

Something fishy

Socio-economic impacts of marine reserves in Australia

Federal government plans to remove 40 million hectares of protected areas from across the nation's network of marine parks - an area twice the size of Victoria - to facilitate an expansion of fishing activity have been justified with reference to socio-economic impacts.

Yet government figures show socio-economic impacts of protected areas would be small. Minimal consideration has been given to benefits marine parks create for fish stocks and fishing.

Adam Palmer
Rod Campbell
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Level 1, Endeavour House, 1 Franklin St
Canberra, ACT 2601
Tel: (02) 61300530
Email: mail@tai.org.au
Website: www.tai.org.au

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Summary

On July 20, 2017, the Federal Government released plans to reduce protection of Australia's marine environment. 40 million hectares of highly protected sanctuary areas could be removed from the country's network of Commonwealth marine parks, an area twice the size of Victoria.

In the Coral Sea, the government proposes to remove 53% of the region's sanctuaries for marine life; 57% of sanctuaries off the northern coast of Australia; 49% of sanctuary protection off the north west coast of Western Australia, and; 40% of sanctuaries in the south west region, stretching from Perth around to Kangaroo Island.

38 of the country's 44 marine parks could be opened to fishing practices that the government's own assessments found were incompatible with conservation, such as trawling, gillnetting and longlining.

The justification for these changes is socio-economic impacts of marine protection, with the Government's influential Bioregional Assessment Panel claiming its recommendations are based on:

socio-economic considerations such as the estimated economic impact of zoning options, and the impacts on local communities of including or excluding different types of activities from the reserves.

However, the draft plans, the Panel and other government documents provide no economic context around any impacts of marine protection, or the proposals to wind it back. No attempt is made to put the impacts of the various proposals in their national, state or local economic contexts.

At a national or state level changes to marine protection have minimal socio-economic impact. Nationally, the gross value of production (GVP) for wild-catch fishing accounts for less than one twentieth of one percent Australia's economic production, at just 0.04% of GDP.

Furthermore, changes to marine protection affect only a very small percentage of the wild-catch fishing industry's gross value of production (GVP) in any state.

The largest impacts of the decision by the then Labor government in to expand marine protection in 2012 were assessed to be in Commonwealth waters, where government figures estimated GVP would be \$5.1 million per year lower under 2012 marine

protection arrangements. This represents just 1.5% of the \$338 million annual GVP estimated in Commonwealth waters. Impacts on state waters are all under 1% of GVP.

The government's current plans to reduce marine protection return even less to industry, 1.08% of GVP in Commonwealth waters. In NSW, government statistics suggest GVP will actually be reduced by the 2017 proposed changes.

Importantly, GVP is a 'gross' value, it does not include the input costs required to catch these fish. As these costs are not incurred, any reduction in profits by fishing companies is smaller still.

Any economic impacts of marine parks will be localised and may be important to particular communities. However, even at this scale, government assessment documents fail to provide any socio economic context.

The government is justifying its proposed plans to remove marine protections by arguing that they have an adverse effect on the fishing industry. However, there is little evidence of any significant negative impact of marine protection measures. In fact, there is ample evidence available to government of the 'spill over' benefits created by marine protected areas for the fishing sector.

Overall, government data shows that any socio-economic impacts of marine conservation changes are likely to be minimal. Even this analysis is likely to be overstated as benefits of marine protection, such as for other fisheries, tourism and recreational fishing are not considered. Marine tourism generated \$28 billion in gross value of production in 2013, representing \$15 billion in value added.

Yet economic impacts are the justification for a huge reduction in marine protection at a time when other countries are moving in the opposite direction. In recent years the United States, the United Kingdom, Chile, and New Zealand have all moved to increase or establish huge, fully protected, no-take marine protection areas.

Introduction

In July, the federal government released draft management plans for Australia's national marine park network. The plans, which are now open for public comment and are the culmination of a three-year review process, are a significant step backwards in Australia's commitment to environmental protection.¹

In November 2012, the Gillard government proclaimed 44 new Commonwealth marine parks. The new parks expanded the total coverage of Australia's National Representative System of Marine Protected Areas to 3.3 million km², up from 1 million km². The proclamation enjoyed the support of 70 per cent of the Australian people.² It was welcomed as a game changer by the marine science community. Professor Ove Hoegh-Guldberg director of the Global Change Institute at the University of Queensland, said the new marine reserves would build resilience for fish stocks, and protect critical habitats such as coral reefs.³

In 2013, the incoming government suspended the implementation of the national marine park network, essentially rendering them "paper parks". The Abbott government ordered a review of the national marine park network, citing community and stakeholder concerns.⁴

Two key documents were commissioned to inform the review; a report from the Bioregional Advisory Panel (BAP), which was to be informed by another report from the Expert Scientific Panel (ESP). The key recommendation from the BAP report was that changes should be made to the zoning arrangements in 26 of the 44 new reserves. These changes were apparently "based on an analysis of the potential economic impacts of these options and the overall balance of interests in the reserves and networks as a whole."⁵

¹ Australian Marine Parks (2017) *Draft management plans for marine parks*
<https://parksaustralia.gov.au/marine/management/draft-plans/>,

² AAP (2012) *Marine parks popular with punters: polling*, <http://www.heraldsun.com.au/news/breaking-news/marine-parks-popular-with-punters-polling/news-story/7d0217afc33e1ea711da6c2b17842b13>

³ Quoted in IUCN (2012) *Australia creates world's largest network of marine reserves*,
<https://www.iucn.org/content/australia-creates-world%E2%80%99s-largest-network-marine-reserves>

⁴ Media Release (2014) *Review of Commonwealth Marine Reserves Begins*,
<http://www.environment.gov.au/minister/hunt/2014/mr20140911a.html>

⁵ Buxton and Cochrane (2015) *Report of the Bioregional Advisory Panel*,
<http://www.environment.gov.au/marinereservesreview/reports>, p 14

In July 2017, the government released new draft management plans for the national marine park network that propose even larger reductions in protections than those recommended in the BAP report. In addition, the government's draft management plans ignore much of the advice presented by its Expert Scientific Panel (ESP), which endorsed the evidence of the value and importance of marine protected areas. The draft management plans do not meet the ESP recommendations regarding the inclusion of primary conservation features within National Marine Park Zones. The ESP also upheld the findings of the Fishing Gear Risk Assessments (FGRA), and yet the draft management plans propose fishing types within the marine reserves that the FGRA found to be incompatible with marine protection.⁶

Prior to the release of the draft management plans in July 2017, the BAP report was opened for public comment. The report puts considerable emphasis on the socio-economic impacts of the proposed changes:

"The work of the BAP took into account socio-economic considerations such as the estimated economic impact of zoning options, and the impacts on local communities of including or excluding different types of activities from the reserves."

"Following extensive consultations, considerations of written and past submissions and the development of potential options to address many of the issues raised by stakeholders, a smaller set of options was distilled. This was based on an analysis of the potential economic impacts of these options and the overall balance of interests in the reserves and networks as a whole. This smaller set of options was tested with affected stakeholders in July and August 2015, and subsequently refined in the light of the feedback received."

"As a result of these processes and considerations changes to zoning and zone boundaries are recommended for 26 of the 40 new reserves declared in 2012. Minor changes to three other CMRs are also recommended for overall consistency across the estate. As a package they will improve the representation and overall protection of conservation values, while providing access and continuity for a range of activities currently undertaken and proposed by commercial and recreational interests. The changes deliver more consistent zoning and reduce the displacement of existing economic activities."⁷

⁶ Beeton, Buxton, Cochrane, Dittmann, Pepperell (2015) *Commonwealth Marine Reserves Review: Report of the Expert Scientific Panel*, www.marinereservesreview.gov.au/reports

⁷ Buxton and Cochrane (2015) *Report of the Bioregional Advisory Panel*, <http://www.environment.gov.au/marinereservesreview/reports>, p 14

Despite the emphasis on economic and socio-economic impacts, none of the analysis thus far has put the claims around national marine parks and the subsequent BAP report recommended revisions in a wider context. When looked at from this perspective, the impact to national, state, and local economies of the 2012 proclaimed zones within the marine parks is marginal and had been considered when drafting the original zones.⁸

The new proposed zoning arrangements would result in almost 40 million hectares no longer falling within 'no take' sanctuaries or National Park Zones, which are the only zone types that offer the full protection fundamental to conserving marine life and preserving the health of the ocean. To put this in context, 40 million hectares is an area twice the size of the state of Victoria.⁹

In place of these fully protected zones, the draft management plans propose an increase in the area covered by Habitat Protection Zones. The government claims that larger Habitat Protection Zones mean environmental protection has increased, however this is misleading. The government's proposals involve extending protection of the seafloor in some areas, but removing protection for everything above it on a far larger scale. Instead of increasing protection, the government is instead proposing to increase commercial fishing access.

Furthermore, the decision to increase commercial fishing access contradicts the ESP recommendations that were supposed to inform the review of the national marine reserves. The new draft management plans allow for destructive fishing practices in almost all Habitat Protection Zones. These fishing types - Demersal Trawl, Pelagic Longline, Mid-water Trawl, Demersal Longline, Purse Seine, Danish Seine, Gillnetting, Beam Trawl - were found to be incompatible with environmental best practice by the government's independent Fishing Gear Risks Assessments (FGRA) and upheld by the ESP. These fishing types have an unacceptable level of risk for marine fauna such as turtles, seabirds, sharks, dugongs, and dolphins.¹⁰

⁸ Media Release (2012) *Gillard Government proclaims the final network of Commonwealth marine reserves*, <http://www.environment.gov.au/minister/archive/burke/2012/mr20121116.html>

⁹ Beaver (2017), *The New Management Plans for Australia's Marine Parks: Centre for Conservation Geography Critique*, <http://www.conservationgeography.org/>

¹⁰ Beaver (2017), *The New Management Plans for Australia's Marine Parks: Centre for Conservation Geography Critique*, <http://www.conservationgeography.org/>

Commercial fishing in context

While the national marine reserves and commercial wild-catch fishing industry operate over huge areas and are important for particular local areas, in the socio-economic context of Australia, or any particular state, the industry does not play a large role.

NATIONAL

Most clearly at a national level, commercial wild-catch fishing is not a significant part of the economy. The gross value of production from wild-catch fisheries in 2013/14 was \$1.5 billion.¹¹ It increased to \$1.6 billion in 2014/15.¹² When considered as a percentage of Australia's \$3.8 trillion GDP this accounts for just 0.04%.¹³

It should also be noted that in recent years Australia has become a net importer of seafood. Research from ABARES notes that since 2007/08, "the gap between the value of fisheries and aquaculture products imported and exported has widened."¹⁴ The most heavily imported products include prepared or preserved fish, frozen prawns, frozen fish, and prepared or preserved prawns.¹⁵ There is no risk that the national marine reserves network proclaimed in 2012 would impact on the seafood available to the Australian public.

¹¹ ABARES (2015), *Australian fisheries and aquaculture statistics 2014*, http://data.daff.gov.au/data/warehouse/9aam/afstad9aamd003/2014/AustFishAquacStats_2014_v1.0_0.pdf

¹² ABARES (2016), *Australian fisheries and aquaculture statistics 2015*, http://data.daff.gov.au/data/warehouse/9aam/afstad9aamd003/2015/AustFishAquacStats_2015_v1.0_0.pdf

¹³ Note that even this overstates the value of fishing in the national economy, as the gross value of production does not consider the cost of inputs from other industries, whereas GDP calculations include only the 'value added' by each industry and subtract inputs from other industries.

¹⁴ ABARES, *Australian fisheries and aquaculture statistics 2014*, http://data.daff.gov.au/data/warehouse/9aam/afstad9aamd003/2014/AustFishAquacStats_2014_v1.0_0.pdf p.1

¹⁵ ABARES, *Australian fisheries and aquaculture statistics 2014*, http://data.daff.gov.au/data/warehouse/9aam/afstad9aamd003/2014/AustFishAquacStats_2014_v1.0_0.pdf

By way of comparison, the direct value of marine tourism Australia-wide has been estimated at \$28 billion in 2013-14. Taking into account the value of inputs from other industries, this represented \$15 billion in value added in that year.¹⁶

STATE

Similarly, no state or territory has a significant part of its economic production derived from commercial wild-catch fishing. Tasmania, South Australia and Northern Territory are the largest states by this measure, as shown in Table 1 below:

Table 1: Gross Production Value of Wild-catch Fishing

	GVP (\$,000)	% of GSP/GDP
New South Wales	91,633	0.02%
Victoria	54,840	0.02%
Queensland	191,192	0.06%
South Australia	210,410	0.22%
Western Australia	416,919	0.17%
Tasmania	176,947	0.73%
Northern Territory	30,359	0.13%
Commonwealth	338,184	N/A
Total	1,510,484	0.04%

Source: ABARES, Australian fisheries and aquaculture statistics 2015, NB: These figures represent the value of catch taken in 2013/14. This data has been used to stay consistent with the ABARES analysis cited elsewhere in the report.

It should be noted in Table 1 that much of the gross value derived from Commonwealth waters would relate to boats working out of Queensland ports, as is clear from analysis in the following sections. Regardless, it is clear from this data that there are minimal socio-economic impacts from national marine reserves at a national or state level. Any impacts are likely to be very localised, as discussed in the following sections.

¹⁶ Deloitte Access Economics (2016) *The AIMS index of marine industry*, <http://www.aims.gov.au/documents/30301/0/AIMS+Index+of+Marine+Industry+2016/f2f7f8f3-6ae3-4094-b8d4-cb8aa90f5ae1>

Economic impacts of national marine reserves

PRODUCTION VALUES

While wild-catch fishing is a small part of any state's economy, the impact of the 2012 proclaimed national marine reserves was also small for each state's fishing industry. According to the federal Australian Bureau of Agriculture and Resource Economics and Sciences (ABARES) the value of fishing displaced by the 2012 reserves is a very small percentage of total GVP in all states. ABARES estimates the total value of production in wild-caught fisheries at \$1.5 billion nationally.¹⁷ Displaced catch from the 2012 proclaimed zones would account for only 0.6% of GVP in the relevant jurisdictions, as shown in Table 2 below:

Table 2: Gross value of production by state and impact of 2012 reserves

	Total GVP (\$,000)	Displaced GVP (\$,000)	% of total GVP
Commonwealth	338,184	5,096.30	1.5%
New South Wales	91,633	181.5	0.2%
Northern Territory	30,359	192	0.6%
Queensland	191,192	564.3	0.3%
South Australia	210,410	135.9	0.1%
Western Australia	416,919	2,031.30	0.5%
Victoria	54,840	0	0%
Tasmania	176,947	0	0%
Total	1,510,484	8,201.40	0.5%
Total, affected jurisdictions	1,278,697	8,201.40	0.6%

Source: Total GVP taken from ABARES (2015) *Australian fisheries and aquaculture statistics 2014*; Displaced GVP taken from ABARES (2016) *Commercial fishing displacement under the Panel-recommended Commonwealth marine reserve zoning scheme*

¹⁷ Note these figures are from 2013-14, but are repeated in the ABARES (2016) *Commercial fishing displacement under the Panel-recommended Commonwealth marine reserve zoning scheme*, <https://www.environment.gov.au/system/files/pages/23061bf8-df19-4b74-b867-5a57ccbc5c8b/files/commercial-fishing-displacement-panel-recommended-zoning-scheme-abares.pdf>

Table 2 shows that the greatest impact on the value of fisheries from the 2012 national marine reserves was in Commonwealth waters, affecting just 1.5% of the \$338 million annual GVP.

The ABARES assessment of Government’s 2017 proposed zones puts displaced GVP from the newly proposed zones at 0.3% of total GVP in the affected jurisdictions.¹⁸ Given the minimal impact of the 2012 national marine reserves on total GVP of each states’ fishing industry, the proposed 2017 zoning solutions similarly increase GVP by small amounts, and in the case of New South Wales even slightly reduce GVP, as shown in Table 3 below:

Table 3: Impact of 2017 management plan on total GVP

	Total estimated GVP under 2012 reserves (\$,000)	Total estimated GVP under 2017 reserves (\$,000)	Returned GVP (\$,000)	Returned GVP (%)
Commonwealth	333,087.7	336,753.90	3,666	1.08%
New South Wales	91,451.5	91,497.10	-22.4	-0.02%
Northern Territory	30,167.0	28,475.50	7.8	0.03%
Queensland	190,627.7	191,007.80	281.4	0.15%
South Australia	210,274.1	210,127.10	0	0%
Western Australia	414,887.7	416,715.10	147.8	0.04%
Total	1,270,495.6	1,274,576.40	4,080.8	0.32%

Source: Total GVP taken from ABARES (2015) *Australian fisheries and aquaculture statistics 2014*; Displaced GVP taken from ABARES (2016) *Commercial fishing displacement under the Panel-recommended Commonwealth marine reserve zoning scheme*

Table 3 shows that under ABARES estimates the 2017 draft plans to reduce marine protection return just 1.08% of GVP in Commonwealth waters, the most affected jurisdiction. Effects on state waters are minimal, less than 1% in all cases.

ABARES also estimate changes in regional domestic product resulting from the introduction of national marine reserve network. The ABARES 2017 report estimates

¹⁸ ABARES (2017), *Potential displacement of commercial fisheries by Commonwealth marine reserve zoning scheme*, <https://parksaustralia.gov.au/marine/pub/potential-displacement-of-commercial-fisheries-draft-management-plans-2017.pdf>

that in the short term there would be a reduction in regional economic activity of \$7.2 million compared with the reference case of no reserves.¹⁹

ABARES' 2012 reports estimate the short term reduction in regional domestic product resulting from the five specific marine reserve regions (Coral Sea \$7.5 million; North \$3.3-\$4.8 million; North West \$1.0-\$1.1 million; South West \$5.1 million; Temperate East \$0.9 million).²⁰ In each instance, the authors note that changes in economic activity are expected to be "negligible in the context of the state and national economies".

¹⁹ ABARES (2017), *Potential displacement of commercial fisheries by Commonwealth marine reserve zoning scheme*, <https://parksaustralia.gov.au/marine/pub/potential-displacement-of-commercial-fisheries-draft-management-plans-2017.pdf>

²⁰ ABARES (2012), [http://www.environment.gov.au/topics/marine/marine-reserves/overview/background#Social and economic assessments](http://www.environment.gov.au/topics/marine/marine-reserves/overview/background#Social%20and%20economic%20assessments)

Environmental impacts of BAP/Draft plans

In July of 2017 the Federal government released new national marine reserve zoning maps that largely reflect the recommendations contained in the 2015 BAP report. While the economic benefits of the changes to the 2012 proclaimed national marine reserves are modest, the environmental impacts of these changes are considerable. 40 million hectares would be removed from the country’s marine sanctuary network, the single largest reduction environmental protection in Australia’s history.²¹

The proposed zoning arrangements will open Australia’s national marine reserves to fishing activities and potential mining. The new zones allow for fishing activity that the Expert Science Panel identified as posing an unacceptable risk to marine conservation values, shown in Table 12 below:

Tables 12: Fishing gear types allowed in the national marine reserves that have been assessed as incompatible with marine conservation values

Marine Reserve Networks	Fishing Gear Types assessed as incompatible by the FGRA and upheld by the ESP
Coral Sea and Temperate East	Demersal/bottom trawl Pelagic Longline Mid-water Trawl Demersal Longline Purse Seine Fish Traps Danish Seine Mesh nets (gill nets) Beam Trawl
South-west	Demersal/bottom trawl Demersal longline Pelagic longline Gillnet
North-west	Demersal/bottom trawl Pelagic longline Demersal longline

²¹ Beaver (2017), *The New Management Plans for Australia’s Marine Parks: Centre for Conservation Geography Critique*, <http://www.conservationgeography.org/>

	Demersal gillnet Pelagic gillnet Fish trap
North	Demersal/bottom trawl Semi demersal trawl Set mesh nets Demersal longline Pelagic gillnet

Source: The New Management Plans for Australia's Marine Parks: Centre for Conservation Geography Critique, Appendix 1

The environmental risks associated with different fishing types can be more pronounced depending on the areas that they are employed. For this reason, fishing types were assessed by the FGRA for their suitability and potential environmental impact on each of the proposed marine reserves. Some of these findings are summarised below.

- Demersal/bottom trawl – nets towed by boats along the sea floor. Can catch unwanted species and damage sensitive habitats like corals and seagrass beds.²² Demersal Trawl was found to have an unacceptable level of risk in the North Marine Reserve on two high risk species of rays in Van Diemen, as well as sawfishes in the Van Diemen and Gulf of Carpentaria.²³
- Pelagic Longline – catches bycatch species such as sharks, turtles, marine mammals and seabirds.²⁴ In the North-west Marine region, this fishing type was identified as posing an unacceptable level of risk on cetaceans (small whales), and potentially three species of sharks.²⁵
- Gillnet - has the potential to interact with marine mammals.²⁶ In the South-west Marine Reserve, gillnetting was found to pose an incompatible level of risk on sea lions and sharks.²⁷

²² Australian Fisheries Management Authority (n.d.) Trawling, <http://www.afma.gov.au/portfolio-item/trawling/>

²³ Lack (2010), *Assessment of risks that commercial fishing methods may pose to conservation values identified in the Areas for Further Assessment of the North and North-west Marine Regions*, <https://www.environment.gov.au/system/files/resources/629be75b-5c16-4d6e-944e-c104ee312ac6/files/fishing-risk-assessment.doc>

²⁴ Australian Fisheries Management Authority (n.d.) Longlining, <http://www.afma.gov.au/portfolio-item/longlining/>

²⁵ Lack (2010), *Assessment of risks that commercial fishing methods may pose to conservation values identified in the Areas for Further Assessment of the North and North-west Marine Regions*, <https://www.environment.gov.au/system/files/resources/629be75b-5c16-4d6e-944e-c104ee312ac6/files/fishing-risk-assessment.doc>

²⁶ Australian Fisheries Management Authority (n.d.) Gillnets, <http://www.afma.gov.au/portfolio-item/gillnets/>

- Fish traps - while considered to have a minimal impact on the marine environment, they can become snagged on the bottom of the ocean and get broken off.²⁸ In the North-west Marine region, this was found to pose a potentially unacceptable level of risk to demersal fish slope communities.²⁹
- Purse seine - while this fishing type is generally considered to have very little impact on non-targeted fish species,³⁰ it was rated as an Unacceptable Level of Risk (pending further assessment) in the Batemans area due to its potential impact on cetaceans.³¹

²⁷ Dept. of Sustainability, Environment, Water, Population and Communities (2010), *Assessment of risks that commercial fishing methods may pose to conservation values of the South-west Marine Region*, http://conservationgeography.org/sites/default/files/SW_2010_fishing-methods.pdf

²⁸ Australian Fisheries Management Authority (n.d.) Traps, <http://www.afma.gov.au/portfolio-item/traps/>

²⁹ Lack (2010), *Assessment of risks that commercial fishing methods may pose to conservation values identified in the Areas for Further Assessment of the North and North-west Marine Regions*, <https://www.environment.gov.au/system/files/resources/629be75b-5c16-4d6e-944e-c104ee312ac6/files/fishing-risk-assessment.doc>

³⁰ Australian Fisheries Management Authority (n.d.) Purse Seine, <http://www.afma.gov.au/portfolio-item/purse-seine/>

³¹ Morison & McLoughlin (2010), *Assessment of risks that commercial fishing methods may pose to conservation values identified in the Areas for Further Assessment of the East Marine Region*, http://conservationgeography.org/sites/default/files/EMR_FGRA_Final_12August2010.pdf

Global trends

Australia's moves to reduce marine protection come as other countries are looking to increase the size of fully protected, no-take marine protection zones.^{32, 33} It runs counter to the recommendations made at the 2012 World Conservation Congress, which implored nations to not regress on protection levels.³⁴

In 2016, the United States expanded Papahānaumokuākea Marine National Monument into the world's largest protected area. Following decades of incremental protection moves, the Marine National Monument was founded by George W. Bush in 2006. Barack Obama then quadrupled the size of the reserve to 1,508,870 square kilometres in 2016.³⁵

Elsewhere, the United Kingdom has established a massive no-take zone in the Pitcairn Marine Reserve, covering more than 830,000 km². In 2016, Jonathan Sinclair, the British High Commissioner to New Zealand and Pitcairn's Governor, noted that it was "a really strong statement of Britain's desire to protect its unique flora and fauna around the world."³⁶

Chile has announced that 100,000 km² of waters around Patagonia will be fully protected by 2020, having already established the nearly 300,000 km² Nazca-Desventuradas Marine Park. The creation of Nazca-Desventuradas Marine Park, which

³² Marine Conservation Institute (2017), *How much of our ocean is protected?* <http://mpatlas.org/>

³³ Beaver (2017), *The New Management Plans for Australia's Marine Parks: Centre for Conservation Geography Critique*, <http://www.conservationgeography.org/>

³⁴ IUCN (2012) *Resolutions and Recommendations: World Conservation Congress Jeju, Republic of Korea 6-15 September 2012*, https://cmsdata.iucn.org/downloads/resolutions_and_recommendations_2012.pdf

³⁵ Papahānaumokuākea Marine National Monument (n.d.) Timeline, <https://nmspapahanaumokuakea.blob.core.windows.net/papahanaumokuakea-prod/media/archive/pdf/timeline.pdf>; Eilperin (2016) *Obama creates the largest protected place on the planet, in Hawaii* https://www.washingtonpost.com/politics/obama-to-create-the-largest-protected-place-on-the-planet-off-hawaii/2016/08/25/54ecb632-6aec-11e6-99bf-f0cf3a6449a6_story.html?utm_term=.094b09c0933b

³⁶ <http://www.radionz.co.nz/international/programmes/datelinepacific/audio/201816754/new-marine-reserve-established-around-pitcairn-island>

is the largest marine reserve in the Americas, tripled the amount of water off the shores of Chile that are fully protected.³⁷

In 2015 New Zealand reiterated its commitment to marine protection by declaring the Kermadec Ocean Sanctuary. While the sanctuary is not yet operating as a protected area, John Key's conservative National Party maintains that it will work to establish the 620,000 km² reserve if re-elected in the upcoming election.³⁸

³⁷ Lee (2015) *Chile Creates Largest Marine Reserve in the Americas*,
<http://news.nationalgeographic.com/2015/10/151005-desventuradas-islands-marine-protected-area-conservation-science/>

³⁸ Morton (2017) *Election Policy Series: Passions high over natural assets*
http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11907764

Conclusion

Australia is swimming against the tide on marine conservation. While other countries are looking to protect important marine habitats, Australia is moving in the opposite direction.

Worse still, we are doing this for the wrong reasons. Establishing substantial marine parks along the lines of the 2012 proclaimed areas would bring minimal economic and social cost. Any impacts are confined to a handful of companies and communities that could be easily assisted to adapt. Economic benefits associated with marine conservation have not been considered in the draft plans.