

## RESEARCH ARTICLE

### Maximum Size Record of Sharpsnout Seabream (*Diplodus puntazzo* Walbaum, 1792) for Saros Bay, Northern Aegean Sea

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#### ABSTRACT

A single specimen of *Diplodus puntazzo* with 34.6 cm in total length and 550.00 g in total weight was caught off İbrice Bight (Saros Bay) with handline (hook (Mustad 496) size 1 and 0.40 mm monofilament line-diameter) by fisherman on May 25, 2016. Its total length and weight were the maximum observed values for the species in the Saros Bay, Northern Aegean Sea.

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#### Introduction

Sharpsnout seabream (*Diplodus puntazzo* Walbaum, 1792) is a valuable Sparidae species, inhabiting rocky bottoms and sea grass beds and is seldom found at depths greater than 50 m (Macpherson, 1998). This species is a common species throughout the Mediterranean Sea and the Eastern coasts of the Atlantic Ocean from Gibraltar to Sierra Leone, it is rare in the Black Sea and in the North Atlantic (Bay of Biscay) (Bauchot and Hureau, 1986).

Maximum length and weight are important parameters used in life history studies and fishery science. These measurements are applied directly or indirectly in most stock assessment models (Borges, 2001; Cengiz et al., 2019a). Therefore, it is important to regularly update the maximum size of commercially important species (Navarro et al., 2012; Cengiz et al., 2019b). The aim of this paper is to provide data on the maximum observed length and weight of the sharpsnout seabream for Saros Bay in the Northern Aegean Sea.

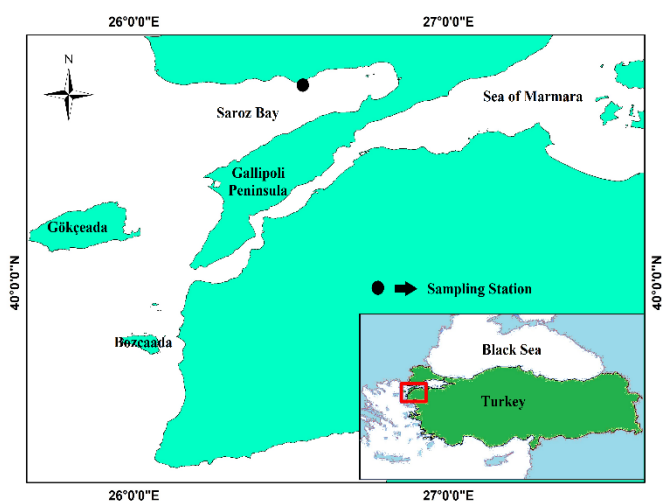
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## Material and Methods

Saros Bay, which is situated in the Northeastern Aegean Sea, is connected to the North Aegean Sea 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 Sayın, 2014; Cengiz et al., 2019c; Cengiz et al., 2019d). As Saros Bay had been closed to bottom trawl fishing since 2000 (Cengiz et al., 2011) and no industrial activity was prevalent in the area (Sarı and Çağatay, 2001), the bay can be considered as a pristine environment (Cengiz et al., 2013; Cengiz et al., 2019e).

A single specimen of *D. puntazzo* was caught off İbrice Bight (Saros Bay) (Figure 1) with handline (hook (Mustad 496) size 1 and 0.40 mm monofilament line-diameter) by fisherman from 15 m depth on May 25, 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.



**Figure 1.** Saros Bay and sampling station

## Results and Discussion

The captured sharpsnout seabream was 34.6 cm in total length and 550.00 g in total weight (Figure 2). The comparison of the maximum lengths and weights recorded for *D. puntazzo* in the Aegean Sea (with Northern Aegean Sea) is given in Table 1.



**Figure 2.** The sharpsnout seabream with 34.6 cm TL and 550.00 g TW

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 (Agüero et al., 2010).

**Table 1.** The comparison of the maximum lengths and weights recorded for *D. puntazzo* in the Aegean Sea (with Northern Aegean Sea)

Authors	Area	N	L <sub>max</sub> (cm)	W <sub>max</sub> (g)
Karakulak et al. (2006)	Gökçeada Island, Turkey	7	25.2	-
Özaydın et al. (2007)	İzmir Bay, Turkey	27	21.4	-
Kapiris and Klaoudatos (2011)	Argolikos Gulf, Greece	29	23.9	209.00
Altın et al. (2015)	Gökçeada Island, Turkey	87	24.5	209.80
Kara et al. (2017)	Gediz Estuary, Turkey	61	13.5	41.30
This study	Saros Bay, Turkey	1	34.6	550.00

## Conclusion

The present study proves that this species can grow above the previous maximum data reported in the Northern Aegean Sea. 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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## Conflict of Interest

The author declares that there is no conflict of interest.

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