# **NEW ZEALAND FISHERIES SYMPOSIUM 2016**

# **Session summaries**

#### MARINE RECREATIONAL FISHING'S CONTRIBUTION TO THE NEW ZEALAND ECONOMY

Rob Southwick, John Holdsworth, Trish Rea.

Two year's research went into measuring the contribution that recreational fishing makes to the New Zealand economy. There is a substantial industry dependent on successful recreational fishing. This industry is threatened by a degrading marine environment inshore, and low abundance of fish leading to poor fishing experiences and less participation. This information needs to be shared widely so decision-makers are convinced to reset policies to maximise economic opportunities.

- New Zealand Inc. is foregoing economic opportunities due to poor fish abundance
- Recreational fishers spend \$946 million per annum on their fishing.
- Recreational fishers spending generates \$1.7 billion in economic activity every year.
- This activity generates \$638M in Gross Domestic Product (GDP) and adds a minimum of \$188M in taxes to the New Zealand economy.
- Tourism is the fastest growing sector, each international fishing visitor spends around \$3000. Potential for growth.

#### THE UNSEEN COSTS OF SHIFTING BASELINES

Daniel Pauly.

Fisheries are collapsing around the world but the signals are lost because fleets are more efficient and expanding into new waters. Food security for many indigenous populations is threatened by industrial, illegal or excess fishing. There are a variety of ways to measure abundance, but harvest and catch rates are no longer an indication of abundance.

- Shifting baselines is people accepting the current state of depletion as "normal" without understanding past abundance.
- Worldwide, fisheries landings have been declining since the late 1980s.
- The Sea Around Us project reconstructs catch for 150 countries, between 1950-2010.
- United Nation's records of each country's catch under-estimate actual harvest because most countries do not report artisanal, recreational and subsistence catch, or discards.
- Creating perpetual access to Individual Transferable Quotas (ITQs) for fisheries has enabled monopolisation of catch into fewer hands, removed control from the fishermen, and enabled foreign ownership of a nation's marine resources.
- Until recently New Zealand's QMS was considered okay, not now.
- Industrial capture of fisheries through commercial interests controlling, managing or paying for the research, capturing the information and controlling its release.
- There are economic, social and cultural benefits associated with managing fisheries to provide for small-scale artisanal, regional and recreational use of fisheries.

#### **PRELIMINARY RECONSTRUCTION OF MARINE CATCHES IN NEW ZEALAND (1950-2012)** Dr. Glenn Simmons.

New Zealand's historic fisheries catches between 1950 and 2012 have been reconstructed using a variety of information sources, as part of the Sea Around Us project. Final report will be release before the end of April. Fisheries management policy reform was sorely needed to address some of the issues associated with how the Quota Management System operated and the lack of husbandry of New Zealand's marine resources. Foreign charter vessels were difficult to manage and ought to be excluded from New Zealand waters. Maori values of kaitiakitanga, guardianship of the resource, ought to be applied to all fishing activity.

- New Zealand has reported 14.8 million tonnes of catch to the United Nations.
- Around 27.8 million tonnes of New Zealand's catch has not been reported to the United Nations.
- Recreational and customary catch of around 560,000 tonnes has not been reported to the United Nations.
- A variety of interests, excluding fisheries managers, consider the deemed value regime to be the biggest rort in the QMS.
- An estimated 17.7 million tonnes of commercial catch has been dumped at sea.
- The QMS has too many output controls and not enough input controls.
- Market demand is driving catches.
- Few fishermen own quota.
- Remote quota owners are not connected to the sea, only responsible to shareholders with little regard for the fisherman or his need for a lowest-cost operation.
- Legally New Zealand quota cannot be sold offshore, but substantial chunks of quota is owned by Trusts, ownership unknown.

## **RECREATIONAL SURVEYS IN NEW ZEALAND: WHY AND HOW?**

Bruce Hartill

All countries that attempt to compile recreational harvest estimates use surveys. The 2011-12 National Panel Survey produced an internationally recognised estimate of recreational catch in New Zealand. Independent surveys are superior to self-reporting schemes which can be highly biased. Compulsory self-reporting of recreational catch would not be reliable, cost effective or politically acceptable.

- Managing fisheries to produce Maximum Sustainable Yield (MSY) is an outdated concept.
- Management targets are shifting to higher, more conservative levels, for snapper the default has shifted from around B22 to B40.
- NIWA has a time series of survey data for Area 1, North Cape to East Cape.
- Half of all recreational fishing effort occurs in Area 1.
- 64% of fishing trips in the Hauraki Gulf is from a trailer boat.
- 87% of recreational fishing in the Hauraki Gulf is by people using a rod and reel.
- In 2011-12 80% of landed catch in the Hauraki Gulf was snapper, 9% was kahawai.
- On the busiest day in the Hauraki Gulf there was an estimated 3200 boats fishing.
- On the quietest day in the Hauraki Gulf, an estimated 183 were fishing.
- No apparent reason why snapper catch in the Hauraki Gulf has reduced from 2400 tonnes in 2011-12, to 800 tonnes in 2013. Highlights the need for ongoing surveys.

- Management is challenging because recreational catch can vary so much.
- Debatable if closing fisheries during spawning is effective. Weather has the most effect on recruitment rates. 21 million snapper can survive in a warm autumn, in a cold year only 3M survive.
- Important to protect small fish that survive recruitment, learning release and avoidance techniques are good ways to help those fish survive to adulthood.
- Wind strength is the biggest driver of recreational effort in Area 1.

#### WHAT CONDITIONS ALLOW CO-MANAGEMENT TO WORK?

Dr. Evelyn Pinkerton

Co-management requires a genuine power sharing and joint decision-making arrangement between parties. Successful co-management delivers better results for communities involved, the fisheries and decision-makers. Some successful arrangements achieved for First Nations tribes in northern USA and Canada.

- Fishing dependent communities have a strong commitment to sustainable management of local fisheries so are easily convinced of the benefits of comanagement.
- Agencies do not cede power easily so co-management can take a long time to implement.
- Smaller agencies are easier to deal with than larger organisations.
- Co-management is best applied to a non-migratory species.
- Most success with communities that live next to waters where a species spends its whole life-cycle.
- Quota ownership has shifted from local fishermen to remote owners who scoop the benefits of fishing.
- Coastal communities losing skilled workers, fishermen suffering with poor returns from their effort.
- Young people are either denied access to fishing or are not attracted to jobs, leaving their communities for city life.
- Success is achieved when coastal communities are directly in control of their fisheries and access to their marine resources.

# IMPACTS OF FISHERIES AND GLOBAL WARMING ON MARINE ECOSYSTEMS: THE CHALLENGES FOR NEW ZEALAND

Daniel Pauly.

Global warming has been happening for several decades. Studies have shown fishing populations moving en masse to stay in water temperatures they prefer. Having an abundance of fish is an insurance policy against global warming and environmental degradation. Small scale, artisanal fishing has less impact on fisheries and the marine environment than industrial fishing.

• High trophic level species are declining, subsequent increase of small, opportunistic species ie. shrimps, crabs, squids and jellyfish.

- Small animals on the sea bottom eat the marine snow, debris from above. Removing these small animals leaves the snow to settle on the bottom and rot, creating a dead zone.
- Over 400 dead zones, with no oxygen, around the world.
- Declining benthic environment, more dead zones on top of muddy areas created by trawling.
- Some water desalination plants can no longer operate because the water is infested with polyps that block water inlets.
- Global warming can be measured by the distribution of fish, this distribution is being mapped.
- Humans do not need to kill everything. We could extract what we need and leave the remaining food web to sustain itself.
- Scallop dredging is the closest thing to bulldozing the seabed, modifying the environment.
- Food security is endangered by biodiversity loss.
- Bizarre management in New Zealand where industrial fishing is permitted inshore. Ought to be separate controls for inshore fisheries.
- Ban industrial fishing from the coastal zone.
- Permit small scale, artisanal fishing inshore. Agile management with fishers connected to their communities.

#### **Recreational fishery performance in New Zealand**

John Holdsworth.

Kingfish was the first fishery in New Zealand to be intentionally managed above baseline levels. Kahawai has long been under-rated as a species, a food fish and a sport fish. After the Kahawai Legal Challenge the Minister agreed to manage the kahawai fishery at higher levels to allow better utilisation by recreational fishers. Marlin is the only recreational-only fishery in New Zealand.

- Kingfish fishery is rebuilding, improved numbers and size of fish.
- Kahawai on the northeast coast seems to be rebuilding, slowly.
- Structural change in fisheries management requires a combination of social, political and economic factors.
- Agreement between disparate groups is easier when there is a mutually beneficial goal.
- It is important to monitor the performance of agreements and resolve disputes early.
- Need the opportunity to create a coastal zone where some activities will be reclassified as discretionary as opposed to as of right under the existing QMS.
- Hauraki Gulf Marine Park could be a pilot for smaller quota management areas.
- Need a coordinated approach to marine protected areas, taking into account current and future catch levels, and to avoid the 'race for space' and displacing fishing effort into neighbouring areas.
- Less money being spent on research nowadays, current model is project-based limiting scope to consider broader aspects of management.
- Need independent research, hard to get given the current funding model of cost recoveries.
- Need new ways of reaching and educating people within sectors and between harvest sectors.

#### **COMPARING RECREATIONAL AND COMMERCIAL FISHERIES**

Rob Southwick, John Holdsworth.

Raising the awareness and significance of recreational fishing through earlier projects had produced positive results overseas. If work was going to be applied to compare recreational and commercial fisheries it was critical to compare like-for-like, fishery by fishery. Commercial fishing targets many more species than recreational fishing so it was important to identify the fisheries of mutual interest.

- Prepare answers for questions that are likely to arise in future debates.
- Be flexible, fisheries management is political.
- Defining economic information at an electoral level is critical to success.
- Demonstrating recreational fishing's other contributions to New Zealand is important.
- Emphasise that recreational fishers are paying their way, enhancing the economy to the benefit of all New Zealanders.
- Maintain credibility when making comparisons.
- In the USA, for mutually targeted species commercial fishers land 16.5 times more fish by weight, but recreational fishing for those species generates
  - 1.5 times more jobs
  - 2.9 times more income
  - 3.2 times more Gross Domestic Product (GDP).

## Q & A ISSUES

- There is a 'green-washing' of data that masks shifting fishing effort.
- The integration of fisheries into Primary Industries was a mistake, the country is suffering a loss from the amalgamation of Ministries.
- The USA has several examples of well managed fisheries. The Magnus-Stevens Act is a positive piece of legislation that has been used to rebuild depleted fisheries in the USA. A billion dollar industry can be closed overnight under this Act.
- Canada is at risk of losing access to its own fish because USA and Chinese interests have bought quota. Processing of fish is also shifting offshore.
- New Zealand would be better off dumping the QMS, learning from the failure and reformation of the Icelandic quota system to focus more on community needs and regional fisheries.
- There are many ways to manage fisheries not based on ITQs.
- Some jurisdictions in north America have a fleet separation policy where processors cannot own quota, fishermen operating vessels must own quota and a licence.
- Governments have sovereign power so New Zealand's quota system could be administratively changed.
- Marine Stewardship Council (MSC) certification was originally meant to be a bridge between conservation and commercial interests. Now it means few operational changes. Only need to look at the wastage issues in the certified hoki fishery to understand poor those standards are in the MSC process.
- Artisanal, small scale catch returns are higher than industrial catch. Artisanal fishers are connected directly to their market and community, and enjoy the profits of their efforts because there are less people in the value chain taking a cut.

- Market and food security is important for coastal and regional communities.
- New Zealand's QMS began with no overseas ownership and aggregation of quota over certain thresholds was prohibited. These thresholds were soon breached and there is no real barrier to foreign ownership of New Zealand quota.
- Consumer boycotts of specific fish products have not been successful. Political action combined with public education is more effective in generating change.
- Recreational fisheries overseas have collapsed fisheries, need to manage both recreational and commercial catch.
- Self-reporting of recreational catch will produce biased, unreliable results for many reasons. Earlier surveys show that recreational fishers do not always record their trips with zero catch and can over-report successful trips.
- Jellyfish from China are invading Japanese waters every summer impeding fishing operations, ripping nets and blocking waterways, causing billion dollar loses.
- Acidification of marine waters is a big danger to fisheries and food supply for humans.
- Even if trawling was banned, recovery timelines would be long due to eutrophication and acidification, but habitat and species will recover if left alone.
- New Zealanders are not accustomed to eating smaller pelagic species, might need a change of diet as trophic species change due to high exploitation rates.
- New Zealand needs a change of policy direction, from depletion to managing for abundance.
- Abundance is important to restore opportunities for shore based fishers.
- Monopoly of quota is at the core of New Zealand's problems. Quota holders are raking the rents while nothing is given back to the public of New Zealand for the exploitation of the marine resources.
- In an earlier promo, Air New Zealand identified that fishermen were the highest spending tourists arriving in New Zealand.
- 60 million people in the USA consider themselves as anglers. New Zealand needs to tap into this market.
- Get overseas travel writers to visit New Zealand and see the potential for fishing and eco-tourism.

## PETER BUSFIELD, MIA

- The social benefits of families boating and fishing together cannot be under-estimated.
- Boat building is the largest manufacturing sector in New Zealand.
- Industry has 400 apprentices, 75 new marine apprentices this year, many due to recreational fishing.
- Close to \$25 million of road user charges goes into outboard motors.
- Legislation passed that gives the Minister of Finance discretion to spend that \$25M on boating education (Coastguard), and navigation aids. In recent years the Minister has only spent around \$8M, leaving \$17M unused for its intended purpose.
- Could lobby the Minister to use some of the unused funds for recreational fishing purposes.