SLOWING THE SPREAD OF MARINE PESTS

PROJECT DESCRIPTION

TOP-OF-THE-SOUTH MARINE
BIOSECURITY PARTNERSHIP MEETING

15 MAY 2013

AIM OF THE PROJECT

To reduce the movement, release and spread of harmful marine pests and diseases in NZ

Our role: To provide policy recommendations to MPI

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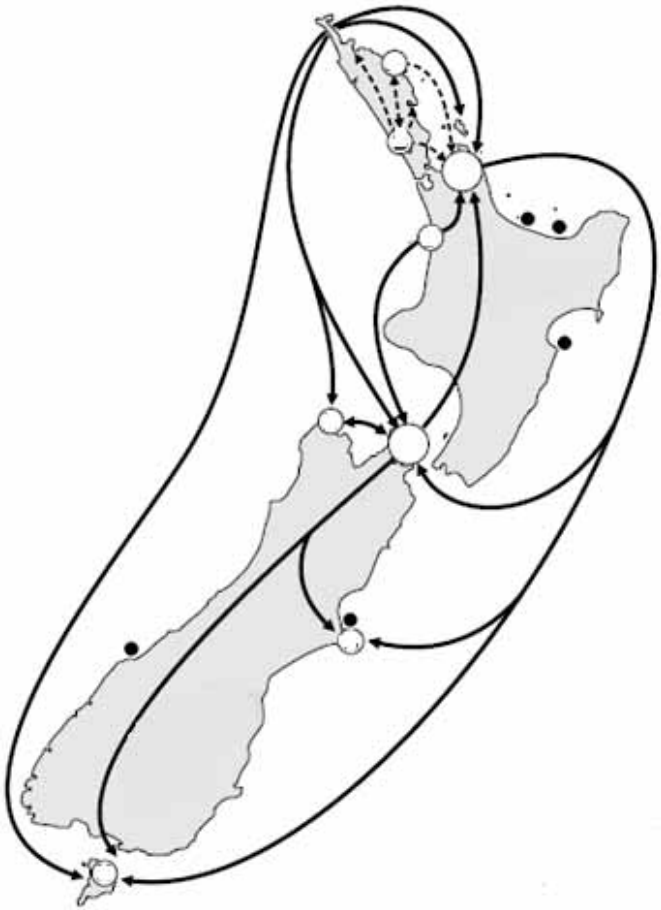
CONTEXT

Biosecurity Law Reform Bill passed November 2012

More flexibility for policy to manage marine pest spread:

- Pathway management plans
- Government/Industry agreements



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3 APPROACHES TO PEST MANAGEMENT

- Species approach
- Area approach
- Pathway approach

The Biosecurity Act 1993 (BSA) defines a “pathway” as movement that

a) is of goods or craft out of, into, or through:
   i. a particular place in New Zealand; or
   ii. a particular kind of place in New Zealand; and
b) has the potential to spread harmful organisms

Pathways are human activities that, intentionally or unintentionally, may move a harmful organism from one place in New Zealand to another.

Pathway management increasingly employed worldwide e.g. Australia, California

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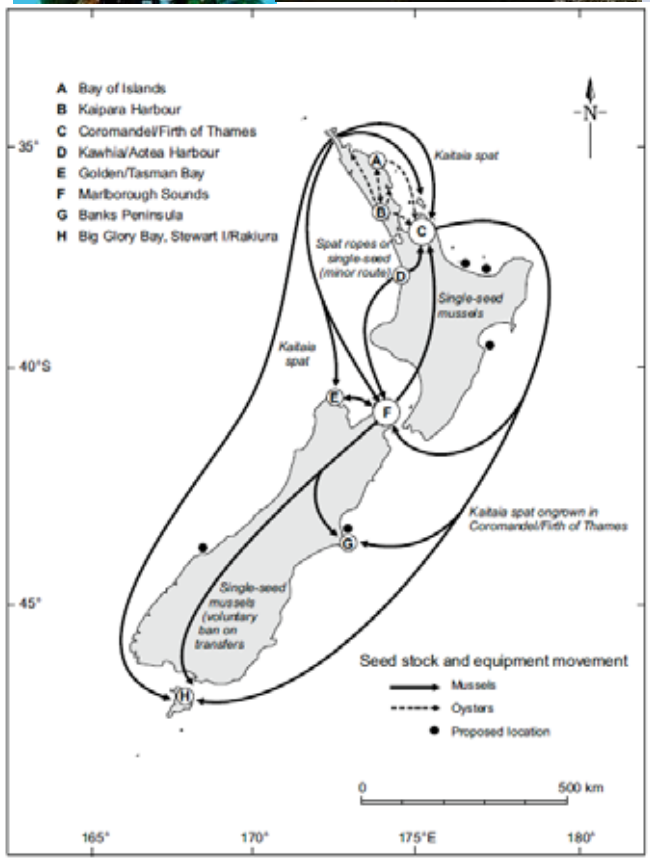
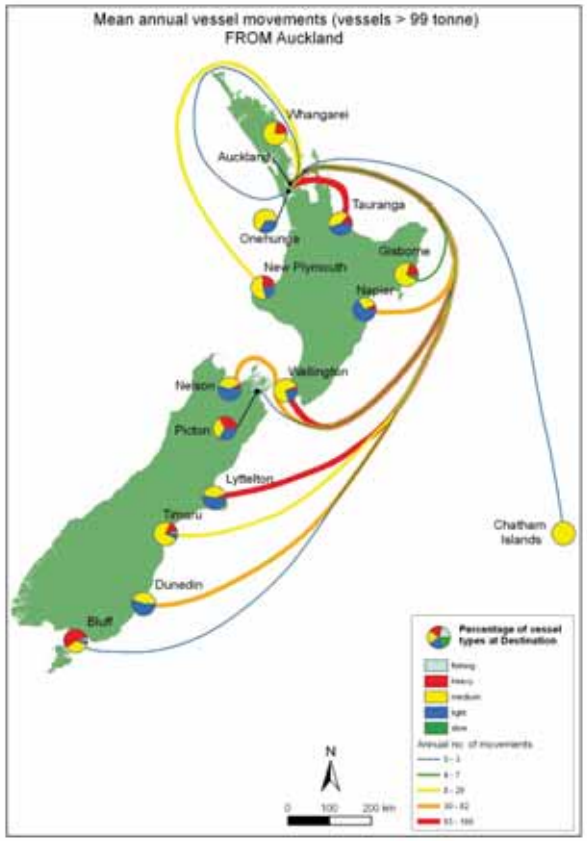
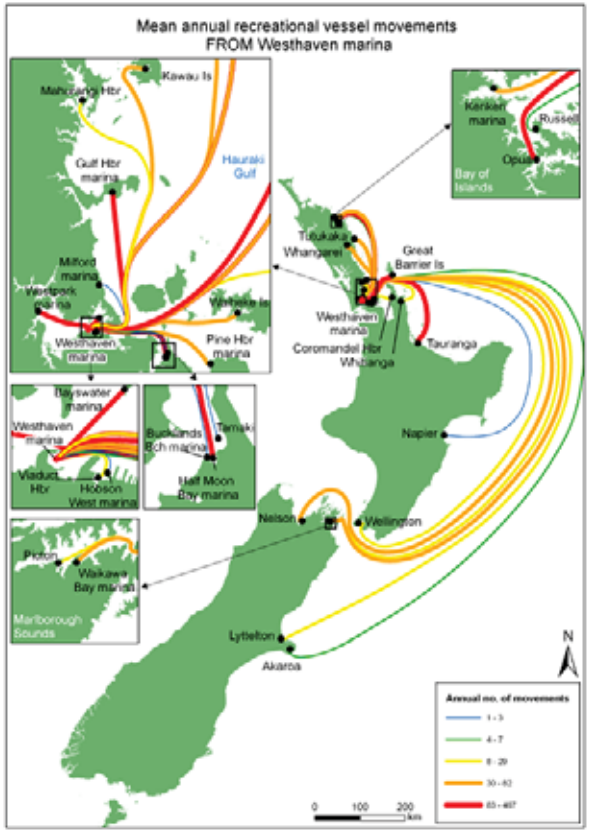
WE HAVE A BUSY COASTLINE!







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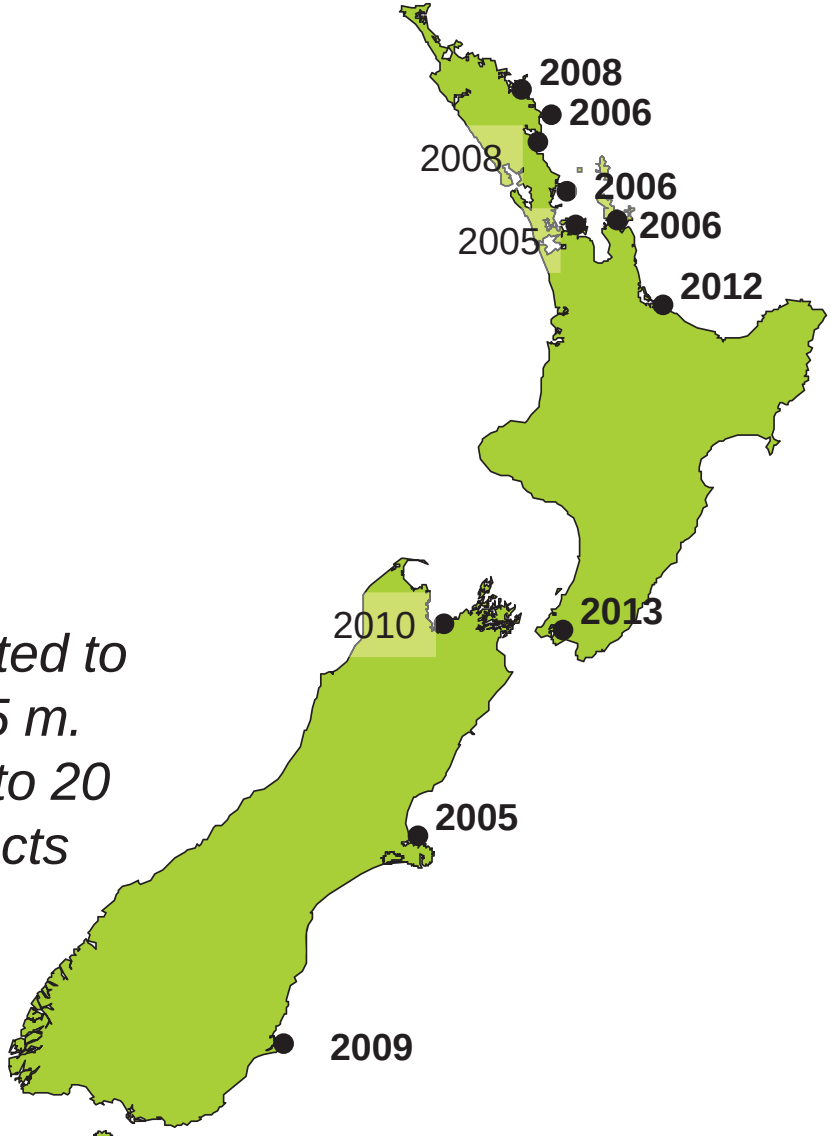
SLOWING THE SPREAD - CLUBBED TUNICATE

Styela clava

"*By delaying the entry of Styela to Marlborough, the impacts are estimated to reduce by between $1.6 m and $53.5 m. Slowing the spread… from 14 years to 20 years could reduce the national impacts by between $21.1 m and $80.4m."*
(Delloitte 2011)



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CURRENT PATHWAY MEASURES IN PLACE – INTERNATIONAL FOCUS

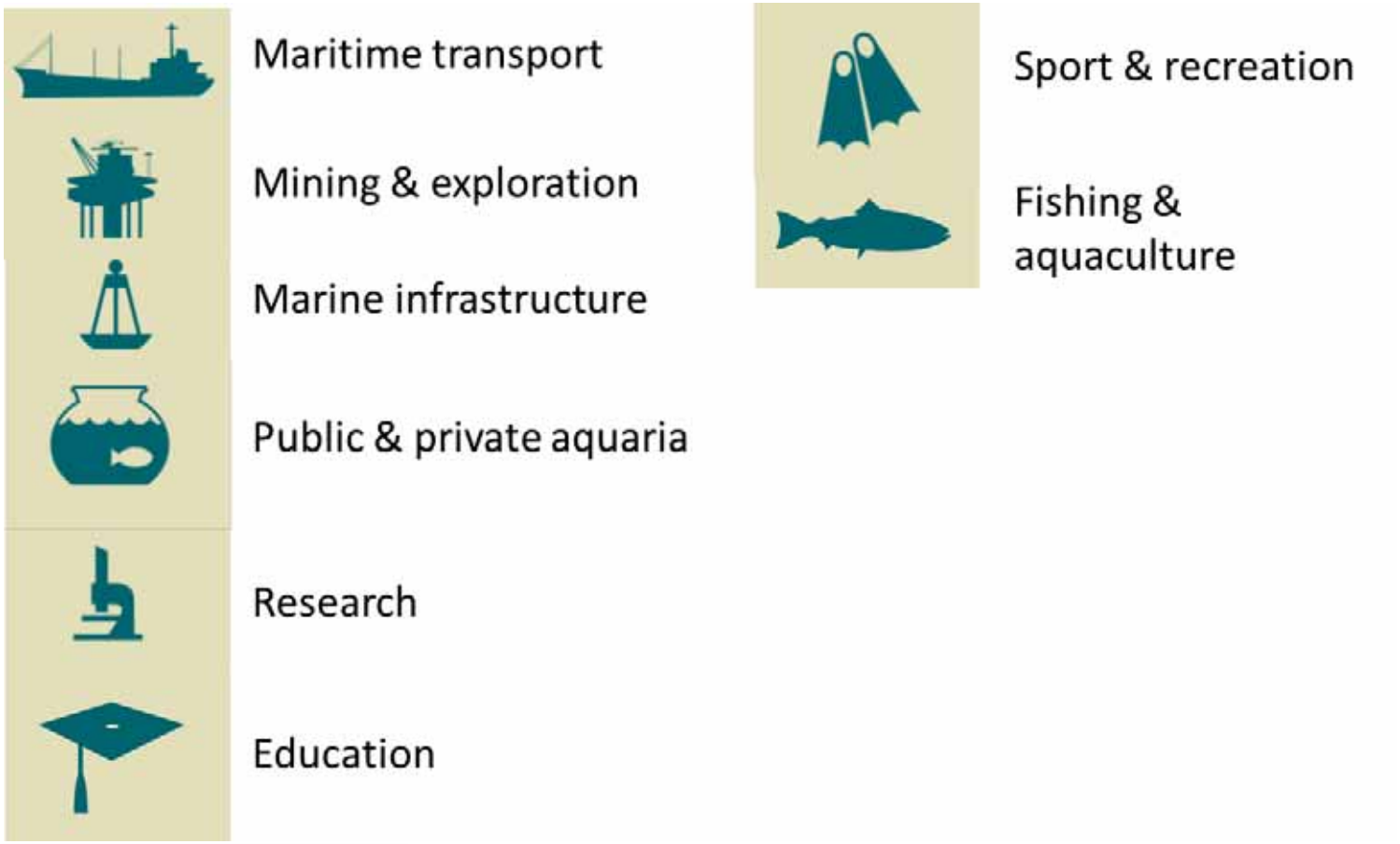
- Ballast water
  - NZ Import Health Standard (mandatory mid-ocean exchange)
  - International Convention (All vessels with treatment by 2016)
    - Enters into force when 30 countries sign up

- Biofouling
  - International Maritime Organization Guidelines (2011)
  - NZ Craft Risk Management Standard (2013-17) – stipulations for international arrivals e.g. clean hull, biofouling declaration, ballast water exchange

- Dearth of pathway tools for domestic marine pest spread

HOW TO DESIGN DOMESTIC POLICY?

Workshop with stakeholders from a range of sectors/pathways…



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PRINCIPLES FOR POLICY DEVELOPMENT

1. **Domestic biosecurity measures align with international measures**
2. **National consistency**
3. **Risk reduction across all pathways**
4. **Align with range of instruments**
5. **Need for high compliance**
6. **Risk reduction in pathways relative to natural spread**

→ policy options

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POLICY OPTIONS

- Hull biofouling and cleaning
- Stock and bait transfers
- Gear and structures
- Ballast and bilge

POLICY OPTIONS - BALLAST WATER

- Require ballast water exchange
- Require compliance with IMO D2 treatment standard, requiring BW treatment within NZ (as well as vessels from overseas)
- Other treatment options
- Provide guidance on preferred locations for discharge, based e.g. on currents & high value areas
- Prohibit discharge in specified high value areas

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EVALUATION CRITERIA FOR POLICY OPTIONS

1. **Effectiveness**
2. **Practical Feasibility**
3. **Cost of compliance**
4. **Rate of uptake**
5. **Other considerations**, e.g. principles

WORKSHOP EXAMPLE - BALLAST WATER EXCHANGE

Policy options	• Effectiveness • Practical Feasibility • Cost of compliance	• Likely rate of uptake • Other considerations
1. Require Ballast Water Exchange (BWE): **Options:** **50 nm / 200 m** **24 nm** **12 nm** **3 nm** **Designated areas**	***Effectiveness*** • For international vessels, BWE is seen as an interim measure until the BW Convention D2 treatment standard comes into force • Effectiveness of BWE in coastal waters depends on coastal currents and the degree of dilution achieved before discharge reaches coast. Some parts of the coast will be 'safer' to exchange in than others • Exchange > 12 nm off coast has greatest risk reduction • There is some die-off of organisms in ballast – 'refreshing' ballast by exchanging coastal waters may reduce die-off and be less effective than open ocean exchange ***Practical feasibility & costs of compliance*** • Any delay or deviation from normal shipping routes has cost implications that can be very large in terms of fuel and operational costs as well as opportunity costs • Many port-to-port trips for the maritime cargo sector are of short duration; neither exchange or treatment may be reasonable • Safety of Life At Sea (SOLAS) considerations take precedence and there are many parts of the NZ coast where exchange may be dangerous	
2. Require compliance with IMO D2 treatment standard, requiring BW treatment within NZ	• Comment 1 • Comment 2 • Comment 3	

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WHERE TO FROM HERE?

- Synthesize outputs of workshops

- Provide policy recommendations for MPI

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COMMENTS? QUESTIONS?

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SOME OPTIONS - HULL BIOFOULING

- Require anti-fouling at intervals specified in an approved vessel management plan
- Control movement of vessels – e.g. restrict movement of vessels that exceed some threshold level of biofouling
  - Feasibility can be vastly different depending on LoF
- Guidance regarding hull maintenance at regular intervals

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SOME OPTIONS - HULL CLEANING

- In-water cleaning is an important operational tool for managing biofouling

- Hull cleaning can be made easier by amending statutory documents such as the Marine Pollution regulations or the NZ Coastal Policy Statement to allow the discharge of slime layers and minor macrofouling to water

OPTIONS - GEAR AND STRUCTURES

- Restrict movement of gear and structures with any macro-fouling, i.e. all macro-fouling removed prior to movement > 10 km (for example)
- Codes of Practice to describe good practice, including containment for defouling where any macrofouling exists
- Require new or clean materials only to be used for construction of new structures in marine environment

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OPTIONS - STOCK, BAIT ETC

- Codes of practice re movement of stock or bait between regions (eg mussel industry COP for spat).

- Rules to control movement of stock or bait between regions e.g. movement of seed stock is a known mechanism for transfer of marine pests (e.g. *Undaria*).

- Movement controls only when there are disease outbreaks