

Finfish Resources of Karaikal, South East Coast of India

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Abstract: Finfish biodiversity was studied in Karaikkal coast for a period of one year from January to December 2003. A total of 196 species belonging to 18 orders, 87 families and 134 genera were recorded. Of these 196 species, *Stolephorus indicus*, *Thryssa malabarica*, *T. purava*, *Chirocentrus dorab*, *Arius arius*, *Plotosus canius*, *Mugil cephalus*, *Hemiramphus far*, *Platycephalus indicus*, *Epinephelus tauvina*, *E. malabarica*, *Sillago sihama*, *Caranx sem*, *Scomberoides tol*, *Lutjanus fulviflamma*, *Gerres abbreviatus*, *Upeneus sulphureus*, *Drepane punctata*, *Terapon puta*, *Trichiurus lepturus*, *Pampus argenteus*, *P. chinensis*, *Cynoglossus arel*, *Triacanthus biaculeatus* were found to be abundant throughout the study period. *Cypselurus spilopterus* and *Exocoetus volitans* were recorded only during late May to early July and absent in rest of year. From the present study it was found that the Karaikkal coast has rich finfish diversity.

Key words: Finfish % Resources % Karaikkal coast % India

INTRODUCTION

Biodiversity the life sustaining systems of the biosphere has intrinsic value and its components have ecological, social, economic, scientific, educational cultural and aesthetic values. India being the mega diversity country has a vast coastal line 8500kms encompassed with estuaries, backwaters, sandy beaches near shore environments coral reefs, seagrass meadows, algal communities, mangrove forests and many small island has the vast potential of marine biodiversity. Unfortunately human activities depleting these living resources by degrading marine and coastal ecosystems in ways that are harmful and sometimes these damages are irreversible. It is generally agreed that such biodiversity loss the attendant decimation of stocks of living resources, widespread appearance of ecosystems imbalances and the impairment of ecological processes may well undermine the adaptive potential of those systems and their ability to meet future human needs. Though many works are available on finfish biodiversity of various ecosystems of east coast of India [1-8] but there is no works has been carried out in Karaikkal coast. Hence an attempt has been made for the appraisal of finfish biodiversity of Karaikkal coast.

MATERIALS AND METHODS

Samples of finfishes were collected from landing centres and markets of Karaikkal coast (Lat. 10°16'N; Long 79°51'E) during January to December, 2003. The collected fishes were preserved in 10% neutralized formalin. Later the specimens were examined the various morphological characters for identification. Standard manuals were followed for identification of fish species [9-14]. For the sake convenience and easy interpretation the calendar year was divided into four seasons viz. Postmonsoon (January-March), summer (April-June), premonsoon (July-September) and monsoon (October-December).

RESULTS AND DISCUSSION

In the present study, 196 species of finfish were recorded from the Karaikkal coast. Among these, *Stolephorus indicus*, *Thryssa malabarica*, *T. purava*, *Chirocentrus dorab*, *Arius arius*, *Plotosus canius*, *Mugil cephalus*, *Hemiramphus far*, *Platycephalus indicus*, *Epinephelus tauvina*, *E. malabarica*, *Sillago sihama*, *Caranx sem*, *Scomberoides tol*, *Lutjanus fulviflamma*, *Gerres abbreviatus*, *Upeneus sulphureus*, *Drepane punctata*, *Terapon puta*, *Trichiurus lepturus*,

Pampus argenteus, *P. chinensis*, *Cynoglossus arel*, *Triacanthus biaculeatus* were abundant throughout the study period.

The species such as *Epinephelus latifasciatus*, *Carangoides talanperoides*, *Leiognathus dussumieri*, *Lutjanus argentimaculatus*, *L. leneolatus*, *L. malabaricus*, *L. sanguineus*, *Arothron hispidus* and *A. immaculatus* were abundant during postmonsoon season. The species such as *Liza parsia*, *L. tade*, *Apogon aureus*, *Atropus atropus*, *Mene maculata*, *Oreochromis mosambica*, *Etroplus maculatus* and *Sphyaena obtusata* were abundant during monsoon season. Seasonal fishes such as *Cypselurus spilopterus* and *Exocoetus volitans* were abundant in this coast during June-July (premonsoon season) and they are absent in rest of the year. The species like *Raconda russeliana*, *Halieutaea stellata* and *Remora remora* were recorded as a rare species. *Hippocampus kuda* and *Lactorius lactorius* recorded here are under endangered species list. The rest of the species were recorded as a few numbers.

Many works have been carried out in finfishes from the east coast of India. Central Marine Fisheries Research institute [15] of Mandapam recorded 569 species of finfishes from southeast coast of India. Whitehead [16] recorded 68 clupeoid species in Indian waters. Later 32 species of clupeoid fishes recorded from Parangipettai waters [17].

From Pichavaram mangroves, 197 species coming under 68 families and 17 orders were recorded [4]. A total of 548 economically important marine species belonging to 235 genera covering 88 families from both the coasts of India [18] and 50 species were recorded from Visakhapatnam [19]. Sixty two species of flat fishes along Indian coasts was recorded [20]. From Sundarban Mangrove ecosystem, 139 species of finfishes was recorded [21] and 36 species of elasmobranchs (Shark, Skates and Rays) from Parangipettai coast [22]. In Digha coast, West Bengal [23], 256 species of fishes was recorded.

From Chilka Lake [4], recorded 217 species comprising 147 genera, 71 families and 15 orders. From Visakhapatnam Coast, 228 species of finfishes was recorded [5]. In Gulf of Mannar region 450 species of finfishes was recorded [7]. Later 450 species of fishes was recorded [24] from Gulf of Mannar Biosphere Reserve.

From southeast coast of India [25], recorded 37 species of Tetraodont fishes coming under 26 genera of 8 families.

The present investigation was carried out in coastal and marine waters along the Karaikkal coast has recorded only lower number of finfish compared to the earlier studies from other coasts due to trash fishes are left into the sea itself and only commercially valuable and edible fishes are exploited and this may reason for recording low number of species. More over nursery and breeding grounds such as sea grass, mangroves and coral reefs are absent from this coast which would have resulted in the few numbers of finfish species diversity.

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