

**Meeting:** Conservation Services Programme Technical Working Group/Aquatic Environment Working Group  
**Date:** 22 September 2016  
**Time:** 8:30 am – 14:30 pm  
**Place:** Level 4, Te Aro 3, Terrace Conference Centre House, 114 The Terrace, Wellington  
**Chair:** Kris Ramm ([kramm@doc.govt.nz](mailto:kramm@doc.govt.nz)) & Rich Ford ([Richard.Ford@mpi.govt.nz](mailto:Richard.Ford@mpi.govt.nz))

**Attendance:** Amanda Richards, Jo Lambie, Sonja Austin (MPI), Biz Bell (WMIL), Tom Clarke, Richard Wells (FINZ), Dan Godoy (Karearea), Johanna Pierre (JPEC Ltd), Janice Molloy, Kirsten Crawford (SSST), Freya Hjørvarsdottir, Graeme Taylor, Katie Clemens-Seely, Kris Ramm (DOC).

**Apologies:** Rich Ford, Karen Baird

#### CSP TWG presentations:

##### 1. MIT2015-01: Seabird liaison project Johanna Pierre (JPEC Ltd.)

- **RW** Was number of hooks set hookset a part of the prioritisation?
  - **JP** Yes, but it was very far down the list, other factors were important
- **RW** Did you have that dataset to characterise vessels?
  - **JP** Yes, but only got it up till 2014-15. We didn't expect it to change a huge amount.
- **RW** How did you hear about new entrants to the fleet?
  - **JP** Variety of ways; from wharfs, from the LFRs, from MPI, from when one of the seabird liaison officers went out and would hear it from the people on board the vessels.
- **TC** of those vessels, how many were priority 4 [top priority]?
  - **JP** SLL were all considered to be the same as the information was poor for those.
- **RW** Was announced at the SAG that the surface fleet would only be getting a cursory look.
- **KR** Based on work last year, could you do a prioritisation of the vessels?
  - **JP** Yes, some vessels are under closer watch
- **TC** Was this basically liaison officers going to vessels to ask if what they reported was what they were doing?
  - **JP** We went on board some vessels, some we couldn't get to and instead contacted them by phone. Some skippers were happy to talk at length about what they did, while others didn't divulge as much detail.
- **KR** Where there any particular patterns to the changes in SMP measures?
  - **JP** Primarily interaction changes, changes towards practices that might increase seabird bycatch risk, a stop light approach was implemented to manage the risk of changes.
- **RW** When you talk about the 2015-16 year, do you mean the fishing year or the financial year?

- **JP** The effort that we had was BP season mid-November to May, which means it was inside both the fishing year and the financial year.
- **RW** Contradiction between observer reports and seabird liaison officers could be caused by other reasons, such as the observers watching the crew and talking to the skippers, or less experienced skipper or crew?
  - **JP** continuity of knowledge between skipper and crew, especially new crew
  - **KR** Shows the importance of vessel inductions for new crew, this extends to all areas of fishing practice
- Discussion about fishers not understanding the importance of reporting bycatch events, as there is little to no incentive for them to report them. Biz Bell explained her experience of liaising with fishers over black petrel work and describing the significance of reporting bycatch events for research. There was also discussion about MPI's proxy target work and how in future there will be a better way of quantifying improvement at the reduction of bycatch in the surface longline fleet. It was also discussed that the best way to win the reporting issue is by continued positive feedback or the potential for rewarding those vessels that have bycatch management plans, and penalising those that don't.
- **KR** What do you think it would take to convince fishers that there is value in offal management?
  - **JP** Basically an education process, those that weren't using it didn't feel like there was any reasons to do it differently
- **KR** So no one was raising concerns about moving around buckets of offal on deck or the difficulties of having to manage it?
  - **JP** Those that were doing it were very practical about it, and those that weren't doing it didn't understand why they needed to do it.
- Discussion around the specifics around offal management, the storage containers, how offal management actually works to remove risks to seabirds vs. continual discharge.
- **RW** Did anyone talk about light? There was mention of one boat that was extremely lit-up and bright and had difficulties with bycatch, where there any observer feedback on that?
  - **JP** No observer feedback on that. It's very hard to quantify light in a meaningful way. A number of operators said that they managed, mitigated, or were aware of light, but it was difficult to quantify what actual management was being undertaken without being on board the vessel.
- **KR** Where you still getting the safety issues raised around hook weighting and placements?
  - **JP** A lot less than previously, but we did get a lot of anecdotal information. Many operators have a strong dislike of, and are opposed to, weighting at the hook, but that appears to be the direction that things are moving in, and a growing acceptance that it might be an eventual necessity. There are also those operators that use line weighting without any issues and are happy enough to do so.
- Discussion about seabird bycatch versus shark bycatch, the fact that skippers and crew have just as many issues with sharks as they do with seabirds, if not more. Increased health and safety issues with line weighting (i.e. accidents, etc.) are a result of catching sharks on the line. There was also a discussion around whether the mitigation methods implemented for seabirds were causing more shark bycatch.
- Discussion about the importance of ensuring that observers that are present on SLL vessels are experienced and knowledgeable about the practices and processes on board the SLL vessels, and about how MPI places observers where this is normally taken into account. Further discussion about whether an observer's role is one of simply pure observation or if education is an aspect as well.

- **KR** The steps forward at this point is for MPI's observer programme to be involved at the planning stage and to work alongside the seabird liaison contractors for the upcoming year to ensure that experienced SLL observers are available and placed on SLL boats.

## 2. POP2015-06: Marine reptiles

Dan Godoy (Karearea Consultants)

- **JL** Is this the data that goes into the dragonfly database?
  - **KR** No, it's a reanalysis of NIWA's data, but will end up in Dragonfly eventually. The interesting part was that the majority of the data was commercially reported.
- **TC** Trying to understand the bycatch rates, when comparing the results that Dragonfly has provided. There are discrepancies between the reported hooks set in your data, and then typical number of hooks set in the fishing year. The numbers of hooks set in this data is incredibly low compared to the total number of hooks set in the fisheries derived from our reporting.
  - **KR** This work has come directly out of the NIWA databases, interesting to get to the bottom of the differences in total hooks set.
  - **DG** It also needs to be considered that in some FMAs, very few hooks were set but still there were captures, which means that the overall capture rate goes up.
  - **RW** 2.5 million hooks set is the number that we currently have, and the number of hooks set in the report is massively lower than this.
  - **Action: To look into the datasets again to determine where the discrepancies lie if there are any.**
- **TC** in terms of the bycatch, do we have any sort of a feel how many of them and in mortality?
  - **DG** No we don't, and that is a critical issue. There is very little work done on what the survivability is after a capture.
- **TC** Are there any turtle mitigation methods in place?
  - **KR** We have been sending out turtle de-hooking kits for years, these include de-hookers and line cutters.
- **RW** The leatherback turtle appears to be the most frequently bycaught, could the results be confounded by misidentification?
  - **DG** The leatherback turtle is the most easily distinguishable and identifiable out of the five species of sea turtles in New Zealand and the least likely to be misidentified.
- Discussion around whether the sea turtles being bycaught would be bycaught as a result of taking the bait or as an incidental capture. **DG** talks about the different life stages that turtles have and how it might be a possibility that the turtles around New Zealand might be eating fish and crustaceans for a longer period in order to cope with the temperate environment. Eating fish/crustaceans might be easier than digesting seagrass for example.
- **RW** Do we have a sex ratio for the captures?
  - **DG** No we don't, that would involve necropsy and we currently aren't doing that as most bycaught turtles are being released alive.
- **TC** Another area of improvement would be improving the release of the bycaught animals.
  - **DG** WCPFC has guidelines on how to release turtles.
  - **TC** Does it cover what we can do to increase the chances of survival of a turtle is caught?
  - **DG** Yes it does.

- Discussion about how to improve the chance of survival through education, observers checking boats for de-hooking kits, educating the operators for how to properly de-hook a turtle. There was also mention of getting the seabird liaison officers to talk to operators about their processes for de-hooking turtles.
  - **TC** Could you add the species on the maps in the back of the report?
    - **DG** Yes, can do that for the final report
  - **RW** How do we know whether we are catching the same individuals more than once?
    - **DG** Very difficult to ID individual turtles, and difficult to determine on how best to identify whether the same animal has been caught multiple times.
    - **RW** Maybe data could be recorded on whether other hooks/scars from hooks are visible on/in the animal.
  - Discussion about the viability of tagging turtles and what methods would be suitable for collecting information on turtles (photographs, biological samples, etc.)
3. POP2015-01: Black petrel: Aotea/Great Barrier Island, Hauturu/Little Barrier Island & The Moehau ranges population project. **Biz Bell (WMIL)**

- Discussion about the failure of tracking devices (wider than just the black petrel work) and how unreliable they've been in the past few years for such a high cost. **KR** suggested that this discussion should be debated in a separate forum (potentially OSNZ/conference discussion).
  - **BB** Researchers now tend to purchase devices from a range of suppliers to limit the risk
  - **KR** Unfortunately there's a very small pool of suppliers providing such devices
- Further discussion on other ways to potentially mitigate the black petrel tracking issues, such as catching the birds at change over times, or pre-setting the GPS trackers to turn on at set times.
- **RW** Can you provide a Google Earth map of burrows for the Great Barrier site?
  - **BB** Burrow maps are available, all burrows are GPS marked and we don't take tablets up there as the weather isn't suitable.
- Discussion about whether modelling should be done to examine the population's longevity. Modelling has already been done on the data and has shown that juvenile survival is still the parameter that determines the population is in decline.
- Discussion around the low recapture rate, and several hypotheses were provided for why this could be, as well as multiple suggestions for further research and investigation into where to look for other banded birds, dispersion curves etc. It was decided that the most likely reason for the low rate was that most of the birds weren't returning though the reasons for this were unclear.
- **JM** Have any of the birds that you have found away from the study site on GBI been banded colony chicks?
  - **BB** No not away from the study site
  - **GT** More likely that the birds are just not returning to the island then that they are not returning to the study colony
- Discussion about the one of the main questions around black petrel demographics appears to lie with the juveniles (i.e. low recapture rate). Once the birds return to NZ the adult survival is high. This suggests that more effort should be put into determining what happens to the birds overseas, prior to returning to New Zealand.
- **GT** How far away can you detect a bird clacking on the recorder?
  - **BB** About 100-150m depending on the site, 150 if up on a ridge, 50m if down in a gully. Could sometimes hear a bird at the very range of the recording, but had to be careful as there are still a bunch of Cook's petrel in the area.
- **GT** Have you done habitat spatial modelling?

- **BB** Yes we have
- **GT** Is the difference in breeding success between LBI and GBI related to rat predation?
  - **BB** Not sure, difficult to tell. Could be related to parental care, birds on LBI don't tend to abandon eggs, potentially the birds are older and more experienced
- **JM** You also had a lot of egg crushing on GBI, potentially due to storm events and/or crowding by other birds
- **RW** The MPI project on offshore risk, are there any updates?
  - **SA** I think it has been contracted, but not 100% sure - Nathan would be the best person to speak to.

**1200 – Meeting close**