



Minister for Water; Fisheries; Forestry; Innovation and ICT; Science

Our ref: 75-08258

Hon Matthew Swinbourne MLC
Chair
Standing Committee on Environmental and Public Affairs
Parliament House
4 Harvest Terrace
WEST PERTH WA 6005

Via email: env@parliament.wa.gov.au

Dear Mr Swinbourn

PETITION 099 – SMART DRUMLINE TRIAL

Thank you for your letter dated 14 February 2019 regarding Petition 099. Please find enclosed detailed responses to the queries and comments contained in the petition. The responses have been grouped into the main themes that made up the several pages of content provided with the petition.

Thank you for the opportunity to respond.

Yours sincerely

A handwritten signature in black ink, appearing to be 'Dave Kelly', written over a large, faint circular watermark or stamp.

Hon Dave Kelly MLA
MINISTER FOR FISHERIES

Enc

Responses to Petition 099 – SMART Drumline Trial

Lack of evidence

The Western Australian (WA) Government agrees that more rigorous scientific evidence is required in order to make informed decisions about the SMART (Shark Management Alert in Real Time) drumlines. The scientific trial of SMART drumlines has been specifically designed to provide robust data that can be used to determine if SMART drumlines are an effective shark hazard mitigation tool.

The ocean environment is under threat

Sharks play an important role in marine ecosystem tropho-dynamics and this is part of the reason that non-lethal methods have been selected for scientific testing. Additional data will also be collected during the trial that will be used in a range of studies aimed at filling key gaps in the understanding of white shark behaviour and population dynamics in Australia. SMART drumlines provide an immediate alert via satellite if a bait is taken so that a response can be initiated immediately. Critically, the vessel undertaking the activity remains on standby for the duration of drumline deployment. The aim of using a real-time alert is to minimise the time that white sharks or bycatch spend hooked. The rapid response time, use of circle hooks and external rather than internal tags is expected to minimise the possibility of significant injury. This system was specifically developed to alleviate impacts (and community concerns) regarding unnecessary mortalities of target and non-target species in a hazard mitigation program.

Published figures from the NSW SMART drumline program demonstrate the very high survival rates for white sharks and other hooked animals. SMART drumlines are an alternative to unattended drumlines and shark nets that are checked daily at best, and often result in the death of captured animals. As there has been no previously published research on the efficacy of this type of technology for adult white sharks, this project aims to close this information gap.

A crucial component of the study is the ability to assess post-release survival of white sharks over a period of months. This will be assessed from data generated by pop-up satellite archival tags (PSAT) attached externally to each white shark and programmed to release if the shark dies (i.e. stops moving). If mortality were to occur following the tagging and relocation process, this information will be transmitted via satellite from the tag that has “popped” to the surface and this will be reported.

Potential for lethal-measures to be used

The WA Government is committed to non-lethal shark mitigation options and with this in mind, a trial of SMART drumlines is being undertaken. The welfare of the contractor, sharks and bycatch animals will be the primary concern during this trial. The non-lethal methods being employed, and the use of external PSAT tags that can determine post-release survival of white sharks, has been through a rigorous and independent animal ethics approval process. Note that the Animal Ethics Committee of the Department of Primary Industries and Regional Development has independent community and university members who were actively involved in the assessment of the ethics proposal.

A Ministerial Reference Group has been formed to provide feedback on the trial. Reference group members continue to provide feedback which is considered and acted on where possible. In addition, independent observers, nominated through the Ministerial Reference Group, are welcome to observe SMART drumline fishing activities on board the contractor’s vessel and provide feedback to the reference group.

Do not proceed with this trial. Wait for solid evidence from NSW that SDLs increase safety and protect sharks

Despite a number of requests, the New South Wales Government has refused to provide the data from the SMART drumline trials that they have undertaken. Without access to this data, it is not possible to assess the effectiveness of SMART drumlines as a shark hazard mitigation tool. In light of this, the WA Government has made a decision to conduct its own scientific trial into the technology.

Better promote technology that does have scientific backing by offering a higher rebate.

The WA Government will continue to consider scientifically tested shark mitigation technology, including a world-first \$200 rebate for approved personal shark deterrent devices. More than 3350 rebates have been taken up by Western Australian's since the commencement of the rebate scheme on 26 May 2017. Devices specifically designed for both surfers and divers are eligible for the rebate.

Provide a more timely response to the removal of whale carcasses

The WA Government has a clearly defined policy position on the responsibilities for whale carcass management whereby the land manager is responsible for the carcass. Depending on where the carcass is located, multiple Government bodies may become involved with managing these incidents. Where possible attempts will be made to tow a carcass out to sea or have it removed from the beach as soon as possible. Sometimes carcasses are unable to be removed due to their location or state of decomposition.

Regarding the autumn migration of salmon, stocks in this fishery continue to be healthy and well managed resulting in good catches for recreational and commercial fishers in Western Australia. Through the Sharksmart website, the public continues to be educated on safe beach use practises such as avoiding surfing or swimming near salmon schools as a wide range of shark species may come inshore to feed on the salmon. For safety reasons, rock lobster pots cannot be used in special purpose (surfing) zones at popular surf breaks within the Ngari Capes Marine Park due to concerns regarding surfers becoming entangled in the rope attached to the pots. In recent years there has been negligible if any commercial fishing effort for western rock lobster along the Capes region with only a small amount of recreational fishing effort in the area.

Trial other systems that do not risk the environment

The WA Government has provided funding towards the installation of beach enclosures at Albany, Dunsborough, Busselton, Sorrento and Quinns. Funding has also been made available to assist the City of Mandurah with the installation of an enclosure at Falcon Beach.

Trialling of other systems that have developed beyond initial proof-of-concept stage will be considered on a case by case basis. New technologies that look to have merit will be referred to the Shark Science Panel for assessment and advice. Chaired by the WA Chief Scientist, and including experts from inter-state, the panel will play an important role in assessing the new products that are backed by science.

Better assist communities temporarily affected by shark incidents

The WA Government has provided significant investment in shark hazard mitigation to provide the community with information to assist in making an informed decision regarding their ocean use. In addition, investments have also been made to provide aerial and beach patrols, shark tagging, extensions to the shark monitoring network, increasing the number of tagged shark receivers to 30 and a partnership with Surfing WA to provide jetski and drone patrol capabilities and free first aid training specifically designed for surfers.

There is a state-wide ban on shark tourism ventures which involve the use of a safety cage for protecting swimmers or divers from sharks. This was put in place to help reduce the risk of shark incidents by banning activities that may change the behaviour of sharks.

Do more to counter negative stereotypes and sensationalistic reports regarding sharks by conveying more constructive, moderate and realistic message.

Community awareness programs will continue to be implemented to increase awareness of shark and beach hazards and in doing so help the community make informed decisions regarding the ocean based activities. A strong community awareness program will continue throughout the SMART drumline trial and will include on site displays, real time reporting of shark captures and regular reporting of all captures. The SharkSmart website (www.sharksmart.com.au) will remain as the central online education and information source regarding shark hazard mitigation.