CCSA Fish Forum 5 – Summary
Marine Parks & fisheries: where is the common ground?

21st February 2010

Editor – James Brook

1 Attendance

Approximately 65 people attended the forum on 2nd December, 2009, including representatives of:

- CCSA
- Friends of Sceale Bay
- The Wilderness Society
- DEH
- PIRSA Fisheries
- Australian Government
- Wildcatch Fisheries SA
- SA Sardine Industry Associations
- SARLAC
- South East Professional Fishermen's Association
- SA Blue Crab Pot Fishers Association

2 Presentations

The following summaries have been confirmed by their respective presenters as being an accurate summary of the views they expressed on behalf of themselves or their organisations. However, where presenters have themselves referred to statements made by others, it has not been possible to apply the same level of scrutiny.

2.1 James Brook, CCSA (Fish Forum Convenor)

James Brook welcomed the audience and called for respect for all stakeholders and constructive debate on the issues, noting that some previous public statements and images had been intended or interpreted as being inflammatory.

He gave a brief introduction as to why the Conservation Council had chosen this particular topic. The reasons related mainly to barriers encountered during stakeholder working group meetings, earlier in 2009, to discuss Marine Park boundaries, including statements that:

- Threats have not been identified
- Fishing is not a threat to biodiversity
- Our fisheries are well managed so 'no take' areas are not required
- Marine Parks are not about fisheries management

James made reference to the National ESD reporting framework for fisheries, which included components on stocks, bycatch and protected species, and broader ecosystem impacts. He very briefly summarised previous research on the benefits of closed areas for managing fish stocks, acknowledged that such approaches were in their infancy in SA, but conveyed the concern amongst conservation NGOs about the status of fish stocks as reported by PIRSA, with six stocks overfished.

He referred to a recent (2008) document on threats to marine biodiversity from the Marine Biodiversity Decline Working Group under the Marine and Coastal Committee of the Natural Resource Management Ministerial Council. He specifically focussed on the threats to ecological processes and trophic levels that had been identified by that report.

He noted examples from SA fisheries where closed areas (Sanctuary Zones) could play a role in addressing broader ecosystem impacts, and highlighted a number of other benefits provided by Sanctuary Zones, including their potential to:

- provide reference areas
- address cumulative impacts
- provide focus areas for other conservation tools
- provide insurance against management failure
- increase resilience
- enhance education and eco-tourism opportunities

He noted that if the extent of Sanctuary Zones in SA was consistent with precedents elsewhere, that a shift in thinking may be required to give greater consideration as to how such areas could provide additional benefits for fisheries management.

He concluded by reiterating that:

- The threat of fishing to marine biodiversity has been widely acknowledged
- Sanctuary zones are a vital tool for addressing this threat in a number of ways
- This will help to address an important gap in current fisheries management – broader ecosystem effects

2.2 Jon Emmett, DEH Marine Parks (Senior Project Officer)

Ecologically sustainable development

All Australian governments are committed to ecologically sustainable development (ESD).

Some sections of industry have put the view that sustainable fisheries management meets all conservation needs. Sustainable management is important, but is not the same as, nor a substitute for conservation. We need both sustainable use and conservation to achieve ESD.

[Editor's note: refer also to slide from Jon Emmett's presentation, re ESD – EBM – EBFM – EBCM – EBXM]

Marine ecosystem-based conservation management (EBCM)

Marine Parks have been chosen as a key tool for ecosystem-based conservation management (EBCM) in SA. Other conservation tools are also available, but the Government has chosen marine parks. This is consistent with both national and international action.

Scientific consensus

There is broad scientific consensus nationally and internationally that where conservation is the objective, marine protected areas are very effective. There is debate around the effectiveness of marine parks for fisheries management objectives, but the Government is not doing marine parks in SA for fisheries management purposes – this is PIRSA Fisheries' task. In SA, marine parks are being done to satisfy the objective of conservation, and the vast majority of scientists worldwide agree that marine parks are a very appropriate tool for this task.

Objects of Marine Parks Act 2007

The conservation objective for marine parks in SA is reflected in the Objects of the Marine Parks Act 2007, which are:

- Conserve and protect biodiversity, habitats and ecological processes
    - CAR system of marine parks as the mechanism
- Assist adaptation to climate change
- Conserve and protect natural and cultural heritage
- Provide for sustainable development and use
- Provide for public education and enjoyment of parks

The Act amends 12 other South Australian acts.

All other South Australian government agencies must assist in achieving the objects of the Marine Parks Act.

Design Principles

The Design Principles were used to design the outer boundaries released for comment early in 2009. They are currently being added to with extra zoning principles. The principles have been developed specifically to deliver the Objects of the Marine Parks Act.

The Design Principles have been criticised by Prof Kearney and the fishing industry. However, the design principles are entirely consistent with those in other states and the Commonwealth. So to criticise the principles underpinning marine parks in SA is to criticise the principles across other Australian jurisdictions too, as well as internationally recognised best practice design of marine parks.

What is being protected? Protected from what?

The fishing industry has told the Government that marine parks should only be established where there are known threats to the marine environment. Or, in other words, if it is not threatened, there's no need to protect it. This view represents a fundamental misunderstanding of the aims and objectives of the marine parks program.

- What is being protected? Marine biodiversity. We are seeking to protect representative samples of all marine species, habitats and ecological processes in SA – not just the species we catch and eat.
- Protected from what? Existing threats and possible future threats. Existing threats will be considered in marine park design. But marine parks are also about the future. They will establish protection now in anticipation of future, currently unforseen threats. The primary design driver of SA marine parks is to comprehensively and adequately represent samples of all our marine biodiversity. In other words, we will seek to protect samples of our marine biodiversity now even if no threats are currently known in an area. It makes no sense to wait until an ecosystem is showing signs of degradation before taking steps to protect it.
- This approach is entirely consistent with internationally recognised protected area design principles. The view being put by the fishing industry is out of step with best practice protected area design.
- Industry approaches an issue like this from its own management perspective, which seeks to maximise sustainable yield and respond to pressures as they arise. A fully-fished fishery means that the industry and Government managers are doing their job well. However, sustainable management operates close to the edge of sustainability in order to maximise yield. Conservation management, on the other hand, is very different in its philosophy. It operates well back from the edge of sustainability because it seeks to maintain ecosystems in natural condition and anticipate threats before they arise.
- It is important to accept that the two approaches are different and suit the purpose for which they were devised. Marine parks are the appropriate tool for the conservation task and fisheries management is the appropriate tool for managing fishing. It is not that one approach is right and the other is wrong.

Marine parks are about getting ahead of the game and protecting marine biodiversity now, while it is still, in most areas, in reasonably good condition. Future restoration is not an option. It is too difficult and too expensive.

What are the pressures/threats?

The Government has been told repeatedly by industry that the threats to the marine environment haven't been identified. The Government's view is that threats have been identified at length and in multiple documents.

There is national and international consensus that marine biodiversity in Australia and elsewhere is under pressure and declining. There is broad acceptance of these potential threats:

- Introduced species
- Climate change
- Resource use (fishing, mining, tourism, development etc)
- Land and marine pollution

Key documents identifying threats include the 2004 Baker report, including about 180 pages of threat analysis, the 2008 State of the Environment Report and the very comprehensive 2008 National Approach to Addressing Marine Biodiversity Decline. The latter was recommended to the audience as essential reading on this issue.

Marine parks – what role in threat management?

Marine parks have a role to play in managing threats to biodiversity but can't possibly solve all threat issues. Nor should they be expected to. The Government has said marine parks are not a panacea and that all agencies with marine management responsibilities have a role to play in protecting biodiversity. Marine parks can provide a mechanism to help integrate multiple agency efforts.

Managing pressures within marine parks:

- Existing agencies will retain current responsibilities
- Marine Parks Act is progressive and requires all agencies to deliver the objects of the Act
- For example, land-based pollution – in developing marine park management plans DEH will work with the EPA and the NRM Boards to develop strategies to help address this threat.

Therefore, marine parks influence far more activities than simply fishing, as has been suggested.

The roles that marine parks do play in managing pressures include:

- Area or spatial management is a very good means of reducing resource use pressures in selected areas and hence the cumulative impacts of resource uses
- Protection for ecosystems or species which are vulnerable to pressures
- Protect ecological connections at local scales, ie within individual parks, and at landscape scales, ie between parks

- Develop resilience against the impacts of climate change (there is international endorsement of the value of parks in preparing for climate change)
- Establish baselines and reference sites for monitoring – helps us to measure the effects of all of our activities by having benchmarks kept in as natural condition as possible. Professor Colin Buxton has endorsed the use of highly protected areas as baseline reference sites.
- Improve knowledge of marine ecosystems through targeted research programs
- Assist the integration of multi-agency management efforts
- Help generate partnerships between government, community and industry

Jon also concluded the forum discussion (see below) with an update on the forthcoming process:

- The outer boundaries were released earlier this year
- Some boundaries changed due to public consultation and working groups
- DEH is currently commencing the management planning phase, developing management plans including zoning. It is worth recognising that this is a large multi-stage process and will take time to complete. The Local Advisory Groups (LAGs) will assist in the development of management plans, including zone design. Membership of the LAGs is currently being finalised and the first meetings will be held in the new year. There is at least another 12 months before the release of the management plans with zoning for public comment. The involvement of the local community and the broader public is welcomed. One function of the LAGs is to engage their broader communities to make sure everyone in their community with an interest in this process has an opportunity to participate. They will need the broader community to bring information to the process. Marine parks cannot be designed to minimise impact on people without information about where and how the community uses its local areas. The consultation process aims to create a win for the environment and a win for the communities around the state.
- DEH are always interested in ways to engage the community better, as this is a huge task they have before them. No other place has attempted to develop 19 large multiple use marine parks simultaneously.

2.3 Kelly Crosthwaite, PIRSA Fisheries (General Manager, Fisheries)

The overriding object of the Fisheries Management Act 2007 (FM Act) is Ecologically Sustainable Development, and the principles prescribed to achieve that objective include:

- Avoid overexploitation
- Explicitly allocate access to each fishing sector
- Protect and conserve habitats and ecosystem
- Optimally utilise the resource
- Precautionary principle

Management plans are central under the Fisheries Management Act regime. In developing a management plan, each fishery has to undertake an ecological risk assessment process. PIRSA uses the national ESD framework, which assesses risk in relation to:

- Target species
- Non-retained species
- General ecosystem impacts
- Community (incl. Aboriginal)
- Governance
- External factors affecting fishery

Links with Marine Parks:

- FM Act is formally linked to the Marine Parks Act
- An ecosystem-based fisheries management approach in developing management plans
- Spatial closures are used for fisheries management purposes and there may be situations where this coincides with a conservation purpose
- Impacts on protected species from fishing are mitigated under fisheries management arrangements. Again, this is likely to coincide with conservation purposes.

Where is the line between fisheries management and conservation?

- Fisheries management is moving from stock management to ecosystem based fisheries management (EBFM)
- EBFM can be achieved via range of tools including spatial management (but not limited to this)
- Biodiversity conservation protects habitats and ecosystems
- Marine Parks are the tool that has been chosen by the government to achieve marine biodiversity conservation objectives.

The line between fisheries management and conservation is NOT black and white. EBFM is near the conservation end of this spectrum (refer diagram in presentation).

Marine parks are not a tool for achieving sustainable fisheries management, or for responding to overfishing. The 2007 report on the status of fisheries in South Australia (published by PIRSA) classified a number of fisheries as 'overfished' and requiring management action. In all of those fisheries, fisheries management arrangements have been introduced to address those situations including quota reductions and effort reductions. This is a separate process to marine planning and marine parks are not a tool designed to respond to issues in relation to the exploitation of a fish stock.

2.4 Professor Bob Kearney

1. He is an opponent of the current systems of Marine Parks in NSW and SA because they are inadequate conservation measures to address threats in the waters of both states. They are an inappropriate and inadequate response to the known threats to marine biodiversity and they are certainly not a cost effective means of addressing the real issues.
2. The science used in both states is neither accurate nor precise. The documentation provided is disproportionately biased by inclusion of data and inferences that represent advocacy and not relevant science, including disproportionate use of reports of recovery in South East Asian areas that had in the past been devastated by destructive practices, such as dynamite or cyanide.
3. He is concerned about the incremental creep of exaggerated claims of benefits from marine parks, which mislead both conservationists and the public, and therefore lead to unjustified expectations in the outcomes from parks and thereby decreasing attention to the real threats to aquatic ecosystems.

Professor Kearney noted that his report commissioned by the fishing industry (and posted on the Fish Forum website) was only one of two parts of the report he had written, however the second part, in which he described his concern with the design principles used by DEH, appears not to have been made publicly available. Professor Kearney wanted to clarify that his comment in the public report, regarding the lack of threat identification by DEH, was stating that the threats were not appropriately identified in the current documentation and not addressed in the process of declaration of marine parks in South Australia. He acknowledged that the threats had been identified in earlier processes (e.g. Baker 2004).

He stated that global fisheries stocks are not in the decline that has been stated to justify rejection of traditional fisheries management and advocate the need for area management. Globally, the number of fisheries recovering is currently higher than the number of fisheries in decline. The major declines that have occurred have been where there has been a total breakdown in governance and not simply a failure of traditional fisheries management. In fact the form of fisheries management that has most demonstrably failed in countries where there is good governance is non-specific area management of the form that occurs in total no-take zones. This is most obvious in the breakdown of traditional fisheries management in numerous south Pacific island countries. What has happened is that closing areas to fishing and other activities has failed to provide protection against the major threats, such

as pollution, alien species and even excess fishing that have originated or been excessive outside the area that is closed. In most recent years unusually violent storms and rising sea levels attributed to climate change have further devastated areas that had previously been thought to be 'protected'.

He provided a critique of the DEH snapper image used to promote Marine Parks and the false implications it set up in the minds of fishers and others, specifically that fisheries management in South Australia is incompetent and that the intervention of DEH is necessary to protect snapper stocks.

He made a number of points about the design principles:

- Many of the principles of terrestrial and marine conservation need to be different due to marked differences between marine and terrestrial environments.
- There is repeated misuse of the expressions 'protected', 'sanctuary' and 'fishing closure'.
- There is a stated, but false, assumption in some of the fundamental documentation that 'remove fishing = 100% protection'.
- Sanctuary zones as currently described should be called 'fishing closure' areas, because fishing is all that is regulated in these areas.
- The concepts of Comprehensiveness, Adequacy and Representativeness are fine if they are correctly interpreted. However they have been misused in the DEH documentation.
- If you look at the DEH design principles and follow logically the way DEH describes them then you need to have 100% of State waters included in areas that are protected, and then they need to be replicated.

Professor Kearney discussed the threats identified by the Government e.g. in the Living Coast Strategy. He stated that pollution is the biggest threat, followed by introduced marine species. He expressed the view that the collapse of the WA rock lobster industry may have been due to an introduced organism, not overfishing, as the parental biomass was the highest it had been for years.

He noted that there had been no discussion as to the 'cost effectiveness' of Marine Parks nor the requirement that they address threats in proportion to their severity. In NSW $33 million has been spent in the last three years alone for extremely little assessed benefit and with not even mention of cost effectiveness.

Other statements made by Professor Kearney included:

- Current areas to be protected are called pristine and yet they have all been fished. There are also areas not fished that are in bad condition.
- The SA Government has a commitment to not only protect the existing marine environment but to also restore those environments that have been damaged. The proposed marine parks will not do this.
- Good management requires that the correct tools are used and they are designed specifically to address the problem.
- There has been inadequate consideration of the costs and possible benefits of area management compared to addressing the threats at their source and over the full area of their influence.

- If there are 12 other Acts that do not work and need to be amended by the Marine Parks Act then they should be fixed across the full area of the State, not just in marine parks. The fishing industry had been advocating for all of the States waters to be protected against the real threats, not just the 46% that is marine parks.

In summary:

- Area management has not been shown to be the appropriate tool to manage the real threats to South Australia's marine biodiversity and no attempts had been made by the Government to demonstrate how it could be cost effective.
- Most of the real threats to this States biodiversity are best addressed over the full area of the problem, not just in some fraction of the area that is being claimed to be 'protected' by closing it to fishing.
- Injection in the form of pollution and introduced species is the major problem, not extraction of fish in well managed fisheries.
- Area management as proposed will not address the major threats, most of which will come from outside the 'protected' areas

In addressing a question from the Chairman about the lack of reference to the Precautionary Principle in his report to industry, he stated that this was covered in detail in the second part of his report. He referred to this report which quoted the accepted FAO definition which commences "where there is a threat of significant reduction". Even the definition of the precautionary principle in the South Australian Marine Parks Act states " if there are threats" His point was that in using the precautionary principle it is accepted that the known threats should be addressed in proportion to the threat; there being nothing precautionary about creating an illusion by addressing the wrong threat and ignoring the real ones.

3 Discussion

Note that in general, comments have not been attributed to individuals other than the formal presenters for the evening.

3.1 Threats to biodiversity from fishing

3.1.1 General

- Professor Kearney reiterated his views that well managed fisheries actually do relatively little if any harm, and the assumption that fishing is inherently wrong or harmful is incorrect, particularly when compared to other activities, e.g. forestry, agriculture. He pointed out that the other most common form of food production, agriculture, normally starts by clear-felling surface cover, ploughing the soil, cultivating alien species and rigorously preventing the reestablishment of native animals or plants in the area under cultivation. He stated that there was good evidence that fishing is not a prevailing threat in SA. The lack of threat from current fishing practices was probably due more to the resilience of the ecosystem to fishing than the application of particularly good fisheries management practices, acknowledging that destructive fishing practices had been largely eliminated and that fisheries management in this State is very good by world standards.

3.1.2 Current status of stocks

- The expression 'overfishing' as it applies to South Australia refers to economic over harvesting. There is extremely little, if any, likelihood of driving any species to extinction in this State by current fishing practices. There is currently not even a single species in SA that is recruitment limited due to fishing (Professor Kearney).
- The statement that global fisheries are not in decline was disputed. The WA rock lobster fishery, which was the first Australian fishery to be certified by the Marine Stewardship Council, was cited as an example of declining fisheries. Professor Kearney acknowledged that this fishery is in decline but repeated his earlier statement that the decline in the species is not consistent with fishing impacts. He suggested an introduced organism or major environmental change, such as in a primary oceanographic variable, is more likely responsible for the decline. In any case area management is most unlikely to represent adequate management action.
- The issue of sliding baselines was raised, with the example of a native mud oyster fishery in SA that so long ago (100 years) that most people have forgotten or have never known that it even existed.
- It was suggested by Dr Scoresby Shepherd that reefs are recreationally fished with few controls [Editor's note: Dr Shepherd has clarified this comment, noting that blue groper and sweep are the only reef species with size and/or catch limits, while other species with controls, such as whiting, garfish and snapper, are pelagic or sand-dwelling species that are rarely caught over coastal reefs].
- [Editor's note: refer also to responses to 'over fished' stocks in SA discussed in Kelly Crosthwaite's presentation].

3.1.3 Bycatch and habitat destruction

- It was suggested that closed areas were essential for protecting ecosystems from destructive fishing methods. Professor Kearney stated that he believed destructive fishing practices needed to be stopped everywhere, not just in marine parks. He also cited studies of trawl fisheries in some environments that had showed no impact. Again, a sliding baseline problem was identified, the current environment was being compared with one that already been 'clear-felled', with tons of sponges and other benthic invertebrates witnessed being brought up in the 1970s in Gulf St Vincent. Studies in SA extending back into the 1960s had confirmed that there had in fact been an impact from trawling, with a large loss of seagrass beds and hammer oyster beds. Kelly Crosthwaite stated that the Spencer Gulf Prawn Fishery had been acknowledged by the FAO as being the world's best prawn trawl fishery, had good bycatch management, that impacts on the environment are managed, and, regardless, prawn fisheries do not operate within the outer boundaries, so Marine Parks will have no impact on them.
- Professor Kearney reiterated that if a fishing activity is causing damage, then the focus should be on regulating that fishery, not a blanket closure on all forms of fishing. He pointed that the example used in the DEH of how marine parks would benefit the giant cuttlefish was actually factually incorrect. He suggested that seasonal closures across all areas were far more likely to be effective than permanent closures of parts of the area.

3.1.4 Ecosystem-based management

- SA Sardines had contributed one million dollars towards an ecosystem project over three years [Editor's note: the Spencer Gulf Prawn Fishery has also funded research into ecologically related species in recent years].
- Frustration was expressed over a perceived disjoint between the Marine Parks process and the assessment undertaken by the Blue Crab fishery under the EPBC Act, with two different sets of principles and understanding. In the latter case, the fishery has been assessed as having negligible impact on the ecosystem, and this raised the question as to why potting could not be allowed in a Sanctuary Zone. Jon Emmett made reference to the objectives of management and drew a comparison with exclusion of hunting from National Parks. He noted that the fishery had been assessed by a fisheries ESD assessment process, not a conservation assessment process. The underlying assumption of perfect knowledge about the impacts being negligible was questioned, pointing to experience in other reserves and the need to have reserves in place in order to see the effects of fishing (see more on benchmark areas below). [Editor's note: the Australian Government assessment report, **http://www.environment.gov.au/coasts/fisheries/sa/blue-crab/pubs/sa-blue-crab-assessment.pdf**, states that The impact of the fishery on ecological communities, related species and the structure and productivity of food webs is unknown and that work should be undertaken to assess the risk posed by removing blue crabs from the ecosystem.]
- It was suggested by Shen Dycer that the cost recovery basis for SA's fisheries would limit the funding put towards researching the true cumulative ecosystem impacts.

3.1.5 Cumulative impacts

- There was concern that management plans don't address cumulative impacts of fishing. Kelly Crosthwaite stated that PIRSA would have the opportunity to consider the assessments together, and it was also stated that PIRSA and DEH have already identified the need to work together to identify cumulative impacts. Once each fishery has undertaken a risk assessment, a cumulative risk assessment for regions (eg. the gulfs) can be undertaken.
- The cumulative impacts from fishing and climate change were illustrated by the example from the east coast of Tasmania. The predator (rock lobster) population is significantly lower than a natural level and a species (spiny urchin) is moving southwards driven by climate change; both those factors acting together had resulted in a severely degraded ecosystem (urchin barrens) [Editor's note: see citation for Ling et al. (2009) on the related fish forum web page].

3.2 Other threats

- Marine Parks are intended to look at the large suite of issues and it is unfortunate that it has become debate solely about fishing. Public resources are scarce and with population increases, the threats will only increase.
- It was suggested that, apart from the Adelaide metropolitan region, most of the SA coast does not receive large inputs of land based runoff. Professor Kearney agreed that the issue with land based inputs may be less significant in many areas of SA, stating that introduced marine organisms including but not restricted to alien fish, invertebrate and plant species, are probably a bigger issue, especially in unpopulated areas. The real concern with introduced organisms is that eradication is almost impossible. He stated that introduced organisms were not being adequately addressed in the documentation available on South Australian marine parks and subsequent 'protection' [Editor's note: see **http://www.pir.sa.gov.au/biosecurity/aquatic/current_and_potential_pests**].

3.3 Marine Parks as management tools

3.3.1 Benchmark areas

(see also examples of sliding baselines referred to above)

- Professor Kearney acknowledged that well designed, appropriate and cost-effective closed areas could play a role in assessing inputs, but such areas should be closed to all threats (injection and extraction, or "no take and no in-take"), so that the assessment is not confounded.
- Professor Kearney stated that well managed fishing had a low impact and was no more in need of assessment than any other threat of similar magnitude. If fishing was to be assessed then closed areas did not automatically need to be very large to do so. Areas chosen as assessment baselines needed to be selected on the basis of which particular type of fishing and what impact was being assessed.

- It was suggested that because many of the areas proposed as Parks had been labelled as pristine, the baselines could not have shifted far. Jon Emmett, however, clarified that selecting an area as a Marine Park did not imply pristineness, and no part of state waters are pristine now. It was pointed out that the word 'pristine' is repeatedly used in the DEH documentation to describe areas that had been selected [Editor's note: the word 'pristine' is used 22 times in the 2004 technical report but is not used in the more recent outer boundaries technical report nor the area descriptions].

3.3.2 Resilience to climate change

- Professor Kearney stated that area management is unlikely to be a cost-effective measure to provide resilience against climate change because the movements of environments and animals can't be predicted and areas 'protected' based on current distributions will not align protection with future distributions. It is more sensible to manage all of the State's waters and address all major threats at their source.
- The Tasmanian lobster-urchin interaction was raised as an example of how a natural (size structure) lobster population may have prevented the development of urchin barrens.

3.3.3 Connectivity

- Marine ecosystems are much more interconnected than terrestrial ones, due to the physical continuity of marine environments and ready dispersal of propagules; therefore simple area management is much less likely to be effective.
- Marine Parks are vulnerable to injection of pollutants and foreign organisms (Professor Kearney)

3.3.4 A focus for conservation effort

- If there are destructive impacts then they should be stopped everywhere, but the Government is very pro-development and they accept resultant collateral damage. The Marine Parks Act makes the other Acts look more carefully at their activities. It is not realistic to stop pollution everywhere.
- There was concern that establishing Marine Parks would cut off some bits and not provide any protection to the rest, and that the aim should be to use the current legislation comprehensively.

3.3.5 Referral from other legislation

- The Marine Parks Act makes the other Acts look more carefully at their activities (12 Acts refer to the objectives of the Marine Parks Act).
- Professor Kearney stated that it wasn't until after the outer boundaries had been released that the community found out about the 12 Acts being amended. He further stated that the public was still not aware of exactly what these other Acts are going to protect and how they are going to provide that protection cost-effectively, and that if this information had been released earlier, then the community would have been in a better position to assess where the outer boundaries should actually be and might even have been more accepting of the boundaries. [Editor's note: the *Marine Parks Act*

2007 was developed with extensive stakeholder consultation and finalised in 2007 and hence its capacity to amend 12 other Acts was public knowledge long before the release of the outer boundaries].

3.3.6 Performance assessment

The potential contribution of commercial fishers in monitoring Marine Parks was raised, given their daily presence in the marine environment and history of noticing events (e.g. a cold water event). While acknowledging the importance of this role, James Brook questioned how changes could be measured, and suggested that adequate assessment of Marine Park performance was essential.

3.4 Misinformation

- Professor Kearney stated that it was misleading to refer to the PISCO report used in the South Australian Marine Parks scientific documentation to outlining the benefits of Marine Parks, because it was an advocacy document and was biased in several ways, including by incorporating data from areas where cyanide or dynamite fishing had previously been used. However, data was presented from a recently published update of the global dataset on which the PISCO report was based, but filtered to consider only temperate Australia, Canada and New Zealand (where cyanide and dynamite are not used). The revised graphs showed that the ecosystem response after closure was just as strong as for the full dataset. [Editor's note: see link to this document on the related fish forum web page.]
- Professor Kearney displayed the image of the boy with the large snapper suggesting that it sent the message that current fisheries management was incompetent. Professor Kearney was then advised that the Marine Parks Council and the Scientific Working Group had advised against the marketing strategy. Professor Kearney then pointed out that the Government had even gone against its own scientific advice on this issue.
- It was suggested that the word 'pristine' appeared frequently in Marine Parks documentation, but is recognised as being problematic (see above discussion on Benchmark areas).

3.5 Working together

- Participants from several sectorial backgrounds expressed the need to emerge from entrenched viewpoints and bring together people with knowledge built from different backgrounds, to learn from each other. Kelly Crosthwaite added that future processes needed to support such an approach.
- It was suggested that it would be logical to have an interagency group to discuss how the references to the Marine Parks Act from other Acts will work in practice. Kelly Crosthwaite supported this, stating that the function had previously been fulfilled by the Marine Parks Steering Committee and that committee or a similar structure could be re-invigorated. This committee could work at an operational level while the Marine Parks Council works at the strategic level.
- It was suggested that PIRSA and industry need to have a closer relationship with DEH and more input to the process.

4 Conclusions

A brief summary was provided at the conclusion of the evening. The following summary, however, represents a more considered view of conclusions that might be drawn from the issues discussed.

One issue left unresolved, and only partially explored, was whether we can simultaneously manage, effectively, across the full extent of state waters, for biodiversity conservation as well as the variety human uses. Professor Kearney expressed the view that most problems are best addressed over the full area of the problem (largely due to connectivity issues), and destructive practices should be stopped everywhere, not just within Marine Parks. It is evident, however, that the concept of "destructive practices" varies depending on the objectives of management. Both government speakers made it clear that, despite commonalities, they were managing to different objectives. Even where there was common ground, there were difficulties, with a government described as very pro-development and prepared to accept collateral damage (the example given that it was not realistic to stop pollution everywhere). The introductory presentation had also highlighted that Sanctuary Zones could be focus areas for conservation initiatives that society could not afford, for one reason or another, to implement across the entire marine environment.

There were clearly divergent views on the extent to which fishing threatened marine biodiversity, especially in comparison to other threats. There did, however, appear to be consensus that "no take" areas should also be "no intake". Such design would increase the effectiveness of Sanctuary Zones as benchmark areas, which could in turn increase understanding of the impacts of different threats. It appeared to also be generally accepted that additional tools would be required due to connectivity issues in the marine environment.

Another view expressed by participants from several sectorial backgrounds was the need for discussion and processes that did not simply perpetuate entrenched views, but led to a shared understanding of and commitment to improved marine management. There appeared to be general acknowledgement of the need for care to avoid misleading language and misrepresentation of information. Discussions around the word "pristine", interpretation of the PISCO report, and that image of the little boy with the big snapper, made it clear that scientists and policy makers involved in the process had already paid considerable attention to such issues, behind the scenes.

There was a particular suggestion, related to an acknowledgement during the forum of the benefits of the referral to the Marine Parks Act from 12 other Acts, for an inter-agency group to be established to work through Marine Parks implementation and management issues, including how the references to the Marine Parks Act from other Acts will work in practice. This group could have the mandate to discuss broader issues of common interest and to involve non-government stakeholders as appropriate (e.g. it was also suggested that industry need to have a closer relationship with DEH).