MINISTERE DE L'ENSEIGNEMENT SUPERIEUR

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IMPACTS OF A BLEACHING EVENT ON CORAL REEF ASSEMBLAGES IN THE SALARY NORD VILLAGE, AND EFFECTS OF MARINE PROTECTED AREAS

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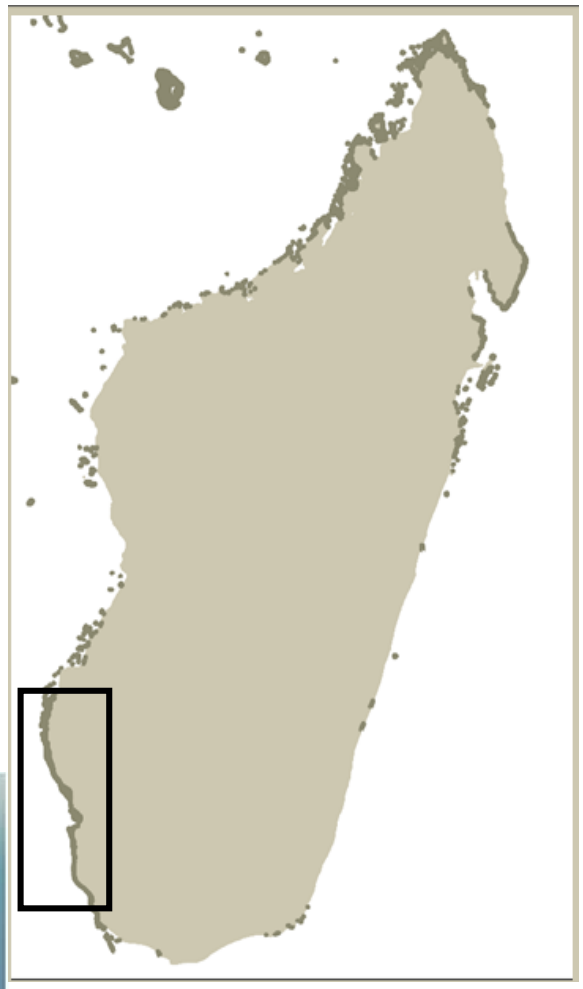
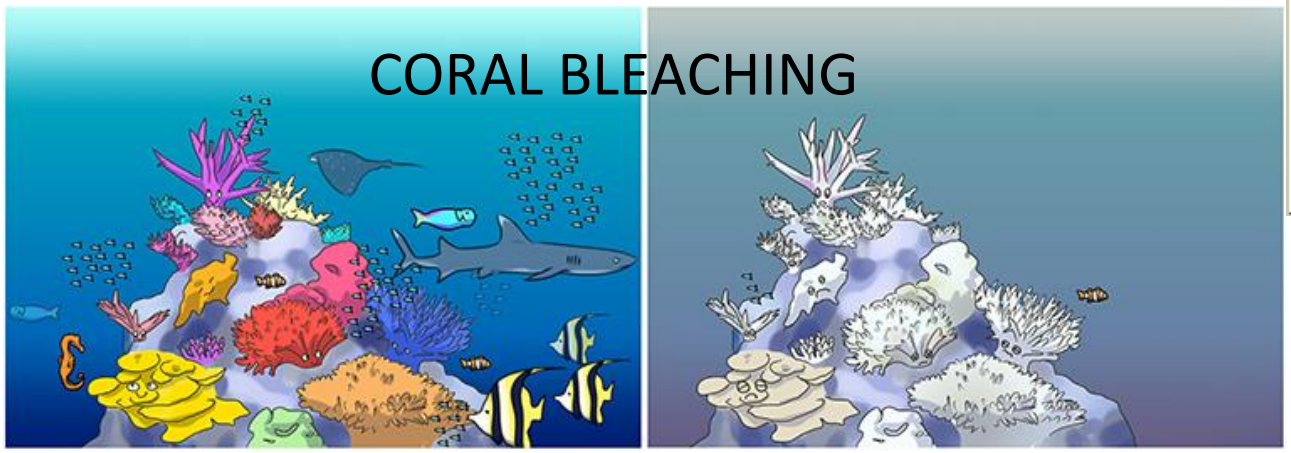
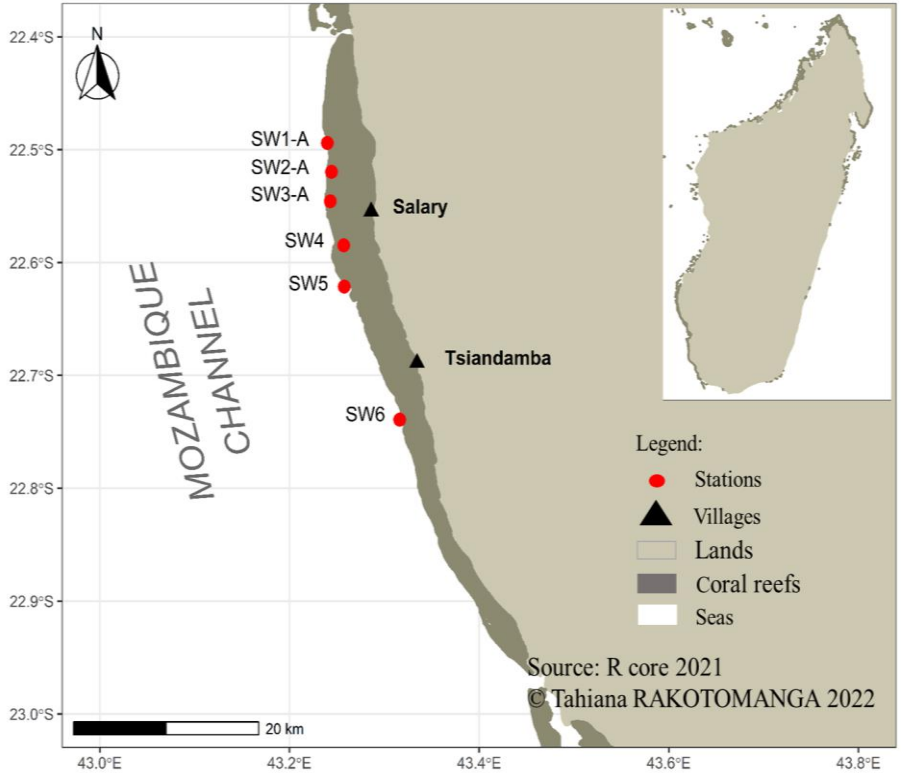
CONTEXT

Madagascar's coral reefs have been in decline for 50 years. This is due to increased fishing pressure, pollution and hypersedimentation, accentuated by climatic disturbances, leading to harmful phenomena such as coral bleaching. These different factors have led to the loss of 40 to 80% of the coral cover. It is particularly observed along the southwestern coast, where the population is highly dependent on marine resources. In response to these various threats, one of the options considered to combat biodiversity loss is the establishment of marine protected areas or MPAs. My study is therefore to see the likely Capacity of a marine protected area to counter or mitigate the negative effects of coral bleaching



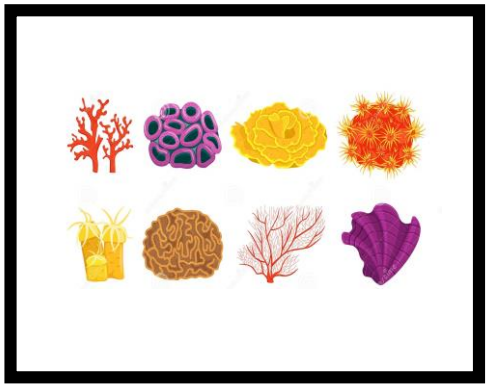


METHOD



SW1-A, SW2-A, SW3-A : Unfished
SW3, SW4, SW5 : Fished

Quadrat 1m²



COLONIE STATE

- Healthy
- Partially bleached
- Totally bleached
- Bleached

A bleaching monitoring was carried out in March 2020 and a post-bleaching monitoring was carried out in 2021 of the same month on the same stations to highlight the severity of the 2020 phenomenon. In each station, 20 quadrats of 1m² were used to sample the coral colonies.

The coral colonies observed were identified at the level of genera and classified according to their state of health

RESULT

Site	Station	Fishing pressure	Year	Quarat	Genera	Colonie state	Abundance
Salary	SW1-A	Unfished	2020	1	*Porites*	Healthy	4
Salary	SW1-A	Unfished	2020	1	*Porites*	Partially bleached	1
Salary	SW1-A	Unfished	2020	1	*Porites*	Totally bleached	0
Salary	SW1-A	Unfished	2020	1	*Porites*	Bleached	0

We get a data set with the abundance of coral colonies by genus, station, year, quadrat and fishing pressure