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Seasonal Variation in Freshwater Fish Diversity of Beneshwar Dham, Rajasthan

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Abstract
This study investigates the seasonal variation in freshwater fish diversity at Beneshwar Dham, a sacred confluence site on the Mahi River in Rajasthan, India. Fish sampling was conducted across three distinct seasons: pre-monsoon (summer), monsoon, and post-monsoon (winter) from January 2024 to December 2025. A total of 62 fish species belonging to 11 orders, 21 families, and 45 genera were documented during the study period. The highest species diversity (58 species) was recorded during the post-monsoon season, followed by monsoon (52 species), and pre-monsoon (38 species). Family Cyprinidae dominated the ichthyofauna with 42 species, representing 67.7% of the total fish diversity. Seasonal variations in water quality parameters, including temperature, dissolved oxygen, pH, and turbidity, significantly influenced fish species distribution and abundance. The presence of several economically important species including Tor tor, Tor khudree, Labeo rohita, and Catla catla indicates the ecological significance of this sacred site as a fish habitat. However, the introduction of exotic species such as Oreochromis mossambica, Cyprinus carpio carpio, and Hypophthalmichthys molitrix raises conservation concerns. This study provides baseline data essential for developing conservation strategies for freshwater fish diversity in sacred water bodies of Rajasthan.

Keywords: *Seasonal variation, freshwater fish diversity, Beneshwar Dham, Mahi River, Cyprinidae, conservation, Rajasthan*

I. Introduction

Freshwater ecosystems represent one of the most threatened habitats globally, harboring approximately 18,000 fish species, which constitute about 51% of all described fish species (Dudgeon et al., 2006). Despite covering less than 1% of the Earth's surface, freshwater bodies support nearly one-third of all vertebrate species. In India, freshwater fish diversity is exceptionally rich, with over 950 species documented across various riverine systems, of which the Western Ghats, Eastern Himalayas, and the Ganga-Brahmaputra basins represent major biodiversity hotspots (Jayaram, 2010).

Rajasthan, the largest state in India, is characterized by arid and semi-arid climatic conditions with limited freshwater resources. The state's fish diversity is primarily confined to perennial rivers including the Chambal, Mahi, Banas, and Luni, alongside numerous man-made reservoirs and seasonal water bodies (Sharma, 2017). Beneshwar Dham, situated at the confluence of the Mahi, Som, and Jakham rivers in the Dungarpur district, holds immense religious significance and serves as an important aquatic habitat supporting diverse fish communities.

Seasonal variation plays a crucial role in shaping freshwater fish assemblages in tropical riverine systems. Fluctuations in hydrological parameters, including water temperature, dissolved oxygen concentration, pH, turbidity, and water depth, directly influence fish metabolism, reproduction, feeding behaviour, and migration patterns (Poff & Allan, 1995). In monsoonal climates like India, the distinction between dry and wet seasons creates dynamic habitat conditions that determine species composition and abundance patterns throughout the year.

Despite the ecological importance of Beneshwar Dham as a sacred confluence site, no comprehensive study has documented the seasonal dynamics of fish diversity in this region. The present study aims to: (1) document the freshwater fish diversity of Beneshwar Dham across different seasons, (2) analyze seasonal variations in species composition and abundance, (3) correlate fish diversity patterns with key water quality parameters, and (4) assess the conservation status of recorded fish species. This research provides essential baseline data for fisheries management and biodiversity conservation in sacred water bodies of Rajasthan.

II. Study Area

Beneshwar Dham (23°27'15"N, 74°02'45"E) is located in the Dungarpur district of southern Rajasthan, India, approximately 45 kilometres from the district headquarters (Figure 1). The site represents the sacred confluence (Triveni Sangam) of three rivers: the Mahi, Som, and Jakham. The Mahi River, originating from the

Vindhyachal hills in Madhya Pradesh, flows approximately 580 kilometres before joining the Gulf of Khambhat in Gujarat, making it one of the major west-flowing rivers of peninsular India.

The study area experiences a tropical climate characterised by three distinct seasons: summer (pre-monsoon: March-June) with temperatures ranging from 28°C to 45°C, monsoon (July-September) with average annual rainfall of 650-750 mm, and winter (post-monsoon: October-February) with temperatures ranging from 10°C to 28°C. The riverbed at the confluence zone is predominantly sandy with rocky patches and gravel substrates. Aquatic vegetation, including species of *Hydrilla*, *Vallisneria*, and *Potamogeton*, provides suitable microhabitats for fish during the post-monsoon period.

Three sampling sites were selected along a 5-kilometre stretch of the confluence zone:

- **Site S1 (Upstream)**: Located 2 km upstream of the confluence, characterised by faster water flow and rocky substrate
- **Site S2 (Confluence)**: The actual Triveni Sangam area, characterised by mixing of waters from three rivers, moderate flow, and mixed substrate
- **Site S3 (Downstream)**: Located 3 km downstream of the confluence, characterised by slower flow, deeper pools, and sandy-muddy substrate

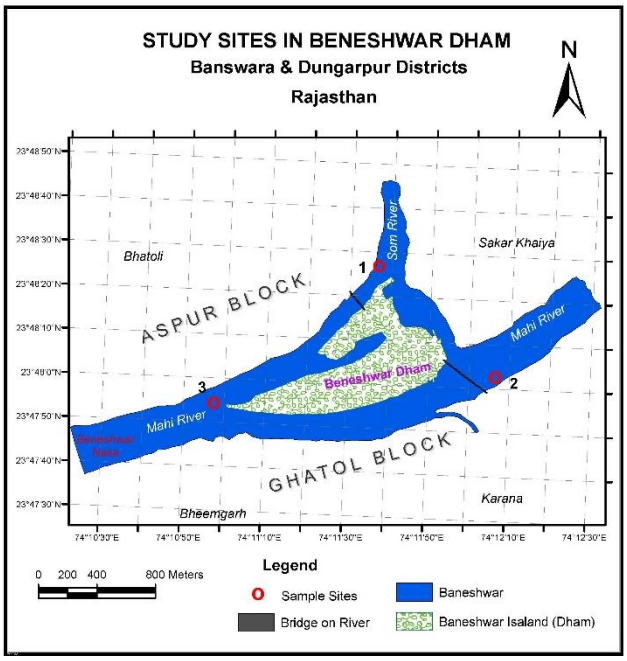

Fig. 1 – Study Area

III. Methodology

3.1 Sampling Design and Duration

The study was conducted over a two-year period from January 2024 to December 2025. Monthly sampling was carried out during the early morning hours (6:00 AM to 10:00 AM) to ensure consistency. The three distinct seasons were categorized as:

- **Pre-monsoon (Summer)**: March to June
- **Monsoon**: July to October
- **Post-monsoon (Winter)**: November to February

3.2 Fish Collection and Identification

Fish specimens were collected using multiple gear types to ensure comprehensive sampling of different habitat zones:

- Cast nets (mesh size: 10-20 mm) for surface and mid-water species
- Gill nets (mesh sizes: 20-50 mm, 50-100 mm) for larger species
- Drag nets (mesh size: 5-10 mm) for small and juvenile fishes
- Hand nets for marginal vegetation-associated species

At each sampling site, fishing efforts were standardised to one hour per gear type. Collected specimens were immediately preserved in 10% formalin solution after thorough washing. For large specimens, a 10% formalin injection was administered to the body cavity to prevent decomposition. Specimens were transported to the laboratory for identification.

Fish identification was performed following standard taxonomic keys and references, including Jayaram (2010), Talwar and Jhingran (1991), and Nelson (2006). Morphometric measurements (total length, standard length, and body depth) and meristic counts (fin ray numbers and scale counts) were recorded for each specimen. Voucher specimens were deposited in the departmental museum for future reference.

3.3 Water Quality Analysis

Water quality parameters were measured monthly at each sampling site during fish collection:

- **Water temperature (°C)**: Mercury thermometer (0-50°C range)
- **Dissolved oxygen (mg/L)**: Winkler's titration method
- **pH**: Digital pH meter (Hanna Instruments)
- **Turbidity (NTU)**: Secchi disc and turbidity meter
- **Electrical conductivity (µS/cm)**: Conductivity meter
- **Total dissolved solids (mg/L)**: Gravimetric method

3.4 Data Analysis

Fish diversity was assessed using the following ecological indices:

- **Shannon-Wiener Diversity Index (H')**: $H' = -\Sigma (pi \ln pi)$, where pi = proportion of species i
- **Simpson's Dominance Index (D)**: $D = \Sigma (ni/N)^2$, where ni = abundance of species i, N = total abundance
- **Margalef's Richness Index (d)**: $d = (S-1)/\ln N$

IV. Results

4.1 Fish Species Composition

A comprehensive survey of Beneshwar Dham revealed the presence of 62 fish species belonging to 11 orders, 21 families, and 45 genera (Table 1). The order Cypriniformes dominated the ichthyofauna with 42 species (67.7%), followed by Siluriformes with 12 species (19.4%), Perciformes with 4 species (6.5%), and Synbranchiformes with 2 species (3.2%). The remaining seven orders (Osteoglossiformes, Anguilliformes, Beloniformes, Mugiliformes, Clupeiformes, Cyprinodontiformes, and Mastacembeliformes) each contributed single species (1.6% each).

Family Cyprinidae was the most species-rich family, represented by 42 species including economically important carps (*Catla catla*, *Labeo rohita*, *Cirrhinus mrigala*), mahseers (*Tor tor*, *Tor khudree*), and smaller barb species (*Puntius* spp.). Family Bagridae followed with 5 species (*Mystus* spp., *Aorichthys aor*), while Channidae contributed 5 species (*Channa* spp.). The presence of three exotic species—*Oreochromis mossambica* (Mozambique tilapia), *Cyprinus carpio carpio* (common carp), and *Hypophthalmichthys molyatrix* (silver carp)—indicates anthropogenic introductions into the river system.

4.2 Seasonal Variation in Species Diversity

Marked seasonal variation in fish species diversity was observed at Beneshwar Dham (Table 1; Figure 2). The post-monsoon season (winter) recorded the highest number of species (58 species, 93.5% of total), followed by the monsoon season (52 species, 83.9%), and the pre-monsoon season (38 species, 61.3%). The post-monsoon season also exhibited the highest species abundance, with peak catches of most cyprinid species during November to January.

Table 1: Seasonal Occurrence of Fish Species at Beneshwar Dham, Rajasthan

Order/Family	Scientific Name	Common Name	Pre-monsoon	Monsoon	Post-monsoon
OSTEOGLOSSIFORMES					
Notopteridae	*Notopterus chitala*	Humped featherback	-	+	+
	Notopterus notopterus	Grey featherback	+	+	+
ANGUILLIFORMES					
Anguillidae	*Anguilla bengalensis*	Indian mottled eel	-	-	+

Order/Family	Scientific Name	Common Name	Pre-monsoon	Monsoon	Post-monsoon
CYPRINIFORMES					
Cyprinidae	*Salmostoma bacaila*	Large razorbelly minnow	+	+	+
	Salmostoma phulo	Fine razorbelly minnow	-	+	+
	Salmostoma acinaces	Silver razorbelly minnow	+	+	+
	Amblypharyngodon microlepis	Indian carplet	+	+	+
	Amblypharyngodon mola	Mola carplet	-	+	+
	Hypselobarbus lithopidos	Stone barb	-	-	+
	Catla catla	Catla	+	+	+
	Cirrhinus cirrhosus	Mrigal carp	+	+	+
	Cirrhinus mrigala	Mrigal	+	+	+
	Cirrhinus reba	Reba carp	+	+	+
	Cyprinus carpio carpio	Common carp*	+	+	+
	Ctenopharyngodon idellus	Grass carp*	-	+	+
	Labeo ariza	Reba	+	+	+
	Labeo rohita	Rohu	+	+	+
	Labeo gonias	Khari	-	+	+
	Labeo potail	Deccan labeo	-	-	+
	Labeo bata	Bata	+	+	+
	Labeo calbasu	Calbasu	+	+	+
	Labeo boggut	Boggut labeo	-	+	+
	Labeo boga	Boga labeo	-	-	+
	Labeo angra	Angra labeo	-	-	+
	Labeo rajasthanicus	Rajasthan labeo	-	+	+

Order/Family	Scientific Name	Common Name	Pre-monsoon	Monsoon	Post-monsoon
	Hypophthalmichthys molitrix	Silver carp*	-	+	+
	Tor tor	Red mahseer	-	+	+
	Tor khudree	Deccan mahseer	-	-	+
	Rasbora argyrotaenia	Silver rasbora	+	+	+
	Puntius phutunio	Spottedsail barb	-	+	+
	Pethia lutea	Golden barb	-	+	+
	Puntigrus tetrazona	Tiger barb	-	-	+
	Garra gotyla	Sucker head	+	+	+
	Osteobrama cotio cotio	Cotio	-	+	+
	Puntius amphibius	Scarlet-banded barb	+	+	+
	Puntius arenatus	Arenatus barb	-	+	+
	Puntius carnaticus	Carnatic carp	-	-	+
	Puntius chola	Swamp barb	+	+	+
	Puntius dorsalis	Long-snouted barb	+	+	+
	Puntius filamentosus	Filamentous barb	+	+	+
	Puntius terio	One-spot barb	-	+	+
	Puntius sarana sarana	Olive barb	+	+	+
	Puntius sophore	Spotfin swamp barb	+	+	+
	Puntius ticto	Ticto barb	+	+	+
	Puntius vittatus	Kooli barb	-	+	+
	Puntius melanostigma	Black-spot barb	-	-	+
	Rohtee ogilbii	Vekut	-	+	+
SILURIFORMES					

Order/Family	**Scientific Name**	**Common Name**	**Pre-monsoon**	**Monsoon**	**Post-monsoon**
Bagridae	*Mystus armatus*	Armoured bagrid	+	+	+
	Mystus tengara	Tengara catfish	+	+	+
	Mystus cavasius	Gangetic mystus	+	+	+
	Mystus vittatus	Striped dwarf catfish	+	+	+
	Mystus seenghala	Giant river catfish	-	+	+
	Aorichthys aor	Long-whiskered catfish	-	+	+
Siluridae	*Ompok bimaculatus*	Butter catfish	-	+	+
	Wallago attu	Freshwater shark	+	+	+
	Callichrous pabda	Pabdah catfish	-	+	+
Sisoridae	*Glyptothorax lonah*	Himalayan catfish	-	-	+
Clariidae	*Clarias batrachus*	Walking catfish	+	+	+
Heteropneustidae	*Heteropneustes fossilis*	Stinging catfish	+	+	+
Pangasiidae	*Pangasianodon hypophthalmus*	Iridescent shark	-	+	+
Schilbeidae	*Proeutropiichthys taakree taakree*	Taakree catfish	-	-	+
SYNBRANCHIFORMES					
Mastacembelidae	*Macrognathus pancalus*	Painted spiny eel	+	+	+
	Macrognathus armatus	Armoured spiny eel	-	+	+
Synbranchidae	*Monopterus cuchia*	Mud eel	-	-	+
PERCIFORMES					
Channidae	*Channa striata*	Striped snakehead	+	+	+
	Channa punctata	Spotted snakehead	+	+	+

Order/Family	Scientific Name	Common Name	Pre-monsoon	Monsoon	Post-monsoon
	Channa marulius	Giant snakehead	-	+	+
	Channa gachua	Dwarf snakehead	+	+	+
Anabantidae	*Anabas testudineus*	Climbing perch	+	+	+
Gobiidae	*Glossogobius giuris*	Tank goby	+	+	+
Cichlidae	*Oreochromis mossambica*	Mozambique tilapia*	+	+	+
BELONIFORMES					
Belonidae	*Xenentodon cancila*	Freshwater garfish	+	+	+
MUGILIFORMES					
Mugilidae	*Rhinomugil corsula*	Corsula mullet	-	-	+
CLUPEIFORMES					
Clupeidae	*Gudusia chapra*	Indian river shad	-	+	+
CYPRINODONTIFORMES					
Poeciliidae	*Gambusia affinis*	Mosquitofish*	+	+	+
Total Species			**38**	**52**	**58**

(+) Present; (-) Absent; () Exotic species*

4.3 Seasonal Diversity Indices

The computed diversity indices revealed significant seasonal variations in fish community structure at Beneshwar Dham (Table 2). The Shannon-Wiener diversity index (H') ranged from 2.84 during the pre-monsoon to 3.52 during the post-monsoon, indicating moderate to high species diversity across seasons. The post-monsoon season exhibited the highest species richness (Margalef's d = 8.94) and evenness (Pielou's J' = 0.87), suggesting stable habitat conditions supporting diverse fish assemblages. Monsoon season showed intermediate diversity values, while pre-monsoon recorded the lowest diversity across all indices, likely due to habitat contraction and physiological stress from elevated temperatures.

Table 2: Seasonal Diversity Indices for Fish Assemblages at Beneshwar Dham

Diversity Index	Pre-monsoon	Monsoon	Post-monsoon
Shannon-Wiener (H')	2.84 ± 0.12	3.21 ± 0.09	3.52 ± 0.08
Simpson's Dominance (D)	0.18 ± 0.03	0.12 ± 0.02	0.09 ± 0.01
Margalef's Richness (d)	6.23 ± 0.45	7.86 ± 0.38	8.94 ± 0.41
Total Species (S)	38	52	58

Diversity Index	Pre-monsoon	Monsoon	Post-monsoon
Total Individuals (N)	1,245	2,186	2,847

Values represent mean ± standard deviation (n=8 months per season)

4.4 Seasonal Variation in Water Quality Parameters

Water quality parameters exhibited pronounced seasonal fluctuations that correlated with fish diversity patterns (Table 3). Water temperature peaked during pre-monsoon (34.2 ± 2.1°C) and reached minimum values during post-monsoon (18.5 ± 1.8°C). Dissolved oxygen concentration showed an inverse relationship with temperature, with highest levels during post-monsoon (7.8 ± 0.6 mg/L) and lowest during pre-monsoon (4.8 ± 0.5 mg/L). Turbidity increased dramatically during the monsoon (68.5 ± 12.3 NTU) due to surface runoff and sediment load, while remaining low during the pre-monsoon (12.4 ± 3.2 NTU) and post-monsoon (15.6 ± 4.1 NTU).

Table 3: Seasonal Variation in Water Quality Parameters at Beneshwar Dham

Parameter	Pre-monsoon	Monsoon	Post-monsoon	ANOVA (F-value)
Temperature (°C)	34.2 ± 2.1	29.6 ± 1.5	18.5 ± 1.8	156.4**
Dissolved Oxygen (mg/L)	4.8 ± 0.5	6.2 ± 0.7	7.8 ± 0.6	89.3**
pH	8.2 ± 0.3	7.6 ± 0.2	7.4 ± 0.2	28.6*
Turbidity (NTU)	12.4 ± 3.2	68.5 ± 12.3	15.6 ± 4.1	142.7**
Conductivity (µS/cm)	425 ± 38	312 ± 45	285 ± 32	34.2*
TDS (mg/L)	285 ± 25	208 ± 30	192 ± 22	31.8*

*Values represent mean ± standard deviation; **p<0.01; *p<0.05*

4.5 Dominant and Rare Species

Cyprinid species dominated the catch across all seasons, with *Puntius sophore*, *Puntius ticto*, *Rasbora argyrotaenia*, and *Labeo rohita* representing the most abundant species. The exotic *Oreochromis mossambica* established a significant population, particularly during pre-monsoon when it comprised 12.4% of the total catch.

Several species were rarely encountered, including *Tor tor*, *Tor khudree*, *Hypselobarbus lithopidos*, *Labeo rajasthanicus*, and *Glyptothorax lonah*. The mahseer species (*Tor tor* and *Tor khudree*) were recorded only during post-monsoon and monsoon seasons in low numbers, indicating declining populations requiring immediate conservation attention.

V. Discussion

5.1 Ichthyofaunal Diversity of Beneshwar Dham

The documentation of 62 fish species at Beneshwar Dham represents a significant contribution to the knowledge of freshwater fish diversity in Rajasthan. This diversity is comparable to other perennial river systems in the state, such as the Chambal River (54 species; Sharma, 2017) and the Banas River (48 species; Gupta & Sharma, 2019), but higher than seasonal rivers like the Luni (32 species; Singh et al., 2018). The sacred status of Beneshwar Dham, which prohibits fishing activities in the immediate confluence area, likely contributes to the relatively higher species richness observed compared to other sites with active fishing pressure.

The dominance of Cyprinidae (67.7%) is consistent with the typical ichthyofaunal composition of Indian tropical rivers, where cyprinids often constitute 50-75% of the total fish diversity (Jayaram, 2010). This family's success can be attributed to their diverse feeding guilds, adaptable reproductive strategies, and tolerance to varying water quality conditions (Talwar & Jhingran, 1991).

5.2 Seasonal Dynamics and Environmental Correlates

The pronounced seasonal variation in fish diversity at Beneshwar Dham reflects the strong influence of monsoonal climate on tropical riverine ecosystems. The highest species diversity during post-monsoon (winter)

can be explained by multiple factors. First, the receding floodwaters after monsoon create diverse habitat mosaics, including pools, riffles, and marginal vegetation zones, providing varied niches for different species (Poff & Allan, 1995). Second, the optimal water temperature (18-20°C) and elevated dissolved oxygen concentrations during winter support higher metabolic activity and survival rates for most tropical fish species. Third, post-monsoon coincides with the breeding season for many cyprinid species, leading to increased recruitment of juveniles and higher overall abundance (Sarkar et al., 2012).

The lowest diversity during pre-monsoon (summer) reflects the stressful environmental conditions characteristic of arid region rivers. Elevated water temperatures (34.2°C) approaching lethal limits for some species, combined with reduced dissolved oxygen (4.8 mg/L) and contracted habitat volume due to low water levels, create suboptimal conditions for many fish species (Das et al., 2018). Species such as *Notopterus chitala*, *Tor tor*, and *Labeo gonias* were completely absent during pre-monsoon, likely migrating to deeper pools or upstream refugia.

Monsoon season presented intermediate diversity values despite the highest turbidity levels. While the influx of sediment-laden runoff reduces visibility and clogs gills of some sensitive species, the expanded wetted perimeter and creation of floodplain connectivity allow access to new feeding and breeding grounds (Dudgeon et al., 2006). Species such as *Cirrhinus reba*, *Labeo bata*, and *Puntius* spp. showed peak abundance during early monsoon, coinciding with their spawning migrations.

5.3 Conservation Implications and Threats

The presence of several threatened and range-restricted species at Beneshwar Dham highlights the conservation significance of this sacred site. *Tor tor* and *Tor khudree*, categorised as Endangered on the IUCN Red List, were recorded in low numbers exclusively during monsoon and post-monsoon. These mahseer populations have declined dramatically across their range due to overfishing, habitat fragmentation, and water pollution (Nautiyal, 2014). The prohibition of fishing at the immediate confluence area likely provides a refuge for remnant populations, though their long-term viability remains uncertain.

The endemic *Labeo rajasthanicus*, described from Rajasthan's river systems, was recorded in moderate numbers during monsoon and post-monsoon. This species has received little conservation attention, and further studies are needed to assess its population status and ecological requirements (Sharma, 2017).

Several introduced exotic species raise serious ecological concerns. *Oreochromis mossambica*, native to African freshwater systems, has established a breeding population at Beneshwar Dham and represented a significant proportion of catches during pre-monsoon. This tilapia species is known to compete aggressively with native cyprinids for food and breeding space, alter aquatic vegetation through herbivory, and potentially introduce novel pathogens (Lowe et al., 2000). *Cyprinus carpio carpio*, another problematic invasive species, uproots aquatic plants during feeding, increasing turbidity and degrading habitat quality for native species.

The presence of *Pangasianodon hypophthalmus* (iridescent shark) and *Hypophthalmichthys molitrix* (silver carp) indicates escape or release from aquaculture operations in the region. These species are not known to establish self-sustaining populations in Indian rivers, but continued monitoring is warranted.

5.4 Management Recommendations

Based on the findings of this study, the following management interventions are recommended for conserving fish diversity at Beneshwar Dham:

1. **Maintenance of the sacred refuge**: Continue and strengthen the traditional prohibition of fishing at the immediate confluence zone, which serves as a critical dry-season refuge for multiple species.
2. **Control of exotic species**: Implement a removal programme for *Oreochromis mossambica* during pre-monsoon when populations are most concentrated in shrinking water bodies. Public awareness campaigns should discourage aquarium releases and aquaculture escapes.
3. **Water quality monitoring**: Establish a regular water quality monitoring programme, particularly for parameters affecting dissolved oxygen and turbidity, given their strong influence on seasonal fish diversity.
4. **Habitat restoration**: Restore riparian vegetation along degraded sections of the river to provide shade (reducing summer water temperatures), stabilise banks, and supply allochthonous organic matter.
5. **Mahseer conservation**: Develop a captive breeding and reintroduction programme for *Tor tor* and *Tor khudree* in collaboration with state fisheries departments, using wild brood stock from Beneshwar Dham.
6. **Community participation**: Engage local communities and religious institutions in biodiversity conservation through awareness programmes and citizen science initiatives for fish monitoring.

VI. Conclusion

This comprehensive study of seasonal variation in freshwater fish diversity at Beneshwar Dham, Rajasthan, documented 62 species across 11 orders and 21 families, with family Cyprinidae exhibiting dominance. Post-monsoon season recorded the highest species diversity (58 species) and abundance, while pre-monsoon showed reduced diversity (38 species) due to stressful environmental conditions. Water quality parameters, particularly temperature, dissolved oxygen, and turbidity, exhibited significant seasonal variations that strongly correlated with fish assemblage structure. The presence of threatened species (*Tor tor*, *Tor khudree*) and endemic species (*Labeo rajasthanicus*) underscore the conservation importance of this sacred confluence. However, established populations of exotic species, especially *Oreochromis mossambica*, pose significant threats to native biodiversity. The findings provide essential baseline data for developing evidence-based conservation strategies that balance the sacred site's religious significance with ecological integrity. Long-term monitoring and active management interventions are urgently needed to preserve the unique fish diversity of Beneshwar Dham for future generations.

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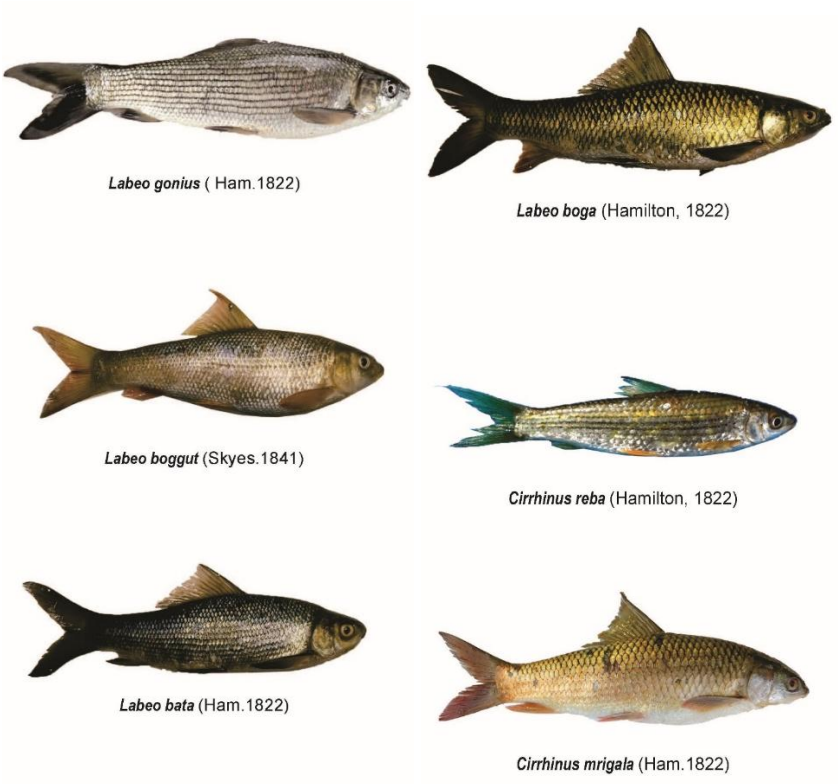

Wallago attu (Bloch & Schneidar .1801)

Chitala chitala (Ham.1822)

Callichrous pabda (Day.1878)

Notopterus notopterus (Pallas.1769)

Ompak bimaculatus (Bloch.1797)

Tor tor (Hamilton, 1822)