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RECORDS OF THE BERMUDA SEA CHUB, *KYPHOSUS SECTATOR*
(LINNAEUS, 1758) (OSTEICHTHYES: KYPHOSIDAE) FROM THE COASTAL
WATERS OF ALGERIA (SOUTHERN MEDITERRANEAN)

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ABSTRACT

*The paper reports on the first record of Bermuda sea chub *Kyphosus sectator* (Linnaeus, 1758) from the Algerian coastal waters. A short description of the species is given and its occurrence in the Mediterranean Sea commented upon and discussed.*

Key words: Osteichthyes, Kyphosidae, *Kyphosus sectator*, coast of Algeria, Mediterranean Sea

AVVISTAMENTI DI PESCE TIMONE *KYPHOSUS SECTATOR* (LINNAEUS, 1766) (OSTEITTI:
KYPHOSIDAE) AL LARGO DELLA COSTA ALGERINA (MEDITERRANEO MERIDIONALE)

SINTESI

*L'articolo riporta le prime segnalazioni della presenza del pesce timone *Kyphosus sectator* (Linnaeus, 1766) al largo della costa algerina. Gli autori ne forniscono una breve descrizione, nonché commentano e discutono la presenza della specie nel mare Mediterraneo.*

Parole chiave: Osteitti, Kyphosidae, *Kyphosus sectator*, costa algerina, mare Mediterraneo

INTRODUCTION

The Bermuda sea chub, *Kyphosus sector* (Linnaeus, 1758) has been reported from the eastern Atlantic Ocean, south Strait of Gibraltar, between the coast of Morocco and the Gulf of Guinea. However, it has not been commonly landed at the area's fishing sites (Cadenat, 1950; Fischer *et al.*, 1981; Desoutter, 1990; Séret & Opic, 1990).

K. sector is 'rarely found in the Mediterranean' according to Tortonese (1975, 1986). Of the four Mediterranean records reported to date, three were earlier: a specimen caught off Trieste (northern Adriatic) in 1847 (Šoljan, 1975), off Sicily (Doderlein, 1889), in the Gulf of Genoa (Ariola, 1904); a single specimen was recently recorded off the Balearic Islands (Merella *et al.*, 1998).

MATERIAL AND METHODS

On 3, 4 and 7 June 2003, a number of Bermuda sea chubs were being sold at Algiers fish market (Fig. 1). According to the fishermen, the specimens were captured by gill-nets at depth between 10 and 20 m and by trawling at unknown depth, off Annaba, the town located on the eastern Algerian coast some 90 km west of the Tunisian border (Fig. 2). *K. sector* had previously not been reported off the Algerian coast (Dieuzeide *et al.*, 1953; Lalami, 1971; Djabali, 1993; Derbal & Kara, 2001). The present article presents the first record of the Bermuda sea chub in the Algerian waters and briefly comments on the Mediterranean distribution of the species.

RESULTS AND DISCUSSION

As the specimens were immediately sold by the fishermen, we were unfortunately unable to preserve and include them in the Ichthyological Collection of the Al-

giers University. However, measurements, counts and mass were made in a single specimen. They are presented in Table 1. This specimen is described as follow: body rather oval and compressed; head, body and fins entirely covered with small ctenoid scales; snout profile convex; mouth small with an outer series of incisors having large roots within the jaws and on palate; eyes rounded; pectoral short and rounded; soft dorsal lower than spinous. Colour of the body uniformly bluish-grey with lines slightly yellowish along head and body; opercular membrane blackish.

Measurements, counts, description and colour are in agreement with Tortonese (1975, 1986), Fischer *et al.* (1981) and Séret & Opic (1990).



Fig. 1: A number of Bermuda sea chubs captured off the eastern Algerian coast and observed at Algiers fish market.

Sl. 1: Primerki vrste *Kyphosus sector*, ujeti v bližini vzhodne alžirske obale in pripeljani na ribjo tržnico v Alžiru.

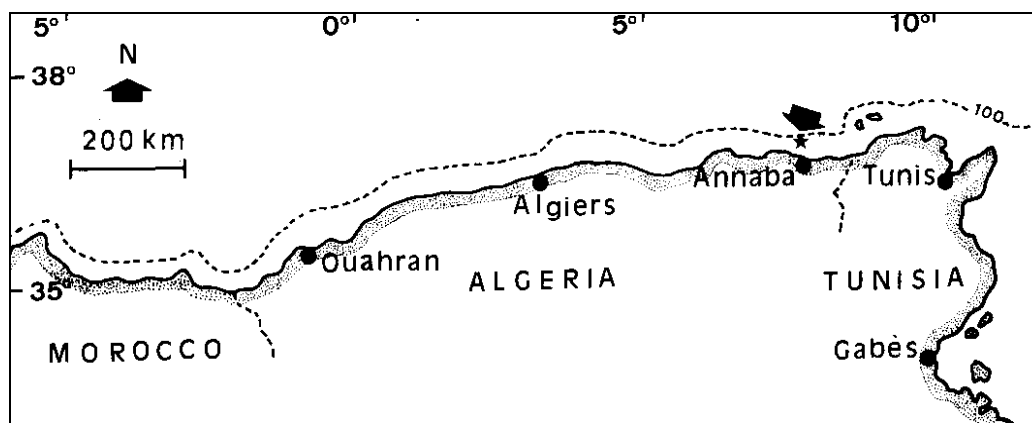


Fig. 2: Map of the Maghreb shore showing the fishing site (pointed out by a black star) of *Kyphosus sector*.
Sl. 2: Zemljevid Magrebskega obrežja z označeno lokaliteto vrste *Kyphosus sector* (črna zvezdica).

With regard to some species such as *K. sector*, Quignard & Tomasini (2000) noted: 'The discovery of a large number of other species outside of their usual area of distribution may be due to the increase of traditional prospection, or the use of newer techniques which allow the exploration of otherwise inaccessible habitat'. This agrees with Golani (1996), Golani & Sonin (1996) and Hemida *et al.* (2003).

K. sector was recorded for the first time in the Mediterranean Sea in 1847 (Šoljan, 1975); between then and the record made by Merella (1998), the species was reported three times only. Tortonese (1975, 1986) reports only on the three mentioned records made off Trieste, Sicily and Genoa.

These rare records do not allow to state *a priori* that *K. sector* populations have been successfully established in Mediterranean areas even if the recent Bermuda sea chub findings off the Algerian coast are more or less in agreement with Quignard & Tomasini's opinion (2000).

Records of shark and teleost species (Hemida *et al.*, 2002, 2003) originating from the eastern tropical Atlantic along the Algerian shore corroborate Quignard & Tomasini (2000) who suggest the role of the Strait of Gibraltar in the increasing Mediterranean fish biodiversity. This is concomitant with the Mediterranean occurrence of species originating and regularly recorded from the Red Sea (Quignard & Tomasini, 2000; Dulčić *et al.*, 2003). These observations could be explained by the present waters warming off France (Francour *et al.*,

1994; Francour & Javel, 2003), in the Adriatic (Dulčić, 1998; Dulčić *et al.*, 1999), off Tunisia (Bradai, 2000) and off Algeria (Kara & Bourehail, 2003).

Tab. 1: Morphometric measurements and counts in one specimen of *Kyphosus sector*.

Tab. 1: Morfometrični podatki osebkov vrste *Kyphosus sector*.

Measurements (mm)	
Total length	485
Length to furc	455
Standard length	380
Head length	55
Interorbital space	35
Eye diameter	15
Preorbital length	33
Postorbital length	49
Caudal peduncle height	38
Space between snout and vent	280
Prepectoral fin length	99
Postpectoral fin length	92
Dorsal fin length	170
Pelvic fin length	60
Anal fin length	160
Caudal fin length	141
Body height	151
Body depth	40
Height of caudal fin peduncle	45
Mass (g)	675
Counts	
Dorsal fin rays	XI + 12
Anal fin rays	III + 12

PRVI PODATKI O VRSTI *KYPHOSUS SECTOR* (LINNÉ, 1758) (OSTEICHTHYES: KYPHOSIDAE) IZ OBREŽNIH VODA ALŽIRIJE (JUŽNO SREDOZEMLJE)

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POVZETEK

Avtorji pričujočega prispevka poročajo o prvem pojavljanju vrste *Kyphosus sector* (Linnaeus, 1758) v obrežnih vodah Alžirije. Podajajo kratek opis vrste in razpravljajo o njenem pojavljanju v Sredozemskem morju.

Ključne besede: Osteichthyes, Kyphosidae, *Kyphosus sector*, obrežne vode Alžirije, Sredozemsko morje

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