

Ichthyofauna of Dimna Lake, East Singhbhum District, Jharkhand, India

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Dimna Lake (22°51'43.53"N & 86°15'24.68"E) is located 13km away from the limits of the city of Jamshedpur in the district of East Singhbhum, Jharkhand (Fig. 1). It lies near Dalma Wildlife Sanctuary and can be considered as one of the most important aquatic systems of the District as it serves as a water source for the Tata Steel Plant as well as for the city of Jamshedpur. The Dimna Lake is irregular in shape and spreads in approximately 1km² area. At certain places the depth may reach up to more than 20m. The majority of the households around the study area are engaged in fishing and related activities.

Earlier works on ichthyofauna of Jamshedpur were of Bose et al. (1974) and Verma et al. (2008). The present study adds to the documentation of fish fauna of Jamshedpur from Dimna Lake.

Materials and Methods

Fish samples were collected from Dimna Lake from January to December 2008. Samples were collected of fishermen catches and were preserved in 10% formalin.

Identification of fishes is based mainly on external characters such as body shape, length, depth, mouth and nature of fish spines, scales, etc.

The fishes collected were segregated mainly based on the presence or absence of scales on the body. When scales are present, they were further separated based on body shape, number and length of fins. In the case of fishes without fins, they were separated according to the number of barbells present. After segregation, they were identified according to Jayaram (1999) and Daniels (2001).

Results and Discussion

Altogether 40 species of fishes belonging to 28 genera and 15 families were collected from various fishing spots of Dimna Lake during the observation period of about 12 months (Table 1). Of these Cyprinidae was found to be the dominant family constituting 50% of the total species observed.

In the present observation, species such as *Cirrhinus mrigala*, *Catla catla*, *Labeo bata*, *Labeo calbasu*, *Labeo rohita*, *Cyprinus carpio*, *Sperata seenghala*, *Channa marulius*, *Channa punctatus*, *Channa striatus*, *Channa gachua*, *Clarias batrachus* and *Mastacembelus armatus* were of commercial value.

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Figure 1. Map of the District East Singhbhum showing the study area (Dimna Lake)

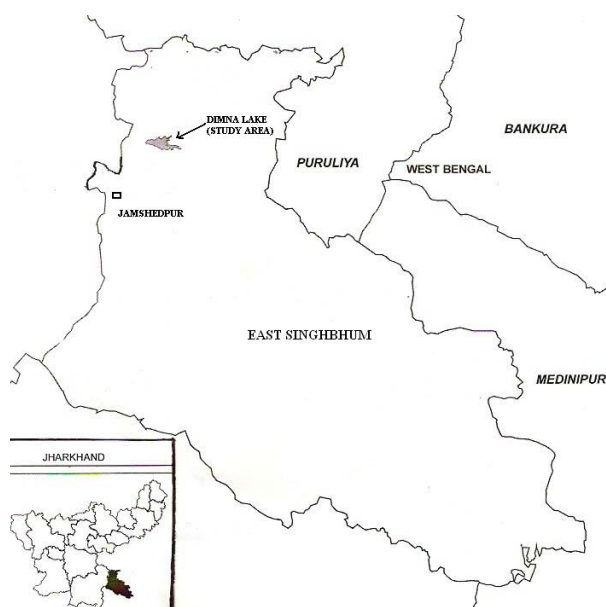


Table 1. Systematic list of fishes with local name and their conservation status (Molur & Walker 1998)

	Order	Family	Species	Common Name	Status
1.	Anguilliformes	Anguillidae	<i>Anguilla bengalensis</i> (Grey, 1831)	Marang Kuchla	EN
2.	Cypriniformes	Balitoridae	<i>Nemacheilus botia</i> (Hamilton, 1822)	Botia & Bumbuj	NE
3.		Cobitidae	<i>Lepidocephalichthys guntea</i> (Hamilton, 1822)	Guntea	NE
4.		Cyprinidae	<i>Bariilus bola</i> (Hamilton, 1822)	Bariola	NE
5.			<i>Catla catla</i> (Hamilton, 1822)	Catla	VU
6.			<i>Chela laubuca</i> (Hamilton, 1822)	Banspatta	LRnt
7.			<i>Cirrhinus reba</i> (Hamilton, 1822)	Mrigal	VU
8.			<i>Cirrhinus mrigala</i> (Hamilton, 1822)	Mrigal	LRnt
9.			<i>Cyprinus carpio</i> (Linnaeus, 1758)	American rahu	NE
10.			<i>Danio devario</i> (Hamilton, 1822)	Gandrang	LRnt
11.			<i>Esomus danricus</i> (Hamilton, 1822)	Darikona	LRlc
12.			<i>Garra mullya</i> (Sykes, 1839)	Pathar Chatta	NE
13.			<i>Labeo bata</i> (Hamilton, 1822)	Bata	LRnt
14.			<i>Labeo calbasu</i> (Hamilton, 1822)	Kalbagus	LRnt
15.			<i>Labeo rohita</i> (Hamilton, 1822)	Rahu & Ruhi	LRnt
16.			<i>Osteobrama cotio</i> (Hamilton, 1822)	Galusputi	LRnt
17.			<i>Puntius sarana</i> (Hamilton, 1822)	Puthi	VU
18.			<i>Puntius conchoni</i> (Hamilton, 1822)	Puthi	VU
19.			<i>Puntius sophore</i> (Hamilton, 1822)	Puthi	LRnt
20.			<i>Puntius ticto</i> (Hamilton, 1822)	Puthi	LRnt
21.			<i>Rasbora daniconius</i> (Hamilton, 1822)	Chetanmadhaku	NE
22.			<i>Salmostoma bacaila</i> (Hamilton, 1822)	Chela	LRlc
23.			<i>Salmostoma phulo</i> (Hamilton, 1822)	Chela	NE
24.	Cyprinodontiformes	Poeciliidae	<i>Gambusia officinis</i> (Baird & Girard, 1853)	Puthi	NE
25.	Osteoglossiformes	Notopteridae	<i>Notopterus notopterus</i> (Pallas, 1769)	Phalat	LRnt
26.	Perciformis	Anabantidae	<i>Anabas testudineus</i> (Bloch, 1792)	Koi	VU
27.		Chandidae	<i>Chanda nama</i> (Hamilton, 1822)	Chanda	NE
28.			<i>Parambassis ranga</i> (Hamilton, 1822)	Ranga	NE
29.		Channidae	<i>Channa marulius</i> (Hamilton, 1822)	Garai	LRnt
30.			<i>Channa punctatus</i> (Bloch, 1793)	Garai	LRnt
31.			<i>Channa striatus</i> (Bloch, 1793)	Shol	LRlc
32.			<i>Channa gachua</i> (Hamilton, 1822)	Garai	NE
33.		Gobiidae	<i>Glossogobius giuris</i> (Hamilton, 1822)	Pumpplet	LRnt
34.	Siluriformes	Bagridae	<i>Sperata seenghala</i> (Sykes, 1839)	Tengra	NE
35.			<i>Mystus vittatus</i> (Bloch, 1794)	Tengra	VU
36.		Siluridae	<i>Ompok bimaculatus</i> (Bloch, 1794)	Ompak	EN
37.		Clariidae	<i>Clarias batrachus</i> (Linnaeus, 1754)	Magur	VU
38.	Symbranchiformes	Synbranchidae	<i>Monopterusuchia</i> (Hamilton, 1822)	Kuchla	LRnt
39.		Mastacembelidae	<i>Mastacembelus armatus</i> (Lacepede, 1800)	Bami	NE
40.			<i>Mastacembelus pancalus</i> (Hamilton, 1822)	Dundi & Bami	NE

NE - Not Evaluated; LRnt - Lower Risk near threatened; LRlc - Lower Risk least concern; VU - Vulnerable; EN - Endangered.

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