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Original Paper

CONSERVATION STATUS AND DISTRIBUTION OF FISH SPECIES IN RIVER KOLODYNE IN MIZORAM: PIONEERING DETAILED TAXONOMIC STUDY AND REPORT

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Abstract

Ichthyofaunal surveys in the River Kolodyne (Chhimtuipui) at different locations from the headwaters to the downstream region in the province of Mizoram, done as a pioneering work (since updated), revealed the occurrence of 33 species of fishes belonging to 28 genera, 9 sub-families, 12 families and 6 Orders. during the entire period of study. These include 19 species under Cypriniformes, 7 species under Siluriformes, 3 species under Anabantiformes;2 species under Gobiiformes; and, 1 speices each under Beloniformes and Synbranchiformes. Conservation status and Distrubution of each species of fish have been discussed in the present communication.

Keywords

fish taxonomy and diversity, river Kolodyne, Mizoram, North-East India Himalayan biodiversity hotspot, conservation

1. Introduction

Fish forms about 50 % of the total vertebrate population in the globe. They dwell almost in all aquatic domains on thr earth. Approx. 21,723 living species of fishes have been recorded out of approx. 39,900 species of vertebrates in the world (Jayaram, 2003, 2010; Nelson *et al.,* 2016, Kar, 2025 a, b, c, d). Of these, approx. 8411 live in freshwater (FW) and approx. 11,650 are marine. Incidentally, India is one of the Megabiodiversity countries on the earth (Mittermeier & Mittermeier, 1997). In fact, in India, *c* 2500 species of fishes are said to occur; of which, *c* 930 species are believed to live in freshwater (FW) and *c*

1570 are marine (Jayaram, 2010; Kar, 2003, 2007, 2010, 2019, 2025a,b,c,d). This bewildering ichthyo-biodiversity of this region had been attracting large number of ichthyologists both from India and abroad. Concomitantly, North-East (NE) region of India has been identified as a "Hotspot" of Biodiversity in the Eastern Himalayan stretch, by the World Conservation Monitoring Centre (WCMC, 1998) This prolific biodiversity of this region could be due to certain reasons, like, the geomorphology and the tectonics of this zone. The mountains and the undulating terrains of this region are said to give rise to numerous torrential hill streams, which lead to big rivers; and,ultimately, become integral components of the Ganges-Brahmaputra-Barak-Chindwin-Kolodyne-Gomati-Meghna lotic system (Kar, 2000, 2007, 2013, 2019, 2021a, b,c,d, 2025a b c d).

There are numerous lentic and lotic water bodies in India. And, the province of Mizoram, situated in the NE Himalayan belt, is a hotspot of fish biodiversity contained in many lentic and lotic water bodies of various kinds, including rheophilic hill streams; and, to some extent, plainwater rivers and streams. However, the aquatic domain and the living forms in it, have been much impaced by human interventions.

A little detailed review of literature on Fish taxonomic works portrayed that, Menon (1978) had dwelt upon an appraisal of Satpura Hypothesis of Distribution of the Malayan Fauna and Flora to Peninsiular India.

Concomitant to above, Kar (1990, 1996, 1999, 2000, 2003 a,b, 2005, 2007, 2013, 2015, 2019, 2021 a,b,c,d, 2022, 2024 a, 2024 b; 2025 a b c d; Kar and Kumar (2023), Kar and Das (2024) have been doing large-scale studies in NE India on different aspects of fish and their habitats. Kar and Sen (2007) published a detailed study on fish' biodiversity in NE India with particular reference to Barak drainage, Mizoram, and Tripura. Recently, Kar and Khynriam (2020, 2022, 2023, 2024; Kar *et al.,* 2007, 2008, 2011, 2018, 2020 did extensive and intensive research works on the fish systematics and diversity and other related parameters in many water bodies in NE India.

Kar and Das, BK (2015), Kar and Kumar (2023), Barbhuiya, A.H.; Singha, R; and, Kar, D. (2021) worked on the present status of water bodies and human influence *vis-a-vis* sustainability of fishes, particularly the endangered mahseer fishes. Kar and Das B (2024) reported the fish diversity in rivers in Karbi Anglong in Assam. Kar and Khynriam (2020 a, b) did pioneering taxonomic research works on the fishes of rivers Diyung, Vombadung, Khuolzangvadung, Tuikoi and Mahur; and, in River Jinam in Dima Hasao district of Assam. Kar and Khynriam (2022) published their research works on the fishes of River Barak at Karong. along Manipur-Nagaland border. In addition, Kar and Khynriam (2023) did Pioneering Studies on the Taxonomic Diversity of Fishes in the Headwaters of River Barak in Assam, Manipur and Mizoram in NE India. Further, Kar and Khynriam (2024), in continuation of their reconnaissance pilot survey, did further pioneering works on the Taxonomy, Distribution and Conservation of Ichthyospecies in the Headwaters of River Barak (Assam, Manipur and Mizoram) in NE India. Kar (2015) and Kar and Roy (2021 a, b) worked on the *hitherto* unknown, virulent and enigmatic fish disease called Epizootic Ulcerative Fish Disease Syndrome (EUS). Kar *et al.* (2008 a, b,

c, d; 2003, 2007, 2008, 2011, 2018 a, b) worked on various aspects of fishes, including fish taxonomy, fish disease and fish parasites, zooplankton as fish food fauna, fishing gears and fish catching devices; and, so on. Incidentally, Das *et al.* (2018) worked on the zooplankon assemblage in Assam.

Notwithstanding the above, Kar (2005b) deliberated on the Fish Diversity in the Major Rivers in Southern Assam, Mizoram and Tripura at the 2nd International Symposium on GIS and Spatial Analyses in Fisheries and Aquatic Sciences, held at the University of Sussex at Brighton in the UK. In addition, Kar (2007b) delivered his research findings on the Sustainability issues of Inland Fish Biodiversity and Fisheries in Barak drainage (Assam), in Mizoram and in Tripura at the International Symposium on `Improved sustainability of Fish Production Systems and Appropriate Technologies for Utilisation' ("Sustain Fish"), held at the Cochin University of Science and Technology(CUSAT) at Cochin in Kerala. Further, Kar D (2016 a) presented an overview of the Wetlands, Rivers, Piscian Resources and Fish Disease in NE India at the International Symposium on Aquaculture and Fisheries (as part of the International Conference on Environmental Sustainability for Food Security (ENFOSE, 2016), held at Fisheries College and Research Institute (FCRI), Tamil Nadu Fisheries University (TNFU). In addition, Kar (2016b) presented his research findings on the Wetlands, Rivers, Fish, Plankton resources and Fish disease and Aquaculture in North-East India as an Overview at the International Symposium, entitled, `Lake 2016 orgaised by the Indian Institute of Science, Bengaluru, and the Alva's Education Foundation, Mengaluru (India).

Notwithstanding the above, some of the other significant works on the fishes and water bodies in India in general and NE India, in particular are those of Ghosh. and Lipton,1982; Barman, 1984, 1992, 1994; Jayaram, 1981, 1999, 2003, 2010; Sen, 1985; Kar *et al.,* 2007, 2008, 2011, 2018, 2020; Menon, 1974, 1999; Yadava *et al.* (1994); Nath and Dey, 1989,1997; Sinha, 1994; Sen, 2000; Sen and Khynriam, 2014; Arunachalam, *et al.,* 2013; Das, *et al.,* 2015; Dey *et al.,* 2015; Lalramliana *et al.*, 2018; Lokeshwor *et al.,* 2013; Khynriam & Sen, 2014; Bănăduc *et al*., 2020).

In addition to above, Bailey (1994) had done much studies on the fishes of River Nile in the Republic of Congo. Bailey (1996) had dealt with the changes in the Fish and Fisheries Ecology of a large man-masde lentic system in Tanzania for the period from 1965-94. Bailey and Hickley (1986) had published a report on a recent collection of *Nothobranchius virgatus* Chambers, a new killifish from southern Sudan. Didem *et al.* (2012) published a New Record of occurrence of *Symphodus bailloni* (Osteichthuyes: Perciformes: Labridae) in the Western Black Sea Cooast of Turkey. Kullander, Sven O and Ralf Britz (2008) had published a new species of cyprinid fish from Myanmar. Kevin W. Conway and Maurice Kottelat (2007) had reported a new species of *Psilorhynchus* from thr Ataran River Basin, in Myanmar, with comments on the generic name *Psilorhynchoides.* Wikramanayake, and Moyle (1989) had dealt with the ecological structure of Tropical Fish Assemblages in wet-zone streams of Sri Lanka.

Geographical position of the Sampling site and Study point in River Kolodyne in Mizoram:

River KolodyneIn Mizoram Village: Kawlchaw	N 22 º 23’ 51.9" E 92 º 58.5’ 9.9"

Altitude: 158.84 m MSL

The diversity of ichthyofauna of River Kolodyne along with their conservation status at the global and regional levels have been presented in Table 1

Further, **Total Systematic list of Fishes and the corresponding Systematic Description of the individual Fish Species of all Collections for the entire surveyed period in River Kolodyne is given below:**

River Kolodyne: Systematic list of Fishes (TOTAL)

(Based on all collections on all dates)

Order: 6

Family: 12

Sub-family: 9

Genus: 28

Species: 33

Order(I): Cypriniformes

Family (A): **Danionidae**

Sub-family(a): Chedrinae

Genus (i): ***Salmostoma*** Swainson 1839

Species (1): Salmostoma bacaila (Hamilton, 1822)

Order(I): Cypriniformes

Family (A): **Danionidae**

Sub-family(a): Chedrinae

Genus: (ii)*Cabdio* ***Hamilton*** **1822**

Species(2): Cabdio morar (Hamilton, 1822)

Order(I): Cypriniformes

Family (A): **Danionidae**

Sub-family(a): Chedrinae

Genus (iii): ***Barilius*** Hamilton, 1822

*Species(3):****Barilius barila*** (Hamilton, 1822)

Order(I): Cypriniformes

Family (A): **Danionidae**

Sub-family(a): Chedrinae

Genus (iv): Opsarius **McClelland, 1838**

Species (4): Opsarius barna (Hamilton, 1807)

Order(I): Cypriniformes

Family (A): **Danionidae**

Sub-family (b): Danioninae

Genus (v): ***Chela*** Hamilton, 1822

***Species (5)Chela cachius (*Hamilton, 1822)**

Order(I): Cypriniformes

Family(B): **Cyprinidae**

Sub-family (c): Torinae

Genus (vi): Tor **Gray, 1834**

Species (6): ***Tor tor*** **(Hamilton, 1822)**

Order(I): Cypriniformes

Family(B): **Cyprinidae**

Sub-family (c): Torinae

Genus (vii): ***Neolissochilus*** Rainboth, 1985

Species (7): ***Neolissochilus hexagonolepis (*McClelland, 1839)**

Order(I): Cypriniformes

Family(B): **Cyprinidae**

Sub-family (d): Smiliogastrinae

Genus (viii): Osteobrama Heckel, 1843

Species (8): *Osteobrama cotio (*Hamilton, 1822)

Order(I): Cypriniformes

Family(B): **Cyprinidae**

Sub-family (d): Smiliogastrinae

Genus: (ix): ***Puntius*** Hamilton, 1822

Species (9): Puntius chola (Hamilton, 1822)

Order(I): Cypriniformes

Family(B): **Cyprinidae**

Sub-family (d): Smiliogastrinae

Genus: (ix) ***Puntius*** Hamilton, 1822

Species (10): Puntius sophore (Hamilton, 1822)

Order(I): Cypriniformes

Family(B): **Cyprinidae**

Sub-family (d): Smiliogastrinae

Genus: (x) Pethia Pethiyagoda, 2012

Species (11): Pethia conchonius (Hamilton, 1822)

Order(I): Cypriniformes

Family(B): **Cyprinidae**

Sub-family (d): Smiliogastrinae

Genus: (x) Pethia Pethiyagoda, 2012

Species (12): Pethia ticto (Hamilton, 1822)

Order(I): Cypriniformes

Family(B): **Cyprinidae**

Sub-family (e): Barbinae

Genus: (xi) Cyprinion Heckel, 1843

Species (13): Cyprinion semiplotum (McClelland, 1839*)*

Order(I): Cypriniformes

Family(B): **Cyprinidae**

Sub-family(f): Labeoninae

*Genus: (xii)****Labeo*** Cuvier, 1816

Species (14) Labeo pangusia (Hamilton, 1822)

Order(I): Cypriniformes

Family(B): **Cyprinidae**

Sub-family(f): Labeoninae

Genus (xiii)) ***Tariqilabeo*** Kuhl van Hasselt, 1823

Species(15): Tariqilabeo latius (Hamilton, 1822)

Order(I): Cypriniformes

Family(B): **Cyprinidae**

Sub-family(f): Labeoninae

Genus (xiv): ***Garra*** **Hamilton, 1822**

Species (16): ***Garra annandalei*** **Hora, 1921**

Order(I): Cypriniformes

Family(B): **Cyprinidae**

Sub-family(f): Labeoninae

Genus (xiv): ***Garra*** **Hamilton, 1822**

Species (17): ***Garra gotyla*** **(Gray, 1830)**

Order(I): Cypriniformes

Family (C): **Psilorhynchidae**

Genus (xv): Psilorhynchus McClelland, 1839

Species (18): ***Psilorhynchus balitora*** (Hamilton, 1822)

Order(I): Cypriniformes

Family (D):Balitoridae

Genus (xvi): Balitora Gray, 1830

Species (19): ***Balitora brucei*** Gray, 1830

Order(II): Siluriformes

Family (E): Bagridae

Genus (xvii): *Sperata* Holly, 1939

Species (20): ***Sperata*** *aor* (Hamilton, 1822)

Order(II): Siluriformes

Family (E): Bagridae

Genus (xvii): *Sperata* Holly, 1939

Species (21): ***Sperata seenghala*** (Sykes, 1839)

Order(II): Siluriformes

Family (E): Bagridae

Genus (xviii) *Mystus* **Scopoli, 1777,**

Species(22): ***Mystus cavasius*** (Hamilton, 1822)

Order (II): **Siluriformes**

Family (E): Bagridae

Genus (xix): Batasio **Blyth, 1860**

Species (23): Batasio batasio(**Hamilton, 1822)**

Order(II): Siluriformes

Family (F): Schilbeidae

Genus (xx): Eutropiichthys Bleeker, 1862

Species (24): ***Eutropiichthys vacha*** (Hamilton, 1822)

Order:(II) Siluriformes

Family(G): Sisoridae

Sub-family (g): Sisorinae

Genus(xxi): *Glypthtorax* Blyth, 1860

*Species(25): Glypthtorax telchitta (*Hamilton, 1822)

Order(II): Siluriformes

Family (G): Sisoridae

Sub-family (h): Glyptosterninae

Genus(xxii): Pseudecheneis Blyth, 1860

Species (26): *Pseudecheneis sulcata* (McClelland, 1842)

Order (III): Beloniformes

Family (H): Belonidae

Genus (xxiii): Xenentodon Regan, 1911

Species (27): ***Xenentodon cancila*** (Hamilton, 1822)

Order (IV): Synbranchiformes

Family(I): Mastacembelidae

Genus(xxiv): *Mastacembelus* Scopoli, 1777

Species (28): ***Mastacembelus armatus*** (Lacepède, 1800)

Order (V): Anabantiformes

Family (J): Ambassidae

Genus (xxv): C*handa* Hamilton, 1822

Species (29): *Chanda nama* Hamilton, 1822

Order (V): Anabantiformes

Family (J): Ambassidae

Genus(xxvi): Parambassis Bleeker, 1874

Species (30): ***Parambassis ranga*** (Hamilton, 1822)

Order (VI): Gobiiformes

Family(K): Gobiidae

Sub-family (i):: Gobiinae

Genus (xxvii): Glossogobius Gill, 1859

Species(31): ***Glossogobius giuris*** (Hamilton, 1822)

Order (VI): Gobiiformes

Family(K): Gobiidae

Sub-family (i): Gobiinae

Genus (xxvii): Glossogobius Gill, 1859

Species: (32) Glossogobius biocellatus (Valenciennes, 1837)

Channa gachua

Order (V): Anabantiformes

Family (L): Channidae

***Genus (xxviii): Channa* Scopoli, 1777**

Species(33): ***Channa*** *gachua (*Hamilton, 1822)

Collectns. From River Kolodyne	23 10 2002, Sl 90	**12 11 2006**, Sl 91	**12 3 2018 (Lot 1),** Sl 91 (a)	**12 3 2018 (Lot 2) Sl 91 (b)**	**28 3 2001 91(c)**
Species	17	1	8	7	21
Genus	17	1	8	7	20
Sub-family	7	1	4	3	7
Family	10	1	3	6	8
Order	6	1	3	5	5

Concomitantly, species composiiton of the ichthyospecies colleted from River Kolodyne from different sites on different dates have been presened in the following running Table:

2. Method

Fish samples were collected by experimental fishing using cast nets (diameter 3.7 m – 1.0 m), gill nets (vertical height 1.0 m – 1.5 m; length 100 m – 150 m), drag nets (vertical height 2.0 m), triangular scoop nets (vertical height 1.0 m) and a variety of traps. Camouflaging technique had also been used to catch the fishes. Fishes were preserved, at the beginning, in concentrated formaldehyde in the field itself and then in 10% formalin in theLaboratory. Fishes were identified through standard literature (Day, 1873, 1885, 1878, 1889; Shaw and Shebbeare, 1937; Misra, 1959; Menon, 1974, 1999; Talwar and Jhingran, 1991; Jayaram, 1981, 1999, 2010) and fishbase.org. The arrangement of classification, followed here, is that of Greenwood *et a1.* (1966) and Jayaram (1981, 1999, 2003, 2010); Kar and Khynriam, 2022, 2024, Kar, 2025 a, b, c).

3. Result

Systematic account of the Fishes of River Kolodyne:

Genus: ***Salmostoma*** Swainson, 1839

Salmostoma Swainson, 1839, *Nat. Hist.Fish.,* 2: 184 (Type species, *Cyprinus oblonga* Swainson= *Cyprinus bacaila* Hamilton-Buchanan, by subsequent designation); Banarescu, 1968, *Rev.Roum.Biol. Zool.,* 13: 13-14; Howes, 1979, *Bull.Br.Mus. nat.Hist.,* (Zool.) 36(3):190-191; Talwar and Jhingran, 1999, *Inland Fishes* 1; Jayaram, 1999, *FW Fishes of the Indian Region*: 65; Menon, 1999, *Rec.Zool. Surv. India Occ. Paper* No. 175: 24.

Generic characters: Body elongated, compressed. Abdomen keeled from below pectoral fins to anus; keel not hardened. Head moderate to long, compressed. Snout blunt. Mouth oblique to body axis; cleft reaching anterior margin of orbit or slightly ahead. Lower jaw longer with a knob (generally present) at the symphysis of the 2 bones. Dorsal fin short; inserted mostly opposite to anal fin (or may be little ahead in some cases) with usually 7 to 10 rays. Pectoral fins long and presence of an elongated axillary scale. Anal fin short with 14-20 rays. Caudal fin deeply forked. Ll complete with usually 39 to 112 scales.

Material examined:

(a)River Kolodyne in Mizoram; Collection: 23 10 2002; 5 Ex.; *Museum No.*, 90/11(i), 11(iv) to 11(vii)*;* Collection and First Report by Professor D. Kar and Party.

Key to species: Presence of 4-6 Ll scales between Ll and pelvic fin base.

Species: Salmostoma bacaila (Hamilton, 1822)

Distribution: In many water bodies in India, in both lotic and lentic systems (including Sone Beel and in Shiv Narayanpur Anua wetland in Assam; Rivers Tuirial, Tlawng, Kolodyne in Mizoram; River Gomati in Tripura: In all these collections: First Reports by Professor D. Kar and Party), also, in Bangladesh, Nepal, etc.

IUCN status: Least Concern (LC).

Genus: *Cabdio Hamilton* 1822

Cabdio Hamilton, An account of fishes found in the river Ganges: 333, 392.

Generic characters: Body elongate. Abdomen rounded. Head moderate rounded anteriorly. Snout obtuse. Mouth small, inferior. Eyes lateral. Lips thin. Lower jaw without any lip and with a sharp crescent bony edge. Barbel absent. Dorsal fin inserted behind pelvic fins. Caudal fin forked. Lateral line much decurved. Scales of moderate size; eye, 17.2 to 25.3 % HL.

Material examined:

(a) River Kolodyne in Mizoram; Collection: 23 10 2002; 7 Ex.; *Museum No.*, *90/* 4(i) to 4(iv),4(v), 8(i), 8(ii)*;* Collection and First Report by Professor D. Kar and Party.

(b) River Kolodyne in Mizoram; Collection: 28 3 2001; 27 Ex.; *Museum No.*, *91©/ 12 (i), 12 (ii) to 12 (xxvii);* Collection and First Report by Professor D. Kar and Party.

Key to species: Lateral line scales 38 to 42. Anal fin with 10 to 12 rays. 2.5 to 3 rows of scales between lateral line and pelvic fin base.

***Species: Cabdio morar* (Hamilton, 1822)**

Distribution: In many water bodies in India (including River Barak at Lakhipur and at Khangbor in North-East(NE) India; River Gomati in Tripura; Rivers Tlawng, Mat, Kolodyne in Mizoram: In all these collections: First Reports by Professor D. Kar and Party), also, in Bangladesh, Nepal, Pakistan, etc.

IUCN Status: Least Concern (LC)

Genus: *Barilius* Hamilton, 1822

Barilius Hamilton, 1822, Fish Ganges, 266, 384 (Type species: *Cyprinus barila* Hamilton).

Generic characters: Body moderately elongate and compressed. Abdomen rounded. Head sharply pointed; might have “peral organs” and tubercles. Mouth anterior or obliquely directed upwards. Eyes large and superior in the anterior half of the head, not visible from below the ventral surface. Upper jaw longer than lower. Characteristic muscular pads present in front of the bases of the pectoral fins. Dorsal fin inserted opposite the inter-space between pelvic and anal fins, nearer to caudal-fin base than to the tip of the snout. Caudal fin forked. Scales moderate. Lateral line concave. The body usually covered with vertical bands.

Material examined:

(a)River Kolodyne in Mizoram; Collection: 28 3 2001; 1 Ex.; *Museum No.*, 91 © / 1(i)*;* Collection and First Report by Professor D. Kar and Party.

Key to species: Body with 14 or 15 short vertical bars extending from back to lateral line.

Species: *Barilius barila* (Hamilton, 1822)

Distribution: In many water bodies in India (including River Barak at Thingkal, NE India: First report by Prof. D. Kar and Party; Rivers Tuirial, Tlawng, Kolodyne: in Mizoram: First reports by Prof. D. Kar and Party); also in Bihar, Delhi, Jammu and Kashmir, Madhya Pradesh, Mysore, Orrisa, Rajasthan, Uttar Pradesh, West Bengal. Bangladesh, Myanmar, Nepal, etc.

IUCN Status: Least Concern (LC).

Genus: *Opsarius* McClelland, 1838

Opsarius McClelland, 1838. *Journal of the Asiatic Society of Bengal* 7: 944.

Generic characters: Body long, mouth widely cleft and horizontal with symphysial knob received into a corresponding depression in the apex of the upper jaw. Back straight, dorsal fin placed opposite to anal fin, both fins situated near the caudal extremity.

1. *Material examined*:

(a) River Kolodyne in Mizoram; Collection: 23 10 2002; 9 Ex.; *Museum No.*, *90/* 5(i) to 5 (viii), 6(i)*;* Collection and First Report by Professor D. Kar and Party.

(c) River Kolodyne in Mizoram; Collection: 28 3 2001; 16 Ex.; *Museum No.*, *91 © /* 8 (i) to 8 (xvi)*;* Collection and First Report by Professor D. Kar and Party.

Key to species: Coloured bands usually present on the upper part of Lateral line and generally does not extend below the Lateral line. No barbels.

Species: Opsarius barna McClelland, 1839

Distribution: In many water bodies in India (including River Barak between Patpuihmun and Sartuinek, River Barak at Karnifai; River Barak at Taithu in North-East India; also, in Rivers Tuirial, Tlawng, Mat, Kolodyne in Mizoram: In all these collections: First reports by Prof. D. Kar and Party); also in Bihar, Delhi, Jammu and Kashmir, Madhya Pradesh, Mysore, Orrisa, Rajasthan, Uttar Pradesh, West Bengal. Bangladesh, Myanmar, Nepal, etc.

IUCN Status: Least Concern (LC).

Genus: *Chela* Hamilton, 1822

Chela Hamilton, 1822, An account of fishes found in the river Ganges: 258, 353.

Generic Characters: Body deep, abdomen keeled. Mouth small and opening vertically, barbel absent. Dorsal fin inserted near caudal fin. Inter orbital region without scales. No symphysial process on lower jaw. First ray of pelvic fins considerably longer.

Material examined:

(a)River Kolodyne in Mizoram; Collection: 23 10 2002; 2 Ex.; *Museum No.*, *90/11(ii)(a), 11(iii)(a);* Collection and First Report by Professor D. Kar and Party.

Key to species: Outer ray of pelvic fins strongly produced. Lateral line complete with 51-56 scales. Body shining silvery with a greenish longitudinal band.

Species: Chela cachius (Hamilton, 1822)

Distribution: In many water bodies in India (including River Barak at Lakhipur: First report by Prof. D. Kar and Party; Rivers Tuirial, Kolodyne in Mizoram: First reports by Prof. D. Kar and Party); also in Bangladesh, Myanmar, Nepal, Pakistan, etc.

IUCN status: Least Concern (LC).

Genus: *Tor* Gray, 1834

Tor Gray, 1834, Illustrations of Indian Zoology, 2, Pl. 96 (type-species, *Cyprinus tor* Hamilton, by monotypy).

Generic characters: Body elongate, moderately compressed. Abdomen rounded. Head small, broadly pointed. Snout angularly rounded, often with tubercles. Mouth inferior, usually arched. Eyes large; not visible from below ventral surface. Lips fleshy, continuous at angles of the mouth. Posterior lip with a median lobe and the post-labial groove continuous. Four barbels; one pair each of maxillary and rostral. Dorsal fin inserted above pelvic fins, with 12 to 13 rays and a strong, stout, smooth spine. Anal fin with seven or eight rays. The caudal fin deeply forked. Scales large. Lateral line complete with 22 to 37 scales.

Material examined:

(a)River Kolodyne in Mizoram; Collection: 12 3 2018 (Lot 2); 2 Ex.; *Museum No.*, 91 (b) / 3(i), 3(ii)*;* Collection and First Report by Professor D. Kar and Party.

Key to species: Head length almost equal to or little less than body depth. Lateral line scales 22-27.

Species: Tor tor (Hamilton, 1822)

Distribution: In many water bodies in India, particularly, the hill streams (including River Barak at Teulein, River Barak at 20 km downstream from Tipaimukh Dam, Vitin, Gilgal, Tupidahar, Chandikhal in North East India: In all these collections, First reports by Professor D. Kar and Party; also in Rivers Tuirial, Kolodyne in Mizoram: First reports by Professor D. Kar and Party); further, also in West Bengal, Bihar, Uttar Pradesh, Madhya Pradesh, Ganga, and Narmada river systems, Eastern Himalayas. Bangladesh, Bhutan, China, Myanmar, Nepal, Pakistan, etc.

IUCN Status: Data Deficient (DD).

Genus: ***Neolissochilus*** Rainboth, 1985

Neolissochilus Rainboth, 1985, Beaufortia 35 (3): 26 (Type species: *Barbus stracheyi* Day, 1871, by original designation).

Generic characters: Body deep anteriorly. Trunk and peduncle are smoothly tapering from anterior end to posterior end. Abdomen rounded. Head broad. Snout blunt. Mouth oblique, terminal to horizontal or inferior. Species with horizontal mouth often have the lobe of the snout overhanging the upper lip. Mouth smoothly rounded when the lower jaw is blunt. Eyes in the upper half of head; visible both from dorsal and ventral surfaces. Lips thick. Cheeks with many tubercles. Labial fold interrupted. Scales large and heavy.

Material examined:

(a) River Kolodyne in Mizoram; Collection: 12 3 2018 (Lot 1); 1 Ex.; *Museum No.*, *91(a) / 4(ii);* Collection and First Report by Professor D. Kar and Party.

(b) River Kolodyne in Mizoram; Collection: 28 3 2001; 1 Ex.; *Museum No.*, *91 © / 9 (iv);* Collection and First Report by Professor D. Kar and Party.

(c) River Kolodyne in Mizoram; Collection: 23 10 2002; 1 Ex.; *Museum No.*, *90/13(iii);* Collection and First Report by Professor D. Kar and Party.

Key to species: Mouth nearly truncate. Edge of lower jaw sharp.

Species: Neolissochilus hexagonolepis (McClelland, 1839)

Distribution: In many water bodies in India, particularly, in the hill streams (including River Barak at Karong (Nagaland-Manipur Border); River Gomati in Tripura: First Reports by Professor D.Kar and Party; Rivers Tuirial, Mat, Kolodyne in Mizoram: First Reports by Professor D.Kar and Party); also, in Darjeeling and Eastern Himalayas; South and South-Eastern Asia; etc.

IUCN Status: Near Threatened (NT).

Genus: ***Osteobrama*** Heckel, 1843

Osteobrama Heckel, 1843, *Ichth. Russegger's Reisen in Europe, Asia and Africa, 1: 1033* (Type species, *Cyprinus cotio,*Hamilton-Buchanan,by subsequent designation); Silas, 1952,*proc.nat.Inst.Sci. India,* 18 (5): 430; Talwar and Jhingran, 1991, Inland Fishes I: 237; Jayaram, 1999, *FW Fishes of the Indian Region:* 101; Menon, 1999, *Rec. Zool.Surv. India, Occ. Paper* No. 175: 62; Nath and Dey, 2000, *Fish and Fisheries of NE India (Arunachal Pradesh):* 44; *Vishwanath,* 2002, *Fishes of North East India, NATP Pub*: 67.

Generic Characters: Body short, deep, compressed. Abdomen edge sharp, keeled entirely or only from pelvic fin base to vent. Head short; snout bluntly rounded. Mouth small, somewhat directed upwards. Eyes large, lateral. Upper jaw slightly longer. Barbels, 4, 2 or none. Dorsal fin inserted slightly behind pelvic fins extending over anal fin with 11 to 12 rays and a strong serrated spine. Anal fin long with 14 to 36 rays. Caudal fin deeply forked. Lateral line complete generally with 57 scales.

Material examined:

(a) River Kolodyne in Mizoram; Collection: 28 3 2001; 3 Ex.; *Museum No.*, *91 © / 6(i) to 6 (iii);* Collection and First Report by Professor D. Kar and Party.

Key to species: Presence of 14 scales between lateral line (Ll) and pelvic fin base. Ll scales 48 to 66. Presence of 33 to 38 rays in anal fin.

Species: Osteobrama cotio (Hamilton, 1822)

Distribution: In many water bodies in India (including Shiv Narayanpur Anua at Katigorah, Cachar district in Assam: First Report by Professor D.Kar and Party; Rivers Tuirial, Kolodyne in Mizoram: First Reports by Professor D.Kar and Party); also, in Bangladesh, Myanmar, Nepal, Pakistan, Sri Lanka, etc.

IUCN status: Least Concern (LC).

Genus: Puntius Hamilton, 1822

Puntius Hamilton, 1822, *Fish Ganges:*310, 388 (Type species, *Cyprinus sophore,* Hamilton-Buchanan, by subsequent designation); Jayaram, 1991, *Rec.Zool. Surv. India Occ. Paper* No.135: 1-178 (revision); Talwar and Jhingran, 1991, *Inland Fishes* 1: 250; Jayaram, 1999, *FW Fishes of the Indian Region:* 108; Menon, 1999, *Rec Zool.Surv. India., Occ. Paper* No. 175: 65; Nath and Dey, 2000. *Fish and Fisheries of NE India (Arunachlal Pradesh):* 39.

Generic characters: Body short to moderately long, deep, compressed. Abdomen round. Head short. Snout obtuse, conical or pointed; sometimes, may be with tubercles. Mouth arched, anterior or inferior.

Upper jaw may be protractile. Eyes moderate to large, dorso-lateral; they are not visible from below ventral surface. Lips thin, cover the jaws; without any horny covering. Jaws simple without any tubercle at the symphysis. Barbels four, two or may be absent. Dorsal fin short inserted nearly opposite to pelvic fins. Anal fin short. Caudal fin forked. Scales small, moderate or large.

Material examined:

(a)River Kolodyne in Mizoram; Collection: 28 3 2001; 3 Ex.; *Museum No.*, *91 © / 9 (xx), 9 (xxiii), 9 (xxiv);* Collection and First Report by Professor D. Kar and Party.

Key to species: Pre-dorsal scales 8-10. Presence of 2 conspicuous dark blotches on the body black spot on dorsal fin and on caudal peduncle. Presence of one pair of barbels.

Species: Puntius chola (Hamilton, 1822)

Distribution: In many water bodies in India (including Anua s in Cachar, Assam; Sone Beel, Javda Beel, Sat Beel, Rani Meghna Beel in Assam; Chatla Haor in Assam: First Reports by Professor D. Kar and Party; Rivers Tlawng, Kolodyne in Mizoram: First Reports by Professor D. Kar and Party); also in Bangladesh, Myanmar, Nepal, Pakistan, Sri Lamka, etc.

IUCN status: Least Concern (LC).

Material examined:

(a) River Kolodyne in Mizoram; Collection: 23 10 2002; 1 Ex.; *Museum No.*, *90/7(i);* Collection and First Report by Professor D. Kar and Party.

(b) River Kolodyne in Mizoram; Collection: 28 3 2001; 3 Ex.; *Museum No.*, *91 (c) /9 (vi), 9 (xxi), 9 (xxxi);* Collection and First Report by Professor D. Kar and Party.

Key to species: Pre-dorsal scales 8-10. Presence of a black spot on dorsal fin and on caudal peduncle.

Species: Puntius sophore (Hamilton, 1822)

Distribution: In many water bodies in India (including Rupairbala Anua in Cachar, Assam; Javda Beel and Karbhala Beel in Assam: First Reports by Professor D. Kar and Party; Rivers Tuirial, Tlawng, Kolodyne in Mizoram: First Reports by Professor D. Kar and Party); also in Bangladesh, Myanmar, Nepal, Pakistan, Sri Lanka, etc.

IUCN status: Least Concern (LC).

Genus: ***Pethia*** Pethiyagoda, 2012。

Pethia, 2012, Pethiyagoda, Meegaskumbura and Maduwage: 80 (Type species: *Barbus nigrofasciatus* Gunther, 1868. Type by original designation). Pethiyagoda, Meegaskumbura and Maduwage, 2012.

Generic characters: Body short to moderately long, deep, and compressed. Abdomen rounded. Head short. Snout obtuse, conical, or pointed; sometimes, it may have tubercles. Mouth arched, anterior or inferior. The upper jaw may be protractile. Eyes moderate to large, dorso-lateral; they are not visible from below the ventral surface. Lips thin, cover the jaws, without any horny covering. Jaws simple without any tubercle at the symphysis. Barbels four, two or may be absent. Dorsal fin short inserted nearly opposite to pelvic fins. Anal fin short. Caudal fin forked. Scales small, moderate, or large.

Material examined:

(a) River Kolodyne in Mizoram; Collection: 23 10 2002; 3 Ex.; *Museum No.*, *90/13(i), 13(iii), 13(iv);* Collection and First Report by Professor D. Kar and Party.

(b) River Kolodyne in Mizoram; Collection: 12 3 18(Lot 1); 4 Ex.; *Museum No.*, *91(a) / 4(i),4(iii)to 4(v);* Collection and First Report by Professor D. Kar and Party.

(c) River Kolodyne in Mizoram; Collection: 28 3 2001; 9 Ex.; *Museum No.*, *91 © / 9 (i) to 9 (iii), 9 (v), 9(vii), 9 (xiv), 9 (xvi), 9 (xviii), 9 (xxii).;* Collection and First Report by Professor D. Kar and Party.

Key to species: Barbel absent, lateral line incomplete, and caudal peduncle with a black blotch.

Species: Pethia conchonius (Hamilton, 1822)

Distribution: In many water bodies in India (including River Vomvadung and River Khuolzangvadung in Dima Hasa District, Assam; River Kopili: **at Panimur, Assam**; River Monu in Tripura; Rivers Tuirial, Tlawng, Mat, Kolodyne in Mizoram: In all these collections: First reports by Professor. D. Kar and Party); also in Bihar, Uttar Pradesh, Punjab, Maharashtra, Orissa, Eastern, and western Himalaya, Deccan, Afghanistan, Bangladesh, Myanmar, Nepal, Pakistan, and Sri Lanka, etc.

IUCN Status: Least Concern (LC)

Material examined:

(a)River Kolodyne in Mizoram; Collection: 28 3 2001; 33 Ex.; *Museum No.*, *91 © / 9 (viii) to 9 (xiii), 9 (xv), 9 (xvii), 9 (xix), 9 (xxv) to 9 (xxx), 9 (xxxii) to 9 (xxxxix);* Collection and First Report by Professor D. Kar and Party.

Key to species: Presence of 22-25 Lateral line scales. Pre-dorsal scales (PDS) usually 9. Presence of a long transverse black blotch above pectoral fin and another almost similar on caudal peduncle over the end of anal fin, generally in fresh/live fishes. Usually, presence of a red border in the dorsal fins of males.

Species: Pethia ticto (Hamilton, 1822)

Distribution: In many water bodies in India (including Baskandi Anua, Shiv Narayanpur Anua, in Cachar Assam; River Monu in Tripura: In all these Collections: First reports by Prof. D. Kar and Party; Rivers Tuirial, Tlawng, Mat, Kolodyne in Mizoram: In all these Collections: First reports by Prof. D. Kar and Party); also, in Bangladesh, Myanmar, Nepal, Thailand, etc.

IUCN Status: Least Concern (LC).

Genus: ***Cyprinion*** Heckel

Cyprinion Heckel*;Semiplotus* Bleeker, 1860, *Nat. Tijdschr. Ned. Indel.,* 20 (3): 424 (Type spcies. *Cyprinus semiplotus* McClelland, by subsequent monotypy.

Generic characters: Body short, deep and compressed. Abdomen rounded. Snout thick and overhanging the mouth. Mouth inferior and wide. Eyes large; situated in the middle of head. Lower jaw with a knob at the symphysis. Barbel absent. Dorsal fin inserted above posterior third of pectoral fins. Anal fin short with 5-7 branched rays. Caudal fin forked. Lateral line complete with 27 to 34 scales.

Material examined:

(a) River Kolodyne in Mizoram; Collection: 28 3 2001; 3 Ex.; *Museum No.*, *91 © / 5 (i) to 5 (iii);* Collection and First Report by Professor D. Kar and Party.

Key to species: Dorsal spine smooth. Lateral line scales 27. Anal fin short with 7 rays.

Species: Cyprinion semiplotum (McClelland, 1839)

Distribution: In water bodies in India (including River Kopili at Kalighat in Assam; Rivers Mat, Kolodyne in Mizoram: In all these Collections: First reports by Prof. D. Kar and Party); also, in Arunachal Pradesh, Meghalaya, Tripura, North Bengal, Bhutan, Myanmar, Nepal, Pakistan, Sri Lanka, etc.

IUCN Status: Vulnerable (VU)

Genus: *Labeo* Cuvier, 1816

Labeo Cuvier, 1816, *Regne Animale,* 2 (ed.1): 194 (type-species, *Cyprinus niloticus* Forskal, by subsequent designation);- Jayaram and Dhas, 1998, *Occ.Paper, Zool.Surv. India* No.183: 1-143 (revision);- Menon, 1999, *Rec.Zool. Surv. India, Occ. Paper No.*175: 125 *(*Check list).

Generic Characters: Body small or of moderate size. Elongated or deep. Abdomen rounded. Head fairly large. Snout more or less swollen, rounded or truncated; often project beyond mouth, covered by a groove across; with or without tubercles, mostly overhanging the mouth. Mouth somewhat inferior. Eyes moderately large.Lips thick, fleshy, fringed, continuous at the angle of the mouth, forming a labial fold. 1 or 2 pairs of Barbels generally present.Dorsal fin inserted above anterior to origin of pelvic fins. Anal fin short. Caudal fin usually deeply forked. Scales large, moderate or small. Lateral line usually complete.

(a) River Kolodyne in Mizoram; Collection: 12 11 2006; 1 Ex.; *Museum No.*, *91/1(I);* Collection and First Report by Professor D. Kar and Party.

(b) River Kolodyne in Mizoram; Collection: 28 3 2001; 5 Ex.; *Museum No.*, *91 © / 3 (i) to 3 (v);* Collection and First Report by Professor D. Kar and Party.

Key to species: Scales between lateral line and pelvic fins 6.0 to 6.5; eye, 17.2 to 25.3 % HL.

Species: Labeo pangusia (Hamilton, 1822):

Distribution: In water bodies in India, generally in the hill streams (including River Barak at Kotaikhal in NE India, River Kolodyne in Mizoram: In all these collections: First reports by Prof. D. Kar and Party); also, Bangladesh, Nepal, etc.

IUCN Status: Near Threatened (NT).

Genus: ***Tariqilabeo*** Kuhl van Hasselt, 1823

Tariqilabeo Kuhl van Hasselt, 1823, *Algem-Konst.Letter-Bode,*2,p:132 (Type species, *Tariqilabeo oblongus* (*Crossocheilus oblongus)*Kuhl and van Hasselt, by monotypy); Mukerji, 1934, *J.Bombay nat. Hist. Soc.,* 37 (1): 49-54; Banarescu, 1986, *Trans Mus. Hist. natn. Gr.Antipa.* 28: 142-154; Kottelat, 1987, *Jap. J. Ichthyol.,* 33 (4): 371; Talwar and Jhingran, 1999, *Inland Fishes* 1: 413; Jayaram, 1999, 2010, *FW Fishes of the Indian Region*: 152; Menon, 1999, *Rec. Zool. Surv., India, Occ. Paper* No. 175: 139.

***Generic Characters*:** Body more or less elongate. Ventral profile horizontal or slightly curved. Abdomen rounded. Head small. Snout obtusely pointed. Mouth inferior. Eyes large. Post-labial groove generally present. Rostral cap thick; its margin fimbriate. Presence of a pair of rostral and maxillary barbels only; latter may be absent. Dorsal fin inserted midway between pectoral and pelvic fins; considerably nearer to tip of snout than base of caudal fin with 10 or 11 rays and without any spine. Anal fin short with 7 rays. Caudal fin deeply forked. Lateral line scales 33 to 46.

Material examined:

(a) River Kolodyne in Mizoram; Collection: 23 10 2002; 6 Ex.; *Museum No.*, *90/2(i) to 2(vi);* Collection and First Report by Professor D. Kar and Party.

(b) River Kolodyne in Mizoram; Collection: 12 3 18 (Lot 1); 4 Ex.; *Museum No.*, 91(a) / *1(ii),1(iii),1(x),1(xii);* Collection and First Report by Professor D. Kar and Party.

(c) River Kolodyne in Mizoram; Collection: 28 3 2001; 4 Ex.; *Museum No.*, *91 © / 14 (i), 14 (ii),to 14 (iv);* Collection and First Report by Professor D. Kar and Party.

Key to species: Presence of 37-39 Lateral Line (Ll) scales. Diameter of eye 21.3 to 23.8 % of HL.

Species: Tariqilabeo latius (Hamilton, 1822)

Distribution: In many water bodies in India (including Salchapra Anua in Cachar, Assam: First Report by Professor D. Kar and Party; River Monu in Tripura: First Report by Professor D. Kar and Party; River Barak: First Report by Professor D. Kar and Party; Rivers Tuirial, Mat, Kolodyne in Mizoram: First Reports by Professor D Kar and Party); also, in Arunachal Pradesh, Bangladesh, Nepal, etc.

IUCN status: Least Concern (LC)

Genus: *Garra* Hamilton, 1822

Garra Hamilton, 1822, Fish Ganges: 343, 393 (Type species: *Cyprinus (Garra) lamta* by later designation).

Generic characters: Body short, sub-cylindrical. Ventral surface flat. Head little depressed anteriorly. Snout blunt; smooth or with pores; with or without a deep, transverse groove-like depression. Mouth inferior, transverse, semi-circular. Eyes small; in the posterior half of the head; lateral; not visible from below ventral surface. Lips thick and fleshy. Upper and lower lips are continuous without any lateral lobes. A proboscis may or may not be present. A suctorial disc of semi-cartilaginous pad present on the chin. Scales moderate.

Material examined:

(a) River Kolodyne in Mizoram; Collection: 23 10 2002; 9 Ex.; *Museum No.*, *90/12(i) to 12)(ix);* Collection and First Report by Professor D. Kar and Party.

(b) River Kolodyne in Mizoram; Collection: 12 3 18(Lot 1); 6 Ex.; *Museum No.*, *91(a) / 1(iv) to 1(ix);* Collection and First Report by Professor D. Kar and Party.

(c) River Kolodyne in Mizoram; Collection: 28 3 2001; 2 Ex.; *Museum No.*, *91 © / 7 (i), 7 (xvi);* Collection and First Report by Professor D. Kar and Party.

Key to species*:* Lateral line scales 33-34. Distance between vent and anal fin origin 31.25 to 38.5 % in inter-distance between pelvic and anal fin origin.

Species: Garra annandalei Hora, 1921

Distribution: In many water bodies in India (particularly in the hill streams including River Barak at Chotrikhal along Manipur, Mizoram, Assam border in North-East India: First Report by Prof. D. Kar and Party**; River Gomati in Tripura**: First Report by Prof. D. Kar and Party; Rivers Tuirial, Tlawng, Mat, Kolodyne in Mizoram: First Reports by Prof. D. Kar and Party); also, in Darjeeling Himalayas, Arunachal Pradesh, Bangladesh, Nepal, etc.

IUCN status: Least Concern (LC)

Material Examined:

(a) River Kolodyne in Mizoram; Collection: 12 3 18(Lot 1); 3 Ex.; *Museum No.*, *91(a) / 1(xi),1(xiii), 1(xiv);* Collection and First Report by Professor D. Kar and Party.

(b) River Kolodyne in Mizoram; Collection: 12 3 18(Lot 2); 6 Ex.; *Museum No.*, *91 (b) /* 2 (i) to 2 (vi)*;* Collection and First Report by Professor D. Kar and Party.

Key to species: A well developed median proboscis and a transverse lobe at tip covered with spiny tubercles

Species: Garra gotyla (Gray, 1832)

Distribution: In many water bodies in India, particularly in the hill syteams (including River Diyung in Dima Hasao district, Assam: First report: by Professor D Kar and Party; Rivers Tuirial, Mat, Kolodyne in Mizoram: First reports: by Professor D Kar and Party); also, in Chotanagpur plateau and mountains of the Indian Peninsula. Afghanistan, Bangladesh, Bhutan, Myanmar, Nepal, Pakistan, etc.

IUCN Status: Least Concern (LC)

Genus: *Psilorhynchus* McClelland, 1839

Psilorhynchus McClelland, 1839, Asiatic Researches, 19: 300, 428 (Type species: *Cyprinus sucatio* Hamilton, by subsequent designation).

Generic characters: Body spindle-shaped, arched dorsally and flattened ventrally; anteriorly depressed. Ventral surface markedly flattened. Snout flat obtusely pointed anteriorly. A shallow depression may be present on the cheek. Mouth small, inferior, transverse. Eyes large, dorso-lateral in the posterior half of the head; not visible from below ventral surface. Lips entire, fleshy, continuous at the angle of mouth; reflected off from both the jaws; and, with glands and folds. Presence of a distinct lateral groove on either side passing along the sides of the snout. The upper jaw overhangs the mouth. Absence of barbels. Dorsal fins inserted ahead of pelvic fins with 10-12 rays. Pectoral fins simple with four-six rays. Anal fin short with seven rays. Caudal fin forked; upper lobe longer. Scales relatively large along the lateral line. Lateral line complete with 32-34 scales.

Material examined:

(a) River Kolodyne in Mizoram; Collection: 23 10 2002; 1 Ex.; *Museum No.*, 90/*16(i);* Collection and First Report by Professor D. Kar and Party.

Key to species: Pectoral fin with 6-7 simple rays. Lateral line scales 30-34.

Species: Psilorhynchus balitora (Hamilton, 1822)

Distribution: In many water bodies in India, particularly, in the hill streams (including upstream rheophilic stretch of River Barak at Phulpui: First report by Professor D. Kar and Party; in the upstream hilly stretch of River Tuivai at 20 km upstream from Barak Damsite: First report by Professor D. Kar and Party; in Rivers Tuirial,Tlawng, Mat, Kolodyne in Mizoram: First reports by Professor D. Kar and Party; in **River Gomati in Tripura**: First report by Professor D. Kar and Party); also, in the Ganga-Brahmaputra basin. Bangladesh, Bhutan, Nepal, etc.,

IUCN Status: Least Concern (LC).

Genus: Balitora Gray, 1830

Balitora Gray,1830, *Ill.Ind.Zool.,* I, pl. 88, Fig. 1 (Type species, *Balitora brucei* Gray, by monotypy); Silas, 1953, *Rec.Indian Mus.,* 50: 205 (revision); Menon, *Fauna India,* 4(1): 228 (revision); Talwar and Jhingran, 1999, *Inland Fishes,* 1: 445; Jayaram, 1999, 2010, *FW Fishes of the Indian Region:* 170.

Generic characters: Anterior part of body, head and abdomen greatly depressed; ventral surface of the body fkattened. Snout broad and rounded. Mouth inferior inferior and small. Rostral flap divided into 3 lobes; the median one being the largest lying between the rostral barbels. Barbels 3 pairs: 2 pairs of short thick rostral barbels and 1 pair of maxillary barbels. Dorsal fin inserted above or slightly ahead of pelvic fins with 11-12 rays. Presence of broad and horizontal paired fins. Pectoral fins with 19 to 21 rays. Adhesive pads present of the venteral surface of the 8 to 11 anteriormost pectoral fin rays and 3 or 4 pelvic fin rays. Anal fin short with 7 fin rays. Caudal fin forked. Lateral line (Ll) complete with 62-70 scales.

Material examined:

(a) River Kolodyne in Mizoram; Collection: 23 10 2002; 1 Ex.; *Museum No.*, *90/3(i);* Collection and First Report by Professor D. Kar and Party.

Key to species: Maximum head width 83.3 to 105.7 % HL. Eyes small.

Species: Balitora brucei **Gray, 1830)**

Distribution: In water bodies in India, particularly, in the hill streams (including River Gomati in Tripura near its origin at Tirthamukh, Mandirghat: First Report by Professor D. Kar and Party; Rivers Tuirial, Mat, Kolodyne in Mizoram: First Reports by Professor D. Kar and Party); also, in the Ganga-Brahmaputra basin. Bangladesh, Bhutan, Nepal, etc.

IUCN status: Near Threatened

Genus: ***Sperata*** Holly, 1939

Sperata Holly, 1939, *Zool. Anzeiger* 125:14, 1939 (replacement name for *Macrones* Dumeril, 1856; therefore, taking the same type species *Bagrus lamarii* Valenciennes, 1840 (Type species: *Sperata vittatus* (Bloch) in error); Ferraris and Runge, 1999, *Proc.Acad. Nat. Sci. Philad.* 51 (10): 400

(Revision); Jayaram, 2006, *Catfishes of India*: 23; Ferraris, 2007, *Zootaxa,* 1418: 106. *Macrones* Dumeril, 1856, *Ichthyologie analytique:* 484 (Type species *Bagrus lamarrii* Valenciennes, 1840, by original designation; preoccupied by *Macrones* Newman, 1841. *Aoria* Jordan, 1856, *Proc Acad. Nat. Sci. Philad.* 70: 341 (substitute name for *Macrones* Dumeril, 1856, preoccupied by *Aoria* baly, 1863).

Generic characters: Dorsal profile arched. Head large elongate, slightly depessed. Snout spatulate or rounded. Mouth moderately wide. Presence of a distinct inter-neural shield in between basal bone of dorsal fin and occipital process. Presence of 4 pairs of barbels; one each maxillary and nasal and two mandibular. Gill membranes free from each other and also from isthmus. Rayed dorsal fin generally with 7 rays and a robust spine. Adipose dorsal fin low with slightly convex margin. Pectoral fins with 9 or 10 rays and a spine. Pelvic fins generally with 6 rays. Anal fin short with 11 to 15 rays. Caudal fin deeply forked. Presence of a large round or ovoid dark spot near the posterior margin of the adipose fin.

Material examined:

(a) River Kolodyne in Mizoram; Collection: 23 10 2002; 3 Ex.; *Museum No.*, *90/1(i) to 1 (iii);* Collection and First Report by Professor D. Kar and Party.

***Key to species*:** Snout spatulate. Pectoral fin with 8 or 9 rays.

***Species: Sperata seenghala* (Sykes, 1839)**

Distribution: In many water bodies in India (including Sone Beel, Chatla Haor and Bakri Haor in Assam: First Reports by Professor D. Kar and Party; **River Gomati in Tripura,:** First Report by Professor D. Kar and Party**; Rivers Tuirial, Tlawng, Mat, Kolodyne in Mizoram**: First Reports by Professor D. Kar and Party); also in Bangladesh, Myanmar, Nepal, Pakistan, Sri Lanka etc.

IUCN status: Least Concern (LC)

Material examined:

(a) River Kolodyne in Mizoram; Collection: 12 3 2018 (Lot 2); 1 Ex.; *Museum No.*, *91 (b) /* 6(i)*;* Collection and First Report by Professor D. Kar and Party.

***Key to species*:** Snout rounded in dorsal view. Width of gape of mouth less than 0.5 times HL. Pectoral fin rays 10-11.

***Species: Sperata aor* (Hamilton, 1822).**

Distribution: In many water bodies in India (including Sone Beel in Assam: First Report by Professor D. Kar and Party; River Kolodyne in Mizoram: First Report by Professor D. Kar and Party); also in Bangladesh, Nepal, Pakistan, etc.

IUCN status: Least Concern (LC).

Genus*: *Mystus Scopoli, 1777.

Mystus Russell, 1756, *Nat. Hist. Aleppo* 1: 76; *Mystus anguillaris* Meuschen. *Mystus,* Talwar and Jhingran, 1991, *Inland Fishes,* 2: 554; Roberts, 1994, *Ichthyological Exploration of Freshwaters* 5(3):243. *Genus*: *Mystus* Scopoli, 1777. *Introductio ad historiam naturalem*: 451 (Type by subsequent designation: Masc. *Bagrus halepensis* Valenciennes, 1840).

Generic characters: Body short or moderately elongated. Head short, flattened. Snout obtuse or rounded. Mouth sub-terminal, transverse. Eyes anteriorly situated, moderately large. Teeth numerous. Upper surface of head mostly smooth with one or two median longitudinal grooves of varying length. Occipital process long or short, situated superficially concealed under skin. Four pairs of barbels; one each of maxillary, nasal and two mandibular, two dorsal fins; an anterior rayed dorsal with seven or eight rays and a spine; a posterior smooth low adipose fin of varying lengths. Pectoral fins with seven to 11 rays and a strong spine serrated along the inner edge. Pelvic fins with six rays. Anal fin with nine to 14 rays. Caudal fin forked, bilobed with unequal lobes; lobes may be rounded, pointed or prolonged into filamentous extensions. Lateral line simple, complete.

Material examined:

(a)River Kolodyne in Mizoram; Collection: 12 3 2018 (Lot 1); 6 Ex.; *Museum No.*, *91 (a) / 3(i) to 3 (vi);* Collection and First Report by Professor D. Kar and Party.

Key to species: Maxillary barbels reach caudal fin base or even beyond. A mid-lateral stripe along Ll may sometimes be seen and another faint one above. Presence of a faint spot at base of dorsal spine.

Species: Mystus cavasius (Hamilton, 1822)

Distribution: In many water bodies in India (including wetlands in Assam, notably, Sone Beel, Fulbari Anua, Rupairbala Anua in Assam: First Reports by Professor D. Kar and party; River Gomati in Tripura: First Report by Professor D. Kar and party; Rivers Tuirial, Kolodyne in Mizoram: First Reports by Professor D. Kar and party); also in Myanmar, Pakistan, Sri Lanka, etc.

IUCN status: Least Concern (LC)

***Genus: Batasio* Blyth, 1860**

Batasio, Blyth, 1860; *J. Asiatic Soc. Bengal,* 29, p. 149 (Type species, *Batasio buchanani* Blyth= *Pimelodus batasio* Hamilton); Hora and Law, 1941, *Rec. Indian Mus.,* 43, p.28; Jayaram, 2006, *Catfishes of India:* 76; Ferraris, 2007, *Zootaxa,* 1418: 84 (Check list); *Macronoides* Hora, 1921, *Rec. Indian Mus.,* 22, p. 179 (Type species: *Macrones affinis* Blyth = *B.tengana* (Hamilton) as a sub-genus.

Generic characters: Body short, high and laterally compressed. Abdomen rounded. Head small, laterally compressed, conical, with pores ventrally and on sides. Snout rounded or slightly pointed. Mouth inferior, crescentic. Eyes dorso-lateral. Lips fleshy, fimbriated. Presence of 4 pairs of barbels: one pair each of maxillary and nasal; and, 2 pairs of mandibular; all usually do not extend beyond head. Rayed dorsal fin inserted 3/4th of pectoral fins anteriorly with 7-8 rays and a spine. Adipose dorsal fin low. Pectoral fins with 5-9 rays and a spine serrated along the inner edge. Pelvic fins generally with 6 rays and no spine. Anal fin with 12-15 rays and no spine. Caudal fin usually forked.

Material examined:

(a) River Kolodyne in Mizoram; Collection: 12 3 2018 (Lot 1); 17 Ex.; *Museum No.*, *91 (a) / 2(i) to 2 (xvii);* Collection and First Report by Professor D. Kar and Party.

Key to species: Adipose dorsal fin short. Absence of humeral spot. Dorsal spine long.

Species: Batasio batasio (Hamilton, 1822)

Distribution: In water bodies in India (including River Kolodyne in Mizoram: First Report by Professor D. Kar and party); also, in Teesta river system in North Bengal, Tripura, Bangladesh, etc.

IUCN status: Least Concern (LC)

Genus: *Eutropiichthys* Bleeker, 1862

Eutropiichthys Bleeker, 1862, *versl. Akad. Amsterdam,* 14: 398 (Type spcies: *Pimelodus vacha* Hamilton-Buchanan, by original description); Hora, 1937, *J. Bonmbay nat. Hist. Soc.,* 39: 431-446 (review); Jayaram, 2006, *Catfishes of India:* 132; Ferraris, 2007, *Zootaxa* 1418: 358.

Generic characters: Body elongate, compressed. Abdomen rounded. Head of moderate size, conical, snout pointed or blunt. Cleft of mouth reaching below orbit or slightly beyond. Eyes moderately large, lateral. Presence of 4 pairs of barbels; one pair each maxillary, nasal and two pairs mandibular. Rayed dorsal fin inserted above half of pectoral fins with 7 rays and a spine. Adipose dorsal fin short, posteriorly free. Pectoral fins with 10 to 16 rays and a spine. Pelvic fins with six rays. Anal fin long with 38 to 54 rays. Caudal fin deeply forked

Material examined:

(a) River Kolodyne in Mizoram; Collection: 12 3 2018 (Lot 2); 2 Ex.; *Museum No.*, *91 (b) /* 4 (i), 4 (ii); Collection and First Report by Professor D. Kar and Party.

Key to species: Nasal barbels reach hind border of head or slightly beyond

Species: Eutropiichthys vacha (Hamilton, 1822)

Distribution: In many water bodies in India (including Sone Beel, in Assam: First Report by Professor D. Kar and Party; River Barak at Fulertal in Assam: First Report by Professor D. Kar and Party; Rivers Mat, Kolodyne in Mizoram: First Reports by Professor D. Kar and Part); also in Bangladesh, Myanmar, Thailand, etc.

IUCN status: Least Concern (LC)

Genus: *Glyptothorax* Blyth, 1860

Glyptothorax Blyth, 1860, *J.Asiat.Soc., Bengal,* 29: 154 (Type species: *Glyptothorax trilineatus* Blyth); Hora, 1923, *Rec.Indian Mus.,*25: 8 (revision); Prashad and Mukerji, 1929, *Rec. Indian Mus.*, 31: 164, 183, 185 (Burmese species); Hora and Gupta, 1941, *Bull. Raffles Mus.,* 17: 33, Pl. 3 (Malayan species); Menon, M.A.S., 1954, *Rec.Indian Mus.,* 62: 30 (revision); Li, 1986, *Indo-Paific Fish Biology*: 521-528; Nath and Dey, 2000, *Fish and Fisheries of NE India:* 111; Jayaram, 2006, *Catfishes of India:* 256; Thompson and Page, 2006, *Zootaxa,* 1345: 40 (Check list); Ferraris, 2007, *Zootaxa,* 1418: 387 (Check list).

Generic characters: Body of small to moderate size. Dorsal profile not much arched. Head small, depressed, covered with thick skin. Mouth conical but not pointed. Upper jaw longer. Mouth inferior, transverse, narrow. Presence of an adhesive organ on the ventral surface of thorax; which is confined to the abdomen immediately between the pectotal fins; and, further, it may be of varying lengths and may be with or without a pit or depression. Barbels: 4 pairs; 1 pair each of maxillary and nasal; and, 2 pairs of mandibular. Rayed dorsal fin with 5 to 7 rays and a spine. Adipose dorsal fin short and posteriorly

free. Pectotal fins inserted laterally with 6 to 11 rays and a flat strong spine**.** Pelvic fins with 6 rays. Anal fin short with 7 to 14 rays. Caudal fin deeply forked. Lateral line simple and complete.

Material examined:

(a) River Kolodyne in Mizoram; Collection: 23 10 2002; 1 Ex.; *Museum No.*, *90/15(i);* Collection and First Report by Professor D. Kar and Party.

(b) River Kolodyne in Mizoram; Collection: 28 3 2001; 1 Ex.; *Museum No.*, *91 © / 2 (i);* Collection and First Report by Professor D. Kar and Party.

Key to species: Thoracic adhesive apparatus with narrow folds of skin, incomplete osteriorly. Nostrils separated from the snout by a distance equal to eye diameter.

Species: Glyptothorax telchitta (Hamilton, 1822)

Distribution: In many water bodies in India, particularly, in the hill streams. Also, found in the plain water mid-stream and downstream stretches of Rivers, like River Barak at Lakhipur and Katigora: First Reports by Professor D. Kar and Party; in rivers Tuirial, Tlawng, Mat, Kolodyne in Mizoram: First Reports by Professor D. Kar and Party); also, found in Bangladesh, Nepal, etc.

IUCN status: Least Concern (LC)

Genus: Pseudecheneis **Blyth, 1860**

Pseudecheneis **Blyth,** *J. Asiat. Soc., Bengal,* 29: 154, 1860 (Type species: *Glyptosternon sulcatus* McClelland); Jayaram, 1999, 2010, *The Freshwater Fishes of the Indian Region,* 300; Jayaram, 2006, *Catfishes of India: 275;* Thompson and Page, 2006, *Zootaxa, 1345:58;* Ferraris, 2007, *Zootaxa,* 1418: 400.

Generic characters: Small-sized living usually in the hill streams. Dorsal profile gently rising upto base of dorsal fin; thereafter, slowly descending to caudal peduncle, from where, it slopes sharply. Ventral surface of the head and anterior part of the trunk region flattened. Eyes small, covered by a thin membrane. Mouth inferior. Nostrils are adjacent to each other and separated by the nasal barbel. Presence of a broad, oval adhesive apparatus on the chest composed of a series of transverse ridges. Presence of 4 pairs of barbels: one pair each of maxillary and nasal and 2 pairs of mandibular. Maxillary barbels have broad bases. Rayed dorsal fins inserted above posterior half of pectoral fins with a moderately strong spine. Adipose dorsal fin well-developed; not cofluent with the caudal. Pectoral fins with weak artiiculated spine. Pelvic fins with oblique base. Anal fin does not reach caudal base. Caaudal fin deeply forked.

Material examined:

(a) River Kolodyne in Mizoram; Collection: 23 10 2002; 1 Ex.; *Museum No.*, *90/14(i);* Collection and First Report by Professor D. Kar and Party.

Key to species: Presence of a button-like structure internal to the inner mandibular pair of barbels.

Species: Pseudecheneis sulcata (McClelland, 1842)

Distribution: In water bodies in India, particularly, in the hill streams; (including: River Mat, Kolodyne in Mizoram: First Reports by Professor D. Kar and Party); also, found in Bangladesh, Nepal, etc.

IUCN status: Least Concern (LC)

Genus: ***Xenentodon*** Regan, 1911

Xenentodon Regan, 1911, Ann Mag nat Hist (8)7: 332 (type-species, *Belone cancila* Hamilton-Buchanan, by subsequent designation); - Roberts, 1989, Mem Calif Acad Sci No 14: 152 (review).

*Generic characters***:** Body long, compressed. Abdomen rounded. Head pointed. Snout sharply pointed. Mouth superior, wide, cleft extending to orbit. Eyes moderate. Both the jaws prolonged into a beak. Presence of a deep longitudinal groove along upper surface of the head. Dorsal fin usually inserted above anal fin. Caudal fins truncate. Scales small. Lateral line present on posterior half of the body, without a keel.

Material examined:

(a) River Kolodyne in Mizoram; Collection: 23 10 2002; 3 Ex.; *Museum No.*, *90/9(i) to 9(iii);* Collection and First Report by Professor D. Kar and Party.

(b) River Kolodyne in Mizoram; Collection: 28 3 2001; 2 Ex.; *Museum No.*, *91 ©/ 15 (i), 15 (ii);* Collection and First Report by Professor D. Kar and Party.

Key to species: Dorsal fin rays 15 – 18. Anal fin rays 16 – 18. Pre-dorsal scales >200.

Species: Xenentodon cancila (Hamilton, 1822)

*Distribution***:** In many water bodies in India (including wetlands in Assam, notably, Sone Beel, Salchapra Anua in Assam: First Reports by Professor D. Kar and party; River Gomati in Tripura: First Report by Professor D. Kar and party; Rivers Tuirial, Tlawng, Mat, Kolodyne in Mizoram: First Reports by Professor D. Kar and party); also in Manipur, Nepal, etc.

*IUCN status***:** Least Concern (LC)

Genus: ***Mastacembelus*** Scopoli, 1777

Mastacembelus Scopoli, 1777, Introd. Hist. Nat.: 458 (type –species, *Ophidium mastacembelus* Banks and Solander, by subsequent monotype); Travers, 1984, Bull. Brit. Mus. nat. Hist. (zool.)47 (2): 141-145 (review); Roberts, 1986, Jap. J. Ichthyol., 23 (2): 103-107 (review); - Sufi, 1956, Bull. Raffles. Mus., No. 27: 105-143 (systematic review).

*Generic characters***:** Body eel-like, elongated, compressed, long, pointed. Snout long, conical. Mouth inferior; cleft narrow. Eyes small, superior. Rim of anterior nostrils with two finger-like fimbriae and two flaps. Dorsal fin inserted above middle of pectoral fins. Pelvic fins absent. Caudal fin rounded. Dorsal and anal fins may or may not be confluent with caudal fin. Pelvic fins absent.

*Material examined**:***

(a) River Kolodyne in Mizoram; Collection: 23 10 2002; 2 Ex.; *Museum No.*, *90/10(i), 10(ii);* Collection and First Report by Professor D. Kar and Party.

(b) River Kolodyne in Mizoram; Collection: 12 3 2018 (Lot 2); 2 Ex.; *Museum No.*, *91 (b) /* 5 (i), 5 (ii)*;* Collection. and First Report by Professor D. Kar and Party.

(c) River Kolodyne in Mizoram; Collection: 28 3 2001; 1 Ex.; *Museum No.*, *91 © / 16 (i);* Collection and First Report by Professor D. Kar and Party.

Key to species: Dorsal fin with 32 – 40 detached, depressible spines and 67 to 90 rays. Anal with three spines and 46 to 90 rays. Caudal fin merged and continuous with dorsal and anal fins, Caudal fin rays14 to 17.

Species: Mastacembelus armatus (Lacepede, 1800)

Distribution: **In** many water bodies in India (including **Sone Beel,** Baskandi Anua in Assam: First Reports by Prof. D. Kar and Party**; River Gomati in Tripura around its origin at Tirthamukh, Mandirghat:** First Report by Prof. D. Kar and Party**; Rivers Tuirial, Tlawng, Mat, Kolodyne in Mizoram**: First reports by Prof. D. Kar and Party); also in Bangladesh, South China, Malaya, Java, Myanmar, Nepal, etc.

IUCN status: Least Concern (LC)

Genus: ***Chanda*** Hamilton, 1822

Chanda Hamilton,1822, An account of the fishes found in the river Ganges: 103, 370 (type species: *Chanda nama* Hamilton 1822 by designation of ICZN)

Generic characters: Body ovate, deep compressed. Abdomen rounded. Head short, compressed with sharp snout. Mouth wide, protractile; extend upto border of orbit or slightly beyond. Eyes large, superior. Pre-orbital edge with four serrae. Lower jaw strongly projecting. Lower limb of pre-opercle with a double-serrated edge. Opercula without a prominent spine. Two dorsal fins; 1st with seven spines and 2nd with 15-17 rays; the two dorsal fins continuous. A forwardly directed recumbent spine present in the dorsal fin. Anal fin with three spines and 17 rays. Caudal fin forked. Body with cycloid scales. Lateral line complete with 125 scales.

Material examined:

(a) River Kolodyne in Mizoram; Collection: 28 3 2001; 26 Ex.; *Museum No.*, *91© / 10 (i), 10 (ii) to 10 (vii),11 (viii),11(x), 11 (xii), 11 (xiii),11(xiv), 11(xvi),11 (xvii), 11(xx),11(xxiv), to 11 (xxvii), 11 (xxxi), 11(xxxiii), 11 (xxxiv), 11 (xxxvii),11 (xxxviii),11 (xxxxi);* Collection and First Report by Professor D. Kar and Party.

Key to species: Lower jaw strongly projecting; thus, differ from all other ambassids. Presence of three prominent canine teeth on either side of lower jaw.

Species: Chanda nama Hamilton, 1822

Distribution: **In** many water bodies in India (including **Sone Beel,** Baskandi Anua, Salchapra Anua in Assam: First reports by Prof. D. Kar and Party; Rivers Mat, Kolodyne in Mizoram: First reports by Prof. D. Kar and Party); also in Bangladesh, Nepal, Pakistan., etc.

IUCN Status: Least Concern (LC).

Genus: ***Parambassis*** Bleeker, 1874

Parambassis Bleeker, 1874, *Nat.Verh. Holland. Maatsch.Wetensch.,*2 (2): 102 (Type species, *Ambassis apogonoides* Bleeker by original designation); Guha and Talwar, 1975, *J. Inland Fish, Soc.India,* 8: 76;

Roberts, 1994, *Nat. Hist.Brit. Siam. Soc.,* 42:271-289.

Generic Characters: Body elongate, compressed. Abdomen round. Head short, compressed. Snout pointed. Mouth large; gape oblique; extending to anterior border of orbit. Eyes large, superior. Jaws straight or only slightly upturned. Supra-orbital ridge smooth or serrated, with one or two spines posteriorly. Presence of 2 dorsal fins with 6 or 7 spines and 11 to 14 rays, which are closely placed with a notch in between. Anal fin with 3 spines and with 11 to 16 rays.

Material examined:

(a) River Kolodyne in Mizoram; Collection: 23 10 2002; 1 Ex.; *Museum No.„90/17(i);* Collection and First Report by Professor D. Kar and Party.

(b) River Kolodyne in Mizoram; Collection: 28 3 2001; 24 Ex.; *Museum No.*, *91© /11(i),11(ii) to 11(vii),11(ix),11(xiii),11 (xv),11 (xviii),11(xix),11 (xxi) to 11(xxiii), 11(xxviii) to 11 (xxx), 11 (xxxii), 11 (xxxv),11(xxxvi), 11 (xxxix), 11 (xxxx), 11(xxxxii);* Collection and First Report by Professor D. Kar and Party.

Key to species: Body depth 41.7 to 43.4 %; caudal peduncle depth 0.9 to 12 % SL.

Species: Parambassis ranga (Hamilton, 1822)

Distribution: In many water bodies in India (including Sone Beel, Sat Beel in Assam: First Reports by Professor D. Kar and party; Rivers Tuirial, Tlawng, Kolodyne in Mizoram: First Reports by Professor D. Kar and party); also, in Bangladesh; Malaysia, Mayanmar, etc.

IUCN status: Least Concern (LC).

Genus: ***Glossogobius*** Gill, 1859

Glossogobius Gill, 1859, *Proc. Acad. nat. Sci. Philad.,:* 46 (Type species, *Gobius platycephalus* Richardson, by monotypy); Akihito, In: Masuda *et al..,* 1984, *Fish. Jap.Archipel.,:* 274; Rema Devi, 1992, *Rec.zool. Surv. India,* 90 (1-4): 174 (Ennore estuary)

Generic Characters: Body elongate, anteriorly cylindrical, compressed. Abdomen rounded. Head depressed, little pointed. Snout obtusely rounded or pointed. Mouth a little oblique. Cleft not extending to eyes. Eyes large, superior, almost in middle of head. Gill openings continued far below the eyes. Presence of 2 dorsal fins, separated by a short interspace; first dorsal inserted above half or three-fourth of pectoral fins with six rays. Second dorsal fin with 6 to 10 rays. Pelvic fins united, oblong. Anal fin with 8 or 9 rays. Caudal fin oblong to rounded. Scales ctenoid on body; cycloid on head.

Material examined: (a)River Kolodyne in Mizoram; Collection: 23 10 2002; 1 Ex.; *Museum No.*, *90/18(i);* Collection and First Report by Professor D. Kar and Party.

(c) River Kolodyne in Mizoram; Collection: 12 3 18(Lot 1); 2 Ex.; *Museum No.„91 (a) / 5 (i), 5 (ii);* Collection and First Report by Professor D. Kar and Party.

(d) River Kolodyne in Mizoram; Collection: 12 3 18(Lot 2); 7 Ex.; *Museum No.*, *91 (b) /* 1 (i) to 1 (vii); Collection and First Report by Professor D. Kar and Party.

(e) River Kolodyne in Mizoram; Collection: 28 3 2001; 3 Ex.; *Museum No.*, *91© / 13 (iv), 13 (v), 13 (xv)*; Collection and First Report by Professor D. Kar and Party.

Key to species: First dorsal fin with one black spot or without it. Gill membranes connected to isthmus.

Species: ***Glossogobius giuris*** (Hamilton, 1822)

Distribution: **In** many water bodies in India (including Sone Beel and Karbhala Beel in Assam: First Reports by Professor D. Kar and party; Rivers Tlawng, Mat, Kolodyne in Mizoram: First Reports by Professor D. Kar and party); also, in Bangladesh, Myanmar, Sri Lanka, etc.

IUCN status: Least Concern (LC)

Material examined:

(a) River Kolodyne in Mizoram; Collection: 28 3 2001; 12 Ex.; *Museum No.*, *91 © /13 (i) to 13 (iii), 13 (vi) to 13 (xiv);* Collection and First Report by Professor D. Kar and Party.

Key to species: Presence of 7-9 scales in transverse line. First dorsal fi with 2 ocelli. Body dark with many longitudinal lines.

Species (32): Glossogobius (Psammogobius) biocellatus (Valenciennes, 1837)

Distribution: **In** water bodies in India (including River Kolodyne in Mizoram: First Report by Professor D. Kar and party); also, in Godavari estuary, Bangladesh, Myanmar, Nepal, etc.

IUCN status: Least Concern (LC)

***Genus: Channa* Scopoli, 1777**

Channa Scopoli, 1777, Introd. Hist. Nat.: 459 (Type species, *Channa orientalis* Bloch and Schneider, by subsequent designation).

Generic characters: Body elongated, sub-cylindrical anteriorly. Abdomen rounded. Head large depressed with plate-like scales. Snout somewhat obtuse. Mouth reasonably large; opening moderate to wide; may extend to below orbit. Eyes lateral, moderate; in the anterior part of the head. The lower jaw protrudes beyond the upper. Gill openings wide. Membranes of two sides connected beneath the isthmus. Dorsal fin long; inserted almost above the pectoral fins with 29-55 rays and no spine. Anal fin long with 21 to 36 rays. Both dorsal and anal fins are free from caudal fin. Caudal fin rounded; scales small; cycloid or ctenoid; scales on the head are more extensive than those on the body. Lateral line abruptly curved or almost interrupted with 37 to 110 scales.

Material examined:

(a) River Kolodyne in Mizoram; Collection: 12 3 2018 (Lot 2); 1 Ex.; *Museum No.*, *91 (b) /* 7 (i)*;* Collection and First Report by Professor D. Kar and Party.

(b) River Kolodyne in Mizoram; Collection: 28 3 2001; 1 Ex.; *Museum No.*, *91 ©/ 4 (i);* Collection and First Report by Professor D. Kar and Party.

Key to species: Presence of generally 80 Lateral line scales and 22 anal fin rays.

Species: ***Channa gachua*** (Hamilton, 1822)

Distribution: **In** many water bodies in India (including wetlands in Assam like Salchapra Anua, Baskandi Anua in Cachar, Assam: First reports by Professor D Kar and party; Rivers Tuirial, Tlawng, Mat, Kolodyne in Mizoram: First reports by Professor D Kar and party); also, in Bangladesh. China, Malaya, Myanmar, etc.

IUCN Status: Least Concern (LC)

4. Discussion

An overall review of the habitat inventory features of the River **Kolodyne** reveals that the long range of microhabitat of the river consists mainly three types of mirohabitats, *viz.,* Fall, Cascade, and Riffle-pool. Run-sheet type of microhabitat is not much seen; as the river flows mostly though mountains within the Indian territory. Out of the three distinct types of microhabitats, the most common and often - observed microhabitat is the riffle-pool type followed by cascade. Falls are seen generally in the upstream stretch of the river when the river comes down from a mountain top. Cascades usually occur in the mid-reach region of the river; and, are not generally found elsewhere. Riffle-pools are usually seen in different regions of the entire length of the river, depending on the type of the base or substratum.

Concomitant to above, three distinct types of substrata are usually seen in the entire length of the River Kolodyne These are: (i) Bedrocks, (ii) Boulders and (iii) Cobbles and Gravels. Fines (silt, sand clay)are not much found; as the river does not show much plainwater stretch. In River Kolodyne, bedrocks are not often seen; and, if at all seen, are, generally, in the upper hilly region. Boulders are usually seen in the upper mid-reach region of the river; generally, having cascade type of microhabitat; while cobbles and gravels are usually seen in the lower mid-reach of the river with riffle-pool type of microhabitat.

Concomitant to above, there seems to be a differential trend in ichthyodiversity and fish species composition in different microhabitats and substrata of the River Kolodyne. Highly rheophilic fishes like *Balitora brucei, Garra* species, *Glyptothorax* species are usually found in the fall and cascade types of microhabitats; while the upper midreach region of the river was found to be inhabited mainly by the *Opsarius* species, *Tariquilabeo* species, *Psilorhynchus* species, etc. However, the lower midreach region was found to be inhabited mainly by *Devario* species, *Pethia* spp, *Cabdio* species; and, so on.

Further, the status of the ichthyospecies based on locally estimated information (but, corroborating with IUCN criteraia) has been ascertained in order to develop locally suitable species-specific conservation measures.

Notwithstanding the above, Bailey, R.G.(1994,1996) and Bailey and Hickley (1986) had worked on the water bodies and ichthyospecies in Africa. Concomitantly, Didem *et al.* (34) dealt with the fishes of Western Black Sea Coast of Turkey; while, Kullander and Britz (109) and. Conway and Kottelat (110) had dealt with the fishes of Myanmar.

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Table 1. Species Diversity, Seasonal Distribution and Conservation Status of Fishes in River Kolodyne in Mizoram

	Fish name	Collection date:23 10 2002 & River Coll No. 90, +(No.of Fishes),River No/Fish No. =Museum No.	Collection date:12 11 2006 & River Coll No. 91, +(No.of Fishes), River No/Fish No. =Museum No.	Collection date: 12 3 18(L 1) & River Coll No. 91(a) +(No.of Fishes),River No/Fish No. =Museum No	Collection date 12 3 2018 (L 2) & River Coll No. 91(b), +(No.of Fishes), River No/Fish No. =Museum No.	Collection date 28 3 2001 & River Coll No. 91(c), +(No.of Fishes),River No/Fish No. =Museum No.	Total No. of Fish collected	Conservation Status (Global) Conservation Status (Global) Conservation Status (Global) Conservation Status (Global) IUCN Conservationstatus (Global) LC=Least	Conservation Status (Local) Conservation Status (Local) Conservation Status (Local) Conservation status (Local) (based on occurrence of Fish species in

								Concern VU= Vulnerable EN= Endangered NT=NearThreatened NE=Not Evaluated DD-Data Deficient	1 or >1 locations 1 Location: of Concern(C) 2 Locations: Less Concern(LC) >2Locations:No Concern(NC)
1	*Salmostoma bacaila*	+(5),90/11(i), 11(iv) to 11(vii)					5	LC	C
2	*Cabdio morar*	+(7),*90/* 4(i) to 4(iv),4(v), 8(i), 8(ii)				+(29),*91©/ 12 (i), 12 (ii) to 12 (xxvii)*	36	LC	LC
3	*Barilius barila*					+(1),91 © / 1(i)	1	LC	C
4	*Opsarius barna*	+(9),*90/* 5(i) to 5 (viii), 6(i)				+(16), *91* © / 8 (i) to 8 (xvi)	25	LC	LC
5	*Chela cachius*	+(2),*90/11(ii)(a), 11(iii)(a)*					2	LC	C
6	*Tor tor*				+(2), 91 (b) / 3(i), 3(ii)		2	DD	C
7	*Neolissoch*	*+(1)90/13(i*		+(1), *91(a) /*		+(1),*91 © / 9*	3	NT	NC

	ilus hexagonolepis	*ii)*		*4(ii)*		*(iv)*			
8	*Osteobrama cotio*					+(3),*91 © / 6(i) to 6 (iii)*	3	LC	C
9	*Puntius chola*					+(3),*91 © / 9 (xx), 9 (xxiii), 9 (xxiv)*	3	LC	C
10	*Puntius sophore*	+(1), *90/7(i)*				+(3),*91 © / 9 (vi), 9 (xxi), 9 (xxxi)*	4	LC	LC
11	*Pethia conchonius*	+(3),*90/13(i), 13(iii), 13(iv)*		+(4), *91(a) / 4(i),4(iii)to 4(v)*		+(9),*91 © / 9 (i) to 9 (iii), 9 (v), 9(vii), 9 (xiv), 9 (xvi), 9 (xviii), 9 (xxii)*	16	LC	NC
12	*Pethia ticto*					+(33),*91 © / 9 (viii) to 9 (xiii), 9 (xv), 9 (xvii), 9 (xix), 9 (xxv) to 9 (xxx), 9 (xxxii) to 9 (xxxxix)*	33	LC	C
13	*Cyprinion semiplotum*					+(3),*91 © / 5 (i) to 5 (iii)*	3	VU	C
14	*Labeo pangusia*		+(1),*91/ 1(I)*			+(5),*91 © / 3 (i) to 3 (v)*	6	NT	LC
15	*Tariquilabeo latius*	+(6), *90/2(i) to 2(vi)*		+(4),91(a) / *1(ii),1(iii),1(x),1(xii)*		+(4),*91 © / 14 (i), 14 (ii),to 14 (iv)*	14	LC	NC
16	*Garra annandale*	+(9),*90/12(i) to 12)(ix)*		+(6), *91(a) / 1(iv) to 1(ix)*		+(2),*91 © / 7 (i), 7 (xvi)*	17	LC	NC
17	*Garra gotyla*			+(3),*91(a) / 1(xi),1(xiii),*	+(6), *91 (b) /* 2 (i)		9	LC	LC

				1(xiv)	to 2 (vi)				
18	*Psilorhynchus balitora*	+(1), 90/*16(i)*					1	LC	C
19	*Balitora brucei*	+(1),*90/3(i)*					1	NT	C
20	*Sperata aor*				+(1), *91 (b) /* 6(i)		1	LC	C
21	*Sperata seenghala*	+(3),*90/1(i) to 1 (iii)*					3	LC	C
22	*Mystus cavasius*			+(6),*91 (a) / 3(i) to 3 (vi)*			6	LC	C
23	*Batasio batasio*			+(17), *91 (a) / 2(i) to 2 (xvii)*			17	LC	C
24	*Eutropiichthys vacha*				+(2),*91 (b) /* 4 (i), 4 (ii)		2	LC	C
25	*Glyptothorax telchitta*	+(1),*90/15(i)*				+(1),*91 © / 2 (i)*	2	LC	LC
26	*Pseudecheneis sulcata*	+(1),*90/14(i)*					1	LC	C
27	*Xenentodon cancila*	+(3),*90/9(i) to 9(iii)*				+(2),*91 ©/ 15 (i), 15 (ii)*	5	LC	LC
28	*Mastaembelus armatus*	+(2),*90/10(i), 10(ii)*			+(2),*91 (b) /* 5 (i), 5 (ii)	+(1), *91 © / 16 (i)*	5	LC	NC
29	*Chandanama*					+(26), *91© / 10 (i), 10 (ii) to 10 (vii),11 (viii),11(x), 11 (xii), 11 (xiii),11(xiv), 11(xvi),11 (xvii), 11(xx),11(xxiv),*	26	LC	C

						To 11 (xxvii), 11 (xxxi), 11(xxxiii), 11 (xxxiv), 11 (xxxvii),11 (xxxviii),11 (xxxxi)			
30	*Parambassis ranga*	+(1),*90/17(i)*				*+(24),91© /11(i),11(ii) to 11(vii),11(ix),11 (xiii),11 (xv),11 (xviii),11(xix),11 (xxi) to 11(xxiii), 11(xxviii) to 11 (xxx), 11 (xxxii), 11 (xxxv),11(xxxvi) , 11 (xxxix), 11 (xxxx), 11(xxxxii)*	25	LC	LC
31	*Glossogobius giuris*	+(1),*90/18(i)*		+(2),*91 (a) / 5 (i), 5 (ii)*	+(7),*91 (b) /* 1 (i) to 1 (vii)	+(3), *91© / 13 (iv), 13 (v), 13 (xv)*	13	LC	NC
32	*Glossogobius biocellatus (Psammogobius biocellatus)*					+(12),*91 © /13 (i) to 13 (iii), 13 (vi) to 13 (xiv)*	12	LC	C
33	*Channa gachua*				+(1), *91 (b) /* 7 (i)	+(1),*91 ©/ 4 (i)*	2	LC	LC