

HOST-PARASITE RELATIONSHIPS IN PLEURONECTIFORMES OFF THE PORTUGUESE COAST – INFORMATION ON HOSTS PROVIDED BY THEIR PARASITES

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Parasites have been recognized as valuable tools in studies regarding marine fish biology and ecology, especially migrations and population structure. Pleuronectiformes inhabiting the Portuguese coast constitute a particularly suitable group of fishes for the study of host-parasite relationships since they present a high number of species with a wide diversity of life histories, habitat utilization patterns, feeding ecology and different phylogenetic relationships, within this area. From January 2003 to July 2005, 4750 specimens belonging to 25 species and five different families of Pleuronectiformes were collected in three areas along the Portuguese coast and studied for macroparasites infections. A total of 48 species of parasites, including ectoparasites and endoparasites, were identified: 2 Monogenea, 10 Digenea, 7 Cestoda, 4 Acanthocephala, 8 Nematoda, 1 Pycnogonida, 10 Copepoda, 3 Isopoda, 2 Hirudinea and 1 Pentastomida. Multivariate analysis performed using prevalence, mean abundance and mean intensity data outlined patterns that put in evidence host affinity in what regards the host's phylogeny, distribution range, life cycle, feeding habits and habitat use. This, together with the evaluation of host specificity and host-parasite associations according to parasitological and ecological indices allowed the comparison of parasite assemblages at several scales within hosts and areas. Results indicated the similarity of parasite assemblages in hosts belonging to the same family and presenting identical patterns of habitat use. Habitat use, including feeding ecology, was found to be very important in determining parasite's infection patterns given that hosts feeding on a wider variety of prey and living in shallow coastal areas presented a higher number of parasite species.