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Which sector do you represent? Research Which draft plans are you commenting on?

- Coral Sea
- North Network
- North-west Network
- South-west Network
- Temperate East Network

Which marine park(s) are you commenting on?

What topic(s) or activity(s) are you commenting about?

- General use and access (including recreational)
- Commercial fishing
- Commercial tourism
- Recreational fishing
- Research

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

- Part 3 - Zoning
- Part 4 - Managing activities

Which program are you commenting on? Park protection and management 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. :

Yes please subscribe me to Australian Marine Parks news Your submission may also be published online by the Director of National Parks. Please tick 'No' if you do not want it published. Your submission will still be considered in the Director's Report on the Preparation of the Management Plans, and may be provided to the Minister and tabled before

Parliament: Yes

Does your comment relate to the renaming of marine parks? No Please type your comments below:

A marine protected area is defined by the IUCN as "Any area of intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part of all of the enclosed environment"

(Kelleher and Kenchington 1991). This means the protection of marine biodiversity within a defined area with emphasis that it is to be done by effective means, in order to conserve the natural state of the area. Marine biodiversity is declining, primarily due to overexploitation, and the destruction or degradation of marine habitats, and without comprehensive and effective responses to these impacts, marine biodiversity is unlikely to recover (Sobel 1993). Marine protected areas have extremely high potential to be the solution to these issues, providing areas for the preservation of specific important marine areas, supporting marine conservation, creating public awareness and allowing for in depth research and monitoring. Marine resources are essential in providing a range of goods and services that help to sustain a growing population that mostly resides within coastal zones (Sobel 1993).

As a response to the decline in biodiversity, Australia signed at the Earth Summit in Rio de Janeiro in 1992, and ratified the Convention on Biological Diversity (CBD), an international treaty for biodiversity conservation, with an international benchmark 'Aichi target' of increasing the total area covered by marine protected areas to 10% by 2020, and a recent World Conservation Congress calling for 30% by 2030 (Chape et al. 2005; Spalding et al. 2013; Hilborn 2016). The Aichi Target again states that these areas are to be conserved effectively. The World Conservation Congress is not only calling for 30% to be part of marine protected areas, but to be fully protected for all fishing and other forms of exploitation by 2030 (Hilborn 2016). Currently 36% of Australia's waters are part of marine parks, which is well above the Aichi target of 10%. In its current state it also surpasses the goal of 30% by 2030, however the 2017 Draft Plans for Australian Marine Parks takes a step backwards and leads to Australia no longer meeting this goal.

In the plans, there will be a reduction in green protection zones from 36% (866,355 km²) to only 20% (465,327 km²). This will mean that Australia has no longer reached the goal called for by the World Conservation Congress for 30% of protection from exploitation by 2030. Yellow zones will increase from 24% (564, 132 km²) to 43% (1,017,877 km²), and a decrease in blue zones from 40% (944, 253 km²) to 37% (891,250 km²).

Green 'no-take' zones have been shown to be extremely effective in marine biodiversity conservation, with significant increases in density, organism size and species richness within their boundaries, while also providing a spill over of species into surround areas (Lester et al. 2009). Size of a marine park is a common limitation in a parks ability to be self-sustaining as they are often smaller than the dispersal distances of many key species.

They are regarded to be more effective when they are larger, leading to greater conservation benefits, therefore decreasing the size of green zones will be decrease the effectiveness of the marine park to conserve its biodiversity (Kelaher et al. 2014). It is therefore essential that the green zones have high connectivity between them to promote recruitment and exchange between them (Coleman et al. 2017). Again, the reduction in the number of size of green zones also will result in the loss of connectivity, particularly with the promotion of recreational fishing in the surrounding habitat protection areas.

While boasting an increase in yellow protection zones of 19%, the Draft Plans do not consider the effectiveness of these habitat protection zones with in biodiversity conservation. Studies have shown that no-take zones outperform habitat protection and general use zones in the long term protection of important target species within marine parks (Coleman et al. 2013). In some studies, fish assemblages where shown to not differ between habitat protection zones and general use zones, likely due to the restriction of damaging commercial fishing enhancing recreational fishing opportunities and leading to the same level of overexploitation of resources (Kelaher et al.

2014). Shifting from no-take zones to those that allow and promote recreational fishing, as the Draft Plans do, can limit the conservation benefits of these areas and no longer adhere to the objectives of a marine protected area.

One of the main causes of biodiversity loss in marine environments is overexploitation (Sobel 1993). However in the 2017 Draft Plans, the amount of marine park areas open to fishing has been greatly increase. It will allow for recreational fishing being allowed in 97% of waters within 100km of the coast, and 80% of waters in marine parks open to commercial fishing. 82% of reefs in the Coral Sea will be open to fishing. While increased fisheries yields and biodiversity protection are common benefits to marine parks (Dayton et al. 2000), they are only effective when there is spatial restriction of extractive use, including fishing. The allowance of 97% of waters within 100km of the coast means that they do not get the spatial restriction needed to be effective (Lynch 2006). Nearshore zones are often critical habitats for multiple life stages of different species, and it is these areas which are often targeted by recreational fishing. The negative impacts of recreational fishing are rapidly increasing, while contributing to the global over exploitation and decline if fisheries. Environmental degradation can also be attributed to recreational fishing, with fishing debris leading to substantial injury and mortality to marine species, as well as damaging habitats. Recreational boat traffic also has a large role in contributing to environmental degradation (Cooke and Cowx 2004; Lewin et al.

2006). Even with all the impacts of recreational fishing, the 2017 Draft Plan states that a permit is not needed for recreational fishing, as well as no required reporting of catch. However, to conduct any research and monitoring, or any non-extractive recreational tourism such as whale watching and diving require permits. Any activity that is extractive and can impact environments should require permits across the board. Commercial fishing can have severe and irreversible impacts on the marine environment, leading to stock declines and even species extinction. Opening the Coral Sea to commercial fishing in 80% of the marine park can be detrimental to the long term biodiversity of the region (Lewin et al. 2006).

The 2017 Draft Plans emphasise the increase in eco-tourism, however the focus is put upon charter fishing, with the 97% of waters within 100km being open to charter fishing. Little focus however was placed upon no extractive tourism activities that will be impacted by the changes to Australian Marine Parks. Eco-tourism can be defined as nature-based tourism, travelling to areas with the specific objective of the non-consumptive use of the wildlife and natural resources with minimal disturbance

to the area (Orams 1995). In this sense, charter fishing cannot be labelled as eco-tourism, as it is highly extractive, labelling it as so is promoting the use of extractive tourism in important marine areas for biodiversity, when it is in essence glorified recreational fishing with the same impacts on marine environments (Klein et al. 2008). Charter fishing is increasing recreational fishing by providing access to those who lack the access to personal fishing vessels.

Non-extractive tourism, such as diving and whale watching are more effective in educating the public and achieve the goals of eco-tourism (Orams 1995).

With the above points in mind, many modifications must be made to the 2017 Draft Plans in order to maintain effective protection of marine park biodiversity. It is important that the green zones are at least restored to their original 36% coverage, with consideration of increasing the number of green zones, given all the benefits and their effectiveness (Lester et al.

2009; Kelaher et al. 2014). The pressure of fishing placed upon important marine areas must be reduced in order to minimise the continuing decline in marine biodiversity (Cooke and Cowx 2004; Lewin et al. 2006). Charter fishing should not be labelled and promoted as eco-tourism, as it is an extractive activity with the same impacts as recreational fishing (Orams 1995). Greater focus should be placed on other eco-tourism activities. The collaboration of all the stakeholders of a marine protected area is essential in the continuing management and compliance of the marine park, however this should not be at the expense of biodiversity conservation. Australia is a leading nation in marine protection and biodiversity protection, with extremely extensive and diverse marine habitats. As such it should continue as an example to other nations in marine protected areas, rather than taking a massive step backwards from the goals envisioned in the Convention on Biological Diversity. In order to adhere to the definition of what a marine protected area is, reviews and modifications must be made to the 2017 Draft Plans, otherwise it will no longer be effective in protecting marine biodiversity and conserving marine environments in their natural states.

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