

CAREFISH



THE BONES OF CONTENTION

*Improved management of inshore fisheries in
the Great Barrier Reef Marine Park would benefit
fishing and tourism sectors in FNQ*

3rd Edition, updated as a brief & background paper for:

Minister John McVeigh MP
Department of Agriculture, Fisheries & Forestry
Queensland

A working paper prepared *pro bono* by:

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CAREFISH

CAirns REcreational Fishing Industry StakeHolders (CAREFISH) is a Cairns-based network comprising stakeholders with interests in recreational fishing, researchers with environmental concerns, fishing club members and others interested in improving the sustainability of fishing and/or a reduction in the mortality of iconic marine life. We are part of the Network for Sustainable Fishing FNQ and link into similar networks along the Queensland coast.

CAREFISH was designed to collate these many uncoordinated voices and importantly, to offer the various authorities that hold sway over our sector, a coherent and constructive point of view. We act to shore up 'peak body' representation of recreational fishing interests in coastal Far North Queensland. Our primary aim is to address local concerns regarding decreasing numbers and sizes of the inshore fish we catch.

Following meetings with Labor MP for Barron River and the commercial sector in 2011, we helped initiate and run a parliamentary petition to completely close Cairns inshore waters to all gillnetting. This raised around 3,000 votes in three weeks during November 2011 with no budget and little effort. The rate of numbers signing the petition online peaked its last 12 hours, indicating the total would have been much greater if it had run for longer.

The experience with the petition reinforces CAREFISH findings that the use of gillnets in local waters is very unpopular with a significant proportion of the public. CAREFISH undertakes to remain active until marked improvements are introduced to the management of the east coast inshore finfish fishery (ECIFF) to enable our much reduced inshore fish numbers to recover to acceptable levels. Anyone interested in further information or commenting on the contents of this paper is invited to contact Paul Aubin on 0418 772 751 or at paul@cairnsbednboat.com.au.

Paul Aubin

Paul is the author of the first edition of this paper and founded and co-ordinates CAREFISH. He arrived in Cairns in 1979 to work as a marine electrician and still runs an electrical contracting business there. He also started and manages "Rent a Reef Boat" (2002) and "Cairns Bed n Boat" (2006). These businesses cater to locals and tourists alike, providing them with transport, accommodation and holiday experiences structured around recreational fishing. Past occupations include working on board commercial fishing boats, on charter boats as a sail and fishing guide and as an island resort manager in the Whitsundays.

NETWORK FOR SUSTAINABLE FISHING

During 2006 and 2007, a series of three meetings, each with from 40 to 60 attendees were held at Wonga Beach to discuss sustainability concerns with regards to gillnetting of local inshore waters. Queensland Fisheries officials from Brisbane attended one, together with Neil Green of QSIA, the local State Labor MP, some Douglas LMAC members, local commercial, charter and recreational fishers. The community voiced concerns regarding depleted inshore stocks and fears that grey mackerel were being over-netted. At the third meeting members requested David Cook, meeting secretary, to form a network to keep them in contact with progress on their requests for a reduction of gillnetting in local waters and a halt to all gill netting of grey mackerel. The Network for Sustainable Fishing was created to serve this purpose.

David Cook

David is a coastal fisheries specialist, a biologist with post-graduate qualifications in tropical and temperate fisheries management. He has worked for overseas governments and international organisations and companies in areas of fisheries research, development and management in the Indo-pacific for around 25 years. He has been based in FNQ for the last 12 years. David is semi-retired and can be contacted on davecook@bigpond.com.

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BRIEF TO THE MINISTER

This paper seeks to document the contentious issues in fisheries management in North Queensland from a recreational fishing viewpoint. The original edition has already been networked throughout most of the regions via those that have stood up and taken active interest in fishing matters. Comments received back have been taken into account.

The solutions are not simple but must be achieved. Put in a nutshell...

Clearly a change of focus is required:

From commercial 'right of access' to 'rebuilding of resources'

Depleted fisheries and conflict within communities demand a change in management focus from right of access to facilitating resource recovery ***before more environmental and social damage is done.***

This can best be achieved by amending the regulations to bring about the following changes:

- i) A significant reduction in gillnetting effort **must** be achieved, including removal of part-time and latent gillnetting licences. The aim should be to develop a sustainable gillnet fishery with a secure future, operated only by fulltime fishers.
- ii) The present system of allowing any netter to operate along the entire length of the Queensland east coast encourages a free-for-all, '***take it before someone else does***' attitude. Management of coastal gill netting effort must be changed to operate on a regional basis. This would encourage local netters to better nurture their local resources and form a valued sector within local communities.

Eastern Queensland should be divided into about 9 regions, as detailed later for fisheries management purposes. Each gillnet licence should be authorised to operate in only one named region for the entirety of its existence. Effort is probably best controlled by limiting the length of netting each fisher may use, when and where they can use their nets and for how many days per year rather than TACCs which are probably too difficult to 'get right', to enforce and to adequately monitor.
- iii) Recreational only Fishing Areas (ROFAs) or Gillnet Free Areas should be introduced around larger urban areas and areas of key tourism importance. The netting of aggregations of pre-spawning, spawning and flood-affected fish should be prohibited.
- iv) An independent review should be undertaken of the landing and reporting systems for commercial catches and recommendations made for their improvement to reduce opportunities to rort the system. This may have to include having vessel monitoring systems (VMS) compulsory for all gillnetting activities.
- v) Grey mackerel should be added to the list of mackerel which may not be targeted by netters at least in some areas, specifically North and Far North Queensland. Conflicts with the larger net boats have occurred. Regulations were introduced to ban the netting of Spanish and spotted mackerel some years ago and should be extended to cover all mackerel as similar circumstances almost certainly apply to school mackerel.

I invite you, Minister, to read this document. It sets out the most contentious issues and attempts to offer some remedies whilst others need further development. It is a comprehensive working paper that has been developed in the public forum for about a year and, most importantly, it's now on your table.



INTRODUCTION

Purpose

The purpose of this paper is to serve as a discussion document to identify and record the most contentious issues of concern to CAREFISH and the Network for Sustainable Fishing (NSF) members in North Queensland (NQ) in relation to the inshore fisheries of Queensland. The fishery to which we refer is formally recognised as the East Coast Inshore Finfish Fishery (ECIFF).

These issues are seen as having outstanding importance and need to be adequately addressed before the fishery can be claimed to be operated according to ecologically sustainable practices, a goal to which we should all aspire. It is apparent to most informed observers in NQ that the ECIFF falls well below the standards of any major fishery operating according to best practice guidelines, and its resources are in serious decline.

The authors recognise that not all of the issues we raise have been examined with full scientific rigour simply because of the usual restraints of time, money and opportunity. We do however vouch that the issues are of significant concern to many Queenslanders and regular visitors alike and so do require urgent attention by the authorities.

The Problem: “They were all undersize!”

It is a simple fact, widely recognized amongst local recreational fishers that their fishing experience in North Queensland has suffered a steady decline over the last 20 to 30 years. This is especially so round our estuaries and along the coastline where fishers target the inshore species as opposed to reef fish.

If the authorities continue to deny this fact, as they have done for decades, then it is clear to those in the industry that they are not doing their job. Species that have declined in number and size over the years in particular are barramundi, threadfin, fingermark, javelin, grunter, queenfish, trevally, dart, tripletail, estuary cod and the like. This same story is heard over and over, from one end of our coast to the other.

As the owner of a business hiring out boats to visiting and local fishers alike, the senior author gets constant feedback from his clients. Their catches these days virtually always fail to live up to even low expectations. They usually report catching nothing or: “**They were undersize**”.

Well-known Cairns fishing identity, Les Marsh, is on record (e.g. www.ffc.org.au) as declaring the reason for his having to quit several years ago, after 15 years as a once very successful charter fishing guide, was that he was tired of making up excuses for his clients no longer catching anything worthwhile. The real reason for poor catches he tells was simply that the fish just were not there to be caught. This is not good for Cairns social health or Far North tourism.

This lack of fish will be partly due to loss and deterioration of coastal habitat and partly due to overfishing, a result of inadequate fisheries management. Simple observations support this view. Where they operate side by side, catches of tonnes in commercial fishermen’s nets equates to disheartening catches in recreational fishermen’s eskies and next to zero in the iceboxes of more sustainable commercial line fishers. This is not fair. Not only is it not fair but there is now evidence that the tonnes of fish in the commercial nets under the present management regime are unsustainable and in some areas, netting of pre-spawning aggregations, e.g. grey mackerel, have resulted in greatly reduced numbers of fish in the years following netting.

Final Recognition of the Problem

Finally, two months before the March 2012 Queensland State Elections, it became politically acceptable to recognize the above facts, i.e. that there were too many gillnetters



and that inshore fish numbers are now at unacceptable levels, largely as a result of too much gillnetting.

This came about as a result of the opposition parties having been listening to public concerns about overfishing of inshore waters. These concerns had for so long been ignored by the incumbent party. The opposition and minor parties publically announced their intention to buyback nets as official party policy just before the elections.

Political Implications of ignoring the obvious

The incumbent party was the last to announce their intention to follow the other parties lead and allocate funding for buyback of gillnets. At the elections, those who fish and vote voted with their feet and the rest, as they say, is history.

Now we need to decide what needs to be done to bring sound management into what has been and indeed still is the gillnetting free-for-all by those hundreds who have licences and indeed the many illegal netters operating in the ECIFF.

Follow-up to this Brief and Background Paper

This paper seeks to serve as a discussion/working document for the new Minister for Fisheries recording the current contentious issues in the Far North Queensland fishing sector albeit largely from a recreational fishing viewpoint but including what needs to be done to improve the fishery for all three sectors, recreational, charter and commercial.

The ideas and proposals presented here may be networked throughout the coastal fishing regions of Queensland and can be adapted and/or adopted by other regional networks according to their local needs. As we do not have Sunfish representation along the FNQ coast, this report is also offered to Sunfish to support the good work they are doing for the recreational fishing sector in general.

This paper will remain an evolving document which will be updated from time to time as new information is forthcoming and as progress, or otherwise, is made. We invite any who read this document to distribute it, discuss it, fine tune it from their perspective and get it back to us with any comments.

It is intended that this document, updated and revised as necessary, will remain online at the website of Fisheries for Conservation (www.ffc.org.au;) serving as a comprehensive working paper in the public forum and most importantly, for our politicians and fisheries administrators.

Many of us live for the day when we can finally put ‘**THE BONES OF CONTENTION**’ aside say “**Mission accomplished!**” and with a clear conscience, go and catch a feed.

Political Background

In recent years it has become obvious to many that the management of the ECIFF has not so much been based on good science but more on political expediency, flawed assumptions and a lack of appropriate knowledge and/or inadequate manpower and funding.

Since the release of the first edition of this document in October 2011, there has been a change in State Government in Queensland and a marked change in policy towards the East Coast Inshore Finfish Fishery (ECIFF).

Many of us in our various fishing networks can't help but conclude that the public's decision to change government was reinforced by the previous government's stubborn refusal to publically accept and address the serious problems in the ECIFF which so many of us were repeatedly bringing to the attention of our politicians, having hit brick walls in attempting to liaise with the bureaucrats.

One serving politician did take action by sponsoring a parliamentary petition calling for the closure of Cairns coastal waters between False Cape and Tailor Point to all gillnetting.



This raised a total of about 3,000 signatures in just three weeks. This is one of the best performing state parliamentary petitions of the previous 100 sponsored. However since this occurred less than four months out from the election, and there was no clear announcement by the Minister as to what action would be taken as a result of the high level of support raised, it proved to be too little too late for the incumbent party. According to feedback we have received, **that cost the party votes**. People just saw this as another example of how their views were being ignored by the incumbent party.

Someone who had listened to the people, Bob Katter, was the game-changer. A couple of months before the elections he announced that his party would close all waters around urban centres to gillnetting, where there is a demand for this, and indeed in other areas where the local community clearly supported such a move. This gained a great deal of support.

Barely two weeks before the elections, first LNP and then Labor countered Bob Katter by announcing they recognized there were too many gillnets in the ECIFF and there needed to be a real reduction in gillnetting effort. LNP, the first off the mark, announced they were budgeting around \$10m for gillnet licence buybacks. Perhaps in an attempt to redeem themselves for being last out of the blocks, Labor promised \$12m, but by then most fishing voters had in despair, it appears, already given up on Labor.

PART 1. COMMERCIAL FISHING ISSUES

Failure to meet Australian or World Standards

Whilst Australia is widely recognized as having some of the world's best managed commercial fisheries, it comes as a surprise to most people to learn that the fishery along the only coastline in the world separating two adjacent World Heritage Areas is one of the worst managed in the country. Management of the ECIFF is nowhere near world's best practice and is no credit to the State of Queensland.

There are obvious serious and unresolved issues when it comes to managing the recreational and commercial sectors. According to the federal legislation, any fishery with an export component, such as the ECIFF, must be accredited as a legitimate wildlife trading operation (WTO). Where management changes are introduced this has to be done every three years.

In order to be assessed for this accreditation, fisheries are reviewed under the '**Guidelines for the Sustainable Management of Fisheries**' and the **Environmental Protection and Biodiversity Conservation Act, 1999** (EPBC Act). Our '**Review of Concerns relating to the Offshore Gillnet Fishery in Inshore Waters of the GBRMP**' (2010) 63 pages, available from www.ffc.org.au, provides an account of how the ECIFF fails to meet any of the 17 guidelines laid down for the sustainable management of fisheries. Every three years the federal government approves the fishery on the proviso that such deficiencies are fixed.

The necessary effective changes to the ECIFF have just not happened. This has led to a concerning level of frustration along our coasts amongst otherwise responsible and conservative senior members of society. These are the older, more experienced recreational and charter fishers and increasingly so, commercial fishers, who have witnessed the unrelenting decline of our once iconic inshore, estuary and river fish species.

The authorities have been lobbied almost continually for many years with no real remedies implemented. Nets are still in the middle of towns and nets still flog the stocks and kill endangered species as we speak. The old school mentality of "*net till there's nothing left or someone else will get it*" has, until very recently been seen as a right; this assumed 'right' appears to have been protected by both government and industry.



Any assumed 'right of access' must be challenged and swept aside. Ruining a fishery that is public resource should not be a right, especially not a legal right. *A radical change in approach is required to manage the ECIFF with a focus on rebuilding resources rather than on assumed rights of access.*

We recognise that all fishing sectors, especially when resources are heavily depleted (as they are now) do have impacts on these resources. However the activity doing the most damage for the least return is gillnetting. Hard decisions followed by some simple changes are necessary if we are to manage our fishery to re-establish a healthy, sustainable and indeed larger shared resource.

Our '**The Review of Concerns ...**' covers many aspects of the problems identified here. We encourage all interested parties to download it (www.ffc.org.au) and read it. To put it simply, if used excessively nets create imbalance. They create imbalance in the community and they create imbalance in the environment. Nets are fairly indiscriminate in what and how much they catch. Careful selection of e.g. large mesh size will of course help reduce some unwanted bycatch by allowing small fish to escape. However even small mesh nets will catch and kill large fish, and also other marine life.

Even large non-target fish species, marine mammals and turtles will suffocate and drown in both large and small mesh nets if not released quite quickly after becoming entangled. In significant numbers, this is unacceptable in Queensland, and especially so in our World Heritage listed GBRMP, the Great Sandy Marine Park and the Morton Bay Marine Park.

One apparent exception to the general rule that netting has high levels of bycatch is targeted surround-netting of e.g. mullet, if carried out responsibly. This method may be regarded as taking minimal bycatch whilst capturing a fast growing and very resilient species that feeds on detritus in bottom sediments and is not normally captured on hook and line by recreational fishers. As such, targeted mullet surround netting should be sustainable.

The most important issues of concern to recreational fishermen in the Cairns Region are commercial fishing practices, particularly gillnets, bait nets and zoning. These are areas of policy direction and are discussed below in more detail.

Issue 1. Independent review of Fisheries Queensland

Many in the various sustainable fishing networks up and down our coast freely agree that they have lost faith in the ability of Fisheries Queensland to adequately manage the ECIFF. This is perfectly obvious from the issues we list in this report. In the last three years we have bypassed FQ and gone straight to our politicians in frustration that our very real concerns have not been given adequate attention by FQ.

FQ should be reviewed by a team of independent, external fisheries management experts. This could follow the example of the recent NSW review of their fisheries organisation. It is imperative that the Queensland State Government seeks competent independent advice on how to restructure the ECIFF and indeed FQ. The crab, trawl and line fisheries also need attention.

Issue 2. The need for regional management, including NFAs and ROFAs, Possibilities for co-management

Recipe for chaos, conflict and depletion of our fisheries resources

At present, east coast commercial gillnet fishermen can roam wherever they like on the coast (outside of prohibited zones). This prevents resident commercial fishermen managing and working their local fishery sustainably. Gillnetting has degenerated into a scenario of "**take it before someone else does**".



In theory every pro in the state can turn up at any single location where netting is permitted and take a complete annual Total Allowable Commercial Catch (TACC) or even more than the TACC of a single species from that single area. TACCs are currently virtually impossible to enforce under the present management regime if netters choose to land their catches in secret, as has happened with netted mackerel in the recent past.

This is not wise fisheries management, it is a recipe for chaos, conflict and depletion of our fisheries: which is exactly what we have been experiencing in FNQ over the last 15 or so years. Roaming gillnetting is virtually impossible to cost-effectively monitor and the opportunities to rot the system are considerable. Such roaming netting is therefore *in breach* of the '**Guidelines for the Sustainable Management of Fisheries**' under the **Environmental and Biodiversity Conservation Act, 1999** (EPBC Act) and should be phased out.

Change of focus required: from right of access to rebuilding resources

Back to change in focus for a moment: changed circumstances, depleted fisheries and conflict within communities demand a change in management focus from right of access to facilitating resource recovery *before permanent damage is done*. This can best be done by a combination of the following:

- i) managing effort on a regional basis, some call it zoning, (essential)
- ii) a series of regional Total Allowable Commercial Catches, TACCs, for each key species to which each licence contributes; (the potential for individual transferable quotas ITQs, for key species has been examined in some detail by McPhee, 2012, ref. 18, who concludes they are essentially impractical to enforce for such a small-scale fishery with numerous operators landing several species at numerous sites over such a wide area; implication of wasted discards is also significant).
- iii) introducing closures to prevent netting of aggregations of pre-spawning, spawning and flood affected fish,
- iv) introduction of (gill)net free areas, NFAs and/or recreational only fishing areas, ROFAs.

Currently there are unresolved questions in relation to how much effort needs to be removed from given areas and how much that would likely cost. Even commercial industry participants consider something like a 50% reduction in gillnetting and crabbing effort is required in the ECIFF. One thing's for sure, our coastal fisheries, especially around urban areas, are in such a sad state that they cannot afford to wait for "good science" from future research to provide the answers.

Where scientific studies have not been done, use common sense

It is absolutely vital that we recognise there is both an urgent need and clear justification, when good science is lacking, to make an educated attempt to '*get it right*' and agree to substitute good sound common sense for science. The alternative of waiting for years for the necessary research to be done places local populations of some key fish species at too high a risk of local extinction, more opportunities for commercial stock depletion, more conflict, more loss of tourism opportunities and more fulltime commercial gillnetters unable to make a living.

Area proposals for regional management

The introduction of regional management should be accompanied by a buyback of fishing licences to achieve a reduction in gillnet fishing effort, at least initially, of around 50% (see Issue 3).

The coast of Queensland should be subdivided into around 9 bio-regions based on river catchments, other geographic features and centres of population and operate in conjunction with (gill)Net Free Areas, NFAs, or Recreational Fishing only Areas (ROFAs).



Both river catchments and centres of population and regional infrastructure should play a more important part than the relative lengths of coastline of each region, in deciding where to place regional boundaries. Aubin, having sailed up and down the coast several times considers the following form natural regions which could be used for this purpose:

- i) Morton Bay,
- ii) Hervey Bay,
- iii) Curtis Coast,
- iv) Sandringham/Mackay,
- v) Whitsunday Coast,
- vi) Upstart/ Halifax (Townsville),
- vii) Hinchinbrook/Cassowary (Mission, Cardwell Lucinda)
- viii) Trinity Bay & Cooktown Coast,
- ix) Princess Charlotte Bay northwards

Each gillnet licence would be restricted to the specific region where the current licence holder has conducted the majority of the netting associated with that licence over say the past five years. Where there is an overlap and the licence holder claims to fish in two or more regions, he or she should be allowed to choose in which one he will remain but only under exceptional circumstances would be allowed to operate another concurrently.

What happens following natural or man-made disasters?

One argument proposed for allowing fishers to roam the east coast on virtually an open access arrangement is to allow movement of their fishing operations following damage of their normal fishing grounds by cyclones (or other impacts, e.g. Gladstone). However in any fishery operated at or above optimum sustainable yields, this inevitably impacts those other fishermen in the areas receiving the extra and unwanted attention of the displaced fishers from the affected area.

When fishers from an affected area move to an area unaffected by the disaster, this inevitably places unwanted strain and often unacceptably high risks on the profitability of those fishers working the home area receiving the translocated extra pressure. It also, of course, places a risk of overfishing of what must be recognized as limited and highly vulnerable inshore stocks.

The only answer as to what fishers should do in the event of natural or other disasters seriously affecting their ability to make a living in the short to medium term is to do what farmers do and seek government assistance. Information on what assistance is available under these circumstances to fishers and where to apply is available at: www.daff.qld.gov.au/documents/Fisheries_CommercialFisheries/Fishing_industry_disaster_assistance_guide.pdf; But should a fisherman be allowed to over-fish an area and move on to another area to do the same claiming 'right of access'? Clearly they should not.

Establish NFAs or ROFAs around main urban and tourism areas

The removal of commercial fishing pressure in urban areas and creation of recreational only fishing areas and net free areas is head and shoulders above all other issues in Cairns because it is happening where it hurts most and right under everyone's nose. Coastal towns have increased in population considerably over the years. Conflict between the commercial and recreational fishermen has and will continue to increase unless firm action is taken.

Nets and especially gillnets and widespread use of bait nets are perceived by many as anti-social methods of fishing, especially when operated in highly used and prized waters on the community's doorstep. The commercial benefit for waters adjacent to large populations weigh vastly in favour of having a strong recreational fishery as opposed to areas heavily overfished by under-restricted gillnetting.



Commercial net caught barramundi for instance recently returned a wholesale price in Cairns of just over \$4/kilo for whole, fresh fish (head on, gut in). The value to the community for this iconic fish when commercially caught is miniscule in comparison to the value of the same fish caught (and often released) by the recreational fishing community. Studies conducted in other states, and overseas, show values to the local economy of up to several hundreds of dollars per kilogram of fish, when such fish are caught (and often released) by the recreational and tourism sectors.

Conflict between commercial and recreational fishers in Cairns is probably a snapshot of virtually every other urban area where netting is allowed to continue. We know from other co-management area experiments here and interstate that recreational fishing interests usually do not co-exist happily with commercial fishing interests, regardless of how much the authorities like to think that they can. To reduce levels of conflict between sectors, simple ROFAs and NFAs, depending on each areas specific features and requirement, should be established around each main centre of population in each region, extending in the order of 25 km from the urban centre in all directions, or to agreed geographically important locations. All commercial gillnetting, but not mullet surround netting, and in some cases crabbing, would be excluded from the NFAs and ROFAs.

Along the east coast of Queensland there are around 15 of these more heavily populated coastal areas. If a buffer zone, averaging say 50 or so kilometres each in length is allowed around each such centre this would represent only around 10% of the of mainland Queensland coastline, much less when the coastlines of all the islands are also taken into account.

Benefits of NFAs and ROFAs

A vibrant rec fishery would offer tremendous economic and social benefit to those communities. Increased availability of iconic tropical inshore species such as barramundi, queenfish, threadfin salmon and the others would also attract greater interstate and overseas tourism. The only other place in Australia where these can be caught in good numbers is the Northern Territory.

Most highly populated areas up and down the coast have already requested 'Net Free Areas' usually Gillnet Free Areas (to allow for targeted mullet surround netting) to be established around centres of high population, tourism and/or environmental value. This is currently being co-ordinated by SUNFISH. The NT has very successfully employed this strategy and its example should be applauded and followed.

CAREFISH is requesting the area between False Cape and Taylor Point be made an NFA as per last November's parliamentary petition (see Appendix 1). Locally the Network for Sustainable Fishing Douglas Region for the Port Douglas Partially Smooth and Smooth Waters and the Cooktown Fishing Restoration Group have also presented strong cases for the establishment of Gillnet Free Areas (especially to out-of-town and part-time netters) in their areas. CAREFISH strongly supports these two proposals. Details of petitions from these three areas are given in Appendix 1.

Future Possibilities for co-management

It is apparent that the management authorities of the ECIFF have, so far, failed in their mandated role to develop an effective regulatory framework for the ecologically and economically sustainable development of our inshore fishery. The results are divisive; some within the commercial, charter and recreational fishing sectors have become angry, frustrated and defensive, and at times have a tendency to portray the other sectors as "the enemy".

Following the establishment of regional management where all gillnet licences are restricted to operating in their home regions (or zones) and ROFAs or NFAs have been



introduced to urban areas and other key locations of high recreational use, the stage is set for the introduction of co-management.

Superficially it may appear that the most constructive way forward would be for all fishing sectors and stakeholders to work together in a spirit of across-the-board co-operation to identify the underlying problems, address them accordingly and work out some sort of catch sharing arrangement. This can be referred to as co-management, described in a recent FRDC field trial as “***an arrangement in which responsibilities and obligations for sustainable fisheries management are negotiated, shared and delegated between government, fishers, and other interest groups and stakeholders.***”

It could be argued that such a combined, multi-sector push for regulatory changes to the management of our fisheries should achieve acceptable levels of ecological and economic sustainability in our inshore fisheries. However, as has been shown from recent research, this assumption would be most naive. The study of 130 co-managed fisheries throughout the world, including five in Australia, found that certain conditions are necessary for successful co-management of fisheries.

Researchers Gutierrez, Hilborn and Defeo (Ref. 13, Bibliography) “***found that the most important co-management conditions necessary for successful management of fisheries are presence of:***

- community leaders,
- strong social cohesion,
- individual or community quotas, and
- community-based protected areas.

Additional key attributes were:

- enforcement mechanisms,
- long-term management policies and
- influence of fishers in local markets.”

They found that “***Leadership was critical for successful co-management of fisheries***”

Discussions have of course been going on in Queensland for years between different sectors of the ECIFF and government in the form of management advisory committees. They have been spectacularly unsuccessful in achieving any acceptable level of economic and ecological sustainability in the fishery.

Messrs Gutierrez, Hilborn and Defeo may have predicted that effective co-management of the ECIFF under present conditions would be most unlikely as the necessary pre-conditions for its success in Queensland are lacking. This will remain the case until the major changes recommended in this document are made to the ECIFF.

It would be remiss of the authorities and politicians not to recognize this point.

Issue 3. Reduction of gillnet effort in Queensland

The most obvious means of reducing gillnet effort is to reduce the number of symbols in use. There are a substantial number of net licences of various types as shown in the table below either in part-time use or virtually dormant (latent) in Queensland. It is recognised that many latent licences have already been bought out or surrendered in the not too distant past but many remain in circulation.

It is important that latent/part-time licences are removed for two main reasons:

- firstly licences are tradable, they may be purchased by someone who has just sold his licence back to government at a higher price,
- a second is that owners of these licences are in a position to subsidise their fishing using income from other sources. This allows them to fish for much lower returns than would normally sustain a commercial fisher and, e.g. by fishing pre or post-



spawning or other aggregations (e.g. following a flood) and reduce local fish populations down from commercial extinction to actual extinction.

According to a recent internet search there are about 560 Commercial Fishing Boat Licences that have one or more of the net licences shown in the table below attached to them. Individual net licences can be traded between registered commercial fishermen. The total number of gillnet licences recorded below is 420 (plus so called bait) but this should be regarded as an approximate total only, until confirmation is received from FQ.

As one boat may hold a number of licences of different types, the number of individual fishing gear symbols (licences) should be larger than the number of fishing boats or fishermen licensed. The reason for the discrepancy between the two totals is not clear.

This represents over 300 km's of gill net potential. And add to that bait nets, of which there are 323 and 41 ocean beach seines. There are also 437 crab licences current and they allow 50 or more traps each or possibly around 21,850 in total. The numbers and types of nets licensed to operate in Queensland are listed in Table 1.

Symbol	Description	Quantity East Coast	Quantity Gulf (Queensland)
K1 - K8	<i>All Ocean beach seines:</i>	<u>41</u>	
N1	East coast general	162	
N2	East coast inshore set mesh net	159	
N4	East coast offshore (water > 20metres depth at LW)	6	
	<i>All East coast gillnet licences:</i>	<u>327</u>	
N3	Queensland Gulf inshore		87
N9	Queensland Gulf offshore		5
	<i>All Queensland Gulf gillnet licences:</i>		<u>93</u>
N10	Moreton Bay/Great Sandy tunnel net	30	
N11	Small mesh (bait) net	323	
S	Shark & ray symbol (permitted to net for sharks & to supply shark fin trade)	154	

Table 1: Numbers of Net Licences & Shark Symbols issued in Queensland (obtained from internet search; numbers should be regarded as approximate only)

All the evidence points to the numbers of net and crab licences as being unsustainable. Many in the commercial fishery will confirm this. There are no studies to indicate what level of netting or crabbing is sustainable and no mechanisms in force to limit effort by region. This situation was brought about by governments past and is clearly a problem of government now.

Recognition by Government of too high a level of gillnetting

Finally in the lead up to the March 2012 elections both major parties formally recognized that (i) there is too high a level of gillnetting and (ii) this is causing significant conflict within communities and between sectors. The two major parties allocated substantial sums (\$10 and \$12 million) to commence a buyback of gill net licences. Discussion is also ongoing to commence regionalising fishing effort to permit some level of spatial management. **Appropriate effective spatial management of fishing effort cannot come soon enough.**

To look to the NT as a shining example, as we do, they report 16.5 km of licensed nets for all inshore fishing in comparison to Queensland's approximate 300 km of gillnets (+ bait). All are understood to be removed completely from the water from October 1 - February 1.



Aids to managing Effort: TACCs, ITQs, VMS, Net Length & Surveillance

At present, largely due to constraints of time and access to information, it is unclear to the authors how practical and cost-effective would be the development and enforcement of realistic TACC's (Total Allowable Commercial Catches) for given species. Given that:

- there are (an unknown number of) non-mixing populations of key species along the coast,
- several of these species can be caught by the same gear at the same time,
- landing can be made anywhere and some (?all) fishers may sell their catch from their home base,

the actual determination of meaningful TACCs would be very difficult and expensive to achieve and virtually impossible to adequately enforce under ECIFF conditions. Given the widely spread and relatively/mostly small-scale nature of the ECIFF, a more pragmatic means of managing effort is required for most species. Exceptions where a TACC is suitable for catch management purposes may be for fisheries composed largely of one species or species group having limited by-catch and where landings can be adequately monitored.

McPhee (2012, see Bibliography) presents a convincing explanation of why Individually Transferable Quotas (ITQs) for a similar landings-based approach to fisheries management in the ECIFF would not work. CAREFISH/NSF accepts this conclusion.

McPhee presents an alternative effort-based means of managing the gillnet fishery, combining, eventually, restrictions on both the length of gillnets used by each fisher and the number of days per year they may be used. The location(s) of their use would also need to be specified and where a number of locations are fished, a specified number of days for each location. The value of introducing this during the development of regional management is likely to be high. McPhee also discusses the trading of such licences and a means of overall reduction of effort: when buying more net length from another fisher, the buyer could be required to surrender a stipulated portion, say 50% of that purchased to government for extinguishment. These are ideas well worth further examination.

Certainly the compulsory use of a Global Positioning System (GPS) and Vessel Monitoring System (VMS) by all gillnet vessels/operations would help make the system more readily enforceable by enabling the location of all netting operations to be tracked and documented.

Issue 4. Buyback of gillnet licences

Disclaimer: Issue 4 is written by the second author only, as the first author is on the Stakeholder Working Group for the Buy-back Process and prefers not to comment at this stage for SWG confidentiality reasons

A buyback should be about reducing the number and lengths of nets in the water to levels capable of allowing fulltime commercial fishers to make a fair living from a sustainable catch at stock levels acceptable to community needs. Following buyback new management measures will be essential to regulate how often they are in the water and what water they're put in whilst giving fishers the incentive to self-regulate.

Buyback should be at a fair price both to the owner and the public. When discussing gillnet licence/symbol buyback, the assessors must bear in mind the fact that the buyback is for reasons of sustainability just as the plain packaging legislation for cigarettes is for health reasons. The High Court has ruled that health concerns over-ride other rights or various freedoms the tobacco companies tried to use to thwart plain packaging legislation.

There may be an analogy here as it can be interpreted from the Fisheries Act 1994 that fishers do not have to be compensated when management measures are taken for reasons of sustainability. However it is because of poor management that the stocks have



slumped so low, and even the best fishers are powerless, under present management arrangements, to do anything to rectify that unfortunate situation. It is only fair therefore for fishers to be fairly compensated but by the same token they cannot expect to make a fortune out of buyback as there is no longer a fortune to be made from gillnetting.

It could be argued netters contributed to the situation, should have 'seen the writing on the wall' years ago, and moved out of the industry. Staying in the industry this long and especially upgrading to larger and/or more boats and gear could be argued as accepting a financial moral hazard risk.

Summary of Current Gillnet Industry Profile Required

In order to have sufficient background information to develop the most effective buyback system, FQ should provide a simple industry profile of:

- how many individuals or companies own how many and what type of net symbols
- where these are (a) based (b) operated,
- the frequency of their use in days per year,
- annual catch returns for each symbol,
- how many of these are hired out to or used by other operators,
- how many people own multiple symbols,
- how many symbols are owned by each person who has more than one,
- how many persons who clearly earn the majority of their income from other work, (e.g. cane farmers) but still own symbols,
- how many people own how many symbols that have not been used for the past one, two, three years?

Contract not to net again without special authority

Some fishers in the past (GBRMP and Moreton Bay) have reportedly benefited significantly from previous buybacks aimed at reducing effort in a given area by receiving large sums of money for the buyback of their netting licences and for closure of local areas, only to turn round and purchase a dormant or latent licence at a much lower price and continue fishing. This was in total contravention of the spirit of those past buyback processes and must not be allowed to occur again.

An essential component of any buyback must be the requirement that sellers who are selling all their gillnet symbols enter into, preferably, a legally binding contract with government, or at least a clear written undertaking not to fish by gillnet again or directly benefit from gillnetting activities unless given special permission by government. Such dispensation could be awarded at the discretion of the authorities based on the merits of his/her application at the time.

Any dispensation could be for example (a) in the event of resources recovering sufficiently to merit increased netting effort or (b) in the event of a fulltime fisher who had up until then been working a regional fishery that has been shown to be sustainable, leaving that fishery and his licence coming up for sale for use in that region.

Even if a loophole could be found in such a signed contract or undertaking, any fisher who has sold his gillnet symbols and undertaken not to fish again, would clearly be making a clear moral judgement not to honour the spirit of the agreement and his signature. The social implications of this at the community level and in his relationship with the authorities should be sufficiently significant as to act as a deterrent to most people.

Gillnetting only by fulltime commercial fishers within their region

The outcome of the proposed current buyback will be well below what is required by the fishing public unless regional management is introduced shortly after buyback. This should include the restriction of fishing licences/symbols to specific regions according to



how many that region is deemed capable of supporting. Ideally such regionalisation of effort should have preceded any buy-back.

As mentioned in Issue 2, each gillnet licence should then be restricted to a specific region, normally that would be where the current licence holder conducts the majority of the harvesting associated with that licence. Two classifications of gillnetter should be identified, (i) those fulltime commercial netters who get the majority of their income from fishing and (ii) the part-timers who obtain less than say 70% of their income from fishing. These figures may need to be checked against tax returns in doubtful cases.

The buyback and future management arrangements should pursue the objectives of:

- phasing out all part-time fishing to avoid the risks mentioned in Issue 4, above and
- phase out any hiring out or sub-contracting of net symbols or netting operations; any netting should be done by the owners of the net symbol.

Buyback must learn from past mistakes: Accountability, Value for Money, Transparency, Stakeholder Involvement and thorough Reporting required

The Gillnet buyback process is using public funds in an urgent need to sustain a public resource, so must:

- learn from past mistakes,
- be transparent, accountable and good value for money,
- involve all major stakeholders,
- be fully reconciled and reported to the public at its completion to determine and record its effectiveness on a regional basis.

Stakeholders include the regional recreational and charter fishing sectors and where there is no established regional Sunfish office, participation of one of the local recreational and/or sustainable fishing networks, e.g. CAREFISH and NSF should be involved from start to finish. This will help ensure a fair and effective deal is achieved for the benefit of tax payers and accepted by communities.

What level of Buyback can be Compulsory?

Controlling numbers of licences in the system is one of the most effective means of attempting to ensure sustainability of fish stocks. A definitive legal opinion should be obtained as to whether under current legislation, all gillnet buyback must be voluntary or can some level of buyback be compulsory? Every effort needs to be expended to show that the buyback of, especially, those licences which are latent, may be legally done under the Fisheries Act.

While for political reasons it may be better not to compulsorily buyback active fishing licences/symbols of fishers keen to stay in the industry, this does not apply to the buyback of latent licences. It could actually be seen by the majority as a sign of good, strong political leadership to compulsorily buyback all latent licences prior to the commencement of the reverse tender process.

Making latent Licences Non-transferable

McPhee, 2012, has more on the need to buyback or otherwise reduce the number and effect of latent licences. He suggests the option of considering latent licences being made non-transferable prior to the buyback process and notes the advantage of cost savings to the SAP.

A voluntary arrangement may not buy anything if owners don't want to sell. Although it is known that there are many that would like to exit the industry, they may choose not to if the value of their asset looks likely to increase if they hang on to it. This goes against the spirit of the buy back. But this has happened before and great care must be taken for it to not happen again. Making latent licences non-transferable would be one way of doing this



provided once made non-transferable they remained that way even if used more frequently. In due course they could still be sold back to the industry.

The price to be paid for symbols/licences during buyback

McPhee undertook a short review of the price of N1 and N2 symbols for his report in order to provide guidance as to the potential cost of compulsory acquisition of latent ECIFF symbols.

While no information on the fishing history of the symbols were available he obtained the following results from brokers websites:

- *“prices for an N1 symbol ranged from \$11,000 to \$20,000 (n=5) and for*
- *an N1 with a S (sharks and rays) were between \$23,000 and \$33,000 (n=3).*
- *a single N2 symbol was available and was priced at \$42,000.*
- *the price of individual S symbols was between \$7,000 and \$8,500 (n=4).*

McPhee notes that: “although it is recognised that the data on license value is limited, if we assume a price of:

- *\$20,000 for a latent N1 symbol and*
- *\$40,000 for a latent N2 symbol,*

removing 100 latent N1 symbols would cost \$2 million and a further 10 N2 symbols would cost \$400,000.”

Clearly there is not huge money to be made in gillnetting these days under present conditions so the price paid for licences must be realistic. It has been asked *“Why should a licence held by a fisher who nets 50 times a year in an effort to make a living be worth exactly the same as a license held by somebody who never uses a net or uses a net a couple of times a year so he can claim his expenses as a tax deduction against his major employment income?”*

One way to encourage removal of some active netting would be to address this and attach an effort indicator to each licence, based on its particular history under its current user. The licence then is worth its base value plus the addition of effort units proportional to earnings over say the past two/three/four or five years. Under such an arrangement it would be important that the seller does enter into a formally binding arrangement not to continue netting under any alternative symbol or arrangement. There are however arguments against this option which require review and discussion.

Issue 5. Investment warning re gillnetting *Stop Press: this done 31.8.2012*

Given that already many commercial gillnetters are recognising there is too much effort in the gillnet fishery for a secure future, it would be a wise government that issues an investment warning with regard to gillnetting. Given the response to the Cairns Parliamentary Netting Petition in November 2011, it is clear that a substantial proportion of the public does not support current levels of commercial gillnetting. Advice needs to be issued as soon as possible that gillnetting will be scaled down in the foreseeable future for reasons of sustainability and social acceptance. Any such investment warning should include a freeze on transfers and sales until the buyback is complete to minimise speculation/ manipulation of symbol values.

Issue 6. Netting of aggregating stock

Netting of aggregations of pre-spawning and spawning stock, and even flood-affected stock aggregating near estuaries is contrary to sustainable fishing and inevitably leads to stock depletion if done consistently. It might be easy money to the commercial netter, but it is extremely disruptive to stocks. This must cease. Fingermark, mackerel, threadfin salmon, barramundi, trevally and queenfish are all prime examples in the north.



Some species exist only in isolated groups in various regions along the coast and don't migrate or move around much at all. These species deserve special consideration because when netted heavily, the stock can fail since it is not replenished by others of the species from elsewhere. This in effect becomes a local extinction of the age old family or local population. The name for this behaviour is 'philopatry' and is explained in our '**Review of Concerns ...**'.

Stock collapses as the result of netting of pre-spawning aggregations of philopatric fish populations in Queensland is documented in the literature. These include the Bowen grey mackerel story of the early 1970's, Snapper Island near Port Douglas (2006/07) and more recently, Llewellyn bay near Sarina .

Recent research has shown that King and Blue Threadfin are limited to muddy seabed around and in estuaries and do not travel far over sandy bottom to reach other similar areas so are highly philopatric and therefore susceptible to having their local populations wiped out under present management regulations.

Philopatry should be a condition of prime importance to FQ when making management decisions. Applying a state-wide TACC for this species, as has been done, is foolish when they require spatial consideration at regional and even local scales.

The netting of the mouths of systems in flood is another way to put massive strain on any local stock that has to funnel through a small and predictable area. Barramundi, queenfish, trevally and even crabs cop a hammering, especially when 'out-of-town' nets turn up, or the activation of otherwise dormant (latent) nets are involved, putting the operators into fierce competition with each other at the expense of fish stocks, the recreational fishers and the community.

Add to this, the effect of a sudden large increase in supply to market when such aggregations are successfully 'hammered' and markets are flooded, is the driving down of prices, making this practice even less valuable to the general community.

Issue 7. Review all rivers and creeks closed to commercial fishing

Many isolated creeks and rivers are closed to commercial fishing but oddly, creeks and rivers in the middle of towns are often open. This does not work with the community, and needs a sensible and urgent review. Commercial fishermen much prefer to be out of the public gaze. Recreational fishers prefer them to be that way away too.

Issue 8. Closure of waters adjacent to closed rivers and creeks

A large proportion of fish stocks from rivers and creeks are at certain times concentrated in adjacent coastal waters close to their estuaries. This is for two main reasons, namely spawning and when flooding has caused them to retreat to the sea.

These stocks are particularly vulnerable to netting at such times. A large percentage of the fish and crabs resident to that system can be removed in short order. This defeats the reason for having the river and estuary system protected in the first place. All rivers and creeks closed to commercial netting should include a zone of at least one nautical mile (or two km) radius from their entrances. QB&FP signs should mark these positions.

Issue 9. Reduce commercial fishing in yellow zones

GBRMP Yellow or Conservation Park Zones are designed to give a higher level of protection to the area. Commercial bait netting is still allowed in these areas. Many feel that the damaging impact of bait fishing is greatly underestimated by the authorities.

Bait nets don't just catch bait, but saleable regulated fish species as well and also juveniles of these species. The taking of saleable, regulated species is open to



manipulation of the regulations by commercial bait netters for financial benefit. Information provided suggests that Yellow zones are now apparently targeted by some bait netters as they have higher numbers of fish. This is against the original intent of the zone which was to provide the area with a higher level of protection.

Bait nets take all sorts of juvenile species en masse. Yellow zones should either be closed to commercial take or the commercial take strictly regulated. Such regulation could be by, e.g. seasonal closures during the period when juvenile commercial species are most at risk and by restricting the number of nets allowed to operate, with each netter being allotted a specific number of netting days. A simpler approach would be to ban bait netting (and line fishing) in these zones and perhaps a review of the zones as compensation.

Commercial line fishermen are allowed to have one dory from their commercial fishing vessel operate in a yellow zone, to restrict their impact. But instead of working five dories over the reef for the day, some operators leave one dory on the reef for the week, and hop the other dories over into adjacent yellow zones. Some are reported to be actively '*working the yellows*'. The commercial impact is therefore little different from a blue zone and yellow-zoned areas essentially receive no increased protection whatsoever.

Issue 10. The fisheries observer program, log books & VMS

Fisheries inspectors must be able to observe the catch of all net hauls and inspect log books, contents of iceboxes and freezers at any time without fear of harassment from the crew or owners. They should not require the permission of the master or the licence holder; this should be a condition of the licence.

All information collected should be accessible by the public and the commercial in confidence rule should not apply. Observers must be able to board and carry out any inspection they consider necessary at short notice e.g. just prior to a haul and/or immediately after a haul or when steaming to port or arriving in port, to check whether the data being recorded is of the required quality.

Whilst there is no alternative to adequate completion of logbooks, the location of 'at call' GPS-enabled video cameras at least on all boats fitted with drum haulers is recommended. The technology is available, reliable and affordable. This would go a long way to helping verify log books and reporting of protected species interaction.

Vessel Monitoring Systems (VMS) should also be mandatory for all gillnet boats fitted with net haulers. This is a GPS system which reports back to base the position of the vessel throughout its trip. It should be an offence for gillnet boats fitted with hydraulic net haulers to change location or operate without a functioning VMS and GPS enabled video.

Good quality data is vital to the management of the GBRMP and to fisheries sustainability in general. Log book records are a far cry from this. We were told recently that the checking of these log books was not a priority of QB&FP.

Endemic in the industry is the manipulation of these books, for whatever reason, be it tax, or moving '*on paper only effort*' into an area where a buy-out seems likely, or to cover-up going over quota and even to claim catches that were never made. One local fisherman reckons he hasn't filled his out for two years. It would seem the imperative to do so is lacking on a large scale.

Issue 11. Review of penalties

Penalties should be upgraded **to include loss of licence and surrender of equipment**, including boat for serial and blatant abuse of regulations. Professional fishermen have no excuses for not knowing these regulations. 3 strikes and you're out is supported by most that don't rot. These offences should include the following:



- i) Fishing in green or restricted zones.
- ii) Targeting spawning or pre spawning aggregations.
- iii) Not reporting entanglement of dugong and other protected species.
- iv) Black market sales (both commercial and rec should be a most serious offence).
- v) Live finning of sharks & dumping of shark carcasses.
- vi) Crabbers using unregistered traps or 'subcontracting' those traps licensed to them.
- vii) Sale of illegal sizes or species fish or crabs or illegal female crabs.

Issue 12. Sharks fin

Given the extremely high price of rare (on a global scale) sharks fin and the highly valued shark sightings by all dive tourists to the GBRMP, and the present relative scarcity of these occurrences, shark experts are looking closely at the justification for allowing targeted shark fishing to continue whilst numbers of this slow growing resource recover.

Simply put there is too much temptation and easy opportunity to rort the regulations covering shark fishing. CAREFISH has received first hand reports of live finning of shark by at least one boat operating out of FNQ.

The opportunities and temptations to rort the system are high. The 'finning' of sharks, whether dead or alive, where the carcasses are dumped at sea, is disgraceful but by some reports is rife. Common sense suggests that a ban on the sale and taking of all sharks fin, at least in those most dived areas, until stocks recover, should be considered.

Issue 13. Sales of Gillnets to the Public, illegal netting & micro-dotting of gillnets

It is not clear whether the sale of gill nets to the general public is legal. Senior FQ staff in Brisbane said they consider it is not, whilst certain stores in Cairns who do sell commercial fishing nets to the general public say it is. We receive regular but difficult to substantiate records of gillnetting by persons who do not hold appropriate licences.

Netting for fruit trees and gardens is very different from that used as gillnets. If they are not already, gillnets should be made a restricted item and it be an offence to be in possession of one, including having one on the property that is not under the control of a suitably licensed authority. It should be illegal to sell gillnets either made up or panels of netting of those sizes suited to gillnetting to anyone without the required licences.

It may require a short amnesty for nets held by persons without a commercial netting licences to surrender these. Various types of nets are illegal in Queensland (eg multistrand) but freely available on the internet. The penalties for any non-licensed person found in possession of any gillnet should reflect public sentiment and act as a substantial deterrent. The compulsory micro-dotting of commercial nets would prove ownership of any 'loose' nets in the environment and the community.

Issue 14. Specific Total Allowable Commercial Catches (Or TACC)

There are serious concerns amongst the experienced recreational fishing community, and many commercial fishermen, regarding the level of TACC implemented over certain species. These past decisions seem to have been made behind closed doors to suit those who are considered by some as short-sighted players in commercial sector. This does not sit well with those interested, but watching from the outside of these decision processes.

TACC's are put in place as a management response to overfishing concerns, and indeed to help prevent overfishing. They may serve the purpose when TACCs are realistic and based on good data. Sometimes they may be simply precautionary because of lack of adequate data (which is usually the case); others may be very wide of the mark.



Dubious TACC's currently in place

The single Grey Mackerel TACC for the entire ECIFF is currently 250 tonnes a figure labelled “conservative” by FQ. This was introduced recently supposedly as a precautionary measure in response to the heavy netting and the resulting conflict occurring at several locations along the coast. SUNFISH recommended 100 tonnes to coincide with approximate average longer historical recorded take. Note Ref. 2 in Appendix 4: Bibliography: the CRC gives presents reported catch data for east coast commercial inshore grey mackerel fishery for 16 years, 1988 to 2003, varying from about 55 tonnes in both 1995 and 2000, to maxima of around 265 in 1990 and 235 in 2003. *Average reported catch of grey mackerel over 16 years prior to 2003 was around 135 tonnes.* Prior to 1993 around 50% was caught outside the GBRMP, by 2003 only about 15% was outside the GBRMP. The question arises as to whether this is the result of serial overfishing of local populations.

Scientific studies by a number of collaborating Queensland researchers found that grey mackerel are clearly ‘philopatric’ with a minimum of two non-mixing populations of Greys on the East Coast of Queensland. Further studies reported in 2010 that there are likely to be further sub populations “*at the embayment level*” on the East Coast. A vulnerability assessment on the netting of Grey mackerel sponsored by GBRMPA reported, in 2011, that netting of grey mackerel should be considered a medium risk activity. The present authors consider that in Far North Queensland where river catchments, estuaries and mangrove systems are so much smaller than further south this probably results in lower productivity levels of coastal waters and much smaller local populations or schools of grey mackerel.

Declaring a single TACC for Grey Mackerel for the entire East Coast is therefore a clear example of the authorities ‘*ticking the boxes*’ in an unjustifiable attempt to secure approval under the EPBC Act. The public would expect those in management to do a much better job. Clearly, TACCs must be divided up into appropriate regions according to the distribution and estimated sizes of suspected local populations of at least Grey mackerel and threadfin and indeed any other philopatric species, and monitored carefully. That would demonstrate more competent management.

Coral trout TACC is currently 1288 tonnes. This is largely made up of live traded fish where the average size is about 0.9 kg for the Chinese etc market. This suggests well over 1.3 million fish per annum. Talk from within the line fishery suggests two things (i) that much trout fishing is conducted within green zones, maybe 20% and (ii) that this is way unsustainable and should be closer to 600 tonnes. This would also keep the sector targeting the smaller fish, leaving the larger ones to breed.

This is another fishery that requires restriction adjacent to areas of high population such that there is no commercial line fishing for coral trout allowed within say 50 km of recognized centres of population.

Issue 15. Pingers on gillnets

One commercial net fisherman who makes use of dugong pingers claims he no longer has entanglement issues with dugongs. Private ‘off the record’ discussions with net fishermen that don’t use pingers revealed that as far as they are aware each accidentally drown about two dugong a year, though one admitted to drowning about six/year. Actual numbers may not even be appreciated by the fishers themselves, especially those using large boats and large hydraulic hauling drums with 600m of net.

Net fishers may not be aware of all dugong drowning they cause because dugong can drown quite quickly when becoming trapped in a net even if not critically entangled. If they are trapped in a fold in the net for a few minutes this may be long enough to cause drowning and when the net is hauled, the fold releases the dead dugong which sinks to



the bottom. They only float up several hours after death when decomposition causes bloating.

Leading local researchers in this field consider all nets should employ adequate pingers. In fact one researcher stated at a recent LMAC meeting in Cairns that **“no net should be deployed without pingers if the safety of protected marine mega fauna is considered important”**. However other sources claim that pingers are not likely to be of significant use in our gillnet fishery.

It would seem there's some disagreement between scientists and/or decision makers, e.g. the results of McPhee's enquiries (Bibliography Ref. 18) indicated that pingers are not of any real value. This needs to be resolved. Clearly the safety of protected marine mega fauna is considered important.

Empirical evidence from the beach safety shark net programme shows that whales respond absolutely to pingers of a certain frequency and strength. Dolphins as well, but they require a different frequency range, as do dugongs according to those that use them. Different animals respond to different frequency pingers. What attempts have been made to develop a multi-frequency device?

Even multi-frequency pingers would not protect all larger iconic marine life though, as turtles at least do not respond to these devices and of course manta and other rays, crocodiles, grouper etc, do not. However we do know they all die in gillnets, and in significant numbers.

If the statement can be made that gillnets are dangerous to all larger marine animals, the question must be asked, what is acceptable to us? Do we knowingly allow protected and sometimes endangered animals to be regularly killed or injured in nets? A net without pingers obviously presents this case. A net with current pinger technology can only alert one species, leaving the rest at risk. Even if a multi frequency device could be developed, it would only at best protect three species groups.

Issue 16. QB & FP to be adequately funded, staffed and active after hours

It is common knowledge in the community that Fisheries Queensland and QB&FP have a very limited budget. Staffing levels are dropping and reportedly almost no overtime is permitted. Comments that fisheries inspectors are almost never encountered on the water, especially at night time and weekends are commonplace. This knowledge is gold to any seeking to conduct illegal activities. This must be addressed as a matter of urgency. The community expects and demands a robust fisheries watchdog.

Issue 17. Revise & simplify the regulations including Indigenous Rights

The commercial fishing industry is already heavily regulated, but there appears to be many incorrect, outdated or manipulated rulings and interpretations applied to this sector including those applied to 'traditional fishing' by indigenous members of the modern community.

Reading the Fisheries Regulations 2008 is confusing. It should not be. Legislation should be clear, updated and simplified at intervals as grey areas surface and begin to accumulate. The general public should be able to understand it. It should not be **‘open to interpretation’** with a different interpretation coming from **‘depending who you ask’**.

A review of the legislation, primarily with the aim of simplification and presenting it in a more understandable format and clarifying Indigenous Rights regarding fishing methods, bag limits etc should be part and parcel of the Review of FQ, recommended above. In the region some part-indigenous persons claim the right to fish without the need to observe bag limits even when fully employed and living in urban areas outside of their traditional area (country). The logic of this is lost on the majority of our members.



Issue 18. All Mackerel to be commercially fished by line only

All four larger mackerel species should be line fished only at least in parts of North and Far North Queensland where there are very short rivers due to the proximity of the watershed to the coast or simply low rainfall. This reduces the productivity of coastal waters and hence the size of the mackerel schools in comparison to further south,

Spotted and Spanish are already off limits to netters due to their vulnerability to over netting when aggregating. Grey and School Mackerel are even more vulnerable because their stocks have recently been shown at least for Grey mackerel to be composed of local non-mixing populations (see several references in the Bibliography) and they only aggregate in large numbers is readily netted inshore waters prior to and during spawning. For the rest of the year their movements are unknown.

It is considered very important that these two species be also added to the list of line only species over much or all of Queensland. The Bowen, Sarina and Snapper Island situations are well known and obvious examples of stock depletion of grey mackerel apparently as a result of gillnetting of pre-spawning aggregations.

This has arisen because Grey Mackerel spawn in aggregations in inshore waters which are easily netted and there is no closure to give seasonal protection to spawning groups. During the lead up to spawning they all congregate near the bottom in dense schools during the middle of the day and do not respond to line fished lures. However they are readily detected on echo sounders and the entire pre-breeding school can be and have been decimated by uncontrolled gillnetting.

This is a boom and bust fishery with very large and clearly unsustainable catches of fish being made just before they spawn. This has been shown to result in a glut of poor quality fish on the market. When large catches are made, the fish have often been (i) dead for some hours before being hauled on board and (ii) left on deck for some time in warm piles before being iced. The result is poor quality fish which have in the past glutted the market, fetched a poor price and given a poor name to the species amongst buyers.

Line-caught mackerel should normally be of excellent quality by comparison and is probably capable, provided there is no netting during the season, of filling much of the need of the Queensland fish and chip trade.

Mackerel are fast maturing species so there is still the chance that profitable line fisheries for Grey Mackerel can be revived at the above (overfished) locations provided the gillnetters are banned from netting pre-spawning and spawning aggregations. This has happened at Snapper Island after the netters have not returned for four years.

When netting Grey Mackerel, it has been shown to be impossible to target just those few species which may be legally net-caught, without also catching the Mackerel species which may not, legally, be caught in nets. These are Spanish and Spotted Mackerel which either swim with the Greys or at least they're in the same areas to breed at the same time. We have video records of large Spanish Mackerel being caught on their (locally) known breeding grounds during their breeding season, by gillnetters also catching pre-spawning Grey Mackerel.

Throwing back dead large Spanish Mackerel is something which most fishers find very hard to do. The temptation to rot the system, which can likely be done very easily and safely, must be considerable and almost impossible to resist. Common sense should prevail here and all mackerel be made line only.

Banning the netting of ALL the mackerel species would help a sustainable line fishery rebuild. The benefits include better consistency and sustainable catches that earn the commercial sector more per kg than net caught fish.



Issue 19. In attendance at nets

There are inconsistencies and inadequacies in the Regulations for the distance set for attendance for operators deploying different symbol nets, as well as the definition of what '*in attendance*' actually is.

The '*in attendance*' ruling is presumably to ensure an operator keeps within a useful distance of a net in the water, to attend to and prevent drowning any protected animal should it become entrapped. The response time is important and is related to the distance from the net, whether the operator is maintaining watch and whether the animal can be seen from the surface.

This legally required distance changes depending on where on the coast the nets are set and what symbol the nets are used under. Under most net requirements the operator must be within 100 m of the net which would seem about right. Some circumstances allow a distance of 200 m which seems a bit far.

But under N2, the ***East Coast inshore set mesh net***, the operator only has to be within 800 m. This is way too far for an operator to be able to spot an entangled endangered animal, let alone release it unharmed. And that's not the end to it. The operator can have up to 3 nets at any one time within one nautical mile and still only be required to be within 800 m of any part of it allowing him to be a ridiculous distance away from some parts of the nets quite legally.

Clearly, this is not good for any protected animal, such as a dugong, struggling away in the net. It is known they require to access the surface for air approximately every 12 minutes. The time a dugong is most likely to be entrapped is when it is coming up for air, at such times it will be running out of oxygen and may be only minutes or seconds from death if trapped by the net below the surface.

Dugongs are most likely to be entangled when nets are set in murky water at night and are most at risk when they cannot reach the surface. Under such circumstances they stand little chance of being seen before they drown. Some operators claim some success from having escape panels in their nets through which a large animal may be able to pass and still access the surface to breathe. It may be worth considering making such escape panels compulsory.

The 'in attendance' rule is defined as including being '***on a boat, on the water***'. There is no requirement to actually be 'attending' the net. This needs immediate attention as being ***asleep in a bunk*** is currently perfectly acceptable.

At the end of the day, nets are dangerous to anything in the water. Protected species must receive adequate protection. The in-attendance law will be relatively ineffective in reducing mortality of most animals caught below the surface in nets. To make matters worse, dugong sink when freshly dead and do not float until they begin to decompose some hours after death. This means disposing of the carcass is straightforward; the easiest thing is just to let it sink to the bottom and leave the area before daylight.

Issue 20. Deploying nets away from high traffic situations

Nets are not only dangerous to whatever swims under the surface but also to what happens on the water as well. Nets therefore must not be deployed near navigation channels or jetties or wharfs. It would seem logical to assume that a distance far enough away from these areas, where nets may not be set, would be imposed to reduce risk to boat traffic.

It is therefore difficult to understand why one type of net has a lesser distance applied to it than others. N2 again is the peculiar one with a distance from a wharf or jetty being 200 metres when others are 400 metres. No nets should be allowed to be set less than 400 metres from such places for obvious reasons.



If the safety of the passing boat traffic is the reasoning behind this distance, then why are other areas not given the same level of safety? Boat ramps, marinas, bridges and mooring areas all have a high or restricted traffic flow as well as the mouths of creeks and rivers.

Issue 21. Gillnets should not be used in the barramundi closed season

N2 nets (east coast inshore set mesh nets) once again come to our attention. Nearshore netting is primarily designed for the taking of barramundi. The net mesh size used is mostly about 165 mm (or 6") and one part of it has to be set in less than 2 mtr of water. This net must not be used during the barra closed season, being from Nov 1 to Feb 1 on the east coast.

Obviously the spawning barra should not be netted or interfered with, but rather protected. BUT the same operator IS allowed to work the same area provided the net is now no more than 115mm (or 4"). Clearly this net still catches barramundi left, right and centre which is quite legal provided they're released. The trouble is they're often quite dead by the time they are retrieved from the net, normally suffocating within 15 to 30 minutes of being caught, which is not really protecting them. The possibilities to conceal and later market such illegally caught barramundi are considerable.

Also to compound this, the smaller net catches smaller fish, thereby killing many juvenile barra as well. ***Queensland should at least follow the NT example and require all gillnets to remain out of the water for the closed season 1 Nov. to 1 Feb.***

Issue 22. Display net symbol in use

Each net symbol carries its own set of regulations. Many net operators have access to more than one symbol. Making known which symbol any net is deployed under by requiring the display of the symbol would reduce confusion to compliance and by the observing public as well. This would help close various loopholes that the operator can exploit illegally but without significant risk of being detected.

Issue 23. Incidental catch

For sustainability reasons some fish may not legally be targeted by gillnetting. Such species include Spanish Mackerel, Spotted Mackerel and coral reef fish. Because no one likes the idea of throwing away good fish and inevitably some of the non-target, non-legally netted species are caught, the authorities have in the past allowed what is known as an incidental catch of these species.

Until recently a maximum of five spotted mackerel were allowed to be kept as incidental catch. Recently and without consultation with anyone other than netters, FQ increased this to 50 fish. At a conservative average of say 3kg per fish, this can add up to around 150kg, or substantially more. This amount is certainly marketable and the temptation for netters to commence targeting this species again is clear.

Something similar is the case with Spanish mackerel though the numbers are smaller, the sizes of individual fish are usually much greater. Some spawning areas where grey mackerel are targeted by netters overlap with Spanish spawning areas and both species can be running ripe at the same time in the same area. To compound the risk and temptation, Spanish fillets, especially when frozen are practically impossible for fisheries inspectors to differentiate from grey mackerel when onboard under all but ideal conditions.

Gillnet fishers will be tempted to increase the opportunity for making "incidental" catches by targeting areas where such species are known to be in good numbers. Once caught, on board and iced own or frozen it can be very difficult for inspectors to accurately determine whether there are say 50 or 80 or far more spotted mackerel or Spanish mackerel on board. There is also the possibility of offloading such incidental catches on to



a dinghy for relay to another, e.g. line fishing vessel. Given the lack of fisheries inspectors and the low risk of detection it is a simple step to commence targeting and marketing of all mackerel by gillnet.

There are therefore clear arguments for accepting the need for a limited amount of waste by disallowing any incidental gillnet catch of these species and indeed to disallow any Spanish mackerel to be held onboard a netting vessel, even when claimed to be line caught. The above is further justification for having all mackerel as line only species, as recommended in Issue 20.

PART 2. RECREATIONAL FISHING

Like the commercial fishery, the recreational fishing sector is heavily regulated and the reasons for this are fully accepted. 700,000 anglers fishing in Queensland annually would clearly have significant impacts on inshore fisheries resources unless well regulated. Most regulations are well accepted as just and proper. There is however still a perceived need to fine tune some of these regulations as discussed below.

First on the agenda however is a real bone of contention to those recreational fishers with long memories: that is the levy they pay as part of the annual cost of boat licences.

Issue 24. PPV / RUF an additional source of funding for further buyback

The Private Pleasure Vessel (PPV) fee is a system now called the Recreation Use Fee (RUF) put in place at the recommendation of the Burns Enquiry of 1992 (available from CAREFISH in electronic form). It was designed such that recreational fishers would help pay for additional improvements to fisheries that were in their interests. These would otherwise be at government expense.

Apparently this levy was intended to fund the buyout of commercial fishing licences in urban areas and fund increased research into fisheries. We are informed that the PPV was apparently agreed on by recreational fisher groups on that condition.

This PPV was applied at a rate of \$7.50 per registrable vessel, starting in 1993 and reportedly collected around \$2 million in its first year. This has increased since then, over the years and now costs \$17.50 per pleasure vessel per year. Also the number of boats registered in Queensland has increased substantially and the money collected annually now is reportedly about \$4.5 million. This apparently represents a collection of about \$50 million to date.

Should this in its entirety be applied to the buying back of commercial licences, there should not be the need for this report or further buyback. So, where is the money and what has it been used for? Recent claimed expenditure of the PPV/RUF takings is given below (**source: confidential**).

2010/2011 PPV FUNDS EXPENDITURE BREAKDOWN	ESTIMATED TOTALS (\$)
Marine Habitat Assessment	115,593
Fishway teams	275,137
Non SIP fish stocking and extension	98,393
FRDC Grant	120,000
Suntag Grant	53,000
Sunfish Grant	150,000
Community Projects [LKFD]	58,500



Assessment and monitoring	726,955
Rfish surveys	727,051
Consultation on management	694,877
Fishcare volunteers	121,180
Education and communication	279,127
Rec Fish Unit	352,368
Compliance QBFP	371,873
Total:	4,144,054

Table showing recent breakdown of use of funds obtained from the PPV/RUF levy (source confidential)

This shows that a large percentage of this money is used to fund core FQ business and management which is not the purpose of the PPV / RUF. Clearly it's the responsibility of the state government to adequately fund this department via revenue collected from the many other taxes and fees extracted from the public. The question has to be asked, how much out of the \$50 odd million collected from the levy, agreed to by us, has actually been spent on buying back commercial effort?

Whilst we're asking these questions, let's look at how much we pay government to go fishing...

<u>Tax or fee to use the marine environment /year</u>	<u>\$</u>
PPV (or RUF)	4,144,054
Stocked impoundment Fee	850,000
Commercial Licence Fees	4,800,000
Dept of Trans rego (boats and trailers ex PPV)	20,000,000
GBRMPA EMC and permit fees	to be confirmed
GST on rec. fishing gear, boats, engines, fuel etc.	to be confirmed

Table 2: showing revenue to government from fishing and related boating activities

GBRMPA collects almost one million dollars from various recreational charter operations. GST on sales associated with the recreational fishing sector would be 10% of the approximate one billion the sector currently trades (source to be confirmed). Road tax on fuel used by boats is another point.

So, who should be paying for the much needed licence buy back? The problem was created by government, there's no question of that, so the lions' share of the responsibility for fixing it sits squarely with government. If the PPV that recreational fishers have been paying for the past 18 years hadn't been used for alternative purposes, contrary to the undertaking made by government at the time it was introduced, then this problem would already be mostly resolved.

The entire ledger expenditure record for the PPV requires a thorough and transparent investigation. The possibility for a better system should be explored and an annual report presented to the recreational sector covering how their PPV/RUF money is being allocated and spent.

In order to supplement any remaining buyback of nets following the expenditure of the almost \$10 million promised by LNP, there should be enough money being raised through



a combination of the above sources to complete the buyback to achieve effort levels that are sustainable at acceptable resource levels.

Issue 25. Recreational Fishing Licences and Recreational Fishing Councils

If for political reasons, funds cannot be adequately raised from the above sources, then the subject of a saltwater recreational fishing licence must be raised and thoroughly discussed. This could be 'sold' to the public on the basis that if they are prepared to pay a modest, say \$30/yr, for a Queensland saltwater annual licence (adults only) then the entirety of these funds would be used to reduce fishing effort by gillnets on a cost-effective basis and generally improve possibilities for better recreational catches. This would probably take in the order of two to three years to develop any consensus.

This process is already well advanced in, for example NSW and Victoria, where it was revealed at a recent national recreational fishing conference that because of the licensing policy these two states had shown the greatest recent improvements in recreational fishing. In contrast the Queensland experience has been the reverse, its been going steadily downhill for years.

If the public were convinced that all funds raised would be used to provide for better recreational fishing experiences, most people would probably accept the imposition. This is certainly a topic that requires continued consideration and public debate.

Regional Recreational Fishing Councils, say two or three on the East Coast, as opposed to the proposed nine commercial fishing management regions, are required to better represent the interest of the recreational fishing sector to the Minister for Fisheries. Council members should have their expenses and a sitting fee covered by e.g. funding obtained from the RUF.

Notable references are Martin Salter, 2011. '**Keep Australia Fishing**' Report for the Boating and Fishing Council of Australia easily downloadable from the internet and '**Recreational fishing in Australia - 2011 and beyond: a national industry development strategy**' by the Recreational Fishing Advisory Committee (see Bibliography ref. 20).

Issue 26. Lack of support from FQ and the Dept. of Sport & Recreation

The lack of support from FQ for the recreational and charter fishing sectors never fails to amaze us. We clearly need either a revision of FQ priorities or an alternative sponsor. The Department of Sport and Recreation does not define recreational sport fishing to be either a sport or a recreation. This is ludicrous and that department must take some ownership of the recreational fishing sector, especially since the FQ has failed in this regard almost continuously for years.

The DPI ownership of rec fishers never worked because wild fisheries management is far more akin to natural resource management than it is to farming or forestry. Plant ten seeds and you may get 10 young plants to maturity. Spawn a million fish eggs in the wild and none may reach maturity.

The plain fact is that recreational fishing is as healthy and exciting outdoor recreation as any and should be supported and encouraged to some extent by the Sport & Recreation Department. Kid's days and family competitions are perfectly suited to this part of the system. The more technical management issues may be better handled by e.g. the Department of the Environment and Natural Resource Management than a primary industry focussed department.



Issue 27. Fishwatch and other 'Hotlines'

Currently the 'Fishwatch' phone number is the 'hotline' for reporting illegal fishing practices. There is a different one for dugong, turtle, dolphin and whale strandings and entanglements. There's another one for mangrove destruction, yet another two for marine pollution (depending whether it's coming from a registrable boat or not) and there's probably more. Finding these numbers to begin with is no easy task, especially from a mobile phone 'in the field'. And if you ring the wrong one, the operator does not know the correct number and won't or can't transfer you.

The public does not understand or really care which department attends to which species or incident. For instance an injured dugong is DERM's responsibility. They often do not answer their phone on weekends (although we are told this has been remedied with RSPCA now picking up the phone and yes, they have changed the number). This is very distressing to the community, let alone the dugong.

There should be a '000' type number for all marine connected issues that require reporting. Here's a possibility and these numbers were recently available 13 MARINE and 1300 MARINE ie MARINE = 627463

Alternatively, all the 'hotlines' need to be able to transfer to the other various 'hotlines'. Staff that answer need to be briefed properly to handle the calls. This is not the case at present. Recently Paul was asked to report a chemical spill. He was in his office and spent an hour trying to find the correct department. He even rang the correct department and was told it was the wrong department. No department knew which department was the correct one.

Also every report made by the public should be followed up with a courtesy call back to that person as to the action taken by the various department involved. This is simple PR.

Issue 28. Government departments need better sharing of Information

The public pays for government as a whole to manage their marine resources and they expect it to be done efficiently. Interdepartmental information sharing is dubious at best, and even kept secret, particularly between the FQ, DERM and GBRMPA. This must be repaired.

GBRMPA absolutely should know exactly what gets extracted if they are to manage the Marine Park competently and successfully. DERM also must involve GBRMPA more satisfactorily regarding marine mammal strandings. The latest DERM annual report on marine mammal strandings was until recently, 2007. All such reporting needs timely updating (see DERM website). The issue of dead dugong, whales and turtles is of great interest to the public. This all needs reviewing by highly competent advisors.

Issue 29. No-take or green zones

No-take or green zones are of massive concern to a high percentage of the recreational fishing community as they affect individual lifestyles and in some cases, even the spirit of entire communities. Many or most of those concerned view the commercial sector as bearing the overwhelming responsibility for overfishing.

Nets are the obvious main culprit and industrial fishing in marine parks and local waters is seen as a foolish and greedy way to manage both a marine park and a fishery. Banning everyone from catching a fish in a green zone because of commercial overfishing in any area is a divisive strategy and cause for much public anger.

Many of the general public are sick of lock out zones. If commercial overfishing is the main contributor to stock depletion, then restrict or remove the commercial pressure. This view is supported by notable fisheries academics such as Prof. Bob Kearney, Professor of



Fisheries at the University of Canberra in recent articles in the academic journal Marine Policy and Dr. Darryl McPhee of Bond University, Queensland in a recently published article.

Any zones put up for 'no take zones' should preferably be supported with a comprehensive and plausible scientific study explaining their recommendations and be completely transparent to scrutiny by the public.

The community must be consulted closely on these proposals. The recent 'Pew Proposal' for the Coral Sea beyond the GBRMP is a very good example of how to mismanage the community on these types of issues, leaving fear, anger and resentment to boil for far too long.

Issue 30. Damaging effects of recreational drag netting

The use of recreational drag nets to catch bait and prawns has been shown to cause considerable loss of life amongst juvenile commercial fish species in Far North Queensland. NSF has recently released a flier or poster on this topic which is available to download at www.fqc.org.au. Greatest damage is done during the wet season when many who normally do not fish spend hours dragging nets purely to catch a "feed of prawns". During the process the beaches become littered with dead juvenile fish.

Resources have dropped to such low levels that this method of catching prawns for the table and bait should be banned.

Issue 31. Fishing Surveys

It is widely considered throughout the fishing community and academia that some past fishing surveys are flawed. Loading survey questions and apparently manipulating statistics causes great public aggression and anxiety and must be stopped.

Any future surveys should be designed and conducted in conjunction with a marine based university and SUNFISH, and SUNFISH should be resourced appropriately to be able to competently comply. All results and data collected must be made completely transparent to the public for scrutiny.

Issue 32. 'Scientific' papers & reports

There is great concern in the caring and interested recreational fishing sector as to the reliance by fisheries authorities on what many in the public perceive to be dubious scientific reports for the formulation of their management decisions. Many in the sector consider some studies to be tailor-designed to support a decision already made before the study was even commissioned. This needs to be investigated and if still occurring is clearly a sad reflection on some individuals who have chosen that path.

The public catch up on these sooner or later and this is much to the detriment of relations between the public and government departments. FQ has an unfortunate public image and needs to be repaired as a matter of urgency despite a recent survey which apparently targeted the youngest fisher person in the family. The point is, the information collected may be correct, it's how it's interpreted, used and presented that's not correct. By targeting the youngest in the household, or indeed asking a question in a different manner or context, may get a totally different answer, as we are all aware, than when presenting the full facts in a neutral manner to a mature person.

The so-called 'Halliday Report' (The effects of net fishing: addressing biodiversity and bycatch issues in Queensland inshore water) is another and should be rerun with a different set of parameters. For example it claims that the barramundi net fishery is very



selective with only 16% bycatch. But at a closer look the figures show that only 39% of the total caught was barramundi, which means that 61% was bycatch.

So how could this data be so far out? Well, it includes anything marketable as legitimate catch, and that includes CRAB BAIT! What's not crab bait? Undersize and otherwise illegal fish, that's what. This is very misleading.

In the same report it also claims that 152 turtles were seen in the area of one net investigation. And all of them were said to be released unharmed! Again, this must be misleading and discredits more than just the data.

The Queensland fishery needs repairing, and in today's more informed but still cynical environment, lack of transparency, spin and cover-ups will continue to give rise to resentment.

Issue 33. One line rule in yellow zones

This was implemented by GBRMPA to give a higher level of protection to resident or demersal reef fish by implementing a one line one hook rule and that's fine.

The standard method of fishing is to fish on the bottom for these reef fish and to have a float line out the back to hopefully catch a passing pelagic fish, namely mackerel. The one line rule prohibits this. As pelagic fish have no residence and swim wherever they wish, it makes no sense to prohibit this activity.

This regulation should be amended to 'one bottom line or hook arrangement per person'.

Issue 34. Standardising fish sizes and bag limits

The current regulations on fish sizes need yet another review. Firstly, some fish don't fit the bill with their '**size of first spawning**' being much larger than the minimum size of catch which goes against the standard principle. Some mackerels, Barramundi and Fingermark are prime examples. Having different sizes for very similar species within the same family is also confusing. Some fisheries inspectors and even marine biologists have difficulty identifying which is which so the general public has no chance.

Bag limits are also all over the place. Introducing regulations to confuse hundreds of thousands of everyday fishermen to stop a few individuals does not work and only makes normal people into crooks or worse, makes them give up the activity of fishing altogether as being too hard. Standardising these into 3 groups of bag limits would be better, e.g, just have one of: a bag 3, a bag of 7 or a bag of 12 for any species or group.

Some suggestions follow:

- Coral trout: all min. 380mm, bag limit 7, no upper size limit (ciguatera risk comes into play anyhow).
- Mackerel: Spanish and Grey 750mm, bag limit 3,
Spotted and School 600mm, bag limit 7
- Fingermark: min size to coincide with size after first spawn, bag limit 3. Smaller individuals to be 'marketed' as catch and release.
- Flathead: one size and bag (7) for all species
- Whiting: one size and bag (12) for all species

Issue 35. Filleting at sea

In the past, some recreational fishers have taken undersized fish and filleted them before returning to port. This makes it difficult to demonstrate compliance. The regulation introduced to require all fish with a fillet length of less than 40cm to remain intact, i.e. not



filleted, makes it easier for compliance to police. It does not make it easier for the vast majority of fishers that comply with minimum sizes to store their fish or dispose of the frames and heads.

This is compounded in the large proportion of the state where there are crocodiles in the habitat. For obvious reasons, we cannot fillet at the boat ramp because of the danger of attracting crocs. That's why there are no filleting tables there.

A 40cm fillet is a big fillet. By the time the head, tail and tail wrist is taken into account a fish would have to be around a metre long to support a 40cm fillet. The best place for a frame to be disposed of is to where it was caught, returning nutrients to the sea, not in a garbage bin back home.

This requirement gets even more ridiculous when using fresh fish baits. As it stands, one cannot use a bit of fillet of a reef fish as bait unless it's 40cm long! And since a fish cannot be filleted on the water unless it's of that length, what does that mean in reference to using fish frames and heads in crab pots? This needs clarification.

A sensible solution would be to allow fillets to be removed provided the fish was 100mm or more over the min legal size. This would remedy most of the problems.

Issue 36. Recreational fishing infrastructure needed

Infrastructure in the Cairns area is at best average with some facilities excellent and others poorly maintained and in some cases dangerous. Recently, a survey was conducted by GHD consultants on behalf of the Dept of Main Roads. In Cairns a meeting was attended by Paul Aubin, Keith Graham and Les Marsh. Recommendations were made, drawn up and submitted by Paul Aubin and sent out into the community for comment.

It would seem prudent to assign each boat ramp or other fishing infrastructure to a category in line with its usage (if this is not already in place). For instance isolated and rarely used ramps may be fine as a dirt entry graded every now and then with no other facilities, and this may be a 'category 10' ramp for instance, however the main ramps warrant multiple lanes, adequate parking, toilet, shower, garbage, wash down and lighting facilities. These may be a 'category 1' ramp. A number do need upgrading.

Deployment of Artificial Reefs

This is one for GBRMPA. Most population hubs up and down the coast are situated near a headland, giving varying levels of protection from the prevailing south easterly winds. We have a magnificent barrier reef off our coast but this is not usually accessible to the vast majority of boat owners due to the distance to get there, generally more than 70 kilometres each way, add to that the likelihood of regular unsafe weather. There's only so much risk one should take.

It would make sense to allow for the creation of environmentally friendly artificial reefs (ARs) to be constructed within easier reach of the coast. These rapidly become fish havens therefore removing a great deal of the risk of fishing and a contributing to a huge reduction in carbon emissions from fuel burnt during fishing trips.

There are a lot of boat wrecks already up and down the coast and they all hold substantial fish stocks. The accessible ones are extremely popular. More such artificial reefs in the right places would greatly increase the fishing public's level of satisfaction and take some effort off the natural reef.

The Cairns area could easily support at least three of these within a couple of kilometres of the coast. GBRMPA are the controlling authority on this and have at present a draconian procedure in place that rules out AR deployment, see:

<http://www.gbrmpa.gov.au/about-us/legislation-regulations-and-policies/policies-and-position->



[statements/guidelines-for-the-management-of-artificial-reefs-in-the-marine-park](#). The application fee is over \$80,000 for a start and this stops any further proposition dead in its tracks. This should be reviewed and amended to permit a far more reasonable and cooperative solution.

Lack of public jetty in Cairns

We are not sure about other areas but Cairns harbour has no public jetty. This is a product of turning harbour authorities into corporations. If there's not money to be made the authority is not interested. But this does adversely impact the community where boats have nowhere to tie up for short periods to get supplies or pick up passengers without being harassed by overly zealous harbour security. We understand Townsville has the same situation. All town harbours should have a free-to-use public jetty with lighting, water and power. They all used to have this.

ACKNOWLEDGEMENTS

From Paul: **'The Bones of Contention'** has been a collaborative work with contributions coming from numerous colleagues over a number of years. They know who they are and we should like to take this opportunity to thank them. Dave Cook has waded in "boots and all, and with both sleeves rolled up" as co-author and made a sensational contribution.

'The Bones' is an ongoing working document, each edition having been revised based on comments received and further reflection. This is time consuming, not only for those of us who optimistically sit at computers and phones for days on end, but also for our families who pay the price as they wait patiently for us for '*days on end*' to do what we have to do.

Thank you to both our families for being so patient and allowing us to isolate ourselves in study depriving our kids of our time, sometimes when it's needed the most. And I'd like to say "*wait no longer for us, the job is done, all has been fixed, we're back where we belong*".

I'd really like to say that, one day. After all, in the end we are optimistic, and clearly it's the optimists that get things done.

From Dave: In reality Paul is the senior author and I've done my best not to cramp his wonderfully unique and direct style. Paul has graduated with the highest qualifications from that most respected of learning institutions, *The University of Life*, with valuable experience in various Queensland fishing sectors. I helped edit because of Paul's unique combination of experience, knowledge, dedication, energy and ability to interact constructively with all sectors.

The depletion of Queensland's inshore fisheries had first to be officially recognized and then adequate measures taken to reverse the decline. Now Queensland is halfway there but a more difficult task lies ahead for our Fisheries Minister. He needs to redefine Queensland's inshore fisheries and for this to occur he needs strong support and encouragement from the public. We trust this document will help.

Thank you to everyone who has shared their ideas, information and even played Devil's Advocate with regard to the material presented here; without your feedback this work would be of much lesser value. Thank you too to Josh Coates and **Fishers for Conservation** (www.ffc.org.au) for hosting this report, along with other NSF material on their website for the rest of Queensland/Australia/the World to share.



BIBLIOGRAPHY: A selection of key scientific research, fisheries status reports and independent studies: summaries of some key points are given for most papers

NB: Time and space constraints restrict number of papers reviewed here; readers are invited to forward details of others which should be included for future editions of 'The Bones of Contention'.

Ref. Year Reference and brief summary of some key points no.

- R1. 2002 Cameron, D. and Begg, G.A. *Fisheries biology and interaction in the northern Australian small mackerel fishery*. Final report to the Fisheries Research and Development Corporation (Projects 92/114 and 92/144.02), Fisheries Research Development Corporation, Canberra.

Key findings for grey mackerel: (i) from tagging studies they found no evidence to indicate grey mackerel travel long distances; tagging of school mackerel support concept of a number of (different) local stocks; (ii) female grey mackerel reach maturity between 651 and 700mm FL (approx. 750-800cm Total Length.) [Comment: as at 2012 legal minimum length for grey mackerel is still 15 to 20 cm less than this]

Key recommendations: ... (i) Mackerel species should be managed with utmost caution until detailed stock assessments are made. (ii) need to develop a reliable indicator of stock abundance, i.e. means of estimating independently of total landings whether stocks are steady, increasing or declining (iii) the respective stock structures need to be taken into consideration when formulating management arrangements. (iv) further research should include investigating localised spawning grounds. Note large numbers of immature grey mackerel were taken by smaller mesh gillnets. (v) Improve Qld commercial logbook program as data collected is inadequate to monitor the fishery.

- R2. 2005 Anon. 'Fisheries of Qld East Coast, current state of knowledge, May 2005', CRC Reef at: www.reef.crc.org.au/research/fishing_fisheries/statusfisheries/inshoregreymackerel.htm;

Gives reported catch data for east Coast commercial inshore grey mackerel fishery for 16 years, 1988 to 2003, varying from about 55 tonnes in both 1995 and 2000, to maxima of around 265 in 1990 and 235 in 2003. **Average reported catch of grey mackerel over 16 years prior to 2003 was around 135 tonnes.** Prior to 1993 around 50% was caught outside the GBRMP, by 2003 only about 15% was outside the GBRMP. [Comment: is this evidence of serial overfishing of local populations?]

- R3. 2008 Gunn, J., Meere, F. and Stevens, J.D. *Independent review proposed management arrangements for Queensland's East Coast Inshore Fin Fish Fishery*, Australia. Department of the Environment, Water, Heritage and the Arts, Canberra, ACT.

This review is extremely critical of the management of the ECIFF and vindicated the concerns of NSF expressed since 2007. The Review found the ECIFF to be characterised by:

- a serious lack of validated and species-specific data on the fishery catch,
- very limited knowledge of the sustainable levels of catch for most target, byproduct and bycatch species,
- inadequate fishery-independent data on the interactions with vulnerable and protected species that are susceptible to gillnets, and
- inadequate levels of precaution being adopted by DPI&F in the management arrangements and the setting of catch limits for target species.

They found some significant gaps in a number of important areas which make managing the ECIFF difficult and considerable scope to improve the management framework. The reviewers encourage a review of policy and legislative settings. They noted that **a delay in providing a management response can be extremely costly to a resource or the broader ecosystem.**

The team noted documented localised depletion for some species and that depletions are



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not always obvious **when fishery “assessments” are based on aggregate data**, as they have been in the ECIFF. They state that in schooling species with local residency **and/or those that form seasonal spawning aggregations, the risk of localised depletion is high e.g. grey mackerel.**

They recommended exploring **greater spatial management to be a priority** and that DPI&F should seek broad public and scientific input on the use of spatial management to reduce the potential for localised depletion of key species and interactions with protected species such as dugong, inshore dolphins and humpback whales

They noted that the current DPI&F approach does not allow the flexibility necessary to deal with a fishery operating in a complex, dynamic, **World Heritage** listed ecosystem. They concluded there needs to be a **fundamental rethink of the management approach** for the ECIFF ... to reduce complexity, ensure **sustainability** of all species, and to take into account significant **spatial heterogeneity in the risks.**

- R4. 2008 Macfadyen, G. & Huntington, T. ‘*Certification and Sustainable Fisheries*’. Poseidon ARM PTY Ltd. /United Nations Environment Programme. 91p. <http://www.consult-poseidon.com/reports.asp>.

“This document has been prepared by Poseidon Aquatic Resource Management Ltd. The document draws on a wide range of data and information sources provided in Appendix A. It has also been complemented with the help of email and telephone communication with various certification scheme managers, and with industry and government sources, as referenced accordingly in the text. Survey questionnaires were also completed with certified businesses in the supply chain and with certified producers in a number of small-scale and developing country fisheries”.

- R5. 2008 Banks, Richard. Poseidon ARM Pty. Ltd., ‘*Evaluation of prospective management arrangements and control actions that could be applied to the grey mackerel (Scomberomorus semifasciatus) fishery in the Daintree (N. Queensland)*’. 23p. Available on Company website for download:

www.consult-poseidon.com/reports/Evaluation%20of%20prospective%20management%20and%20control%20actions_V4.pdf.

Poseidon, a well-known international fisheries consultancy company, was requested by NSF to ‘undertake a short scoping study to evaluate the processes that could lead to the establishment of management arrangements for the localised fishery in North Queensland, against best available evidence. The report contains a review of best available data, including catch information from local fishers and anglers. Poseidon also analysed the legislation and consultative processes that can and should be applied to the fishery by the Management authorities and undertook a risk analysis (www.poseidon-consult.com;)’. The report’s conclusions contain the following statements:

“**The management authorities, including the Department of Primary Industry, Queensland, and the Great Barrier Reef Marine Parks Authority are required by Law to apply the Precautionary Principle, or at the very least undertake a participatory risk analysis evaluation in the event of any doubt as to the state of the stocks. Were the principle to be subjected to the appropriate participatory process it would point to significant concerns in respect to commercial gill netting in the Douglas shire area, and a damage to economic well being of the local economy if left unchecked.**”

“**Precautionary principle management decisions are upheld when applied, providing that the appropriate risk assessment mechanisms is used. There is therefore no reason to wait for scientific evidence to demonstrate that a management problem exists. The prescribed analytical process will already show that there is cause for concern.**”

“**The Department of Primary Industry and the Great Barrier Marine Parks Authority require WTO/fishery accreditation for all fisheries from which product is exported. ... If applied, the grey mackerel fishery under its current management regime is unlikely to secure a WTO.**”

- R6. 2009 Welch, DJ, RC Buckworth, JR Ovenden, SJ Newman, D Broderick, RJG Lester, AC Ballagh, JM Stapely, RA Charters and NA Gribble. ‘*Determination of management units for grey mackerel fisheries in Australia. Final Report*’, Fisheries Research and Development

A working paper by CAREFISH: CAirns REcreational Fishing Industry StakeHolders, & the Network for Sustainable Fishing Douglas Region. 28 August 2012.



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Corporation Pr. 2005/010, Fishing and Fisheries Research Centre Technical Report 4, F&FRC, JCU, Townsville. 158p.

The paper reports on research to determine whether there are non-mixing populations of grey mackerel in Australia. The results prove that there are at least four different genetic stocks across N Australia, namely in WA, NW NT, Gulf of Carpentaria and Eastern Australia. Otolith isotopes indicated there are at **least two stocks in Eastern Queensland**. Parasite fauna suggests a separation of east coast stocks somewhere between Mackay and Townsville.

Management implications indicate need for management of grey mackerel fisheries to be carried out on **regional scales finer than are currently in place**. ... on the east coast managers should at least **monitor fisheries on a more local scale** dictated by fishing effort and assess accordingly. Stock assessments should also consider the stock divisions identified, particularly on the east coast..."

"We also emphasise that where we have not identified different stocks does not preclude the possibility of the occurrence of further stock division"

Recommendations incl: status of each stock to be assessed; potential for localised depletions be investigated, development of a reliable estimator of grey mackerel stock abundance and/or harvest rates.

- R7. 2010 Newman, S.J., Wright, I.W., Rome, B.M., Mackie, M.C., Lewis, P.D., Buckworth, R.C., Ballagh, A.C., Garrett, R.N. Stapley, J., Broderick, D., Ovenden, J.R. and Welch, D.J. **'Stock structure of Grey Mackerel, *Scomberomorus semifasciatus*** (Pisces: Scombridae) across northern Australia, based on otolith stable isotope chemistry. *Environmental Biology of Fishes*, 89 (3-4). pp. 357-367. "Proceedings of the 4th International Otolith Symposium, 24-28 August 2009, Monterey, California"

From Abstract: 'Stable isotopes in otoliths were used to determine the stock structure of Grey Mackerel. Otoliths were collected from Grey Mackerel at ten locations representing much of their distributional and fisheries range across northern Australia from 2005 to 2007. Fish from four locations-Western Australia, Northern Territory and Gulf of Carpentaria, Queensland east coast mid and north sites and Queensland east coast south site had stable isotope values that were significantly different indicating stock separation. The spatial separation of these populations indicates a **complex stock structure** across northern Australia. **Stocks of *S. semifasciatus* appear to be associated with large coastal embayments. These results indicate that optimal fisheries management may require a review of the current spatial arrangements.**'

- R8. 2010 Charters, Robbie A., Lester, Robert J.G., Buckworth, Rik C., Newman, Stephen J., Ovenden, Jennifer R., Broderick, Damien, Kravchuck, Olena, Ballagh, Aaron, and Welch, David J. *'The stock structure of grey mackerel *Scomberomorus semifasciatus* in Australia as inferred from its parasite fauna'*. *Fisheries Research*, 101 (1-2). pp. 94-99.

Abstract: The scombrid *Scomberomorus semifasciatus* is an important component of inshore fisheries in tropical Australia. Data on the parasite fauna of 593 fish from areas off northern and eastern Australia were examined for evidence of discrete fish populations. The parasites used Tukey Kramer pairwise comparisons gave significant differences in the abundances of two or more parasites between fish from the east coast, the eastern Gulf of Carpentaria and the remainder of northern Australia. Multivariate analysis gave further evidence of differences and the results suggest that **at least 4 populations of stocks of grey mackerel occur along the northern and eastern coastline of Australia**

- R9. 2011 Anon. *'Vulnerability Assessment for the Great Barrier Reef 2011: Grey mackerel.'* commissioned by GBRMPA.

Vulnerability assessment rated at 'Medium' noting particularly the potential for localised depletion of spawning aggregations. Grey mackerel are targeted and valued



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by both commercial and recreational fishers. The minimum legal size (MLS) for retaining grey mackerel (60 cm total length (TL)) is significantly smaller than size at sexual maturity for females (65-70 cm fork length (FL))¹. For males, size at sexual maturity is 55-60 cm (FL), which equates to a total length between 64 and 69.5 cm respectively¹. This means that that a MLS of 60 cm TL allows for the retention of a proportion of the immature male [Ed's comment: NB critical omission here, it should read '**and female**' population: as females were found to mature between **750 - 800 cm total length** (650 – 700 mm fork length,) Cameron & Begg 2002 whereas, Welch et al found that 50% of females matured by **TL of approx 700 mm** total length which is still 10 cm longer than the legal minimum size resulting in the possibility of significant proportions of the female population being taken before they ever spawn.]

Recent research indicates that grey mackerel exist in two discrete populations on the eastern coast of Australia and **there is further indication that there may also be smaller meta-populations within those populations at the embayment scale**. This possibility presents fisheries managers with further considerations when undertaking stock assessments and developing management responses as intensive localised fishing pressure does have the potential to cause localised depletions as experienced in the Douglas Region (2008-9);

There is significant year to year variability in grey mackerel catches which is likely to be attributed to fishery-dependent factors as well as seasonal and environmental factors, particularly rainfall variability;

- R10. 2011 Broderick D., J. R. Ovenden, R. C. Buckworth, S. J. Newman, R. J. G. Lester, D. J. Welch 'Genetic population structure of grey mackerel *Scomberomorus semifasciatus* in northern Australia'. Journal of Fish Biology, Volume 79, Issue 3, pages 633–661, September 2011. The Fisheries Society of the British Isles.

Abstract includes: 'This study used mtDNA sequence and microsatellite markers to elucidate the population structure of *Scomberomorus semifasciatus* collected from 12 widespread sampling locations in Australia. Samples (n = 544). ... Combined interpretation of microsatellite and mtDNA data identified four genetic stocks of *S. semifasciatus*'.

- R11. 2011 GBRMPA: A Vulnerability Assessment for the Great Barrier Reef: Threadfin salmon

Appeared on their website in 2012 at:

http://www.gbrmpa.gov.au/data/assets/pdf_file/0003/21747/gbrmpa-VA-ThreadfinSalmon-11-7-12.pdf A detailed assessment which should be read in full; extracts include:

"Considering the stock structure of blue threadfin along the east coast stock,¹ there are also indications that the minimum legal size for blue threadfin may not be sufficiently precautionary to protect a proportion of the breeding stock from harvest prior to first maturity. • Recent research using multiple methods (genetics, otolith chemistry, parasite abundance, life history and mark-recapture data) shows that threadfins can be very long lived (20+ years¹) and exist as discrete local populations at spatial scales of less than 100 km.¹ In parts of northern Australia, king threadfin stocks are showing signs of overexploitation. These findings should be considered when undertaking stock assessments and developing management responses as intensive localised fishing pressure may have the potential to cause localised depletions in parts of their east coast range. • Threadfins die quickly when netted, so mortality of undersized individuals as by-catch may be high. Catch records may significantly underestimate fishing mortality, due to mortality of discarded fish." In short, the conclusion that can be drawn from this assessment is that both species are highly vulnerable to overfishing and marked changes are required in their fisheries management.

- R12. 2011 GBRMPA: A Vulnerability Assessment for the Great Barrier Reef: Grey mackerel.

Again worth reading in full. Appeared on their website in 2012 at:

http://www.gbrmpa.gov.au/data/assets/pdf_file/0016/21733/gbrmpa-VA-GreyMackerel-11-7-12.pdf



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GBRMPA give a vulnerability assessment rating of 'Medium' to grey mackerel and note "particularly the potential for localised depletion of spawning aggregations" and state that "Recent research indicates grey mackerel exist in two discrete populations on the east coast of Australia and there is further indication there may also be smaller meta-populations at the embayment scale. The possibility of embayment-scale meta-populations should be considered when undertaking stock assessments and the potential for localised stock depletions." (*Comment: where there have been localised depletions as a result of over netting of pre-spawning aggregations, the local fishers would undoubtedly upgrade the vulnerability assessment from medium to HIGH.*)

- R13. 2011 Gutierrez N.L, R. Hilborn and O. Defeo. Leadership, social capital and incentives promote successful fisheries. *Nature* 470, 386–389. At: www.nature.com/nature/journal/v470/n7334/abs/nature09689.html;

Their study of 130 co-managed fisheries throughout the world, including five in Australia, found that certain conditions are necessary for successful co-management of fisheries. They "**found that the most important co-management conditions necessary for successful management of fisheries are presence of community leaders, strong social cohesion, individual or community quotas, and community-based protected areas. Additional key attributes were enforcement mechanisms, long-term management policies and influence of fishers in local markets.**" They found that "**Leadership was critical for successful co-management of fisheries**"

[Comment: Gutierrez, Hilborn and Defeo may have predicted that effective co-management of the ECIFF under present conditions would be most unlikely as some most important pre-conditions for its success in Queensland are lacking. This will remain the case until major changes are made to the ECIFF. Where there is significant conflict amongst commercial line and net fishers and recreational and net fishers the required "social cohesion", including trust, is clearly lacking. It would be remiss of the authorities and politicians not to recognize this key point.]

- R14. 2012 DPI&F. *Annual status report 2010, East Coast Inshore Fin Fish Fishery.* www.daff.qld.gov.au/documents/Fisheries_SustainableFishing/2010_ECIFFF_ASR_Final.pdf;

Presents past catches for Grey Mackerel - 2006-07: 350t (343, 7), 2007-08: 356t (350, 6), 2008-09: 444t (438, 6), 2009-10: 193t (181, 12). The 2009 ASR gives annual catches by year for 2006: 332 (327, 5), 2007: 332 (325, 7) 2008: 390 (386, 4) tonnes. **Note CRC gives 16 yrs data up until 2003 with landings between 55 and 265 tonnes approx., at an average of 135 tonnes per year.** NB it also shows a shift of majority of catch from S of GBRMP to within GBRMP.

- R15. 2012 IUCN List of threatened species, www.iucnredlist.org/apps/redlist/details/170337/0/biblio; lists the species as of least concern however states that: 'This species may be threatened by targeted fishing in spawning sites'.

Taken from the IUCN website: 'The biology of this species is virtually unknown. Along the eastern Australian coast, length of 50% maturity is 67.45 cm fork length (FL) for males and 81 cm (FL) for females, and longevity is estimated to be 12 years based on a growth study using otoliths (Cameron and Begg 2002).'

'The commercial fishery fundamentally changed with the introduction of new conservative quota management arrangements [Comment of 250t] in July 2009 [Comment: but average catch over 16 years to 2003 was 135 tonnes, how can 250t be classified as conservative especially when a number of stocks are involved and there is no way of allocating catch ceilings to the various populations and "sub-populations at the embayment level"??] so it is not yet possible to determine regional catch trends and overall stock status (SS 2011).' This species is taken with others of its genus in a fishery in Queensland. The reported annual catch has varied between 193–444 tons during 2006–2010 with the most recent catch (2009–2010) 193 tons of which 181 tons were caught with nets and 12 tons by line (ASR 2011). There seem to be at least four stocks or population management units of this



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| | | species (Charters 2010, Newman et al. 2010) complicating management (SS 2011). |
| R16. | 2012 | <p>DPI&F 'Grey mackerel fishery, East Coast'. http://www.daff.qld.gov.au/28_18377.htm;</p> <p>This web page states: "There is uncertainty in the assessment of current catch trends and stock status, given that the commercial fishery fundamentally changed with the introduction of new conservative quota management arrangements on 1 July 2009. Only two years of routine biological data (length of fish caught in the fishery) were available, which was insufficient to assess trends."</p> <p>Exploitation status of grey mackerel in the ECIFF is currently "Uncertain". The introduction of a conservative commercial total allowable catch for this species that commenced on 1 July 2009 has meant that it is difficult to interpret the recent catch history for grey mackerel with certainty. Adding to the assessment complexity, results of recent stock discrimination research have suggested that there are two stocks of grey mackerel along the east coast, with the split occurring somewhere between Townsville and Mackay (Welch et al. 2009). The status of grey mackerel will remain 'uncertain' until a longer time series of commercial catch history and fishery-dependent monitoring data (stratified for the two stocks) are available for assessment.</p> |
| R17. | 2012 | <p>'Assessment of the East Coast Inshore Fin Fish Fishery'. By: Assistant Secretary, Marine Biodiversity Policy Branch, Department of Sustainability, Environment, Water, Population and Communities, (DSEWPAC) Canberra.</p> <p>"This document is an assessment carried out by the Department of Sustainability, Environment, Water, Population and Communities of a commercial fishery against the Australian Government <i>Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition</i>. It forms part of the advice provided to the Minister for Sustainability, Environment, Water, Population and Communities on the fishery in relation to decisions under Part 13 and Part 13A of the <i>Environment Protection and Biodiversity Conservation Act 1999</i>. The views expressed do not necessarily reflect those of the Minister for SEWPAC or the Australian Government"</p> |
| R18. | 2012 | <p>Daryl McPhee, <i>Future Management and Governance of the Queensland East Coast Inshore Finfish Fishery: Report Prepared for the World Wild Fund for Nature</i>; [Comment: Dr McPhee is Associate Professor of Environmental Science, Bond University, Gold Coast, an authority on the fisheries of Australia being author of the book <i>Fisheries Management in Australia</i> (2008) The Federation Press, 257pp.]</p> <p>[Comment: an excellent report to prepare WWF leading up to their participation in the Stakeholder Working Group for the 2012-initiated gillnet buyback scheme. Prof. McPhee's intimate knowledge of the ECIFF and fisheries management practices in general is evident throughout. The conclusions and positions taken align strongly on most issues with those presented over the years by NSF. Some points may need to be talked or worked through before NSF can finalise their position on these but we are definitely in the same ballpark).</p> <p>The relevance of this paper merits the presentation of entire executive summary here. The question arises as to why WWF had to fund this report and not government?</p> <ul style="list-style-type: none"> • <i>Significant changes in the management regime and governance arrangements for the Queensland East Coast Inshore Finfish Fishery need to be undertaken to ensure that the economic performance of the fishery improves and the ecosystem impacts of the fishery are reduced. "Business as usual" is not a viable option for the fishery as a whole.</i> • <i>With money pledged for structural adjustment with a focus on the ECIFF, there is an opportunity to significantly reduce effort in the fishery and this has significant environmental benefits as well as improving the economic outlook for operators that</i> |



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McPhee 2012 WWF Report: Executive Summary continued:

remain in the fishery.

- *Overall, management of the ECIFF needs to further reduce latent effort, but also reduce active fishing effort. Both are necessary in order to make a difference with respect to effort reduction. It is recommended that structural adjustment expenditure focus primarily on removal of active effort occurs, and this should be prioritised ahead of removing latent effort.*
- *It is recommended that the Structural Adjustment Package (SAP) should be administered by the Queensland Rural Adjustment Authority. The design and implementation of the SAP should be undertaken by an independently chaired panel (SAP Panel) with the following expertise:*
 - *Queensland government officials with expertise in net fisheries;*
 - *one or two independent professionals with expertise in Australian net fisheries;*
 - *a representative of the Great Barrier Reef Marine Park Authority;*
 - *a representative from the conservation sector;*
 - *a recreational fishing representative;*
 - *a commercial fisher with expertise in net fishing but with no direct or indirect*
 - *investment in the ECIFF; and*
 - *a legal person with expertise in business law.*
- *It is uncertain how much latent effort remains in the ECIFF, and the amount of latent effort also depends on how it is defined. To potentially address latent effort, there are three options recommended:*
 - *compulsory acquisition of net fishing symbols that are deemed latent;*
 - *a specific component of the buyback targeting latent effort, with the total funds capped at a certain level (e.g. no more than 20% of the funds should be available for the purchase of latent effort); and,*
 - *making symbols that are deemed latent non-transferable.*
- *It is recommended that the targeting by the SAP of active effort focus on the removal of both net fishing symbols and licence packages with active net fishing effort.*
- *It is recommended that a tender based approach (reverse auction) be used as a basis for attracting bids to the SAP, and this is one of the most common approaches to implementing a buy-back. "Value for money is the over-riding determinant as to whether a bid is accepted or not; however, value for money in this context is broader than just economic terms and can include (sic) prioritising the purchase of active licences in high conservation areas (e.g. Dugong Protection Area "B").*
- *A priority issue for the proposed SAP Panel is to ensure that a reduction in overall fishing effort in the ECIFF does occur and effort removed does not become reactivated in the fishery. This issue can in part be addressed by further considering and addressing latent effort in the ECIFF, but also through specific provisions that prevent re-entry into the fishery. The fishing industry and the fisheries management agency has a significant role in developing such provisions.*
- *Ex-post assessment of the SAP should be undertaken.*
- *Regional management has a significant potential role to play in the future management of the ECIFF; however, zoning of the fishery is critical to ensuring that regional management can meet its potential.*



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McPhee 2012 WWF Report: Executive Summary, continued:

- *Zoning of the ECIFF is required to provide a better approach to managing fishing effort; allowing the tailoring of exact fishing practices to a local area to minimise environmental impacts; and producing a greater level of social cohesion. It is recommended that zoning of the ECIFF be pursued after the SAP is completed, and that significant input from the industry and the fisheries management agency be utilised in the design of zoning arrangements.*
- *The report identified important deficiencies in terms of the spatial scale in the information reported and the public disclosure of catch and effort in the ECIFF (and Queensland commercial fisheries in general). To address these deficiencies, the report recommends:*
 - *Catch and effort information on ChrisWEB be updated and kept updated;*
 - *Information on catch and effort in grids with less than five boats be routinely made publicly available with a delay in public access to this information to minimise concerns regarding “commercial in-confidence”;* and,
 - *Information be collected and reported at a finer spatial scale, with investigations into cost effective and practical methods of electronic reporting that can capture spatial information.*
- *The report endorsed the concept of rights-based fisheries management and a move towards better defined and tradeable property rights in the ECIFF.*
- *The report reviewed the overall applicability of an individual transferable quota (ITQ) arrangement for the fishery, but considered it likely to be impractical and not cost--effective. The challenges identified in the application of ITQ arrangements for the ECIFF are common to small scale fisheries in general.*
- *The report recommended using “net length” as a tradeable unit in the ECIFF with initially trialling of this approach in the N2 (set net fishery). Initial allocation should be based on a tender process but with a cap on the on the maximum number of net per symbol. After initial allocation, net lengths could be traded between operators with mechanisms to reduce the amount net available overall in the fishery.*
- *It is recognised that this is a significant potential change to the management arrangements of the ECIFF and as such significant input from the fishing industry and the fisheries management agency is required.*
- *There needs to be a fundamental rethink into consultative and participatory frameworks for fisheries management in Queensland, including but not limited to the ECIFF.*
- *Industry led initiatives to further modify net fishing apparatus should continue to be encouraged, however the use of pingers is unlikely to yield conservation benefits.*

R19. 2011 Martin Salter, **‘Keep Australia Fishing’** Martin Salter April 2011, Report for the Boating and Fishing Council of Australia.

Easily downloadable from the ‘net. Host of good stuff. Well worth a browse.

R20. 2011 Recreational Fishing Advisory Committee, **‘Recreational fishing in Australia - 2011 and beyond: a national industry development strategy’** A Vision for Australia’s recreational fisheries is presented: “All Australians have the opportunity to enjoy the benefits of a sustainable, healthy and diverse recreational fishing experience.”



Ref. Year Reference and brief summary of some key points
no.

They list key principles for recreational fisheries as follows:

1. Recreational fishing is a legitimate activity that contributes to Australians' health and wellbeing at individual, family and community levels.
2. Healthy environments are fundamental to sustainable recreational fishing and fish resources.
3. Recreational fishers share in the stewardship of fish resources through partnerships in decision-making processes affecting recreational fishing.
4. The recreational fishing sector has the ability and desire to play a greater role in addressing issues affecting the industry.
5. Management decisions affecting recreational fishing should be based on sound scientific, ecological, social and economic information.
6. Recreational fishers and government should share the responsibility and costs of managing and enhancing recreational fishing.
7. Fish resource allocation should be based on providing an optimal range of social, economic and cultural benefits to the community.
8. Recreational fishers are encouraged to use best practices in all aspects of their fishing activities.
9. Recreational fishers and government should work in partnership to play a positive role in dealing with climate change.
10. Australian communities benefit by improving the range and quality of recreational fishing opportunities.
11. Responsible participation in recreational fishing provides valuable social and economic benefits and should be actively encouraged.
12. Recreational fishing can be a valuable addition to schools and other education programs on environmental studies, sustainable resource use, social responsibility and community health and wellbeing.



APPENDIX 1: TRINITY BAY COMMERCIAL NET CATCH DATA SUPPLIED BY FQ FOR GIVEN LOCATIONS.

The data for catch and effort for the last five years was provided to CAREFISH by FQ. They show aggregated catch and effort by species for the parts of grid H16, namely the squares or 'sites': 12, 13, 14, 17, 18, 19, 20, 23, 24 & 25 as shown in Fig. 1, below. Where there were less than five licences catching a species these were grouped into the category of "Other".

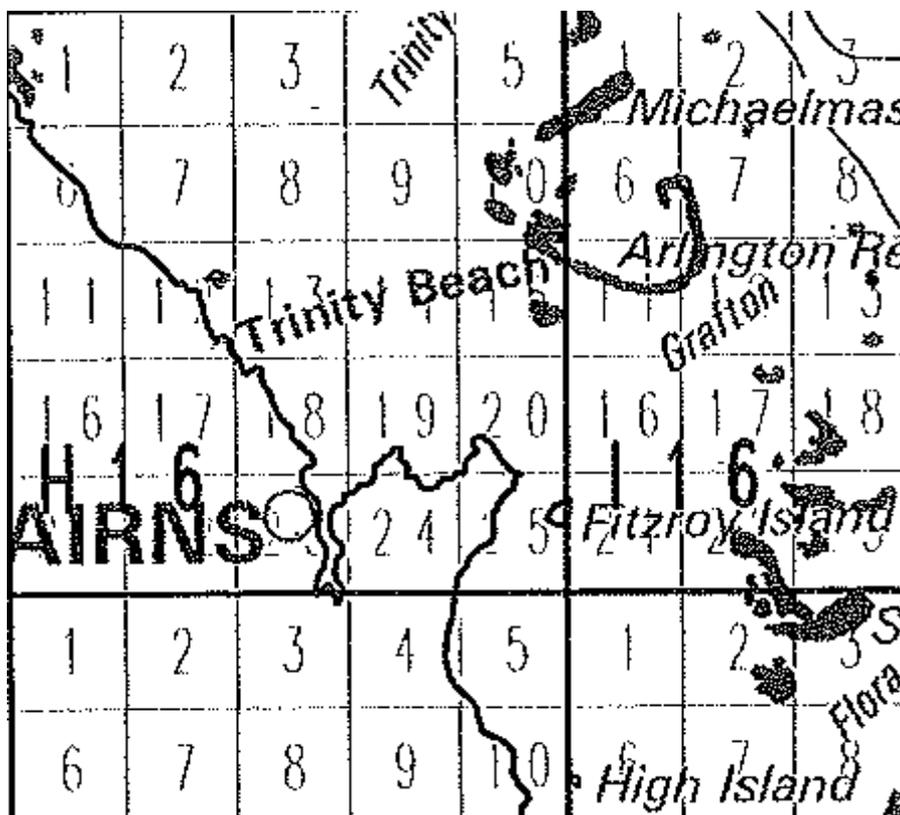


Figure 1: Map of High Island to Double Island showing Fitzroy Island and Cairns with main H16 grid squares marked and showing smaller numbered squares (sites)

With regards to information on catches by individual fishers, Fisheries Queensland is unable to provide catch by boat as this is deemed confidential information. Fisheries Queensland cannot release this information unless permission is granted from the licence holders. However the total number of operators across all the sites specified and a summary of catches is given in Table 3 as presented in the support letter for the public petition, below.

This represents over one million kilograms of fish in the last ten years. This is what is reported. This does not include by catch. Spaces left blank means that less than 5 licenses reported catch in that period. This invokes a legal requirement of 'commercial in confidence secrecy' and the catch then is included in the 'other species' column. Estimated totals are derived from the available data averaged times the number of years.



APPENDIX 2: CAREFISH PETITION DETAILS AND PETITION SUPPORT LETTER

PETITION TO BAN COMMERCIAL NETTING FROM TRINITY BAY, CAIRNS

To: The Honourable The Speaker and Members of the Legislative Assembly of Queensland. The petition of residents of the State of Queensland draws to the attention of the House:

The ongoing conflict between recreational fishers and commercial net fishers in the Trinity Bay Fishery, particularly the inshore waters off the coast between False Cape and Taylor Point (North end of Trinity Beach) including those parts of the Barron River and all creeks and estuaries that form part of that fishery

Your petitioners therefore request the House to: Acquire all necessary permits and licenses from commercial fishers (bait fishers only excepted) with fair and reasonable compensation in order to cease commercial gill netting in the Trinity Bay Fishery.

Principle Petitioner: Paul Aubin c/- Steve Wettenhall MP Member for Barron River
Parliamentary Secretary Assisting the Premier for Economic Development in the Far North
P: (07) 4038 2800 F: (07) 4038 2801 E: barron.river@parliament.qld.gov.au
Unit 7, Stanton Place, Captain Cook Highway. Smithfield 4878

Signature	Name	Address

Support Letter attached to the Petition forms

PETITION TO CLOSE TRINITY BAY TO COMMERCIAL NETTING

SOME FACTS AND FIGURES

There have been various efforts to make Cairns and its surrounding waters commercial net free for decades. After years of lobbying, Trinity Inlet and the Barron River were identified as two areas of special interest by Tom Burns and his committee in the so called “Burns Report” back in 1992.

Nothing happened until 1998 when Warren Pitt took it to election as a promise. Trinity Inlet was subsequently closed along with the mouth of the Barron River. A deal was negotiated with the commercial net fishermen who had history in the Inlet to give them exclusive net rights to Trinity Bay, which was defined as from False Cape to Taylors Point (north end of Trinity Beach).

Eight netters were named in the Fisheries Queensland Regulations 2008 and another one was not, making nine total. These became permit holders in the area and were made non transferable, that is the permit expired with the operator. Some of these have left the industry.

Some remain and are active and look like being so for some time yet. Conflict has continued between commercial and recreational fishermen. Meetings have been held during this last year to try to remedy this situation. The last meeting was in late August and this was facilitated by Steve Wettenhall MP State Member for Barron and attended by FQ. Representing recreational fishers



interest was CAREFISH (CAirns REcreational Fishing Industry Stake Holders) and the commercial fishers was represented by their industry co-ordinator QSIA (Queensland Seafood Industry Association).

Data collected from FQ (Fisheries Queensland) demonstrates the level of netting effort logged is considerable. The following table shows the last six years reported catch in the area roughly from Double Island to Fitzroy Island. The data is in kilograms.

Table 3: Commercial Net Catch and effort for Cairns Smooth and Partially Smooth area, corresponding to grid H16 squares or ‘sites’: 12, 13, 14, 17, 18, 19, 20, 23, 24 & 25. Figures are whole weights of fish in kg.

Year	Barra-mundi	King Threadfin	Blue Threadfin	Grey Mac	Queen-fish	Shark mixed	Other exc bait	Year Total	Net Days	Licenses Reporting
2005	6081	9537	3345	18412	14383	331	41356	118175	1705	14
2006	6926	15169	4705	14600	13530	308	64146	139107	1443	13
2007	-	11026	3211	23098	10256	288	40196	110120	1106	8
2008	-	857	2385	15094	15501	492	41857	118519	1421	13
2009	-	7074	1584	-	15624	187	20445	87682	861	11
2010	-	7469	2707	-	4998	-	19582	34757	397	8
Est Total	39018	58632	17940	106806	70968	1926	227580	608360	6933	na
Av/annum	6503	9772	2990	17801	11828	321	37930	101393	1156	11

Note that spaces left blank in the above table mean that less than 5 licenses reported catch in that period. This invokes ‘commercial in confidence secrecy’ and the catch then is included in the ‘other species’ column. Estimated total is the available data averaged times the number of years (6). This represents well over one million kg of fish taken in the last ten years. This is what has been reported. This does not include by-catch.

**If you want to regain your fishery, then sign the petition.
And get your mates to do so as well. Now. Time is ticking.**

An e-petition is also available at Steve Wettenhall’s website /petition.



APPENDIX 3: FOUR PUBLIC PETITIONS TO GOVERNMENT TOTALLING AROUND 5,000 QUEENSLAND SIGNATURES REQUESTING REDUCTIONS IN LEVELS OF GILLNETTING

Ref. No.	Date: yyyy.mm.dd	Title and outline/summary
P1	2006.08.16.	Petition organised by Lester McDonald and commercial fisher Mark Harris requesting the closure of the grey mackerel fishery off Snapper Island to any gill netting in keeping with a long held gentlemen's agreement observed in the Douglas community. Petition had 658 signatures of persons with interests in fishing in the then Douglas Shire and was presented to local State MP Jason O'Brien.
P2	2011.05.25	Petition to Legislative Assembly, principal petitioner Michael Hale, head ranger, Yuku-Baja-Muliku, Archer Point Land Trust, Cooktown listing concerns about sustainability of commercial gillnetting in the Annan River estuary near Cooktown, unreported levels of drownings of turtle and dugong in gillnets and the value of recreational and tourism fishing outweighing value of commercial fishing in region. Requested closure of areas to all commercial gill netting and a recognition of the values of recreational fishing to the area. 18 Traditional Owners from Cape York signed the petition.
P3	2011.05.	Petition to Legislative Assembly, principal petitioner David Cass. Cooktown Fishing Restoration Group, listing concerns about sustainability of commercial gillnetting in the Annan River estuary near Cooktown, unreported levels of drownings of turtle and dugong in gillnets and the value of recreational and tourism fishing outweighing value of commercial fishing in region. Requested closure of areas to all commercial gill netting and a recognition of the values of recreational fishing to the area. Around 950 persons mostly from Cooktown and elsewhere in Cape York signed the petition.
P4	2011.11	Parliamentary Petition arranged by Paul Aubin of CAREFISH and local Member of State Parliament for Barron River, Steve Wettenhall. The call was for a closure of inshore waters around cairns to all gillnetting. The online petition ran for just three weeks and attracted 674 Qld voters with 38% of the votes being given in the last 30 hours of the petition indicating a last minute increase in awareness of the petition. An additional 2,300 'hard copy' votes were gathered on the street by the CAREFISH campaign in the three weeks including 252 in three days from the Douglas Region. After the survey closed several hundred more signatures were found on forms in various unofficial locations where individuals had taken the forms and they had not been collected on time. Total signatures over 3,000..

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