



## ALIEN AND NATIVE FISH IN GILL NETS AT RHODES, EASTERN MEDITERRANEAN (2014-2015)

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Fish catch composition in gill net operations from Rhodes Island (Aegean Sea, Greece) was qualitatively and quantitatively analyzed. Samplings were performed with a hired professional fishing vessel from December 2014 to May 2015, at 5-35 m of depth, over two fishing grounds in the east coast of the island (Faliraki and Kolimbia), where sandy to muddy sand and rocky substrata occurred along with *Cystoseira* sp. and *Posidonia oceanica* beds. A number of 21 samplings produced a total biomass of 183 kg comprising 1072 fish individuals.

The overall species identified were 49, belonging to 25 families, the richest being Sparidae with 14 species and Serranidae with 4 species. Native species were 43 while alien species were 6, all Lessepsian migrants: *Siganus luridus*, *Siganus rivulatus*, *Sargocentron rubrum*, *Fistularia commersonii*, *Lagocephalus scelaratus* and *Sphyræna flavicauda*.

Within the native species *Sparisoma cretense* showed the highest frequency of occurrence in nets (81%) followed by *Scorpaena scrofa* (76%), *Mullus surmuletus* (67%), *Serranus cabrilla* (57%) and *Pagrus pagrus* (52%). Significantly high was the frequency of occurrence of the alien *S. luridus*, *S. rivulatus*, *S. rubrum* and *F. commersonii* (95%, 76%, 71% and 57% respectively), while it was low for *L. scelaratus* (10%) and *S. flavicauda* (5%).

The number of alien fish specimens was 320 (29.9% total abundance) (overall ratio alien/native abundance 0.43), their biomass 48.3 kg (26.37% of total biomass) (overall ratio alien/native biomass 0.36), with the two siganids dominant among aliens (72.8% of total alien specimens and the 71.8% of their total biomass). The native *S. cretense* prevailed in terms of abundance (30% of total specimens) and biomass (27.4% of the total biomass), followed by the two alien siganids, with 22% of total specimens and 19% of total biomass. Ratio alien/native species per sampling ranged from 0.13 to 1.5, whereas the ratio alien/native abundance ranged from 0.06 to 2.88 and the ratio alien/native biomass was from 0.08 to 3.34.

The present work gives a substantial contribute in filling scattered information on coastal fish assemblages in an eastern Mediterranean region heavily impacted by biological invasions.