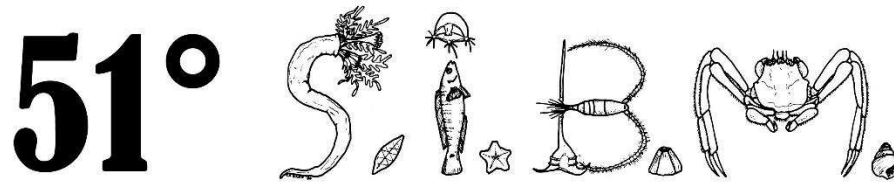


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BOOK OF ABTRACTS

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**PARASITIC INFECTIONS (TREMATODA, DIGENEA)
IN ADRIATIC SCYPHOMEDUSAE: THE CASE OF
RHIZOSTOMA PULMO (MACRI, 1778)
FROM THE GULF OF TRIESTE**

Marine parasites are an important but often neglected component of ecosystems, and very little information is reported for cnidarian parasites. The present work aimed to investigate parasitic infections in one of the most complex and widespread jellyfish in the Mediterranean Sea, the barrel jellyfish *Rhizostoma pulmo*. To the best of our knowledge, this work is the first attempt to study digenean parasites in Mediterranean scyphomedusae, most of the available data are limited to South America, Japan and Australia. Our goals were to determine prevalence and intensity of parasites in *R. pulmo*, identify the species involved through morphological and molecular analysis, test whether infection parameters change in different body parts and in relation to jellyfish size.

All jellyfish (100% prevalence) analyzed were infected with digenean metacercariae. Morphological and molecular analyses indicate that they belong to the genus *Clavogalea*, family Lepocreadidae. Intensity varied between 18.7 ± 6.7 per individual in 0-2 cm diameter jellyfish up to 505 ± 50.6 in 14 cm ones. Results of statistical analyses confirmed that intensity increases in relation with jellyfish size. Equally, relative abundance of parasites in the different body compartments changes with size, with the oral arms being more parasitized as body grows.

The prevalence of infected individuals suggests that *R. pulmo* is an important intermediate host in the life cycle of lepecreadiid in the region. Shallow waters together with turbulence related with the wide range of anthropic activities in the area may promote parasite dispersion thus favoring infection. Our findings also support the hypothesis that *R. pulmo* is an important part in the diet of teleost fish, reported as definitive hosts of lepecreadiids, since trophic interactions are necessary for these parasites to complete their life cycles. Parasitological data may therefore be useful to investigate fish-jellyfish predation, integrating traditional methods (gut contents analysis and stable isotopes).