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TO WHOM IT MAY CONCERN

NZMSS Submission on Maui's dolphin Threat Management Plan

This submission is made by the NZMSS Council on behalf of the New Zealand Marine Sciences Society (NZMSS), a professional society of New Zealand's marine scientists, which is also a constitutional member of the Royal Society of New Zealand.

The aims of the society include encouraging and assisting marine research in New Zealand, and providing written comment and submissions on relevant marine issues as they arise. The Society has more than 260 scientists, managers, policy makers, and students working in all aspects of marine science in New Zealand and overseas. NZMSS membership covers all aspects of scientific interest in the ocean and extends to the uptake of science in marine policy, resource management, conservation and the marine business sector. We speak for and support marine science researchers in New Zealand, and we cooperate with other scientific societies as appropriate.

NZMSS would welcome the opportunity to provide further information on the issues raised in this submission if required.

Yours sincerely,

Dr Mary Livingston
President
New Zealand Marine Sciences Society

NZMSS Submission on Maui's dolphin Threat Management Plan

We believe the review of the Threat Management Plan (TMP, DOC & Mfish 2007, MPI & DOC 2012) provides an excellent opportunity to ensure that effective protection measures are put in place for Maui's dolphin, the subspecies of Hector's dolphin found off the North Island west coast.

We would like to congratulate the Department of Conservation (DOC) and Ministry for Primary Industries (MPI) for starting this process by convening an Expert Panel to carry out a risk analysis. The Risk Assessment report (Currey et al. 2012) has been a very useful guide for us in writing this submission.

Our key concern is that the clear scientific advice provided in the Risk Assessment has not been translated into management options in the Consultation Paper (MPI & DOC 2012). There is a disconnect between the science and the management options.

We are aware that the Fisheries Act requires MPI "To provide for the utilisation of fisheries resources while ensuring sustainability" and that ensuring sustainability means: "(a) Maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations; and (b) Avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment". Under the Fisheries Act, the absence of, or any uncertainty in, any information can not be used as a reason for postponing or failing to implement protection measures. The purpose of the Marine Mammals Protection Act is the protection, conservation and management of marine mammals within New Zealand territorial and fisheries waters. In addition to these statutory requirements, New Zealand is signatory to a number of international agreements regarding the effects of fishing on the marine environment, including marine mammals, such as the Convention on Biological Diversity and the United Nations Convention on the Law of the Sea. Given these national and international obligations, we would have expected the Consultation Paper to include management options that more effectively avoid, remedy and/or mitigate fisheries impacts on Maui's dolphins than currently proposed.

The Risk Assessment report (Currey et al. 2012) provides clear advice on the relative risk associated with the range of human activities in the habitat of Maui's dolphins. The fishing effort data presented at the Risk Assessment workshop show that there is still substantial overlap between Maui's dolphins and fishing methods known to cause dolphin mortality, including gillnet fishing (Figure 1) and trawling (Figure 2).

Based on the data on the level of overlap between dolphins and fishing methods known to cause dolphin mortality, the Expert Panel estimated that five Maui's dolphins die each year in gillnet and trawl fisheries (Currey et al. 2012). This is many times higher than the sustainable level of human impact, estimated in the Risk Assessment report as one individual every 10-23 years. Therefore, the estimated level of fisheries mortality is 75.5 times higher than the sustainable level of impact (Potential Biological Removal or PBR). Fishing is clearly still the most serious threat to Maui's dolphins. The Expert Panel estimated that fishing is responsible for 95.5% of all human impacts (Currey et al. 2012). After being presented with data on the distribution and genetics of Maui's dolphins, the Expert Panel concluded they range at least as far south as Whanganui (Currey et al. 2012).

Figure 1. Gillnet effort, in km of gillnet per year, per square nautical mile (nmi), for the years 2008-2011. The areas indicated in red show the current area in which gillnets are banned, out to 7 nmi offshore from Maunganui Bluff to Pariokariwa Point and out to 2 nmi offshore from Pariokariwa Point to Hawera. The grey outline shows the boundaries of DOC's Marine Mammal Sanctuary, out to 12 nmi offshore from Maunganui Bluff to Hawera. This is figure A2.8 on page 43 of the Risk Assessment report (Currey et al. 2012).

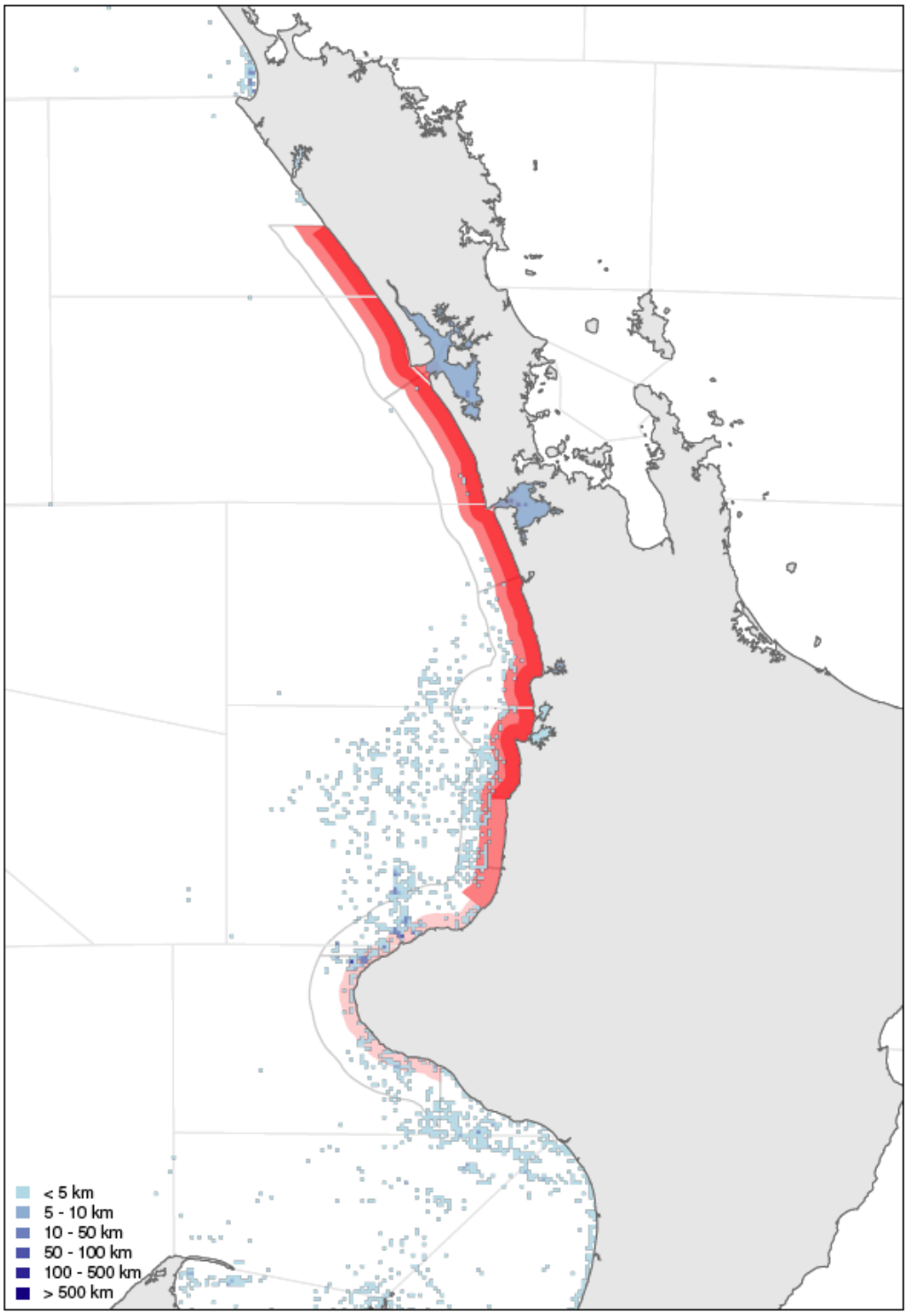
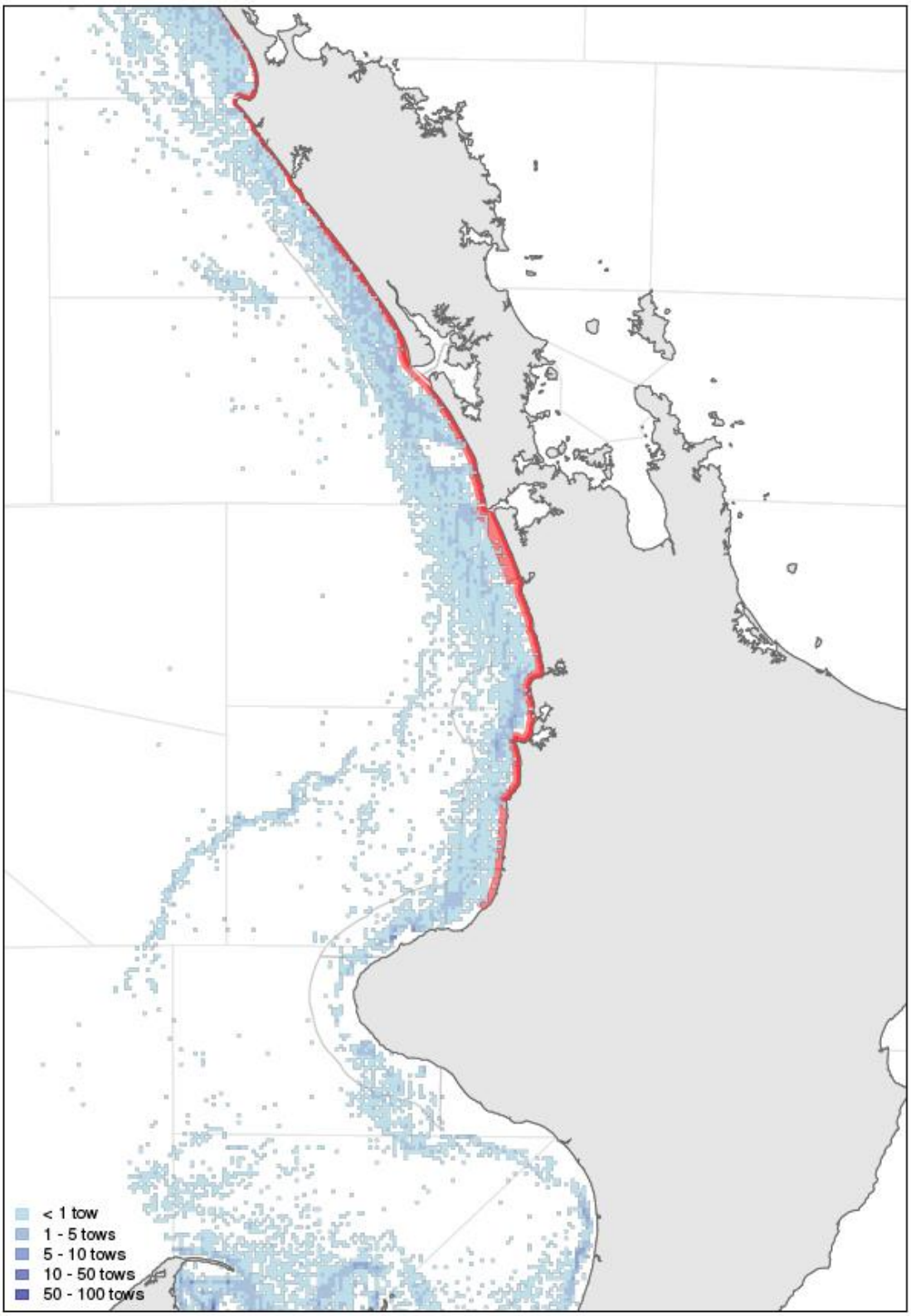


Figure 2. Trawl effort from vessels less than 43m long, measured in tows per year, per square nmi, for the years 2006-2011. Again, the areas indicated in red show the current area in which trawling is banned. The grey outline shows the boundaries of DOC's Marine Mammal Sanctuary. Visible in the southern region (Pariokariwa Point – Hawera), the grey outline is obscured by fishing effort further north. This is figure A2.11 on page 46 of the Risk Assessment report (Currey et al. 2012).



Management options to reduce fisheries mortality

In addition to the New Zealand based Expert Panel, two other groups of scientists have reviewed research data on Maui's and Hector's dolphins, including data on the level of fisheries mortality. The International Whaling Commission's (IWC) Scientific Committee (162 of the World's leading experts on whales and dolphins) concluded at its meeting in June this year that "Weak protection on the west coast South Island, a lack of protection on the north coast South Island and 'exemption' areas in other regions are preventing species recovery" (IWC 2012). They "Expressed particular concern about the low abundance of Maui's dolphin" given the latest population estimate of only 55 individuals over one year old and the rate of population decline. The Scientific Committee of the IWC recommended protection from gillnet and trawl fisheries in waters less than 100 metres deep, including harbours, and stressed the importance of avoiding further population fragmentation by ensuring a safe 'conservation corridor' in Cook Strait, between North and South Island (IWC 2012).

The IUCN discussed the issue with its Cetacean Specialist Group (about 100 world experts on whales and dolphins) and in September this year voted in favour of protection for Maui's and Hector's dolphins in waters up to 100m deep, throughout their range (IUCN 2012). The IUCN urged the New Zealand government to ban gillnet and trawl fisheries in all areas where Hector's and Maui's dolphins are found, including harbours (IUCN 2012).

DOC and MPI accept the scientific basis for the 100m depth contour as an offshore boundary (including Dawson et al. 2004, Du Fresne & Matlin 2009, Rayment et al. 2010, 2011, Slooten et al. 2004, 2005, 2006), and DOC currently use it as a trigger for more stringent mitigation requirements in seismic survey operations. However, the offshore boundaries of marine protected areas are usually based on distance from shore rather than water depth. This led to the following offshore boundaries for Option 3 in the draft TMP (DOC & Mfish 2007): 12 nmi for the North Island west coast, 6 nmi for the South Island west coast, 18 nmi around Banks Peninsula (Waiau – Waitaki River) and 12 nmi elsewhere. These distances approximate the 100m depth contour in these areas, and we would be happy to support these offshore boundaries. In the Consultation Paper (MPI & DOC 2012) the management options for non-fisheries impacts use 12 nmi as the offshore boundary for dolphin protection measures (see section 3 below). However, the management options for fisheries mortality are much less comprehensive, despite the fact that fisheries bycatch is responsible for an estimated 95.5% of the human-caused mortalities.

The management options for fisheries mortality are much less effective than those recommended by the IWC and IUCN, and inconsistent with the scientific advice in the Risk Assessment report (Currey et al. 2012). The options in the Consultation Paper clearly would not be effective in reducing Maui's dolphin bycatch to a sustainable level, neither would it allow Maui's dolphin to recover from its current 'Critically Endangered' status to a lower risk category. Options 1 and 2 represent the Status Quo and Option 3 proposes very minor changes in the offshore boundaries of the protected areas. Options 1 and 2 would leave protection measures as shown in Figures 1 and 2 above. The only difference between Option 1 and Option 2 relates to whether the Crown or the fishing industry would pay for monitoring of continued dolphin bycatch. Option 3 in the Consultation Paper would increase protection from gillnets by extending the offshore boundary in the southern part of Maui's dolphin range (Pariokariwa Point to Hawera) from the current 2 nmi to 4 nmi offshore. Option 3 also includes minor changes to the trawling regulations. Currently, Maui's dolphins are protected from trawling to 2 nmi offshore from Maunganui Bluff to Pariokariwa

Point, and to 4 nmi for a small area in the middle of their range, between Manukau Harbour and Port Waikato (see Figure 2). Option 3 would extend this 4 nmi protection area north to the Kaipara Harbour and South to Kawhia Harbour. None of the management options include any protection from trawling south of Pariokariwa Point.

Option 3 falls well short of providing consistent protection from gillnets and trawling out to the 7 nmi boundary (current boundary for Maunganui Bluff - Pariokariwa Pt gillnet ban), the 12 nmi offshore boundary (Marine Mammal Sanctuary boundary) or the 100m depth contour recommended by international experts from IWC (2012) and IUCN (2012).

Option 3 proposes a complex mix of offshore boundaries that include:

- No protection in some parts of the range of Maui's dolphins (e.g. Hawera-Whanganui)
- Protection from one fishing method that causes dolphin mortality, but not the other - e.g. gillnet ban but no trawling ban from Pariokariwa Pt – Hawera
- Protection to 2, 4 or 7 nmi offshore in other areas

We support the IUCN and IWC recommendations, i.e. protection for Maui's and Hector's dolphins, from gillnet and trawl fisheries, from the coastline (including harbours) out to the 100m depth contour - or an offshore distance that is consistent with it (e.g. 12 nmi for Maui's dolphin).

Management options for non-fisheries impacts

With regard to the non-fishing threats, we support:

- MMS Option 2: Extension of the Marine Mammal Sanctuary south to Hawera and offshore to 12 nmi.
- SS Options 3c and 5: Extension of the Marine Mammal Sanctuary south to Hawera and offshore to 12 nmi, prohibition on seismic survey operations and petroleum mining in the Marine Mammal Sanctuary.
- SME Options 3d and 4: Extension of the Marine Mammal Sanctuary south to Hawera and offshore to 12 nmi, moratorium on seabed mineral mining for 5 years in the Marine Mammal Sanctuary.
- CT Option 3: Restrictions on commercial dolphin tourism in the Marine Mammal Sanctuary.
- CS Option 3: Area to be Avoided status for shipping in the Marine Mammal Sanctuary.
- MS Options 2, 3 and 4: Use automatic identification system technology for vessel compliance. Active involvement in the oil pollution advisory committee to ensure that response planning includes consideration of Maui's dolphins. Work with Massey University on oiled wildlife response.
- CD Options 1-5: Advocate for Maui's and Hector's dolphin protection when consulted on relevant resource consent applications. Engage with Territorial Authorities and Regional Councils during planning processes and reviews of plans throughout known and potential Maui's dolphin range. Amend provisions in the NZ Coastal Policy Statement and Conservation Management Strategies which direct councils to identify and protect Maui's dolphin habitat. Ensure that teams responsible for RMA consent processing are aware of the potential impacts of proposed activities on Maui's dolphins. Identify sources of pollution and promote appropriate controls.

- TR None of the options: Thundercat Racing should be avoided in the Marine Mammal Sanctuary.
- SLS Options 1 and 2: Ongoing engagement with Surf Life Saving clubs about public education. Use observers during Surf Life Saving events to look out for Maui's dolphins.
- RB Options 1-4: Promotion and enforcement of the Marine Mammals Protection Regulations. Development of appropriate advocacy tools to support community engagement work. Targeted advocacy over summer months when recreational boaters are most active. Work with Maritime NZ and other relevant agencies on recreational boating education.
- SR Options 1-6: Strict adherence to current legislation and standard operating procedures. Developing stricter risk assessment protocols regarding research permits. Any research granted a permit must demonstrate benefits for the population, with conservation gains clearly outweighing risks.
- D Option 3 Avoid *Toxoplasma gondii* release into waterways.

General comments

Use of scientific evidence: As a professional body, NZMSS is committed to the use of the best scientific evidence available to decision makers in sustainable marine resource management. We acknowledge that there is always uncertainty associated with scientific advice. However, uncertainty should invoke a more cautious approach and should not be used as a reason for postponing or failing to take any measure to achieve the purpose of [the Fisheries Act 1996] *see* Information Principles of the Fisheries Act 1996. In the case of Maui's Dolphin, the scientific evidence available to DOC and MPI include a detailed risk assessment report, extensive peer-reviewed scientific research publications, as well as detailed recommendations from two major scientific associations (IWC and IUCN) packed with expertise. In such a case, we strongly recommend that management decisions are based on the best available science.

There is an obvious need to ensure that New Zealand fisheries are sustainable, both in terms of catches of target species and impacts on non-target species and habitats. This will increase the long-term economic benefit from fisheries as well as New Zealand's credibility as a country with a commitment to evidence-based, sustainable fisheries. As explained in the Consultation Paper, a precautionary decision is open to the Ministers given that Maui's dolphin is Critically Endangered. It is the government's stated aim to be "naturally cautious when it deals with the effects of fishing on threatened seabirds and marine mammals, or on habitats and ecosystems" (Mfish 2012).

The Expert Panel made it clear that recovery is still possible, but decisive management action is urgently needed. To put this into perspective, there were about 40 Yangtze River dolphins in 1998, but by 2006 none could be found in a very extensive survey (Turvey et al. 2007). This shows that extinction can happen very quickly once a dolphin population is depleted to a few dozen individuals.

Consultation fatigue: We are also concerned about the waste of resources associated with consulting several times on protection measures for Hector's and Maui's dolphins. The original TMP dealt with the species as a whole, and was preceded by a lengthy consultation process during 2005-2008. The 2012 consultation process only considers protection measures for the North Island subspecies, Maui's dolphin, and consists of two major consultation periods. There has already been a consultation process about the interim protection measures for Maui's dolphins

implemented in July. Considerable time and resources are being spent consulting twice on Maui's dolphin protection measures in 2012, and then in 2013 consulting again on Hector's dolphin protection measures. These resources would be much better spent on developing effective solutions, such as ensuring a timely and efficient transition to selective, sustainable fishing methods that do not cause dolphin mortality.

In conclusion: We support protection for Maui's and Hector's dolphins, from gillnet and trawl fisheries, from the coastline (including harbours) out to the 100m depth contour - or an offshore distance that is consistent with it (e.g. 12 nmi for Maui's dolphin), as well as the protection measures for non-fishing impacts listed above.

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