Neem leaves (*Azadirachtaindica*) used in dried shark

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Abstract:

Dried neem leaves (*Azadirachtaindica*) used in dried shark preservation for long time and also reduce fishy smell during transportation of dried shark products. Some fisherman from Veraval (Geer Somnath), Gujarat used this traditional technique for preservation of dried shark.

Key words: Dried fish, storage, neem leaves, preservation.

Introduction:

Dried fish is relished as food all along the coastal states of India and there is a tradition to consume it during special functions, especially among the lower strata of the society. It is widely consumed in the interior parts of India, as low cost dietary protein source and used as a substitute of fish at the time of scarcity of fresh fish.Dry fish segment constitutes 20 % of the total fish production in India.

Global demand for shark and ray derived products like shark meat & oil (Johri*et al.,* 2019). Shark skin is consumed as food in several countries including the Maldives, Japan, Taiwan and the Solomon Islands (Vannuccini, 1999). Preparation involves drying, removing the denticles, bleaching, and then drying again (Chen *et al.,* 1996).

Microbial activity in food depends on its composition (intrinsic factors) such as water content and nutrients, and the physical parameters such as temperature and the surrounding atmosphere (Gram *et al.,* 2002).

The neem leaves was a bitter tonic herb that reduces inflammation and clears toxins, while promoting healing and improving all body functions of human. Apart from this,it has parasitic, insecticidal spermicidal properties and hence destroys a wide range of organisms (Dixit *et al*., 1986).Razzaghi-Abyaneh*et al.* (2005) reportedthat extracts of plants such as neemhave been found to effectively inhibit the growth of fungi.Ipinmoroti and Taiwo (2015) explained that the effectiveness of neem leaves (*Azadirachtaindica*) in slow down fungi growth on smoked dried *C. nigrodigitatus*.

Observation:

The *Scoliodonlaticaudus*(Indian dog shark). It is locally known as “sandhi”. It is one type of shark fish. They are distributed in Pakistan, India, japan, Taiwan, Indonesia, and Australia. They are found on rocky substratum of coastal water at 10-13 m depth where temperature range is 20°-29°C. In India mostly found in Gujarat and Maharashtra coast. In Gujarat they mostly found in Navabandar, Ghoghala,Muldwarkaand Veraval. They utilized fresh for human consumption. They proceeded into fish meal and used as bait for other sharks and other bony fishes. Peak season of shark fish is September to April.

Some fisherman from veraval (Gujarat) packed dried shark meat in polythene bag with dried neem leaves (*Azadirachtaindica*) for long term preservation.They used dried shark*Scoliodonlaticaudus*(Indian dog shark) in

preservation through drying. Fishermen get good quality of dried shark product, when sent to other place to their relatives.

References

Dixit, V.P.; Sinha, R. and Tank, R. 1986. Effect of neem seed oil on the blood glucose concentration of normal and alloxan diabetic rates.*J. Ethnopharmacol.*,17:95-98.

Gram, L.; Ravn, L.; Rasch, M.; Bruhn, J. B.; Christensen, A. B. and Givskov, M. 2002. Food spoilage-interactions between food spoilage bacteria. *International Journal of Food Microbiology,***78**(1-2):79–97.

Ipinmoroti, M. O and Taiwo, I. O. (2015). Growth response of microorganism to powdered neem leaves (*Azadirachtaindica*) and vegetable oil on smoked dried fillets of African Catfish (*Chrysichthysnigrodigitatus*). *International Journal of Fisheries and Aquatic Studies*, **2**(5): 133-136

Johri S, Solanki J, Cantu V, Fellows S, Edwards R, Moreno I, Vyas A and Dinsdale E(2019) 'Genome skimming' with the MinION hand-held sequencer identifes CITES-listed shark species in India's exports market. *Scientific reports,***9**(2019):4476.

Razzaghi-Abyaneh M, Allameh A, Tiraihi T, Shams Ghahfarokhi M, Ghorbanian M. (2005). Morphological alterations in toxigenic *Aspergillusparasiticus* exposed to neem (*Azadirachtaindica*) leaf and seed aqueous extracts. *Mycopathologia*, 159:565-570.

Vannuccini, S. 1999. Shark utilization, marketing and trade. FAO Fisheries Technical Paper No. 389. FAO. Rome. 470 pp.