



Meeting: New Zealand sea lion Threat Management Plan – Stakeholder Meeting

Date: 16 October 2015 9:30am – 3:30pm

Venue: Level 4 Conference room, Department of Conservation, 18-32 Manners St, Wellington

Chairs: Ian Angus (DOC) & Vicky Reeve (MPI)

Attendees: Jim Roberts (NIWA), David Middleton (Trident Systems – for DWG), Steve Coles (Sanford Ltd), Wendi Roe (Massey University), Amanda Leathers (WWF), Richard Wells (DWG), Simon Childerhouse (BPM), Hilary Aikman (afternoon), Katie Clemens-Seely, Igor Debski, & Laura Boren (DOC), and Nathan Walker & Greg Lydon (MPI). Bruce Robertson, Stefan Meyer (University of Otago) and Shaun McConkey (NZ sea lion Trust) attended via videoconferencing.

Apologies: Martin Cryer, Rob Mattlin

NOTE - Additional feedback from stakeholders on the TMP documents and/or process should be sent to the DOC and MPI e-mails: marine@doc.govt.nz and TMP.sealions@mpi.govt.nz.

Overview of the Threat Management Plan development & draft management goals:

- There was discussion on the 20 year Population Goal with regards to comparing the population to 2017 levels and why that was chosen, and whether it would be better to use another year. The TMP team is happy to consider other population points to use as a reference. 2014/15 was the last year that counts from all 4 colonies were made and it was suggested that this be considered as the reference point.
- Stakeholders expressed interest in knowing further information on the details of the proposed trigger points in the population goal. The trigger points are currently in development, but there was a discussion about the proposed triggers and feedback was sought on this from stakeholders. Pup production was agreed to be a good measure, and there was agreement that “substantial new information” could also be considered.. Substantial new information could apply to any event(either positive or negative) that may then need to have immediate action taken (i.e. novel disease events that cause mass mortality)
- There was also call to develop a review process, as well as a trigger, by which management progress, new information or changes in demographic rate could be more closely examined to determine whether action was needed.
- It was suggested that we amend the criteria for Community to include all populations in the “reduce human interactions that cause death” (and not just the Mainland).

Risk Assessment & Workshop outputs

- There was some discussion about whether disease is additive or compensatory. Currently, with respect to the modelling, the Project Team have proceeded with treating disease as additive for the purposes of risk assessment, in accordance with advice from the expert panel. It was noted that advice was received from Darryl MacKenzie, an advisor present at the Risk Assessment workshops, which raised significant questions with regard to the modelling process used to suggest the effects of disease were for compensatory mortality, and that this would be considered further.



- It was suggested that there should not be four best estimates for the same threat (fishing), but instead there should be one best estimate (the 82% discount rate which is currently used) with sensitivities around it.
- There was discussion about the two different models (NIWA model and the Otago model). Discussion focused on:
 - whether the panel had clarified their need for a simpler model (as specified in the first Risk Assessment Workshop outputs), as they determined that the Otago model was too simplistic during the second Risk Assessment Workshop. The TMP Team confirmed that minutes from the meeting would be circulated shortly.
 - the view that, despite the differences in modelling approach, both models had similar results, and differences were due mainly to interpretation of the results. This view was contested between stakeholders.

Potential management options (presentation)

- It was suggested that the use of Section 9 (Environmental Principles) and/or Section 11 (Sustainability Measures) of the Fisheries Act 1996 be explored as options for implementation. MPI noted that it is not a section that has generally been used in the past for protected species management, but it is worth considering and seeking advice on whether it would be appropriate for managing the effects of fishing on the sea lion population.
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- With regard to pups falling in holes, stakeholders asked whether translocation of individuals was considered as part of site management for sea lions? Translocation has been considered as an option for management of other threats, has been used at Otago to reduce risk of interactions with the public, but had not been thought of in that way before at other breeding sites. This will be added to the list of possible options for site management (i.e. translocating individuals within Campbell Island to a more suitable spot).
- It was noted that the 3 strike rule for dealing with male aggression might be more relevant in areas where colonial breeding has not yet been established, where aggression is a larger problem, and this should be highlighted.
- There was discussion on the differences between Marine Mammal Sanctuaries and Marine Reserves, what can be restricted within them, how the legislation works, how far they extend (i.e. to the Territorial Seas or to the Exclusive Economic Zone), and whether you amend or extend them.

Discussion session

Research Advisory Group & research planning

- There was discussion around the nature of the proposed Research Advisory Group, who it would be composed of, how it would be run, would there be Terms of Reference, etc.
- It was suggested that such a group should start now (i.e. before advice was provided to Ministers, so that an initial research programme could be included in this advice).
- It was suggested that an adaptive management approach should be taken prior to, and while the TMP undergoes its consultation and decision making process. It was noted that this has already been happening as one stream of work during the TMP development.
- Details of the coming field season (2015/16) of NZSL research was requested. Once contracts are in place, research plans will be circulated to stakeholders.



- It was suggested that longer term planning would be ideal so that budgets can be determined and necessary research equipment ordered well in advance, etc. meaning that contractors will be under less pressure to get organised.

Klebsiella

- It was suggested that a gap analysis would be beneficial to determine what research is already being done and what isn't.
- There was discussion and agreement around the importance of epidemiological analyses and determining the risk factors for *Klebsiella*.
- Stakeholders commented that research on *Klebsiella* was underfunded and that this work should be given further attention going forward.
- Research is the main focus of actions with regards to *Klebsiella* and any management action and/or application of disease mitigation could be quite dangerous without additional research and understanding of this disease.

Fishing

- It was suggested that “gear restrictions” could be relevant to all breeding areas (not just AI & CI), and amend the statement to refer to fishing methods.
- It was suggested that effort restrictions be added to Regulatory mechanisms on the Fishing slide.
- Buying quota (paying out fishermen) was suggested for the potential list of options.
- There was selective support shown for all the available options presented as viable means of managing risk from fishing.

Trophic effects

- A concern was raised that there is still a lack of information on the prey species of NZSLs in different areas, and more work could be done to pull together existing research on this topic.
- It was suggested to look at a broader range of species (e.g. albatross) that have fluctuated in that area and look for patterns in these other species (where we have longer time series) in terms of food availability, oceanographic changes, etc.
- A review of foraging information (and the collection of new diet information) was highlighted by Stakeholders as being an important (or even crucial) starting point for research for addressing this threat.

Pups drowning in holes

- An immediate action should be to map the colonies to decide on the feasibility of site management for these holes as the situation is different at the different sites (Enderby, Dundas & Campbell Islands)
- There was discussion around the methods that could be employed to prevent pups from falling into these holes, such as planks and temporary fences. Proposed management actions should make it clear which methods were considered and would require a change in thinking about how breeding sites were managed. It was commented that the fact that the subantarctic breeding sites were world heritage sites does not automatically preclude all modification of the sites – the noticeable modifications made to Fiordland, another world heritage site – were referenced. An alternative would be to develop a “toolbox” of methods that could be applied on a site by site basis following detailed site mapping. An alternative would be to develop a “toolbox” of methods that could be applied on a site by site basis following detailed site mapping.



- Translocation should also be explored as a site management tool to attempt to move sea lions from a less suitable site to a more suitable site. If this is done with mums and pups (early on in the breeding season), then this could potentially have some success and could

help inform the viability of this management option for the future. For example, this could be trialled at Campbell Island where moving mum and pup pairs to a nearby beach could help prevent drowning in holes and/or starvation of pups.

Male aggression

- There was discussion around the use of translocation to mitigate different threats. It was suggested that translocation might be more useful in areas where breeding is non-colonial (i.e. on the mainland), but that it would also be very difficult as the sea lions are spread out and very difficult to find.
- In the past, translocation has been used successfully (twice) in Otago to relocate a mum and pup pair to a more suitable breeding location, but this took place within the first few weeks of the pup's birth. The translocation of big males would be more difficult, and less successful, as they can more readily return to the original site.

Entanglement

- Observers collect information about gear that ends up in the water (but are not present on all boats) and beach clean-up crews should examine the fishing gear that ends up on beaches in more detail to determine the source. One can then go back to the source and determine why it ended up in the water in the first place. Also, when entangled gear is removed from an individual, the gear should be collected so as to determine where the gear originated from.
- A suggestion was made that the sea lion anaesthetic machines and other release gear should be readily available (i.e. located in Dunedin for quick access) for use in disentanglement cases.
- In relation to entanglement there was discussion on the costs and benefits of a dedicated rehabilitation centre. This could have implications broader than just disentangling sea lions and notable issues with the previous use of the only available facility at Auckland zoo were noted.

Human interactions

- The ability for animals to move between beaches might pose an issue for using beach closures to protect NZSLs.
- It was noted that any rules (around beach closures, etc.) would also need enforcement.

NZSL Research planned for the next 5 years

- Sarah Michael's PhD commences in April 2016 and is entitled Mitigation of Pup Mortality on Enderby Island. Work would include planks for pups, immune response, quantifying different mortality cases, and case control disease work.
- Prioritising NZSL deaths in Otago (funded until September 2016). Necropsy contract with Massey.
- A shark scar data analysis project is being developed with Victoria University.
- Southern Right Whale work proposed in winter (by BPM) for the next few years (are happy to look at collaborating with others to look at NZSL winter foraging, etc.)
- There was an update from Shaun McConkey on NZSL surveys in Otago. There is currently no NZSL survey being conducted in Otago. They are currently in talks with Otago University to see if this work can be carried out by them. People are still tagging pups and recording



sightings of known females, but there is no longer a routine survey by which all beaches are checked for sea lions, and this hasn't happened in the last 12 -18 months.

- Otago University propose to continue demographic work, and to look into developing a sampling regime for NZSLs on the Otago coast (no funding for this as of yet).

Other suggestions

- Looking for animals outside the known breeding areas, for example the Snares, other areas in Stewart Island, other Islands in the Auckland Islands (could use helicopter or boat to do spot sightings).
- There was discussion on the practicalities of keeping NZSLs in captivity. There have been occasions of orphaned NZSL pups and in the past the policy has been to euthanize them. Could these be raised in captivity (i.e. a zoo), and used for educational purposes? Such an opportunity would present the public the chance to learn and hopefully care more about their conservation, also food trials could be conducted, etc. This option would need to be further discussed prior to bringing it to the Minister. There are also many quarantine issues associated with keeping otariids in captivity.

Other issues:

- Before collecting further information on sea lions, there should be a concerted effort to look at the information that has already been collected (and funded by DOC). There are vast amounts of data that could feed into this process and help to shed light on some issues. The data from published reports would be invaluable in this sense.
- A stocktake of information that has been collected so far is important (this has already been done by interns at the beginning of the TMP process)
- It was suggested that everyone that gets a permit for sea lion research from DOC needs to provide a copy of the data they collect to DOC
- Stakeholders noted that there needs to be some method of being able to keep track of what work has been done, is being done, is being planned, so that all that information and the holder of that information is known, so that they can be contacted for further information in future.