AIRF Centro
Projects

22a Munroes Bight
Dynamics of urchin overgrazing

Kelp collapse ≥2.2 urchins m\(^{-2}\) (550 g m\(^{-2}\))

"An ounce of prevention is worth a ton of cure"

Recovery ≤0.4 urchins m\(^{-2}\) (70 g m\(^{-2}\))

18 months

Kelp bed cover (%)

Incipient barrens

Widespread barrens

resilience
Imas Survey Sites
Whats the plan?

• Identify high value productive abalone areas at risk
• Identify areas not viable for harvest
• Remove urchins before they take over and create barons
• Log numbers and gps locations of cull
• Establish real world cost of culling
Area 1 Block 22a October 2019

Geological barrier between East / south east
Historically hugely productive
30ton value 2.1m p/a
Producers Some of the best abalone in the world
Details of approved Project

- To Cull Centro from the southern most affected block 22a, and work north towards Cape Hauy, concentrating on cheese hole barrens that are affecting commercially viable Abalone Habitat, and stopping the spread on Centro in this hugely valuable Abalone Area and moving south to Cape Pillar

- #Aims and Objectives:
  - Protect viable abalone Reef and habitat
  - Stop the spread and expansion of centro
  - Remove the Centro from 22a where they are not yet plentiful enough to be commercially viable to harvest
  - Establish a real cost to Urchin culling with the hope to roll out to other areas

- #Methods- How we will undertake the project
  - Using the FV Suicidal Dream mothership
  - We Will dive Doubled up 2 divers and one deckhand per dingy
  - All Divers Will use GPS trackers while diving
  - Dingys Will Complete 4 sessions per day Approx 4 hrs Diving each vessel
  - 4 Dive Days Total Plus 5 hours travel each way from Hobart
  - Each Dingy Will Have a deeper location start point to 20m and a shallow location and operate within TACL diving codes of practice
  - Click Counters will be used by each diver to count the urchins smashed
  - Some go pro footage will be taken and GPS records kept and available to members
  - A Report of this project will be provided to DPIWPE and Tacl Within 4 weeks of completion
Munroes Bight 22a October
Key project actions/outcomes:

• 16 dive hours per dinghy was successfully completed over 4 days
• 4.75 miles of coastline was culled of Centro out to a depth of 21m
• “Spot” shallow jumps (shown in green in the above image) revealed little to no Centro populations in situ.
• A total of 33,400 Centro urchins were culled.
• Up to 20 percent of the Centro observed were noted to be very small with new recruits in some areas about the size of a 50 cent piece.
Key observations/recommendations:

• Divers observed a substantial increase in Centro population in Munro Bight compared with that observed in the same area only 12 months ago.

• Divers noted substantive weed, abalone and lobster recovery in shallow bottom previously affected by the June 2016 storm event.

• Divers observed a “healthy” degree of recruitment of abalone populations within and around incipient Centro barrens.

• Divers noted almost zero population of lobster, abalone or scale fish within the larger extensive Centro barrens.

• A follow-up cull is recommended in abalone block 22a within 12 months