



Serranidae Species in the Trawl Catches of the Gulf of Antalya, Turkey (Eastern Mediterranean Sea)

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Abstract

A total of 116 hauls were carried out, between August, 2009 and April, 2010, seasonally in the Gulf of Antalya, at six stations and six depth levels (25, 50, 75, 100, 150, 200 m), using a commercial bottom trawl net and 369 individuals of *Epinephelus aeneus* (Geoffroy Saint-Hilaire, 1817), 4 individuals of *Hyporthodus haifensis* (Ben Tuvia, 1953), 1494 individuals of *Serranus cabrilla* (Linnaeus, 1758), 1022 individuals of *Serranus hepatus* (Linnaeus, 1758) and 17 individuals of *Serranus scriba* (Linnaeus, 1758) were sampled. The detailed information on *E. aeneus* in the Gulf of Antalya was given by Ozgur Ozbek et al. (2013) and the present paper reports the spatio-temporal patterns of abundance and biomass of the other four Serranidae species. The frequency of occurrence was 3.45% for *H. haifensis*, 70.69% for *S. cabrilla*, 68.97% for *S. hepatus* and 6.03% for *S. scriba*. The overall mean abundance and biomass was 0.42 ind./km² and 235.33 kg/km² for *H. haifensis*; 221.11 ind./km² and 6934.45 kg/km² for *S. cabrilla*, 163.47 ind./km² and 1840.01 kg/km² for *S. hepatus* and 3.10 ind./km² and 147.15 kg/km² for *S. scriba*. *H. haifensis* was only sampled in summer and seasonal differences were also found in the abundance of *S. cabrilla*. Bathymetric variation were found in the abundances of the three *Serranus* species and the biomass of *S. cabrilla* and *S. hepatus*. The differences among stations were statistically significant of the abundance and the biomass of *S. hepatus* and the biomass of *S. cabrilla*, especially apparent between the stations in the eastern and western part of the Gulf. This study provides the most detailed information on the spatio-temporal distribution of these species in the region.

Keywords:

Trawl survey, abundance, biomass, spatio-temporal distribution, Serranidae