

Environmental quality of sandy beaches:

bioindicators as proxies for revealing chronic marine pollution

Marilia Nagata Ragagnin

m.nagata@usp.br

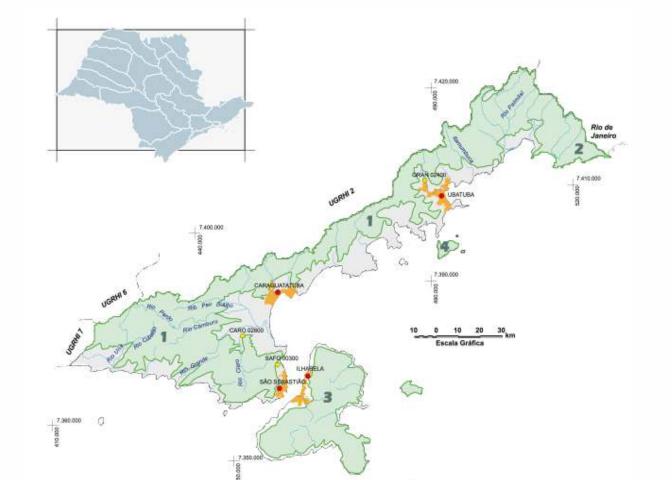
MAIN QUESTIONS



How are pollutants spatially distributed on the northern coast of São Paulo State?



Do physiological condition and populational structure reveal long-term stress related to environmental contamination levels?



WHY?

Pollutants



Macrobenthos -----

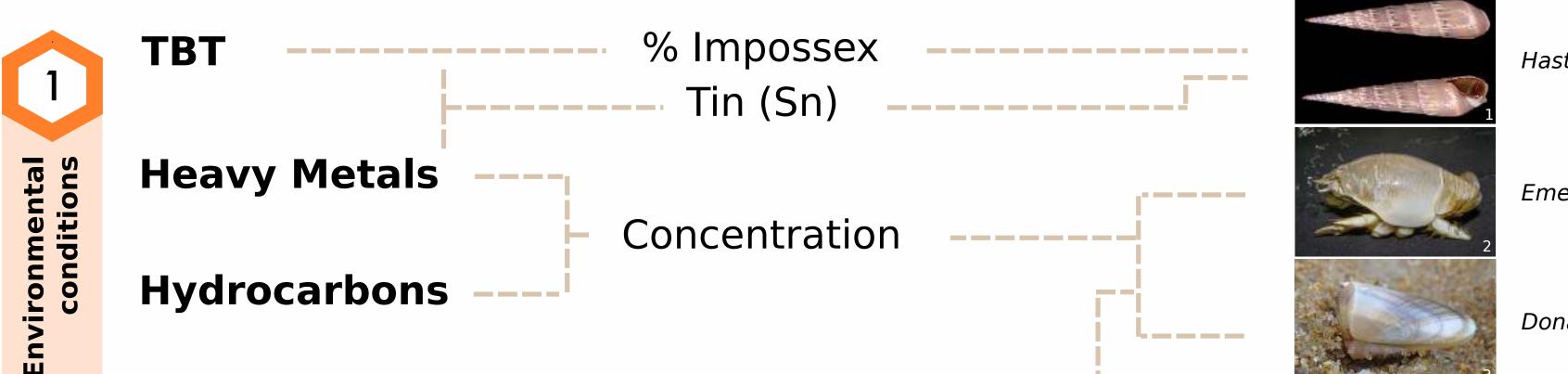
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Sandy beaches

Rapidly dispersed Toxicity and persistence Biotransference Bioaccumulation

Potential indicators to assess variations in habitat quality Good and services Highly impacted Poorly studied

HOW?



Hastula cinerea

Emerita brasiliensis

Donax hanleyanus

Microplastics ––– Number of particles





Organism level

DNA damage



Energetic status (energy reserves)

Population level

Density/Abundance

Body size

Number of eggs

Gonado-somatic index

Credits: Conquiliologistas do Brasil 2Cláudio Dias Timm Biogo Luiz