

Remnant Rock Oyster Reef, Booral, Queensland. Credit: M. Connell

# Great Sandy Strait Shellfish Reef Restoration



### **Great Sandy Strait Shellfish Reef Restoration**

#### What is the project?

The Nature Conservancy (TNC) is working with the Butchulla Native Title Aboriginal Corporation, the Australian, Queensland and local government and community, to restore fragmented and degraded intertidal Rock Oyster reefs in the Booral area of the Great Sandy Strait.

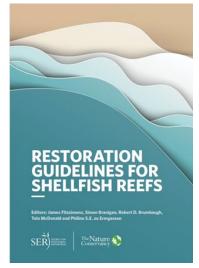
#### How are we restoring the ecosystem?

We enhance the existing remnant reefs by placing locally sourced rocks adjacent to and amongst the remnant reefs. These rocks are arranged to mirror the natural reef formations. Meticulous ecological and engineering ensure we do this in a way that is consistent with the area's natural processes.

Throughout the year, local adult Rock Oysters will spawn naturally, and their young will locate, establish, and flourish on the new reef foundations. As the oysters grow, they enrich the size and intricacy of the reefs, creating complex structures for a myriad of animals and plants to occupy and thrive. Reef forming shellfish species, like those at Booral, are the foundation for intricate aquatic ecosytems: they stand out as one of nature's exceptional habitat engineers.

#### Who is TNC?

TNC is a global environmental nonprofit working to create a world where people and nature can thrive. TNC works in 79 countries, and is a science-led organisation with a focus on conservation. This project is led by TNC and supported by our local and international team of restoration practitioners. Our work is world class and in accordance with guidelines adopted by the International Society for Ecological Restoration (SER), guidelines which TNC helped write (see link below).



Restorations Guidelines for Shellfish Reefs

## What else will live on or off these reefs other than oysters?

Aquatic snails, worms, crabs, nudibranchs, octopus, juvenile bream, mullet, cobies and puffer fish. We also expect to see other species of oyster, marine plants, kelp, sponges and encrusting corals progressively establish on and around the reef

#### Why do the reefs need restoring?

Up until the early 1900's, naturally occurring Rock Oyster reefs were found in bays and estuaries along the entire east and southern coasts of Australia. Today, these reef ecosystems have all but disappeared from many estuaries, including the Great Sandy Strait, where only remnant reefs can be found.

#### Are there still oysters here?

There are Rock Oysters and remnants of Rock Oyster reefs in the Great Sandy Strait. This project will, with local guidance, map those remnants and identify suitable areas for future reef restoration projects. Remnant reefs serve as homes for the 'parent' oysters, whose offspring will populate shellfish reefs under restoration.

#### Can community members get involved?

Absolutely. These will be locally restored reefs with the help of local reef stewards. Local volunteers can get involved in a variety of ways, from information sharing to becoming 'reef guardians'. If you or your group are interested, just contact the team via <a href="mailto:queensland@tnc.org">queensland@tnc.org</a>.

#### Do you need a permit to do this?

Yes. Restoration projects such as this project require a permit from the Queensland Government to work in the Great Sandy Marine Park and development approval from the Queensland State Government and Fraser Coast Regional Council for placing structures (reef foundations) in a waterway.

#### Who is funding the project?

The Nature Conservancy and Australian Government's Reef Coastal Restoration Grant program.

#### Where can I find out more?

Website: Great Sandy Strait Shellfish Reef Restoration

Email: queensland@tnc.org

#### Fun Facts

- •One rock oyster can filter between 50-100 litres of estuary water per day.
- •Oysters are ecosystem engineers, cementing rocks together forming structure.
- •Dyster reefs provide coastal protection from wave and wind driven erosion.

