

**Submission  
No 960**

## **INQUIRY INTO RECREATIONAL FISHING**

**Name:** Mr Richard Tilzey

**Date received:** 18/03/2010

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The NSW Legislative Council's Select Committee on Recreational Fishing.

Dear Committee

**Re: The NSW Government Inquiry into Recreational Fishing**

I would like to specifically comment on the following two terms of reference

(a) the current suite of existing regulatory, policy, and decision-making processes in relation to the management of recreational fisheries in New South Wales, including the process for the creation of Marine Protected Areas and Marine Parks and the efficacy of existing Marine Protected Areas and Marine Parks.

d) the gaps in existing recreational fishery programs, including the number and location of Recreational Fishing Havens.

First, a note on my professional background to hopefully add weight to your consideration of my opinions. I am a recently retired fisheries scientist who has spent 40 years working on a variety of Australian fisheries ranging from inland recreational fisheries to commercial deepsea fisheries, with the latter half of my career being spent as a Senior Principal Scientist with the Australian Government's Bureau of Rural Sciences. I have served on numerous fisheries Management Advisory Committees and have been the Scientific Advisor to several Australian delegations negotiating international fisheries agreements. I am a honorary life member and ex-President of the Australian Society for Fish Biology. I am certainly familiar with NSW fisheries, having worked for the (then) NSW Fisheries Department from 1967 to 1980 and through being a longterm NSW resident and recreational fisher.

**(a) The current suite of existing regulatory, policy, and decision-making processes in relation to the management of recreational fisheries in New South Wales, including the creation of Marine Protected Areas and Marine Parks and the efficacy of existing Marine Protected Areas and Marine Parks.**

The management of fisheries in NSW certainly appears to be becoming increasingly fragmented and inefficient. Whereas fisheries were managed by a sole government agency, the (then) NSW Fisheries Department, there are now several government agencies exerting a strong influence on the way NSW fisheries are managed. I note that changes in Commonwealth legislation, such as Offshore Constitutional Settlement agreements allocating the responsibility for managing certain marine fish species to the Commonwealth and the Australia-wide requirement for commercial fisheries to be assessed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) have obviously had a strong impact on the way NSW's fisheries are managed, some of which are shared between commercial and recreational fishers. Whereas I will largely confine my comments to NSW management agencies and waters under NSW jurisdiction, the EPBC Act and the activities of the Commonwealth's Department of Environment, Water, Heritage and the Arts (DEWHA) have had, and are continuing to have, far reaching effects on the management of NSW fisheries.

Global concern about overfishing has led to a marked increase in funding and legislation by many governments to address this problem. A large part of such funding is also coming from non-government organisations (NGOs) such as the American-based Pew Charitable Trust (PCT) and Seaweb. These wealthy organisations dispense funding world wide. Several Australian NGOs have become

increasingly active in fisheries matters and are receiving funding from government agencies such as the DEWHA, as well as organisations such as the two NGOs named above. Unfortunately, a common perception by these NGOs is that **all** fisheries are overfished and hence warrant protection from fishing. This has led to a strong push for marine protected areas (MPAs) and the total exclusion of fishing activities therein.

A key question is; Are NSW fisheries overfished? Whereas there is no doubt that the abundances of species such as eastern gemfish and some sharks have been greatly reduced by commercial fishing, principally trawling, (e.g. Andrew *et al* 1997) the great majority of NSW fish stocks currently appear to be in good condition. Moreover, recent years have seen a marked reduction in commercial fishing mortality via a buy-out of many fishing permits and the introduction of more conservative catch limits. For most stocks comparative abundance data are lacking and it is difficult to state with confidence if a stock is being overfished. Despite the lack of such information, the NGOs are pushing the myth that all stocks need protection from fishing, be it commercial or recreational.

A good example of the misinformation being peddled by NGOs was the report *Empty Oceans Empty Nets. An evaluation of NSW fisheries catch statistics from 1940 to 2000* (HCEC 2006). This PCT-funded report claimed that many NSW fisheries are in serious decline and urgently need protection. It has since been totally discredited by Forrest and Pitcher (2006), who demonstrated how the catch statistics had been selectively interpreted.

A more recent example is the report *The Torn Blue Fringe: Marine Conservation in NSW* (Winn 2008) put out by the NSW Parks and Wildlife Association. This again paints fishing as a major threat to biodiversity and strongly argues for the creation of new marine parks and the expansion of no-fishing areas in existing marine parks. This report was reviewed by Bob Kearney, Emeritus Professor of Fisheries, University of Canberra (Kearney 2009) who noted in his summary that it *"is written from the perspective of an advocate for more marine parks and as such it misrepresents or selectively ignores much of the scientific and policy literature on the needs for marine conservation and marine parks in NSW. By so doing it actually draws attention to the failure by the NSW Marine Parks Authority to cost-effectively address the properly identified threats. The overestimation of the impacts of fishing and the associated advocacy for further restriction on fishing appears to have been used to create a distraction from identifying and managing the real threats to NSW marine ecosystems, fisheries resources and biodiversity."*

I further note that the NSW Nature Conservation Council has put out an 'online petition form' to encourage its members to inundate your committee with its propaganda. This includes statements such as *"The science behind marine parks is overwhelmingly strong and well evidenced in a huge range of scientific journals. By contrast, attacks on marine parks are rarely based on science and are all but absent in the scientific literature. Instead, such attacks generally boil down to non-evidence based individual opinions"*. It goes without saying that such statements are absolute rubbish.

Whereas marine parks have received strong support from societies such as the Australian Marine Sciences Association (AMSA) and some academic institutions, it is not being disingenuous to suggest that much of this support is driven by the availability of research funding from government conservation organisations and NGOs. Indeed, a recent review by Diggles (2010) saw fit to question the integrity of

scientific advice currently being given to the DEWHA on marine park matters. To be fair, it should be noted that AMSA in their position statement on marine parks (AMSA 2008) hedged their bets by stating that "*Marine reserves must not be seen as a substitute for well-managed fisheries*". It should also be noted that the Australian Society for Fish Biology has refrained from making any formal statements on marine protected areas.

In short, advocacy is replacing scientific integrity and impartiality. This is becoming a world-wide problem. Professor of Fisheries Management at the School of Aquatic and Fisheries Sciences, University of Washington, Ray Hilborn, observed that "*Two journals with the highest profile, Science and Nature, clearly publish articles on fisheries not for their scientific merit, but for their publicity value*". He also observed "*A community of belief has arisen whose credo has become 'fisheries management has failed, we need to abandon the old approaches and use marine protected areas and ecosystem-based management. I fear that this belief has shaded the peer review process so badly that almost any paper showing a significant decline in fish abundance or benefits of marine protected areas has a high probability of getting favorable reviews in some journals regardless of the quality of the analysis. Critical peer review has been replaced by faith-based support for ideas and too many scientists have become advocates. An advocate knows the answer and looks for evidence to support it; a scientist asks nature how much support there is for competing hypotheses'*" (Hilborn 2006).

Thus, the creation of marine parks and the establishment of the NSW Marine Parks Authority (NSW MPA) has certainly seen a shift away from funding support for 'traditional' fisheries management based on available scientific information about fish stocks with appropriate monitoring and gear, effort and catch limits, to increased funding for a simplistic, uninformed quasi-management system based firmly on the premise that excluding fishing from certain areas will benefit fish stocks.

**In reality, there is very little hard evidence to indicate or suggest that recreational fish stocks in NSW waters are deriving any benefit from excluding recreational fishers from marine protected areas** (noting that I exclude invertebrate stocks from this statement).

The stated main aim of marine parks is to preserve biodiversity. All responsible fishers, be they commercial or recreational, want to preserve habitat and biodiversity. However, it is obvious that most of the major threats to biodiversity, such as catchment development, urbanisation and associated pollutants, are land-based and beyond the control of the NSW MPA. Similarly, some recent fish kills in (local) southern coastal lakes were climate driven (drought) and such natural events are also beyond their control. Such a lack of control over land-based and natural events may in part explain why the NSW MPA has singled out fishing as the major threat to biodiversity. At least they currently have the legislative ability to control this so-called nefarious activity within their waters.

This is an absurd situation from a fisheries management perspective, as the NSW MPA clearly knows little about the basic tenets of recreational, or other, fisheries management. My realisation of this has come from observation of the establishment of the Batemans Marine Park (BMP) and the ongoing debate I and many other recreational fishers have had with BMP management. A brief history of the BMP is pertinent.

The BMP was established with great haste and the consultation process leading to the current zoning was inadequate, to say the least. Stakeholders were presented with a draft zoning map and had only a few weeks to comment and make submissions. It was very apparent that the locations of the vast majority of the MPAs that take up 20% of the park's area had been selected from a desk-top mapping study only, with little scientific rationale to justify their siting. Only the locations of the few MPAs encompassing known grey nurse shark aggregating sites were justified. Despite numerous submissions contesting their locations, most draft MPAs remained in place.

The NSW MPA's so-called 'Science Paper', "A review of benefits of Marine Protected Areas and related zoning considerations" that was used to justify the MPA zoning was, quite frankly, a scientific disgrace. It contained many sweeping assumptions and selectively used available scientific literature to portray fishing as a major threat to biodiversity. Professor Kearney's criticism of this paper (Kearney 2007) was well justified and was supported by many scientists attending the Australian Society for Fish Biology workshop at which this critique was presented. It is also notable that the NSW Government's Chief Fisheries Scientist distanced himself from the NSW MPA paper.

It should be noted that during this implementation phase myself and others fought for a total ban on trawling. The initial zoning plan permitted trawling over a wide area in the belief that the buy-out of trawl permits would reduce trawl effort to an acceptable level. In reality, the one or two remaining trawlers would have almost certainly greatly increased their fishing effort to take advantage of such exclusive access. A basic knowledge of fisheries management would have foreseen this event. I certainly agree that the consequent ban on trawling has probably enhanced the local abundance of target species such as flathead and trevally. However, there are no reliable comparative abundance data to prove this.

The major recreational fishing species within the BMP are bream, the flatheads, jewfish, kingfish, the morwongs (except red morwong), the mullets, salmon, snapper, tailor, the tunas and the whittings. All are migratory and move in and out of MPAs. Although catch data are lacking, I very much doubt if overall recreational fishing mortality has fallen. Hence, most MPAs serve no purpose from a fisheries management perspective. They have merely sufficed to displace fishing effort into adjacent waters at great inconvenience to anglers.

I assume the situation is similar in other NSW marine parks and it is hard to see how the NSW MPA can continue to justify the locking-up of 20% of their areas without demonstrating any benefit to fish stocks. Moreover, the mobility of most recreational fish species will render dive and angler surveys ineffective in assessing the respective densities of these species in and out of MPAs. Although considerable monies are being spent on fish surveys using underwater baited cameras and the like, the likelihood of any meaningful quantitative fish abundance estimates emerging are slim. It's certainly time for some hard questions to be asked from a fisheries management perspective. I have previously challenged the NSW MPA and the university scientists supporting MPAs to produce one peer-reviewed paper demonstrating that recreational fishing activities in NSW waters have had a significant impact on fish abundance, or on biodiversity. Needless to say, the silence has been deafening.

I stress that I am not against the use of MPAs as a fisheries management tool. When used wisely they can be very effective at protecting known spawning sites,

nursery areas and the like, and for protecting overfished stocks or overfished reef localities. However, there must be a demonstrated need for protection before implementing a MPA.

I have had discussions on these matters with the manager of the BMP, Dr Brendan Kellaher, but he continues to maintain that the MPAs have got to be benefitting fish stocks and biodiversity. Thus the BMP mantra still follows the line of the NGO's "Fishing is evil! Control, control!". The monies spent on patrolling their designated MPA boundaries (this also includes non-BMP funded State Fisheries Inspectors) are truly wasted and would be better spent on gathering some information about the actual state of fish stocks within the park.

#### Recommendations

(a) The management of fisheries in NSW waters, including marine parks, should be carried out by one established fisheries authority (Industry & Investment NSW - Fisheries & Ecosystems Branch), not the NSW MPA.

The current situation where State fisheries are being managed by more than one government department is clearly ineffective and inefficient. Fish do not heed 'lines on water' and should have common management strategies across their distribution range.

(b) An independent scientific review of the effectiveness of MPAs within NSW waters should be accorded a high priority.

#### **d) the gaps in existing recreational fishery programs, including the number and location of Recreational Fishing Havens.**

I support the creation of Recreational Fishing Havens (RFHs) but note that, despite fishing permit buy-outs, they are leading to increased commercial fishing pressure in adjacent waters. For example, here on the south coast the creation of the Tuross Lakes and Bega River RFHs has seen a marked increase in commercial netting effort in Wallaga Lake. I surmise that a "deal" was done with the NSW MPA to avoid having 20% of the Tuross Lakes RFH declared as BMP MPAs. Narooma based fishers were not so lucky and lost several areas of Wagonga Inlet. As commercial netting has long been banned in Wagonga Inlet, it has in effect been an unofficial RFH for many years. Consideration should be given to formalising its status as a RFH in the hope that this may lead to the removal of the MPAs therein.

**Monitoring.** The paucity of catch monitoring systems for most recreational fisheries is a serious problem. Without developing time-series of catch and effort and catch composition data, it is difficult to assess the health of a fishery or to assess changes in recreational fishing practices. For some recreational fish species such as offshore gamefish and Australian bass, catch data are being routinely collected from annual fishing tournaments. However, such information is lacking for most species.

A greater priority should be given to expanding research programmes such as 'Recreational fishing surveys in the Greater Sydney Region' (*FSR2006/174*) and 'Development of cost-effective methods for monitoring and assessing spatial management options for recreational fisheries in NSW' (*FSR2008/200*) that are, or were, being carried out by Dr Aldo Steffe. As noted above, core State funding is being directed away to fulfill perceived conservation needs, rather than being

directed towards basic fisheries management needs such as monitoring catches and stocks.

**Stocking.** Periodic stocking of waters with hatchery reared fish is a long established practice in NSW, particularly in inland waters. Stocking is obviously very beneficial, indeed essential, for waters where fish can't breed, such as Australian bass in impoundments and salmonids in waters with no spawning facilities.

Nevertheless, too much stocking is being carried out without any back-up monitoring. The basic question of "how many stocked fish are reaching the angler?" remains largely unanswered. Stocking is an expensive procedure and an ongoing expense. A cost-benefit analysis of most stocking practices should be undertaken. It is simply not good enough to annually release large numbers of fish without estimating their survival rates in the wild and the percentage caught by anglers. For fisheries such as the trout fisheries in Snowy Mountains impoundments, little attention appears to be paid to lake levels. For example, what's the effectiveness of annually pouring around a hundred thousand trout fingerlings into Lake Eucumbene when it has been only 11-25% full in recent years?

In many ways, stocking has become a numbers game and a placebo. Of course, stocking is a 'good news' item and nothing pleases the minister of the day more than making a press release stating that x million fish have been released, etc. A review of stocking practices is needed.

## References

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I have tried not to sound too negative but the current situation with recreational fisheries management is certainly less than optimal. Should you have any questions of me, I am happy to respond.

Yours faithfully

Richard Tilzey