

## SEA URCHINS ASSOCIATED FAUNA IN GRAN CANARIA ISLAND COASTAL ECOSYSTEMS.

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**Abstract:** There are interactions between species that can help the survival of other organisms, protecting them from environmental conditions or even hiding from a predator. Some species of sea urchins made crevices creating possible refuges for small organisms, as well as in the spaces between spines of sea urchins. Association between species with coastal sea urchins in the Canary Islands has been not described until this research. The aim of our work was to describe the presence of organisms found between spines, below the shells, and inside crevices of *Arbacia lixula*, *Paracentrotus lividus*, and *Sphaerechinus granularis*. The sea urchin species were collected in 5 locations around Gran Canary Island, Spain (Bañaderos (North), San Cristóbal (East), Arguineguín (South), and Tasartico and La Aldea (West)) to identify differences between sampling areas. During a year, the associated organisms were collected within the sea urchins, preserved immediately, and identified at the lowest possible taxonomic level. Biodiversity indexes and the number of species in each area were used to compare between localities. Thirty associated species have been identified, where the mollusks were the most representative group, followed by crustaceans. The West coast (Tasartico) was the most diverse area in comparison with the other sampling areas. Even when this is a preliminary result, we found that localities with less anthropic pressure were more diverse and with a major number of associated organisms.

**Keywords:** species interactions, *Paracentrotus lividus*, *Sphaerechinus granularis*, *Arbacia lixula*, rocky shores, Canary Islands, biodiversity.