

Submitted on Wednesday, September 20, 2017 - 15:08 Submitted by anonymous user:  
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Organisation:

Which sector do you represent? Research Which draft plans are you commenting on? Temperate East Network Which marine park(s) are you commenting on? Solitary Island What topic(s) or activity(s) are you commenting about?

- Commercial media
- Research
- Other

What part of the plan(s) are you commenting on?

- Part 3 - Zoning
- Part 4 - Managing activities

Which program are you commenting on? Marine science program Please tick this box if you would like to keep up to date with all the latest information on Australian Marine Parks by subscribing to our email updates. :

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Parliament: Yes

Does your comment relate to the renaming of marine parks? No Please type your comments below:  
A Submission on the revision of commonwealth marine reserves: Solitary Islands

Introduction:

Marine reserves and protected areas have been a relative recent addition to the sustainable management of our marine resources (Day et al. 2002). They plan to rehabilitate and conserve vital areas such as headlands, reefs, islands and other benthic habitats to rejuvenate fish stocks and habitat (Mascia et al. 2010). Fishers have been effected with this implementation as it reduces their opportunity to catch quotas (Sumaila et al. 2000). Although this management plan is essential to ensure the long-term preservation and supply of fish and other marine organism stocks.

These reserves have been split into different zones to distinguish acceptable activities from unacceptable. This means what may be acceptable in one zone may not be acceptable in another such as commercial fisheries (trawlers) cannot fish in habitat protection zones.

These reserves also act as an umbrella to many passing migratory species such as whales, sharks and turtles, which can increase reproduction success by providing key nesting, resting, mating, feeding and foraging grounds (Hooker & Gerber 2004, ROBERGE & Angelstam 2004).

Although these reserves have reduced stresses on the abundance of marine bio-diversity (Kelleher & Kenchington 1991), there are still flaws with implementing rules and regulations as well as education on these areas, publicity and research to study how effective these systems really are.

Revising and improving these aspects could see further improvements in efficiency with managing marine parks, a reduction in prohibited activities being practiced in wrong zones and a stronger support and understanding from the community. In this submission, I will be using the Solitary islands as an example, although these improvements can be implemented to other marine parks and reserves.

State of solitary marine reserve:

The theories of implementing MPA's is undeniably positive in terms of preserving and rehabilitating marine ecosystem dynamics (Cicin-Sain & Belfiore 2005). Although the majority of the public may not completely or not at all understand the reasoning for their implementation. Identifying the previous

state of reserve's such as the Solitary island reserve and illustrating the changes in dynamics over time to the public can make it easier for the local community to understand their importance. Re-occurring studies can be utilised to monitor the growth and health of a reserve overtime (Day et al. 2002). These studies should incorporate visual representations such as videos and photos as well as scientific data represented in graphs and papers. This could also lead to a greater understanding of marine ecosystems which could in turn lead to better management strategies.

#### Terrestrial practices and its influences:

Although research has shown positive impacts of the density, diversity of marine organisms and the over-all health of an eco-system within Marine reserves, terrestrial practices have not been included as a notable impact on these systems and has been proven to implement considerable negative impact (Smith et al. 1999, Keller et al. 2009). The Solitary Island as an example is located directly off shore of Coffs Harbour. A growing community continually subjected to developments in both terrestrial and marine environments. Coffs Harbour is also subjected to a relatively hilly terrain in which there are mainly banana and blueberry crops on the coastal side of the hills (Clayton-Greene 1988, Johns & McConchie 1994). This has resulted in a loss of topsoil, sediment runoff, fertiliser and pesticide runoff and clearing of native forests which previously absorbed and trapped the majority of this now excess material (Smith et al. 1999). The pollution, runoff, noise, vibration, and marine traffic through recreation, industry, travel and tourism activities all impose negative impacts upon marine organisms (Smith et al. 1999) (not to mention Climate Change, Ocean Acidification, Ocean Warming and Tropicalisation), (Harley et al. 2006). Therefore, reducing the fishing effort and restricting other marine uses in marine reserves doesn't necessarily resolve a declining fish stock and a reduction in vital habitat. Tighter restrictions on terrestrial activities and practices need to be implemented to reduce the leaching of chemicals/ nutrients, destruction of vital habitat and reduce the occurrence of marine pollution. Focusing on buffer zones and rehabilitating the coastal headlands and dune environments is essential as it is the last line of defence before entering the ocean.

#### Education and publicity:

Since marine parks and reserves were introduced they have caused quite a lot of controversy to different shareholders and users of the marine environment (Sumaila et al. 2000). A revision and possible redesign of the website could see members of the public utilising the resource and understanding the theories behind marine reserves. This increase in education to the public could make it easier to make changes to marine parks in the future as well as obtain a strong backing by the local community. Although the in-depth data, map and fact sheets presented online are thorough and essential to people with a higher expertise in the area, a revision of the online presentation needs to be established to make it easy for people to identify relevant information with all levels of education. Likewise, locally utilised areas such as beaches, headlands and main entrance points should all contain clearly mapped signage for visitors and members of the public to easily access the relevant information of that area in order to identify areas they should avoid and areas they can go. This can reduce the occurrences of unintentional offences and can aid officers in implementing rules and regulations. Further initiatives such as television ads and newspaper articles can engage wider community to this management strategy and inform users that haven't heard of the zoning techniques.

#### Conclusion:

The management strategies implemented though marine reserves have done a tremendous job at rejuvenating fish stocks and conserving habitat and bio-diversity since their introduction. Revisions of these reserves are seeing greater management strategies and effectiveness of rehabilitating these key systems. Although there is always areas for improvement even if it's not a direct impact on the system such as research, education and publicity, these factors can play a crucial role in the development of plans and overall health and functionality of a system.

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