



Tai Timu Tai Pari

Sea change

Hauraki Gulf Marine Spatial Plan

Fish Stocks Roundtable Summary February 2015



Hauraki Gulf
Marine Park
Ko te Pataka kai
o Tikapa Moana
Te Moananui a Toi



Hauraki Gulf Forum
Tikapa Moana
Te Moananui a Toi

Ministry for Primary Industries
Manatū Ahu Matua



Department of
Conservation
Te Papa Atawhai

Waikato
REGIONAL COUNCIL
Te Kaitiaki o Te Kaitiaki o Waikato

Auckland
Council
Te Kaitiaki o Tāmaki Makaurau





☒ **PRODUCTIVE**

- *producing abundantly and efficiently*

☒ **DIVERSE**

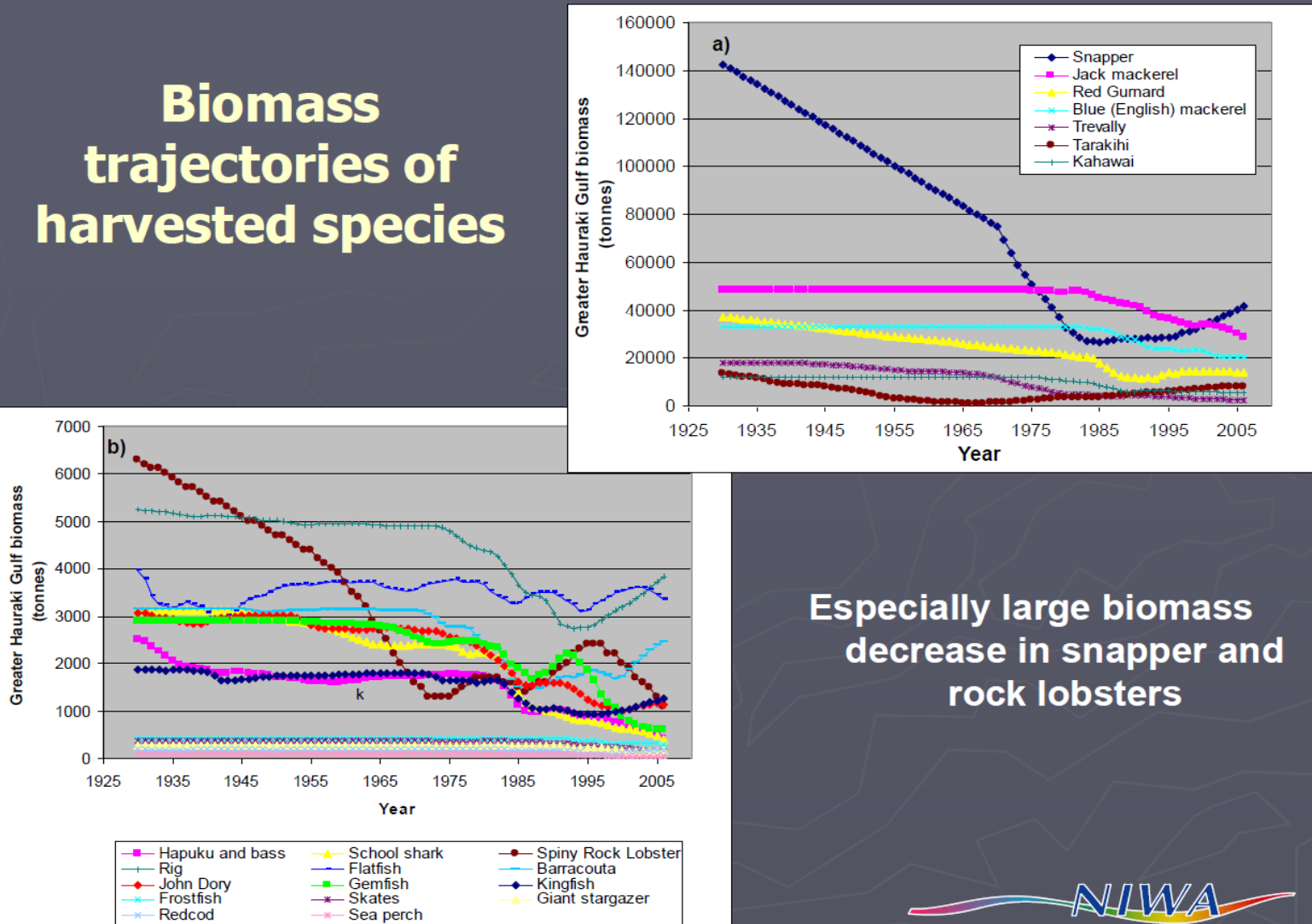
- *made up of many differing parts*

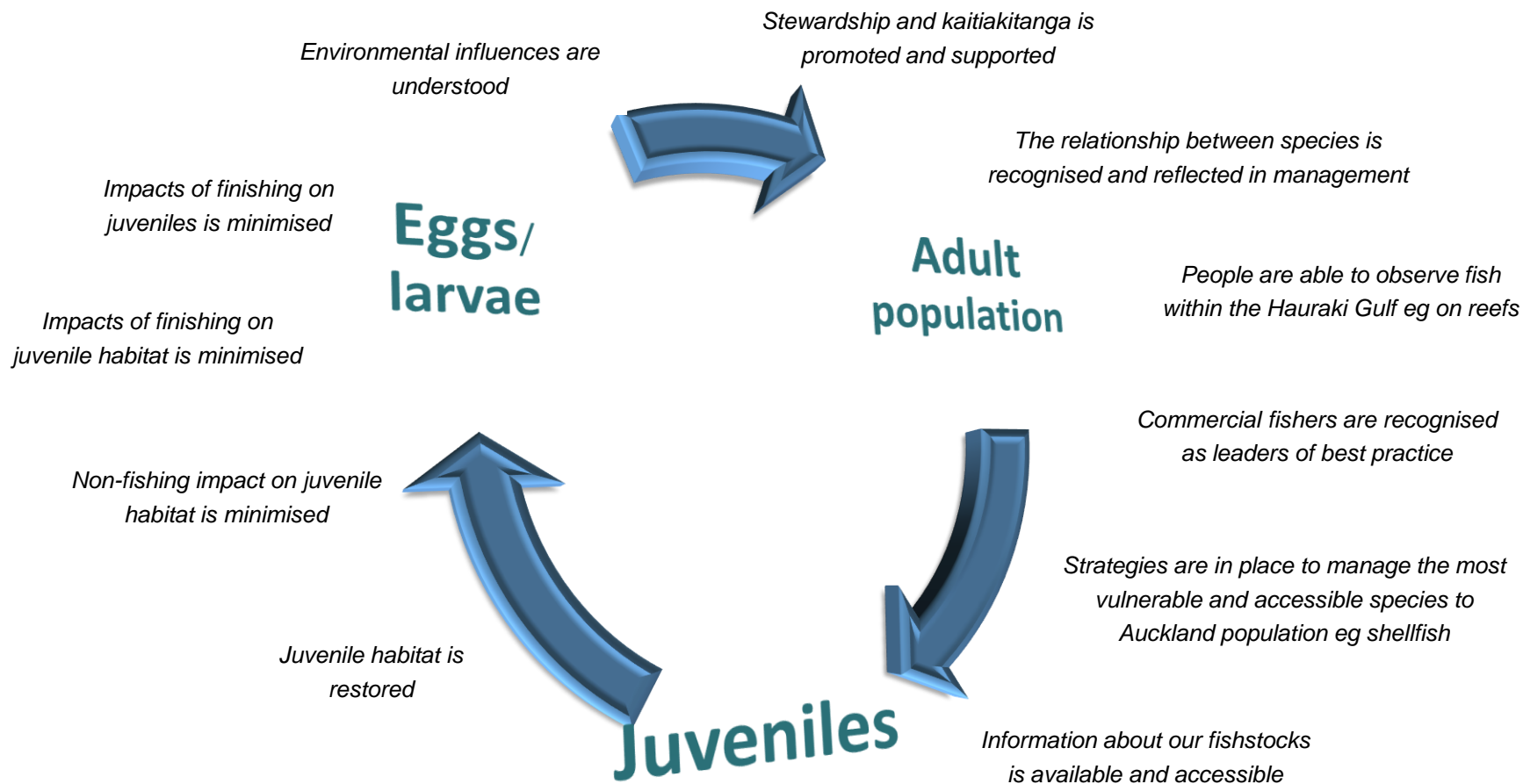
☒ **ABUNDANT**

- *present in great quantities*



Biomass trajectories of harvested species







Main conclusions

✚ A **functioning ecosystem and an entire food web** that sustains all manner of marine life matter greatly

✚ While fish stocks remain diverse, **fishing has altered levels of abundance** (as can be expected) and had effects on the ecosystem.

✚ In some cases fishing has exceeded **the level that the productivity of a stock can support**.

✚ The level and frequency of **monitoring in the Gulf** is currently determined by factors including the risk from fishing and the **value** of the stock.

✚ Productivity is influenced by the number of new recruits entering the stock every year (juveniles maturing into the fishery) and how fast fish are growing.

✚ The **concept of nursery habitat** is recognised as important generally, but not well **understood** with the Hauraki Gulf specifically, juveniles are also by environmental factors though.

✚ Biogenic habitats such as subtidal seagrass and seafloor species that provide 3D structures such as mussels have been recognised as **important juvenile habitat** in studies outside of the Gulf. However there are a number of information gaps about the importance of these species in the Hauraki Gulf specifically.

✚ **Marine reserves** provide useful research sites to understand the impacts of fishing.



Four objectives

- Restore fish stocks abundance
- Identify, protect, restore spawning, nursery and juvenile habitats - for harvested and non-harvested fish stocks and marine life
- Protect and restore local marine species vulnerable and accessible to growing communities and changing behaviour
- Foster an environment of stewardship toward the gulf and its resources





- Field trips and presentations informed the roundtable
- Positive actions can be built on
- Coromandel Charter Association's Voluntary Code is one example





Strategy

Rebuild fish abundance to levels at or above the Harvest Strategy Standard and best practice - within a generation (25 – 30 years).

Protect and/or restore important benthic/seabed habitats by assessing activities within the 100 metre contour with impacts on habitats; developing measures to address those activities (e.g. changing fishing gear).

Identify, protect and restore other areas of habitat also important to juvenile fish

- (i) pilot, test, measure and accelerate the restoration of mussel beds, kelp forests, sea grass beds and other 'biogenic' habitats
- (ii) make a step change in reducing sediment and excess nutrients from the land

Reduce waste and juvenile fish mortality by all fishers

Build a culture of stewardship toward the Gulf and marine life.



Abundance

1. Abundance

A faster more tangible rebuild...

Apply MPI's Harvest Strategy Standard to deliver abundance within a generation (25 years)

Monitor more species

Understand stock status for wider range of species commercial and non- commercial

Put in place rebuild targets for Hauraki Gulf fish stocks - consistent with or better than Harvest Strategy

Widen finer scale reporting in additional fisheries (eg set netting and data from charter boats)

Mandate a multi-stakeholder implementation strategy

Respond quickly with management systems for species newly under threat eg from different markets or new consumers

Include species subject to localised harvest pressure (eg shellfish beds).

Source public good funding to research and monitor catches of importance to people in the Gulf but not of commercial value (balance research





Current management of the “Little Things”



Diversity

<h2>2. Diversity</h2>	<p>Initiatives to restore abundance AND mix of fish stocks as many species important to the food web, marine ecology, intrinsic value “every fish is special”</p>	<p>Vulnerable Species</p> <p>Two approaches:</p> <ol style="list-style-type: none"> 1. Identify vulnerable species, where they are, what the risks to those species are (fishing and non-fishing) and what responses/ tools are needed. Undertake cost-benefit analysis and then make recommendations.) <p>OR</p> <ol style="list-style-type: none"> 2. Reduce impacts of bulk fishing methods on non-target/ prohibited species <ul style="list-style-type: none"> • Pay more attention to non-quota species- how are they being monitored and managed? • Review current spatial restrictions on set netting in the Gulf and prohibited reef species • Ban all (commercial as well as recreational) netting and trawling around reefs and foul seafloor. • Develop a list of no-go species- you don’t need to eat everything (start with list of species currently commercially fished)
	<p>Maximum legal size/ slot limit to ensure sufficient large predators and also breeding stock are present in the Gulf</p>	<p>Shift from ability to take unless prohibited, to prohibited unless permitted</p>
	<p>Improve consideration of species relationships in decision-making Eg no removal of new species from food chain until impacts are examined</p>	<p>Ensure management is more responsive to changes/ increased targeting of new species for harvesting especially in areas accessible to large populations</p>



3. Productivity – juveniles and habitat	<p>Protecting seabed of the Hauraki Gulf Marine Park from bottom contacting activities -approach includes:</p> <ul style="list-style-type: none"> - definition of unacceptable impacts; - analysis of benefits of restoration within various areas; - analysis of the economic importance of various activities; and - implementation of protection that does not impose undue costs. 	<p>Make a step change in reducing sediment and nutrient runoff * link to Water Quality roundtable for options</p>
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	<p>Inner Gulf / Nearshore / Estuary Strategy</p> <p>Develop an Inner Gulf strategy for fish stocks which:</p> <ul style="list-style-type: none"> - Retains the marine life we currently enjoy - Rebuilds stock to Harvest Strategy Standard or better in 25 years - Nurtures habitat and nursery areas – the engine room for abundant fish stocks - Reduces risks to juvenile fish - Factors in harvesting from 2.7 million people 50km from the Gulf in 15 years - Looks after the little things that support the marine ecosystem – ‘starfish in the rockpools’, eels... - Retains the ability for local communities to gather food for the table - Prevents loss of any species in harbours, estuaries 	<p>Outer Gulf Strategy</p> <p>Focus is on restoring hard bottom/ biogenic habitat</p> <ul style="list-style-type: none"> - Establishes standards for fishing in the Gulf- bottom impacts - Utilises cable protection zone (within which all fishing and anchoring is prohibited) as a monitoring and control site to assess ability for habitat to be restored and benefits of that, before looking at other sites - Undertake an analysis of the nature and extent of historical biogenic habitat and areas that would be the best natural sinks for juvenile ifsh species (based on high concentrations of late larval and juvenile stages). - Indicate activities with impacts from bottom contact within 100m contour (or whole marine park?) with unacceptable impacts (to be defined) and developing measures to address those activities (eg changing fishing gear). <ul style="list-style-type: none"> NB There was suggestion from some that that trade-offs would then be made based on those priority habitats identified above and the economic value of the affected activities.
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Productivity(2)

3.

Productivity – juveniles and habitat

Gulf-wide Habitat Restoration

Enable habitat restoration initiatives to proceed with better regulatory rules and streamlined processing

Restore subtidal seagrass, kelp, mussels, reefs in pilot areas

- Learn, monitor and extend from there. Test and accelerate.

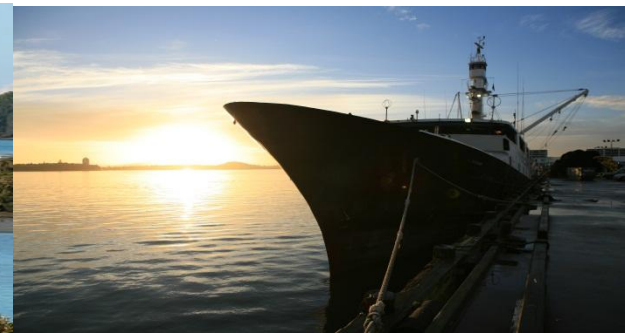
Juvenile mortality/ waste

Establish standards for fishing in the Gulf- fishing practice to reduce juvenile mortality/ wastage

Review current spatial restrictions on fishing in the Gulf- what areas are protecting juveniles and are they the right ones?

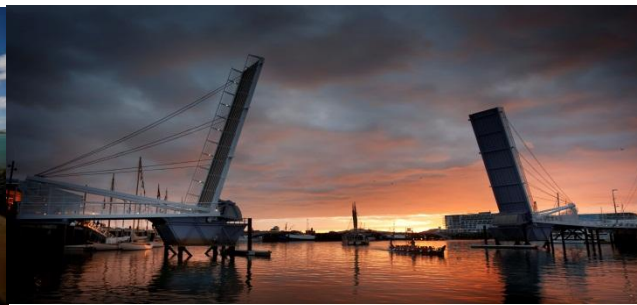
Review robustness of information on recreational and commercial discards to help inform approaches.

Review fishing gear/ impacts eg consider requiring barbless hooks





Stewardship	Shift attitudes from depletion to a mindset of abundance- “limit the catch vs catch to the limit” etc living with more fish in the water	
	Raise awareness about what is being done to improve abundance and how general public, clubs, fishing gear retailers etc can support.	
	Consider robust options for voluntary reporting	
	Explore the value of ‘citizen science’ and the detailed observation included in fishing diaries	





Fish Stocks Roundtable

Productive, abundant, diverse fish stocks



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Marine Park
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In partnership with mana whenua
and the following agencies:



Hauraki Gulf Forum
Tikapa Moana
Te Moananui a Toi

Ministry for Primary Industries
Manatū Ahu Matua



Department of
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Te Papa Atawhai

