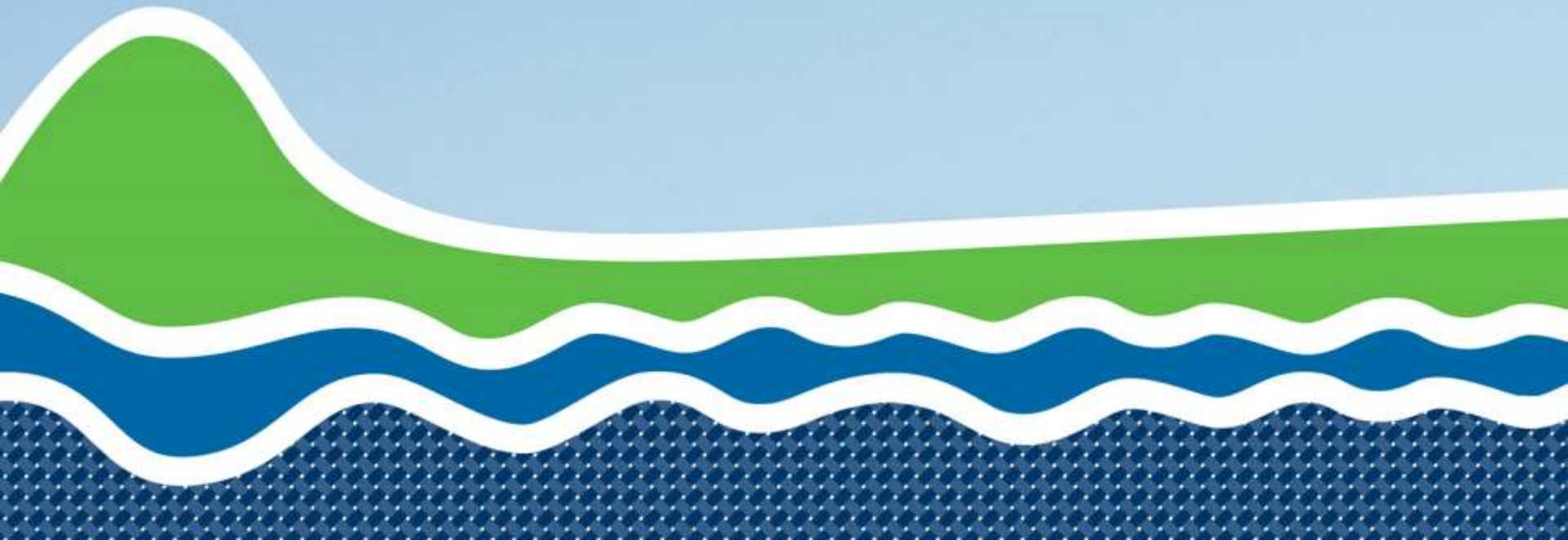


TAURANGA MOANA BROADSCALE SURVEY

Bruce Gardner (BoP Regional Council)

Joanne Ellis (Cawthron Institute)

Working together for better results in Tauranga Harbour



Council Priority Programmes

- Water Management (NPSFW Implementation)
- Rotorua Lakes Programme
- Tauranga Harbour Programme
- Flood risk and river scheme sustainability



Tauranga Harbour – Council agreed outcomes

- Ecological Health
- Amenity
- Cultural
- Sustainable Land Management
- Recognising Economic Importance
- Community



Tauranga Harbour – Council agreed approach

- Recognise special relationships that iwi and hapū have with the moana
- Mountains to sea interconnectedness
- Encourage community participation
- Sharing and communication
- Scientific integrity
- Include maori knowledge alongside western scientific research and data



Health of the Harbour

- MTM Health of the Harbour report
- Identified knowledge gaps
- Broad Scale Ecological Survey 2011/12
- Collaboration – seven organisations joined forces
- Regional council provided workers, equipment, analytical help, boat, office space, report peer review



How can we continue to get good outcomes?

- Look for opportunities to leverage from earlier work
- Recognise that everyone's benefit far exceeds what they contribute
- Always remember that our council encourages us to think collaboration and involve the community
- Be adaptive, help build capacity, maintain strong relationships and keep communication channels open



Litter clean-ups example

- School environmental group has idea
- Can't afford cost – protective gear, bags, transport, disposal
- Council says YES – maybe regional council can help too. We say YES and maybe a care group might also like to help
- 2 years later we have a full programme and private industry sponsorship
- 2014 - 600 school children/volunteers, 100+ tonnes of rubbish removed / cleaner harbour / teaching opportunities / intro to science / fun day out
- Encouragement from councils to do more



Need for the survey identified by:

- Iwi
- Council
- Researchers

Tauranga Harbour Programme

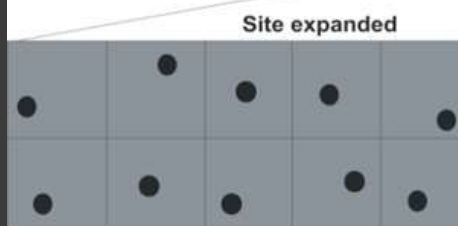
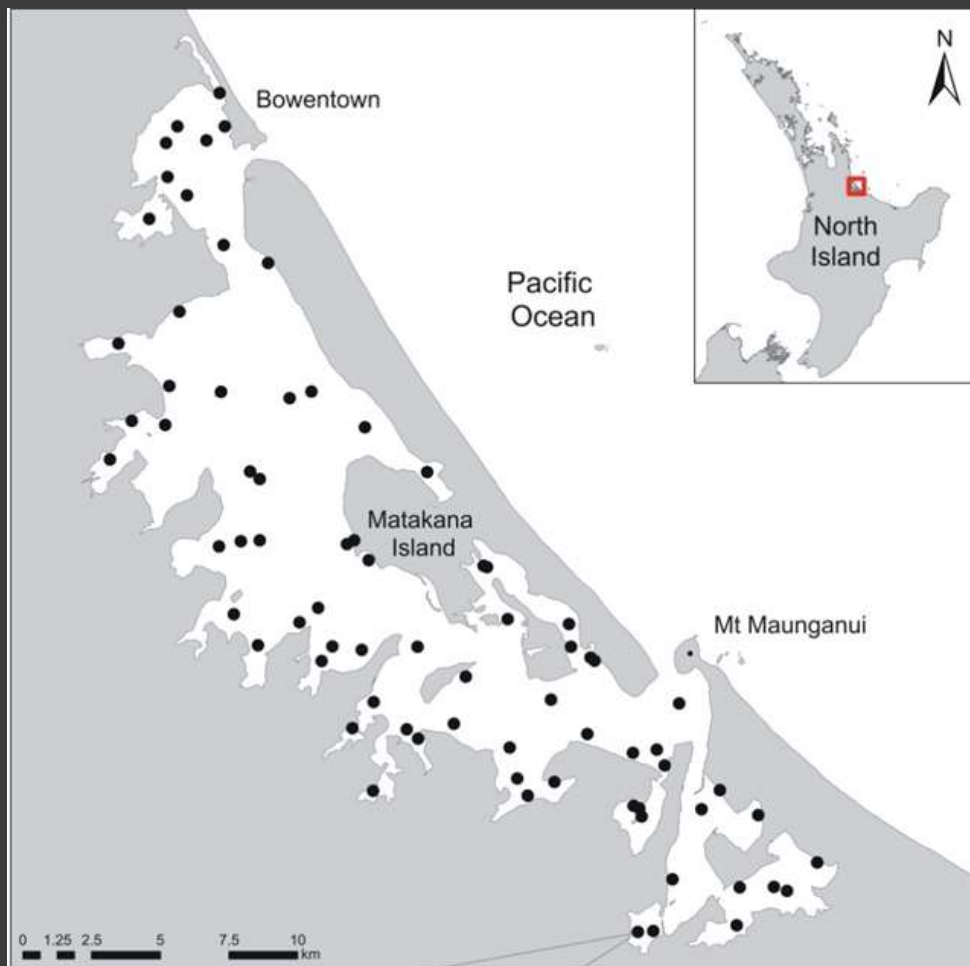
Vision: A healthy and thriving harbour that contributes to our wellbeing today and in generations to come.

Outcomes: Ecological health, Amenity, Cultural, Sustainable land management, Recognising Economic Importance, Community.

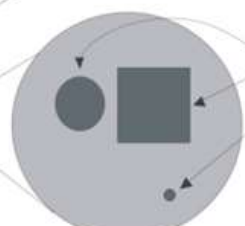
Approach:

- Recognise special relationships iwi and hapū have with the moana,
- Mountains to the sea,
- Community participation,
- Communication,
- Scientific integrity,
- Māori knowledge alongside “western” scientific research and data





Grid divided into 10 equal areas (plots) with 1 randomly placed sample in each plot

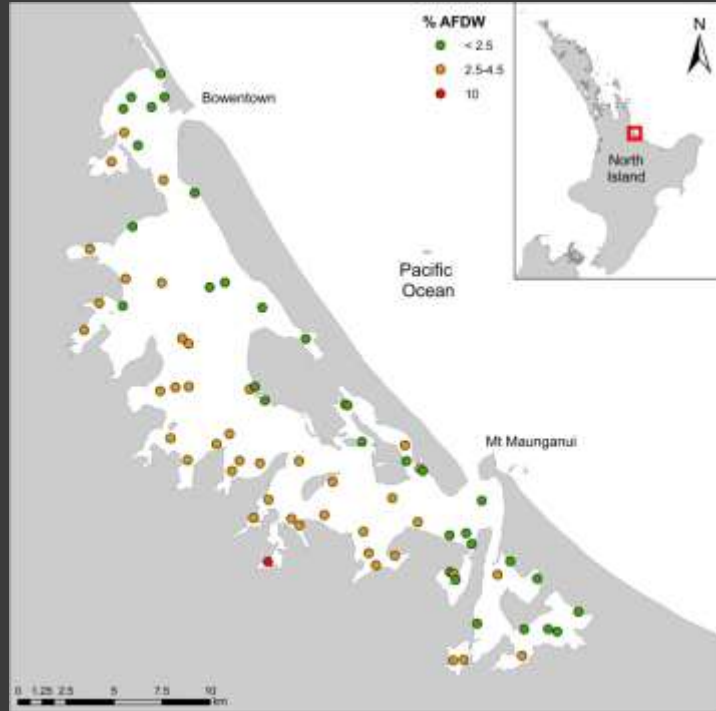


Each sample included:
 0.013m Infauna core
 0.25m² quadrat for epifauna and macroalgae (every 2nd plot)
 Surface sediment samples for chemical and physical properties and Chl- *a*

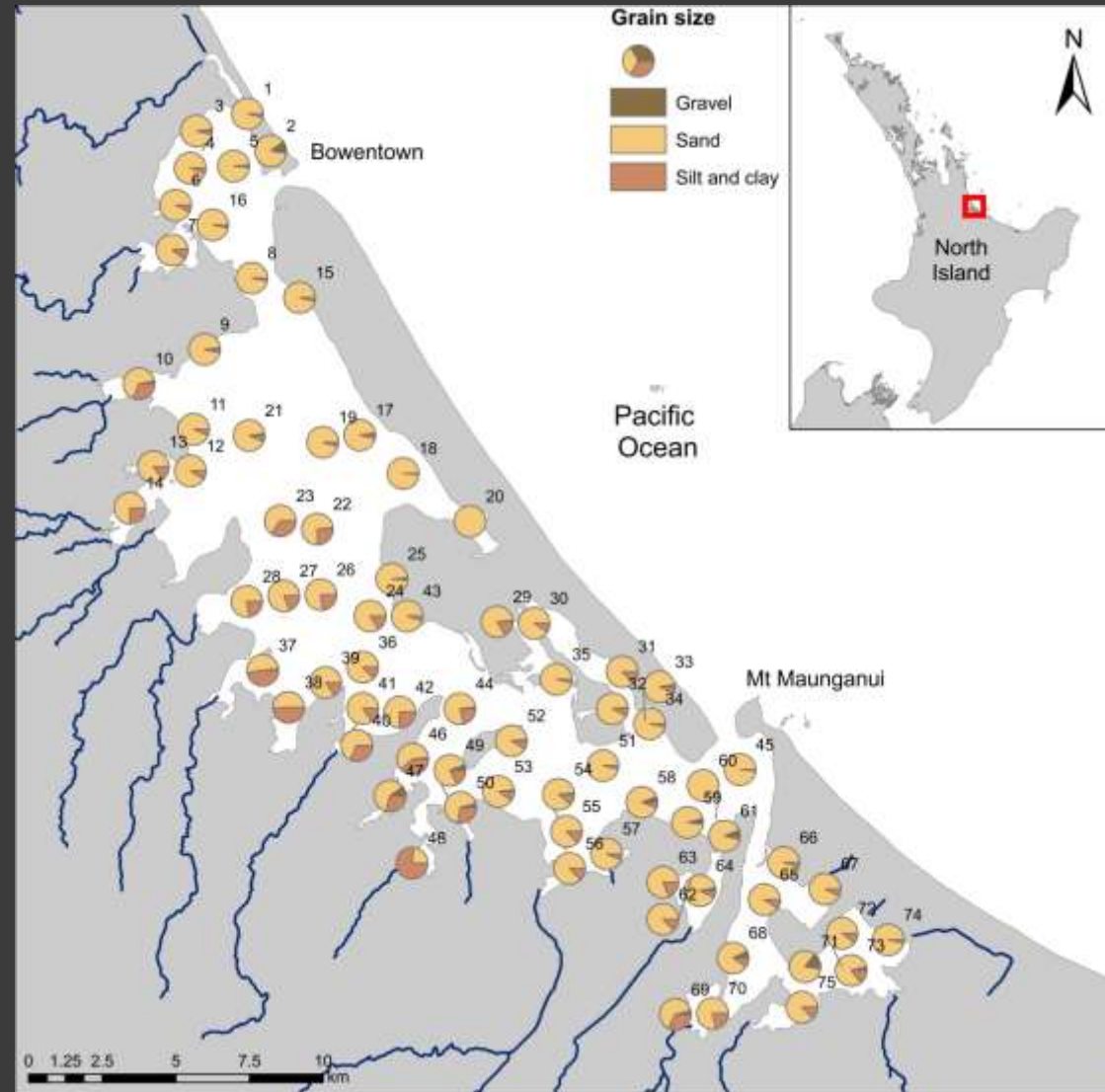




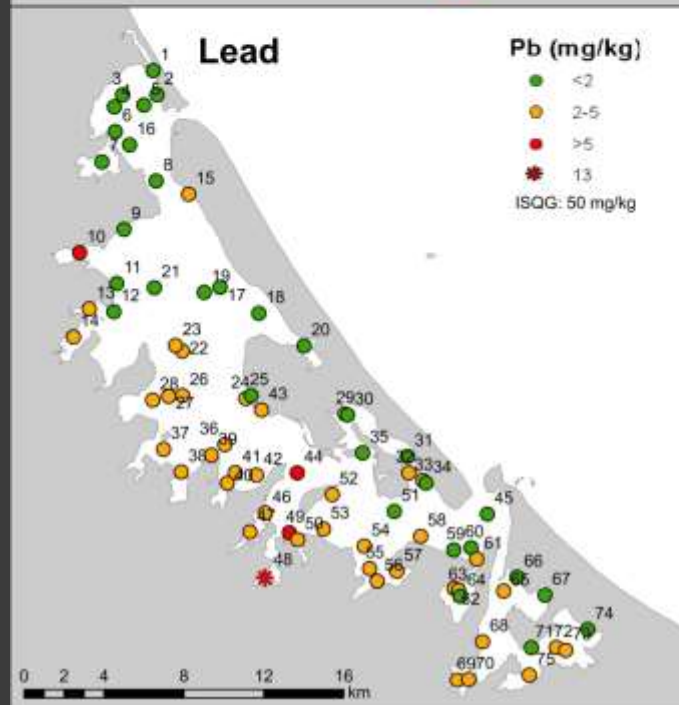
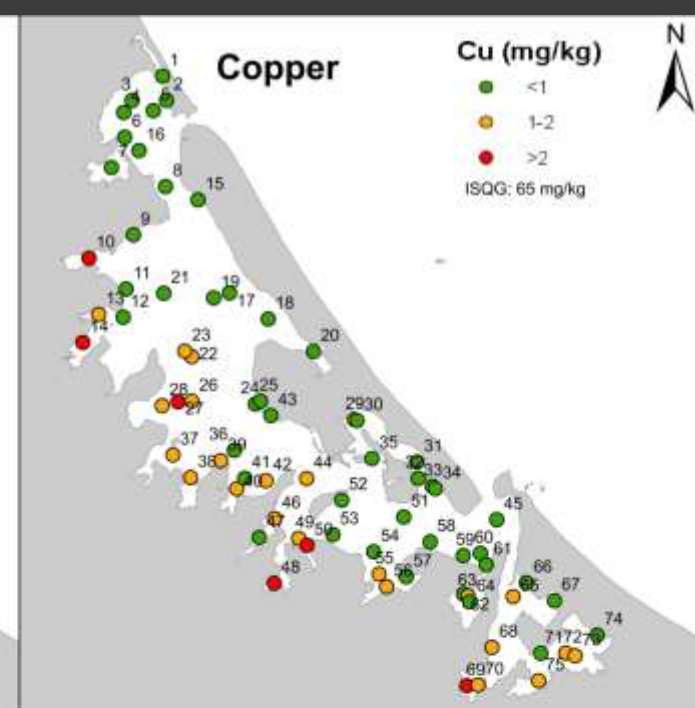
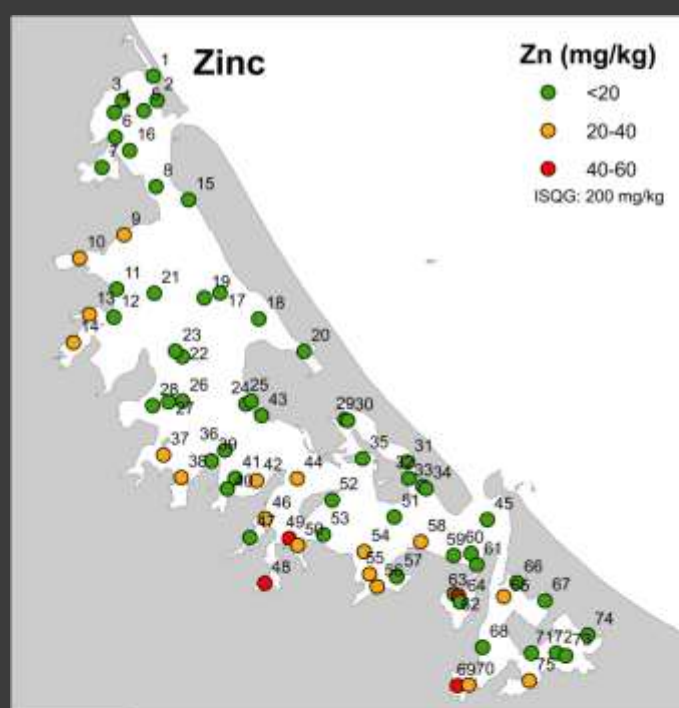
SUBSTRATE TYPE



- Mainly sand
- Low organic content

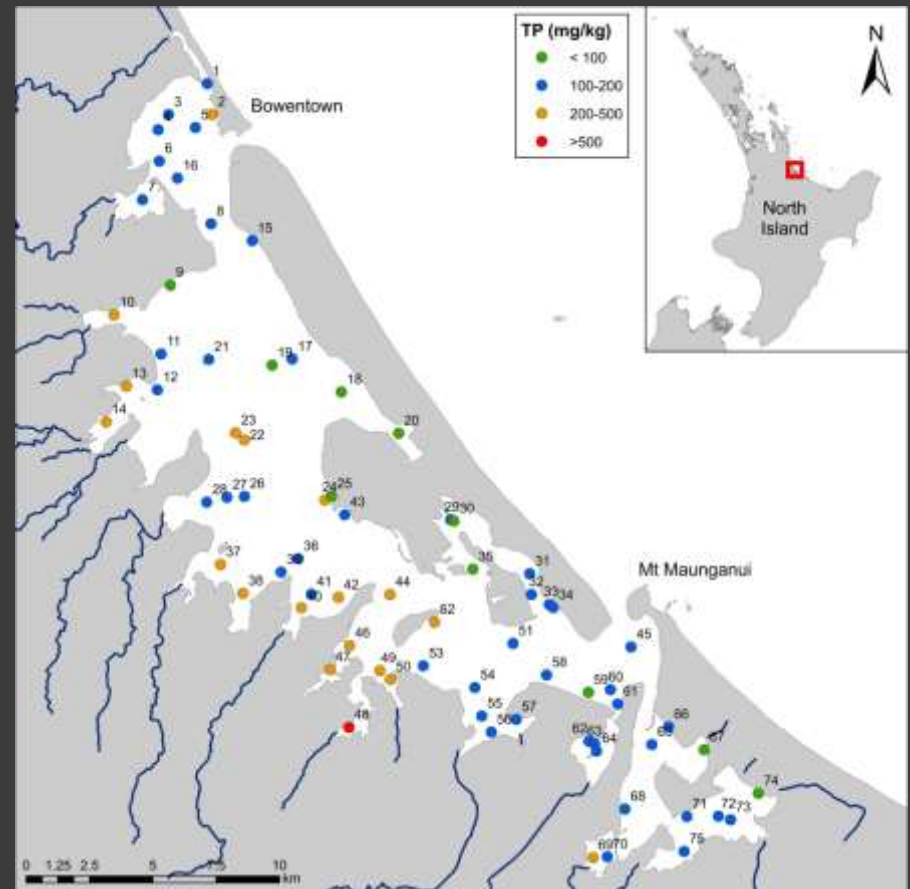
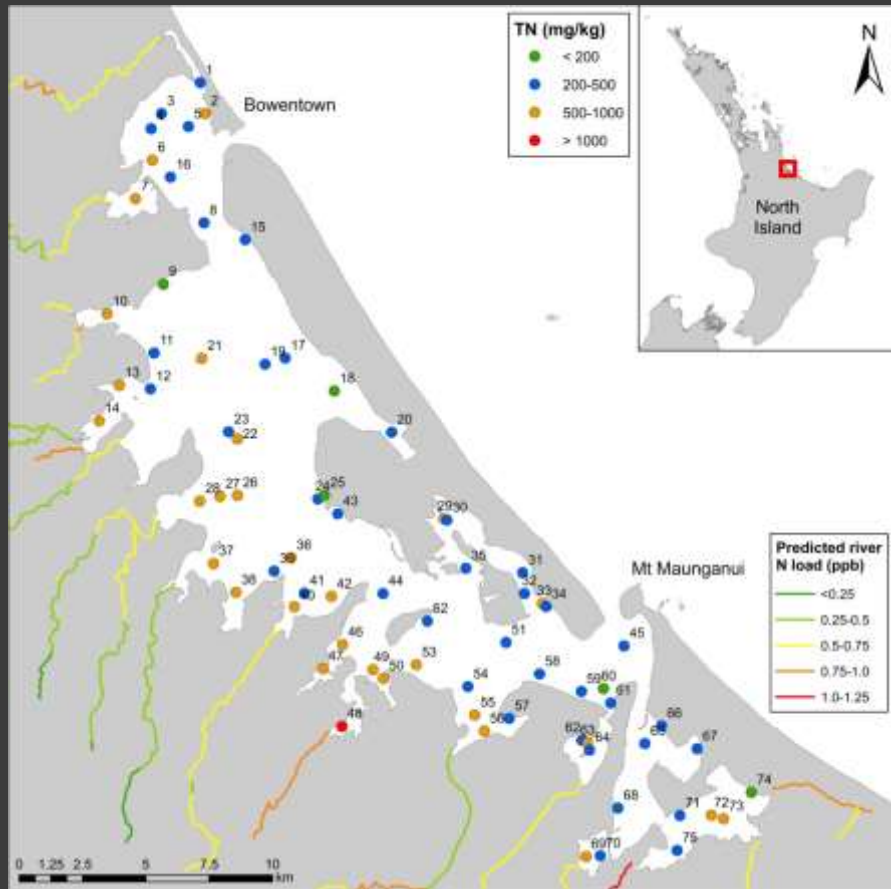


METALS



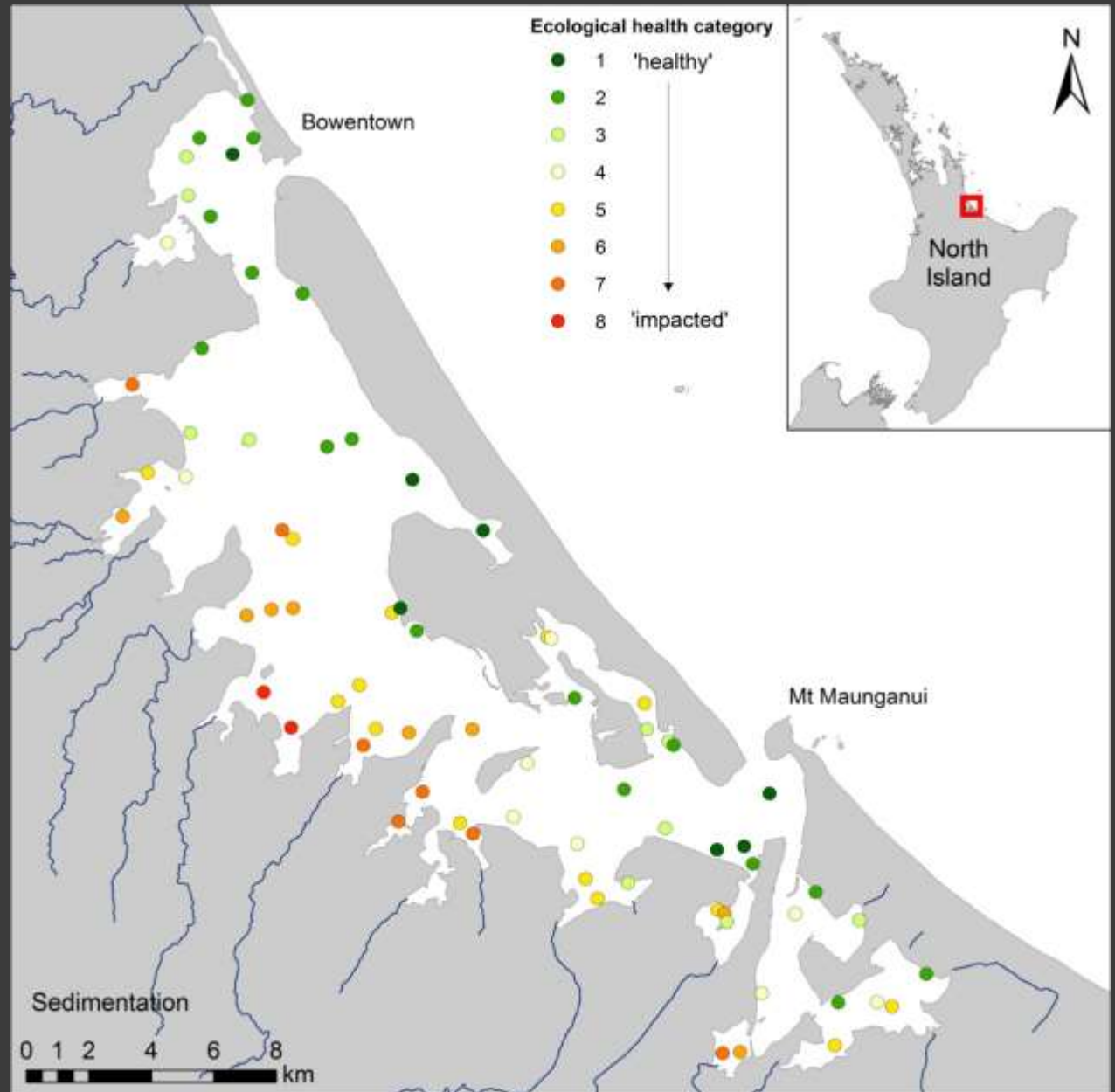
- All < ANZECC guidelines
- Site 48 particularly high

NUTRIENTS





ECOLOGICAL HEALTH



OUTCOMES

- Community based models of health of the harbour
- Response curves for key shellfish species
- Cultural and scientific indicators for long term monitoring



THANK YOU FOR LISTENING



MTM Report No.13
May 2013





Just in case you weren't already feeling hungry