

## **SUBTIDAL BENTHIC COMMUNITY OF THE CAGARRAS ARCHIPELAGO, RJ, BRAZIL**

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This study takes place in a near shore archipelago which is highly impacted by anthropogenic perturbations. In order to assess species assemblages and identify patterns in the abundance and distributions, several underwater surveys were conducted using SCUBA diving in two different sites of the Comprida Island, the largest out of the five islands that compose the archipelago. Organisms were identified using the photoquadrat method along 30m transects in three different depths: 3, 6 and 9 meters. Field data were analyzed with CPCE 3.4V and the percentage cover of conspicuous organisms was obtained. A shift in the community composition was observed between the two sites. In the first site (middle point), there was a dominance of turf algae and sponge, whereas in the second site (south point), patches of the zoantid *Palythoa caribaeorum* were observed, as well as the sea urchin *Echinometra lucunter*. After the accomplishment of the surveys in the archipelago, it is expected to gather enough data for mapping the communities and help future conservation efforts.

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## **SEAWEED COMMUNITIES IN A HEAVILY URBANIZED ENVIRONMENT IN SOUTHERN CALIFORNIA**

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In urbanized coastal regions, natural and anthropogenic perturbations can result in large community-level alterations. In southern California, human populations are extremely high near the coastline resulting in a heavily anthropogenic influenced environment. Rocky shores are particularly vulnerable to human impacts and are subjected to disturbance from climate change, pollution, recreational use, and non-indigenous species. Our investigations have demonstrated significant shifts in the compositions of intertidal communities since the 1970s highlighted by large declines in mussel abundances and mussel bed community diversity. In addition, the macrophyte communities of many local shores have shifted from ones dominated by larger, more productive, fleshy seaweeds to communities composed mostly of disturbance-tolerant, less productive, encrusting or turf-forming seaweeds. In response to declines in populations of the fleshy brown alga *Silvetia compressa*, a particularly important component in the intertidal, we are currently experimentally