

THE MULLID SPECIES FROM TUNISIAN WATERS (CENTRAL MEDITERRANEAN SEA)

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ABSTRACT:

The Tunisian ichthyofauna comprises at present, four mullid species: two are autochthonous, both regularly and abundantly captured in Tunisian marine waters, the red mullet, *Mullus barbatus* and the surmullet (striped red mullet), *Mullus surmuletus* while the two other was alien species: Por's goatfish, *Upeneus pori* and a West African goatfish, *Pseudupeneus prayensis*.

Keywords: Mullid species, Tunisian coast, Mediterranean Sea.

According to [1] alien Fish species have been introduced to the Mediterranean Sea via the Suez Canal, Gibraltar or in ballast water. The number of alien fish species increased recently in the Mediterranean Sea because of the opening of the Suez Canal, climate change and international shipping activities. As a result a total of 160 alien fish species have been reported from the Mediterranean Sea. There are 67 species introduced from the Atlantic Ocean via the Gibraltar, three

species of which are originated from the Boreal Atlantic, 86 species introduced from the Red Sea via the Suez Canal, four species of which are originated from the Pacific Ocean. The number of alien fish species increased 68.42 % between years 2002-2010 [1]. In this paper, we give a short comment of the mullidae species recorded in Mediterranean Sea and in Tunisian waters (Figure 1).

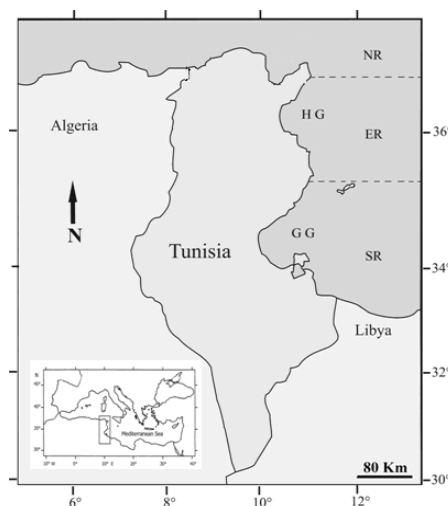


FIGURE1. Map of the Mediterranean (insert showing the Tunisian coasts), with map of the Tunisian coasts pointing out the sampling area ER: Eastern region. NR: Northern region. SR: Southern region.

According to [2], five mullid species are reported in the Mediterranean Sea: the red mullet, *Mullus barbatus* Linnaeus, 1758, the striped red mullet, *Mullus surmuletus* Linnaeus, 1758, the west

African goatfish, *Pseudupeneus prayensis* (Cuvier, 1829), the goldband goatfish, *Upeneus moluccensis* (Bleeker, 1855) and the Por's goatfish *Upeneus pori* [3].

According to [4] and [5], in Tunisian waters four mullid species were recorded (Figure 2) two are abundantly and regularly captured: red mullet, *Mullus barbatus* Linnaeus 1758, and striped red mullet, *Mullus surmuletus* Linnaeus, 1758, and two are alien species, a Lessepsian migrant, Por's goatfish, *Upeneus pori* and a migrant from the

eastern tropical Atlantic, West African goatfish, *Pseudupeneus prayensis* (Cuvier, 1829).

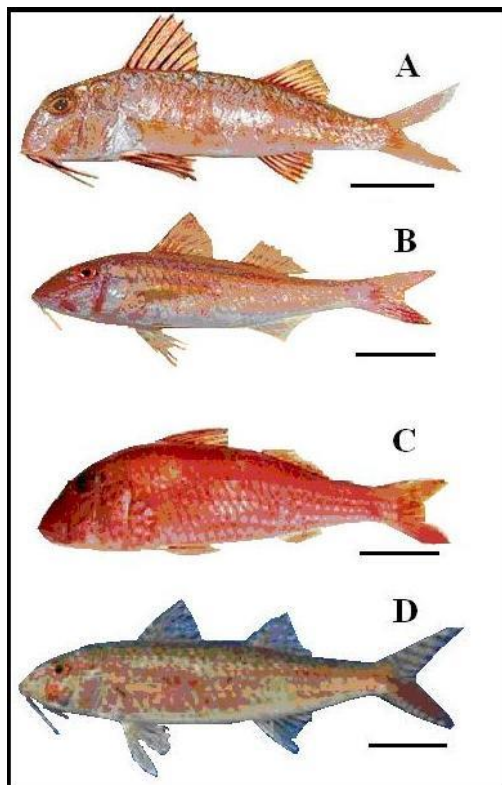


FIGURE2. Mullidae species found in Tunisian waters; (A): *Mullus barbatus*, (B): *Mullus surmuletus*, (C): *Pseudupeneus prayensis*, (D): *Upeneus pori*; scale bar = 50mm

Statistics of both *Mullus barbatus* and *Mullus surmuletus* production recorded between 2000 and 2010 in Tunisian waters are plotted in Figure (3). They show that industrial fishery production important than craft fishery production,

the former ranged between 2650 and 4466 tons, while the latter ranged between 458 and 651 tons, with a mean of 2-3% for total fishery production of both species in the area [6].

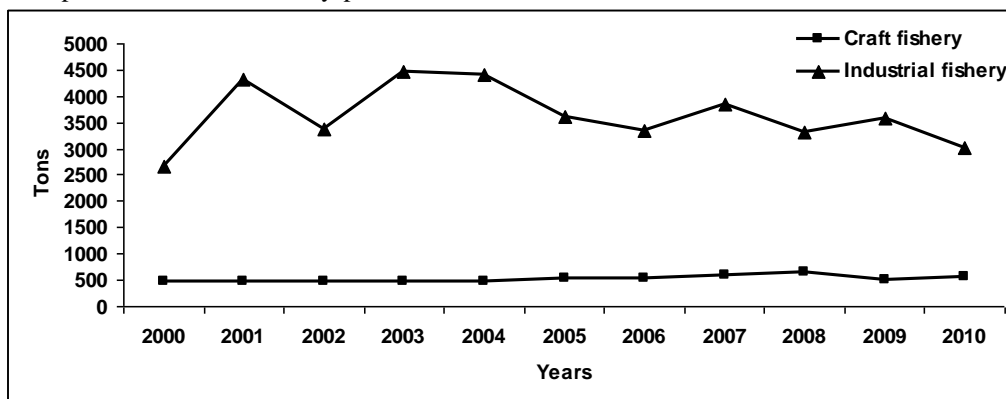


FIGURE 3. Industrial and craft fishery production expressed in tons of *Mullus barbatus* and *Mullus surmuletus* between 2000 and 2010

Additionally, the production of mullid species is not similarly distributed according the region (Figure 4). The production reached 50.3 % in Tunisia southern area, while for the two other regions, eastern and northern, it reached 29.8 % and 19.9 %, respectively. These differences could be

related to the abundance of these species in the regions, and to fishing methods. The mullid species are one of the most widely traded commodities in Tunisia, where 75% of total catches of mullid are directly sold in fish-markets to local consumers, while 25% exported to European countries [7].

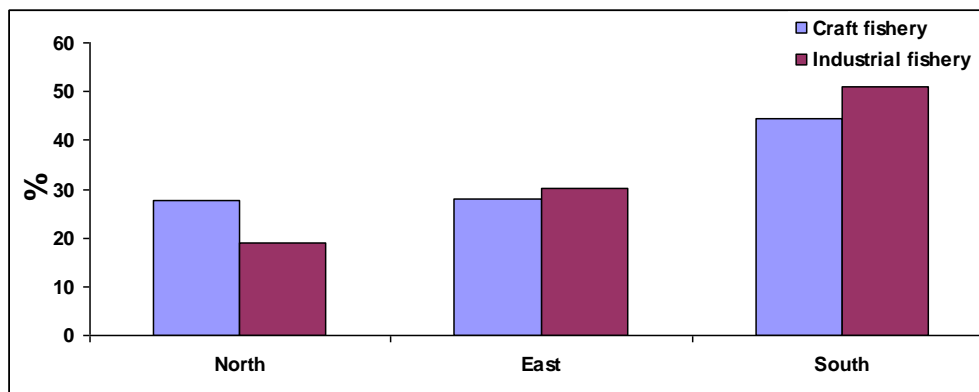


FIGURE 4. Distribution of mullid species by region and fishing gear (2000-2010)

This study is needed as valuable information for improving fishery monitoring and management of mullid species in these areas.

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