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Hon Simon O'Brien MLC, Chairman
Standing Committee on Environment and Public Affairs
Parliament House
Perth WA 6000

Dear Chairman

Petition No 27 – Opposing Great White Shark Cull

I write to you in support of the issues raised in the above petition, which calls on the Legislative Council to recommend that the plan to pre-emptively kill Great White Sharks be withdrawn and for Parliament to inquire into science-based approaches to managing shark-human interactions.

I note that, to my knowledge, this issue has not been taken to the Parliamentary Commissioner for Administrative Investigations (Ombudsman).

I summarise my reasons for supporting this petition as follows.

1. Great White Sharks are legally protected, based on science

As outlined in the petition, Great White Sharks (*Carcharodon carcharias*) are listed as a "totally protected" in the Fish Resources Management (FRMA) Act 1994 and as "vulnerable" in the Wildlife Conservation Act 1950. They are also listed as "vulnerable" under the Federal Environment Protection and Biodiversity Conservation (EPBC) Act 1999; and internationally listed on the Convention of International Trade in Endangered Species of wild fauna and flora (CITES) and the Convention on Migratory Species (CMS), because of their significant and ongoing population decline both in Australian and international waters.^{1 2} I submit that this species has been so widely listed for legal protection based on sound science and it is untenable for any Government to put aside these protections without providing a scientific case, which is yet to have been presented.

No assessment by the WA Environmental Protection Authority or the Federal authority under the EPBC Act has been conducted.

2. Impacts on our oceans and key industries

If numbers of Great White Sharks in our ocean were further reduced this would signify further loss of a form of charismatic mega-fauna, on which some sectors of Australia's tourism market depends.

¹ http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=64470

² <http://www.environment.gov.au/topics/marine/marine-species/sharks/whiteshark>



It would also have implications for the health of our Western Australian marine life, which supports our tourism industry, leisure industries and commercial fisheries. Great White Sharks are the archetypal top-order animal, otherwise called an 'apex predator'. Apex predators are needed to keep marine ecosystems balanced.

3. Pre-emptive killing of Great White Sharks that have posed no danger is illogical

While an argument can be mounted for killing an individual animal (even if a protected species) that is in the process of threatening a human life, the proposal to pre-emptively cull Great White Sharks through the use of drum lines and hunting and killing specimens over three metres that venture within 1 kilometre of the shore is not based on this argument. The presence of a Great White Shark within 1 kilometre of a human being in the water does not equate to an imminent threat to that human's life. In fact, as CSIRO research scientists have commented from detailed observation, Great White Sharks are often observed much closer to humans in the water without any attack occurring.³

4. A fundamental mismatch between policy and the main intended policy outcome

The stated intention of this policy is 'to improve shark safety at popular beaches' and the Premier has also commented that the policy aims to restore public confidence in the safety of our beaches.⁴ However, there is anecdotal evidence that baited drum lines draw in more sharks.⁵ Further, there is clear evidence that many Western Australians are concerned about this possibility, as is clearly demonstrated in the request by organisers of the annual Rottnest Channel swim to have drum lines removed from the water a week before their event for "the safety of swimmers".⁶

5. Drum lines will pointlessly kill vast numbers of other marine animals

The proposed use of drum lines will put at risk vast numbers of other sharks, many of which are harmless, rays, large fish, dolphins, sea lions and potentially turtles that, along with other warmer-water animals, are occasionally encountered off Perth. This bycatch problem was identified in a report commissioned by the WA Fisheries Department in 2012, which unambiguously stated: "Due to the environmental impacts of shark control activities, it is not recommended that neither shark nets nor drum-lines be introduced into Western Australia".⁷

The problem of the amount of bycatch vastly outnumbering targeted species on drum lines is further confirmed by experiences in Queensland and New South Wales, and KwaZulu Natal province in South Africa, despite attempts in these jurisdictions to reduce bycatch by using different hooks and gear, trials of different baits and releasing by-catch when possible.

In Queensland in 2013, just one per cent of 566 sharks captured last year, were Great White Sharks, which are the main species of shark implicated in fatal attacks on humans in WA. Fifty per cent of

³ <http://www.smh.com.au/environment/csiro-researchers-find-shallows-off-nsw-coast-home-to-250-young-great-white-sharks-20140116-30xu0.html>

⁴ <http://www.mediastatements.wa.gov.au/pages/StatementDetails.aspx?listName=StatementsBarnett&StatId=8039>

⁵ <http://www.perthnow.com.au/news/western-australia/baited-drum-lines-to-catch-sharks-create-more-dangerous-situation-says-phd-student/story-fnhocxo3-1226780883945>

⁶ <http://au.news.yahoo.com/thewest/a/20902875/swimmers-request-drum-line-removal/>

⁷ 'Likely effectiveness of netting or other capture programs as a shark hazard mitigation strategy in Western Australia' (McPhee, D. Bond University, 2012).
http://www.fish.wa.gov.au/Documents/occasional_publications/fop108.pdf

the sharks captured in Queensland were less than two metres in length.⁸ It appears that release rates for captured sharks on drum lines may not be high as most animals die first.⁹

Drum line-specific statistics given in the annual reports of the KwaZulu-Natal Sharks Board show that Great White Sharks have made up five per cent of their total reported shark captures on drum lines to date.¹⁰

6. We can make people safer by focusing on the facts

With varying degrees of certainty, Great White Sharks have been identified as the species involved in all of the fatal shark attacks in WA in recent years. A 2012 study by the WA Fisheries Department (which was referenced by the WA Government in its application for an exemption under the EPBC Act) examined circumstances surrounding all fatal great white attacks in WA since 1995 and summarised them as:

Higher Risk	Neutral	Lower Risk
Offshore (> 30 m from coastal shore)	Time of Day	Near Shore (< 30m from coastal shore)
Winter/Spring	Air Temperature	Summer/Autumn
Cooler Water (< 20° C)	Weather – light, rain and wind conditions	Warmer Water (> 22° C)
Deeper Water (> 5 m depth)		Shallow Water (< 5m depth)
Near whale carcasses and other potential attractants including seal/sea lion colonies		

Clearly, as the report itself states, for the vast majority of water users – that is swimmers who typically stay within 30 metres of the shore and in less than 5 metres depth and generally swim when it is hot – the risk of a fatal shark attack is low. The groups at greatest risk of a fatal shark attacks are snorkelers/divers and surfers/kayakers who go offshore, into deeper water and also may be more likely to be active in the water outside of hot months. For these higher-risk groups I submit that there are more appropriate measures that will aid their protection including tagging and monitoring shark movements, education about the risk factors highlighted in this report, and shark repellent devices that are already on the market but possibly would benefit from further government support.

To address the fact that many people may remain afraid of sharks even while swimming in shallow, inshore water, I suggest that both education about what are the real risks of shark attack and the installation, where suitable, of shark-proof enclosures such as on trial at Coogee Beach, are the most appropriate Government responses.

Conclusion

In concluding, I refer to Surf Life Saving Western Australia's 2012-2013 Annual WA Coastal Safety Report, which reports 17 people drowned off WA's coast last year compared to one fatal shark

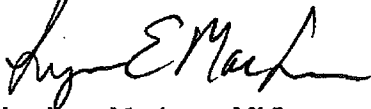
⁸ QSD Dept of Ag, Fisheries and Forestry website (figures for drum lines and nets combined): <http://www.daff.qld.gov.au/fisheries/services/shark-control-program/catch-numbers>

⁹ <http://www.abc.net.au/local/stories/2013/01/14/3669216.htm>

¹⁰ <http://www.shark.co.za/Downloads.aspx?c=4>

attack.¹¹ This tragic and shocking statistic marks a big increase on previous years' coastal drowning deaths. Snorkelers/Scuba divers and Surfers/Bodyboarders, together with rock fishers, made up the majority of these deaths, which all took place outside of SLSWA patrolled beaches and in many cases, in regional and remote areas. I commend SLSWA's recommendations for action in the report to addressing this alarming statistic, including plans for outreach and education of the risk groups. In taking action to make our beaches and coast safer, it may be more important than ever that we focus on the facts about the risk of a fatal shark attack, as well as the facts about the much higher risk of drowning.

Regards



Hon Lynn MacLaren MLC
Member for South Metropolitan Region
Greens WA Spokesperson on Biodiversity

30 January 2014

¹¹ <http://surflifesavingwa.com.au/safety-rescue-services/coastal-drowning-and-injury-stats>