

# Abalone Industry Reinvestment Fund (AIRF)

## Block 21 and 29 Centro Assessment

Lead Agency: Institute of Marine and Antarctic Studies

Funding: \$38,891

Start Date: 1 November 2023      End Date: 30 June 2024

Status: COMPLETED

### **Aims and Objectives:**

To assess the extent of urchin incursion along productive abalone coastline in Blocks 21 and 29.

### **Final Report:**

#### *Block 21*

High levels of urchin incursion were observed to occur at the eastern margins of Subblock 21C, around Cape Pillar and parts of Tasman Island. Moderate (20-40% barren) and Abundant (40-85% barren) barren patches were frequently observed in Towed Video, and Moderate (20-40%) barren patches observed on Timed Swims. It is likely that extensive barren areas will expand considerably in these areas in coming years if no urchin control is actioned. Much of the remainder of Block 21 had low levels of urchin incursion. Small incipient barren patches classified as Rare (<20% barren) were observed in the vicinity of Mount Brown, Crescent Bay and Safety Cove.

*Recommendation:* Urchin control should be actioned on the eastern portion of Block 21 (Tasman Peninsular and Tasman Island). Harvest subsidies in block 21 should remain given the remote location and catch through the urchin impact area monitored. Spatial maps to be provided to the TCDA to assist harvest. Areas where Rare (<20% barren) incipient barrens have been recorded should be reassessed in 24 months. Additional video on the western side of Tasman Island may be of benefit for guiding urchin control (i.e. fishers).

#### *Block 29*

High levels of sea urchin barren were recorded in Block 29A at Seymour, and to the reefs to the north. These considered of Rare (<20% barren), Moderate (20-40% barren), and Abundant (40-85% barren) barren classes, as well as areas of extensive Barren Zone (>85% Barren) in waters off northern Seymour. No barren areas were observed off Picaninny Point. It is likely that extensive barren areas will expand considerably in coming years if no urchin control is actioned.

*Recommendation:* Urchin control should be actioned in Block 29A and 29B, at Seymour and to the reefs to the north. Control options to be considered include commercial harvest, incentivised harvest or take-all harvest. Spatial maps to be provided to the TCDA to assist harvest.

#### *Timed Swim vs Towed Video*

Visual comparison of urchin barren observations on Abalone fishery-independent Timed Swim transects to Towed Video data showed a high level of correlation. The observational data recorded on Timed Swim surveys can be used as an early indicator of urchin incursion. Diver recorded data has the additional benefit of recording urchin presence pre barren formation. Towed video, however, provides greater spatial coverage and resolution of urchin barren incursion, and is more appropriate for finer scale urchin management.

*Recommendation:* Urchin observational data recorded in the broader Abalone fishery-independent timed swim survey program should be assessed for the purposes of early warning of urchin incursion and assessing the need for higher spatial resolution (i.e. towed video) surveys in areas of high value. In lieu of finer scale spatial data, the observational data could be considered for directing control options.

[Full Final Report](#)