

# A recreational view of the Hauraki Gulf's fishery

John Holdsworth

Blue Water Marine Research

22 August 2012



# Recreational perspective on the Hauraki Gulf Marine Park

## We love it



- marine recreation on it, in it, over it and beside it
- the most recreational use of any stretch of water in NZ
- for many Kiwis fishing is a pastime of choice
- management decisions in HGMP could affect more amateur fishers than any other group.

# Hauraki Gulf Fisheries starting at our feet

- many of the sheltered inshore habitats have been degraded
- intertidal shellfish beds of cockle and pipi in the inner harbour are effectively gone
- large areas of sand flats and eel grass were covered in mud
- mangrove forests have been buried under reclamation
- mussel beds unable to find firm footing in soft sediments have disappeared
- run off from roads and storm water is contaminated
- Rahui and closures of some beaches have not rebuild shellfish stocks.

The Waitamata may still sparkle on the top  
but is far from pristine beneath.



# The Islands Are Gems every one of them

- islands provide variety above and below water
- the tidal flows between them create a variety of productive habitats
- islands provide shelter from wind & wave action
- sheltered warm waters are favoured nursery areas for some fish species
- they also provide a wide range of habitats favoured by amateur fishers
- calm anchorage in the shallows and bays, channels with feeding fish after the change of tide, or on a good day, diving in deeper water off an exposed headland.



# The Wall of Coromandel shelter from the storm

- the Coromandel Peninsular provides a 800 m high wind break to the east
- it provides protection from the worst of the summer storms
- in its lee the Hauraki Gulf warms faster than other areas in spring and summer
- these conditions favour spawning for some species, like snapper
- Eastern Coromandel, also in the HGMP, has plenty going for it
- less intensive development, more exposed coast with many islands, bays and small harbours.



The Gulf has many attributes that are appreciated by fish and fishers



# What Amateur Fishers Are Looking For

- amateur fishers want reasonable access to quality fishing in places where they traditionally fish
- to catch a feed
- a day out of the office and home
- fishers expect to have a chance of catching a big fish, yes bragging rights.... but its amazing how many of those big fish moments stick with a fisher for a lifetime
- they want rules that seem fair and reasonable
- and must have kai moana that is safe to eat.

## **Sydney Harbour has dioxin contamination**

Dioxins in seafood from the Parramatta River and Sydney Harbour are likely to come from contaminated sediments near Homebush Bay. Commercial fishing has been banned in the harbour, fish and crustaceans caught by amateur fishers west of the harbour bridge should not be eaten. For most species it is recommended that people should not eat more than 150 g of fish per month for most species caught east of the harbour bridge.



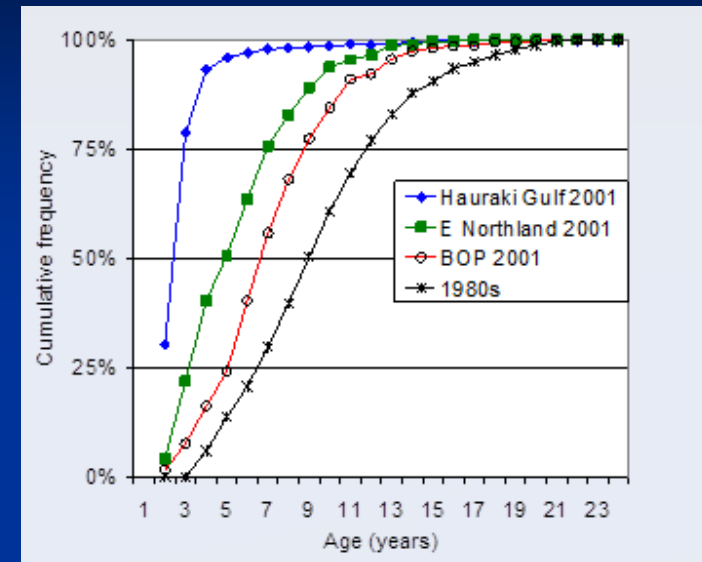
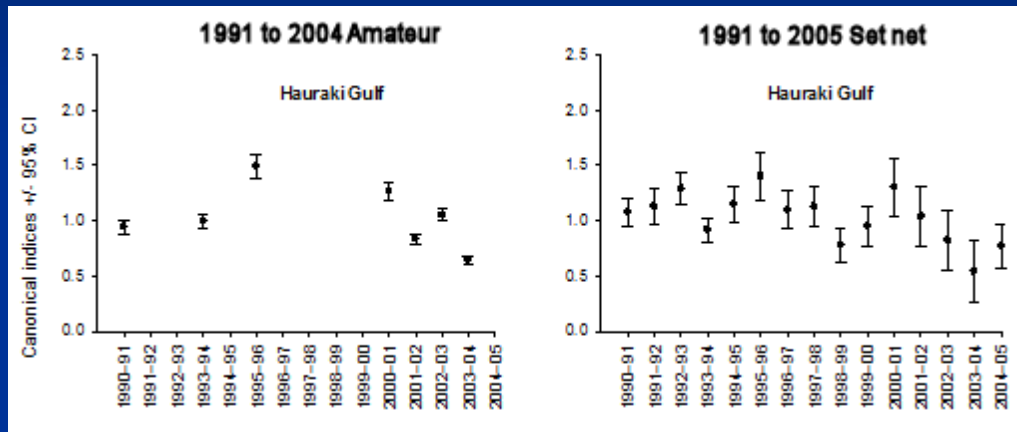
# We Knew Something Was Wrong with kahawai

- there had been a noticeable decline in the abundance of kahawai in late 1980s
- kahawai had been left out of the quota system and at this time the purse seine catch was increasing rapidly
- due to public pressure purse seine catch limits were introduced in 1990, they seemed to have little effect and catch limits cut further in 1993 in KAH1 (this stock area includes East Northland, Hauraki Gulf and Bay of Plenty)
- there were few adult kahawai in the Hauraki Gulf and catch rates had been poor since 1990 in ramp surveys
- some suggested that Hauraki Gulf was a kahawai nursery area only.



# Kahawai catch rate and age

## Standardised Catch Per Unit Effort, Hauraki Gulf



On the left amateur catch rates of kahawai in the Hauraki Gulf from boat ramp surveys of returning fishers and centre the catch rate by commercial set net fishers. Both show that by 2003-04 kahawai abundance in the Gulf was no better than in 1991 and possibly was worse.

On the right representative samples from amateur catch in 2001 compared with catch at age in 1980. Over 90% of kahawai caught by amateur fishers in the Hauraki Gulf were less than 5 years old in 2001 (blue line). Over 50% of kahawai in the 1980s were 9 years or older.



# Kahawai into the QMS 2004 to 2010



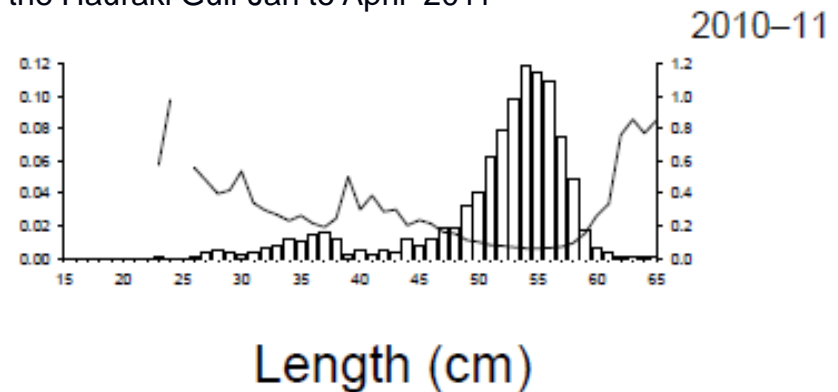
- the Ministry proposed to introduce kahawai into the quota management system in 2004
- amateur fishers were not satisfied that the rebuild plan went far enough. They gathered their resources and challenged the Minister's decision in the High Court
- no other NGO or conservation organisation cared that much about kahawai
- amateur fishers were looking for better definition of their "non-commercial fishing interests" which the Minister had a duty to take into account
- They were afraid that large kahawai may be gone from the Hauraki Gulf for a long time
- it took 3 management reviews, 3 court cases and a stock assessment to get some resolution
- current kahawai (KAH1) commercial quota is 1075 t and the allowance for recreational fishing interests is 900 t.

# Situation in 2011 pleasant surprise

- in 2011 the Hauraki Gulf was full of large kahawai, right into the Waitamata
- we have no data nor real idea where they came from, probably from outside the Gulf
- we would like to think that they are here to stay
- data from NIWA ramp surveys of amateur catch (funded by MPI) shows good numbers and size of kahawai in the gulf for the first time in many years.



Proportion of amateur catch by 1 cm size class  
from the Hauraki Gulf Jan to April 2011



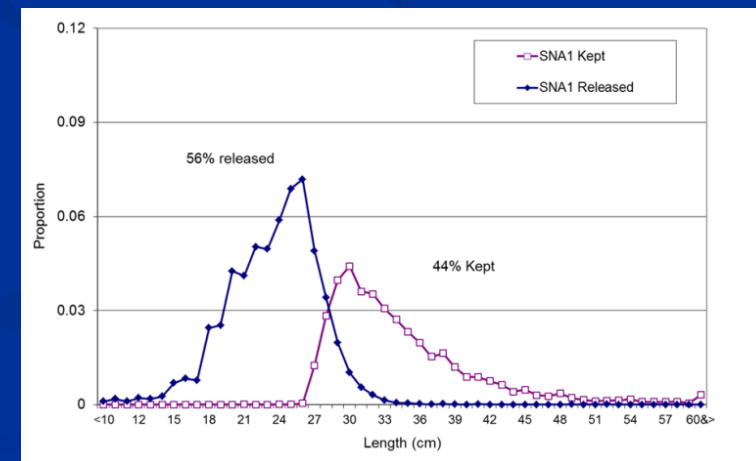
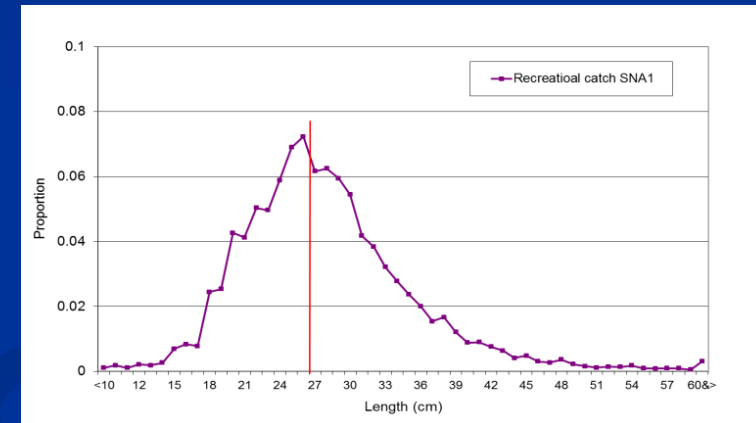
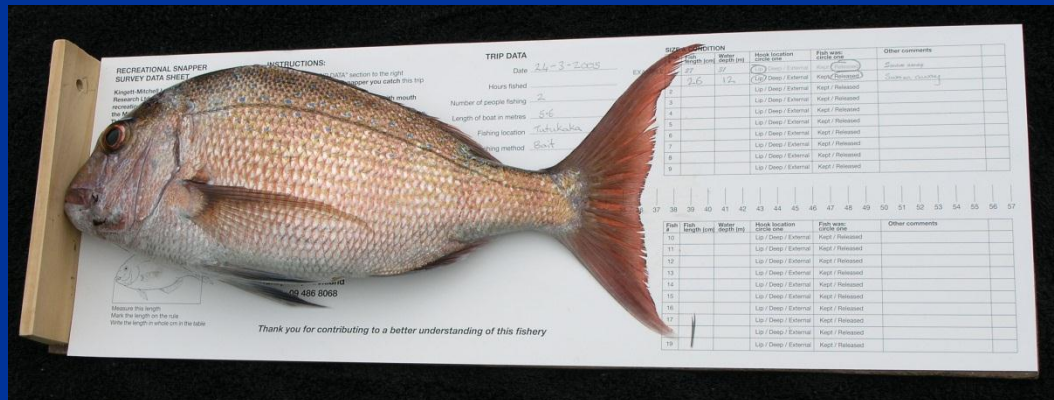
# Snapper is Number 1

- for amateur fishers it is by far the most popular target species, with the largest catch by number and weight in Fisheries Management Area 1 (FMA1)
- this area also has the most people, highest population growth, and more fishers than the rest of NZ
- fortunately the Hauraki Gulf still has the largest number of snapper. More fish than much larger areas such as the Bay of Plenty or west coasts of the North Island
- however many of these snapper are small



# The Size of Snapper Caught in SNA1

- in 2006-07 a survey of snapper catch at sea used observers on charter boats and data collection sheets issued to amateur fishers leaving boat ramps to collect 13,000 measurements including the released fish
- overall 56% all snapper were released
- fish were released because they were too small
- most fish larger than 34 cm were kept
- 30% of HG fishers returned with no snapper
- the average number kept was 1.7 snapper per person.





# Condition of Snapper on release



- according to observers on charter boats 92% of released snapper swam away in good condition
- J hooks caught 91% of snapper by the lip prior to release
- circle hooks caught 97% of snapper by the lip, 2.5% externally and 0.5% deep.

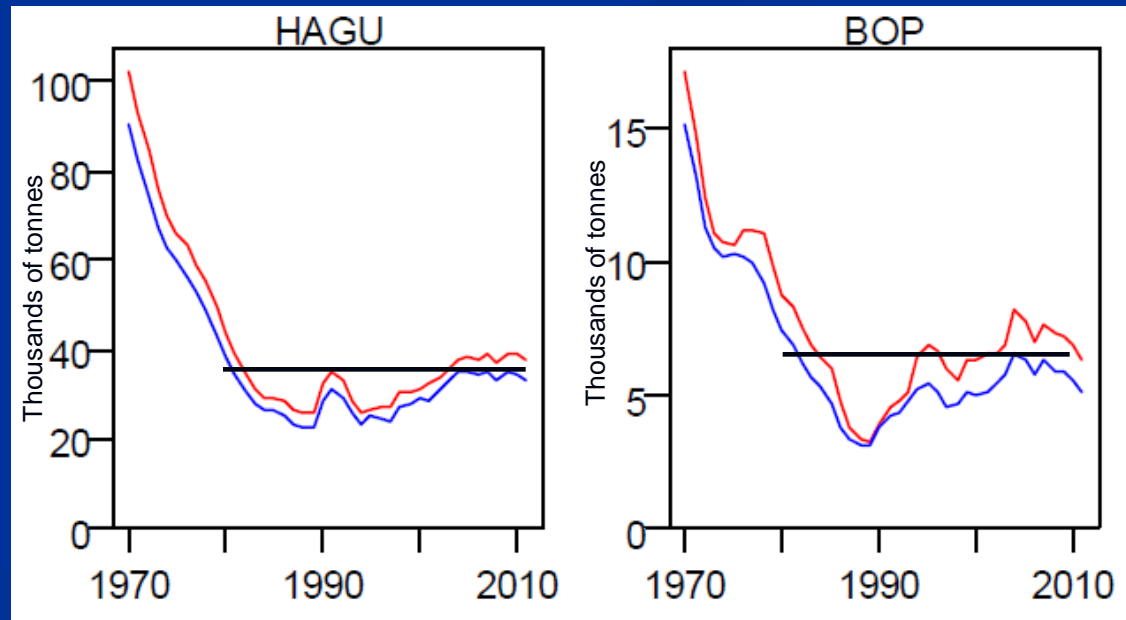
## Comment

- more fish would be released in top condition with increased use of circle hooks
- there has been a huge increase in the use of soft plastic baits and “slow” jigs since the survey was conducted
- these lures are more selective, tending to catch larger fish and less likely to be swallowed by small fish
- commercial and recreational fishers can modify their methods and behaviour so that more fish are allowed to grow to the optimum size
- a focus on reducing juvenile mortality would help stocks rebuild and reduce waste.

# Abundance is Key for amateur fishers

- amateur fishers measure the quality of fishing on catch rate and the proportion of prime sized fish available
- the best way to provide this in all areas is to restore abundance
- amateur fishers support target of 40% of the unfished biomass
- they will support measures to strengthen rebuild
- this includes reduced juvenile mortality and better management of our impact on the marine ecosystem.

- snapper (SNA1)  
abundance has been low for 30 years (draft snapper stock assessment 2012) and has been relatively flat in the last 5 years. In 1982 fisheries managers were concerned that the stock was being overfished. The stock is at or below that level now.



# Fisheries Management

- kahawai and snapper are not the only species targeted or caught by amateur fishers in the HGMP
- these examples do demonstrate that it is possible to have good quality amateur fisheries and some commercial catch
- amateur fishers can and will contribute to rebuild stocks but need assurance that the commercial catch will not increase until the target is reached
- while a start has been made we all need to fish smarter to speed the rebuild
- the Harvest Strategy Standard should be applied
- to apply the standard properly an index of abundance will be required for each species
- in New Zealand we generally use catch per unit effort from commercial catch records to derive an index of abundance.



# Examples of Fishers Protecting the environment and fish

## Fish Legal (UK)

This is a well established charitable trust formed by amateur fishers that regularly takes civil action against polluters of rivers and coastal waters on behalf of their members who have experienced loss. Any monies won are returned to the fishery to help restore it to health. [www.fishlegal.net/](http://www.fishlegal.net/)

## Trout Unlimited (North America)

Trout Unlimited works to protect the best remaining fish habitats and populations, to reconnect fish habitats by removing instream barriers and reestablishing instream flows, to restore vital main stem river and streamside habitats and perhaps most importantly, to engage children, local communities, state and federal agencies, partner conservation organizations and industry groups in the recovery of clean cold fishable waters. [www.tu.org/conservation](http://www.tu.org/conservation)



# Environmental Management

- many studies have shown that improving habitat has a direct benefit to fish stocks
- fishers and divers see what is going on, eyes and ears on the water
- amateur fishers are a potential resource, a large number of motivated people with boats
- they have a vested interest in a better cleaner more productive environment
- with community buy in large scale habitat restoration projects become more achievable/affordable
- good potential to use resources and networks from LegaSea contributors
- LegaSea and NZ Sport Fishing is committed to providing for the reasonably foreseeable needs of future generations.



# More Fish in the Water and a Healthy Marine Environment [www.legasea.co.nz](http://www.legasea.co.nz)

http://www.legasea.co.nz/index.php

View Favorites Tools Help

Google Custom Search Search

In association with

**LEGASEA**  
BRINGING BACK THE BITE

NEW ZEALAND SPORT FISHING

HOME ABOUT ADVOCACY RESEARCH EDUCATION TOGETHER BUY STUFF **I'm in for \$20**

**LEGASEA**  
Are you ready to get in?  
Why wouldn't you?

LegaSea - Get In! Play Now

Photo Credit: Leslie Tokunaga - Marine Photobank

More fish in the water and a clean, healthy marine environment for the New Zealand public.  
Check out the LegaSea song - Save a Little - by Troy Kinqi

t f