



# Assessment of Finfish Diversity along the Chorwad Coast, Gujarat, India

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## Authors' contributions

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

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## ABSTRACT

The coastline of Gujarat is 1,600 km long and salt marshes, sand-belts and gravel patches mark the topography. The present study on Finfish diversity along the Chorwad coast, Gujarat. During the study, 60 different marine finfish species were collected belonging to 15 orders, 35 families and 51 genera were recorded from November 2023 to October 2024. Carangiformes was found to be the dominant order (18%, 11 species) followed by Clupiformes (15%, 9 species), Eupercaria (11%, 7 species), Pleuronectiformes (10%, 6 species), Scombriformes (10%, 6 species), and Siluriformes (7%, 4 species). The highest number of species was reported from the Carangidae (9 species)

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family. Out of 60 species, 42 species were categorized as Least Concern (LC), 10 species were Not Evaluated (NE), 5 species were Data Deficient (DD), 1 species were Near Threatened (NT) and 2 species were Vulnerable (VU) as per IUCN Red List Status. During the study, the highest monthly availability was observed for *Rastrelliger kanagurta* throughout all months with peaks during January (5.19%) and February (4.93%). The highest numbers of individuals were found during the November, December, January and February months respectively. The seasonal species abundance revealed maximum abundance in the Winter season (61%). This present study information on the diversity and abundance of Finfish based on month and seasonal landing serves as a crucial baseline for future research on fisheries management, conservation efforts, and assessing the ecological impact of gill netting in the studied region.

**Keywords:** *Finfish diversity; saurashtra; IUCN red list; gill net; Chorwad coast.*

## 1. INTRODUCTION

Biodiversity refers to the variety of living organisms in a region, from species to entire ecosystems (Jaisankar et al., 2018). It is essential for sustaining life and provides ecological, economic, social, and cultural benefits. The health of marine ecosystems, including fisheries, depends on maintaining this biodiversity, as ecosystems with more species tend to be more stable (Hilborn et al., 2003). Aquatic biodiversity, covering 75% of the Earth's surface, is vital for the planet's well-being and affects global environmental processes. Understanding and managing these resources is key to their long-term sustainability (Brahmane et al., 2014). Estimating biodiversity also helps assess the health of ecosystems and track changes over time (Rowland et al., 2020).

Biodiversity evaluation varies depending on the location, and we still lack a complete understanding. Fish have the most species among all vertebrates, which is more important than their economic value. Out of 61,259 known vertebrate species, about 32,300 are fish, with 15,170 living in freshwater and 16,764 in marine ecosystems (William et al., 2010).

India is one of the 17 mega-biodiversity hotspots in the world, with diverse landscapes from the Himalayas in the north to the Eastern and Western Ghats. It has a coastline of 8,129 kilometers and an exclusive economic zone of 2.02 million square kilometers (Sarkar et al., 2012). The coast features ecosystems like estuaries, mangroves, and coral reefs. India also has extensive freshwater resources, with 14 major rivers, 44 medium rivers, and many smaller ones, covering almost all regions except the Rajasthan desert (Parmar et al., 2022).

In India, marine fish make up 75.6% of fish diversity, with 2,443 species. There are 2,500 total fish species, including 930 freshwater species and 1,570 marine species. Most species are ray-finned fish (96.9%), and the rest are cartilaginous fish (3.1%). Perciformes is the largest fish group, making up about 50% of the diversity. Many species are also found in estuaries (Gopi and Mishra, 2015; Vijayagopal and Peter, 2018; Jain, 2017).

The fisheries sector plays an important role in the Indian economy and its contribution to the GDP is about 1.1% (HOFs, 2023). Global production of aquatic animals was estimated at 185.4 million tonnes in 2022. In which capture fisheries contributed 91 million tonnes (49%) and aquaculture 94.4 million tonnes (50.8%). Of the total production, 115 million tonnes (62%) was harvested in marine waters (69.3% from capture fisheries and 30.86% from aquaculture) and 70.4 million tonnes (38%) in inland waters (83.9% from aquaculture and 16.05% from capture fisheries) (SOFIA, 2024).

India's mainland coastline witnessed a substantial increase in marine fish landings, reaching 3.53 million tonnes in 2023. This marks a 1.2% rise compared to the pandemic-affected year of 2022. Moreover, there was a notable 15.75% surge in marine fish landings compared to 2021. (CMFRI, 2024). Gujarat reclaimed its top position in fish landings in 2023, capturing a 23.31% share with a total of 8.23 lakh tonnes. Kerala and Karnataka followed closely with landings of 6.33 lakh tonnes and 6.04 lakh tonnes, respectively (CMFRI, 2024).

Gujarat, situated in the far west of India, is one of the country's leading maritime states and ranks second in marine capture fish production among all maritime states (Dar et al., 2012). Gujarat possesses approximately 20% of India's

coastline, which spans 1600 kilometers, along with a significant 33% of the continental shelf area, covering 1,64,000 square kilometers, and an extensive Exclusive Economic Zone (EEZ) spanning over 2,00,000 square kilometers (CMFRI, 2011).

In 2023, the marine fish production in Gujarat was assessed to be around 8.23 lakh tonnes, indicating a substantial 23.31% increase when compared to 2022. Specifically, pelagic fishes contributed 3.62 lakh tonnes to the total marine fish landings in Gujarat in 2023, accounting for 44% of the overall catch. Gir Somnath district, centered around the Veraval fishing harbor, was the leading contributor to the state's total fish catch, accounting for a significant 51% (4.18 lakh tonnes). Junagadh and Porbandar followed with 16% and 14% respectively. (CMFRI, 2024).

Chorwad village is situated in the Maliya (Hatina) taluka of Junagadh district, Gujarat, India. A coastal location with geographic coordinates of 20.9998°N latitude and 70.2295°E longitude. The village harbour has approximately 366 OBM boats and fishing serves as the primary livelihood for the majority of its inhabitants. Gillnets are the main fishing gear employed by Chorwad's fishermen, who engage in both single-day and

multi-day fishing expeditions lasting two to three days.

## 2. MATERIALS AND METHODS

The research was conducted along the Chorwad coast, located in the Junagadh district of Gujarat (Fig. 1). Chorwad is a census town in Junagadh district in the Indian state of Gujarat, with geographic coordinates at latitude 20.9998° N and longitude 70.2295° E. Additionally, it is one of the active fishing villages in the Junagadh district. Fishes were collected from the landing center from commercial fishing boats. The samples were collected from November 2023 to October 2024.

Fish samples were collected monthly from Chorwad fish landing center. Boats on one-day fishing trips near Chorwad were surveyed for finfish diversity. All samples were transported to the College of Fisheries Science, Kamdhenu University, Veraval, Gujarat, where they were photographed and identified using standard identification guides (Froese and Pauly, 2022). The identified samples were preserved in glass jars with a 10% formalin solution and stored at department of fisheries resource management, college of fisheries science, Kamdhenu university, Veraval, Gujarat.

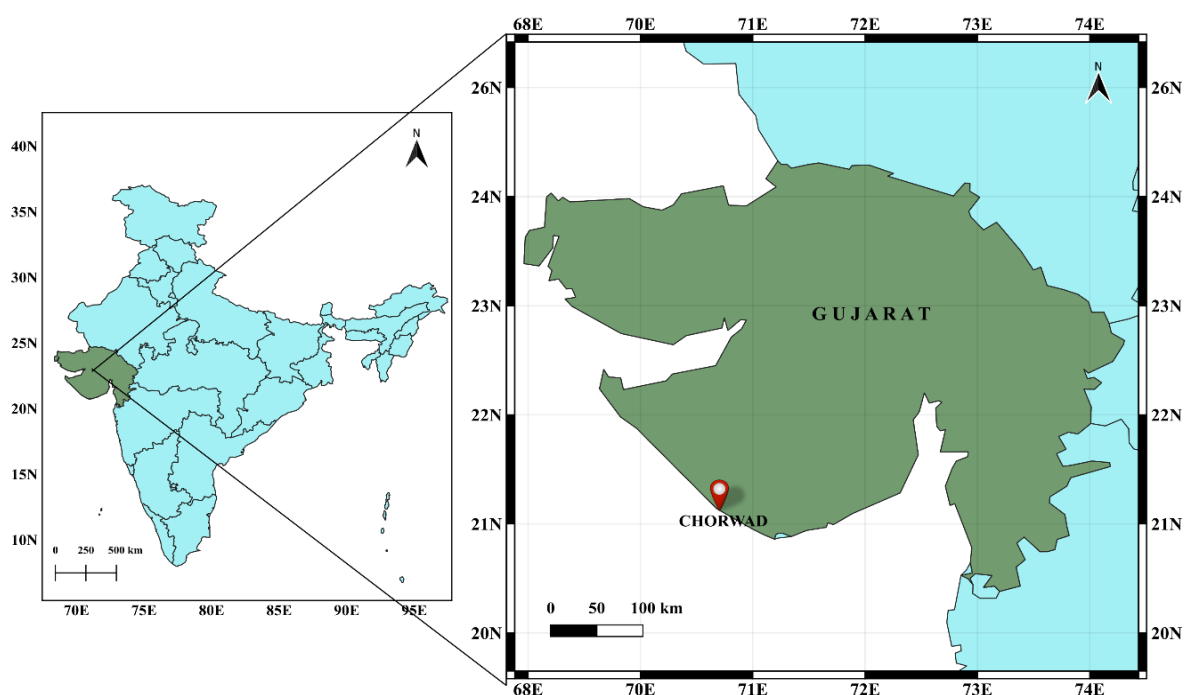


Fig. 1. Map showing the study area (red mark) Chorwad coast, Gujarat

### 3. RESULTS AND DISCUSSION

#### 3.1 Species Diversity

In the present study during the month duration of November 2023 to October 2024, a total of 60 fish species were identified and coming under 51 genera, 35 families and belongs to 15 orders from the Chorwad coast, Gujarat (Fig. 1) (Table 1). In the present observation, a complete detailed analysis of finfish diversity along the Chorwad coast were done with proper taxonomic identification, a photograph of a specimen, depth of distribution, IUCN status, monthly availability, month & season wise abundance and biodiversity assessment were done.

#### 3.2 Order Wise Species Diversity

In the present study, the order wise fish species were observed. In that the majority of families belong to the Carangiformes order dominated (18%) followed by Clupeiformes (15%), Eupercaria (11%), Pleuronectiformes and Scombriformes (10%), Siluriformes (7%), Carangaria (5%), Beloniformes (5%) Perciformes (5%), Tetradontiformes and Centrarchiformes (3%), Mulliformes, Anguilliformes, Carcharhiniformes and Mugiliformes (2%).

#### 3.3 Family Wise Species Diversity

In our study, the family and species wise composition were observed during the 10 months

of the study period. Total 35 families were reported from the Chorwad coast, in which Carangidae (15%) is a dominant family with 9 species followed by Dorosomatidae (8.33%, 5 Species) and Sciaenidae, Ariidae, Scombridae, Soleidae and Engraulidae (5%, 3 Species), and Polynemidae, Trichuridae and Teraponidae (3.33%, 2 Species).

#### 3.4 IUCN Red List Category

In the present study, among the 60 species, 42 species were Least Concern (LC), 10 species were Not Evaluated (NE), 5 species were Data Deficient (DD), 1 species *Acanthopagrus latus* were Near Threatened and 2 species *Rastrelliger faughni* and *Tenualosa toil* were included in Vulnerable (VV) (Fig. 4). Details of the IUCN status was compiled from IUCN (2022).

#### 3.5 Seasonal Availability for Species Diversity

In the present study, seasonal variation was found in finfish diversity from the Chorwad coast, Gujarat. There were most of the species observed in Winter seasons and no data collected in June and July due to fishing ban. Winter season was observed in the case of high yielding among all seasons contributing 61% of species diversity. Post-monsoon was observed a good number of species were present at 23% and in summer season, 16% of species were observed.

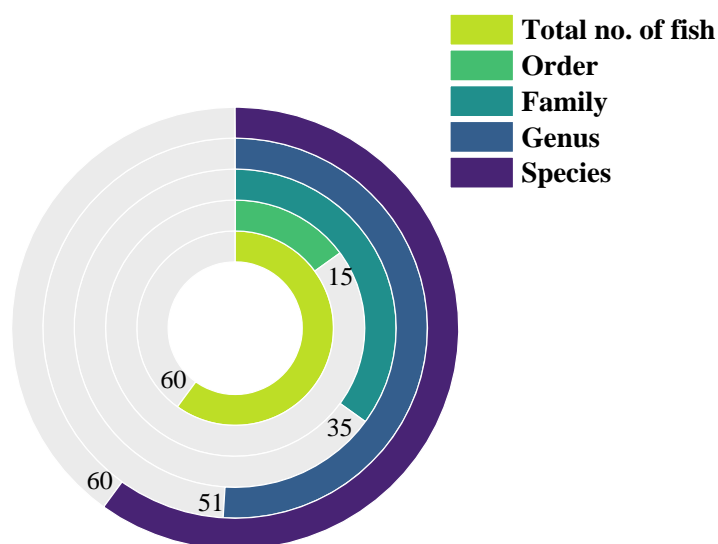


Fig. 2. Taxonomic status of species diversity

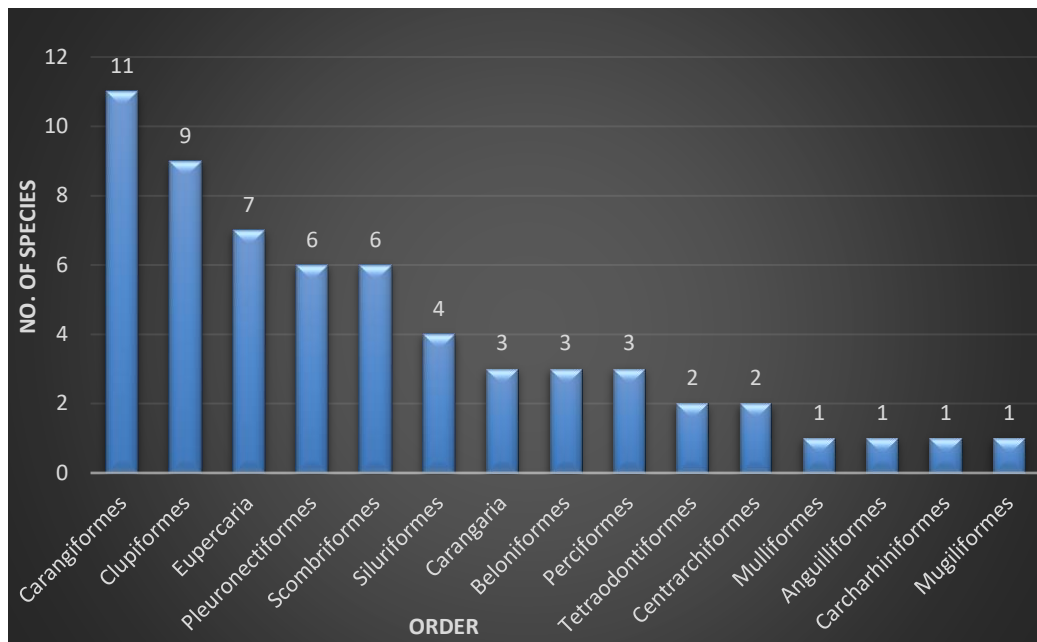


Fig. 3. Total number of species recorded under different orders

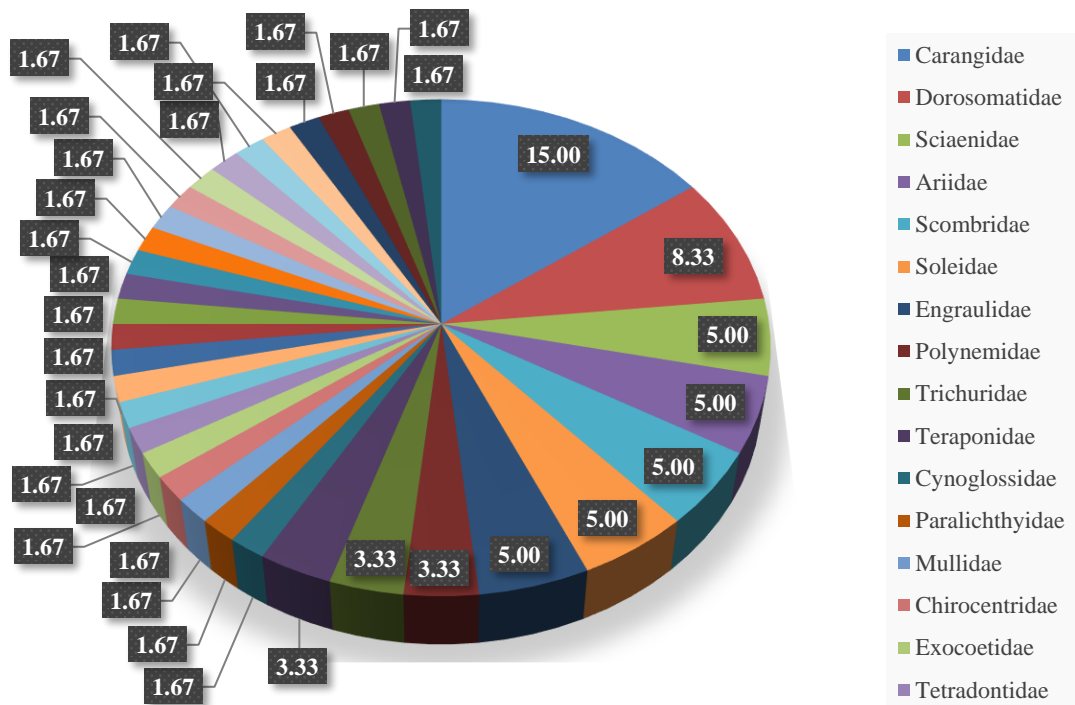


Fig. 4. Total number of species recorded during the different seasons

The finfish diversity along the Chorwad coast, Gujarat, is extensive, encompassing a variety of species across multiple families, depths, and conservation statuses. The Carangidae family is well-represented, including species like *Alepes djedaba*, *Caranx hippos*, and *Parastromateus*

*niger* found at depths ranging from 2 to 350 meters. Several species, such as *Scomberoides tol* and *Megalaspis cordyla* are classified as Least Concern (LC), while others like *Decapterus russelli* remain Data Deficient (DD). The Dorosomatidae family includes commercially

valuable fish like *Tenualosa ilisha*, while the Sciaenidae family features croakers like *Otolithoides biauritus*, which are crucial to the local fisheries. The Scombridae family, known for fast-swimming species like *Rastrelliger kanagurta* and *Scomberomorus commerson* plays a vital role in the marine ecosystem. The presence of *Rastrelliger faughni*, classified as Vulnerable (VU), highlights conservation concerns. Other notable species include the *Pampus argenteus* (Silver pomfret) from Stromateidae and *Coryphaena hippurus* (Common dolphinfish) from Coryphaenidae. The depth distribution of these species varies significantly, with some like *Sillago sihama* found as shallow as 2 meters, while others like *Muraenesox cinereus* are recorded at depths reaching 800 meters.

The Chorwad coast of Gujarat hosts a remarkable diversity of finfish species, as evident from the monthly availability records spanning November 2023 to October 2024. The data reveals a rich ichthyofaunal composition, with several species such as *Alepes kleinii*, *Carangoides equula*, *Decapterus russelli*, *Megalaspis cordyla*, and *Sardinella albella* consistently present throughout the year. This indicates their strong adaptability and abundance in the region. Meanwhile, species like *Ablennes hians* and *Plotosus canius* exhibit seasonal occurrences, appearing predominantly from March to August. The checklist also highlights commercially significant species like *Rastrelliger kanagurta*, *Scomberomorus commerson*, *Tenualosa ilisha*, and *Pampus argenteus*, which are crucial for the local fisheries.

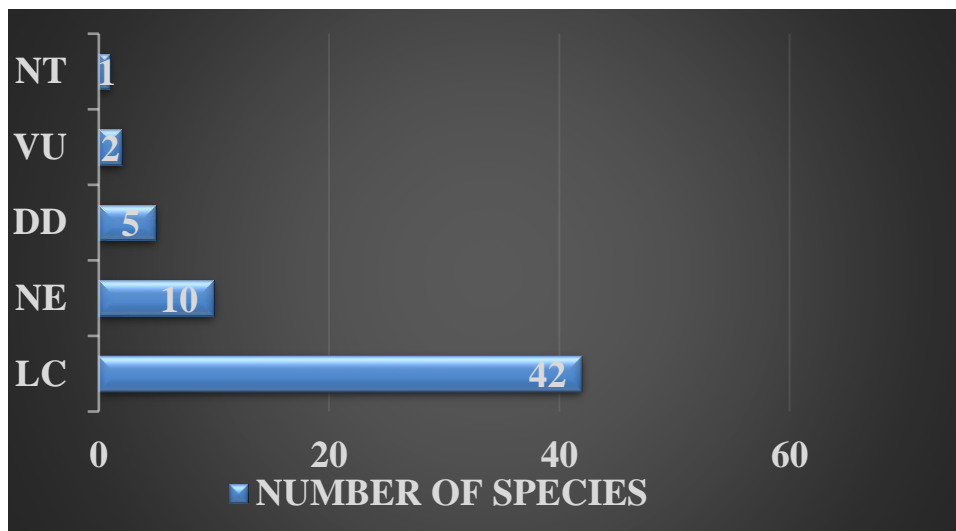


Fig. 5. IUCN Red List category of species diversity

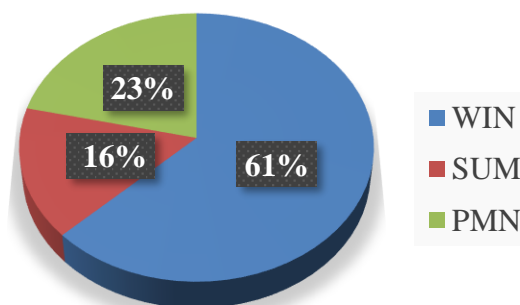


Fig. 6. Total number of species recorded during the different season

**Table 1. Checklist of “Finfish diversity along the Chorwad coast, Gujarat” including Scientific name, Common name, Depth and IUCN status**

<b>Sr. No.</b>	<b>Family</b>	<b>Scientific name</b>	<b>Common name</b>	<b>Depth (meter)</b>	<b>IUCN status</b>
1.	Carangidae	<i>Alepes djedaba</i> (Fabricius, 1775)	Shrimp scad	20-100	DD
2.		<i>Alepes kleinii</i> (Bloch, 1793)	Razorbelly scad	5-100	LC
3.		<i>Caranx hippos</i> (Linnaeus, 1766)	Crevalle jack	1-350	NE
4.		<i>Carangoides equula</i> (Temminck & Schlegel, 1844)	Whitefin trevally	64-226	LC
5.		<i>Decapterus russelli</i> (Rüppell, 1830)	Whitefin trevally	40-275	DD
6.		<i>Megalaspis cordyla</i> (Linnaeus, 1758)	Torpedo scad	20-100	LC
7.		<i>Selar crumenophthalmus</i> (Bloch, 1793)	Bigeye scad	2-10	LC
8.		<i>Scomberoides tol</i> (Cuvier, 1832)	Needlescaled queenfish	20-50	LC
9.		<i>Parastromateus niger</i> (Bloch, 1795)	Black pomfret	15-105	LC
10.	Dorosomatidae	<i>Anodontostoma chacunda</i> (Hamilton, 1822)	Chacunda gizzard shad	0-50	LC
11.		<i>Sardinella albella</i> (Valenciennes, 1847)	White sardinella	0-50	LC
12.		<i>Sardinella gibbosa</i> (Bleeker, 1849)	Goldstripe sardinella	10-70	LC
13.		<i>Tenualosa ilisha</i> (Hamilton, 1822)	Hilsa shad	0-200	LC
14.	Sciaenidae	<i>Tenualosa toli</i> (Valenciennes, 1847)	Toli shad	10-30	VU
15.		<i>Otolithoides biauritus</i> (Cantor, 1849)	Bronze croaker	20-80	DD
16.		<i>Johnius dussumieri</i> (Cuvier, 1830)	Sin croaker	5-50	LC
17.		<i>Johnius borneensis</i> (Bleeker, 1851)	Sharpnose hammer croaker	0-132	LC
18.	Ariidae	<i>Arius arius</i> (Hamilton, 1822)	Threadfin sea catfish	50-150	LC
19.		<i>Arius maculatus</i> (Thunberg, 1792)	Spotted catfish	50-100	NE
20.		<i>Plicofollis layardi</i> (Günther, 1866)	Thinspine sea catfish	20-50	NE
21.	Scombridae	<i>Rastrelliger kanagurta</i> (Cuvier, 1816)	Indian mackerel	20-90	NE
22.		<i>Rastrelliger faughni</i> (Matsui, 1967)	Island mackerel	2-150	VU
23.		<i>Scomberomorus commerson</i> (Lacepède, 1800)	Narrow-barred Spanish mackerel	10-70	LC
24.	Engraulidae	<i>Coilia dussumieri</i> (Valenciennes, 1848)	Goldspotted grenadier anchovy	0-50	LC
25.		<i>Thryssa hamiltonii</i> (Gray, 1835)	Hamilton's thryssa	10-13	LC
26.		<i>Thryssa setirostris</i> (Broussonet, 1782)	Longjaw thryssa	1-20	LC
27.	Soleidae	<i>Synaptura albomaculata</i> (Kaup, 1858)	Kaup's sole	100-150	LC
28.		<i>Zebrias synapturoides</i> (Jenkins, 1910)	Indian zebra sole	43-125	LC
29.		<i>Solea ovata</i> (Richardson, 1846)	Ovate Sole	18-1570	LC
30.	Polynemidae	<i>Eleutheronema tetradactylum</i> (Shaw, 1804)	Fourfinger threadfin	0-23	LC
31.		<i>Filimanus heptadactyla</i> (Cuvier, 1829)	Sevenfinger threadfin	10-70	NE

Sr. No.	Family	Scientific name	Common name	Depth (meter)	IUCN status
32.	Trichiuridae	<i>Lepturacanthus savala</i> (Cuvier, 1829)	Savalai hairtail	0-100	NE
33.		<i>Trichiurus lepturus</i> (Linnaeus, 1758)	Largehead hairtail	0-589	LC
34.	Terapontidae	<i>Terapon jarbua</i> (Fabricius, 1775)	Jarbua terapon	20-350	LC
35.		<i>Terapon puta</i> (Cuvier, 1829)	Small-scaled terapon	0-30	NE
36.	Cynoglossidae	<i>Cynoglossus arel</i> (Bloch & Schneider, 1801)	Largescale tonguesole	9-125	DD
37.	Paralichthyidae	<i>Pseudorhombus cinnamomeus</i> (Temminck & Schlegel, 1846)	Cinnamon flounder	20-164	LC
38.	Mullidae	<i>Upeneus moluccensis</i> (Forsskal, 1775)	Goldband goatfish	5-100	LC
39.	Chirocentridae	<i>Chirocentrus dorab</i> (Fabricius, 1775)	Dorab wolf-herring	0-120	LC
40.	Exocoetidae	<i>Cheilopogon cyanopterus</i> (Valenciennes, 1847)	Margined flyingfish	0-20	LC
41.	Tetraodontidae	<i>Lagocephalus lunaris</i> (Bloch & Schneider, 1801)	Lunartail puffer	20-300	LC
42.	Lactariidae	<i>Lactarius lactarius</i> (Bloch & Schneider, 1801)	False trevally	15-100	LC
43.	Serranidae	<i>Epinephelus diacanthus</i> (Valenciennes, 1828)	Spinycheek grouper	40 -130	LC
44.	Platycephalidae	<i>Platycephalus indicus</i> (Linnaeus, 1758)	Bartail flathead	20-200	LC
45.	Priacanthidae	<i>Priacanthus hamrur</i> (Fabricius, 1775)	Moontail bullseye	0-250	LC
46.	Sparidae	<i>Acanthopagrus latus</i> (Houttuyn, 1782)	Yellowfin seabream	80-450	NT
47.	Carcharhinidae	<i>Scoliodon laticaudus</i> (Müller & Henle, 1838)	Spadenose shark	10-13	LC
48.	Epinephelidae	<i>Epinephelus coioides</i> (Hamilton, 1822)	Orange-spotted grouper	1-100	NE
49.	Stromateidae	<i>Pampus argenteus</i> (Euphrasen, 1788)	Silver pomfret	5-110	NE
50.	Nemipteridae	<i>Nemipterus japonicus</i> (Bloch, 1791)	Japanese threadfin bream	5-80	LC
51.	Mugilidae	<i>Osteomugil engeli</i> (Bleeker, 1858)	Kanda	0-3	LC
52.	Balistidae	<i>Odonus niger</i> (Rüppell, 1836)	Red-toothed triggerfish	5-110	LC
53.	Psettodidae	<i>Psettodes erumei</i> (Bennett, 1831)	Spottail spiny turbot	20-50	DD
54.	Sillaginidae	<i>Sillago sihama</i> (Fabricius, 1775)	Silver sillago	0-2	LC
55.	Plotosidae	<i>Plotosus canius</i> (Hamilton, 1822)	Gray eel-catfish	30-50	NE
56.	Belonidae	<i>Ablennes hians</i> (Valenciennes, 1846)	Flat needlefish	0-3	LC
57.	Coryphaenidae	<i>Coryphaena hippurus</i> (Linnaeus, 1758)	Common dolphinfish	0-85	LC
58.	Muraenesocidae	<i>Muraenesox cinereus</i> (Forsskal, 1775)	Daggertooth pike conger	100-800	LC
59.	Hemiramphidae	<i>Hyporhamphus limbatus</i> (Valenciennes, 1847)	Congaturi halfbeak	0-30	LC
60.	Echeneidae	<i>Echeneis naucrates</i> (Linnaeus, 1758)	Live sharksucker	1-85	LC

NE- Not Evaluated, LC- Least Concern, NT- Near Threatened, VU, - Vulnerable, DD- Data Deficient, EN- Endangered

**Table 2. Monthly availability of “Finfish diversity along the Chorwad coast, Gujarat” during the November-2023 to October-2024**

Sr. No.	Species names	Nov	Dec	Jan	Feb	Mar	Apr	May	Aug	Sep	Oct
1.	<i>Alepes djedaba</i> (Fabricius, 1775)	+	+	+	+	+	+	-	-	-	+
2.	<i>Alepes kleinii</i> (Bloch, 1793)	+	+	+	+	+	+	+	+	+	+
3.	<i>Caranx hippos</i> (Linnaeus, 1766)	+	+	+	+	+	+	-	-	+	+
4.	<i>Carangoides equula</i> (Temminck & Schlegel, 1844)	+	+	+	+	+	+	+	+	+	+
5.	<i>Decapterus russelli</i> (Rüppell, 1830)	+	+	+	+	+	+	+	+	+	+
6.	<i>Megalaspis cordyla</i> (Linnaeus, 1758)	+	+	+	+	+	+	+	+	+	+
7.	<i>Selar crumenophthalmus</i> (Bloch, 1793)	+	+	+	+	+	-	-	-	+	+
8.	<i>Scomberoides tol</i> (Cuvier, 1832)	+	+	+	+	+	+	+	+	+	+
9.	<i>Parastromateus niger</i> (Bloch, 1795)	+	+	+	+	+	+	-	-	+	+
10.	<i>Anodontostoma chacunda</i> (Hamilton, 1822)	-	-	+	+	-	-	-	-	+	+
11.	<i>Sardinella albella</i> (Valenciennes, 1847)	+	+	+	+	+	+	+	+	+	+
12.	<i>Sardinella gibbosa</i> (Bleeker, 1849)	+	+	+	+	+	+	+	+	+	+
13.	<i>Tenualosa ilisha</i> (Hamilton, 1822)	+	+	+	+	+	+	+	+	+	+
14.	<i>Tenualosa toli</i> (Valenciennes, 1847)	+	+	+	+	+	+	+	+	+	+
15.	<i>Otolithoides biauritus</i> (Cantor, 1849)	+	+	+	+	+	+	+	+	+	+
16.	<i>Johnius dussumieri</i> (Cuvier, 1830)	+	+	+	+	+	+	+	+	+	+
17.	<i>Johnius borneensis</i> (Bleeker, 1851)	+	+	-	-	+	-	-	-	-	-
18.	<i>Arius arius</i> (Hamilton, 1822)	+	+	+	+	+	+	-	-	-	+
19.	<i>Arius maculatus</i> (Thunberg, 1792)	+	+	+	+	-	-	-	-	-	-
20.	<i>Plicofollis layardi</i> (Günther, 1866)	+	+	+	+	-	-	-	-	-	-
21.	<i>Rastrelliger kanagurta</i> (Cuvier, 1816)	+	+	+	+	+	+	+	+	+	+
22.	<i>Rastrelliger faughni</i> (Matsui, 1967)	+	+	+	+	+	+	+	+	+	+
23.	<i>Scomberomorus commerson</i> (Lacepède, 1800)	+	+	+	+	+	+	+	+	+	+
24.	<i>Coilia dussumieri</i> (Valenciennes, 1848)	+	+	+	+	+	+	-	+	+	+
25.	<i>Thryssa hamiltonii</i> (Gray, 1835)	+	+	+	+	+	+	-	+	+	+
26.	<i>Thryssa setirostris</i> (Broussonet, 1782)	+	+	+	+	+	+	-	-	+	+
27.	<i>Eleutheronema tetradactylum</i> (Shaw, 1804)	+	+	+	+	+	+	-	-	+	+
28.	<i>Filimanus heptadactyla</i> (Cuvier, 1829)	+	+	+	+	+	+	+	+	+	+
29.	<i>Synaptura albomaculata</i> (Kaup, 1858)	+	+	+	+	+	+	+	+	+	+
30.	<i>Zebrias synapturoides</i> (Jenkins, 1910)	+	+	+	+	+	+	-	-	+	+
31.	<i>Solea ovata</i> (Richardson, 1846)	+	+	+	+	+	+	-	-	-	+
32.	<i>Lepturacanthus savala</i> (Cuvier, 1829)	+	+	+	+	+	+	+	+	+	+

Sr. No.	Species names	Nov	Dec	Jan	Feb	Mar	Apr	May	Aug	Sep	Oct
33.	<i>Trichiurus lepturus</i> (Linnaeus, 1758)	+	+	+	+	+	+	+	+	+	+
34.	<i>Terapon jarbua</i> (Fabricius, 1775)	+	+	+	+	+	+	-	+	+	+
35.	<i>Terapon puta</i> (Cuvier, 1829)	+	+	+	+	+	+	-	-	-	+
36.	<i>Cynoglossus arel</i> (Bloch & Schneider, 1801)	+	+	+	+	+	+	-	-	+	+
37.	<i>Pseudorhombus cinnamomeus</i> (Temminck & Schlegel, 1846)	+	+	+	+	+	+	-	-	-	+
38.	<i>Upeneus moluccensis</i> (Forsskal, 1775)	+	+	+	+	+	+	-	+	+	+
39.	<i>Chirocentrus dorab</i> (Fabricius, 1775)	+	+	+	+	+	+	+	+	+	+
40.	<i>Cheilopogon cyanopterus</i> (Valenciennes, 1847)	+	+	+	+	+	+	-	-	+	+
41.	<i>Lagocephalus lunaris</i> (Bloch & Schneider, 1801)	+	+	+	+	-	-	-	-	-	-
42.	<i>Lactarius lactarius</i> (Bloch & Schneider, 1801)	+	+	+	+	+	+	+	+	+	+
43.	<i>Epinephelus diacanthus</i> (Valenciennes, 1828)	+	+	+	+	+	+	-	-	+	+
44.	<i>Platycephalus indicus</i> (Linnaeus, 1758)	+	+	+	+	-	-	-	-	-	-
45.	<i>Priacanthus hamrur</i> (Fabricius, 1775)	+	+	+	+	+	+	-	-	+	+
46.	<i>Acanthopagrus latus</i> (Houttuyn, 1782)	+	+	+	+	+	-	-	-	-	+
47.	<i>Scoliodon laticaudus</i> (Müller & Henle, 1838)	+	+	+	+	+	+	-	-	+	+
48.	<i>Epinephelus coioides</i> (Hamilton, 1822)	+	+	+	+	-	-	-	-	-	-
49.	<i>Pampus argenteus</i> (Euphrasen, 1788)	+	+	+	+	+	-	-	-	-	+
50.	<i>Nemipterus japonicus</i> (Bloch, 1791)	+	+	+	+	+	-	-	+	+	+
51.	<i>Osteomugil engeli</i> (Bleeker, 1858)	+	+	+	+	+	-	-	-	-	-
52.	<i>Odonus niger</i> (Rüppell, 1836)	+	+	+	+	-	-	-	-	-	+
53.	<i>Psettodes erumei</i> (Bennett, 1831)	-	-	-	-	+	+	+	+	-	-
54.	<i>Sillago sihama</i> (Fabricius, 1775)	+	+	-	-	+	+	+	+	-	-
55.	<i>Plotosus canius</i> (Hamilton, 1822)	-	-	-	-	+	+	+	-	-	-
56.	<i>Ablennes hians</i> (Valenciennes, 1846)	-	-	-	-	+	+	+	+	+	+
57.	<i>Coryphaena hippurus</i> (Linnaeus, 1758)	+	+	+	+	+	+	+	+	+	+
58.	<i>Muraenesox cinereus</i> (Forsskal, 1775)	+	+	+	+	+	+	+	+	+	+
59.	<i>Hyporhamphus limbatus</i> (Valenciennes, 1847)	+	+	+	+	+	+	+	+	+	+
60.	<i>Echeneis naucrates</i> (Linnaeus, 1758)	+	-	+	-	-	-	-	-	-	-

The absence of certain species during specific months, such as *Psettodes erumei* emerging only between March and August, suggests migratory patterns or seasonal preferences influenced by environmental factors. Predatory species like *Coryphaena hippurus* and *Muraenesox cinereus* show year-round presence, indicating their ecological dominance. This comprehensive record of finfish diversity provides valuable insights for fisheries management, conservation efforts, and sustainable exploitation of marine resources along the Chorwad coast.

#### 4. CONCLUSION

This study provides a detailed assessment of finfish diversity along the Chorwad coast, Gujarat, based on data collected from November 2023 to October 2024. A total of 60 finfish species were recorded, belonging to 15 orders, 35 families, and 51 genera. Carangiformes was the most dominant order (18%), followed by Clupeiformes (15%) and Eupercaria (11%). The family Carangidae exhibited the highest species diversity (15%), followed by Sciaenidae, Ariidae, Scombridae, Engraulidae and Soleidae (5% each). Seasonal and monthly variations in fish abundance were observed, with winter (61%) showing the highest species availability, followed by post-monsoon and summer. Peak monthly abundance occurred in November, December, January, and February, indicating that these months may be ideal for sustainable fish harvesting. An IUCN Red List assessment revealed that 42 species were categorized as Least Concern (LC), while 10 were Not Evaluated (NE), 5 were Data Deficient (DD), 1 was Near Threatened (NT), and 2 were Vulnerable (VU). These findings highlight the need for conservation measures to protect at-risk species. This study provides essential baseline data for fisheries management and conservation efforts. Future research should focus on environmental impacts, climate change, and human activities affecting fish diversity to ensure sustainable marine resource management.

#### DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

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#### COMPETING INTERESTS

Authors have declared that no competing interests exist.

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