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ABSTRACTS BOOK

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BLUEFISH *Pomatomus Saltatrix* (L., 1766) AND HORSE MACKEREL *Trachurus Mediteraneus Ponticus* Aleev, 1956 DIET IN THE ZMIINYI ISLAND COASTAL WATERS

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Abstract

The Zmiinyi Island coastal waters are among the Black Sea areas of the highest fish capacity. According to the results of our studies of the past decade, the Zmiinyi Island area is one of the main spawning and feeding areas for sprats, anchovy, silverside and gobies that, in their turn, attract a lot of predatory pelagic fish, such as, for example, bluefish and horse mackerel [1, 2]. The aim of this work was to study the peculiarities of bluefish *Pomatomus saltatrix* and horse mackerel *Trachurus mediteraneus ponticus* diet in the Zmiinyi Island coastal waters. Material was collected in 2003 and 2012. Fish were caught using hook and line gear. Complete biological analyses of the fish caught have been carried out using standard ichthyological practices. Digestive tracts of the fish were preserved using 4% formaldehyde for further studies. Altogether, 102 bluefishes and 45 horse mackerels have been analysed.

The diet of bluefish comprised organisms belonging to 7 taxa. The Relative Importance Index of prey items (RII) sizes for horse mackerel shows that its main diet comprised fish (see the Table).

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Prey Items	Bluefish		Horse Mackerel	
	2003	2012	2003	2012
Amphipoda	-	-	1.4	1.9
Isopoda	-	-	1.2	2.7
<i>P. elegans</i>	11.1	-	245.4	28.9
<i>En. encrasicolus</i>	260.2	1024.7	450.6	752.4
<i>S. sprattus phalericus</i>	-	120.5	153.3	247.4
<i>M. merlangus euxinus</i>	78.4	189.2	58.1	-
<i>Atherina pontica</i>	-	36.6	79.5	52.3
<i>T. mediteraneus ponticus</i>	-	85.1	-	-
Total number of individuals	15	30	34	78

Table. RII sizes (%) of prey items of bluefish and horse mackerel in the Zmiinyi Island coastal waters in 2003 and 2012

Bluefish diet in the Zmiinyi Island coastal waters included 6 taxa (see the Table).

Fish is the most significant food. Sizes of Food Similarity Index (70.4%) and Species Similarity Index (62.5%) of bluefish and horse mackerel prey items have been quite high, which shows similarity of both studied species' diets.

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