



Beware of the Silver-Cheeked Toadfish!

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Editorial

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Editorial

Nowadays, the Silver-cheeked toadfish became the interest point for talking in different meeting and conferences. This fish scientifically known with puffer fish particularly *Lagocephalus sceleratus* (Gmelin, 1789) (Figure 1).



Figure 2: Concerning its distribution: Indo-West Pacific, Red Sea and suez Gulf [2].

Story of Puffer Fish in Red Sea

This species has an old history since its toxicity was detected by Clark in the Red Sea [4]. This species is considered as toxic fish attributed to its ability to produce neurotoxins that known as "tetrodotoxin". The latter is a potent marine toxic substance which can cause many symptoms that appear according to dose taken such as: dizziness, sweating, numbness, itching, vomiting, as a form of the primary symptoms. The severe ones appear in the form of: muscle pain, respiratory problems, and a drop in blood pressure and ultimately paralysis that can lead to death due to suspension of the respiratory functions.

By the time and after many poisonous accidents thought eating these fishes in hurghada & suez gulf, many scientists were attracted to study this species due to its danger for human health [5-12]. Most of them stated that this toxin is concentrated in the general viscera (gonads, liver, kidney, gut) and can reach the flesh. Sometimes, some fishermen eat this species and are not subjected to death, however, Mohamed 2003 stated that (13% of fishes have toxins in its flesh) that means 13 individuals from each 100 specimens,



Figure 1: Silver-cheeked toadfish.

What is *Lagocephalus Sceleratus*?

Lagocephalus sceleratus (Gmelin, 1789) belonging to family Tetraodontidae, the scientific name, Tetraodontidae, refers to the four large teeth, fused into an upper and lower plate, which are used for crushing the shells of crustaceans and mollusks, it reached to 110 cm SL [1]. Max. Published weight: 7,000g [2]; its environment is marine, reef-associated; live at depth from 18 - 100 m [3]. Greenish with brown or black spots above; silver band from mouth to caudal fin; belly white; silver blotch in front of eye; pectoral base black [2]. Infiltrates its body by air or water as a defense mechanism (Figure 2).

the toxin can reach to its flesh in the Gulf of Suez, hence we can't consider this species safe for eating as it represents a threat to our health.

Migration to Mediterranean

These species migrated from Red Sea to Mediterranean via Suez Canal from few years ago; rapidly it distributed along the Egyptian Mediterranean waters as well as it extended to other Mediterranean countries as Aegean sea, Greece [13]; day after day these species became famous migratory danger particularly after the poisonous accident in Marsa Matrouh 2011; however, there were no detailed documented data about such species in the Egyptian Mediterranean water; it is only recorded by Halim Y, et al. [14], this attracted many scientists to study it, hence there is a cooperation between National Institute of Oceanography & Fisheries and Faculty Of Science, Al-Azhar University (Assiut branch) to study fisheries, biology and toxicity of these puffer fish in the Egyptian Mediterranean waters.

Attentions & Conclusion

- Not all migratory fishes have negative effect as puffer fish as it contains toxic substances. More than Hundreds of species traversed the Suez Canal and settled in the Mediterranean, forming successful populations along the Levantine coasts; a lot of them are harmless & economic species such as Round herrin *Etrumeus teres* which studied by Farrag in the Egyptian Mediterranean waters [15].
- Many fishermen & other people thought that the danger of these fishes concentrated in its general viscera (Liver, gonads, kidney and intestine) although many scientists mentioned that the toxicity can reach to its flesh.
- From the above points we concluded the avoidance of this fish should be done especially with the presence of other harmless & economic species to avoid any poisonous action resulted from the eating of such species.
- These species need to be subjected to a lot of studies in the different fields (Science, pharmacy, veterinary) and other fields to utilize it as human foods or other industrial applications as drugs.

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