

STATE OF OUR GULF 2014

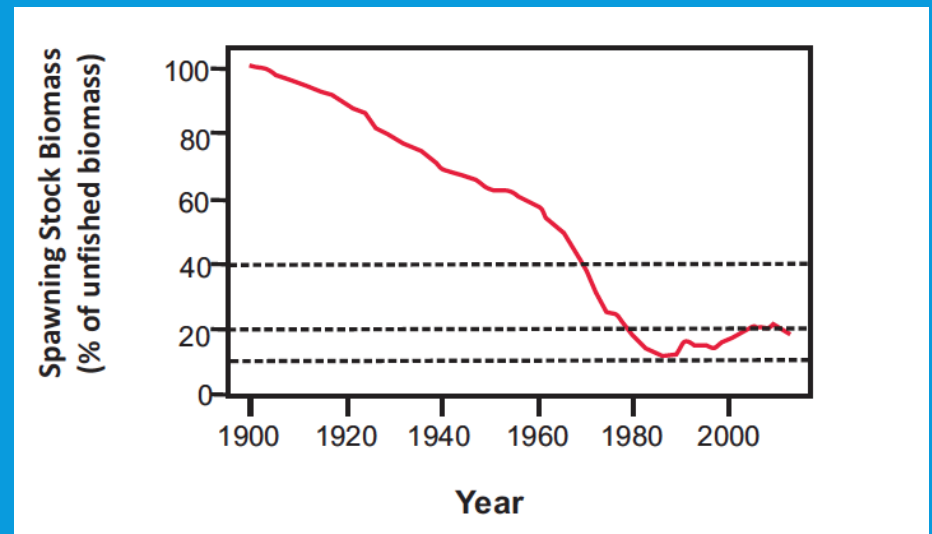


State

Tamaki kainga ika me nga wheua katoa – Tamaki
where you eat the fish, bones and all.

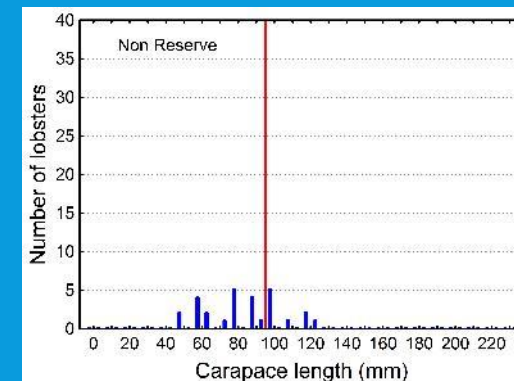
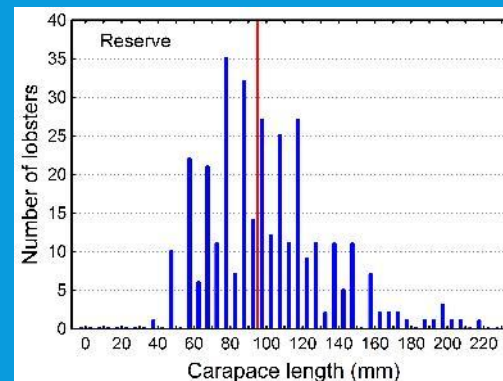
SNAPPER

- Dominant demersal fish species
- Reductions in snapper and crayfish linked to broader ecosystem effects
- Stock biomass increased, but still below soft limit and signs of recent reversal
- >54% reduction required to rebuild to interim target with timeframes specified by HSS



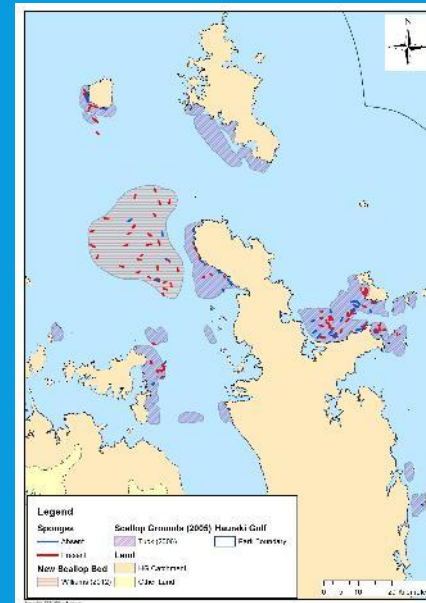
CRAYFISH

- Historically 3rd most important benthic invertebrate, now least important
- Regarded as being ecologically extinct in areas where biomass reduced to low levels.
- Stock managed sustainably , but little consideration of broader ecosystem effects.
- Important values provided by old, large individuals – now missing from the ecosystem.



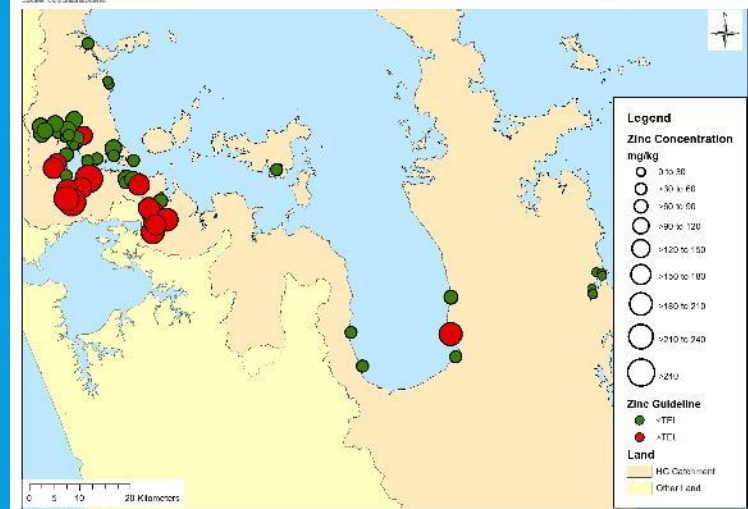
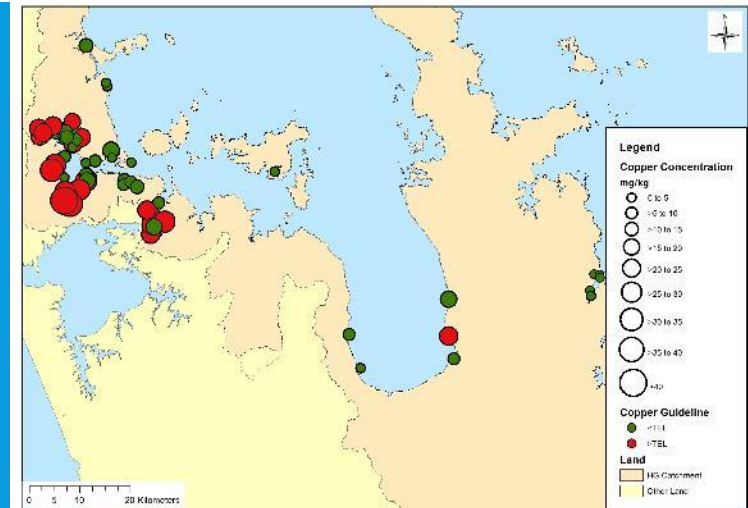
BOTTOM DISTURBANCE

- Together, bottom trawling and scallop dredging occur over a wide area.
- Historic and ongoing effects
- Sensitive marine habitats and habitats of importance to fisheries present in areas targeted

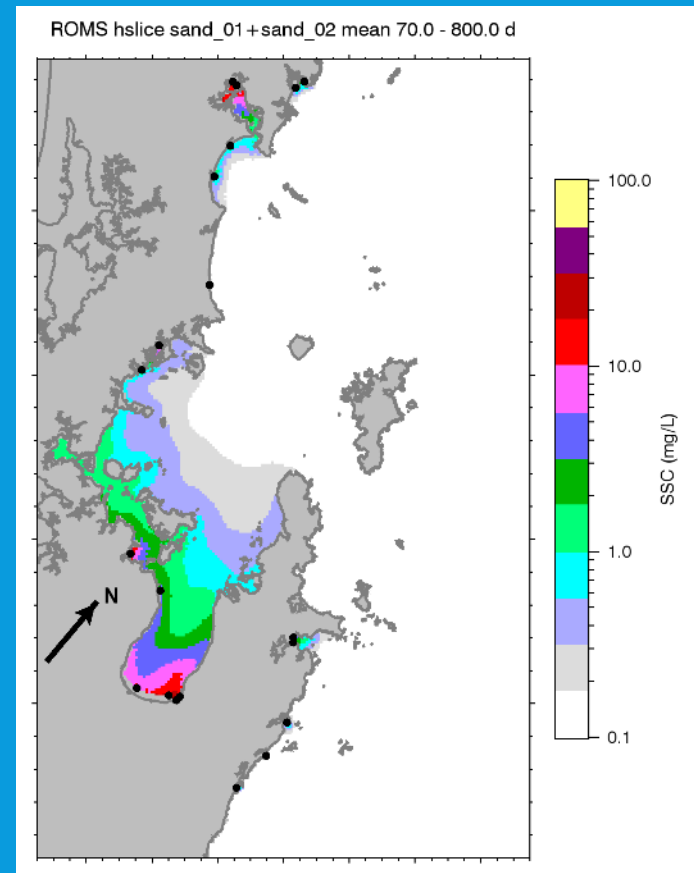
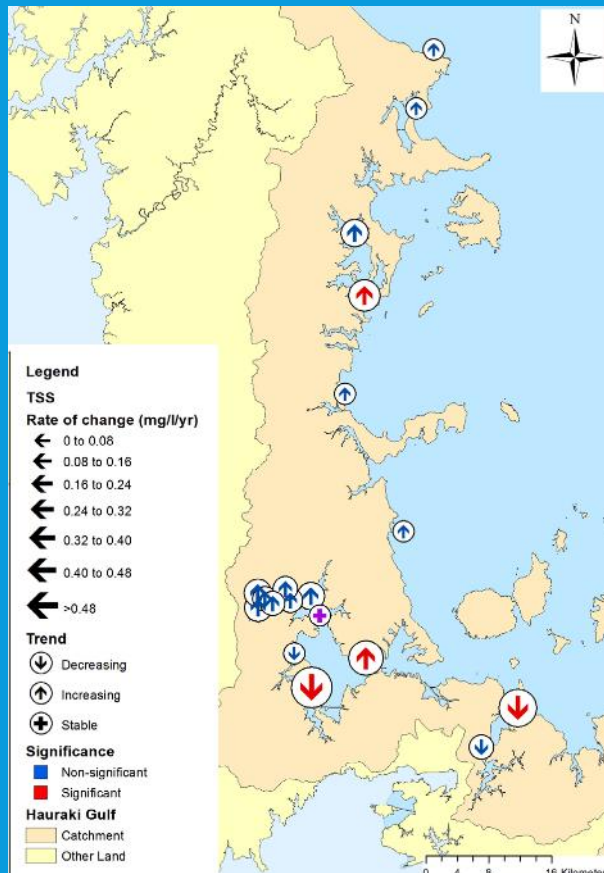


HEAVY METALS

- Low level sediment quality guidelines frequently exceeded in urban estuaries with long development history
- Contaminant levels also elevated in SE FoT
- Copper and lead showing slow improvement
- Zinc worsening



SEDIMENT



Plot courtesy of Mark Hadfield NIWA

INVASIVE SPECIES

- Serious threat to ecosystem and economy
- Difficult/impossible to control once established
- Five high risk species arrived in past 15 years
- Four new species arrived since 2011 – including one high risk species (the droplet tunicate *Eudistoma elongatum*)





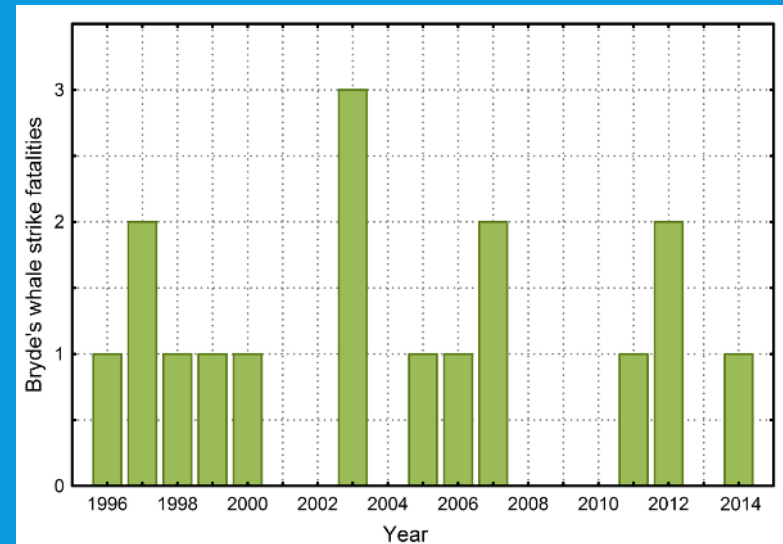
Coast
&
Catchment Ltd
Environmental Consultants

-
- Legend**
- Pest Status**
- Mammalian Pest Free
- Park Boundary
- Catchment
- Hauraki Gulf**
- Map showing the distribution of mammalian pest-free areas in the Hauraki Gulf, New Zealand. The map includes labels for various islands and regions, such as Mokohinau Islands, Kaitake Island, Motunuku, Broken Islands, Repanga, Cuvier Island, Green Island, Abu, Middle Island, Moturehu, Double Island, Whakau, Red Mercury, Kawhiti, Stanley Island, Ohinau, Mahurangi, Middle Island, Ruamahanga, Nga Horo, Ruamahanga, Hauraki, Whenuakura, and Rawhanga. A legend indicates that red areas represent Mammalian Pest Free zones, white areas represent Park Boundaries, and orange areas represent Catchments. A scale bar at the bottom right shows distances from 0 to 100 km.

	NC	Nationally vulnerable	RD	MD	Relict	Recovering	Not threatened											
	Takahe	Black petrel	Hā (Stitchbird)	North island brown kiwi	North island weta	Rifleman	North island fernbird	Red-crowned kākāpō	Common diving petrel	Kōkako	Little spotted kiwi	Tīeke (North is saddleback)	Pāteke (Brown teal)	Pycroft's petrel	North island tomtit	North island robin	Belbird	Whiteland
Hauturu (Little Barrier Island)		■		■						■	■							
Aotearoa (Great Barrier Island)																■		
Tawharanui Open Sanctuary (MS)			■				■				■	■				■		■
Kawau Island			■	■														
Moturoa Island			■						■				■					■
Wendholm Regional Park (MS)																■		
Tiritiri Matangi Island	■	■			■	■	■	■	■	■	■	■	■	■	■	■	■	■
Rangitoto Island																		■
Motutapu Island																		■
Motuihe Island							■				■						■	■
Waiheke Island																	■	■
Itororoa Island											■							■
Whangānui Island			■															
Cuvier Island							■				■		■					
Whakau (Red Mercury) Island											■	■		■				
Kawhitu (Stanley Island)											■	■						

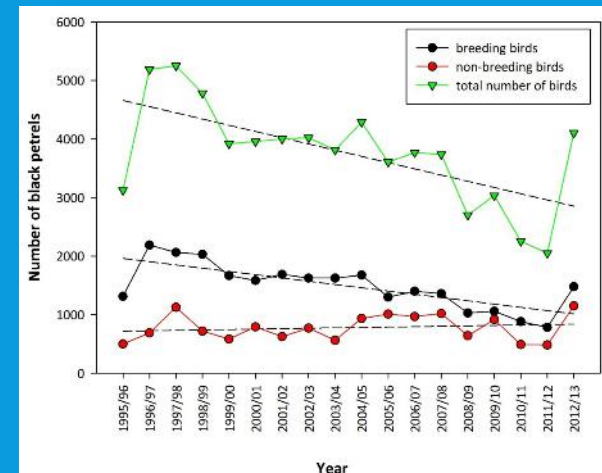
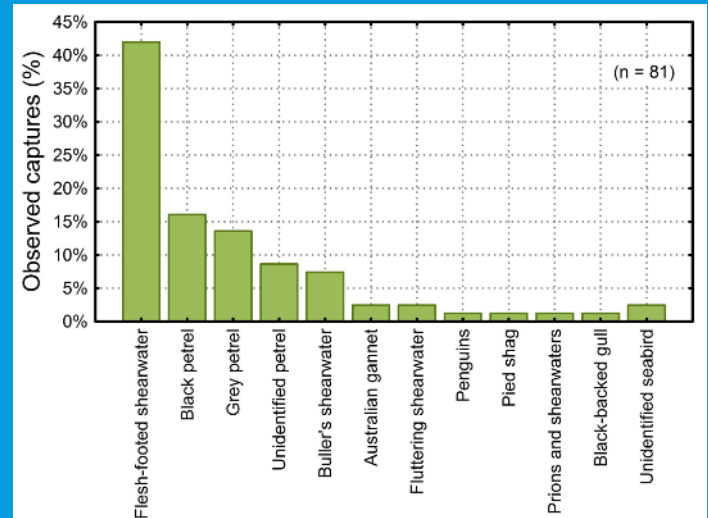
BRYDE'S WHALES

- Hauraki Gulf contains one of the few resident populations
- 46 resident out of total population of ~250 mature whales
- 44 killed since 1989
- Known causes:
 - Ship strike
 - Entanglement



SEABIRDS

- Conservation status of 4 species declined and 1 improved since 2011
- Serious concerns about:
 - Fairy tern
 - NZ storm petrel
 - Black petrel
 - Flesh-footed shearwater
- Variety of threats



COASTAL DEVELOPMENT

- Broad range of impacts
 - Natural landscapes and wilderness areas
 - Natural coastlines
 - Climate change
 - Habitat loss
 - Biodiversity risks
 - Coastal birds, fish and shellfish resources
- Unidirectional change
- Largely driven by demand for holiday homes – limited use
- Lesson about the efficient use of resources?

