

THE OCCURRENCE OF THE LESSER WEEVER, *ECHIICHTHYS VIPERA*, IN THE EASTERN ADRIATIC

J. Dulcic *, S. Matic and M. Kraljevic

Institute of Oceanography and Fisheries, Split, Croatia - dulcic@izor.hr

Abstract

The occurrence, total number of individuals and day/night differences in catch with a small beach seine are reported for a population of lesser weever at Duæ Glava area, eastern middle Adriatic from April to December 2000. The highest catches in shallow water occurred in May, and were during both day and night (in April only night catch, while from October to December only day catches).

Keywords : *fisheries, Adriatic*

Introduction

The lesser weever, *Echiichthys vipera* (Cuvier), occurs from the Skaggerak and the Shetland Isles to the Atlantic coast of Morocco and the Canaries and throughout the Mediterranean, generally on sandy bottoms from the intertidal to 50 m depth (1). It is fairly rare and there is no data about its biology and ecology in the Adriatic Sea (2).

The aim of this paper is to present some new data on lesser weever from the eastern Adriatic.

Material and methods

Monthly small beach seine (total length is 22.40 m, wings length 10 m, place for collecting catch is 2.40 m in length, mesh size in wings is from 4 to 8 mm depending on part of wing, mesh size in place for collecting catch is 4 mm) sampling from April 2000 to December 2000, at 4-h intervals over 24 h, revealed weavers at Duæ Glava area (near town Omis and River Neretva Estuary, 43°26'30"N 16°41'E) in the eastern middle Adriatic at depths between 1.5 and 2 m on clean sandy bottom. The fish were measured to the nearest 0.1 cm and weighed individually to the nearest 0.01 g. The length-weight relationship was calculated by equation: $W = aL^b$.

Results and Discussion

The total length range of individuals ranged from 2.7 to 15.7 cm (mean length = 7.81 ± 2.761), and the weight from 0.22 to 39.96 g (mean weight = 6.53 ± 6.317), and comparable with those reported by (3, 4), it is visible that the lowest total length value is recorded in our study. The slope of the total length-weight relationship indicate isometric growth ($b=2.99$), and the value of b is similar to those reported for the North Sea (4) and for Azores (3).

Lesser weever were most abundant in May (N=40), what is earlier than that found at Porto Pim Bay in Azores (3), and at the British and Dutch coasts (5, 4). Their numbers then declined gradually (Fig. 1) to a minimum in September and October (N=3). The catches of weevers were even during both day and night (in April only night catch, while from October to December only day catches) (Table 1) contradicting the results of (3, 5), whose fish were caught generally at night in the shallow water, and those of (4), whose fish were caught generally during day at their offshore sampling depth.

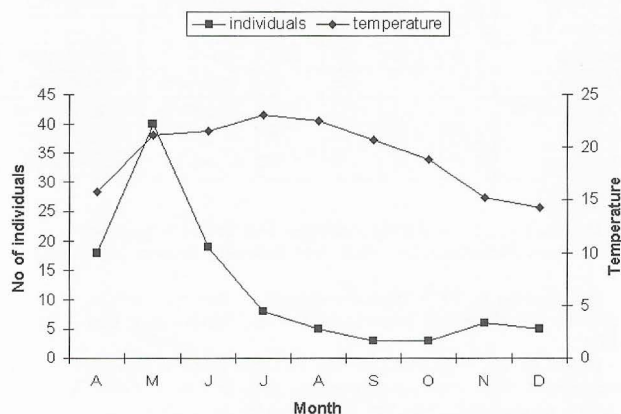


Figure 1. Monthly change in shallow water catches of lesser weever at Duæ Glava, eastern middle Adriatic, and sea temperature, from April to December 2000.

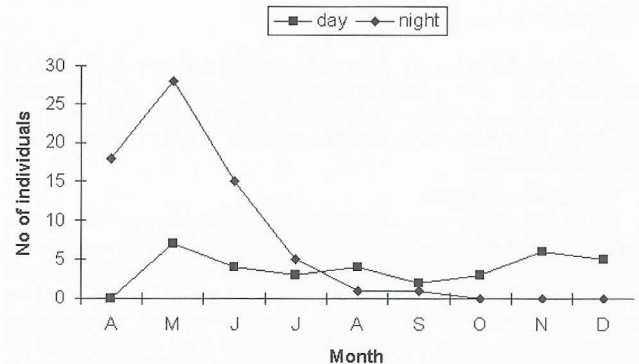


Figure 2. Day/night catches of lesser weever in shallow water at Duæ Glava, eastern middle Adriatic.

Table 1. Mean length (cm) and weight (g) of the catch (N=number of specimens).

month	N	Mean Lt \pm SD (cm)		Mean Wt \pm SD (g)	
		day	night	day	night
Apr	18	/	8,71 \pm 1,678	/	7,02 \pm 3,795
May	40	7,93 \pm 1,306	7,66 \pm 2,972	5,76 \pm 3,115	6,82 \pm 6,686
Jun	19	7,10 \pm 3,649	7,18 \pm 3,910	5,91 \pm 7,122	7,98 \pm 11,434
Jul	8	5,90 \pm 2,022	6,00 \pm 3,171	2,89 \pm 2,864	4,24 \pm 5,372
Aug	5	9,95 \pm 4,295	9,70	5,22 \pm 4,381	9,21
Sep	3	6,35 \pm 0,071	8,00	2,76 \pm 0,339	5,98
Oct	3	8,13 \pm 1,617	/	5,80 \pm 3,294	/
Nov	6	7,75 \pm 1,389	/	5,26 \pm 2,974	/
Dec	5	9,14 \pm 1,460	/	8,58 \pm 4,294	/

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