

Senate Standing Committee on Environment and Communications
Legislation Committee
Answers to questions on notice
Environment and Energy portfolio

Question No: 17
Hearing: Additional Estimates
Outcome: Outcome 1
Program: Wildlife Heritage and Marine Division (WHM)
Topic: Giant kelp forests
Hansard Page: 33
Question Date: 27 February 2017
Question Type: Spoken

Senator Whish-Wilson asked:

Senator WHISH-WILSON: I know you have a million things on and that you do not have enough resources—that is life. I am just interested in whether the department will actually investigate whether it is the case that they are completely gone? I am asking this for a couple of reasons. I was also supposed to dive on them last year and was warned that they were in fragile shape, so because of my lifestyle I cancelled three times. And now I have been told that they are completely gone, so I have missed my chance.

But I am not the only one. People from all around the world have come to dive on these giant kelp forests. It would be good to know if you are going to investigate whether that is actually the case.

Mr Oxley: We can engage with, and will engage with, the Tasmanian government and relevant scientific agencies to get a very contemporary understanding of the status of that ecological community and convey that back to you.

Senator WHISH-WILSON: Evidence also given by IMAS was that a very small patch is left on the south-west of Tasmania. But they believe that will not last very long either. So would the department be interested in investigating that?

Mr Oxley: We will have a look at the evidence that was given to the references committee last week and determine whether we need to ask any further questions and come back with some advice through questions on notice, if that is all right.

Answer:

The Department has prepared the following information on the current status and distribution of the Giant Kelp Marine Forest on the east coast of Tasmania following consultation with the Tasmanian Department of Primary Industries, Parks, Water and Environment and researchers from the University of Tasmania and the Institute for Marine and Antarctic Studies (IMAS).

- There has been a gradual reduction in distribution and extent of giant kelp (*Macrocystis pyrifera*) observed around Australia over the past 30 years. There also appears to have been sharp reductions on the east coast of Tasmania associated with each of the three major heat wave events in 2000-01, 2009-10 and 2015-16.
- The IMAS/University of Tasmania submission to the Senate Inquiry into the impacts of climate change on marine fisheries and biodiversity states that ocean warming has also seen the demise of approximately 95% of dense forests of giant kelp in eastern Tasmania.
- This submission also notes that climate warming has facilitated the overgrazing of kelp forests by the long spined sea urchin. This has resulted in extensive sea-urchin barrens

largely devoid of kelp and other seaweeds and a subsequent loss of biodiversity, including local collapse of abalone and rock lobster stocks.

- The giant kelp beds that surround Tasmania are much reduced and can be transitory. Divers from University of Tasmania and IMAS have observed that although it is much harder to find healthy giant kelp beds in Tasmanian waters, some giant kelp beds in the south-west region have recently become much denser.
- Large stands of giant kelp have been hard to locate on the east coast of Tasmania during the 2016-17 summer due to localised die-off caused by warm water currents, but a University of Tasmania dive team reported in early March 2017 that good recruitment of young *Macrocystis* plants was occurring at Maatsuyker Island, in an area that had been badly affected by the 2015-16 heatwave.