LENGTH-WEIGHT RELATIONSHIP OF SANDBAR SHARK *CARCHARHINUS PLUMBEUS* (NARDO,1827) IN ISKENDERUN BAY (NORTH-EASTERN MEDITERRANEAN SEA)

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Abstract
In this study, Lenght-Weight relationships (LWR) of sandbar shark were examined for the first time in a population of the North-eastern Mediterranean Sea. The LWR estimated for combined sexes was: $W= 0.01*TL^{2.865}$ (r^2=0.915, SE_b=0.174). LWR for females was $W= 0.0034*TL^{3.101}$ (r^2=0.912, SE_b =0.278) and for males $W= 0.0039*TL^{2.662}$ (r^2=0.915, *SEb* =0.231). The type of growth for all sexes and males were negative allometric growth (b < 3). The type of growth for females were positive allometric growth (b > 3).

Keywords: Fisheries, Population Dynamics, Fishes, North-Eastern Mediterranean, Iskenderun Bay

Introduction
Sandbar shark, *Carcharhinus plumbeus* (Nardo,1827) inhabits on sandy or muddy substrate but occasionally rise to surface to feed. It has world-wide tropical and temperate distribution except for the eastern Pacific (Golani *et al.,* 2006). There is no information on the Lenght-Weight relationships (LWR) of this species in the North-eastern Mediterranean Sea. However, sandbar shark in the other areas of the Mediterranenan were studied satisfactorily on the distribution, systematic, age, growth and feeding habits by some researchers during recent years (Basusta and Erdem, 2000; McElroy et al., 2006; Lipej et al., 2008; Dragicevic et al., 2010) . In this study, Lenght-Weight relationships (LWR) of sandbar shark were examined for the first time in a population of the North-eastern Mediterranean Sea.

Materials and Methods
C. plumbeus individuals were caught accidentally by pelagic long-lines and commercial trawling from depths of 25 and 125 m of Mersin Bay and Iskenderun Bay, eastern Mediterranean Turkish coasts between August 2010 and March 2014. The samples were transferred to the ecophysiology laboratory where it was identified, sexed and photographed. Total lengths (TL) were measured to the nearest 1 mm and the weight of each specimen was determined with a digital scale nearest to the 0.01g. Total lengths and weights were fitted to the length-weight equation: $W=aL^b$, by using least square methods with Statistica software. In the length-weight equation *a* and *b* are intercept and the slope (=exponent) of the length-weight curve, respectively (King,1995; Can et al., 2002) The *b* value for this species was tested by a *t*-test at the 0.05 significance level to verify if it was significantly different from 3. LWRs for sandbar shark were calculated separately according to the sex.

Results Discussion
A total of 55 specimen were used for this study. Females ranged between 63.5-190.98 cm TL and 1303- 45678 g and males ranged between 54.5-129.9 cm TL and 870- 13268 g. The samples were composed of 49.1% females, 50.9% males. Maximum total length and maximum weight of *C. plumbeus* were 190.98 cm and 45.678 g respectively in this study. The length-weight relationship was estimated for combined sexes was: $W= 0.01*TL^{2.865}$ (r^2=0.915, SE_b=0.174).
LWR were found for females $W= 0.0034*TL^{3.101}$ (r^2=0.912, SE_b =0.278) and for males $W= 0.0039*TL^{2.662}$ (r^2=0.915, *SEb* =0.231). The type of growth for all sexes and males were negative allometric growth (b < 3). The type of growth for females were positive allometric growth (b > 3).

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