

A LARGE OCEANIC PUFFER FISH RARE IN TUNISIAN WATERS

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ملخص

بيانات حول سمك نادر بالمياه التونسية *Lagocephalus lagocephalus* : أمكن لبعض الصيادين الساحليين المستعملين للشباك الخيشومية مدنا بين جانفي وأفريل 2004 بنوع من الأسماك بدت لهم غريبة وذلك قصد دراستها والتعرف عليها. تقدم هذه الدراسة جملة من البيانات حول سمك *Lagocephalus lagocephalus* الذي ينتمي إلى عائلة Tetradontidae كلمات المفاتيح : سمك نادر – مياه تونسية

RESUME

***Lagocephalus lagocephalus*, un poisson du large, rare dans les eaux tunisiennes :** Aux mois de janvier et d'avril 2004, des poissons du large (longueur totale de 45 à 73,5 cm avec un poids total de 1,12 à 3,2 kg) ont été pêchés au large des côtes tunisiennes (golfe de Tunis, Monastir et Salakta) et furent rapportés à l'INSTM pour identification. Ce sont des poissons Tetradontidae, *Lagocephalus lagocephalus* (Linnaeus). Ce papier traite de la description et des caractéristiques morphométriques. du spécimen qui n'est pas commun parmi les prises habituelles des professionnels tunisiens.

Mots clés : *Lagocephalus*, Tetradontidae, eaux tunisiennes

ABSTRACT

On January and April, 2004, 4 large oceanic puffer fish (total length 45 to 73.5 cm with body weight 1.12 to 3.2 kg) was caught by the small trammel net, off Tunisian coasts (gulf of Tunis, Monastir and Salakta) and brought into INSTM for the identification. It is a fish belonging to the family of Tetradontidae, *Lagocephalus lagocephalus* (Linnaeus). This paper is dealing with the description and some measurement and meristic characters of this specie, which is not a common animal, fished by the Tunisian professional fishermen.

Key Words: *Lagocephalus*, Tetradontidae, Tunisian waters

INTRODUCTION

The Tunisian waters are situated in the middle of the Mediterranean Sea where a kind of the transitional zone seems to be. Of this fact several species of the Indo-Pacific and Atlantic origins sometimes occurred.

With regard to fishes, Bradai (2000) reported 3 species from the Red Sea thorough the Mediterranean Sea into the Gulf of Gabes. They were a species of Monacanthidae, *Stephanolepis diaspros* (Fraser-Brunner) and two species of Siganidae, *Siganus luridus* (Rüppel) and *S. rivulatus* Forskal. Those are the examples of the Lessepsian migration which is the influx of the Red Sea biota into the Mediterranean Sea by way of the Suez Canal. Three other species considered typical of ichthyofauna of the Atlantic tropical and subtropical were also observed by the same author in the Gulf of

Gabes. They were *Sphoeroides pachygaster* (Müller and Trochel) and *Lagocephalus lagocephalus* (Linnaeus) of the family Tetradontidae and *Seriola fasciata* (Bloch) of the family Carangidae.

In this paper we give the description and some measurement and meristic characters this species which is not a common animal fished by the Tunisian professional fishermen.

IDENTIFICATION

On January and April 2004, 4 large oceanic puffer fish (total length 45 to 73.5 cm with body weight 1.12 to 3.2 kg) were caught by small trammel net (15 to 35 m depth) and brought into INSTM for identification (Fig.1).

It is a species of Tetraodontidae, *Lagocephalus lagocephalus* (Linnaeus) that is distributed in the tropical and temperate waters throughout the Pacific with the Sea of Japan, the Indian and the Atlantic oceans. In the Atlantic Ocean, it is known from the British islands to South Africa (Tortonese, 1986). This fish is also known in the two basins, the western and the eastern of the Mediterranean (Tortonese, 1986; Fred & Maurin, 1987; Dieuzeide and al, 1955) as well. Some authors separate it into two species: Atlantic *Lagocephalus lagocephalus lagocephalus* (Linnaeus) and Indo-Pacific *Lagocephalus lagocephalus oceanicus* (Jordan and Fowler). The present specimen studied is *Lagocephalus lagocephalus lagocephalus* (Linnaeus) in the subspecific level.

Lagocephalus lagocephalus was found for the first time in Tunisian waters (Gulf of Gabes) by Chakroun (1966). That was a specimen of 60 cm total length, landed at Sfax port. Three other Specimen were also captured in the Gulf of Gabes in 1996, 1999 and 2000 (Bradai, 2000), That were a specimen of 50 to 76,5 cm total length, .

Diagnostic characters : Head blunt with flat interorbital region. Body elongate in deflated state with dorsal and anal fins falcate. Pectoral fins triangular in shape and rather small. Caudal fin emarginated. Lower caudal lobe longer than upper lobe.

Pelvic fins absent. Mouth small with heavy jaws forming a beak of two strong teeth in both jaws. Eye round and rather small. Nostrils situated about half way between snout and front margin of eye. Anterior nostril and posterior one located closely each other. Both nostrils small and crescent-like without flaps or appendixes. Prickles on belly arranges in about 10 rows (a row with 24 prickles in maximum). A gill opening just in front of pectoral fin base.

Colour : Dark blue nearly black dorsally and white ventrally. Pale obscure dark spot under pectoral fin. Pectoral fin dark above with lower third white. Dorsal and anal fins black. Caudal fin black with paler posterior margin.

DISCUSSION

The Atlantic and Mediterranean *Lagocephalus* attains 60 cm total length at maximum (Blache et al., 1970; Tortonese, 1986; Whitehead et al. 1986; Shipp, 2000) and is common up to 40 cm total length (Shipp, 2000). While the indo-Pacific *L. lagocephalus* attains up to 45 cm total length (Nakabo, 2002). Sizes recorded in the region of the Gulf of Gabes (south of Tunisia) vary from 50 to 76,5 cm of total length (Bradai, 2000). It appears

that they are more important than those observed in the Atlantic or reported from the Mediterranean sea.

As this species has large and strong body with great ability of swimming, they sometimes seem to appear in Tunisian waters. Although the toxicity is still unknown, the treatment of this fish in food should be careful enough.

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Fig. 1- *Lagocephalus lagocephalus* (Linnaeus)

Table I - Measurement (mm) and meristic characters

Characters	Date (2004)			
	2 January	20 January	2 April	5 April
Locality	Salakta	G. Tunis	Salakta	Monastir
Total weight (g)	3200	2700 g	1120	2650
Total length	735	650	450	630
Standard length	585	511	380	501
Fork length	690	610	432	590
Head length	162	143	103	140
Height of dorsal fin	104	92	61	89
Height of anal fin	99	88	54	85
Length of pectoral fin	120	106	67	103
Body depth (deflated)		130	120	
Length of upper caudal lobe		126	70	
Length of lower caudal lobe		145	93	
Maximum caudal span		195	122	
Snout length		61	41	
Eye diameter	38	33	18	25
Gill opening length		46	28	
Mouth width		41	30	
Length of dorsal fin base		42	38	
Length of anal fin base		39	30	
Length of pectoral fin base		36	28	
Caudal peduncle depth		35		
Snout to pectoral fin origin		156	119	
Snout to dorsal fin origin		372	278	
Snout to anal fin origin		385	281	
Snout to anus		366	255	
Dorsal fin rays	14	13	13	13
Anal fin rays	13	13	12	13
Pectoral fin rays	15	15	15	15
Caudal fin rays	I-7 +7-I	I-7 +7-I	I-7 +7-I	I-7 +7-I