

4695 Entanglement of cetaceans in pot/trap lines and set nets and a review of potential mitigation methods



Simon Childerhouse, Sarah Laverick, Lesley Douglas
www.blueplanetmarine.com

1.0 Introduction

- Presentation of methodology for Project 4695 *Entanglement of cetaceans in pot/trap lines and set nets and a review of potential mitigation methods*
- To compile data from all available sources to characterise the nature and extent of cetacean interactions with commercial pot/trap lines and set nets
- Characterise the nature and extent of entanglement of cetaceans in pot/trap lines and set nets in New Zealand and make recommendations on whether or not the current levels of risk warrant development or implementation of improved mitigation
- Identify and assess the current mitigation techniques for cetacean captures in the pot/trap lines and set nets both domestically and internationally and make recommendations as to their applicability in the New Zealand market

1.1 Project outputs

- Written report characterising the nature and extent of interactions between cetacean species and set net and cray or trap lines and any domestic or international practices to mitigate these interactions.
- Recommendations on potential developments and improvements to mitigation practices.



Image: Garth Grimsley, DPAW, WA

2.0 Data Sources

- BPM will liaise closely with DOC, MPI, Fishing Industry and relevant experts to compile data from available sources relating to:
 - ▶ The current status of the pot/trap lines and set net fishery;
 - ▶ Cetacean abundance/distribution/trends in NZ waters;
 - ▶ Documented entanglement events; and
 - ▶ Mitigation techniques.
- Research trip to Nelson, Blenheim & Kaikoura to speak in person to experts in entanglement, dis-entanglement and also pot and set-net fisheries



2.1 Data Sources

- DOC entanglement records;
- Protected Species Bycatch in New Zealand Fisheries database maintained by Dragonfly Science on behalf of MPI ;
- Literature reviews of published and unpublished records of entanglement and mitigation options using standard bibliographic and web search engines.
- Google searches of New Zealand media and other articles for previously unreported records of entanglements using keywords such as entangled, entanglement, whale, etc. ;
- Review Berkenbusch et al. (2013) New Zealand Marine mammals and Commercial Fisheries and recent draft documents produced by Dragonfly Science relating to risk assessment for marine mammals and fisheries for relevant information;

2.2 Data Sources

- International scientific literature, government agency-commissioned reports, conference proceedings, commercial research, results from industry and scientific trials, and grey literature
- Discussions with members of the New Zealand Whale Disentanglement team, specifically Mike Morrissey (DOC South Island Coordinator) and Rob Chappell (DOC North Island Coordinator);
- Discussions with New Zealand marine mammal researchers with potential experience in this issue (e.g. Dr Ingrid Visser, Nadine Bott, Dr Rochelle Constantine, Dr Dave Lundquist, Dr Laura Boren, Dr Will Rayment, Nathan Walker);
- Discussions with International experts in whale entanglement and disentanglement with whom BPM already has existing relationships;
- Discussions with local tourism and fishing operators who have direct experience with this issue including Whale Watch Kaikoura (GM - Kauahi Ngapora) and NZ Rock Lobster Council (EO - Daryl Sykes);

2.2 Data Sources

- International scientific literature, government agency-commissioned reports, conference proceedings, commercial research, results from industry and scientific trials, and grey literature
- Discussions with members of the New Zealand Whale Disentanglement team, specifically Mike Morrissey (DOC South Island Coordinator) and Rob Chappell (DOC North Island Coordinator);
- Discussions with New Zealand marine mammal researchers with potential experience in this issue (e.g. Dr Ingrid Visser, Nadine Bott, Dr Rochelle Constantine, Dr Dave Lundquist, Dr Laura Boren, Dr Will Rayment, Nathan Walker);
- Discussions with International experts in whale entanglement and disentanglement with whom BPM already has existing relationships;
- Discussions with local tourism and fishing operators who have direct experience with this issue including Whale Watch Kaikoura (GM - Kauahi Ngapora) and NZ Rock Lobster Council (EO - Daryl Sykes);

3.1 Assessment

- Assessment of risk will be made based a full review of available records, an appreciation of likely uncertainty of the available information and standard risk assessment approaches (e.g. likelihood and consequence).
- The reality is that this will be a very high level approach as it is likely that data will be limited on both marine mammal abundance and risk.



4.0 Mitigation review

- BPM will conduct a review of current domestic and international mitigation techniques and address their effectiveness.
- This review will include a summary of the level of uptake, cost to fishers and industry regulatory mechanisms of any mitigation techniques used internationally.
- BPM will also assess the applicability of mitigation methods developed for overseas fisheries to the New Zealand fisheries which can vary considerably from overseas techniques (e.g. variation in gear types and materials).
- We will note current best practices, any potential effects on NZ fishers and industry and make recommendations with a focus on positive outcomes for both fishers and cetacean conservation.

5. Comments?

- Simon Childerhouse
 - ▶ Mob. +64-27-641-0164
 - ▶ Email: simon.childerhouse@blueplanetmarine.com

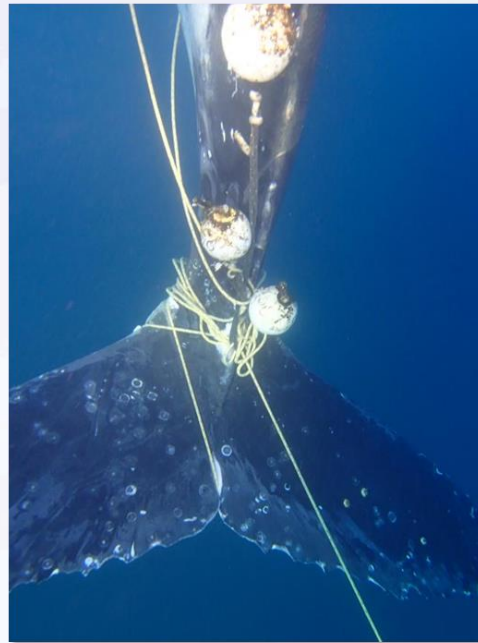


Image: DPAW, WA