

Solicitation of shark organs

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Abstract

Shark meat increasing popularity in both domestic and international market, sharks are being increasingly captured in marine coast, in many region of India, increasing trade in shark products like fins, liver oil, cartilage and skin has played major role in increased shark harvests. Humans used shark as a food or other uses. Sharks are exploited for their meat, fins, skin, teeth, cartilage, liver and other internal organs.

Key words:Sharks, Utilization, India, Shark based products

Introduction:

With compare to bony fish, Shark differs in a variety of ways. Sharks have a range of adaptations that make them perfectly suited to their environment. Shark skeletons are made of cartilage. The flexibility of cartilage also make them one of the most agile animals in the ocean. Shark skin is covered with millions of tiny teeth called dermal denticles. Shark teeth are strong and appear in huge numbers in the fossil record. Fins provide balance and stability in the water. As water passes over the gills, oxygen is absorbed into tiny blood vessels and transported around the body. Among two type of muscles, Red muscle works by breaking down the fat in the shark's body. White muscle works by using energy from the breakdown of glycogen. Apart from these utilisation of organ for their own survival, sharks provide a multitude of usable products including: meat, fins, liver, skin, cartilage and jaws and teeth.

Global demand for sharks and rays derived products (Johri *et al.*, 2019). Each year millions of sharks are harvested and have their fins removed and their carcasses discarded overboard (Fowler and Musick, 2002). Such discarded waste is contrary to the United Nations Food and Agricultural Organization (FAO) Code of Conduct for Responsible Fisheries. In addition, the FAO International Plan of Action for the Conservation and Management of Sharks (IPOA- Sharks) encourages full use of dead sharks. The goal of this article is to provide information necessary to lead to sustainable elasmobranch fisheries.

Meat

Since over 5000 years, shark meat has been used as food in coastal regions (Vannuccini, 1999). Most historical use of shark meat was local because the meat does not keep well without refrigeration. Small sharks are preferred for meat in many markets because they usually have lower concentrations of urea. Shark fillets also may be salted and diced or smoked. Nakano (1999) reported that meat from blue sharks (*Prionace glauca*) which is not used directly but processed as surimi.

Fins

The fine collagenous fibers called “needles”, which support the fin margin, are used to make delectable soup. In the Chinese culture, shark fins are used to make a traditional shark fin soup. First dorsal, pectorals and lower lobe of the caudal fin are the most valuable and these are usually sold as a set from each shark.

Skin

Vannuccini (1999) reported that in many countries like Maldives, Japan, Taiwan and the Solomon Islands Shark skin is consumed as food. Shark leather also be used to make a variety of products including furniture, wallets, belts, shoes and handbags.

Certilage

Shark cartilage has been dried, powdered and delivered in pills or capsules. Shark cartilage is used as food. Shark cartilage extracts have multiple mechanisms of antiangiogenesis action and to be effective in treating cancers.

Liver

In China and the Solomon Islands shark liver has been eaten as food. Due to richness of various hydrocarbons and oils extracted from shark livers have been used in textile industries, farming, cosmetics, as lamp fuel

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