



**Introduction to  
Pau7 Reseeding Project**

**Importance of Reseeding  
Habitat**

**Gerard Prendeville**

# Overview

- Year three of reseeding trials
- Last year used Liz Keys (master student) to do size versus survival and density vs survival studies – constructed boulder reefs for controlled experiments
- Learned lots about habitat and survival
- About to assess commercial viability



# Funding

- First two years: Voluntary funding from divers, quota owners and fishing companies
- 2004 / 2005, CSO levy via SeaFIC
- Trade and Enterprise funding
- Funding for Liz's work from Foundation for Research Science & Technology

# Objectives of Reseeding Trials

- Suitable site characteristics – ongoing
- Seed size – Liz
- Seeding density – Liz
- Growth to 125mm – Rodney
- Survival to 125mm – Rodney
- Economic analysis – July

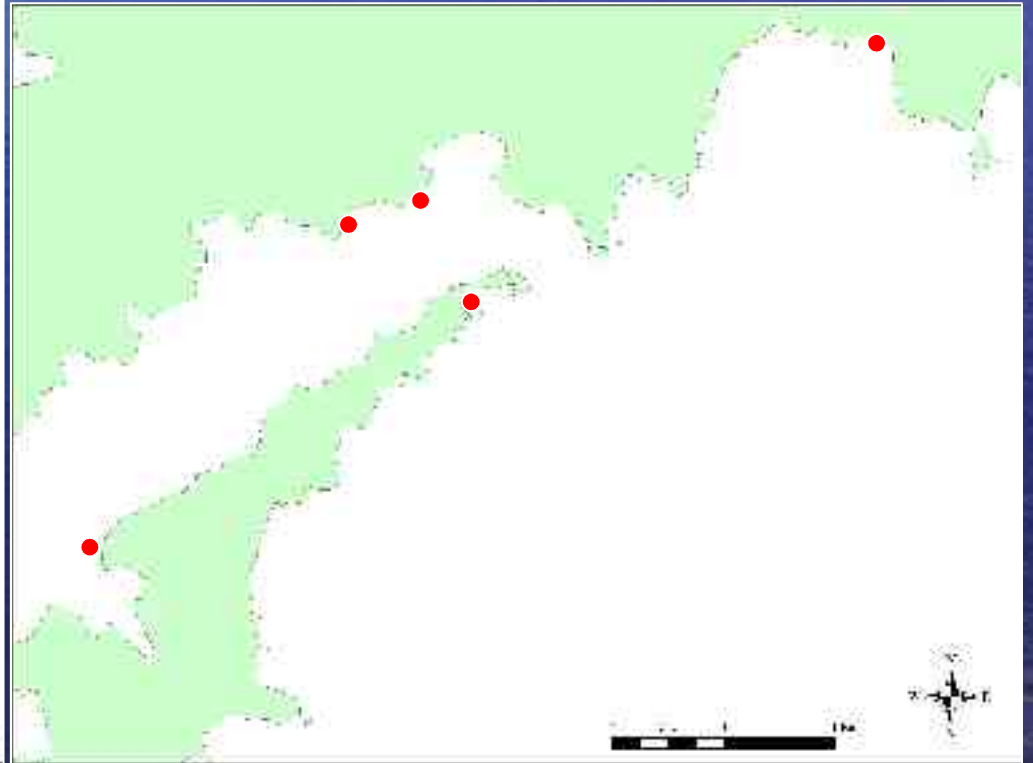
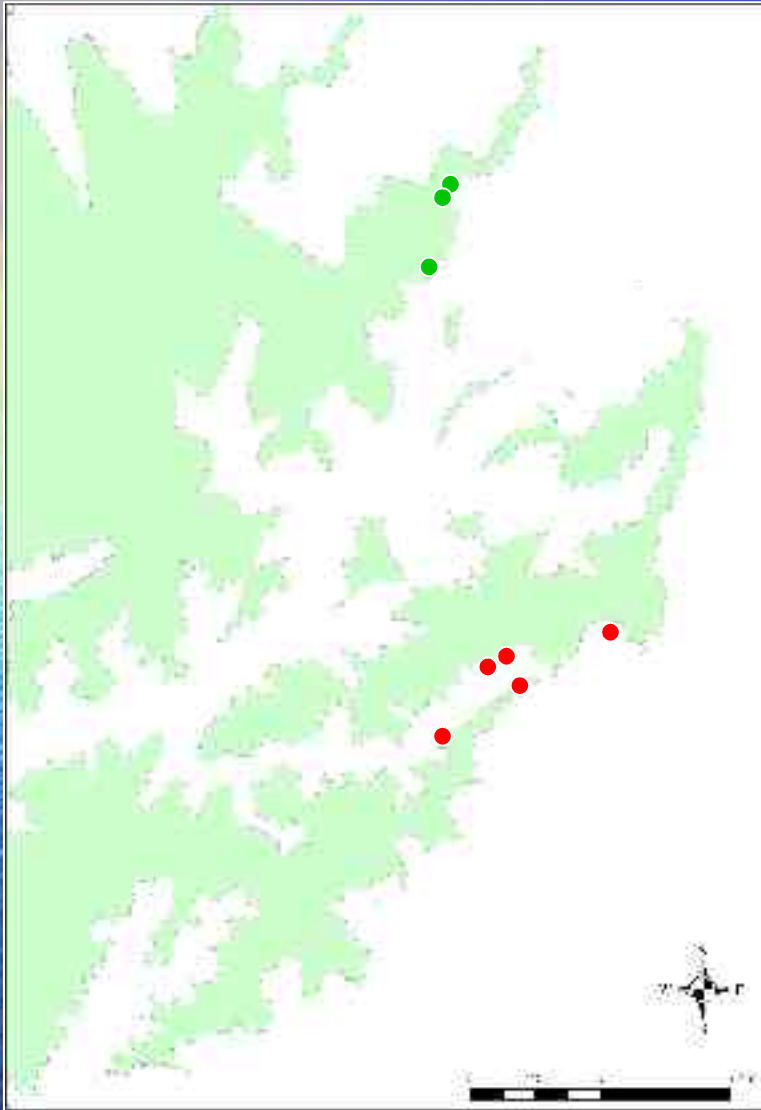


# Paau 7 Reseeding Sites

- Eight main 'commercial' survey sites
- Other sites
  - 23 sites Cook Strait and Northern Entrance for general assessment and specific research topics
  - 6 sites Tory Channel for further survival studies
  - Continued use of Tory Channel constructed boulder reefs

# Site Charts

Cook Strait, Tory Channel  
and Northern Entrance



# What Have We Achieved?

- Approximately 100,000 reseeds in water
- Liz Keys Master's Thesis on density and size is complete
- Science results are being analysed from five of the main survey sites
- Results from ten smaller sites have been visually assessed
- Rodney will give details on results later



# Where to From Here?

- Assess viability of commercial reseeding – economic model by end of July
- More survey work to do on sites, Summer and Autumn 2005-06
- Survey Area 7 habitat in detail to identify prime sites for survival and growth



# HABITAT

- Habitat has critical influence on
  - Survival
  - Growth rates



# Small paua are nocturnal . . .

- Live under rocks by day
- Emerge at night to feed
- Feel secure if butted up to an edge
- Darker the better
- That means found under boulders from when paua are 5mm to 60+mm



# What Juvenile Paua Need

- Protection
  - Wave action
  - Predators
  - Light
- Food source
- Suitable substrate



# Requirements change with age

- Seed < 5mm not light sensitive
- About 5mm move under boulders
- 40-80mm around low water mark
- 60mm less light sensitive, become reproductive, emerge to open and deeper habitat, storm-proof rocks

# Best Habitat

- Multiple layers of boulders
  - Places to hide
  - Plenty of space (surface area of boulders)
  - Breaks wave action
  - Feed filters down through the boulders
  - Protected from predators
- Off shore reefs or protecting headlands or large boulders break wave action – protect inshore areas



- Need stable rocks - is a fine line between too stable and too mobile
- Solid Bedrock, rock faces:
  - No cover, no hiding places
- Small unstable boulders
  - Get tossed by sea, no protection
- Gravel and sand
  - Clogs paua, fills in habitat, spatial issues









# Ideal Habitat . . .

