



# A New Maximum Size Record of the Shi Drum (*Umbrina cirrosa* Linnaeus, 1758) for Aegean Sea

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(With 2 figures)

## Abstract

The present study has been conducted to find out new findings on maximum length and weight values of *Umbrina cirrosa* in the Bay of Saros (Northern Aegean Sea, Turkey). On September, 11, 2016, a single specimen of *Umbrina cirrosa* with 68.8 cm total length and 2600.00 g total weight was caught by handline at a depth of 20 m. The provable size is the second largest length ever reported in the all seas of the world

**Keywords:** *Umbrina cirrosa*, shi drum, maximum length, Aegean Sea.

## Um novo registro de tamanho máximo do corvina (*Umbrina cirrosa* Linnaeus, 1758) para o Mar Egeu

### Resumo

O presente estudo foi realizado para descobrir novas descobertas sobre os valores máximos de comprimento e peso de *Umbrina cirrosa* na Baía de Saros (Mar Egeu do Norte, Turquia). Em 11 de setembro de 2016, um único espécime de *Umbrina cirrosa* com 68.8 cm de comprimento total e 2600.00 g de peso total foi capturado por linha de mão a uma profundidade de 20 m. O tamanho provável é o segundo maior comprimento já registrado em todos os mares do mundo.

**Palavras-chave:** *Umbrina cirrosa*, corvina, tamanho máximo, Mar Egeu.

### 1. Introduction

The shi drum (*Umbrina cirrosa* Linnaeus, 1758) is a demersal marine species feeding on bottom invertebrates and usually living on rocky and sandy bottoms in coastal waters to a depth of about 100 m. It is distributed in Bay of Biscay and Gibraltar to southern Morocco, including the Mediterranean, Black Sea and Sea of Azov (Froese and Pauly, 2019).

Maximum length and weight are quite important theoretical parameters in fisheries science (Dulčić and Soldo, 2005). Directly and indirectly, these measurements enter in most of the models used in stock assessments (Borges, 2001). For these reasons, updating information about the maximum size of a species that might be commercially or recreationally exploited in the future gains importance (Navarro et al., 2012). This study presents the provable size is the second largest length ever reported in the all seas of the world.

### 2. Material and Methods

The Bay of Saros, which is situated in the Northeastern Aegean Sea, is connected to the North Aegean with a depth of approximately 600 m to the west. The shelf extends at a water depth of 90-120 m. The length of the bay is

about 61 km and the width at the opening to the Aegean Sea is about 36 km (Eronat and Sayin, 2014). As Bay of Saros had been closed to bottom trawl fishing since 2000 (Cengiz et al., 2014; 2015) and no industrial activity was prevalent in the area (Sari and Çağatay, 2001), the bay can be considered as a pristine environment (Cengiz et al., 2013).

A single specimen of *U. cirrosa* was caught in Bay of Saros (Figure 1) with handline by a commercial fisherman from 20 m depth on September, 11, 2016.

Total length is defined as the measurement taken from the anterior-most part of the fish to the end of the caudal fin rays when compressed dorso-ventrally (Anderson and Gutreuter, 1983). Hereby, the specimen was subsequently measured to the nearest mm and weighted to the nearest g. Unfortunately, the specimen was not preserved as it was sold by a professional fisherman at the fish market.

### 3. Results and Discussion

On September, 11, 2016, a single specimen of *Umbrina cirrosa* with 68.8 cm total length and 2600.00 g total weight was caught with handline by fisherman at a depth of 20 m (Figure 2).

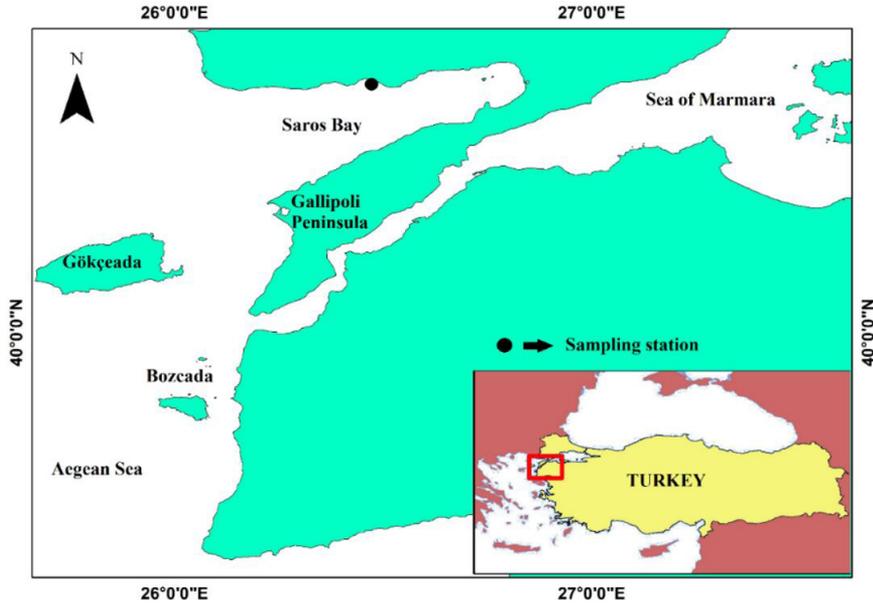


Figure 1. Bay of Saros and sampling station.



Figure 2. *Umbrina cirrosa* with 68.8 cm TL and 2600.00 g TW from Bay of Saros.

Koutrakis and Tsikliras (2003) sampled nine specimens by using various fishing gear (beach-seine, fyke-net, gill nets) in Porto-Lagos lagoon (Northern Aegean Sea, Greece). They stated that the length range of the species was 6.5-24.7 cm (TL). Nevertheless, Froese and Pauly (2019) expressed the maximum size was 73.0 cm (TL) and maximum weight was 3100.00 kg.

As well known, the individuals in populations exposed to high levels fishing pressure will respond by reproducing at smaller average sizes and ages and so reached maximum lengths may getting smaller. However, the one individual that subjected to no overfishing pressure could be reached that kind of length (Filiz, 2011). On the other hand, any factor that might possibly influence growth has been shown to have an effect, including nutrient availability, feeding, light regime, oxygen, salinity, temperature, pollutants, current speed, nutrient concentration, predator density,

intra-specific social interactions and genetics (Helfman et al., 2009; Acarli et al., 2018).

In broad terms, the information on maximum length, weight, age, growth and weight-length relationship are required to estimate the population parameters as asymptotic length and growth coefficient of fish, which are essential for fisheries resource planning and management (Aguero et al., 2010). The information presented here may be used to compare the similar parameters in ongoing fishery studies all over the world by providing the scientific support to the fisheries scientists.

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