Chapter 5
Fish Diversity Status

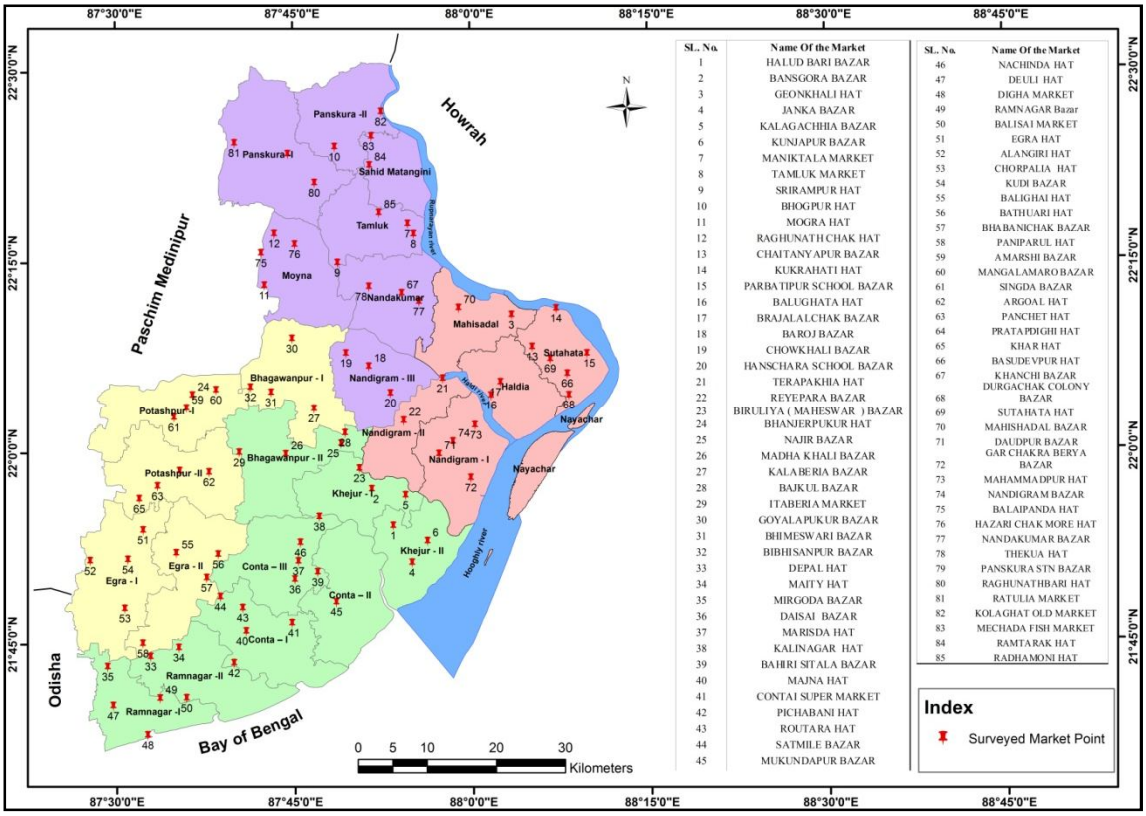
Recently, there has been a lot of enthusiasm in the fishery, especially with rapid increase of global demand. In India a fishery is an important economic activity and rising field with diverse resources and possibilities. Freshwater resources are essential for aquatic life. It is, therefore, imperative to protect them. Freshwater ecosystems are globally incompletely protected. Due to the human interference the fresh water ecosystem is continuously degraded (Mukherjee et al., 2002). Inland water bodies like rivers, ponds, tanks, wetlands and lakes are the main source of sufficient amount of fish fauna (Bandyopadhyay et al., 2014; Acharyya et al., 2015). The fish diversity is influenced by the human, in different ways. Furthermore, fish species richness depends on the taxa studied and the adequacy of survey techniques in detecting rare species. Purba Medinipur district has large fresh water resources. By utilizing these vast water resources there is a great prospect of aquaculture. The indigenous fish species of this region should focused the attention to their importance in aquaculture, nutritional value and biological significance.

The water resources are the main living sources of fish germplasm in this particular region. This large number of water resources can be divided into inland water resources and marine water resources. Inland water bodies constitute ponds, tanks, rivers, marshy lands, canals, reservoirs etc. Physico-chemical properties of water also play an important role in fish germplasm diversity.

5.1 Survey and Data Collection

To access the actual scenario of fish germplasm status of a region, the detailed survey of aquatic habitat, cultured farms and market is essential (Bhakta and Bandyopadhyay, 2008). Mainly three major seasons can be considered for gather the data to know the actual size and availability of season wise fish species in a particular region (Das et al., 2011). The detailed survey was carried out during the breeding and post breeding season due to the maximum availability of fish species. The block wise detail survey was conducted between the years 2017 to 2018 and information collected from the fish seller, fishing folk community, local peoples of the region, Govt. fishery extension officers and fishery field assistant. The fish data was collected from different fish market of each block in Purba Medinipur district. For the collection of fish data, the

popular or major 3-4 fish market of each block was selected (Figure 5.1). The fish market surveys were carried out in early morning (07:00 - 10:00 AM) and late afternoon (04:00 - 06:00 PM), cause of good availability of fish. Some field photographs are taken during the field visit, given below (Figure 5.2 and Annexure II). Average market data were used for this study. The distribution of fish fauna was surveyed, reviewed, taxonomically identified followed by Talwar and Jhingran (Talwar and Jhingran, 1991) and 'Fish base'. Block wise detailed fish market survey and questionnaire survey with local fisherman and people was carried out to know the locally threatened category of fish species in this particular region. The average fish landing per day, in per market data was taken as index of the population of single fish species.



SL. No.	Name Of the Market
1	HALUD BARI BAZAR
2	BANSGORA BAZAR
3	GEONKHALI HAT
4	JANKA BAZAR
5	KALAGACHHIA BAZAR
6	KUNJAPUR BAZAR
7	MANIKTALA MARKET
8	TAMLUK MARKET
9	SRIRAMPUR HAT
10	BHOGPUR HAT
11	MOGRA HAT
12	RAGHUNATH CHAK HAT
13	CHAITANYAPUR BAZAR
14	KUKRAHATI HAT
15	PARBATIPUR SCHOOL BAZAR
16	BALUGHATA HAT
17	BRAJALALCHAK BAZAR
18	BAROJ BAZAR
19	CHOWKHALI BAZAR
20	HANSCHARA SCHOOL BAZAR
21	TERAPAKHIA HAT
22	REYEPARA BAZAR
23	BIRULIYA (MAHESWAR) BAZAR
24	BHANJERPUKUR HAT
25	NAJIR BAZAR
26	MADHA KHALI BAZAR
27	KALABERIA BAZAR
28	BAJKUL BAZAR
29	ITABERIA MARKET
30	GOYALAPUKUR BAZAR
31	BHIMESWARI BAZAR
32	BIBHISANPUR BAZAR
33	DEPAL HAT
34	MAITY HAT
35	MIRGODA BAZAR
36	DAISAI BAZAR
37	MARISDA HAT
38	KALINAGAR HAT
39	BAHIRI SITALA BAZAR
40	MAJNA HAT
41	CONTAI SUPER MARKET
42	PICHABANI HAT
43	ROUTARA HAT
44	SATMILE BAZAR
45	MUKUNDAPUR BAZAR

SL. No.	Name Of the Market
46	NACHINDA HAT
47	DEULI HAT
48	DIGHA MARKET
49	RAMNAGAR Bazar
50	BALISAI MARKET
51	EGRA HAT
52	ALANGIRI HAT
53	CHORPALIA HAT
54	KUDI BAZAR
55	BALIGHAI HAT
56	BATHUARI HAT
57	BHABANICHAK BAZAR
58	PANIPARUL HAT
59	AMARSHI BAZAR
60	MANGALAMARO BAZAR
61	SINGDA BAZAR
62	ARGOAL HAT
63	PANCHET HAT
64	PRATAPDIGHI HAT
65	KHAR HAT
66	BASUDEVPUR HAT
67	KHANCHI BAZAR
68	DURGACHAK COLONY BAZAR
69	SUTAHATA HAT
70	MAHISHADAL BAZAR
71	DAUDPUR BAZAR
72	GAR CHAKRA BERYA BAZAR
73	MAHAMMADPUR HAT
74	NANDIGRAM BAZAR
75	BALAIPANDA HAT
76	HAZARI CHAK MORE HAT
77	NANDAKUMAR BAZAR
78	THEKUA HAT
79	PANSKURA STN BAZAR
80	RAGHUNATHBARI HAT
81	RATULIA MARKET
82	KOLAGHAT OLD MARKET
83	MECHADA FISH MARKET
84	RAMTARAK HAT
85	RADHAMONI HAT

Figure 5.1 Surveyed market locations point

Egra fish market

Moyna fish farm

Moyna fish farm

Nandakumar fish farm

Figure 5.2 Field photographs during field survey

5.2 Fish Diversity Status

The study reveals the diversity status, abundance of collected fish species and their distribution pattern throughout this region. Taxonomically classified of available surveyed fish specimens are identified and categorized with the help of standard methods (Talwar and Jhingran, 1991; Talwar 1991; Jayaram, 1999, 2002). During this market survey, total number of 46 native fish species of 18 families of 6 orders has been recorded. The International Union for Conservation of Nature (IUCN) Red List Status was listed in Table 5.1. Scientific name of recorded fish species according to their common name are also presented in Table 5.1. From all these recorded fish species, 71.74% species are least concern, 8.70% species are not evaluated, 10.87% species are near threatened, 4.35% species are data deficient, 2.17% species are endangered and 2.17% species are vulnerable category.

Table 5.1 Available fish list of Purba Medinipur District, West Bengal

Sl. No.	Order	Family	Scientific name	Common name	IUCN (Ver 2020-1)
1	Osteoglossiformes	Notopteridae	*Chitala chitala* (Hamilton, 1822)	Chitala	NT
2			*Notopterus notopterus* (Pallas, 1769)	Falui	LC
3	Cypriniformes	Cyprinidae	*Amblypharyngodon mola* (Hamilton, 1822)	Morala	LC
4			*Gibelion catla* (Hamilton, 1822)	Catla	LC
5			*Cirrhinus mrigala* (Hamilton, 1822)	Mrigal	LC
6			*Ctenopharyngodon idella* (Valenciennes, 1844)	Grass Carp	NE
7			*Cyprinus carpio* (Linnaeus, 1758)	Common carp/Cyprinus	VU
8			*Esomus danrica* (Hamilton, 1822)	Danrika	LC
9			*Hypophthalmichthys molitrix* (Valenciennes, 1844)	Silver carp	NT
10			*Hypophthalmichthys nobilis* (Richardson, 1845)	Bighead carp	DD
11			*Labeo bata* (Hamilton, 1822)	Bata	LC
12			*Labeo calbasu* (Hamilton, 1822)	Calbasu	LC
13			*Labeo rohita* (Hamilton, 1822)	Rohu	LC
14			*Puntius chola* (Hamilton, 1822)	Punti	LC
15			*Puntius gonionotus* (Bleeker, 1849)	Raj Punti	LC
16			*Systomus sarana* (Hamilton, 1822)	Sar Puti	LC
17			*Pethia ticto* (Hamilton, 1822)	Puti	LC
18			*Rasbora daniconius* (Hamilton, 1822)	Darkina	LC
19			*Labeocephalicthys guntia* (Hamilton, 1822)	Gunte	LC
20			*Salmostoma sardinella* (Valenciennes, 1844)	Chela	LC
21	Siluriformes	Clariidae	*Clarias batrachus* (Linnaeus, 1758)	Mangur	LC
22			*Clarias gariepinus* (Burchell, 1822)	Thai mangur	LC
23		Heteropneustidae	*Heteropneustes fossilis* (Bloch, 1794)	Singhi	LC
24		Bagridae	*Hemibagrus menoda* (Hamilton, 1822)	Arr tengra	LC
25			*Mystus tengara* (Hamilton, 1822)	Tengra	LC
26			*Mystus vittatus* (Bloch, 1794)	Bitengra	LC
27		Pangasiidae	*Pangasianodon hypophthalmus* (Sauvage, 1878)	Pangus	EN
28		Siluridae	*Wallago attu* (Bloch and Schneider, 1801)	Boal	NT
29			*Ompok bimaculatus* (Bloch, 1794)	Pabda	NT
30	Perciformes	Channidae	*Channa marulius* (Hamilton, 1822)	Shal	LC
31			*Channa orientalis* (Bloch and Schneider, 1801)	Chang	NE
32			*Channa punctata* (Bloch, 1793)	Lata	LC
33			*Channa striata* (Bloch, 1793)	Shol	LC
34		Anabantidae	*Anabas testudineus* (Bloch, 1792)	Koi	DD
35		Ambassidae	*Chanda nama* (Hamilton, 1822)	Chanda	LC
36			*Parambassis ranga* (Hamilton, 1822)	Chanda	LC
37		Osphronemidae	*Trichogaster fasciata* (Bloch and Schneider, 1801)	Colisa	LC
38		Gobiidae	*Glossogobius giuris* (Hamilton, 1822)	Beley	LC
39		Nandidae	*Nandus nandus* (Hamilton, 1822)	Bheda	LC

40		Cichlidae	*Oreochromis mossambicus* (Peters, 1852)	Telapia	NT
41			*Oreochromis niloticus* (Linnaeus, 1758)	Nilotica	LC
42		Polynemidae	*Polynemus indicus* (Shaw, 1804)	Topse	NE
43	Mugiliformes	Mugilidae	*Rhinomugil corsula* (Hamilton, 1822)	Kharsula	LC
44	Synbranchiformes	Mastacembelidae	*Macrognathus aculeatus* (Bloch, 1786)	Goichi	NE
45			*Mastacembelus armatus* (Lacepède, 1800)	Pankal	LC
46		Synbranchidae	*Monopterus cuchia* (Hamilton, 1822)	Ban	LC
IUCN = International Union for Conservation of Nature, LC: Least Concern, NE: Not Evaluated, NT: Near Threatened, DD: Data Deficient, EN: Endangered, VU: Vulnerable					

Based on the present surveyed data, the majority of the fish species are belonging under Order Cypriniformes (39.13%), Perciformes (28.26%), Siluriformes (19.57%) and others are Osteoglossiformes (4.35%), Synbranchiformes (6.52%) and Mugiliformes (2.17%). Detail about the order and number of species are presented in Table 5.2 and Figure 5.3.

Table 5.2 Order wise fish diversity of Purba Medinipur district

Sl. No.	Order	No. of Species	% of Species
1	Osteoglossiformes	2	4.35
2	Cypriniformes	18	39.13
3	Siluriformes	9	19.57
4	Perciformes	13	28.26
5	Mugiliformes	1	2.17
6	Synbranchiformes	3	6.52

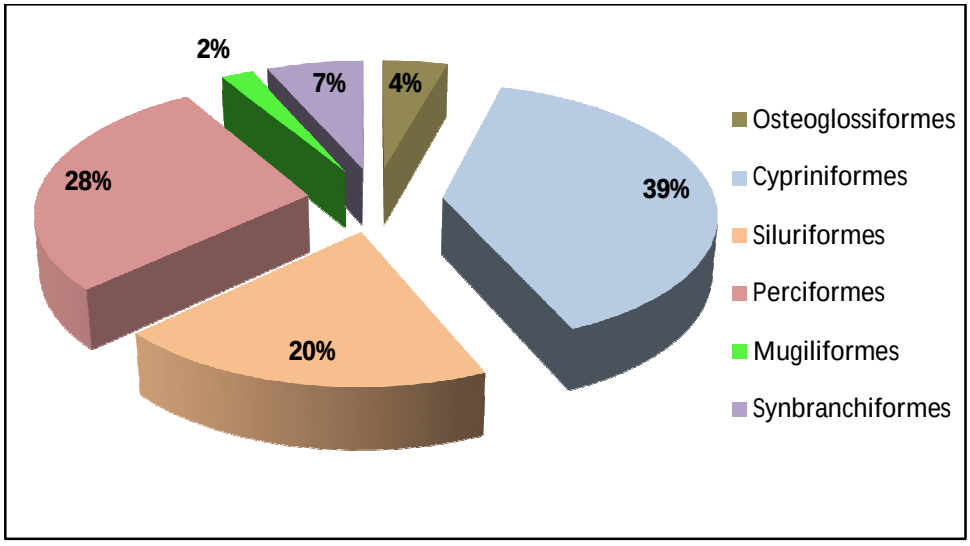


Figure 5.3 Order wise fish diversity of Purba Medinipur district

Identified and surveyed fish species are belonging under family Cyprinidae (39.13%) and others are Channidae (8.70%) and Bagridae (6.52%). Detail about the family and number of species are presented in Table 5.3 and Figure 5.4.

Table 5.3 Family wise fish diversity of Purba Medinipur district

Sl. No.	Family	No. of Species	% of Species
1	Notopteridae	2	4.35
2	Cyprinidae	18	39.13
3	Clariidae	2	4.35
4	Heteropneustidae	1	2.17
5	Bagridae	3	6.52
6	Pangasiidae	1	2.17
7	Siluridae	2	4.35
8	Channidae	4	8.70
9	Anabantidae	1	2.17
10	Ambassidae	2	4.35
11	Osphronemidae	1	2.17
12	Gobiidae	1	2.17
13	Nandidae	1	2.17
14	Cichlidae	2	4.35
15	Polynemidae	1	2.17
16	Mugilidae	1	2.17
17	Mastacembelidae	2	4.35
18	Synbranchidae	1	2.17

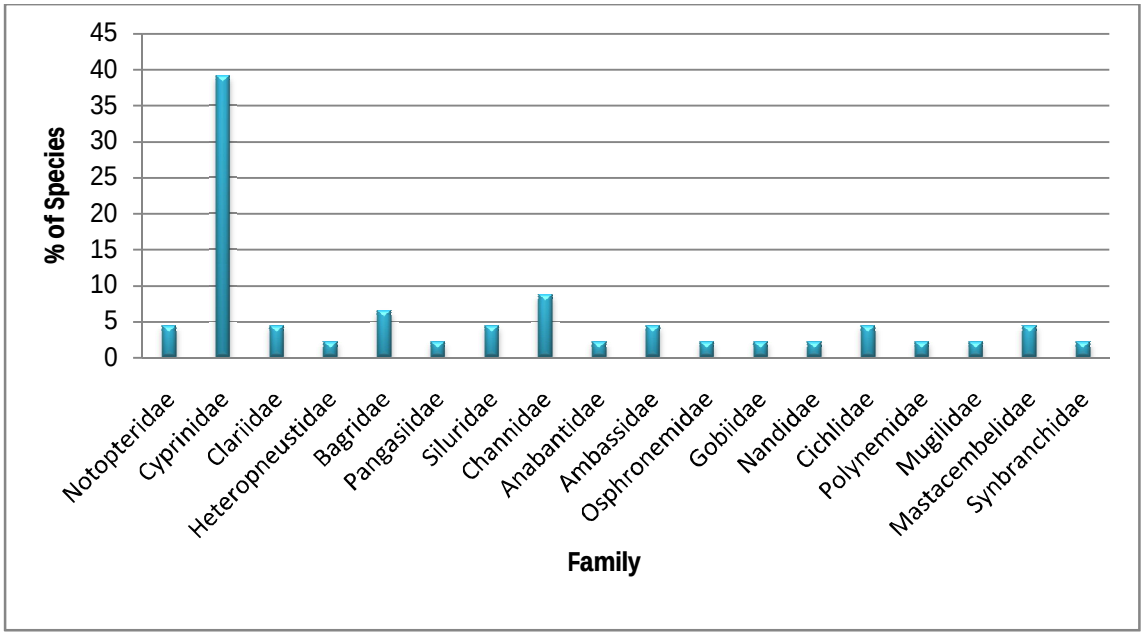


Figure 5.4 Family wise fish diversity of Purba Medinipur district

5.3 Endangered Fish Status

During the preliminary survey of total fish species of the district, among them the nine (9) fish species (*Notopterus chitala , Notopterus notopterus, Labeocephalicthys guntia, Colisa fasciatus, Amblypharyngodon mola, Ompok bimaculatus, Puntius gonionotus, Mystus vittatus, Polynemus indicus*) were identified as locally endangered. The detailed survey work reveals the total number of eight fish species (Falui, Gunte, Kholisha, Mola carplet, Pabda, Punti, Tangra and Topse) in Contai sub-division, five (Falui, Kholisha, Mola carplet, Pabda, and Tangra) in Egra sub-division, seven (Falui, Gunte, Kholisha, Mola carplet, Pabda, Tangra and Topse) in Tamluk sub- division and eight (Chital, Falui, Gunte, Mola carplet, Pabda, Tangra and Topse) in Haldia sub-division identified as locally endangered.

Surveying the local market as well as discussing with local fishermen to ensure the listing of low abundance or declining in productivity of those species. The block wise average availability of those fish species, their habitat, season of abundance, breeding season and daily basis productivity in market data are listed and presented in table 5.4. The questionnaire survey information's are collected from the local fish seller and people of the local area reveals that high declining in productivity in last 10 years. The low abundance of some species in daily market is reported. For some species no market data was found then the villages were identified where those species are found and discussion with local people to ensure about the listing those species in endanger category.

To preserve those fish species for future generation immediate action is needed (Mahapatra et al., 2014). The applicable conservation strategy and proper planning is straightway needed to protect those locally endangered fish species. The market based survey of those species showed that there was a sharp drop in productivity in last few years. Over fishing, unregulated uses of pesticides in agricultural field, irrational fish harvesting along with different anthropogenic activities can be the central cause for aquatic diversity loss. Proper supervision along with sustainable developmental thoughts (harvesting fish population size restriction, breeding technique developing) may protect those fish species from the door of extinction.

Table 5.4 Locally endangered fish species of Purba Medinipur district

SD	Block	Common Name	Scientific Name	Habitat	Season of Abundance	Breeding Season	Productivity/ Day/(kg)
Contai	Ramnagar I	Tangra	*Mystus vittatus*	Freshwater Ponds	Winter	Rainy	2.5
		Kholisa	*Colisa fasciatus*	Freshwater Ponds	Rainy	Rainy	0.3
		Mola karplet	*Amblypharyngodon mola*	Freshwater Ponds	Winter	Rainy	5
		Topse	*Polynemus indicus*	Brackish water	Through the year	Rainy	4
		Pabda	*Ompok bimaculatus*	Brackish water	Through the year	Rainy	3
	Ramnagar II	Topse	*Polynemus indicus*	Brackish water	Through the year	Rainy	1
		Falui	*Notopterus notopterus*	Freshwater Ponds	Spring	Rainy	0.5
		Mola karplet	*Amblypharyngodon mola*	Freshwater Ponds and beels	Winter	Rainy	4
	Contai I	Kholisa	*Colisa fasciatus*	Freshwater Ponds and beels	Rainy	Rainy	0.05
		Pabda	*Ompok bimaculatus*	Freshwater Ponds	Through the year	Rainy	1.8
		Tangra	*Mystus vittatus*	Freshwater Ponds	Winter	Rainy	1.2
		Mola karplet	*Amblypharyngodon mola*	Freshwater Ponds	Winter	Rainy	2.5
		Gunte	*Labeocephalicthys guntia*	Freshwater Ponds	Rainy	Rainy	0.05
		Tangra	*Mystus cavasius*	Freshwater ponds and Beels	Winter	Rainy	0.5
	Contai II	Pabda	*Ompok bimaculatus*	Freshwater Ponds	Through the year	Rainy	0.25
		Falui	*Notopterus notopterus*	Freshwater Ponds	Spring	Rainy	1
		Mola karplet	*Amblypharyngodon mola*	Freshwater Ponds and beels	Winter	Rainy	13
	Contai III	Pabda	*Ompok bimaculatus*	Freshwater Ponds and beels	Through the year	Rainy	0.2
		Mola karplet	*Amblypharyngodon mola*	Freshwater Ponds and beels	Winter	Rainy	8
		Tangra	*Mystus cavasius*	Freshwater Ponds	Winter	Rainy	0.6
		Gunte	*Labeocephalicthys guntia*	Freshwater Ponds	Spring	Rainy	0.06
	Khejuri I	Pabda	*Ompok bimaculatus*	Freshwater Ponds and beels	Through the year	Rainy	0.4
		Tangra	*Mystus vittatus*	Freshwater Ponds	Winter	Rainy	0.5
		Falui	*Notopterus notopterus*	Freshwater Ponds	Spring	Rainy	0.25
		Mola karplet	*Amblypharyngodon mola*	Freshwater Ponds	Winter	Rainy	5
		Punti	*Puntius gonionotus*	Freshwater Ponds	Winter	Rainy	1.2
	Khejuri II	Tangra	*Mystus cavasius*	Freshwater Ponds	Winter	Rainy	0.4
		Falui	*Notopterus notopterus*	Freshwater Ponds	Spring	Rainy	0.5
		Mola karplet	*Amblypharyngodon mola*	Freshwater Ponds	Winter	Rainy	10
		Pabda	*Ompok bimaculatus*	Freshwater Ponds and beels	Through the year	Rainy	0.5
	Bhagbanpur II	Mola karplet	*Amblypharyngodon mola*	Freshwater Ponds	Winter	Rainy	5

		Falui	*Notopterus notopterus*	Freshwater Ponds	Spring	Rainy	2
		Kholisa	*Colisa fasciatus*	Freshwater Ponds and beels	Rainy	Rainy	0.25
		Pabda	*Ompok bimaculatus*	Freshwater Ponds	Through the year	Rainy	0.3
Egra	Egra I	Mola Karplet	*Amblypharyngodon mola*	Freshwater Ponds	Winter	Rainy	15
		Tangra	*Mystus vittatus*	Freshwater Ponds	Winter	Rainy	0.2
		Falui	*Notopterus notopterus*	Freshwater Ponds	Spring	Rainy	0.6
		Pabda	*Ompok bimaculatus*	Freshwater Ponds and beels	Through the year	Rainy	0.6
	Egra II	Pabda	*Ompok bimaculatus*	Freshwater Ponds	Through the year	Rainy	0.25
		Mola karplet	*Amblypharyngodon mola*	Freshwater Ponds	Winter	Rainy	10
		Falui	*Notopterus notopterus*	Freshwater Ponds	Spring	Rainy	0.25
	Patashpur I	Mola karplet	*Amblypharyngodon mola*	Freshwater beels	Winter	Rainy	13
		Kholisa	*Colisa fasciatus*	Freshwater Ponds and beels	Rainy	Rainy	1
		Falui	*Notopterus notopterus*	Freshwater Ponds	Spring	Rainy	1.2
		Tangra	*Mystus cavasius*	Freshwater Ponds	Winter	Rainy	2
	Patashpur II	Mola karplet	*Amblypharyngodon mola*	Freshwater Ponds and beels	Winter	Rainy	10
		Tangra	*Mystus cavasius*	Freshwater Ponds	Winter	Rainy	0.55
	Bhagwanpur I	Mola karplet	*Amblypharyngodon mola*	Freshwater Ponds and beels	Winter	Rainy	11
		Falui	*Notopterus notopterus*	Freshwater Ponds	Spring	Rainy	0.57
		Tangra	*Mystus cavasius*	Freshwater Ponds	Winter	Rainy	0.6
Haldia	Nandigram I	Pabda	*Ompok bimaculatus*	Freshwater Ponds and beels	Through the year	Rainy	0.5
		Mola karplet	*Amblypharyngodon mola*	Freshwater Ponds	Winter	Rainy	12
		Kholisa	*Colisa fasciatus*	Freshwater Ponds and beels	Rainy	Rainy	0.9
		Falui	*Notopterus notopterus*	Freshwater Ponds	Spring	Rainy	1.1
		Gunte	*Labeocephalicthys guntia*	Freshwater Ponds and beels	Rainy	Rainy	0.1
	Nandigram II	Mola karplet	*Amblypharyngodon mola*	Freshwater Ponds	Winter	Rainy	15
		Pabda	*Ompok bimaculatus*	Freshwater Ponds and beels	Through the year	Rainy	0.2
		Gunte	*Labeocephalicthys guntia*	Freshwater Ponds and beels	Rainy	Rainy	0.1
		Falui	*Notopterus notopterus*	Freshwater Ponds	Spring	Rainy	0.8
		Kholisa	*Colisa fasciatus*	Freshwater Ponds and beels	Rainy	Rainy	0.2
		Topse	*Polynemus indicus*	Brackish water	Through the year	Rainy	12
	Sutahata I	Chital	*Notopterus chitala*	Freshwater River	Not Known	Rainy	1.2
		Mola karplet	*Amblypharyngodon mola*	Freshwater Ponds and beels	Winter	Rainy	8

		Tangra	*Mystus cavasius*	Freshwater Ponds	Winter	Rainy	0.75
	Sutahata II	Chital	*Notopterus chitala*	Freshwater River	Not Known	Rainy	1.3
		Tangra	*Mystus cavasius*	Freshwater Ponds	Winter	Rainy	0.75
		Mola karplet	*Amblypharyngodon mola*	Freshwater Ponds and beels	Winter	Rainy	9
	Mahisadal	Falui	*Notopterus notopterus*	Freshwater Ponds	Spring	Rainy	0.25
		Kholisa	*Colisa fasciatus*	Freshwater Ponds and beels	Rainy	Rainy	0.2
		Mola karplet	*Amblypharyngodon mola*	Freshwater Ponds and beels	Winter	Rainy	13
		Topse	*Polynemus indicus*	Brackish water	Through the year	Rainy	12
	Haldia	Tangra	*Mystus vittatus*	Freshwater Ponds	Winter	Rainy	8
		Falui	*Notopterus notopterus*	Freshwater Ponds	Spring	Rainy	1.4
		Mola karplet	*Amblypharyngodon mola*	Freshwater Ponds and beels	Winter	Rainy	7
		Topse	*Polynemus indicus*	Brackish water	Through the year	Rainy	6
Tamluk	Nandakumar	Falui	*Notopterus notopterus*	Freshwater Ponds	Spring	Rainy	0.7
		Mola karplet	*Amblypharyngodon mola*	Freshwater Ponds and beels	Winter	Rainy	12
		Pabda	*Ompok bimaculatus*	Freshwater Ponds	Through the year	Rainy	0.4
	Tamluk	Pabda	*Ompok bimaculatus*	Freshwater Ponds	Through the year	Rainy	0.3
		Kholisa	*Colisa fasciatus*	Freshwater Ponds and beels	Rainy	Rainy	0.5
		Mola karplet	*Amblypharyngodon mola*	Freshwater Ponds and beels	Winter	Rainy	20
		Topse	*Polynemus indicus*	Brackish water	Through the year	Rainy	5
		Falui	*Notopterus notopterus*	Freshwater Ponds	Spring	Rainy	5
	Moyna	Pabda	*Ompok bimaculatus*	Freshwater Ponds	Through the year	Rainy	0.275
		Mola karplet	*Amblypharyngodon mola*	Freshwater Ponds and beels	Winter	Rainy	14
		Kholisa	*Colisa fasciatus*	Freshwater beels	Rainy	Rainy	0.6
		Falui	*Notopterus notopterus*	Freshwater Ponds	Spring	Rainy	4.5
	Nandigram III	Mola karplet	*Amblypharyngodon mola*	Freshwater Ponds and beels	Winter	Rainy	25
		Pabda	*Ompok bimaculatus*	Freshwater Ponds	Through the year	Rainy	0.15
		Gunte	*Labeocephalicthys guntia*	Freshwater Ponds	Rainy	Rainy	0.175
		Falui	*Notopterus notopterus*	Freshwater Ponds	Spring	Rainy	0.9
		Kholisa	*Colisa fasciatus*	Freshwater Ponds and beels	Rainy	Rainy	0.8
	Panskura I	Gunte	*Labeocephalicthys guntia*	Freshwater Ponds	Rainy	Rainy	0.17
		Falui	*Notopterus notopterus*	Freshwater Ponds	Spring	Rainy	1
		Mola karplet	*Amblypharyngodon mola*	Freshwater Ponds and beels	Winter	Rainy	18
		Kholisa	*Colisa fasciatus*	Freshwater	Rainy	Rainy	0.9

				Ponds and beels			
		Pabda	*Ompok bimaculatus*	Freshwater Ponds	Through the year	Rainy	0.16
		Topse	*Polynemus indicus*	Brackish water	Through the year	Rainy	4.5
	Panskura II	Pabda	*Ompok bimaculatus*	Freshwater Ponds	Through the year	Rainy	1.5
		Kholisa	*Colisa fasciatus*	Freshwater beels	Rainy	Rainy	0.4
		Falui	*Notopterus notopterus*	Freshwater Ponds	Spring	Rainy	1.1
		Topse	*Polynemus indicus*	Brackish water	Through the year	Rainy	1
		Tangra	*Mystus cavasius*	Freshwater Ponds	Winter	Rainy	1.5
	Matangini	Falui	*Notopterus notopterus*	Freshwater Ponds	Spring	Rainy	1.4
		Kholisa	*Colisa fasciatus*	Freshwater Ponds and beels	Rainy	Rainy	0.6
		Topse	*Polynemus indicus*	Brackish water	Through the year	Rainy	1.2
		Tangra	*Mystus cavasius*	Freshwater Ponds	Winter	Rainy	1.7
		Pabda	*Ompok bimaculatus*	Freshwater Ponds	Through the year	Rainy	1.6

The distribution of 'locally endangered fish species' (LEFS) of the district has been depicted in Figure 5.5. Based on the present investigation, the maximum numbers six (6) of LEFSs are belonging at Contai-I and Nandigram-II blocks. The three (3) LEFSs have been identified at Nandakumar, Sutahata, Egra-II, Contai-II, Bhagawanpur-I and Ramnagar-II blocks. Only Pataspur-II block has been listed for minimum number (2) of LEFS.

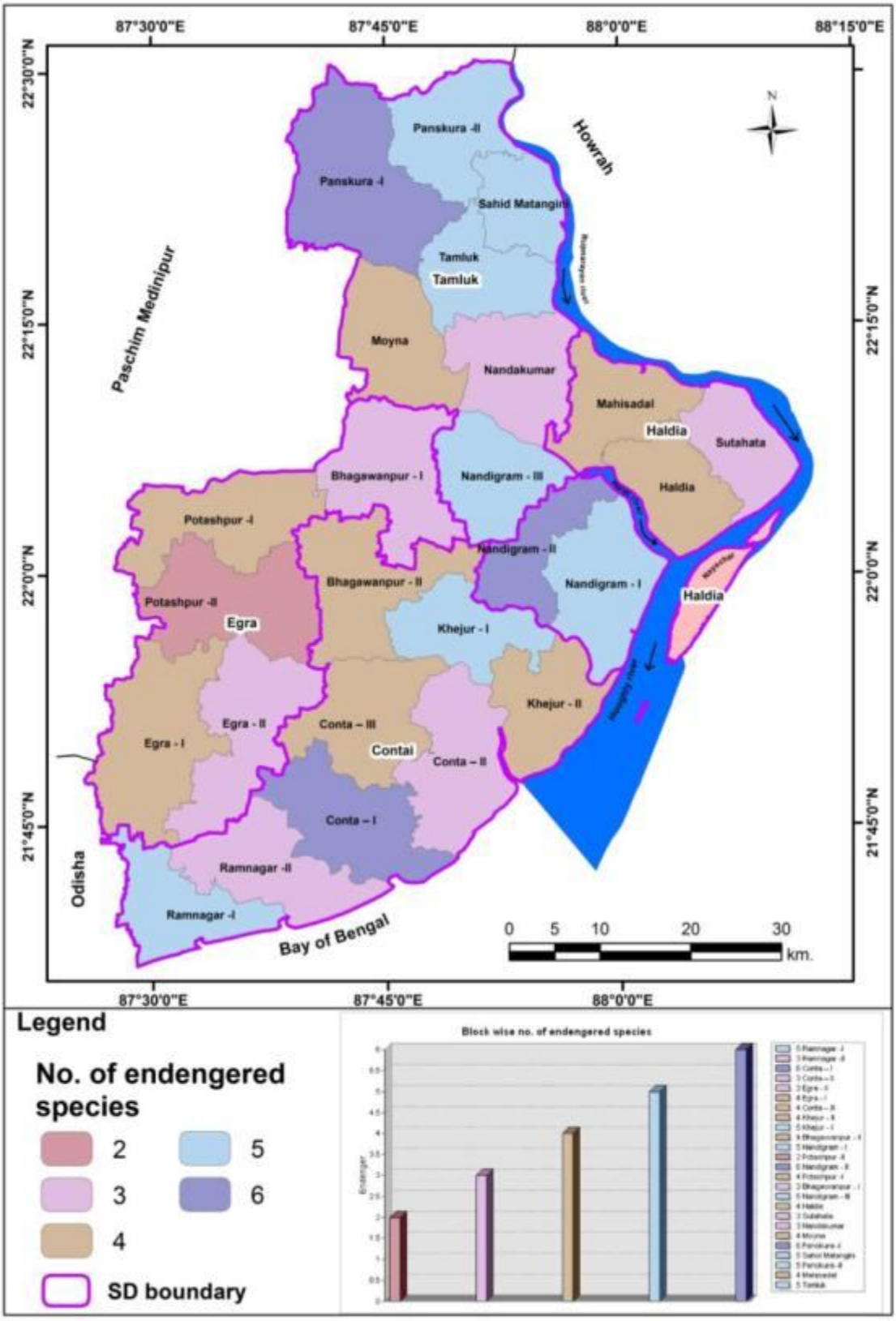


Figure 5.5 Distribution of endangered fish species

5.4 Summary

This chapter summarized the status of fish diversity in Purba Medinipur district. The block wise detail survey was conducted and information collected from the fish mongers, fishermen, local peoples and different Govt. sources. The major three to four fish market of each block was selected for fish data survey. Total number of 46 native fish species of 18 families of 6 orders has been recorded during the survey period. From the preliminary survey nine locally endangered fish species also identified among the total fish fauna. The survey also reveals block wise availability status of those species, their habitat, season of abundance, breeding season and productivity in market. The geospatial technology is also used to show the block wise distribution of threatened category of fish species.