

SENATE SUBMISSION

The effectiveness of threatened species and ecological communities' protection in Australia



Cover photo - Diseased Green Sea Turtle from Edgcumbe Bay near Bowen

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Table of Contents

TERMS OF REFERENCE	3
INTRODUCTION	3
MASS MORTALITIES OF GREEN SEA TURTLES IN QUEENSLAND	5
ABBOT POINT AS AN EXAMPLE OF THE FAILURE OF INDUSTRY SELF-REGULATION AND LACK OF FEDERAL GOVERNMENT OVERSIGHT	6
PROMOTING A POSITIVE INTERNATIONAL IMAGE FOR AUSTRALIA	7
SUMMARY	7
RECOMMENDATIONS	8
REFERENCES	9
APPENDIX 1	10

List of Figures

FIGURE 1

REPORTED MARINE TURTLE STRANDINGS FROM 2007-08 TO 2011-12 FOR THE GREAT BARRIER REEF WORLD HERITAGE AREA (STRANDNET EXPORT USING VERIFIED RECORDS ONLY WITH WINDOW FOR EXPORT OF 10.681S TO 24.5S AND 142.5E TO 154.0E. ACCESSED FROM WWW.DERM.QLD.GOV.AU/STRANDNET APPLICATION ON 23 AUGUST 2012). GRAPH TAKEN FROM THE GREAT BARRIER REEF MARINE PARK AUTHORITY ANNUAL REPORT 2012

3

FIGURE 2

REPORTED DUGONG STRANDINGS FROM 2007-8 TO 2011-12 FOR THE GREAT BARRIER REEF WORLD HERITAGE AREA (STRANDNET EXPORT USING VERIFIED RECORDS ONLY WITH WINDOW FOR EXPORT OF 10.681S TO 24.5S AND 142.5E TO 154.0E. ACCESSED FROM WWW.DERM.QLD.GOV.AU/STRANDNET APPLICATION ON 23 AUGUST 2012). GRAPH TAKEN FROM THE GREAT BARRIER REEF MARINE PARK AUTHORITY ANNUAL REPORT 2012

4

Terms of reference

The effectiveness of threatened species and ecological communities protection in Australia, including:

- (a) management of key threats to listed species and ecological communities;
- (b) development and implementation of recovery plans;
- (c) management of critical habitat across all land tenures;
- (d) regulatory and funding arrangements at all levels of government;
- (e) timeliness and risk management within the listings process;
- (f) the historical record of state and territory governments on these matters; and
- (g) any other related matter.

Introduction

Dead marine turtles^{1,2} and dugongs³ are washing up on Queensland's shores en masse (Figures 1 and 2).

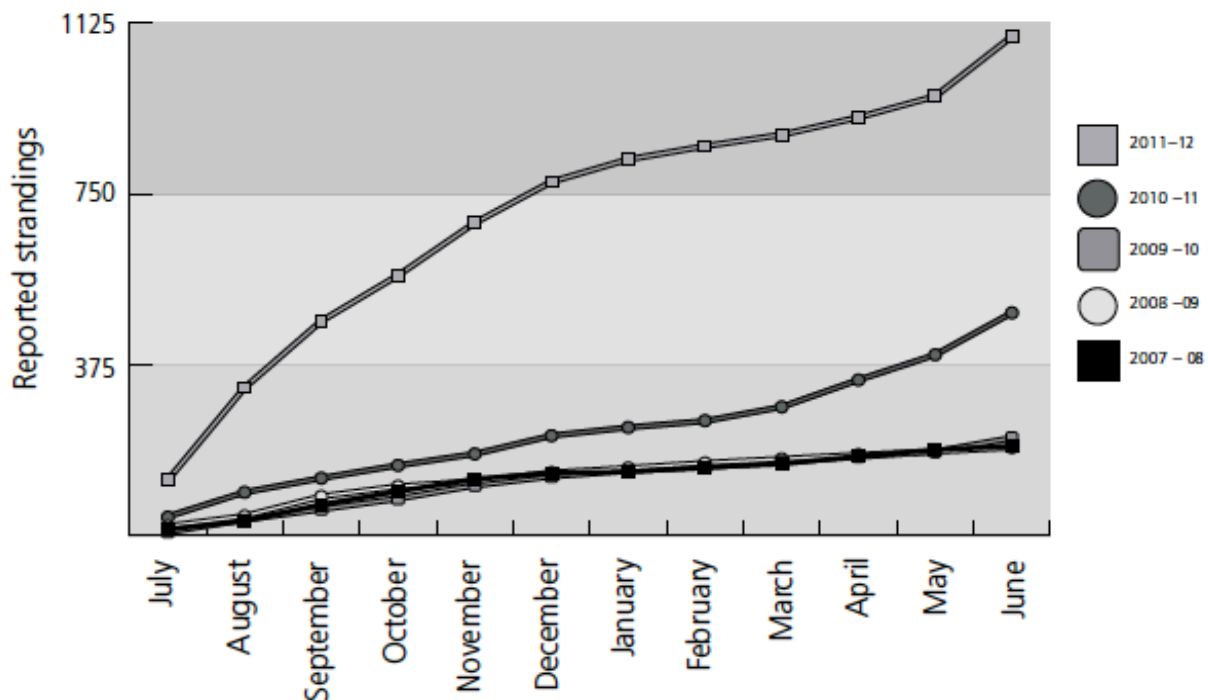


Figure 1 Reported marine turtle strandings from 2007-08 to 2011-12 for the Great Barrier Reef World Heritage Area (StrandNet export using verified records only with window for export of 10.681S to 24.5S and 142.5E to 154.0E. Accessed from www.derm.qld.gov.au/strandnet application on 23 August 2012). Graph taken from the Great Barrier Reef Marine Park Authority Annual Report 2012¹

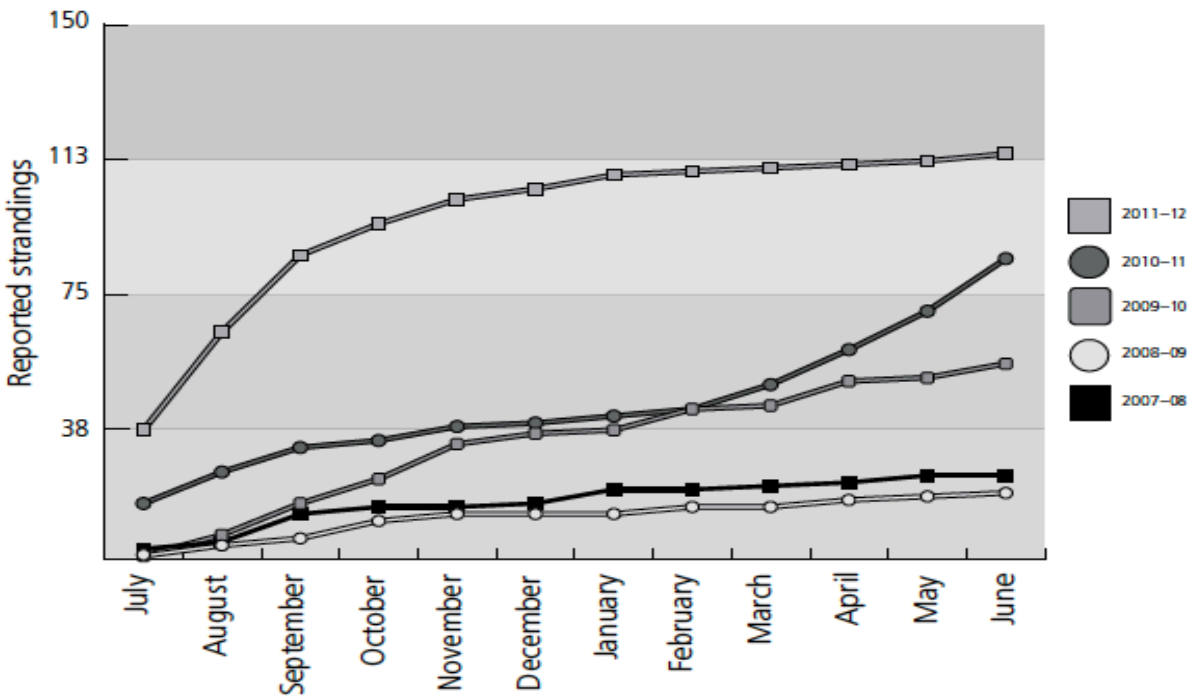


Figure 2 Reported dugong strandings from 2007-8 to 2011-12 for the Great Barrier Reef World Heritage Area (StrandNet export using verified records only with window for export of 10.681S to 24.5S and 142.5E to 154.0E. Accessed from www.derm.qld.gov.au/strandnet application on 23 August 2012). Graph taken from the Great Barrier Reef Marine Park Authority Annual Report 2012¹

It is clear that the resilience of the ecosystems supporting marine turtle and dugong populations has been destroyed, leading to sickness, starvation and mass mortality. The damage that has occurred, and is still occurring, is the result of a concomitant failure and unwillingness of mining and port industries to adequately mitigate the detrimental impacts their industries are having on coastal and marine habitats. Furthermore, federal and state governments have failed to meaningfully regulate the impacts of the mining and port industries beyond the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) approval. Finally, scientists have neglected to convey the implications of their research and to make meaningful recommendations to prevent further decline of marine habitat and populations of threatened species, such as iconic species of turtle and dugong that form part of the World Heritage Values of the Great Barrier Reef World Heritage Property and part of the cultural heritage of Australia's first people.

This submission will address the following terms of reference:

- (a) management of key threats to listed species and ecological communities;
- (d) development and implementation of recovery plans; and
- (g) any other related matter.

The aim of this submission is to highlight the plight of green sea turtle (*Chelonia mydas*), listed as endangered by the International Union for Conservation of Nature⁴ and as vulnerable by the Australian Government⁵. It further aims to use the approval of the Abbot Point coal port expansion as an example of the failure of industry self-regulation and lack of Federal Government oversight in protecting this threatened species and its habitat.

Mass mortalities of green sea turtles in Queensland

Marine turtles are a sentinel species.⁶ In simple terms, this means if they are sick the ecosystem they inhabit is probably sick too. Pollution is a leading cause of decline of marine animals, as it causes suppression of their immune systems, resulting in disease outbreaks in what would otherwise be healthy populations.

Recently marine turtle populations have suffered mass mortalities due to unknown causes at Wunjunga Beach⁷ north of Abbot Point near Bowen, and south of Abbot Point they have been plagued by viral disease⁸ that results in the growth of cancerous tumours (Cover photo). The close proximity of both sites to the Abbot Point coal port suggests that there is a direct link between the environmental pollution associated with the operation of the coal port and the mortalities of marine turtles. In line with the legislative requirement that the Precautionary Principle be applied, causality should be ruled out before any new port proposals or expansions are approved by the Minister for the Department of Sustainability, Environment, Water, Population and Communities (DSEWPC).

Recommendation

1. The Minister for DSEWPC immediately commissions a study on the impacts of ports on green sea turtles and dugongs.

Abbot Point as an example of the failure of industry self-regulation and lack of Federal Government oversight

The Abbot Point coal port site falls within a World Heritage property but not within the Marine Park, and so the proposal was referred to the Minister's department under the EPBC Act. However, as a component of the project involves an activity requiring permission under the Great Barrier Reef Marine Park Regulations 1983 (GBRMP Regulations), the referral under the EPBC Act was taken to also be an application under the GBRMP Regulations. This means that although the Great Barrier Reef Marine Park Authority provided advice to the Minister's department, there was little oversight, with members of its Reef Advisory Committees not being required to formally comment.

Instead the Minister received information from environmental engineers employed by mining companies, a conflict of interest as clear as it is consequential, for it is also the mining companies that are charged with preparing Public Environment Reports (PER) when submitting their project proposals. In the case of the Abbot Point coal port expansion, both the Hancock Coal report⁹ and the Cumulative Impact Assessment¹⁰ (CIA) omitted any mention of the mortality and disease of green sea turtles near Abbot Point.

In response to these reports, a letter with signatories of some of this country's leading environmental scientists was sent to Minister Burke (Appendix 1), detailing their concerns about the planned coal port expansion at Abbot Point and the impact it will have on green sea turtle populations already under stress. The letter also addressed concerns about the impact the development will have on the Great Barrier Reef and ecotourism. No response to this letter has been received from Minister Burke to date.

Furthermore, the CIA was released on 24/10/12. This was some twenty days after the Minister approved the port expansion¹¹ and so the Minister could not have taken the outcomes of the CIA report or any public comment into consideration when making his decision. Therefore only making his decision on the PER.

The PER was prepared for, and submitted by, Hancock Coal Pty Ltd, the company requesting the expansion. Given that this is the only document on which the Minister could have made his decision, the Minister's decision was based largely on environmental information provided to him by people with a vested interest in a positive outcome for the expansion.

Recommendations

2. The Minister for DSEWPC should act according to legislative requirements and employ the precautionary principle when making major decisions. If research is not sufficient for the Minister to make an informed decision, then the minister should not approve a development.
3. Environmental Impact Assessments should be made independently through a blind mechanism to remove the co-dependency of proponents on consultants and consultants on proponents. Public Environment Reports should not be completed by the proponent of a development, or by third parties with vested interests.

Promoting a positive international image for Australia

The decision to approve the Abbot Point coal port expansion contravenes the United Nations Education, Scientific and Cultural Organization (UNESCO) report¹² recommendations not to expand any existing ports adjacent to the Great Barrier Reef if such an expansion could have a detrimental impact on the Outstanding Universal Value of the Great Barrier Reef. UNESCO is likely to list the Great Barrier Reef as endangered as a result of not acting on its recommendations. This does not bode well for Australia's international reputation as a leader in environmental protection.

Recommendation

4. The Government should heed UNESCO recommendations if it wishes to be seen as a world leader in environmental management and sustainable development.

Summary

The green sea turtle is one of many species under threat as a result of unsustainable coastal development. Industry self-regulation has failed to maintain the environmental standards the Australian people expect and deserve; standards that are necessary to preserve the vibrant ecotourism industry in this country. The current system is one of rubber-stamping any proposal, no matter how detrimental it will be to the environment or threatened species, so long as those submitting project proposals have ticked the right boxes and submitted a PER that deliberately downplays the environmental impact of the proposed project. This is resulting in confirmation bias in which information produced by mining companies and their employees is being taken as though it was representative of the views of the wider scientific community.

Recommendations

1. The Minister for DSEWPC immediately commissions a study on the impacts of ports on green sea turtles and dugongs.
2. The Minister for DSEWPC should act according to legislative requirements and employ the precautionary principle when making major decisions. If research is not sufficient for the Minister to make an informed decision, then the minister should not approve a development.
3. Environmental Impact Assessments should be made independently through a blind mechanism to remove the co-dependency of proponents on consultants and consultants on proponents. Public Environment Reports should not be completed by the proponent of a development, or by third parties with vested interests.
4. The Government should heed UNESCO recommendations if it wishes to be seen as a world leader in environmental management and sustainable development.

References

1. <http://elibrary.gbrmpa.gov.au/jspui/bitstream/11017/1134/1/GBRMPA-Annual%20Report%202011-12.pdf>
2. <http://www.publish.csiro.au/paper/WR04097>
3. Biddle, T.M., Boyle, M. and Limpus, C.J. (2011) Marine wildlife stranding and mortality database annual report 2009 and 2010. Dugong. *Conservation and Technical Data Report* 2010 (2):1-59.
4. <http://www.iucnredlist.org/details/4615/0>
5. http://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=fauna#reptiles_endangered
6. Aguirre, A.A. and Lutz, P.L. (2004) Marine Turtles as Sentinels of Ecosystem Health: Is Fibropapillomatosis an Indicator? *EcoHealth* 1:275-283.
7. <http://www.theaustralian.com.au/news/breaking-news/mystery-turtle-deaths-stump-scientists/story-fn3dxity-1226407912120>
8. <http://www.couriermail.com.au/news/facial-tumours-plague-green-turtle-population/story-e6freomx-1226060606307>
9. <http://hancockcoal.com.au/go/current-projects/terminal-3-development-at-the-port-of-abbot-point>
10. <http://abbotpointworkinggroup.com.au>
11. <http://www.environment.gov.au/epbc/notices/assessments/2008/4468/2008-4468-approval-decision.pdf>
12. <http://whc.unesco.org/archive/2012/whc12-36com-19e.pdf>

Appendix 1

This letter was written by Mr. Jonathan Meddings, edited by Dr. Leah Burns and Mr. Stephen Ban, and endorsed by the North Queensland Conservation Council, Save the Reef, and the Sea Turtle Foundation:

An Open Letter to Minister for Sustainability, Environment, Water, Population and Communities Tony Burke,

We the undersigned are writing to express concern over the approval of a proposal to expand the coal port at Abbot Point in Queensland. Whilst we welcome the government's decision to adhere to the recent United Nations Education, Scientific and Cultural Organization (UNESCO) report¹ recommendations not to develop any new ports outside of those already existing adjacent to the Great Barrier Reef, we remain opposed to the expansion of the Abbot Point coal port for the following reasons:

- Marine turtles are a sentinel species of the Great Barrier Reef. This means when they are healthy or sick it is a good indication the ecosystem is stable or unstable. Recently, marine turtle populations experienced mass mortality due to unknown causes north of Abbot Point coal port at Wunjunga Beach.² And south of Abbot Point at Edgecumbe Bay mortality has been associated with systemic viral disease resulting in the growth of cancerous tumours.³ Research is still being conducted on the disease epidemiology. Expansion of the port prior to this research being completed - fully and by independent environmental researchers not employed by mining companies - would be to recklessly gamble with the future of the green sea turtle (*Chelonia mydas*), a species listed as endangered by the International Union for Conservation of Nature⁴ and as vulnerable by the Australian Government.⁵
- Dredging while building and maintaining the port, increased ship traffic, the associated risk of grounding, and the increased potential for oil spills and fugitive coal dust that would have adverse impacts on an ecosystem that is already under considerable stress from existing anthropogenic impacts such as pollution and nutrients, pose an unacceptable risk to the world heritage listed Great Barrier Reef. We have a moral obligation to protect this natural wonder.
- Tourism contributed \$17.6 billion to Queensland's gross state product in 2010-11.⁶ The Great Barrier Reef is one of our greatest assets and we have a financial obligation to protect it. This iconic Australian resource is a significant attraction for domestic and

international travelers. Any reduction in the quality of the reef is likely to result in a loss of biodiversity in this unique ecosystem and a resultant drop in the number of tourists.

- Whilst we commend the foresight to impose conditions such as strict air and water quality monitoring in the event of any port expansion⁷, we feel we must advise that water quality measures are not always indicative of water quality. For instance, one could neglect to test for certain measures of water quality and incorrectly conclude the water quality is good when in fact it is not. However, as already mentioned, we are already dealing with a sentinel species in the region of the proposed expansion that is suffering unprecedented mass mortalities from disease. This indicates the water quality is likely already poor, and expansion has not even yet begun.

In light of this information it could be argued that the approval of the expansion contravenes the UNESCO request not to permit any development that impacts on the Outstanding Universal Value of the Great Barrier Reef. Minister Burke, you have a history of basing policy decisions on sound science. As members of the scientific community and as conservationists we ask that you do so again in this instance and immediately rescind the planned coal port expansion at Abbot Point.

Signatories

Dr. Ellen Ariel - BSc(Hons), PhD (Aquatic Pathobiology), Senior Lecturer of Virology (James Cook University)

Mr. Stephen Ban - BSc, MSc, RPBio, PhD Candidate (James Cook University)

Ms. Belinda Billing - Land and Water Quality Coordinator, Water Quality

Dr. Leah Burns - BSc(Hons), MSc, PhD, Senior Lecturer (Griffith University)

Prof. Shaun Collin - PhD, Winthrop Professor and WA Premiers Fellow (University of Western Australia)

Dr. Libby Connors* - Environmental Historian (University of Southern Queensland)

Mr. Pete Darwin - BSc, MSc, PhD Candidate (University of Melbourne and Museum Victoria)

Mr. William Deasy - BSc(Hons), Associate Lecturer (James Cook University)

Dr. Martial Depczynski - PhD (Marine Ecology), Adjunct Lecturer (University of Western Australia)

Mr. Jonathon Dykyj - Convener of the Whitsunday Coast and Country Greens

Ms. Ginny Gerlach* - Coordinator of Keppel and Fitzroy Delta Alliance

Mr. Christopher Goatley - PhD Candidate (James Cook University)

Mr. Cliff Guy - Eco Media Principle Director

Mr. Craig Harrington - BSc (Microbiology)

Dr. Orachun Hayakijosol - BVetSc, MTropVetSc, PhD (Microbiology and immunology)

Dr. Andrew Jeremijenko* - Environmental Medicine specialist

Ms. Karina Jones - BAnVetBioSc(Hons)

Mr. Shai Joseph - BSc(adv)/Honours(Medal), Necropsy Technician (James Cook University)

Mr. Chad Kirby* - Water Quality Scientist

Dr. Lynne Van Herwerden - BSc(Hons), MSc, PhD, Lecturer of Marine Science and Coral Reef Ecosystems (James Cook University)

Mr. Scott Leggo - TEDx presenter, Australian wilderness and landscape photographer

Dr. Janice Lloyd - BSc(Hons), PhD (Veterinary Science), Lecturer in Animal Behaviour, Welfare and Ethics (James Cook University)

Mr. Tom McShane - member/stakeholder Whitsunday Coastal Turtle Management Strategy

Mrs. Maria Macdonald - Spokesperson of the Whitsunday Coast and Country Greens

Mr. Martin van der Meer - BSc(Hons) (Microbiology and immunology)

Mr. Jonathan Meddings - BMedLabSc(Hons) (Microbiology and immunology of turtles)

Assoc. Prof. Leigh Owens* - BSc(Hons), PhD, Associate Professor (James Cook University)

Mr. Jeremy O'Wheel* - Field Assistant, Environmental Change Biology Lab (University of Tasmania)

Prof. Robert Pressey - Professor, Australian Research Council Centre of Excellence for Coral Reef Studies (James Cook University)

Ms. Sandra Salidu - Eco Media Project Manager and Radiation Scientist

Dr. Sander Scheffers - PhD, Deputy Director, Marine Ecology Research Centre (Southern Cross University)

Ms. Jenny Stirling - Spokesperson for the Queensland Greens

Ms. Kylie Thurlow - BAppSc (Wildlife biology and animal behavior), BVSc Student (James Cook University)

Ms. Gabrielle Toigo - BMedLabSc (Microbiology)

Ms. Amelia Wenger* - PhD Candidate (James Cook University)

Ms. Kerri Woodcock - BA/BSc (Ecology)

Dr. Shelley Wright - BA(Hons), PhD, Quaternary Scientist
Mr. Stephen Michael Zozaya - BSc, Research Assistant (James Cook University)

* Signatories added after the letter was submitted to the DSEWPC on the 19/10/12

Notes

- 1 <http://whc.unesco.org/archive/2012/whc12-36com-19e.pdf>
- 2 <http://www.theaustralian.com.au/news/breaking-news/mystery-turtle-deaths-stump-scientists/story-fn3dxity-1226407912120>
- 3 <http://www.couriermail.com.au/news/facial-tumours-plague-green-turtle-population/story-e6freomx-1226060606307>
- 4 <http://www.iucnredlist.org/details/4615/0>
- 5 http://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=fauna#reptiles_endangered
- 6 <http://www.business.qld.gov.au/industry/tourism/investing-tourism-industry>
- 7 <http://www.theaustralian.com.au/national-affairs/new-abbot-point-coal-terminal-wins-federal-approval/story-fn59niix-1226492795146>