

The Hon Katrina Hodgkinson MP
Minister for Primary Industries
Level 30
Governor Macquarie Tower
1 Farrer Place
SYDNEY NSW 2000



Dear Minister

Re: Annual Performance Report for the Shark Meshing (Bather Protection) Program

The NSW Shark Meshing (Bather Protection) Program (SMP) operates under two Joint Management Agreements (JMAs) and a management plan, which provides for improved environmental outcomes and is required by legislation under the *Fisheries Management Act 1994* and *Threatened Species Act 1995*.

As required by Section 221Y of the *Fisheries Management Act 1994*, the Fisheries Scientific Committee's (FSC) role regarding the JMA is to:

- (1) conduct a review of the performance of all parties to the joint management agreement, and
- (2) advise the Minister of any deficiencies in implementation of the joint management agreement by any party to it.

The FSC has reviewed the performance of all parties as outlined in the SMP 2012-13 Annual Performance Report. Although operational aspects of the SMP were largely fulfilled, the FSC has significant concerns in relation to the scientific and research aspects of the SMP.

The Annual Performance Report includes the statement that "The SMP has been effective at providing a safer environment for swimmers". As the Committee has done in its review letters in previous years, it reiterates that this statement is unsubstantiated because it is not based on a scientific comparison between meshed and unmeshed beaches of shark numbers, interactions or attacks. This is the same criticism that the FSC had in the 2009-10, 2010-11 and 2011-12 assessments of the SMP, but which again has not been corrected in the 2012-13 report. The FSC requests the SMP to remove this statement from the 2012-13 Annual Performance Report.

The FSC urges the SMP to focus in 2013-14 on the components of the Strategic Research and Monitoring Program that would assist in the scientific evaluation of the SMP. This will allow the SMP to be properly assessed when the Joint Management Agreements are reviewed in 2014. The relevant available information should be gathered/presented in such a manner that the situation on unmeshed beaches that are or are not in the vicinity of meshed beaches can be evaluated. An assessment of the program is important because it is listed as a Key Threatening Process for several species of sharks. If the program is not effective at providing a safer environment for swimmers in meshed beaches than unmeshed beaches or reduces safety at unmeshed beaches near to meshed beaches, then there may be a need for modification or discontinuation of the SMP.

The FSC considers that several of the projects listed in the Strategic Research and Monitoring Program are crucial to our understanding of the impact of the SMP on both individual shark

species and NSW shark stocks. The FSC particularly welcomes the project on fisheries' interactions with Smooth Hammerhead Sharks and research on the movement of sharks (Objective 2.3, "Review data on temporal and spatial factors affecting the operation of the SMP" p. 19). The FSC supports projects such as the acoustic tagging of bull sharks (project 2.3.2). These are very important for understanding shark movements given that the results of the aerial survey project show this technique to be ineffective at sighting sharks.

The Committee notes that large numbers of Greynurse Sharks (eight being four times the 10 year average) and Humpback Whales (two, compared to a 10 year annual average of 0.1) were caught in 2012-13. If more than five Greynurse Sharks or one Humpback Whale are caught in 2013-14 a species-specific trigger point will be tripped. Given that this scenario is quite possible, the Committee would like to know how the Department proposes to address this situation should it eventuate.

The committee notes that the performance indicator for human safety was triggered in 2011-12 by a serious injury resulting from shark attack at Redhead Beach. The FSC has not yet received the report reviewing this incident under section 48 (5) of the Management Plan for the NSW Shark Meshing (Bather Protection) Program.

The Committee notes that the observer program was somewhat curtailed in 2012-13 as funding was re-directed to aerial surveillance research surveys and the "beach observation tower" program. The FSC is concerned that without substantial government financial support for the Strategic Research and Monitoring Program in the SMP, we will again be faced with an inability to assess the impact of the SMP scientifically, as per the requirements of the JMA and Management Plan. The FSC therefore urges the government to allocate a suitable budget to the science and research component of the SMP to ensure all JMA and Management Plan requirements are met.

The FSC welcomes the trial in the Sydney Central Region in 2012-13 of the practice of setting nets at a depth of approximately one metre off the bottom. The committee recommended this practice in its letter to you reviewing the 2011-12 Annual Performance Report, as a means to minimise or eliminate bycatch of rays and benthic non-target shark species, such as angel sharks. The FSC agrees that too few data are yet available for testing the statistical significance of the initiative. The Committee is pleased to note, however, that all but one of the entangled rays was released alive.

The FSC notes the substantial decline over recent years in catch numbers in the Central Coast in comparison to other regions. Indeed only one animal (a whaler shark) was caught at any beach in this region in the 2012-13 meshing season. The FSC considers that this is worthy of further investigation to determine whether this decline provides lessons that can also be applied in other regions.

The FSC would like to see a tabulation of the data that allows comparisons of catch (by species) during days when observers were present and days when they were not.

In summary, the Committee would like specific reporting and analyses on the following key issues:

- A rigorous scientific comparison of data within each management zone on shark sightings, shark attacks and beach usage rates between meshed and unmeshed beaches.
- At the individual shark level, more understanding of shark movements around nets and

the beaches of NSW. Such data would provide crucial information in the assessment of public safety and the efficacy of nets in preventing shark attacks

- Whether the mortality rate is related to set time. The Committee would like to know whether mortality is higher in nets set more than the prescribed 72 hour soak time and, if there are any available data on whether mortality is lower for shorter soak times of 24 hours or 48 hours.

Yours sincerely



Dr Don Colgan and Mr Mark Lintermans
Current members (in the absence of an appointed Chairperson)
Fisheries Scientific Committee
5 September 2013