



Queensland Seafood Industry Association

Submission to the Marine Mammal Legislative Review

January 31, 2012

1. Introduction

The Queensland Seafood Industry Association (QSIA) is the peak industry body representing the Queensland Seafood Industry. Our members include commercial fishers, seafood processors, marketers, retailers and other businesses associated with the seafood sector across the State. Our representation to members and the community at large is to promote the consumption of wild caught Queensland Seafood.

The QSIA is pleased to make a submission to the State government through the Queensland Parks and Wildlife Service and the Department of Environment and Resource Management (DERM). The QSIA has considerable concerns regarding the review and potential impacts for commercial fishers with respect to special management declarations to protect species of conservation interest (SOCI).

2. Value of the Queensland Seafood Industry

According to the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) in 2009-10, the gross value of production (GVP) in Queensland increased by 6% (\$17.1 million) in 2009-10 to \$323.7 million; wild-catch production accounted for \$222.5 million, or 69%, of this value. The aquaculture sector accounted the remaining \$101.2 million.

Table 1

Wild Harvest and Aquaculture GVP (\$ millions)

Species	NSW	VIC	QLD	WA	SA	TAS	NT	Commonwealth
Wild Harvest	80.5	47.8	222.5	271.9	201.4	171.6	31.2	316.7
Aquaculture	52.4	10.3	101.2	95.8	193	392.2	25.5	-

Source: ABARES (2011, pp.8-16).

It is clear that the Queensland seafood industry makes a significant contribution to the State economy; see Table 1. The QSIA recognises this and it also acknowledges that on multiple policy fronts access to commercial fishing stocks remain under threat from resource exclusion efforts from some recreational fishing advocates and minimal support from State or

Federal governments in terms of maintaining access to fisheries. The QSIA does not support the development of legislation that will have the potential effect of restricting access to commercial fishing stocks.

3. Industry Concerns

This submission provides an overview of concerns held by industry regarding the legislative review undertaken by DERM. The review is a means for the government to recover from significantly negative media coverage regarding turtle and Dugong mortality in 2010/11. By declaring greater protections for SOCI the potential for commercial fishing impacts is real and once again commercial fishers will need to accommodate conservation legislation in order to operate. All the while, the real threats to the conservation of marine mammals continue.

3.1. Special Management Declarations

Special management declarations will give the authority, via legislation, to the State and in particular DERM to pursue lock downs that could impact commercial fishing. The legislation will provide another tool for non-government organisations (NGOs) in the conservation and recreational fishing sectors to impact on Queensland commercial fishers. Areas that could be shut to 'dangerous activities' will be and this may lead to negative implications for commercial fishing. What State agency or department will compensate fishers for loss of access and loss of income if a commercial fishing area is closed?

The capacity to declare special management declarations in situations where SOCI may have been impacted for any number of reasons other than commercial netting activity will create incentives for multiple NGOs to push for closures of areas. This will increase the political pressure to declare closures that may be incompetent but fulfil aspirations for anti commercial fishing lobbyists.

The QSIA notes that the review is focused on the east coast, therefore it is important to avoid a one size fits all approach. Separate arrangements will need to be considered for the Gulf of Carpentaria and other regions and as such further consultation will be required with the relevant stakeholder groups.

3.2. SOCI Working Group

The SOCI Working Group is comprised of key fisheries stakeholders including (1) industry represented by the QSIA, (2) the state government by Fisheries Queensland and DERM, (3) Federal government by the Great Barrier Reef Marine Park Authority, (5) conservation bodies by WWF.

This group's work should have been made available to DERM prior to the development of the review. Given the initial consultation period was set to end on 9 January 2012 and was extended demonstrates that DERM did not allow enough time for community or industry consultation. If the working group's processes had been made available the commercial fishing industry should have been consulted.

3.3. Commercial Fishing and Regional Concerns

Industry has been working proactively and has implemented certain restrictions to address interactions with SOCI. Some of these restrictions include but are not limited to, limiting net

drop in sensitive areas as a condition of license, limiting line strength to line 40, limiting net lengths any one net, attendance and trialling pingers.

3.3.1. Queensland

- Given the commercial fishing industry's experience with conflict directed at our industry from those seeking greater recreational access to particular waters in order to benefit recreational fishing businesses, we expect that allowing commercial whale watching with/without permits outside of marine parks is likely to create the potential for greater conflict over presence in particular fishing grounds as new commercial whale watching businesses potentially could claim more right to these waters in order for their businesses to succeed. This could potentially give greater impetus to recreational fishing claims to have commercial fishing grounds further reduced.
- The level of increased conflict directed against commercial fishing operations (particularly netting operations) would be expected to be in direct proportion to the numbers of these new whale watching businesses. Having no permits would most likely have the effect of ensuring that there would be potentially more of these businesses developed than what would be developed if permits were implemented therefore it would be expected that the level of conflict directed against commercial fishing would be potentially much greater without permits than with permits. Consequently, imposing no legislative permit requirement on these new operators would not be a position that could be supported by commercial fishers. No permitting arrangement also means that the department will have no data on how many of these possible businesses may operate in a given area and how to subsequently manage that sector.
- Allowing these operations outside of marine parks and other areas already closed to commercial fishers is to be considered with caution as there is already questions over whether there is sufficient fishing ground left to commercial fishers to allow them to spread their fishing activities in order for their businesses to be currently viable and sustainable for the long-term. Allowing greater competition over these same grounds would then give the impression of government favouring commercial tourism enterprises over commercial fishing businesses: which position is not the government's prerogative, especially since 90% of the public want and expect to have consumer access to seafood resources and the majority of those members of the voting community prefer to have access to local supplies of seafood as opposed to imported product.

3.3.2. Gulf of Carpentaria

- Restrictions to commercial operations should be considered with caution due to the resulting effects of displaced effort. Any potential restrictions must undergo adequate consultation with the commercial sector and if implemented must provide for relevant adjustment packages.
- High mortalities result from the accumulative effects of major flooding events, TO hunting, black market trading, interaction with ghost nets, port development, pesticide run off and interaction with commercial fishing activities (refer to extensive formal observer data that has been undertaken in the Gulf N3 and N9 fisheries).
- Boat strikes in the Gulf are a non-event according to local commercial fishers. Closing areas and imposing restrictions to commercial fishing in the first instance to ensure population retention or population growth of marine mammals may not address any concerns about SOCI populations.
- The Gulf has the Wildlife Protected Area that encompasses the Wellesley Islands. Nearshore nets are limited to 33 mesh drop and 100 mts (from 600 mts any one net) and offshore nets are limited to 400 mts (from 600) no more than line 40. A review of these restrictions would perhaps demonstrate that they are ineffective and unnecessary. Implementing these restrictions is an example of trying to do the right thing but not

achieving anything other than to unnecessarily impose restrictions on commercial netting activities.

- Speed limits and go slow areas have the same effect as commercial closures by making the area unviable to operate. In order to police this system, in other counties they have had to go as far as implementing no go areas.
- QSIA recognises and congratulates TO's in the work they are doing to address effort creep of indigenous hunting.

3.3.3. Use of Pingers

- It has been argued that pingers scare animals, prevent natural travel, become less effective over time. Pingers have proved to be successful in other fisheries around the world, see **Attachment 1** for further information.
- River set nets are not the same as foreshore are not the same as offshore - if pingers were to be useful, their utility may only apply to the offshore and foreshore.
- Overall, there seems to be a lot of unknowns regarding pingers and dugong. The QSIA cannot advocate for one approach over another until more Australian based research has been undertaken. If additional research were to take place industry, conservation and fisheries agencies as well as researchers would need to take a joint approach.

3.4. Accidental take of Dugong

- With regard to the accidental take of dugong, currently fishers are subject to Dugong Protection Zoning, attendance rules, Green and yellow zonings, and gear restrictions.
- Conscientious commercial fishers have modified their practices by implementing shorter net soak times, running their nets and avoiding areas of known dugong presence and trialling other legal modifications to nets in order to further reduce the risk of interactions with these animals. However some fishers still admit to using practices which may still result in interactions. These fishers need to be encouraged to learn from those who are implementing better practices and subsequently modify their own practices to reduce their interactions.
- Commercial fishers' operations have repeatedly been subjected to changes to regulations and legislation in response to the application of the precautionary principle. During 2011, Gladstone fishers were subjected to a temporary cessation of fishing activities in response to a precautionary principle applied to the extraordinarily high incidence of turtle, fatalities and illness in the region.
- Whilst controversy still surrounds the actual determination of the cause of the deaths, simply comparing the death rate for these animals at Gladstone where the dredging activity is being undertaken with the death rates in other areas along the Queensland coast suggest dredging activities could be a contributing factor. If similar death rates occur during future port developments elsewhere, then the Gladstone port development would most likely be accepted as the cause of the deaths but no-one can wait so long. Surely precautionary principle should apply if the animals truly are as threatened as has been indicated when commercial fishing activities have been blamed. Should precautionary principle allow similarly high incidences of deaths to occur again by waiting to see what consequences of the future developments take place?
- Whatever the cause of these deaths, commercial fishing is not implicated and yet the industry has borne the major impost with lost earnings and lost seafood supplies and was immediately shut down using the precautionary approach despite there being no blame attributable to industry. A similar precautionary approach has not been taken towards the port development activities and deaths have continued to occur.
- This scenario consequently indicates that the numbers of dugongs taken accidentally by commercial fishers is certainly not a major issue to be concerned about since the level of concern over a much greater degree of impact on SOCI within the Gladstone harbour

has not been sufficient to activate applying the precautionary principle to cease activity which could be potentially the most likely cause, especially considering deaths to this extent have never occurred there before and nor has dredging to the extent that it is currently being carried out. This indicates that the number of dugong taken accidentally by commercial fishers really is not enough to be concerned about to the extent that has been acted upon prior to the events of Gladstone Harbour.

- Is there legislation affecting port development works which is comparable to the requirements by commercial fishers to report interactions with SOCI? If not, why not? If not, then there is no justification for raising the penalty for commercial fishers' noncompliance with reporting interactions with these animals. However, there is probably a justifiable case for drafting legislation regulating such development activities in an effort to protect these animals if their stocks are as vulnerable as industry has been led to believe, and as has reportedly necessitated the extensive regulating of commercial fishing activities, and if the government is sincere in its commitment to protecting these marine animals.
- Incidental catches by commercial fishers has apparently not exceeded the birthrate since the stocks increased in numbers in spite of the presence of many more commercial net-fishing operations than are currently active and in spite of much less protected habitat than is currently declared.
- The government's response to the deaths of these animals in the Gladstone region and the fact that the increased numbers of dugongs may be about to prove too many for greatly reduced habitat as a result of present and proposed port and other developments, implies that the occasional collateral damage of accidentally caught dugongs from fishing activities has been exaggerated.
- To apply any additional penalties or regulation to commercial fishing activity under the circumstances, indicates unwarranted governmental discrimination against the commercial fishing industry and insincerity on behalf of government towards truly protecting dugong stocks and habitat.

3.5. Co-Management

The following issues have been derived from the ongoing work to help develop a sustainable and regionally based system of co-management. The QSIA, Great Barrier Reef Marine Park Authority (GBRMPA), Fisheries Queensland, DERM, recreational fishers and scientists have invested considerable time and effort to ensure that regional management delivers positive outcomes to all involved.

3.5.1. Regional Co-Management

Both State conservation agencies DERM (Qld government) and GBRMPA (Federal government) are supportive of regional co-management. In the Queensland context the Burdekin region has provided a good model of co-management which has led to win-win scenarios for industry and government.

The strength of co-management approaches is flexibility in the approaches taken and that all stakeholders have the capacity to advocate for change. The underlying strength of the Burdekin region's approach is the capacity to deal with trade-offs. No one interest group will get everything it wants but neither will one group continually lose out either.

A co-management approach allows local stakeholders to take a stewardship role over the marine ecology and to deal with issues as they arise.

3.5.2. Port Development

Commercial fishers in Queensland have witnessed the growth in port development and as a result impacts on the marine ecology. Port development will continue to impact the marine ecology and will have direct impacts on the viability of seagrass which in turn are a food source for species such as Dugong.

3.5.3. Compensation

State and Federal government agencies have a history of providing some type of compensation to fishers after the introduction of fishing closures. Closures have the effect of displacing fishing effort. More could be done by governed to buy net licences from commercial operators to remove effort pressure.

3.5.4. Complementary Zoning

The State government helped to create a displaced effort problem through the introduction of its various marine parks and complementary zoning plans. Conservation agencies (i.e. DERM) must address their role in fisheries management and all of the impacts after the introduction of legislation and regulations that impact the way in which commercial fishers operate.

3.6. Consultation Process

- The DERM website notes an extension to the consultation process. Commercial fishers by in large did not have an opportunity to comment on the information document developed by DERM or to voice potential impacts on the sector. Once again the process engenders little trust between industry and the State government - why was the process so rushed? The QSIA was advised by a local fisher that:

'This review has had no input by Tin Can Bay, coastal businesses or the Gympie regional community. No local meetings were called to discuss the impacts on the Tin Can Bay Dolphin feeding program, impacts to commercial fishing, interpretation of proposed criteria, proposed problems with fishers and others and impacts with changes to the dolphin feeding.

4. Recommendations

- No restrictions on commercial fishing.
- Review current restrictions to assess their effectiveness.
- Consider management arrangements on a regional basis rather whole of state.
- Continue with the voluntary observer programme. Incorporate Indigenous Rangers into the observer programme (voluntary) to help on commercial fishing boats recording catches and any interactions with SOCI and bycatch.
- For example, in the Gulf a joint stakeholder approach could be taken to address any concerns about potential interactions with commercial fishing activities and the benefits of this would be to strengthen relationships and build trust between TO's and commercial fishers.
- Commercial fishers Including prawn trawlers and TOs, recreational fishers and tour operators, and barges/ships log and report sightings of SOCI as well as any interactions to gain a better idea of numbers.

- Commercial fishers, TO's and local recreational fishers establish real time reporting via UHF, phone or email (where possible) to notify other fishers/boaties and DERM of SOCI activity (voluntary).
- TO's may want to consult with DEEDI (Fisheries Queensland) as well as DERM when considering management arrangements for traditional hunting. Total allowable catch (TAC), closures and other restrictions may seem appropriate but experience has shown in fisheries management (worldwide) that problems arise from all these options so we recommend a collaborative approach.
- A database is created to track Dugong and sightings of SOCI to allow fishers to check where there is high SOCI activity to help fishers avoid interactions. The database should be created as a project between industry and government.
- TO's would be well advised to consult with DEEDI as well as DERM when considering management arrangements for traditional hunting. TAC's, closures and other restrictions may sound good but experience has shown in fisheries management that problems arise from all these options so we recommend a collaborative approach.
- Funds be made available to reduce netting endorsements throughout Queensland including the Gulf of Carpentaria.

5. Submission Contact

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Queensland Seafood Industry Association. FIRG submission North Marine Bioregional Plan.

Attachment 1

The most up to date summary has already been provided in McPherson (2011). The summary, with references, is on pages 2-3 of McPherson (2011) and focuses on the following areas: (1) US east and west coasts; (2) South Africa; (3) European Commission; (4) South America - Peru; and (5) Zanzibar.

The data provided generally considers the pingers that function correctly or generally meet their own manufacturers specifications. Some pingers notably the SaveWave have particularly poor acoustic performance (or non-performance) and they have not been considered. Some academics have seized on non-performance issues as examples of pinger failure. Pingers are now made by fewer manufacturers and overall pinger effectiveness has increased.

1. The United States (US)

The US has been using pingers as long as, probably 4-5 years less time, than they have been in used in Queensland (starting with the Queensland Shark Control in 1991). Professor Jon Lien of Memorial University introduced the first alarms to both Queensland and the Canadian and US east coast fisheries. In Canada, Professor Lien was awarded the Canada Medal for his bycatch mitigation work, while also the long-time Fisheries Adviser to the Canadian Minister for Fisheries and Oceans.

1.1. US - East Coast

After 16,000 net sets and many years Palka et al (2008), the senior East Coast NOAA statistician, demonstrated that while an initial trend of reduced surfacing distances to pingers was observed no increased bycatch ever occurred. The habituation warned about never happened in the form of the much warned about assumption that the result of habituation would be increased gillnet mortality. In other words the habituation claims about pinger with harbour porpoise, and any other mammals, was always made by marine mammal biologists were groundless.

1. Deterrent from the pinger, and that included the extremely loud anti-seal Acoustic Harassment Devices that are as loud as echo sounders; and
2. Deterrent from being entangled. Despite their care in defining the two components most mammal scientists since simply use deterrent in sense 1) above, being deterrent from pingers.

The summary paper of Read et al. 2003 made it clear that early alarm such as 10 kHz ones simply functioned as alerting devices for inattentive dolphins a reference that originated back to the first development of alarms/pingers by the Japanese and Canadians in the late 1980's. So taken from Read et al 2003, dolphins become entangled when they are unaware of the net, or are distracted by other stimuli in its vicinity (see Perrin et al, 1994).

Under this scenario, entanglement is the result of navigational errors, much as road traffic accidents occur as a result of inattention or mistakes made by human drivers. If this hypothesis is correct, then making the net more detectable to a dolphin might reduce the incidence of entanglements. As noted by many other researchers (see Perrin et al, 1994), there are at least two options to make a gillnet more detectable to a dolphin:

1. Placing sound makers, such as acoustic alarms, on the net; or
2. Making the net material more detectable to an echolocating animal.

1.2. US - West Coast

The best way to summarise the west coast data is to present the major works of Barlow and Cameron (2003) and the more recent Carretta and Barlow (2011). These are one of the most definitive research works of NOAA (US Fisheries) on pingers.

There is simply no way that anything negative could be construed about pinger incorporation into fisheries to mitigate bycatch from these papers of the once senior West Coast marine mammal NOAA statistician and now probably the entire US. Carretta and Barlow (2011) note that pingers work best when they are working, a rather tongue-in-cheek way of saying that pingers are most effective when they are:

1. Actually used;
2. When the pingers actually work; and
3. The pingers are deployed on nets correctly.

2. South Africa

Conveniently not often mentioned is the 1999 work that demonstrated a clear mitigation of bycatch of IndoPacific humpback dolphins in Natal Shark Control nets at Richards Bay. The water was a strong surf area with turbid water and a high bull shark population. The Aquatechpinger reduced bycatch and led to dolphins functioning more aggressively in that habitat as they were clearly more aware of the locations of the nets with no evidence of habituation. Mammal scientists out of Natal also conducted observation work with dolphins looking at surface behaviour and entrapment rates in the mid 2000's. They found one pinger type attracted aggression behaviour to the pinger. South African mammal biologists were told that Gulf Fishermen worked this out in the early 2000's and stopped using that specific pinger. Despite the warning no Government Shark Control Programme stopped using this alarm and mortalities continued.

The biggest concern with the South African work was their observational studies. The Natal nets were 300m long and should have had 4 pingers on the net. Pinger makers indicated that pingers in offshore situations should be a max 100m apart. For even higher background noise situations in South Africa only 2 pingers were used and the mammal biologists wondered why they had mortalities despite them being warned about the inappropriate spacing. Pingers were placed 70m from the end of each net and the two pingers being 140m apart. They certainly had unnecessary entanglements but the track paths of dolphins were away from the long lines of nets when pingers were active.

3. European Commission

Two recent research reports Kingston and Northridge (2011) and Northidge et al (2011). A range of pingers are trialled in both bycatch mitigation and depredation mitigation (e.g. inside fish trawls) situations. In many cases the pingers are not in question as research has moved on to optimise deployment. Work is underway in Portugal where preliminary published data suggests entanglement/entrapment mitigation in European purse seine fisheries.

4. South America - Peru

Not much more can be said really. They tried pingers at double deployment distances and achieved a result. If they had more pingers the more preferable situation would be to deploy at recommended spacing to suit the capability of the pingers.

5. Zanzibar

McPherson (2011) described the use of Fumundapingers in Zanzibar and how they are proving successful in mitigating bycatch. An explanation of the difference between statistical significance and the more logical biological relevance in rare event ecological events such as dolphin entanglement is discussed. The description and references to the Zanzibar fishery and its comparative similarity to Queensland are given in McPherson (2011).