Present Yield Status, Percentage Composition and Seasonal Abundance of Shark in Two Geographically Important Zones of Bangladesh

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ABSTRACT

A study was carried out during January-December (2014) in two selected shark landing centers; BFDC Fish harbor, Cox's Bazar and Fishery Ghat fish landing center, Chittagong situated at the North-eastern part of the Bay of Bengal. Data were collected through semi-structured interview, case study, frequent visit to the informants found in and between the trade channels. A total of 9 shark species belonging to 3 families (Carcharhinidae, Hemiscylliidae and Sphyrnidae) were recorded. It was found that sharks were exploited mostly at small sizes (45%) in those landing centers. The highest and lowest yield were found in the month of January and July respectively at Chittagong whereas November and July at Cox's Bazar. The highest and lowest landed number was found in November and July respectively at both the landing centers. Dog shark was the most dominant species followed by Hammerhead shark in terms of yield and landed number at Chittagong and Cox's Bazar contributed 55.794 MT (60% 90) and 17.675 MT (19%) among the total yield and 174,877 (83%) and 25,733(12%) landed number respectively. Yield and landed number of other species contribution altogether were only 21% and 5% respectively of total. Total yield was found 6 folds in Cox's Bazar than that of Chittagong. Abundance reveals that the highest catches of shark were found during October to December (42%) and the lowest catches during January to March (16%). Yield of shark was found to be declining than the previous years and a clear deviation of seasonal abundance is also occurring. As there is no gear size limitation or seasonal restriction in the Fish Act, small sized sharks were found to be caught mostly in those landing centers which may also pose a threat to shark species composition in the Bay of Bengal region, Bangladesh, agricultural activities etc. The government should come forward to take necessary steps to manage their problems and to motivate them for creating significant opportunities for their better livelihood structures.-

Sharks are a highly diverse group of fish that evolved over 400 million years ago. These are predominantly marine, oceanic and are widely distributed in the tropical, subtropical and temperate waters of the seas around the world [1]. More than 60% catches were reported from central (tropical) regions, in particular from the Indian Ocean (26%) followed by Western central pacific (14%) and the Eastern Central Atlantic (10%). Total 26 top shark-fishing countries were responsible for 84% of global shark catches [2]. In the Indian Ocean deep sea, there were species of shark-like fishes including 8 orders, 23 families and 46 genera [3]. At least 171 species of elasmobranches, representing 68 genera and 34 families, were recorded from fresh or estuarine waters [4]. In Bay of Bengal there are 11 species of sharks identified [5]. The Bay of Bengal is one of the most heavily fished regions in world's ocean for shark. The major shark hunting grounds of Bangladesh include the coastal waters of Kuakata, Sonar Char, Ruper Char, Fatrar Char, gives some cause of alarm. Moreover, catch of small sized or juvenile sharks has increased with the decrease of large size sharks reminding us that the stock may be undergoing overexploitation [9]. Some shark species were found frequently in a season which is not found now as before some has entered into the IUCN threatened and endangered list which gives concern about the decrease of species composition because of overexploitation or illegal fishing activities.

In this present study, effort had been made to determine the shark species composition and percentage contribution from January, 2014 to December, 2014 in BFDC Fish harbor, Cox's Bazar and Fishery Ghat fish landing center, Chittagong. The main objective of this study was to find out the landing trends and seasonal abundance of shark from the sustainable yield and conservation point of view in the Bay of Bengal region. It is expected that the statistical interpretation would rightly focus on the status of the shark fisheries and contribute towards any national management plan for shark fishery of Bangladesh in the Bay of Bengal region.

Keywords: Shark yield; Bay of Bengal; Percentage contribution;Seasonalabundance;Fishact

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