



Australian Government

Department of the Environment and Energy

Senate Environment and Communications References Committee

Inquiry into Shark Mitigation and Deterrent Measures

Supplementary material from the Department of the Environment and Energy
in response to questions taken on notice at the Committee's hearing held in
Sydney on 16 March 2017

April 2017

Introduction

In March 2017, the Department of the Environment and Energy provided a submission to the Senate Environment and Communications References Committee regarding the Committee's inquiry into shark mitigation and deterrent measures. On 16 March 2017, Departmental officials gave evidence to the Committee at hearings held in Sydney. The Department welcomes the opportunity to provide supplementary material and points of clarification to the Committee in response to questions taken on notice at the hearing.

To assist the Committee, the Department has referenced, via footnote, each question/point of clarification to the relevant page number from the *Proof Committee Hansard, Senate, Environment and Communications References Committee, Shark Mitigation and Deterrent Measures, Thursday 16 March 2017, Sydney*, provided to the Department for review.

Is there a process (outside recovery plans) for listing shark nets as a threatening process under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)?¹

Shark nets have been assessed twice as a threatening process. The first assessment occurred under the previous *Endangered Species Protection Act 1992*. The advice that shark nets were ineligible was accepted by the Minister on 1 June 1998.

The second assessment was conducted under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the Minister agreed with the recommendation that shark nets were ineligible on 21 March 2005.

The assessment and the Threatened Species Scientific Committee's analysis for each of the species considered against the EPBC Act listing criteria are available at:

<http://www.environment.gov.au/biodiversity/threatened/nominations/ineligible-ktp/death-or-injury-to-marine-species>

A third nomination for the listing of shark nets as a threatening process to be assessed was received in 2015. The Threatened Species Scientific Committee did not recommend its inclusion on the assessment list and the Minister agreed with that recommendation. The nomination was carried over into 2016 and again not prioritised.

A nomination for the listing of shark nets as a threatening process to be assessed has again been received for consideration in 2017.

What is the process for establishing a key threatening process?²

A key threatening process can be nominated by any person under s194E of the EPBC Act. The priority of nomination is considered along with other nominations received and may be added to the Finalised Priority Assessment List (s194K). If a process is added to the assessment list, it is then assessed by the Threatened Species Scientific Committee with respect to its likely negative effects

¹ Page 18, Proof Committee Hansard.

² Page 18, Proof Committee Hansard.

on multiple species (s188(4)). The Committee makes a recommendation about its eligibility for inclusion on the list. That recommendation is provided to the Minister who makes the final decision about including the process on the EPBC Act list.

Detailed information on making a nomination and how it is assessed can be found at:

<http://www.environment.gov.au/biodiversity/threatened/key-threatening-processes>

History of the listing of the white shark as vulnerable under the EPBC Act³

The white shark (*Carcharodon carcharias*) was originally listed as Vulnerable under the *Endangered Species Protection Act 1992* in 1997, and then transferred to the threatened species list of the EPBC Act in 2001.

The white shark is also provided legislative protection under state and territory legislation throughout its range in coastal waters, and is protected under the Convention on International Trade in Endangered Species and Convention on Migratory Species conventions.

The first recovery plan for the white shark was made in 2002 and the current plan was made in 2013.

The population estimate of the white shark on the east coast of Australia (between 800 – 1200 individuals of the species).⁴

In 2014, CSIRO and partners through the former National Environmental Research Program (NERP) reported the first ever empirical estimate of adult white shark abundance – provisionally 750 to 1,200 adult white sharks for the eastern Australia population. The research is available at:

<http://nerpmarinebiodiversity2015.report/white-shark-population-and-abundance-trends/>

The current National Environmental Science Programme (NESP) Marine Biodiversity Hub project – A3 - *A national assessment of population status of white sharks* (led by CSIRO) is expected to provide an updated population estimate in December 2017.

Is there CSIRO research into shark mitigation measures under the National Environmental Science Programme?⁵

The National Environment Science Programme (NESP) Marine Biodiversity Hub project - A4 - *The status of human-shark interactions and initiatives to mitigate risk in Australia* (led by CSIRO), completed in late 2016, has conducted research into human-shark interactions and initiatives to mitigate risks.

The project and report can be accessed on the Hub's website at:

³ Page 18, Proof Committee Hansard.

⁴ Page 18, Proof Committee Hansard.

⁵ Page 19, Proof Committee Hansard.

<http://www.nespmarine.edu.au/document/status-human-shark-interactions-and-initiatives-mitigate-risk-australian-waters>

List of exemptions granted under section 158 of the EPBC Act in date order.⁶

A list of the exemptions granted under section 158 of the EPBC Act in date order are at Attachment A and available on the Department's website at:

<http://epbcnotices.environment.gov.au/exemptionnotices/>

Exemptions granted under section 158 of the EPBC Act where economic impacts have been considered as a reason for the exemption.⁷

Economic and social factors have been considerations in many exemptions issued under s158 of the EPBC Act. The following exemptions are some examples of these:

The deployment of fishing gear in Western Australian state waters to catch a shark posing an imminent threat to public safety, 2/10/2014

The statement of reasons for this exemption states at paragraph 7 that, amongst other matters, impacts on WA's tourism and economy were considerations. Paragraphs 13-15 further state the economic matters which were considered, including loss of confidence in water-based activities with potential impacts on business and WA's broader economy.

The setting of up to seventy two (72) baited drum lines each with a single approximately size 25/0 hook, in Western Australian state waters, and management of those lines, 10/01/2014

The statement of reasons for this exemption states at paragraphs 8-12 the economic and tourism related impacts that, amongst other matters, were considerations.

South Australian Spring-Summer 2000-2001 Australian plague locust control program, 21/10/2000

The statement of reasons for this exemption states the threat of losses to the SA agricultural and pastoral industry is significant in both economic and social terms.

Was section 158 reviewed by the Independent review of the *Environment Protection and Biodiversity Conservation Act 1999* (Hawke Review)?⁸

The *Independent review of the Environment Protection and Biodiversity Conservation Act 1999: interim report, 2009*, released following the public consultation undertaken as part of the Hawke Review, noted the operation of section 158. The Final Report, delivered to the Minister on

⁶ Page 20, Proof Committee Hansard.

⁷ Page 20, Proof Committee Hansard.

⁸ Page 20, Proof Committee Hansard.

30 October 2009 and publicly released on 21 December 2009 made no recommendations in relation to section 158.

Public reporting by the Queensland Government on shark control programs.⁹

Publicly available datasets on target and non-target species captured under the Queensland Government's shark control programs are available at:

<https://data.qld.gov.au/dataset?tags=shark+control>

Does the Australian Government provide any financial support for shark management programs, whether lethal or nonlethal?¹⁰

The environment portfolio does not fund shark management programs. The National Environmental Science Programme (NESP) is a primarily research based programme which funds world-class biodiversity and climate science research to assist decision-makers to understand, manage and conserve Australia's environment.

Is the Queensland shark control program discussed in current and draft marine turtle recovery plans?¹¹

The 2003 *Recovery Plan for Marine Turtles in Australia* identified that during the period 1992 – 1996 the capture rate averaged 84 turtles per year, with 84% being released alive. The 2003 *Recovery Plan for Marine Turtles in Australia* identified the Queensland shark control program as an issue of concern and recommended developing and trialling methods that reduce marine turtle take, as little was understood at the time about the level of impact of shark control methods other than netting. As a result of research into these methods, a number of Queensland shark nets were replaced with drum lines, which reduced the mortality rates of marine turtles caught as bycatch. While turtles are still being captured on drumlines, the mortality rate is lower due to the design of newer drumlines.

The new draft *Recovery Plan for Marine Turtles in Australia* (2017) is a high level national document that addresses fisheries bycatch across the industry nationally and internationally (which includes shark control methodologies). It has actions to reduce bycatch impacts and includes, for example, the use of best practice and continued innovation of marine turtle bycatch mitigation, or supporting research collaborations with commercial fishers on improving management of bycatch. It is anticipated that this Plan will be finalised during 2017.

The reason for the duration of the New South Wales North Coast Shark Meshing Trial.¹²

The time period identified for the NSW North Coast Shark Meshing Trial was stated in the NSW Government's *Management Plan for the NSW North Coast Shark Meshing Trial, November 2016*,

⁹ Page 20, Proof Committee Hansard.

¹⁰ Page 21, Proof Committee Hansard.

¹¹ Page 21, Proof Committee Hansard.

¹² Page 21, Proof Committee Hansard.

provided to the Department at the time of the s158 exemption request. The Management Plan states at Section 8 on page 3 the period of the trial will be for 12 months from the date of commencement and that the nets cannot be used for a total period of more than six months under the trial. The Management Plan is available at:

<http://www.dpi.nsw.gov.au/fishing/sharks/management/shark-net-trial>

The exemption notice issued under s158 of the EPBC Act states the exemption must be carried out in accordance with the Management Plan, therefore limiting the Trial's duration to 12 months. The EPBC Act exemption notice is available at:

http://epbcnotices.environment.gov.au/_entity/annotation/51c777fc-8ab6-e611-b33d-005056ba00a7/a71d58ad-4cba-48b6-8dab-f3091fc31cd5?t=1491885000499

Referral of the Western Australian Government's Drumline Program¹³

The WA Government referred a Shark Hazard Mitigation Drumline Program (EPBC 2014/7174) to set drumlines for three years during peak recreational periods. Assessed under the EPBC Act bilateral agreement with the WA Government, the WA Environment Protection Authority recommended that the program not be implemented due to a high degree of scientific uncertainty about impacts on the south western white shark population. Western Australia withdrew the proposal in October 2014, and processing of the proposal under the EPBC Act stopped.

Correction – Where is the Australian Whale Sanctuary?¹⁴

On page 25 of the Proof Hansard, in response to a question from the Committee's Chair, the transcript of Mr Roberts stated: *"Dolphins are covered under our act as a cetacean, but only in the Australian whale zone, which is not where the shark nets are – I understand they are three kilometres out to sea."*

To clarify, Mr Roberts was referring to the location of the Australian Whale Sanctuary, not to the location of the NSW shark nets. The Australian Whale Sanctuary (referred to by Mr Roberts as the Australian whale zone) includes all Commonwealth waters from the three nautical mile state waters limit out to the boundary of the Exclusive Economic Zone. The NSW shark nets, under the New South Wales North Coast Shark Meshing Trial, are not located three kilometres out to sea.

More information on the location of the Australian Whale Sanctuary is available at:

www.environment.gov.au/marine/marine-species/cetaceans/australian-whale-sanctuary

¹³ Page 23, Proof Committee Hansard.

¹⁴ Page 25, Proof Committee Hansard.

Did the Department receive a response from the Convention on Migratory Species following the Department's notification of the national interest exemption?¹⁵

No, a reply has not been received. It was not anticipated that the Convention's Secretariat would reply.

Are there other notification obligations under the Convention on Migratory Species, for example, regarding the grey nurse shark?¹⁶

Notification obligations only apply to Appendix I listed species. As noted in Article III, paragraph 5 of the Convention on Migratory Species (CMS), there are exceptions that may be made to the prohibition of take for an Appendix I listed species. Article III, paragraph 7 obliges Parties to inform the Secretariat of any exceptions made pursuant to paragraph 5.

As the white shark is the only CMS Appendix I listed species targeted in the NSW program, there are no other notification obligations. The grey nurse shark is not listed on the CMS Appendices.

Shark species considered migratory under the Convention on Migratory Species.¹⁷

Appendix I of the CMS lists 18 species of sharks and rays, including the following 11 which occur in Australian waters:

- white shark (*Carcharodon carcharias*)
- basking shark (*Cetorhinus maximus*)
- narrow sawfish (*Anoxypristis cuspidata*)
- dwarf sawfish (*Pristis clavata*)
- green sawfish (*Pristis zijsron*)
- largetooth sawfish (*Pristis pristis*)
- reef manta ray (*Manta alfredi*)
- giant manta ray (*Manta birostris*)
- pygmy devilray (*Mobula ereegoodootenkee*)
- Japanese devilray (*Mobula japonica*)
- bentfin devilray (*Mobula thurstoni*)

¹⁵ Page 25, Proof Committee Hansard.

¹⁶ Page 26, Proof Committee Hansard.

¹⁷ Page 26, Proof Committee Hansard.

Notification obligations under the Convention on Migratory Species regarding marine turtles and humpback whales potentially impacted by the New South Wales North Coast Shark Meshing Trial.¹⁸

As noted above, notification obligations only relate to Appendix I listed species that are being directly targeted. Bycatch is not covered by the Convention obligations.

Parties to the Convention are obliged to provide a report every three years to the Conference of Parties on measures they are taking to implement provisions of this Convention for CMS listed migratory species.

¹⁸ Page 26, Proof Committee Hansard.

Attachment A - List of exemptions granted under section 158 of the EPBC Act.

Exemption Activity Title	Date of Notice
North Coast Shark Meshing Trial, New South Wales	16/11/2016
Dispersal of the Grey-headed Flying-Fox camps at Batemans Bay, New South Wales	17/05/2016
The deployment of fishing gear in Western Australian state waters to catch a shark posing an imminent threat to public safety	2/10/2014
The exemption to capture, remove and establish a captive colony of Bramble Cay melomys (<i>Melomys rubicola</i>) from Bramble Cay, Queensland	3/09/2014
The establishment and operation of a captive management program for the Christmas Island Flying-fox (<i>Pteropus melanotus natalis</i>)	26/06/2014
Exemption for maritime environmental emergencies in accordance with the National Plan for Maritime Environmental Emergencies	6/03/2014
The setting of up to seventy two (72) baited drum lines each with a single approximately size 25/0 hook, in Western Australian state waters, and management of those lines	10/01/2014
Remediation of Flood Damage to the Warrego Highway near Marburg Range in Queensland	17/04/2011
The drilling of a relief well (and all associated activities) in production licence AC/L7 or AC/L8 to stop the current uncontrolled flow of oil, gas and condensate from the Montara H1 well	6/09/2009
Captive breeding program for the Christmas Island pipistrelle (<i>Pipistrellus murrayi</i>)	7/07/2009
Captive breeding program for the Christmas Island Blue-Tailed Skink (<i>Cryptoblepharus egeriae</i>) and the Christmas Island Forest Skink (<i>Emoia nativitatis</i>)	7/07/2009
All actions taken in response to the current severe bushfires in Victoria, including but not limited to clearance of vegetation, building of fire breaks and back burning	11/02/2009
Release of water from Lake Crescent Tasmania for essential human needs and stock	7/11/2007
The consolidation, during 2004, of science and technology activities	10/08/2004
Commonwealth/Urban and commercial new development/Christmas Island/Immigration Reception and Processing Centre and associated infrastructure	3/04/2002
South Australian Minister for Primary Industries and Resources/Agriculture/South Australia/Spring-Summer 2000-2001 Australian plague locust control program	21/10/2000
Australian Maritime Safety Authority/Oil Spill Management/Australia/National Plan to Combat Pollution of the Sea by Oil and Other Noxious and Hazardous Substances	28/08/2000