

Black scorpionfish, *Scorpaena porcus*, is the most abundant species of Scorpaenidae family along the eastern Adriatic coast. It lives on the bottom, at small depths. Therefore this species is an important fishing object of different coastal fishing gear, particularly trammels and "strasin". In the 1982-1988 period these fish made up 35.6% of the number and 28.7% of the weight of fishes occupying the top position (JARDAS and PALLAORO, 1989). After these authors their proportion in catches showed an increase trend in the 1962-1982 period.

Material and methods

Age and growth was studied from a total of 377 black scorpionfish specimens caught by trammels along the Croatian Adriatic coast between September 1986 and December 1990, mainly in summer (213 individuals) during intensive spawning. Fish length was 58-300 mm (Lt), weight 13-585 g. Age was determined by otolith reading.

Results

Fish age from the collected material was 1 to 11 years. The fish of 2-4 years of age were best represented (59.4%). (Table 1). Mean length and weight were determined for each age groups (Table 2). FORTUNATOVA (1949) obtained considerably lower mean lengths for all estimated ages (1-6), particularly for the first three to four years of these fish from the Black Sea (Sevastopol region).

Table 1.- *Scorpaena porcus* - Size and estimated age of 377 specimens studied.

LT (mm)	ESTIMATED AGE												N
	1	2	3	4	5	6	7	8	9	10	11		
50 - 59	1												1
60 - 69	5												5
70 - 79	1												1
80 - 89	2												2
90 - 99													
100 - 109		2											2
110 - 119		5											5
120 - 129		17											17
130 - 139		17											36
140 - 149		36											29
150 - 159		4											41
160 - 169		25											43
170 - 179		37		4									33
180 - 189		11		22									35
190 - 199		2		29		2							31
200 - 209				19		13							27
210 - 219				1		4							21
220 - 229						14							16
230 - 239						6							10
240 - 249						4							14
250 - 259						2							3
260 - 269						1							2
270 - 279													
280 - 289													
290 - 299													
300 - 309													
N	10	64	75	85	36	35	21	17	13	11	10		377
X	2.6	17.0	19.9	9.5	9.3	5.6	4.5	3.4	2.9	2.6			

Table 2.- *Scorpaena porcus* - Average length and weight per age.

Age	1	2	3	4	5	6	7	8	9	10	11
\bar{X}_{Lt} (cm)	6.99	12.96	15.28	17.15	18.94	20.39	21.46	22.21	22.28	23.51	24.30
\bar{X}_W (g)	7.9	39.9	61.3	93.8	131.8	168.4	191.4	222.4	246.9	262.3	289.5

Values of growth parameters after von Bertalanffy's growth equation, obtained from Table 2 for both sexes together were:

$$L_{\infty} = 28.2 \text{ (cm)} \quad K = 0.182 \quad t_0 = -0.80$$

Characteristic growth curve obtained from the above values is shown in Fig. 1.

The length (Lt cm) weight (g) relationship for both sexes together gave the equilibrium constant $b = 3.034$, pointing to isometric growth. Characteristic length-weight relationship curve is shown in Fig. 2. Condition factor obtained from this relationship was $c.f. = 1.878$.

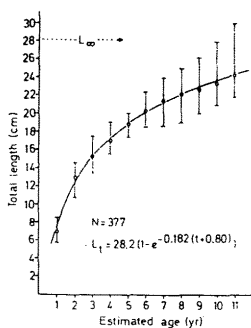


Fig. 1.- *Scorpaena porcus* - growth curve

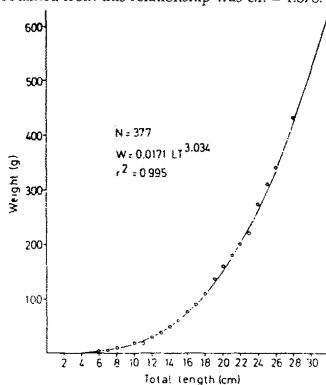


Fig. 2.- *Scorpaena porcus* - Length - weight relationship curve

REFERENCES

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