

THE BIOLOGY OF THE GREATER WEEVER (*TRACHINUS DRACO* L., 1758 – OSTEICHTHYES, TRACHINIDAE) IN THE SOUTHERN ADRIATIC SEA : A PRELIMINARY NOTE

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Abstract

Preliminary information on some biological features of *Trachinus draco* L. in the Southern Adriatic Sea are reported. Minimum lengths at maturity of 21 and 20 cm were found for male and female specimens respectively. Length-at-age mean values of 13.9, 17.5, 18.7 and 22.4 cm were estimated for age classes 1, 2, 3 and 4 respectively.

Keywords : Teleostei, Reproduction, Growth, South Adriatic Sea.

Introduction

The greater weever (*Trachinus draco* L.) is widely distributed in the eastern Atlantic from Norway to Morocco and it is very common in the Mediterranean (1). In spite of this, scientific information on the species is scanty or generic (2-5) and sometimes targeted to the venom organs (6).

In the present paper, preliminary information on some biological features (reproduction, growth) came from data collected in the southern Adriatic Sea.

Materials and methods

Samples of *T. draco* came from international trawl surveys (MEDITITS Project, funded by E.U.) carried out from 1998 to 2000 in the southern Adriatic basin (7) and from national trawl surveys (years 1998-2000) carried out in the western side of the same basin (Italian waters) (8).

The collected specimens were measured by sex (total length, mm) and macroscopic maturity stage was pointed out (9). Somatic weight (g), as well as the weight of the female gonads was recorded also. Otoliths (sagittae) were removed in order to age the specimens. Each otolith was read at stereomicroscope by three different observers and the coincident readings were accepted only.

Gonado-somatic indices (females), length-weight relationship and length-at-age mean values were calculated.

Results

Greater weever was collected at 26-140 m depth range, and sixty-three specimens were analysed in the 1998-2000 period. The survey's seasons corresponded to the referenced reproductive period in the Mediterranean (4, 5), so macroscopic maturity stages and gonado-somatic indices (% gonad weight/somatic weight) could be useful to specify the length at maturity. With regard to male specimens, stage four (ripe) of Nicolsky's scale occurs at a minimum of 21 cm total length, while females at the same stage were recorded at 20 cm total length. Gonado-somatic indices (Fig. 1) confirm this last result.

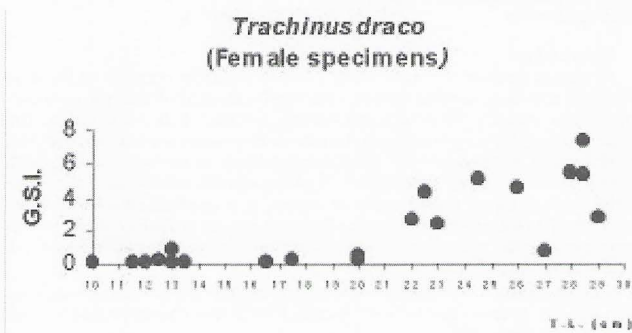


Fig. 1. Gono-somatics indices per length.

Length-weight relationship was computed on the whole sample (Fig. 2), since no significant difference was found between sexes (parallelism test).

Otoliths readings were accepted for 56 specimens of the whole population, and length-at-age mean values of 13.9, 17.5, 18.7 and 22.4 cm were estimated for age classes 1, 2, 3 and 4 respectively (Tab. 1). Due to the low number, bigger individuals (TL>25 cm) were discharged.

In view of the obtained results, individuals older than 3 years could be considered potential spawners.

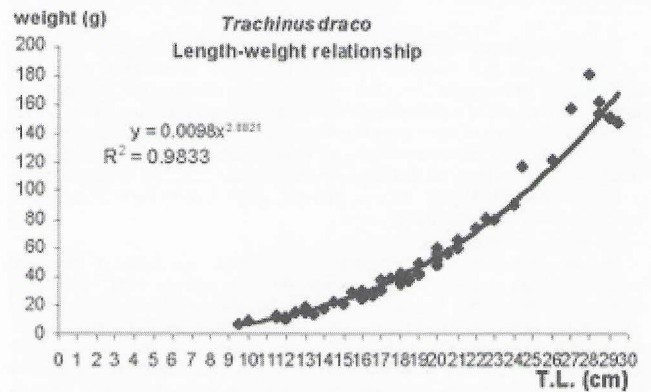


Fig. 2. Length-weight relationship (whole sample).

Tab. 1; Age-at-length mean values

age (year)	1	2	3	4
mean length (cm)	13.91	17.53	18.71	22.43
st. dev.	1.7	2.9	2.5	3.9
n° of specimens	11	17	21	7

Discussion and conclusion

The reported data adds information on the *T. draco* biology in the Mediterranean (at least for the southern Adriatic Sea), although it needs improvements. In fact, the low number of analysed specimens prevents the estimation of the maturity L50% or to fit a growth curve, and we hope to make it the next future.

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