FEEDING HABITS OF *CEPOLA MACROPHTHALMA* (PISCES: CEPOLIDAE) IN IZMIR BAY, AEGEAN SEA

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Abstract

Stomach contents of 180 *Cepola macrophthalma* (Linnaeus, 1758) specimens collected from Izmir Bay, Aegean Sea (Turkey) have been analyzed. A total of 17 different species of prey was found belonging to nine major systematic groups, i.e. Polychaeta, Crustacea, Mollusca, Chaetognatha, Thaliacea, Appendicularia, Medusae, Siphonophora and Teleostei. Crustaceans (especially copepoda and decapoda) were the most important prey in terms of IRI% in overall diet composition. However, fish larger than 19.9 cm feeding on teleost larvae.

Keywords: Diet, Fishes, Aegean Sea

Introduction

The red bandfish is a demersal species inhabiting soft and muddy bottoms at depths ranging mainly from 15 to 200 m. It occurs in both temperate and subtropical waters and is known to be distributed in the eastern Atlantic from the British Isles to the north of Senegal [1, 2]. It is also common throughout the Mediterranean, as well as in Turkish seas, but not in the Black Sea [1, 3]. The red bandfish has economical importance in Spain and Italy [2, 4], but has no commercial value in Turkey [5]. Biological aspects of the red bandfish have been studied by several authors [2, 4, 6, 7, 8], especially in its westwards distribution in the Mediterranean. However, published data on its diet composition in Turkish seas is not currently available, except the data on its age and growth parameters [5].

The purpose of the present study is to improve knowledge on the feeding habits of red bandfish on the Izmir Bay (Aegean Sea coast of Turkey).

Material and Methods

Specimens were collected by trawl in the Izmir Bay, Turkish Aegean Sea from May 2005 to June 2006. A total of 180 *C. macrophthalma* stomach contents was examined for 45 number every season. Quantitative description of the diet was given as [9]. Besides, IRI% was estimated in order to determine ratios of food groups in the stomach to overall food groups.

Results and Discussion

The overall diet composition revealed that the chub mackerel fed mainly on copepods during all seasons (Table 1). Only in summer decapods were the second main important prey. However, fish larger than 19.9 cm feeding on teleost larvae (Fig. 1). An examination of the previous literature has shown that, *C. macrophthalma* is an planktivorous fish species with diet varying according to specimen size, locality, season etc. [6, 7].

Tab. 1. Feedings habits of *Cepola macrophthalma* from the Izmir Bay during all seasons (%IRI: percentage index of relative importance)

Prey groups	Spring	Summer	Autumn	Winter
Polychaeta	0.54	0.03	-	-
Crustacea				
Ostrocoda	0.10	0.06	0.11	0.11
Copepoda	86.79	79.98	88.89	87.32
Cladocera	3.78	1.91	1.30	0.37
Mysidacea	0.53	0.05	0.07	0.10
Cirripedia	0.03	0.91	3.22	0.02
Isopoda	0.16	0.16	-	-
Amphipoda	0.07	-	0.08	0.05
Brachyura	0.05	1.13	0.18	0.92
Decapoda	1.13	15.49	2.87	8.50
Mollusca				
Gastropoda	0.02	-	-	-
Bivalvia		-	1.54	0.09
Chaetognatha	0.11	-	0.83	0.67
Thaliacea	0.95	-	-	-
Appendicularia	2.73	-	0.37	1.82
Medusae	2.16	-	-	-
Siphonophora	0.32	-	-	-
Teleostei	0.69	0.27	0.53	0.04

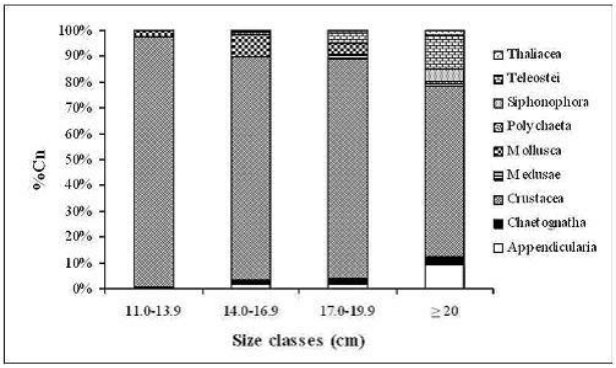

Fig. 1. Percentage numerical abundance (%Cn) distributions of main food groups in the diet of *Cepola macrophthalma* by size groups

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