

## Impact of seismic testing on fisheries and the marine environment

### Northern Territory Seafood Council - Answer to Question on Notice (21 September 2020)

1. Extract from Nomination for Key Threatening Process (page 12 of draft Hansard)

Senator Urquhart quoted a section from page 3 of the Key Threatening Process (KTP) nomination and asked if I accepted that conclusion.

The full paragraph from which the sentence is from is written as:

*“While direct and instantaneous mortality (acute impacts) of adult marine fauna are plausible, there is no available information which demonstrates that it occurs in field conditions to the extent that, by itself, such direct and instantaneous mortality could lead to marine seismic activities being a key threatening process. That said, there is correlative information linking the stranding of cetaceans and giant squid with seismic activities (e.g. Engel et al., 2004; Guera et al., 2004), and experimental evidence demonstrating the morphological and ultrastructure mechanism whereby mortality of cephalopods can occur when exposed to acute noise (Andr  et al., 2011). However, given the sensitivities of larvae to anthropogenic environmental perturbations in general, it is plausible, but untested that direct and instantaneous mortality of larvae occurs, although the likely scale of such an impact is unknown. The focus of this key threatening process nomination is on the potential for chronic and cumulative impacts rather than direct mortality.”*

The nomination was compiled in 2013 and there may be research since then relevant to acute mortality. It is important to note the sentences immediately following the section queried, in that the focus of the KTP nomination was on the potential for chronic and cumulative impacts rather than direct mortality.

2. Key Threatening Process for Seismic Surveys (page 13 of draft Hansard)

On/around April 2013 the Commonwealth Fisheries Association (CFA), with the support of industry around Australia, lodged a nomination with the Department (which was Department of Sustainability, the Environment, Water, Population and Communities at that time) for marine seismic survey activities as a key threatening process under the *Environment Protection and Biodiversity Conservation Act 1999*.

The Australian Government website has the following with regards to why it was not recommended for inclusion:

*The nominations relates to the proposed impact that underwater sounds generated by human activities affect several types of responses in fish, crustaceans, molluscs, marine mammals and marine reptiles. The current understanding of the science, as presented in the nomination, demonstrates relatively small impacts (mostly behavioural) over short time scales. The case for this process leading to any species becoming threatened, or a threatened species being elevated to a higher category, is not made quantitatively. The principal effects of the threats are to marine mammals and these are widely recognised and addressed in current policy as applied to environmental assessment of applications to conduct seismic activities. Without considerably more science providing a compelling case for impacts of a scale that poses a threat to the persistence of species other than cetaceans a KTP determination would have little effect on current policy. It was therefore not recommended for inclusion on the 2014 FPAL. The nomination is not eligible for automatic reconsideration in 2015 PPAL.*

Source: <https://www.environment.gov.au/biodiversity/threatened/nominations/ktp-not-prioritised-assessment>