



MARINE BIOSECURITY MANAGEMENT

A regional council perspective.

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Talk Summary

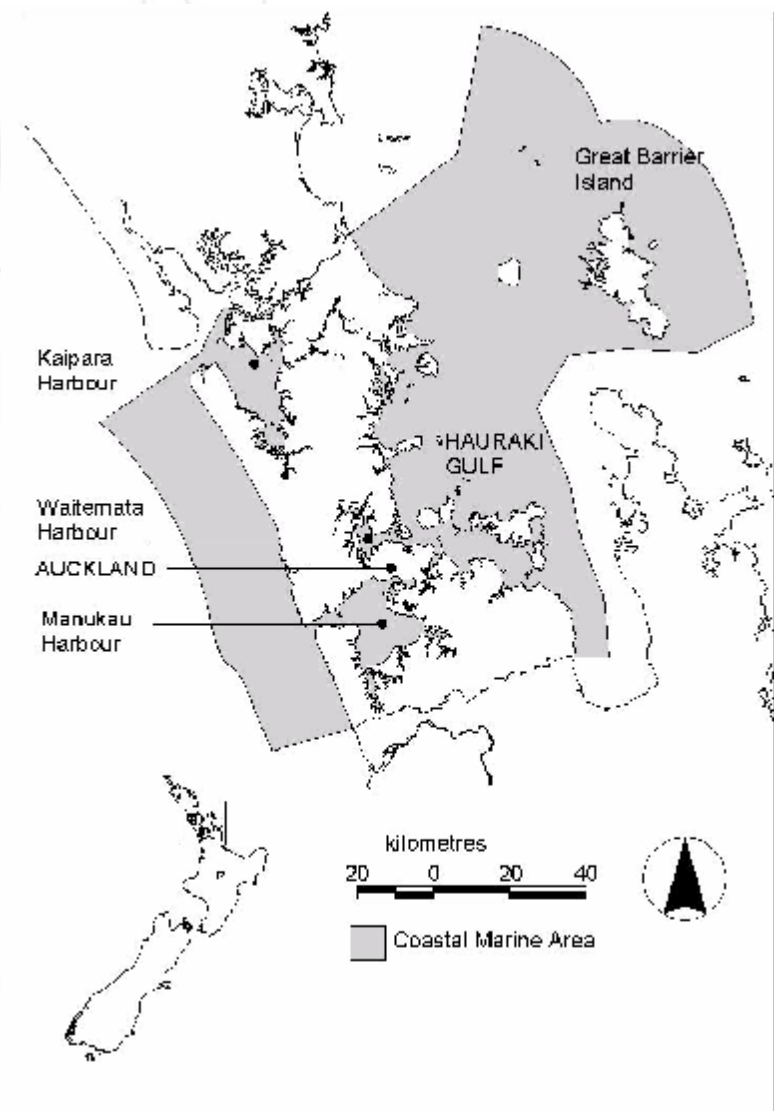
- Auckland CMA Context
- Recent invasions
 - *Undaria pinnatifida*
 - *Styela clava*
- Key findings





Auckland Region:

- Large Coastal Marine Area
 - 11,000 km², 70% region
 - 1,200 km coastline
- Hauraki Gulf Marine Park
- 1.3 M people
 - Consistently highly valued
- Many uses and values
 - Social, Cultural, Environmental, Economic



Commercial port – overseas trade hub

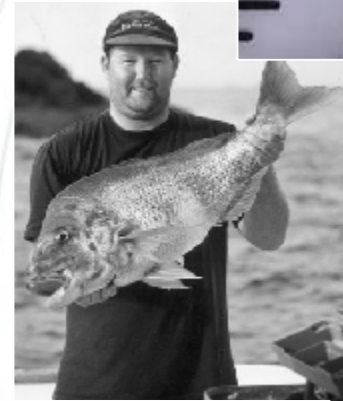
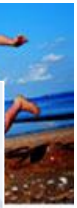




Recreational Boating

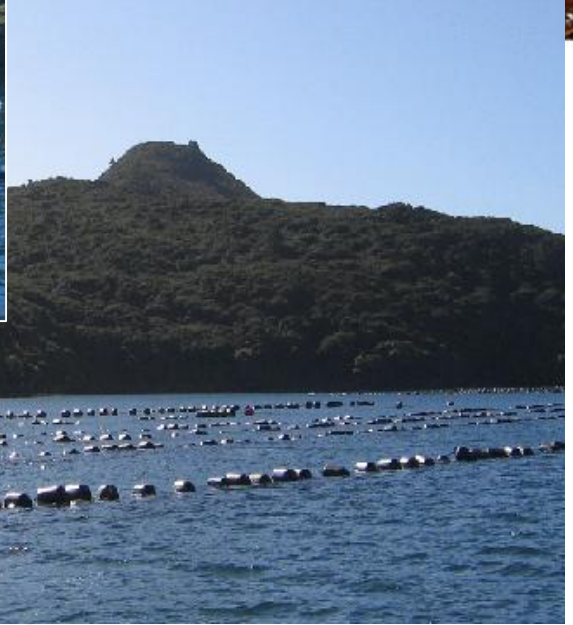






Fishing





Marine Farming





Asian clam



Overbite



Resources, uses & values under biosecurity threat.

Chinese mitten crab



CHARYBDIS JAPONICA

Northern Pacific seastar



Undaria pinnatifida



Source: M-Fish



Recent Waitemata invaders



- 39 foreign spp. (Hayward 1997)
 - Asian date mussel (*Musculisata*)
 - Pacific Oyster (*Crassostrea*)
- More since
 - Parchment worm (*Chaetopterosus*)
 - Swimming Crab (*Charybdis*)
 - Spiny sea squirt (*Pyura*)
 - Asian seaweed (*Undaria*)
 - Clubbed sea squirt (*Styela*)

Undaria pinnatifida infestation



Undaria pinnatifida infestation



- Sept. 2004: Japanese scientist finds Undaria in Waitemata: Viaduct (BNZ notified in Oct 2004, ARC informed Nov. 2004)
- Nov. 2004: MFish/KML local delimitation survey: extensive infestation Auckland CBD water front, estimate present 3-4 years.
- 4 years MAF surveillance failed to detect
 - (increased control costs, reduced chance of success)
- Dec 2004: BNZ: devolves responsibility; regional issue. BNZ responsible for new incursions not for control of internal spread once endemic. (Influenced by Cabinet decision to stop funding DoC eradication in Stewart Island.)



Undaria pinnatifida infestation



- Dec – March 2004: slow response to ARC efforts to gain clarity for BNZ devolution
 - ARC: very concerned about potential Undaria effects on trade, aquaculture, recreational activities and northern marine habitats
 - \$0.3 - \$1.5M to control/suppress to protect key ecological sites (eg Bon Accord, Fitzroy, Whangarei, Whangaroa, etc).
 - No guarantee, 3-5 years might eradicate but requires rigorous boat inspection regime



Undaria pinnatifida infestation



- Expertise for marine invasion response in BNZ not in regions (regions need BNZ leadership, skills & national pest management strategy for Undaria)
- Oct. 2005: Undaria working group (BNZ, DoC, MFish, RC's) – reporting back to Biosecurity Coordinating Group,
 - Unrealistic to anticipate control for all High Value Sites.
 - Coordinated joint approach (BNZ/RC's/etc)
 - Short term (voluntary compliance, surveillance, coordination....)
 - Med-long term (industry, RC coastal plan provisions, RPMS, national guidelines,...)



Undaria pinnatifida infestation



MAJOR ISSUE for RC's:

- No BNZ policy on national and regional roles & responsibilities.
- Not marine-specific problem but:
 - NZ experience predominantly agro-centric
 - Limited marine baseline data
 - Marine biosecurity risk & threat assessment difficulties
 - No national surveillance programme
- No RC skill/expertise, policies/plans, \$\$
 - RPMS not consider marine spp.



Styela clava infestation



Styela clava infestation



- Early Oct 2005: BNZ reports *Styela* found in Auckland and Lyttelton by visiting expert.
- Of particular concern to marine farming industry.
- Oct/Nov: Investigations show wide spread around Hauraki Gulf coastline.

KEY FINDINGS



- Waitemata (Port) area high infestation and spread risk.
- Current BNZ surveillance inadequate, not finding invasive species early enough.
- Limited tools to control or eradicate once detected therefore risk minimisation/avoidance actions critical.
- RC's not responsible for detection of new incursions but have to deal with consequences
- RC's lack skill set, plans, resources
- Policy on national & regional roles/responsibilities urgently needed





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Regional Council

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