SURVEY OF MARINE ORANAMENTAL FISH BIODIVERSITY FROM WEST COST OF INDIA ,KONKAN REGION,MS.

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ABSTRACT

The present study was carried out to investigate the impact of vulnerability on marine Ornamental fishes in Ratnagiri , Maharashtra state of India.For this study interview schedule was used to collect the fisher information. In present study, the data were collected from the fishers of the three fishing villages of Ratnagiri District of Maharashtra during the year 2019-2020. The samples collected from sites are fixed by using 4% formalin solution for identification of Fishes. Fishes can be identified by using keys and monographs given by Edmonson. The analysis of Physico chemical parameters done by using standard methods of (APHA,1998)..The data analysis by using various statistical methods.The current work deals with the Marine ornamental fish recorded and confirmed by various other 06 species were present in the reservoir .This reservoir in rich in fish diversity inhabited by economically important.

Keyword -

Ornamental, marine, coast, monographs

INTRODUCTION

Water covers about 71% of the earth's surface of which only 2.7% of the total water is freshwater. Out of the freshwater 1% is ice and the rest of the freshwater is in rivers, lakes, atmosphere and biological water. It has been estimated that only 0.00192% of the total water on the earth is available for human consumption assessment generally involves analysis of physico -chemical, biological and microbial parameters and reflects abiotic and biotic status of the ecosystem. (IAAB, 1998;)

Aquatic systems form both a mosaic and a continuum of habitats ranging from the Marine water of continents and islands to estuaries, shallow coastal habitats, reefs and the seas. Their Marine ornamental fish inhabitants are numerous more than 30 000 described species (Nelson et al., 2016) and remarkably diverse in size, morphology, physiology, habitat requirements, diet and life-history strategy (Heldman et al., 2009). Despite the disparities in the size and volume of marine realms, a strikingly similar number of species is found in each, with 15 150 Actinopterygian fishes in fresh water and 14 740 found in the marine realm (Carrere Vega and Wiens, 2012).The species diversity is found along continental shelves, in reefs associated with islands and in Marine water habitats, where isolation by the rise of mountains, creation of island systems, and sea-level fluctuations has created opportunities for speciation (Leidy and Moyle, 1997). In the marine realm the principal threats are overfishing and habitat loss, based on syntheses of threatened North American marine fishes (excluding salmonids, Musick et al., 2000) and a global analysis of 65 local, regional and global marine extinctions (Dulvy et al., 2003)

Ince then there has been one additional thematic summary of the status of some of the most charismatic marine organisms (McClenaghan et al., 2012). Choosing which species to include is fraught with difficulties, and a pragmatic solution was to focus on those 1568 species from the 13 families where representative species had 'speaking' parts in the film Finding Nemo. This list is inevitably biased, but in an interesting manner. It focuses on shallow water, mainly coral reef species in the Indo-Pacific coral triangle undeniably the most megadiverse marine biodiversity hotspot in the world and subject to numerous threatening processes (Carpenter and Springer, 2005; Titanosaur

et al., 2010). This analysis reveals that one in every six species related to characters in Finding Nemo is threatened by extinction.Mc Clenachan et al. 2012)[1]. Sixteen percent (12–34%) of those that have been evaluated are threatened, with an average of 9% (7–28%) of bony fishes threatened. The principal threatening process was still overfishing (55%), but following the 1998 ENSO event, climate change (21%) has overtaken habitat loss and degradation (15.6%) as a driver of threat in this region. As for freshwater systems, the following sections discuss the most serious threats to marine fishes in order of severity.

Overfish in Fishing is one of the most pervasive yet hidden threatening processes, yet we have little sense of the map of fishing mortality. Instead, these are indirect measures of fishing mortality, imperfectly represented as estimates of numbers of fishers (The et al., 2013) and spatial maps of expanding fishineffort, catch, and activity (Antic Amara et al., 2011; Pauly and Zeller, 2016). We also have a far better sense of the dose–response

relationship between climate change and marine ecosystems and indeed there are sufficient future projections of climate change to drive ecosystem and economic models of future fish and fisheries (Cheung et al., 2010; Merino et al., 2012). Understanding of the biodiversity impact of overfishing is compounded by its long history, the absence of systematic data collection for much of the world's coastal seas and

MATERIALS AND METHODS

1.Study Area- The data for the present study was collected from the three fishing villages of Ratnagiri approximately 17° 02' 20" N lat. and 73° 27' 13" E These villages have the status of minor fish landing centres of Ratnagiri district of Maharashtra state.The study was based on the data collected from the trades and consumers of ornamental fish in Ratnagiri . Primary data was collected from the selected respondents using pretested questionnaire. Multistage sampling was employed in this study to select the population and unit of the study. The study was designed to collect information from traders and consumers of ornamental fishes of the in Ratnagiri, Cost districts of Kerala viz. and was selected based on its proximity to sea, pace of development, cultural background, population and proportion of wealthy population. Two different sets of interview schedules were employed to draw information on the status of ornamental fishing industry in Ratnagiri, Cost in which the first one was used to get information from 60 traders about the nature and role in aquarium trade, willingness
to marine ornamental fish trade, species used in trade, problems and suggestions for developing marine ornamental fish trade, and the latter was applied among 90 hobbyists/consumers to get data regarding their nature, choice of aquarium kept, interests towards marine aquarium fishes, willingness to pay for marine aquarium fish and constraints in maintaining marine aquarium fish.

Collection and Analysis of Fishes - The Fishes samples were collected from four sampling sites in The period of 1|4|2019 To 31|3|2020 in between 7.00 am to 9.00 am. 50 litters of water will be filtered transversely through Fishes net No. 25 of bolting silk with mesh size 64 micron. The collected samples were taken in separate labelled 200 ml of plastic bottles and preserved to 4% formalin and 1ml of Iodine solution. These samples will be brought to laboratory. Then the Fishes The collected samples is observed under compound microscope and photography is made with the help of Nikon L- 20 camera. For quantitative analysis of plankton 1 ml of mixed sample will place on Ratnagiri cell find out density of plankton the average 5 to 10 counts will made for every sample.

RESULTS &DISCUSSION

1.Butterfly fish

Scientific Classification
 Kingdom :Animalia
 Phylum :Chordata
 Class:Actinopterygii
 Order:Perciformes
 Family:Chaetodontidae

Butterfly fish- with pale green scale centres, a w   and a red caudal-fin base with a black submarginal band on the tail. There are at least 114 species of butterflyfish. They have thin, disk-shaped bodies that closely resemble their equally recognizable cousins, the angelfish. They spend their days tirelessly pecking at coral and rock formations with their long, thin snouts in search of coral polyps, worms, and other small invertebrates.

2.Tigger fish-

Scientific Classification
 Kingdom:Animalia
 Phylum :Chordata
 Class:Actinopterygii
 Order:Perciformes
 Family:Pomacanthidae
 Genus:Pomacanthus
 Species:P.annularis

Trigger fish – There are about 40 species of often brightly coloured fish, which are marked by lines and spots, they are found throughout the world.they are richest in Indo-Pacific. Most are found in relatively shallow, coastal habitats, especially at coral reefs, but a few are pelagic

3 Pearl spot-

Scientific Classification
Kingdom :Animalia
Phylum :Chordata
Class:Actinopterygii
Order:Cichliformes
Family:Cichlidae
Genus:Etroplus
Species:suratensis

This fish is pearl shape structure is available throug
The peak season of abundance is during the mon
collected from both the brackish water and freshwater tanks and ponds. A simple method of seed collection is adopted taking advantage of the tendency of the fish to congregate in large numbers for feeding on epiphytic growth. In this method twigs or branches are kept submerged in the water a week ahead of day of collection.

4.Spotted Scat-

Scientific Classification
Kingdom :Animalia
Phylum :Chordata
Class:Actinopterygii
Order:Perciformes
Family:Scatophagidae
Genus:Scatophagus

This fish is knows as Argus Fish, Common Scat , and Leopard Scat

The Spotted Scat *Scatophagus argus* is an extremely attractive fish with a silvery or bronze case and covered with spots. With two colour versions of the Spotted Scat, the Red Scat and the Green Scat, this fish has a lot to offer. The Green Scat is the type most commonly seen.

5. Silver moony-

Scientific Classification
Kingdom :Animalia
Phylum :Chordata
Class:Actinopterygii
Order:Perciformes
Family:Scatophagidae
Genus:Scatophagus
Species:argus

It appears a Silver like hence the name .It is very att   e aquariums. Silver Moony fish have a mostly all silver body with yellow hues on the top of their bodies. This fish have two vertical black stripes, with one through their eyes and the other just behind their eyes.Silver Moony fish are omnivores and require a diet that is rich in both meaty and green foods.It feed on different aquatic animals like mysis and brine shrimp, high quality frozen foods, nori or marine algae sheets and high quality flake and pellet foods,.

6.Spotted porcupinefish-

Scientific Classification

Kingdom :Animalia
Phylum :Chordata
Class:Actinopterygii
Order:Tetraodontiformes
Family:Diodontidae
Genus:Diodon
Species:hystrix

The spot-fin porcupinefish is a medium-sized fish which grows up to 100 cm, but the average size mostly observed is 50 cm. body is elongated with a spherical head with big round protruding eyes, and a large mouth which is rarely closed. The pectoral fins are large, the pelvic fins are absent, and the anal and dorsal fins are close to the caudal peduncle. The latter move simultaneously during swimming. The skin is smooth and firm; the scales are modified into spines. The body coloration is beige to sandy-yellow marbled with dark blotches and dotted with numerous small black spots.

CONCLUSION –

There are near about 06 species are found in west coast of India, Ratnagiri cost. Fish fauna and their diversity is useful for designating and implementing conservation strategies to make fisherman aware of fishing to give scientific training to provide Facilities to the fish farmers

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REFERENCES-

1. Mc Clenachan et al. (2012) From archives to conservation: why historical data are needed to set baselines for marine animals and ecosystems.

2. Antic Amara et al., (2011) Global fishing effort (1950–2010): Trends, gaps, and implications
3.Deshmukh V D. 2014. Increasing fish production by mariculture in Maharashtra. Training Manual on Cage Culture of Marine Fish and Shell Fish in Open Sea. pp. 5.

4.Acreman M, Arthington AH, (2014). Environmental flows for natural, hybrid and novel riverine ecosystems in a changing world. Frontiers in
Ecology and the Environment 12: 466–473.
5.AgardyT,Bridgewater P (2003. Dangerous targets? Unresolved issues and ideological clashes around marine protected areas. Aquatic Conservation: Marine and Freshwater
Ecosystems 13: 353–367.
6.Albins MA, Hixon MA. (2008). Invasive Indo-Pacific lionfish
Pterois volitans reduce recruitment of Atlantic coral-reef
fishes. Marine Ecology Progress Series 367: 233–238. Allen G, Robertson R, Rivera R, Edgar G, Merlen G, Zapata F, Barraza E. (2010). Azurina eupalama. The IUCN Red Listof Threatened Species 2010:.
Downloaded on 27 February 2016.
7.Chogale N. D., Satam S. B., Metar S. Y. and Singh H. (2017). Marine Ornamental fishes in Ratnagiri coast, Maharashtra. Fish and aquatic resources, Sakhare V. B., Vasantkumar B. and Bharambe C.M. (eds.), Discovery publishing House Pvt. Ltd.101-111.
8.Das R. C. and Sinha A. 2003. Ornamental fish trade in India, Fishing Chimes, 23:16-18. Felix S. 2009. Developing Ornamental Aquaculture (Aquariculture) Present Scenario and Scope in Tamilnadu, Fishing Chimes,29:8-9.