



**Comunicação oral - Quarta Sessão: Ecologia e conservação**

**Different abundances of sun coral (*Tubastraea* spp.) in a recreative marina on the São Sebastião Channel: investigating the importance of predation and hydrodynamism**

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Biological Invasions are one of the biggest threats to biodiversity nowadays, mainly due the increase in human mobility in the last few decades. Invasion success is conditioned both by invader traits (high competitive potential and escaping predation) and by the biotic and abiotic characteristics of the novel habitat. Recently, Brazil is facing the increase of the invasive sun coral (*Tubastraea* spp.), which has been causing a decrease in the diversity of both sessile and mobile associated organisms. In the Yacht Club of Ilhabela, in São Sebastião Channel, SP, the sun coral presents distinct abundances in the two different locations across the marina, being more abundant in the interior of the marina than in the breakwater. Previous studies show that sessile communities in the breakwater are more exposed to predation by fish and water circulation than those inside the marina. Therefore, the objective of this project was to quantify, through an experimental approach, the effect of predation and hydrodynamics in the growth of sun coral recruits. We observed that the predation pressure reduces sun coral clonal growth. Besides, variation in hydrodynamics induced plastic responses in the sun coral, which invested in the production of new polyps under highly hydrodynamic conditions, but increased the area occupied by the colony, producing larger polyps, in calm waters. Our results show that growth plasticity can be a crucial factor for the establishment and expansion of sun coral in Brazil, and that predators could also play an important part in retarding sun coral expansion.

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