TRADE IN SHARKS AND SHARK PRODUCTS IN INDIA.

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With shark meat gaining popularity in both domestic and international market, sharks are being increasingly harvested all along the Indian coast. In many regions, growing trade in shark products like fins, liver oil, cartilage and skin has played a significant role in increased shark harvests. Such has been the rush in catching sharks, specially during the last five years, that over-exploitation is now begining to threaten the very survival of the species. Since much of the trade in shark meat and products is unregulated, intensive hunting for sharks is becoming environmentally and economically unsustainable. With hardly alittle known about the biological status of more than 50 species found in the Indian Ocean, vulnerability of the sharks to intensive harvesting can upset the marine ecology. The steady decrease in the size (length) of the sharks over the years is a clear indication that over-exploiation is beginning to leave a telling effect. Shark catches were earlier incidental. Sharks were in fact a by-product of fishing. In the absence of any demand for shark meat, all that the fishermen would do was to extract the fins and throw the maimed sharks back into the sea. But with the advent of sophisticated fishing trawlers and with increasing demand for export of shark products, sharks have emerged as a valuable catch. India is now emerging as a major destination for shark harvests. Trade in shark fins is fast multiplying. Thailand, Malaysia and Singapore are re-exporting unprocessed and processed fins in various forms to the western countries Hongkong, Japan, Europe and the United States have emerged as the major buyer of shark products. This paper will talk about the shark trade aspects in India. All out efforts to be made to ensure sustainable harvests of sharks. In the absence of any elaborate study on sharks this has been a pioneering effort.

REEF FISH COMMUNITY STRUCTURE WITHIN ATOLL LAGOONS IN FRENCH POLYNESIA (TUAMOTU ARCHIPELAGO).

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In order to relate the morphological characteristics of atolls to the functioning of their lagoons, ten atolls of contrasting morphology have been studied in the Tuamotu Archipelago, French Polynesia. Despite a great difference in total fish species richness between lagoons (41 to 224 spp), mainly related to atoll size, a general pattern of fish community structure was observed within lagoons. In all atoll lagoons, the species composition of the fish community was dominated by labrids, acanthurids, pomacentrids and scarids. Their global trophic structure consisted mainly of macrocarnivores (30% in weight), herbivores (30%) and piscivores (20%), whereas zooplanktivores represented only 8% of the fish biomass due to their small individual size. Fish distribution was highly heterogeneous in space, but consistent patterns have been evidenced in all lagoons, related to reef biotopes, wind exposure and depth. Species richness, density and biomass of fish were always the highest near passes and around pinnacles, medium near motu (vegetated parts of the atoll rim) and hoa (reef rim channels), and the lowest near the reef rim (unvegetated temporally immersed parts of the atoll rim). The trophic structure of the fish community differed in this last biotope with higher percentages of piscivores and macrocarnivores, and lower percentages of herbivores and corallivores. Fish distribution was also influenced by wind exposure, as fish assemblages were more diversified and numerous in the windward side of the lagoon (western part) than in the leeward side (eastern part). No difference in trophic structure was associated with difference in wind exposure. In the depth range studied (0-20 m), zooplanktivores and piscivores increased in density and biomass with depth, while the density and biomass of herbivores, corallivores and macrocarnivores were higher in shallow waters. A general model of within-lagoon fish distribution is proposed for the Tuamotu atolls.

Harmelin-Vivien M., Kulbicki Michel, Galzin R., Mou-Tham Gérard. (1997).

Reef fish community structure within atoll lagoons in French Polynesia (Tuamotu archipelago).

In : 5th Indo-Pacific fish conference : abstracts. Nouméa : ORSTOM, 41 multigr.. Indo-Pacific Fish Conference, 5., Nouméa (NCL), 1997/11/03-08.