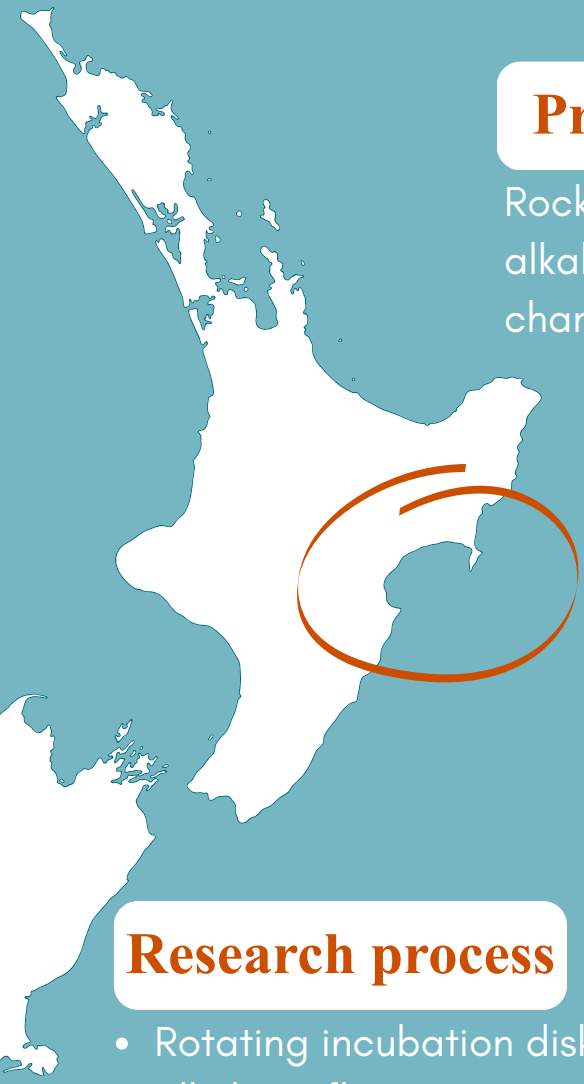
More alkalinity, LESS IMPACT?

Research Question: How does Ocean Alkalinity Enhancement impact sediment-water fluxes of alkalinity in carbonate-rich sediment in Hawke's Bay?

Background

- **The ocean uptakes 30% of atmospheric CO_2!**
- Alkalinity increases oceanic CO_2 uptake by reducing the amount of H^+ ions in the water column.
- Ocean Alkalinity Enhancement is a proposed method to remove atmospheric CO_2 by adding alkalinity to seawater.



Problem

Rocks, shells, and sediment are natural sources of alkalinity, but we don't know how they respond to changing alkalinity.

Study aim

To understand the impact of increased seawater alkalinity on natural alkalinity sources in sediment of Hawke's Bay, New Zealand.

Research process

- Rotating incubation disks will be used to measure natural alkalinity fluxes as increased seawater alkalinity is added.
- Water samples will be taken to assess how seawater alkalinity has changed over time.

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