PARASITES DYNAMICS IN ADRIATIC SCYPHOMEDUSAE: THE CASE OF *RHIZOSTOMA PULMO* (MACRI, 1778) FROM THE GULF OF TRIESTE

Motta G.[1-3], Tedesco P.[2], Avian M.[1], Terlizzi A.[1-4]

[1]Department of Life Sciences, University of Trieste, Trieste, Italy
Via Licio Giorgieri, 10 – 34127 Trieste, Italy.
gregorio.motta@phd.units.it
[2] DIMEVET, University of Bologna, Bologna, Italy
[3] Department of Integrative Marine Ecology, Stazione Zoologica Anton Dohrn, Naples, Italy
[4]Department of Biology and Evolution of Marine Organisms, Stazione Zoologica Anton Dohrn, Naples, Italy

Marine parasites are an important but often neglected component of ecosystems. This is particularly true for cnidarian parasites and their life cycles; few evidences of trophic transmission of trematodes from jellyfish to fish have been reported. This context inspired our idea of investigating one of the most complex and diffused jellyfish in the Mediterranean Sea, *Rhizostoma pulmo.*

This work is the first attempt to study Trematoda parasites in Adriatic scyphomedusae. The goals are to 1) determine prevalence and intensity of metacercariae in *Rhizostoma pulmo*, 2) identify the species involved through morphological and molecular analysis, 3) test whether infection parameters change in different body parts and in relation to jellyfish size. While waiting for molecular results, all parasites morphologically investigated potentially belonged to the genus *Opechona*. The total number of parasites varied between 18.7±6.7 parasite per individual in 0-2 cm diameter jellyfish up to 510.2±136.4 parasites in larger ones. The 100% of infected individuals suggests that *R. pulmo* is a true host of digenetic trematodes, at least for this *Opechona sp.*, and therefore important for their life cycle in the region. This also supports the theory that fish predate on *Rhizostoma p.*, since trophic interactions are necessary for this genus to complete their cycles. Parasitology may be another way to investigate fish-jellyfish predation, integrating methods like gut contents and stable isotopes analysis. Further aspects should be investigated such as the characterization of parasites life cycle, the differences between the scyphozoan species and the potential role of blooms as elevators for parasites towards the fish compartment.