Department of Conservation
Te Papa Atawhai

Meeting: **Conservation Services Programme Technical Working Group**

Date: 25 October 2016

Time: 10:00 am – 12:30 pm

Place: Level 4, Te Aro 1, The Terrace Conference Centre House, The Terrace, Wellington.

Chair: Ian Angus (ph: 04 471 3081; email: iangus@doc.govt.nz)

Attendees: Richard Wells (DWA/FINZ), Ben Sharp, Greg Lydon (MPI), Jim Roberts (NIWA), Katrina Goddard (F&B), Wendi Roe, Thomas Burn (Massey University), Sarah Michael (Sydney/Massey University), Simon Childerhouse (BPM), Liz Slooten (Otago University), Jo Hiscock, Lauretta Benseman, Jody Weir, Laura Boren, Ian Angus, Katie Clemens-Seely, Kris Ramm, Freya Hjorvarsdottir, Tony Preston (DOC)

1 MIT2016-02: Entanglement of cetaceans in pot/trap lines and setnets and a review of potential mitigation methods — Simon Childerhouse (Blue Planet Marine NZ)

- **RW** Canada has done work in the East Coast – Don Bowen might be worth talking to, as well as a few other key contacts working out of Halifax/East Coast – I've emailed you a few suggestions of people.
    - **SC** Thank you, we will use our existing American contacts to also reach those in Eastern Canada to get information from them as well.
- **LS** I see that you have listed David Matilla as one of your key people to contact, has he come up with any best practice guidelines for pot/trap lines already?
    - **SC** Not really, there is the assessment of scarring rates to reflect that, but not that large a dataset in NZ for that, Liz Slooten might have some, and Cook Straight survey might have as well, but analysing a large size of whale fluke stock photos might not happen.
    - **LS** You should talk to Marta or Talmin about sperm whale photos from Kaikoura and look at both the photos from Kaikoura and the Otago database, that will give you quite an extensive database. Comparing multiple photos of the same individuals might also be beneficial.
- **LS** You are somewhat pessimistic about the ability to assess entanglement rates using existing data. So how can we identify in terms of research how to improve this? And also in the absence of this, what management actions can be taken?
    - **SC** Some work overseas on moving shipping pathways and some work on using satellite tracking to identify migration pathways and subsequently recommend spatial closures to pots. There are also a number of gear modification which can take place to reduce risk.
- **MC** Industry has worked on this for a while and have produced whalesafe book and ocean snap database which feed into the MPI database. The industry has the most extensive source of information and they should be the people you work with.

- **SC** Thank you for that information

2 POP2016-07: New Zealand sea lion – Auckland Islands pup count — **Simon Childerhouse (Blue Planet Marine NZ)**

- **RW** What is your expectation of time to do resight work?
  - **SC** Not anticipating that the CSP team will have much time for resighting at all
- **RW** In the previous three years, how many days have you had for resighting?
  - Around five weeks normally and that isn't being done this year. However, Sarah's team might be able to do some resights while they are down there for the NZ sea lion TMP work.
- **JR** This is obviously a break in the monitoring that is important for the NZ sea lion TMP. Given the importance of the resight data for estimating adult survival, what is the long term strategy for future resighting work?
  - **LB** There is the potential for opportunistic resights around Sarah's work. Future resight work will be dictated by the outcomes of the approved TMP process in order to draw together entire research strategy, wider than simply the CSP component.
- **JR** Does that mean that this year the funding has been displaced from resights to disease work?
  - **IA** CSP is bound by what's appropriate for fisheries management.
- **JR** I want to highlight that in other situations when time series of data have been broken, we have come back to measure again and found that the situation has changed, which incorporates extra questions, e.g. pup tagging in the 90's and the Gibson's albatross time series.
- **LS** Unfortunate situations as this compromise a relatively long term and stale dataset in favour of disease monitoring, it should be done additionally rather than instead of.
  - **JR** We still have large numbers of tagged animals in the population, and as long as we keep consistent methodology it should be ok. I agree that it's important to keep consistent methodology, but I don't think that everything will be lost if we ensure that the break isn't too long.
- **SC** Share the concerns of having a year hiatus in the dataset and the modelling work. Is there some way that we can achieve some modicum of resighting using some other teams?
  - **LS** Suggests reaching out to the wider sea lion community to see if someone is available to work essentially for free to add to the resighting effort.
- **BS** Whose role is it to identify the cost and trade-offs and provide synergies between different field teams? And also to optimize over years? More data is always better, but maybe we should look at the options of getting sufficient data every second season or something like that.
  - **KR** We have been doing this work with our medium term research plans. Doing this amongst taxa group is generally simple, but between taxa groups becomes much more difficult as it involves far more value-based judgements. Generally, one CSP person will take of all the subants project in order to be able to coordinate them as best as possible. But

this is one of the reasons why we are having a meeting in the afternoon about the subants coordination.
    - **IA** We are trying to achieve that, and work towards better coordination (outside of CSP) with DOC Southland, researchers, the tourism industry, etc.
    - **TP** DOC Southland acknowledges this and have a strong desire to ensure that any work that goes on in the southern islands is optimized.
- **RW** DWG wants to put on the record the concern about the missing mark recapture season. If only a blip, this is not such a problem, but if it is a trend, then there is significant concern.
- **JR** There are data requirements for demographic assessment of NZSL. Concerned if we lose a year of resights it will confound things and it will be harder to determine if it was caused by pup survival or adult survival.
- **BS** Caution against an opportunistic resighting season as it adds questions around that particular data point and makes it easier for people to 'pick apart' that seasons data.
- **LB** Suggests that this discussion is differed until after the disease presentation and then we can discuss the field season in its entirety.
- **JR** Will you be recording pups linked to mums
    - **SC** Yes, Sarah and Tom should be recording that.
- Will all data go into the dragonfly database?
    - **SC** Yes, though not all data is available into the public database. We will be doing what we normally do, but Sarah and Tom might be collecting more detailed information.
    - **JR** As long as it's collected in a format suitable for upload into the database.
- **MC** What measurements are you collecting? The standard length and axillary girth?
    - **SC** Yes, just the standard measurements, nothing overly complicated

3 New Zealand sea lion – Auckland Islands disease work – methods year 1 — Sarah Michael (Massey University)

- **JR** So you won't be able to individually recognize the pups until recapture is made? The markers will only tell the day of birth?
    - **SM** Yes that's true. We will do the first capture when the pups are about 3-7 days of age.
- **JR** You have a couple of weeks of growth to measure before expected mortality spikes, will you be quite strict on random sampling of pups for Ivermectin trial, including very ill animals.
    - **SM** Yes
- **RW** Is it possible to get a similar grid map of the Snares Island sites in order to undertake seabird field work there?
    - **IA** We can look into it.
- **JR** Pup status will say whether they are in a pup pile?
    - **SM** Not exactly, currently 'with other' would be recorded, but there's room for a comment.
    - **JR** Just thinking that if there was a puppy pile where some were about to die.

    - **SM** Good point, but we will GPS them so we'll know where they came from, but neither of those suggestions take into account the movement of the pile
- **JR** The maternal barriers, you could look at the history of the mothers, if they have lost a pup to Klebsiella in a previous year. Could use the tags on the animals to look into that.
    - That's the part of resightings that's important for this, linking mums to pups.
- **JR** Will there be paper records?
    - **SM** Yes, and information will be backed up, as well as saved in the access database.

Further discussion around the nature of the database and data storage methods.

- **MC** There are other things that need to be considered for the health check. For example, flippers can go stiff after a bad tag placement.
    - Yes of course everything will be noted and nothing will be assumed. Taking notes on all of these symptoms will help us figure out what is and what is not caused by klebsiella.
- **MC** Will you be looking at giant petrels?
    - **SM** Was going to do that, and they are probably the same as skua's, but they are much more difficult to catch.
- **RW** Will substrate sampling go beyond presence absence? i.e. does mud hold more than sand?
    - **WR** There is the potential for that.
- **BS** is there any basis by which you can assess if handling affects transmission?
    - **SM** Trying to compare this by documenting handling events to see if those that have been handled more are more likely to die.
      Some of the problems is that the mortality observed over the field seasons is only about 40% and a portion of that occurs at sea and therefore this is unmeasurable during the season.

Further discussion about pup mortality and affecting factors around this, including tag vs. chin injury sites.

- **MC** For tourist interactions, what will you be looking at?
    - **SM** Keeping track of when tourists are on the island to see whether there's any type of stress factor.
- **MC** Tags used to be disinfected over the night prior to tagging and we never used to have any type of infection issues, are you still doing that.
    - **SM** No
    - **SC** We used to do a range of things like that, however, the vetinary advice was that such activates would not have a significant effect.
- **BS** Are we comparing the prevalence of klebsellia between sites?
    - **SM** Can do for the sites around Enderby

Further discussion around transmission of disease between Dundas and Sandy Bay and how to look for sites of origin.

- **JR** How long does klebsiella take to kill the pups?
    - **WR** Can be very quick in humans, and in pups it can be anything from 3 days to 3 weeks.

- **MC** Has campylobacter been eradicated?
    - **SM** The lab at Massey determined that the cause of that outbreak was no campylobacter.
- **JR** Do they know what it was?
    - **SM/WR** Not entirely sure, not klebsiella, but there are molecular ways to determine what that disease was, but they are expensive and time consuming.