Int.J.Curr.Microbiol.App.Sci (2020) *9*(9): 2949-2952

International Journal of Current Microbiology and Applied Sciences
***ISSN: 2319-7706* Volume 9 Number 9 (2020)**
Journal homepage: http://www.ijcmas.com

Original Research Article https://doi.org/10.20546/ijcmas.2020.909.363

Study on Fish Diversity of Kawardha Town, Chhattisgarh, India

Sachin Sahu[1*] and Subhendu Datta[2]

[1]Director of Fisheries, District- Kabirdham, Chhattisgarh, India
[2]ICAR-Central Institute of Fisheries Education, Kolkata Center, India

**Corresponding author*

Keywords

Fish diversity, Sakari river, Freshwater, Kawardha

Article Info

Accepted:
20 August 2020
Available Online:
10 September 2020

A B S T R A C T

Kawardha is the historical and peaceful town, have wide diversity of fish. Fish are good source of animal protein and rich in various nutrients. Proper database of fish from freshwater environment of Kawardha town is not available. So, the present study was undertaken to know the fish diversity of Kawardha town. A total four lentic (Ponds) and one lotic (Sakari river) water resources were selected. Total 54 species were classified in seven orders, 20 families, and 39 genera were recorded. The major fishes found are Indian major carp, exotic carp, catfish and Tilapia. Suitable water quality parameters were found during the study period for proper growth of fish. It is concluded that it will help to prepare the document. It will be the first catalogue of fish species found in Kawardha town of Chhattisgarh.

Introduction

Kawardha is the historical and peaceful town, have wide diversity of fish. Fish are the half of total vertebrate among the biodiversity which contributes the GDP. It promotes foreign exchange earnings, income generation, food and nutritional security of the nation. Regional investigation of fish diversity is essential for documentation as well as for conservation. It will help farmers and local community to aware about their resources. Om Prakash (2004), Singh (2004), Dev (2008) has done riverine biodiversity, Choubey and Qureshi (2013) had worked on particular town Rajnandgaon. Patel *et al.*, (2016) worked from different water resources in Raigarh district. The present study was undertaken to know the fish diversity of Kawardha town of Chhattisgarh.

Materials and Methods

A total four lentic (Ponds; Bade Talab, BhojaliTalab, KaliTalab, KhalheTalab) and one lotic (Sakari river) water resources were selected. The study was carried out for seven months (September2019 to March 2020). The samples were collected from Sakaririver near Saigona village and Paliguda village, landing centers, local fishermen and selected ponds from cooperative societies of Kawardha

Town. The collected species were identified on the field itself and the unidentified specimen brought to laboratory and were preserved in 6% formalin and identified with the help of books and keys (Day. 1878, Datta and Shrivastava, 1988, Talwar and Jhingran, 1991). Water qualities were measured by the standard methods (APHA, 1998).

Results and Discussion

Water quality parameters were found suitable during the study period for fish culture. During the study period, total of 54 species belonging to 20 families under seven orders and 39 genera were recorded. Out of 54 species recorded (Table 1), three species (5.5%) had ornamental value and 19 species (35.18%) have both ornamental and food value (Fig. 2). Family Cyprinidae dominated among the groups of ornamental and food fish category with eight species followed by Channidae three species, Ambassidae two species and others eight families with one species from each group (Fig. 1). Sahu (2015) had found 100 ornamental fish species in river Mahanadi. Mahapatra and Lakra (2014) had recorded 41 indigenous ornamental fishes from east Kolkata wetlands. Choubey and Qureshi (2013) has worked on ichthyofunal biodiversity of Rajnandgaon town and found total 45 species and majority was from family Cyprinidae. Patel *et al.,* (2016) reported total 61 species under 41 genera, 22 families and seven orders from Raigarh district.

Table.1 Fish diversity survey of Kabirdham district, CG and their Commercial importance

Family	Scientific Name	Common Name	Local name	Conservation status	Commercial importance
1) Order- Cypriniformes					
Cyprinidae	*Amblypharyngodon mola* (Hamilton, 1822)	Molacarplet	Mohroli	LC	FF/OR
	Barilius bendelisis (Hamilton,1807)	Hamilton barila	Jori	LC	FF
	Catla catla (Hamilton, 1822)	Catla	Katla	LC	FF
	Cirrhinus mrigala (Hamilton, 1822)	Mrigal	Mirgal	LC	FF
	Cirrhinus reba (Hamilton, 1822)	Reba carp	LohiMirgal	LC	FF
	Ctenopharyngodon idella (Valenciennes, 1844)	Grass carp	Ghaskat	NE	FF
	Cyprinus carpio (Linnaeus, 1758	Common carp	Komalkar	VU	FF
	Danio rerio (Hamilton, 1822)	Zebra fish	Dadai	LC	FF/OR
	Garra mullya (Sykes, 1839)	Sucker fish	Gadela	LC	FF
	Hypophthalmichthys molitrix (Valenciennes, 1844)	Silver carp	Silver Kar	NT	FF
	Hypophthalmichthys nobilis (Richardson, 1845)	Bighead carp	Bigrad	DD	FF
	Labeo calbasu (Hamilton, 1822)	Orange-fin labeo	Kalbaz	LC	FF/OR
	Labeo gonius (Hamilton, 1822)	KuriaLabeo	Roha	LC	FF
	Labeo rohita (Hamilton, 1822)	Rohu	Roha	LC	FF
	Ostreobrama cotio (Hamilton,1822)	Cotio	Kotri	LC	FF/OR
	Systomus sarana (Hamilton, 1822)	Olive barb	Kotra	LC	FF/OR
	Puntius sophore (Hamilton, 1822)	Pool barb	Kotri	LC	OR

	Pethia ticto(Hamilton, 1822)	Ticto barb	Kotri	LC	OR
	Salmophasia bacaila (Hamilton,1822)	Large razor belly minnow	Sarangi	LC	FF
	Epalzeorhynchos bicolor (Smith,1931)	Red-tailed black shark	---	EN	OR
Balitoridae	*Acanthocobitis botia* (Hamilton,1822)	Mottled Loach	Rudwa	LC	FF
Cobitidae	*Lepidocephalichthys guntea* (Hamilton,1822)	Guntea loach	Rudai	LC	OR/FF
2) Order- Siluriformes					
Siluridae	*Ompokbima culatus* (Bloch, 1794)	Butter catfish	Pabda	NT	FF/OR
	Ompok pabda (Hamilton, 1822)	Pabdah cat fish	Pabda	NT	FF
	Walla goattu (Bloch & Schneider,1801)	Wallago	Padhina	NT	FF
Sisoridae	*Gagata gagata* (Hamilton, 1822)	GengeticGagata	---	LC	FF
Schilbeidae	*Eutropiichthys murius* (Hamilton, 1822)	Butchua	Golmuhi	LC	FF
Bagridae	*Sperata aor* (Hamilton, 1822)	Long-whiskeredcatfish	Tengana	LC	FF
	Mystus cavasius (Hamilton, 1822)	Gangeticmystus	DesiTengna	LC	FF
	Speratase enghala (Sykes, 1839)	Giant river-catfish	Tengna	LC	FF
	Mystus tengara (Hamilton, 1822)	Tengara catfish	Tengna	LC	FF
	Neotropius atherinoides (Bloch,1794)	Indian potasi	JaliyaTengana	LC	FF/OR
Pangasiidae	*Pangasius pangasius* (Hamilton,1822)	Pangas catfish	Sawali	LC	FF
	Ailia coila (Hamilton, 1822)	Gangeticailia	Dadwa	NT	FF
Heteropneustidae	*Heteropneustes fossilis* (Bloch, 1794)	Stinging catfish	Singhi	LC	FF/OR
Clariidae	*Clarias batrachus*(Linnaeus, 1758)	Walking catfish	Mongri	LC	FF/OR
	Clarias gariepinus(Burchell,1822)	North Africa Catfish	Mangur	LC	FF
3) order- Clupeiformes					
Clupeidae	*Gudusia chapra* (Hamilton, 1822)	Indian river shed	Chandaini	LC	FF
Engraulididae	*Gonialos amanmina* (Hamilton, 1822)	Ganges river gizzard shad	Chandaini	LC	FF
4) order- Osteoglossiformes					
Notopteridae	*Notopterus notopterus* (Pallas,1769)	Bronze featherback	Chital	LC	FF/OR
	Notopterus chitala (Hamilton, 1822)	Indian featherback	Chital	NT	FF/OR
5) Order- Anabantiformes					
Channidae	*Channa gachua* (Hamilton, 1822)	Dwarf snakehead	Bhunda	LC	FF

	Channa marulius (Hamilton, 1822)	Great snakehead	Bhunda	LC	FF/OR
	Channa punctate (Bloch, 1793)	Spotted snakehead	Bhunda	LC	FF/OR
	Channas triata(Bloch, 1793)	Striped snakehead	Bhunda/ Demchul	LC	FF/OR
6)Order- Perciformes					
Ambassidae	*Chanda nama* (Hamilton, 1822	Ganges river sprat	Chandaini	LC	FF
	Chanda ranga (Hamilton,1822)	Elongate glass-perchlet	Chandaini	LC	FF/OR
Nandidae	*Nandus nandus* (Hamilton, 1822)	Gangetic leaffish	Talafia	LC	FF
Cichlidae	*Oreochromis mossambicus* (Peters,1852)	Mozambique tilapia	Talafia	NT	FF/OR
	Oreochromisniloticus(Linnaeus,1758)	Nile Tilapia	Talafia	VU	FF/OR
Anabantidae	*Anabas testudineus* (Bloch, 1792)	Climbing perch	Kevai	DD	FF
Belonidae	*Xenentodon cancila* (Hamilton,1822)	Freshwater garfish	Bama	LC	FF
7) Order- Synbranchiformes					
Mastacembelidae	*Mastacembelus armatus* (Lacepède, 1800)	Zig-zag eel	Bami	LC	FF
	Macrognathus pancalus (Hamilton, 1822	Barred spiny eel	Bami	LC	FF/OR

DD = Data Deficient, EN= Endangered, LC = Least Concern, NE= Not Evaluated, NT = Near Threatened, VU= Vulnerable, FF = Foodfish, OR = Ornamental fish

Fig.1 Family wise fish species in number

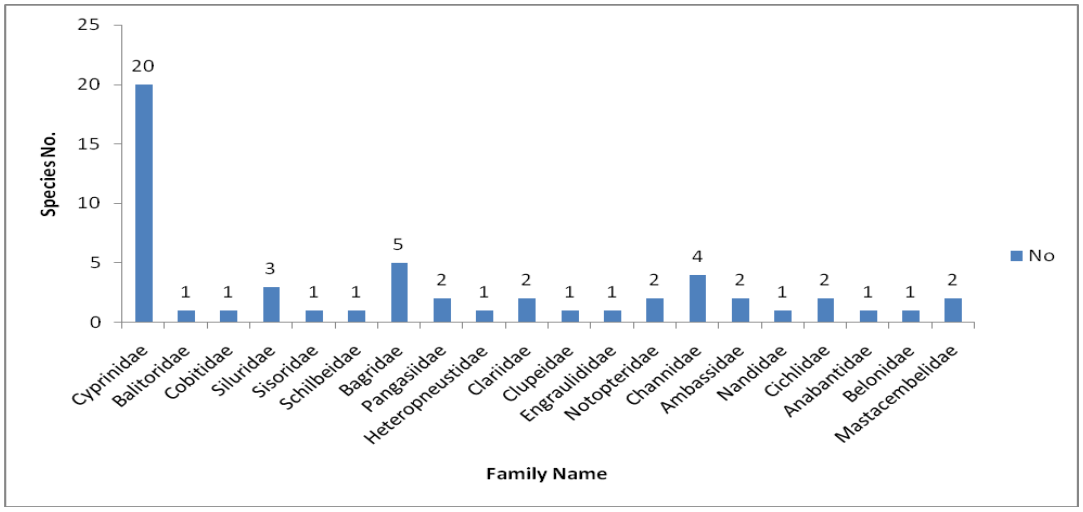
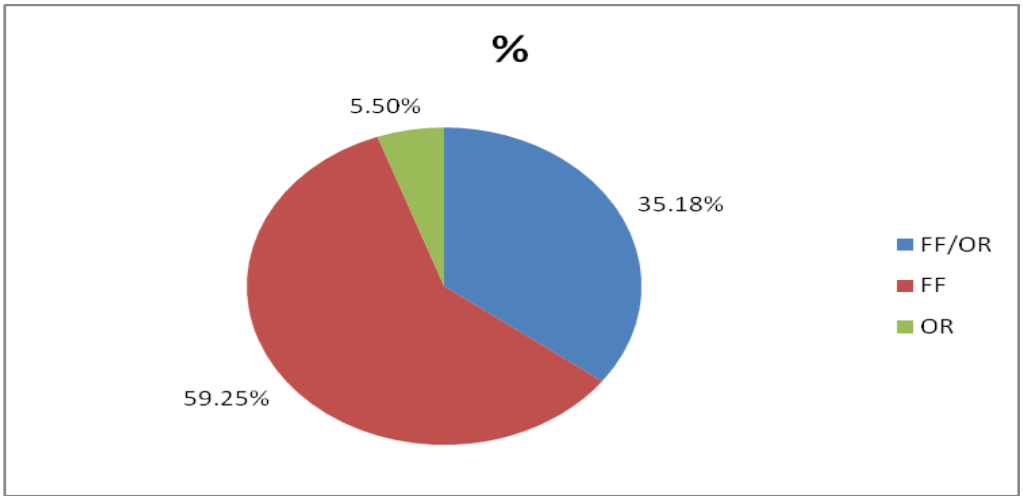


Fig.2 Percentage composition of ornamental and food species



The present study found that wide variety of fish species in Kawardha town of Chhattisgarh.

In conclusion the finding of the present study shows that Kawardha town has hub of multifarious fish species which have economic importance in local as well as oversees market. The fisherman unable to identify the fishes and their value, so, the local fishermen need to aware about it by organizing training or counseling which will help to get more profit and it will help to conservation.

References

APHA (1998).Standard methods for examination of water and waste water, 20th Ed. American Public Health Association, AWWA, WPCA, Washington, D.C., U.S.A.1193p.

Choubey, K. and Qureshi, Y. (2013) Study of Ichthyofaunal Biodiversity of Rajnandgaon town, CG, India, 2(2): 21-24.

Dev, R. (2008). Fish Biodiversity in the riverine resources of Durg districts of Chhattisgarh India. *M.F.Sc. Thesis*. Deptt. of Fisheries, IGKV, Raipur.

Mahapatra, B.K. and Lakra, W.S. (2014) Ornamental fishes of East Kolkata Westland, West Bengal, India. *Zoology*, 3(12): 406-408.

Om Prakash (2004).Fish diversity in the water resources of Northern part of Raipur district of Chhattisgarh state. *M.F.Sc. Thesis.* Deptt. of Fisheries, IGKV, Raipur.

Patel, G., Chari, M.S., Kumar, S. Bhakta, D. and Behera, S. (2016). Status of ornamental fish diversity of Raigarh district, Chhattisgarh, India, *International Journal of Science and Nature*, l7 (3): 575-578.

Sahu, K.R. (2015) Studies on Piscean Diversity of Mahanadi River Chandrapur, District Janjgir-Champa, Chhattisgarh. *International Journal of Modern Sciences and Engineering Technology*, 2(7): 1-5.

Singh, S. (2004). Fish diversity in the water resources of Southern part of Raipur district of Chhattisgarh state. *M.F.Sc. Thesis*. Dept. of Fisheries, IGKV, Raipur.

Talwar, P. K. and Jhingran, A.G. (1991). Inland fishes of India and adjacent countries, 2 vols. Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi. 1158 p.

How to cite this article:

Sachin Sahu and Subhendu Datta. 2020. Study on Fish Diversity of Kawardha Town, Chhattisgarh, India. *Int.J.Curr.Microbiol.App.Sci*. 9(09): 2949-2952.
doi: https://doi.org/10.20546/ijcmas.2020.909.363