

**SUBMISSION NO. 41**  
**Inquiry into the Role of Science for**  
**Fisheries and Aquaculture**



Committee Secretariat  
House Standing Committee on Agriculture,  
Resources, Fisheries and Forestry  
PO Box 6021  
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Canberra ACT 2600

**Inquiry into the Role of Science for Fisheries and Aquaculture**  
**Submission prepared by Recfishwest**

Recfishwest is the peak body representing the interests of over 600,000 recreational fishers in Western Australia. We are formally recognised and funded by the Government of Western Australia to perform that role which includes undertaking extensive consultation with the recreational fishing community on issues relating to marine and freshwater ecosystem management.

The aquatic habitat in which fishing is carried out and access to those areas is particularly important to Recfishwest and we place the highest priority on preserving the future of recreational fishing and the resources on which it depends.

Recfishwest has provided the following submission based on the Terms of Reference stipulated for the inquiry into the Role of Science for Fisheries and Aquaculture.

**a) *The relationship between scientific knowledge of fish species, ecosystems, biodiversity and fish stock sustainability***

Strong and robust fishery science is a critical element to effective fisheries management. Recfishwest's vision is "to ensure sustainable recreational fishing resources ". To do this we require good science to support decisions in relation to how these fisheries are managed.

The recreational fishing sector will support, and often drive, measures that reduce access in the name of maintaining sustainable high-quality recreational fishing experiences when the science demonstrates a need. For example, research undertaken by the WA Department of Fisheries indicated that Cockburn Sound was a critically important breeding area for pink snapper along the lower west coast of WA. Investigations revealed that large numbers of adult breeding fish visited the area throughout the spring and summer months. This information led to concerns within the recreational fishing community as this species was increasingly susceptible to exploitation during its spawning period. With this information the recreational fishing sector drove management reforms to put a four month closure in place over this spawning period. The community understood the importance of this measure as it was based on scientific information to protect the spawning fish from exploitation as well as protect this species unique spawning behaviours from disturbance.

Another example comes from a research project into the post release survival of the release WA reef fish conducted by the WA Department of Fisheries. This research demonstrated that the survival of released Dhufish could be increased by utilisation of a device called a release weight. Understanding this research the recreational fishing sector pushed to make the carriage of this device compulsory at all boats fishing for demersal species in the West Coast Bioregion.

An often overlooked role of science in fisheries is the engagement of the community in scientific research projects. "Citizen Science" type research projects related to fisheries have numerous benefits and play an important role in increasing the general awareness of our fisheries resources and the stewardship of them.

The examples above demonstrate that recreational fishers will support management reforms when they understand the science behind the decisions being made. Without good science the community supports for management changes are highly diminished.

Fisheries resources are essentially a set of community assets and the community supports science into ensuring that these assets are used and managed sustainability. Recreational fishers care deeply about the resource which underpins their favourite pastime, they get a high level of satisfaction knowing at the government is investing in strong and robust science to underpin the management of and access to them.

The recent Marine Bioregional Planning Process has caused great concern with the recreational fishing community. The protection of our marine environment and threatened and endangered species is a laudable pursuit supported by recreational fishing community. However, as with the examples noted earlier, decisions around the conservation of marine biodiversity must be underpinned by sound science. We are concerned that quite often this is not the case. The effective conservation of marine biodiversity requires scientifically based risk assessments. The recreational fishing sector supports marine parks based on science which identifies the risks to our aquatic environment. Without sound science and an assessment of risks the recreational fishing sector cannot support a process without evidence to demonstrate the final outcome to will be effective.

Recfishwest firmly believes that science plays an integral role in determining policy and guidelines governing the management of fisheries, biodiversity and aquaculture. It is widely understood that there is a sufficient level of scientific knowledge within Australia to sustainably manage fish stocks. The fact Australia is ranked 4<sup>th</sup> in the world in terms of effective management practices indicates the effectiveness of research based management approaches by relevant organisations operating at both Federal and State Government levels.

Recfishwest believes there is a need to support ongoing investment into research and development in relation to fisheries and aquaculture The Fisheries Research and Development Corporation (FRDC) has done an excellent job in guiding investments into research which underpins the management of sustainable fisheries in Australia. The FRDC also invests in complementary programs to support this research such coordinated science communication activities as well as people development and capacity building initiatives.

**b) Fishery management and biosecurity, including but not limited to:**

- ***The calculation and monitoring of stock size, sustainable yield and bycatch, as well as related data collection***

While the understanding of a fishery will always be determined by the quantity and quality of data collected, statistical modelling and other extrapolation methods have proven to be highly effective tools in guiding management decisions aimed at sustaining fish stocks. Stock assessment methods currently employed around Australia undergo constant refining, yet the basic principles have been successfully used to set sustainable harvest levels for many years.

Obviously there is always going to be a desire for greater information; larger data bases and sample sizes. The greatest hurdle in this case, is funding. We believe that utilising community data collection techniques could provide cost-effective solutions. Community involvement in data collection however, does have its limitations. Recfishwest supports numerous scientific projects that engage with the recreational fishing community. We deem the WA department of Fisheries 'send us your skeletons' campaign as a particularly good model to engage the community in data collection related to stock assessments.

- ***The effects of climate change, especially relating to species dispersion, stock levels and impacts on fishing communities***

The extension of ranges for fish species is the only major foreseeable outcome from climate change. Stock levels in many areas is likely to change somewhat, but whether this will have an overall negative effect on fish populations is debatable.

The most probable outcome is that the range extension will result in changes of human behaviours and fishing practices in accordance with targeted species.

Environmental changes might see a need to shift traditional research focuses. For example, catchment and inland waters with fisheries might need more attention. There is some evidence that suggests rain cycles may affect inland waterways and seasonal flows. Rivers are much more susceptible to these changes (plus much more prone to anthropogenic pressure), they are important as nursery grounds and for energy flows can have far reaching effects on recreational fisheries. Predictions of effects on these habitats have far reaching management implications on numerous recreationally important species, including marine species with inshore juvenile phases.

- ***Pest and disease management and mitigation***
- ***Minimising risks to the natural environment and human health***

It is important that potential pressures to the aquatic environment are evaluated using as much science as possible. Science based risk assessments should be used to identifying negative outcomes of any activities deemed to have potential impacts. These activities could include coastal developments, mining, ports,

increased population and pollution. Assessment of the relative risk can then be used to inform management to mitigate potential impacts.

There are numerous health benefits associated with fishing, including overall wellbeing and nutritional benefits of consuming seafood. Loss of seafood production and access to the resource could result in detrimental health effects on Australian's.

- ***Cooperation among Australian governments on the above***

The government must present a united approach to fishing and aquaculture. There is currently no peak body representing the aquatic resource sector (including aquaculture and recreational fishing).

***c) Research, development and applied science of aquaculture, including:***

- ***transitioning from wild fisheries to aquaculture in individual species***
- ***improving sustainability and lifecycle management practices and outcomes***
- ***pest and disease management and mitigation***

The recreational fishing sector supports investment in science in the field of aquaculture. Recreational fishing license monies are often invested in stocking and stock enhancement projects focused on important recreational fishing species. Ongoing investment in aquaculture research is required to ensure recreational fishing funded projects maximise the effective delivery of improved recreational fishing experiences to the community. The culture of recreational important species such as barramundi is of high community interest. Science to inform successful breeding and release strategies is seen as important by the recreational sector.

***d) Governance arrangements relating to fisheries and aquaculture, including the implications for sustainability and industry development;***

It is once again important to point out the fact that science is an essential part of informing the governance arrangements related to fisheries and aquaculture.

The process and management arrangements currently in place are sufficient to sustainably manage the aquatic resources of Australia. It is understood that Australian fisheries are actually under-exploited. The production of seafood and general reduction in uptake of new commercial licences is greatly attributed to the attraction of other industry sectors, not the result of reduced catches or over-exploitation.

The implication of further access restrictions through marine parks has the potential to reduce any future industry development, both for the recreational and commercial sectors. The implementation of marine

parks without sound scientific evidence brings with it a large amount of uncertainty to all extractive used of fisheries resources. Loss of access without science removes security in establishing new business ventures, as there is no longer any guarantee that the resource will remain open and available.

***e) Current initiatives and responses to the above matters by state, territory and Australian governments;***

There is a serious lack in a whole of government approach to establish the long term future of fishing. Access restrictions continue to be implemented, with the short term view of gaining votes, while the security of the Australian lifestyle and workforce is undermined.

Thank you for providing Recfishwest with the opportunity to comment on this matter. Should you or the committee require further information, please contact me on .

Yours Sincerely

Andrew Rowland  
Chief Executive Officer  
9 July 2012