Meeting Report: Hector's and Māui dolphin North Island Forum

Date: 27 October 2022

Time: 9.30 am – 2.30 pm

Location: MS Teams online meeting

Chair: Kirstie Knowles (Acting Director Aquatic, DOC)

Attendees: Kristina Hillock (DOC), Tom Clark (Fisheries Inshore New Zealand), Anton van Helden (DOC), Ken Barry (NZ Sport Fishing Council), Heloise Pavanato (Cawthron Institute), Dion Luke (Te Korowai o Ngaruahine Trust), Drew Castle (Taranaki Whanganui Conservation Board), Jesu Valdes (Taranaki Regional Council), Emma Carroll (University of Auckland), June Penn (Whaingaroa Environment Centre), Jacob Hore (MPI), Dave Lundquist (DOC), Sheree Judan (FNZ), Christine Rose (Māui & Hector's dolphin Defenders), Wendi Roe (Massey University), Richard Griffiths (Northland Regional Council), Liz Slooten (independent), Davis Apiti (Ngati Te Wehi), Ian Tuck (FNZ), Shane Lavery (Auckland Conservation Board), Katie Clemens-Seely (DOC), Campbell Murray (FNZ), Kirstie Knowles (DOC), Megan Carbines (Auckland Council), Philip Heath (FNZ), Ella Walsh (Auckland Council), Eleanor Gee (Waikato Regional Council), Emma Betty (Massey University), Debbie Steel (Oregon State University), Andrew Stewart (Trans-Tasman Resources/Trident Exploration), Scott Baker (Oregon State University), Jim Roberts (independent), Nyree Porter (Te Hiku o te Ika Fisheries Forum), Robert Win (FNZ), Momoko Burgess (NZ Sport Fishing Council), Ken Barry (NZ Sport Fishing Council), Jordan Housiaux-Dustin (Ātiawa ki Whakarongotai), Keith Hernandez (Oregon State University), Natasha Willison (Marokopa), Rangi Joseph, Tahiroa Bishop (Kaipara Moana), Duncan Petrie (FNZ), Rosa Edwards (Fisheries Inshore New Zealand).

Purpose:

- Gathering input and undertaking discussions on progress in implementing the Threat Management Plan (TMP) and associated research priorities;
- Providing a platform through which DOC and Fisheries New Zealand can communicate annual plans and proposals to achieve the TMP objectives;
- Facilitating the exchange of information, concerns, ideas and perspectives.

Note this record seeks to reflect the views of DOC and FNZ over the flow of discussions, capturing key comments, suggestions, or criticisms to improve upon work within the TMP. It is not a verbatim record on all that was discussed. The various presentations are available on our website www.doc.govt.nz.

Time	Focus
9:30 am	**Karakia, welcome and opening comments from Kirstie Knowles (Acting Director Aquatic, DOC) and Jacob Hore (Acting Director Fisheries Management, Fisheries NZ).** Included context shared to participants: • This is the second meeting for the Forum, with the first held in October 2021. • Although science-based this is not a forum focussed solely on research. If anyone wants to discuss the science underpinning the TMP in more detail, DOC and FNZ are happy to be contacted directly. • This is an opportunity to share our updates, context and seek people's perspectives concerning past and potential future work relating to the TMP.

9:45 am	**Introductions from participants**
10:45 am	**Update on general business from the past year (Kristina Hillock, Technical Advisor Marine Species, DOC).** *Q. What is to be gained from finding out whether the dolphin spotted off the Northland east coast is a Māui or Hector's dolphin?* A. This will help us determine where the dolphin has come from which will provide more insight into the movement of these dolphins. A DNA sample can also indicate whether this is a male or female dolphin. *Q. How would this knowledge affect any potential management response?* A. Sightings of what is likely to be a single dolphin in this area will not lead to a specific management response. *Q. Does the sighting have any implications for management of Hector's and Māui dolphins on the east coast of the North Island?* A. We would need more evidence of what these dolphins are doing and where they're coming from before we would consider any management responses. Our management responses are evidence based. *Q. Does DOC have an SOP for responding to dead Hector's and Māui dolphins?* A. Yes. *Q. Are stomach contents of dead Hector's and Māui analysed, and have any been found to contain plastic?* A. Yes, stomach contents are routinely analysed when available, but none have contained any plastic to date.

11:00 am	**Hector's and Māui dolphin research updates**
	• **Understanding threats:**
	  ○ **Improving the estimation of population risk to Hector's and Māui dolphins using carcass data, focusing on toxoplasmosis – Jim Roberts (Anemone).**
	  ○ **Hector's and Māui necropsy update – Wendi Roe (Massey University).**
	  ○ **Update on diet, life history and population structure analyses – Emma Carroll (University of Auckland).**
	
	Q. Do the Māui dolphins have enough food?
	A. There is no indication of lack of food for the dolphins. The diet isotope work suggests that they are probably feeding more preferentially. There is no evidence thus far of starvation.
	
	Q. What does 'maternal separation' mean when used to diagnose the cause of death of a calf?
	A. There are four things that fit within that diagnosis: 1. The calf is sick; 2. The mother is sick; 3. The mother is dead; 4. Both the mother and calf are healthy but have been physically separated.
	
	Q. If there is a high prevalence of toxoplasmosis in the human population, what is the risk to the dolphins from sewage outflows from land?

	A. Although humans can be infected with toxoplasmosis, they can't shed toxoplasmosis. The disease stops there. Cats are the only species that can shed the oocysts of the parasite that causes toxoplasmosis.
1:00 pm	**Research Strategy and Toxoplasmosis update – Anton van Helden (DOC)** *Q. Is sampling for toxoplasmosis in watercourses being considered as part of the research plan – to detect where toxo content may be higher in some areas?* A. Yes, details are available in the 'Draft Hector's and Māui dolphin Toxoplasmosis Science plan 2021' now available on our website. *Q. What are the research plans for pollutants such as plastics and runoff from land and how these affect the dolphins?* A. More information about what research is planned can be found in both the Hector's and Māui dolphin Research Strategy and the Toxoplasmosis Research Plan, including information on how the prioritisation process was undertaken. There is also a lot of work being undertaken on what gets into waterways through other government institutions, Crown Research Institutions and universities. *Q. How many Māui dolphin calves, females and males are off the west coast of the North Island?* A. We've been undertaking abundance estimates every 5 years for the past 15 years using genetic mark-recapture to estimate the number of dolphins. The most recent estimate was completed in 2021 and can be found here. *Q. How does the Hector's and Māui dolphin research strategy fit with the recommendations from the old Māui Dolphin Research Advisory Group (MRAG)?* A. The MRAG was a group of stakeholders and some researchers specifically set up following the 2013 review of the TMP. The purpose of the group was to identify and prioritise research to inform future management decisions surrounding the conversation of Māui dolphins. Following the 2019/20 review of the TMP it was decided that a different and more robust and objective approach to research planning would be undertaken for both Māui and Hector's dolphins. The relevant science community, both New Zealand-based and international experts were invited to participate in two workshops to: • Evaluate relevant knowledge gaps; • Identify tools and methods to fill these gaps; and • Prioritise research to bed advance our understanding of Hector's and Māui dolphins, with a view to informing appropriate future management options for each sub-species. The Hector's and Māui dolphin research strategy was created as a result of the workshops and will be updated annually. The strategy is not only a tool for DOC and FNZ research planning, but also for other research institutions wanting to undertake research on the dolphins. *Q. Why are the east coast North Island Hector's dolphins being left with no protection while so much money is being spent on toxoplasmosis?* A. We use evidence-based management to protect the dolphins. While we get several sightings each year of Hector's dolphins on the east coast of the North Island, we don't have any evidence to suggest there is a resident population in this area. It is likely these are dolphins ranging north from the Cloudy Bay area. We are

	constantly calling for more vigilance from the public in reporting any sightings from this area and providing photos and video where possible. Several attempts to locate dolphins reported on the east coast of the North Island have been unsuccessful. *Q. With so much new money being poured into toxoplasmosis, will this detract from other work on the dolphins?* A. No. Funding for toxoplasmosis is separate from that provided for other Hector's and Māui dolphin work. *Q. How much money in total is being spent on toxoplasmosis vs non-toxoplasmosis work? Could you please provide a breakdown of this funding?* A. For the 2022/23 financial year, the operating budget within the Marine Species Team at DOC for Hector's and Māui dolphin work is $130,000. This includes $30,000 set aside for dolphin necropsies and disease screening, $40,000 towards the Sea Spotter sightings app development, $50,000 for the IWC review of the Hector's and Māui dolphin risk assessment. The remaining $10,000 is allocated for sightings validation, freight and packaging for dead dolphins, and tissue storage. A similar amount is expected to be available for the 2022/23 financial year, and research planning is currently under way for that period. This is separate to the $4.88 million that was allocated specifically for toxoplasmosis work through the Budget 22 process, which will progressively become available from 1 July 2023 over the subsequent 3 years.
1:40 pm	**Update from Fisheries New Zealand – monitoring and science – Sheree Judan and Philip Heath (FNZ).** *Q. What has become of the allegations of a Raglan trawler with 17 violations of fishing inside the WCNI 4 nmi ban?* A. The matter is currently before the courts. *Q. Why have the so-called "new entrants" into the west coast North Island trawling area been allowed to operate without cameras on board?* A. The west coast North Island cameras on boats was a 'proof of concept' trial, with certain criteria applied to identify in-scope vessels: cameras were required on vessels of a certain length, and that operated in the defined area between 1 October 2017 and 30 September 2018. Any vessels not meeting those requirements were not required to carry cameras. This is changing now with the amended regulations and broader roll out of onboard cameras off the west coast North Island. Any set net vessel ≥8 m in overall length and any trawl vessel ≤32m in overall length operating in the defined statistical areas will be required to operate onboard cameras. *Q. You've mentioned that there are no cameras onboard vessels smaller than 8 m, larger than 32 m, or fishing inside the west coast North Island harbours. Therefore, between Cape Reinga and Wellington, and out to 20 nmi offshore, what is the proportion of boats in the trawl and set net fleets that have observers or cameras on board?*

	A. In providing an answer to the following question the following caveats should be noted. The focus of the FNZ Māui/Hector's dolphin monitoring programme is the Māui dolphin **Habitat Zone,** which extends from Cape Egmont to Cape Reinga out to 12 nm and is estimated to cover approximately 94 % (summer) and 86 % (winter) of the Māui dolphin distribution. The transition zone from Cape Egmont to Wellington represents an area where there is no evidence of a current resident *Cephalorhynchus* spp. (Māui or Hector's dolphin) population, but historical evidence suggests there may have been a small resident population in the past. Monitoring (cameras and observer) results have been provided separately (see copy of presentation) for both trawl and set net vessels that meet the requirements for the proof-of-concept camera trial and vessel length (see presentation) including monitoring targets for 2021-2022 **Financial Year** (1 July to 30 June 2022). The figures provided below incorporates all trawl/set net fishing vessels (of all sizes) that operated off the West Coast North Island (Cape Reinga to Wellington) out to 20 nm in the 2021/2022 October fishing year. This area is much larger than the Māui/Hector's dolphin Habitat Zone. • Approximately 17.5 % of vessels had observer or camera coverage or both. *Q. Is camera monitoring footage going to independent researchers for analysis, or direct to FNZ?* A. Footage review will be undertaken by FNZ Electronic Monitoring Video Analysts. *Q. With the changes in set net regulations recently, has this resulted in an increase in trawl fishing where there was a decrease in set netting?* A. There is no evidence to suggest that reductions in set net effort are being compensated with an increase in trawl effort, noting the target species for those fisheries are quite different.
2:00 pm	**Wrap up discussion and next steps** *Q. Will aquaculture be considered as a potential emerging threat to the dolphins? This appears to have been overlooked in the TMP.* A. Yes. Aquaculture is consented through the Resource Management Act 1991. As part of the consent process, an assessment of the effects on marine mammals is required. MPI have produced the following guidelines - https://www.mpi.govt.nz/dmsdocument/48007-AEBR-273-Best-practices-and-technologies-available-to-minimise-and-mitigate-the-interactions-between-finfish-open-ocean-aquaculture-and-marine-mammals Comment: Disappointment that tangata whenua weren't asked to present something at this hui. It feels like the Māori perspective has been pushed aside as usual. You need the tangata whenua perspective for a holistic view.

	Comment: Tangata whenua want to be included in the co-design of this Kaupapa, not just consulted at the end of it. The mātauranga held by tangata whenua can intertwine into this space. Comment: A lot of the Kaupapa and issues across and between the government agencies intertwine, and we end up having repetitive hui over certain Kaupapa. Tangata whenua get invited to hui but were not approached afterwards with an offer to sit down with our iwi, or our ūkaipō team, or our hapu members that live and breathe the nature of this environment. Response: We appreciate everyone's input and comments. DOC and FNZ will consider how to incorporate mātauranga Māori into this work and will invite tangata whenua to present their perspective at the next forum.