Pradesh: Lower Subansiri).

*IUCN Status:* Not Evaluated.

Genus *Exostoma* Blyth, 1860

**58. *Exostoma labiatum*** (McClelland, 1842)

1842. *Glyptosternon labiatum* McClelland, *Calcutta J. Nat. Hist.*, **2**(8): 588 (type locality, Mishmee Hills, India).

1923. *Glyptosternum chaudhuri* Hora, *Rec. Ind. Mus.*, **25**(1): 41, Figure 7.

*Common name(s):* Burmese bat catfish.

*Material examined:* ZSI/V/APRC/P-751, 17 exs., 35.8 to 53.3 mm, Sike stream, Ziro, Lower Subansiri district, Arunachal Pradesh, 10.vi.2013, B. Sinha & party; ZSI/V/APRC/P-771, 22 exs., 26.2 to 48.3 mm, Shim stream, Godak, Raga, Lower Subansiri district, Arunachal Pradesh, 12.vi.2013, B. Sinha & party.

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri, Upper Subansiri, East Kameng, Papumpare, East Siang, Lohit, Tirap; Meghalaya, West Bengal. *Elsewhere:* China, Iran, Myanmar, Nepal and Thailand.

*Habit and Habitat:* Freshwater. Inhabits torrential streams with a rocky substrate.

*Remarks:* New record for the district.

*IUCN Status:* Least Concern

Genus *Glyptothorax* Blyth, 1860

**59. *Glyptothorax brevipinnis*** Hora, 1923

1923. *Glyptothorax brevipinnis* Hora, *Rec. Indian Mus.*, **25**(1): 16, pl. 1, Figure 4 (type locality, India).

*Material examined:* ZSI/V/APFS/P-212, 1 ex., 94.0 mm, Subansiri River, Tale WLS, Lower Subansiri district, Arunachal Pradesh, 11.iii.2003, P. T. Bhutia.

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri, East Siang; Uttar Pradesh.

*Habit and Habitat:* Freshwater. Inhabits torrential waters.

*Remarks:* New record for the district. Endemic to India

*IUCN Status:* Data Deficient

**60. *Glyptothorax trilineatus*** (Blyth, 1860)

1860. *Glyptothorax trilineatus* Blyth, *J. Asiatic Soc. Bengal*, **29**(2): 154 (type locality, Tennasserim, Burma).

1984. *Glyptothorax trilineatoides* Li, *J. Yunnan Univ.*, **2**: 87, Figure 5.

*Common name(s):* Three-lined catfish.

*Material examined:* ZSI/V/APFS/P-585, 1 ex., 40.0 mm, Pein River, Tamen, Lower Subansiri district, Arunachal Pradesh, 10.ix.2012, B. Sinha & party.

*Distribution:* INDIA: Arunachal Pradesh-Lower Subansiri, Tirap; Manipur. *Elsewhere:* China, Laos, Myanmar, Nepal and Thailand.

*Habit and Habitat:* Freshwater. Inhabits pool and riffle areas of rapid-running mountain streams.

*Remarks:* New record for the district.

*IUCN Status:* Least Concern

Genus *Oreoglanis* Smith, 1933

**61. *Oreoglanis pangenensis*** Sinha & Tamanag, 2015

2015. *Oreoglanis pangenensis* Sinha & Tamanag, *Ichthyological Exploration of Freshwaters*, **25**(4): 332, Figs. 1, 2b, 3, 4 (type locality, Pange River, upper Brahmaputra River basin, Lower Sunansiri district, Ziro Valley, Aro-Lenching, Apatani plateau, Arunachal Pradesh, India, 27°29.160'N, 93°51.952'E, elevation 1600 meters)

*Material examined:* ZSI/APRC P-791, 1 ex., 76.7 mm, Pange River, Aro-Lencing, Ziro, Lower Subansiri, Arunachal Pradesh, 09.vi.2013, B. Sinha.

**Distribution:** INDIA: Arunachal Pradesh-Lower Subansiri.

**Habit and Habitat:** Freshwater. Inhabits swift streams with clear water.

**Remarks:** Endemic to India (Arunachal Pradesh: Lower Subansiri).

**IUCN Status:** Not Evaluated.

Genus *Pseudecheneis* Blyth, 1860

**62. *Pseudecheneis sulcata*** (McClelland, 1842)

1842. *Glyptosternon sulcatus* McClelland, *Calcutta J. nat. Hist.*, 2(8): 587, Pl. 6, Figure 1-3 (type locality, Khasi Hills, Assam)

**Common Name(s):** Sucker throat catfish

**Local Name(s):** Ngokao pagra (Adi)

**Material consulted:** Sen, 2006

**Distribution:** INDIA: Arunachal Pradesh-Lower Subansiri, W. Kameng, East Siang, Lohit; Assam, Meghalaya, Nagaland, Sikkim, North Bengal, Uttar Pradesh. *Elsewhere:* Bangladesh, China (Tibet), Myanmar, Nepal, Bhutan, and Thailand.

**Habit and Habitat:** Freshwater; demersal. Inhabits fast-flowing hill streams.

**IUCN Status:** Least Concern

Family HETEROPNEUSTIDAE

Genus *Heteropneustes* Muller, 1840

**63. *Heteropneustes fossilis*** (Bloch, 1794)

1794. *Silurus fossilis* Bloch, *Ich. Hist. Nat. d. Poiss.*, 8: 46, pl. 370, Figure 2 (type locality, Tranqueber).

1822. *Silurus singio* Hamilton, *Fish Ganges*, 147, 374, pl. 37, Figure 46.

1838. *Silurus laticeps* Swainson, *The natural history and classification v. 1*: 345, Figure 84.

1839. *Silurus biserratus* Swainson, *The natural history and classification v. 2*: 306.

1864. *Saccobranthus microcephalus* Günther, *Cat. Fish. British Mus.*, 5: 31.

**Common name(s):** Stinging catfish.

**Material examined:** ZSI/V/APFS/P-289, 2 exs., 147.5 to 156.4 mm, Hapoli, Lower Subansiri district, Arunachal Pradesh, 16.ii.1996, G. Thirumalai.

**Distribution:** INDIA: Arunachal Pradesh-Lower Subansiri, East Kameng, West Kameng, East Siang; Throughout India. *Elsewhere:* Bangladesh, China, Iran, Iraq, Laos, Myanmar, Nepal, Pakistan, Sri Lanka, Thailand, Turkey.

**Habit and Habitat:** Freshwater. Mainly found in ponds, ditches, swamps and marshes, but occasionally occur in muddy rivers.

**IUCN Status:** Least Concern

Family OLYRIDAE

Genus *Olyra* McClelland, 1842

**64. *Olyra longicaudata*** (McClelland, 1842)

1842. *Olyra longicaudata* McClelland, *Calcutta J. Nat. Hist.*, 2(8): 588, pl. 21, Figure 1 (type locality, Khasi Hills, Meghalaya, India).

1883. *Olyra elongata* Gunther, *Ann. Mag. Nat. Hist.* (Series 5), 11(62): 140.

**Common name(s):** Himalayan Olyra.

**Material examined:** ZSI/V/APRC/P-826, 1 ex., 86.6 mm, Yazali, Lower Subansiri district, Arunachal Pradesh, 05.xi.1989, P. T. Bhutia.

**Distribution:** INDIA: Arunachal Pradesh-Lower Subansiri, Upper Subansiri, East Kameng, Papumpare, East Siang, Lohit, Tirap; Assam, Meghalaya, West Bengal. *Elsewhere:* Myanmar.

**Habit and Habitat:** Freshwater and benthopelagic. Inhabits small rocky streams at the base of hills.

**Remarks:** New record for the district.

**IUCN Status:** Least Concern

Order PERCIFORMES

Suborder PERCOIDEI

Family NANDIDAE

Genus *Nandus* Valenciennes, 1831

**65. *Nandus nandus*** (Hamilton, 1822)

1822. *Coius nandus* Hamilton, *Fish Ganges*, pp. 96, 370, pl. 30, Figure 32 (type locality, Gangetic provinces).

1831. *Nandus marmoratus* Valenciennes, *Hist. nat. d. Fish.*, 7: 482, pl. 207.

1835. *Bedula hamiltonii* Gray, *Ill. Indian Zool*, pl. 88, Figure 3.

*Common name(s)*: Gangetic leaf-fish.

*Material examined*: ZSI/V/APFS/P-290, 2 exs., 60.4 to 97.9 mm, Hapoli, Lower Subansiri district, Arunachal Pradesh, 16.ii.1996, G. Thirumalai.

*Distribution*: INDIA: Arunachal Pradesh-Lower Subansiri, Upper Subansiri, East Kameng, Papumpare, East Siang, Lohit; Throughout India. *Elsewhere*: Bangladesh, Bhutan, Cambodia, Laos, Malaya, Myanmar, Nepal, Pakistan, Thailand, Vietnam.

*Habit and Habitat*: Freshwater. Inhabits streams, rivers, tanks, beels as well as paddy fields during monsoon.

*IUCN Status*: Least Concern

Family BADIDAE

Genus *Badis* Bleeker, 1853

**66. *Badis badis*** (Hamilton, 1822)

1822. *Labrus badis* Hamilton, *Fish Ganges*: pp. 70, 368, pl. 25, Figure 23 (type locality, Shore of Tumapao River close to Duma village [Ganges River drainage], about 65 kilometers north-north east of Calcutta, West Bengal, India, 22°58'03"N, 88°49'49"E)

1839. *Labrus (Cychla) fasciata* Swainson, *On the natural history and classification of fishes, amphibians, & reptiles, or monocardian animals. Spottiswoode & Co., London.*, 2: 228.

1853. *Badis buchani* Bleeker, *Verhandelingen van het Bataviaasch Genootschap van Kunsten en Wetenschappen*. v. 25 (8): 106, Pl. 2, Figure 3 (Hooghly River, Calcutta; Jihlum River, Chillianwallah, India).

*Common Name(s)*: Dwarf Chameleon fish

*Local Name(s)*: Khen ngoi (Nyishi)

*Material examined*: ZSI/V/APFS/P-378, 11 exs., 18.6 to 21.4 mm, Ranga River, Hawa camp, Lower Subansiri district, Arunachal Pradesh, 24.xi.2002, P.B. Thapa; ZSI/V/APFS/P-616, 6 exs., 10.1 to 29.1 mm, Pond, Siro village, Ziro, Lower Subansiri district, Arunachal Pradesh, 21.vi.2012, B. Sinha.

*Distribution*: INDIA: Arunachal Pradesh-Lower Subansiri, East Siang, Lohit, Papumpare, Tirap; Throughout India. *Elsewhere*: Bangladesh, Myanmar, Nepal, Pakistan, Bhutan.

*Habit and Habitat*: Freshwater, benthopelagic. Occurs solitarily in rivers, ponds and ditches, also found in swamps.

*IUCN Status*: Least Concern

Suborder CHANNOIDEI

Family CHANNIDAE

Genus *Channa* Scopoli, 1777

**67. *Channa gachua*** (Hamilton, 1822)

1822. *Ophicephalus gachua* Hamilton, *Fish Ganges*: pp. 68, 367, pl. 21, Figure 21 (type locality, Ponds and ditches of Bengal)

1829. *Ophicephalus marginatus* Cuvier, *Le Règne Animal* (Edition 2) v. 2: 230.

1831. *Ophicephalus limbatus* Cuvier, *Histoire naturelle des poissons* v. 7: no p. pl. 201.

1868. *Ophiocephalus guachua malaccensis* var. Peters, *Monatsberichte der Königlich Preuss[ischen] Akademie der Wissenschaften zu Berlin*: 262.

*Material examined*: ZSI/V/APFS/P-211, 2 exs., 84.9 to 123.7 mm, Subansiri River, tale WLS, Lower Subansiri district, Arunachal Pradesh, 11.iii.2003, P.T. Bhutia; ZSI/V/APFS/P-605, 1 ex., 56.1 mm, Ranga (panyor) river, Yazali (5 km up from town), Lower Subansiri district, Arunachal Pradesh, 05.ix.2012, B. Sinha & party; ZSI/V/APFS/P-606, 10 exs., 14.0 to 25.8 mm, Pond, Siro village, Ziro, Lower Subansiri district, Arunachal Pradesh, 21.vi.2012, B. Sinha & party; ZSI/V/APFS/P-625, 8 exs., 59.7 to 132.1 mm, Pow river, Takam Pasa village, Yazali, Lower Subansiri district, Arunachal Pradesh, 17.iii.2013, B. Sinha & party; ZSI/V/APFS/P-643, 1 ex., 101.6 mm, Ranga (panyor) river, Yazali, Lower Subansiri district, Arunachal Pradesh, 18.iii.2013, B. Sinha & party.

*Distribution*: INDIA: Arunachal Pradesh-Lower Subansiri; Kerala, Maharashtra, Uttarakhand, Andaman Island. *Elsewhere*: Afghanistan, Bangladesh, Bhutan, Cambodia, China, Indonesia, Iran, Laos, Malaysia, Myanmar, Nepal, Pakistan, Singapore, Sri Lanka, Thailand and Viet Nam.

*Habit and Habitat*: Freshwater, benthopelagic. Inhabits hill streams, medium to large rivers, brooks, fast flowing

mountain streams and also found in stagnant water bodies like sluggish canals.

Remarks: New record for the district.

IUCN Status: Least Concern

## Fish Diversity of Ranga River

The Ranga River, known as *Panyor* River in local dialect is one of the sub-basin of river Subansiri and is also one of the major river of Lower Subansiri district. The river originates at an elevation of about 3440 m in the Dafla

**Table 1.** Fish diversity of Ranga (Panyor) river, Arunachal Pradesh

Species	Nath & Dey, 2000	Dam upstream	Dam downstream
<i>Aborichthys elongatus</i> (Hora, 1921)	+		
<i>A. kempfi</i> (Chaudhuri, 1913)	+	+	
<i>Acanthocobitis botia</i> (Hamilton, 1822)	+		
<i>Ailia coila</i> (Hamilton, 1822)	+*		
<i>Amblyceps apangi</i> (Nath & Dey, 1989)#		+	
<i>A. mangois</i> (Hamilton, 1822)	+		
<i>Anguilla bengalensis</i> (Gray, 1831)			+*
<i>Aspidoparia jaya</i> (Hamilton, 1822)	+		
<i>Badis badis</i> (Hamilton, 1822)	+		+
<i>B. singenensis</i> (Gettakumari, 2011)			+
<i>Bagarius bagarius</i> (Hamilton, 1822)	+		
<i>Bangana dero</i> (Hamilton, 1822)	+		+
<i>Barilius barna</i> (Hamilton, 1822)	+		
<i>B. bendelisis</i> (Hamilton, 1807)	+		+
<i>B. tileo</i> (Hamilton, 1822)	+		
<i>B. vagra</i> (Hamilton, 1822)		+	+
<i>Botia dario</i> (Hamilton, 1822)#	+		
<i>B. rostrata</i> (Gunther, 1868)	+		+
<i>Cabdio morar</i> (Hamilton, 1822)	+		
<i>Chagunius chagunio</i> (Hamilton, 1822)	+		
<i>Chanda nama</i> Hamilton, 1822	+		+*
<i>Channa gachua</i> (Hamilton, 1822)#		+	
<i>Cirrhinus mrigala</i> (hamilton 1822)			+*
<i>Crossocheilus latius</i> (Hamilton, 1822 )	+	+*	
<i>Cyprinion semiplotum</i> (McClelland, 1839)	+		
<i>Cyprinus carpio</i> (Linnaeus, 1758)	+		
<i>Danio dangila</i> (Hamilton, 1822 )	+	+	+
<i>D. rerio</i> (Hamilton, 1822)	+		
<i>Devario acquipinnatus</i> (McClelland, 1839)	+	+	+
<i>D. devario</i> (Hamilton 1822)			+*
<i>Garra annandalei</i> (Hora, 1921)	+	+	+*



<i>G. birostris</i> (Nebeshwar & Vishwanath, 2013)		+	+
<i>G. gotyla gotyla</i> (Gray, 1830)		+	+*
<i>G.lissorhynchus</i> (McClelland, 1842)			+
<i>G. mccllelandi</i> (Jerdon, 1849)	+		
<i>Garra sp. 1#</i>		+	
<i>Garra sp. 2#</i>		+	
<i>Garra sp. 3#</i>			+
<i>Glossogobius giuris</i> (Hamilton, 1822)			+*
<i>Hypophthalmichthys molitrix</i> (Valenciennes, 1844)#		+	
<i>Labeo calbasu</i> (Hamilton, 1822)			+*
<i>L. gonius</i> (Hamilton 1822)			+*
<i>L. pangusia</i> (Hamilton, 1822)	+		
<i>Lepidocephalichthys guntea</i> (Hamilton, 1822)	+		
<i>Macrognathus aral</i> (Bloch and Schineider, 1801)			+*
<i>M. pancalus</i> (Hamilton, 1822)	+		+*
<i>Mastacembelus armatus</i> (Lacepède, 1800)	+		+*
<i>Megarasbora elanga</i> (Hamilton, 1822)	+*		
<i>Neolissochilus hexagonolepis</i> (McClelland, 1839)	+	+	+
<i>Notopterus notopterus</i> (Pallas, 1769)			+*
<i>Olyra longicaudata</i> (McClelland, 1842)	+	+	
<i>Ompok bimaculatus</i> (Bloch, 1794)	+*		
<i>Parambassis ranga</i> (Hamilton, 1822)	+		+*
<i>Pethia conchoni</i> (Hamilton, 1822)	+	+	
<i>P. ticto</i> (Hamilton, 1822)	+	+	
<i>Pseudambassis baculis</i> (Hamilton, 1822)	+		
<i>Psilorhynchus arunachalensis</i> (Nebeshwar, Bagra & Das, 2007)#		+	
<i>Pterocryptis gangelica</i> (Peters, 1861)			+
<i>Puntius chola</i> (Hamilton, 1822)	+		+*
<i>Raiamas bola</i> (Hamilton, 1822)	+		
<i>Rasbora daniconius</i> (Hamilton, 1822)			+*
<i>Schistura rupecola</i> (McClelland, 1838)#		+	
<i>Schizothorax richardsoni</i> (Gray, 1832)	+	+	
<i>Tor putitora</i> (Hamilton, 1822)	+	+	
<i>T. tor</i> (Hamilton, 1822)	+	+	
<i>Trichogaster chuna</i> (Hamilton, 1822)			+*
<i>T. fasciata</i> (Bloch & Schneider, 1801)	+		
<i>T. labiosa</i> (Day, 1877)			+*
<i>Xenentodon cancila</i> (Hamilton, 1822)	+		+*
* Bagra <i>et al.</i> , 2009; # New record to Ranga river	46	22	32

Hills somewhere between East Kameng district and Kurungkumey district, flows through Lower Subansiri district and further flowing through Papumpare district leaves Arunachal Pradesh at Kimin and finally it confluences with river Subansiri beyond Bihupuria in Assam. Studies on fish diversity of Ranga is important as the construction of a hydropower dam at Yazali has created a sort of artificial barrier for natural movement of fishes. So far, 41 species of fishes have been reported from Ranga River (Nath & Dey, 2000). In the present study, a total of 46 species of fish have been recorded from the Ranga River. The diversity of fish upstream of the dam has reduced to only 22 species while 32 species of fishes have been recorded downstream of the dam.

## Discussion

Sen (1999) reported only 8 species of fishes from Lower Subansiri district while Sen (2006) reported 21 species from the district. Based on the present study and other earlier reports, altogether 67 species of fishes under 38 genera belonging to 14 families and 3 Orders have been recorded from Lower Subansiri district. Out of which, 41 species are new record to the district and 2 species new to science, *Creteuchiloglanis arunachalensis* Sinha & Tamanag, 2014 and *Oreoglanis pangenensis*, Sinha & Tamanag, 2015. The ichthyofauna of the district is dominated by Cyprinidae with 38 species followed by Nemacheilidae with 7 species and Sisoridae with 6 species. Other families are represented by 1 or 2 species each. *Garra* is the dominant genera with 13 species followed by *Aborichthys* with 5 species. The altitudes of the different aquatic habitats of Lower Subansiri district from which fishes have been sampled ranged from 161 m to 1600 m. *Barillius*, *Garra* and *Schizothorax* are the most abundant genera which were recorded from almost all the sampling sites.

In terms of nature of fauna, the ichthyofauna of Lower Subansiri district comprises of exotic elements like *Cyprinus carpio* and *Hypophthalmichthys molitrix*, oriental endemics such as *Cyprinion semplotum*, *Tor tor* etc; Indian endemics like *Garra maclellandi*, *Aborichthys elongates*, *Glyptothorax brevipinnis* and *Batasio fasciolatus* etc. Further, there are species which are endemic to Northeast India such as *Garra gotyla gotyla*, *Garra lissorhynchus*, *Garra naganensis*, *Garra quadratirostris* etc.; and Arunachal Pradesh in general such as *Garra arunachalensis*, *Garra*

*birostris*, *Psilorhynchus arunachalensis*, *Amblyceps apangi* etc; and Lower Subansiri district in particular such as *Garra kalpangi*, *Creteuchiloglanis arunachalensis*. Furthermore, some endangered and threatened fishes have also been recorded from the district. Distribution pattern of fishes along the Ranga River up and down stream of the Ranganadi dam reveals that there is a clear impact of the dam on the diversity of fishes. Relatively higher diversity downstream than upstream is apparently due to the restriction of natural movement of fishes by the dam.

## Summary

A total of 67 species of fishes under 38 genera belonging to 14 families and 3 Orders have been recorded from Lower Subansiri district during the present study including 2 species new to science. The ichthyofauna of the district comprises of exotic elements like *Cyprinus carpio* and *Hypophthalmichthys molitrix*, oriental endemics *Cyprinion semplotum*, *Tor tor* etc; Indian endemics like *Garra maclellandi*, *Aborichthys elongates*; species endemic to Northeast India *Garra lissorhynchus*, *Garra quadratirostris* etc.; species endemic to Arunachal Pradesh in general such as *Psilorhynchus arunachalensis*, *Amblyceps apangi* etc; and Lower Subansiri district in particular such as *Creteuchiloglanis arunachalensis* and *Oreoglanis pangenensis*. There seems to be an impact of the dam on the distribution of fishes on either side of the dam.

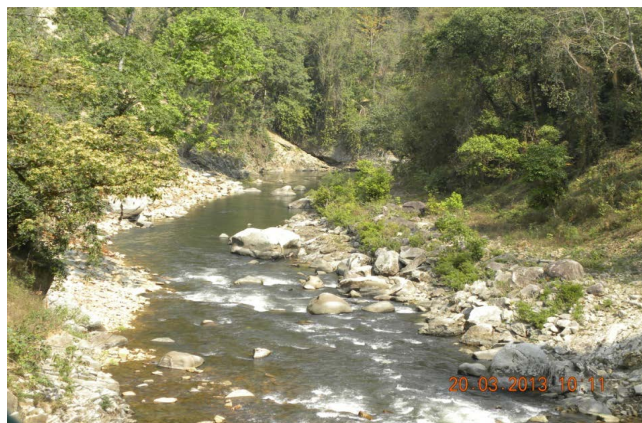
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**Annexe I.** Fish habitats of Lower Subansiri District, Arunachal Pradesh



**Figure 1.** Upstream of Ranganadi near Silsango.



**Figure 4.** Ranganadi dam and downstream.



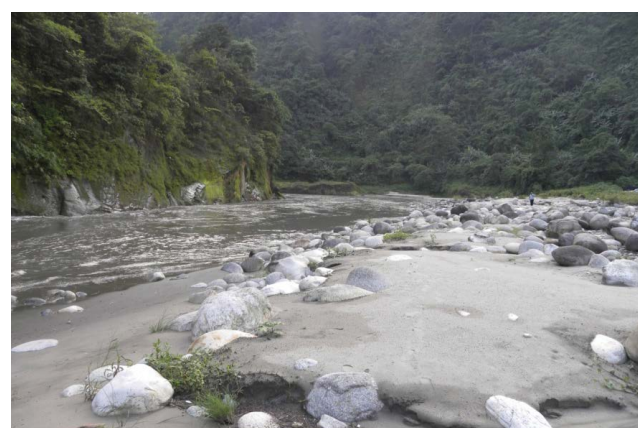
**Figure 2.** Ranga river at Yazali.



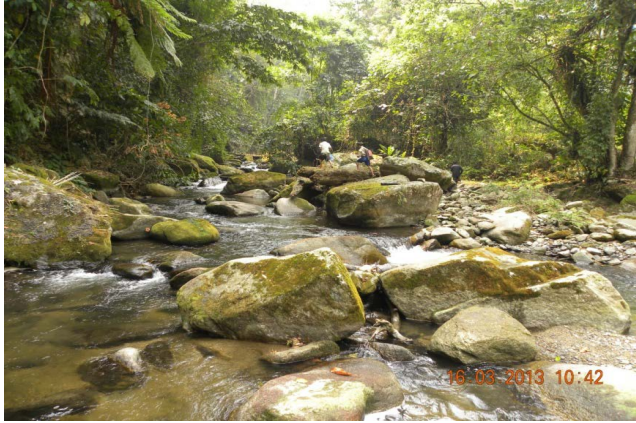
**Figure 5.** Downstream of Ranganadi dam, Rub village.



**Figure 3.** Ranga nadi dam reservoir area.



**Figure 6.** Ranga river at Kimin.



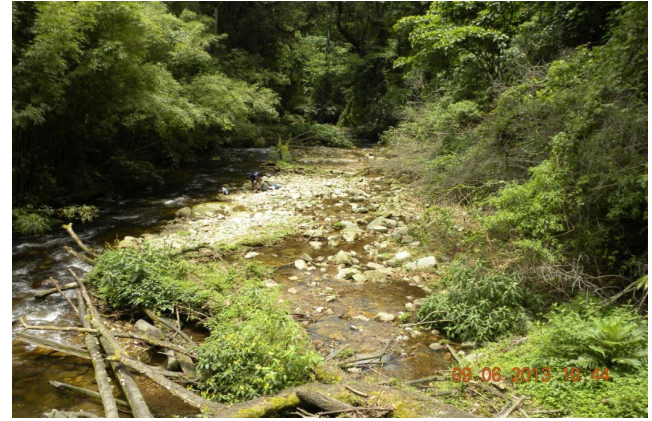
**Figure 7.** Pit Stream, Pitapool Sagalee road.



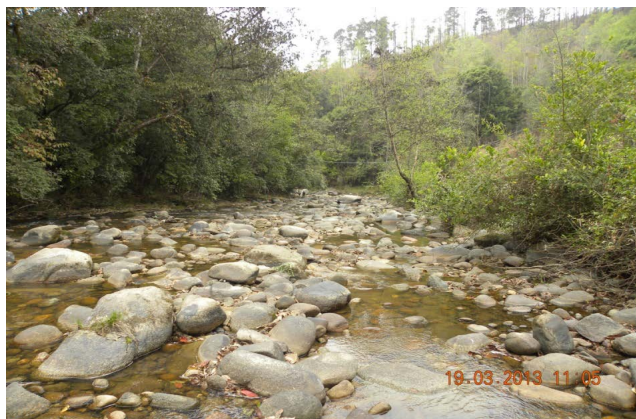
**Figure 10.** Kelle river, Siro village, Ziro.



**Figure 8.** Piew river at Pistana.



**Figure 11.** Pange river at Aro-Lencing, Ziro Valley.



**Figure 9.** Kelle river, Yachuli.



**Figure 12.** Pein river, Tamen.



**Figure 13.** Kamla (Kurung kumey) river near Pai village.



**Figure 14.** Panya stream, Kicho village, Raga.



**Figure 15.** Fish sampling in Pai stream.

**Annexe II. Methods used for Fish sampling in Lower Subansiri District, Arunachal Pradesh**



**Figure 16.** Fish sampling at Ranga river, Yazali.



**Figure 19.** Sampling of fish by diverting stream water.



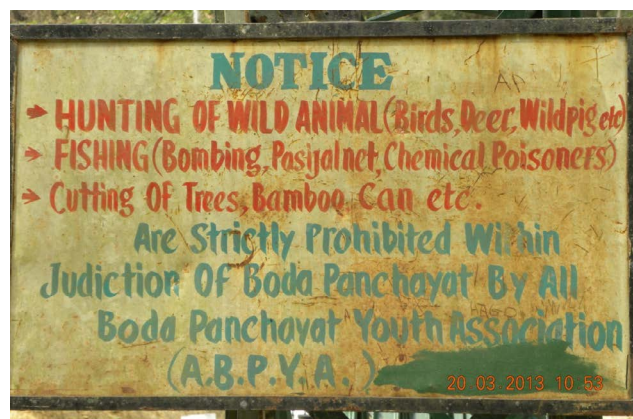
**Figure 17.** Traditional method of collecting fish using bamboo made traps.



**Figure 20.** Fish sampling in streams with mosquito net.



**Figure 18.** Fish bait made of floor and turmeric for using to catch fish.



**Figure 21.** A banner put by locals shows ban of illegal fishing.

**Annexe III.** Some Fishes of Lower Subansiri District, Arunachal Pradesh



*Aborichthys kempii*



*Aborichthys sp.1*



*Aborichthys sp.2*



*Acanthocobitis botia*





*Amblyceps apangi*



*Barilius bendelisis*



*Barilius vagra*



*Botia rostrata*



*Chagunius chagunio*



*Creteuchiloglanis arunachalensis*



*Danio dangila*



*Danio rerio*



*Devario acquipinnatus*



*Devario sp. 1*



*Devario sp. 2*



*Exostoma labiatum*



*Garra arunachalensis*



*Garra birostris*



*Garra lissorhynchus*



*Oreoglanis pangenensis*



*Psilorhynchus arunachalensis*



*Pterocryptis gangelica*



*Schistura rupecola*