

## Background

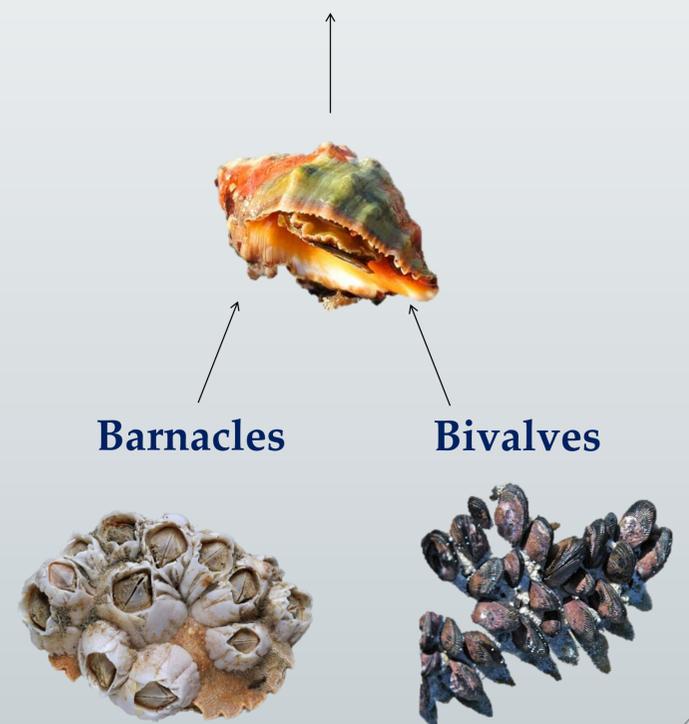
Due to the tidal cycle, rocky shores are a very dynamical environment. In this way factors as temperature, salinity, desiccation and wave exposure vary daily.

It is known that organisms interact with the environment and with each other, in this context, organisms that inhabit rocky shores are constantly stressed by environmental factors. This caused unique adaptations, specially on its enzymes. Among these proteins are the proteases, which participate in fundamental processes to the survival and growth of individuals. In addition, they have a great biotechnological value.

This project is yet another step in understanding how protease activities can be altered due to environmental influences on the ecological aspects of organisms

## Keystone specie

*Stramonita brasiliensis*



## Research objectives



(i) To characterize the presence and activity of proteases in populations of different rocky shores;

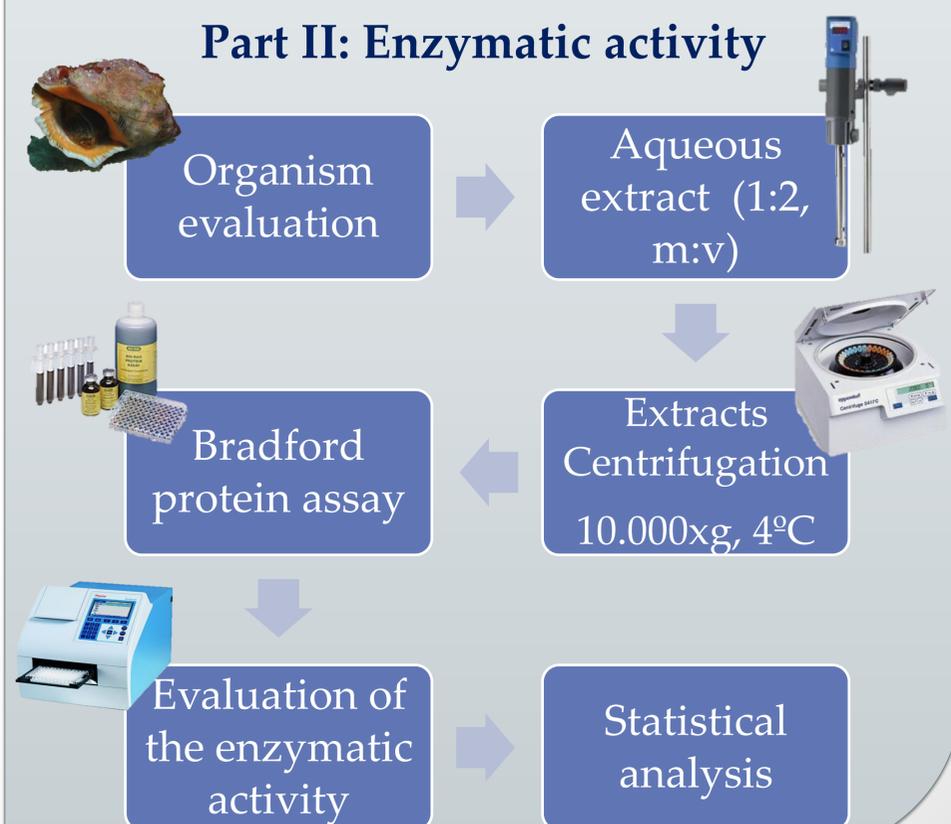
(ii) To evaluate the influence of the stress caused by waves exposure and quantity and quality of nutrients in the production of proteases.

## Methods

### Part I: Environmental parameters

- (i) Primary productivity: total amount of chlorophyll-a on the sea surface → data available on the Internet
- (ii) Wave exposure: The degree of exposure to the waves of the rocky shores evaluated will be determined based on the model of Burrows et al. (2008).

### Part II: Enzymatic activity



## Acknowledgement

We thank the São Paulo Research Foundation (FAPESP) for the project grant #2018/00772-7 (Interaction between oceanographic factors and the proteases production in marine organisms) funding.