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Feeding Ecology of Brown Comber *Serranus hepatus* (Linnaeus, 1758) in Izmir Bay (Turkey)

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Abstract

Study material consists of a total of 2827 brown comber *Serranus hepatus* specimens collected in Izmir Bay, the central eastern Aegean Sea, by seasonal bottom trawl surveys between February 2007 and November 2008. The number of stomachs that contained at least one prey item or any digested remains was 782. There were 551 empty stomachs. The remaining 1494 fish had stomachs which were inside-out position. The percentages of full and empty stomachs varied according to the sampling season but not to the predator length class. Significantly more fish with empty stomachs were found in November 2008. The diet composition revealed that the species is carnivorous and consuming mainly benthic crustaceans. According to %IRI values, the most dominant crustacean group in the diet was Decapoda with a score of 65.38%, and was followed by Mysida (30.96) and Amphipoda (1.66). Apart from crustaceans, Ophiurida was the only other notable prey group (1.62). The remaining prey organism groups with much less importance were polychaetes, bony fish and molluscs, respectively. The contributions of the prey organisms to the diet composition did not change seasonally but changed with predator size class. The proportion of fish prey in the diet increased with predator size. In terms of weight, they constituted 8.91% of the diet of combers larger than 9 cm. However, contribution of fish prey by weight to the diet was only 0.26% for combers smaller than 9 cm. The total lengths of the sampled brown comber ranged between 6.3 and 11.7 cm.

Keywords:
Diet composition, feeding, dietary measures, brown comber