

## Terceira Sessão: Conservação e áreas afins – Pôsteres

### Evaluating the presence of the alien brittle star *Ophiothela mirabilis* (Echinodermata: Ophiuroidea) in a no-take marine protected area in Southeastern Brazil.

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The brittle star *Ophiothela mirabilis* Verril, 1867 (Ophiotrichidae) is a potentially invasive non-native species on the Brazilian coast. Originally described in the Pacific coast of Central America, its first record in Atlantic waters was in 2000, then rapidly spreading through Brazilian coastline, from 8° to 26° S. Its presence near major ports in Brazil and Caribe suggests that the ophiuroid may have been introduced to new regions by shipping, in ballast water or in fouling communities on the ship hulls. Even areas far from the coast can still be colonized through oceanic currents that transport its planktonic larvae, thus having the potential to reach distant Marine Protected Areas (MPAs). The Alcatrazes MPA resides 35 km from the Port of São Sebastião (São Paulo, Brazil). As the ship traffic in the region is intense, the present study aimed to investigate the presence of *O. mirabilis* within the MPA, in order to support first conservation measures to the marine reserve. Thus, the goals of the study were to verify the ophiuroid's occurrence area and produce a map; report hosts associated species; and describe the population size structure based on specimens collected in February/2022 and May/2023. We surveyed 17 areas within the MPA, in which 7 of them reported the ophiuroid. A total of 156 individuals were measured, with an average disc diameter of  $1.65 \pm 0.11$  mm and the biggest arms with  $5.67 \pm 0.65$  mm. Only 4.5% of the sample were individuals with all 6 arms, while vast majority (around 93.6%) presented an arm configuration that suggests a fissiparity event. Also, we identified 5 host taxon/functional group used by *O. mirabilis*, observing a higher abundance in *Leptogorgia punicea*. Although there are no records of negative impacts on native species, monitoring is still essential as its impact can remain subtle in the environment.

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