



Department of  
Conservation  
*Te Papa Atawhai*

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

**Date:** 24 May 2018

**Time:** 9:30 - 16:30

**Place:** Conservation House, 18-32 Manners Street, Wellington

**Chair:** Kris Ramm ([kramm@doc.govt.nz](mailto:kramm@doc.govt.nz))

**Attendance:** Karen Baird (Forest & Bird), Chris Gaskin (NNZST), Johannes Fischer (VUW), Kalinka Rexer-Huber, Graham Parker (Parker Conservation), Peter Frost (Science Support), Patrick Crowe, Mike Bell (WMIL), Tamar Wells (Te Ohu Kaimoana), Johanna Pierre (JPEC Ltd.), Nathan Walker, Hilary Ayrton (MPI), David Thompson (NIWA), Graeme Elliot (Albatross Research), Barry Weeber (ECOWatch), Gemma Green (DOC – Chatham Islands), Kris Ramm, Rebecca Isaacs, Igor Debski, Graeme Taylor, Freya Hjorvarsdottir (DOC).

**Apologies:** Oliver Wilson (FINZ), Nigel Adams

#### MIT2017-02 Electronic monitoring of protected species interactions with commercial fisheries – Johanna Pierre (JPEC Ltd.)

- **GT** How often are the images taken?
  - **JP** 30 frames per second to a minimum of 1.5 frames per second. It depends on what the providers offer and what the objectives are.
- **PF** How do you link imagery with position?
  - **JP** Usually units have GPS built in and linked to the metadata of the imagery
- **KB** Is tori line detection at night possible?
  - **JP** Cameras do struggle, generally just the first few streamers can be seen, enough to know it's up.
- **GT** Is the footage always in colour?
  - **JP** Yes, default is colour.
- **KB** Can these systems get species ID for species around the vessel?
  - **JP** For what is visible yes, but generally in broad species and abundance categories
- Further discussion about level of detail required, camera depth of field, infrared and use of gimbals to stabilise imagery.
- **KB** What about crew training?
  - **JP** Very important to assist with species ID etc., but if crew want to hide things they still can
- Discussion around how to display birds in order to get an identification and how necessary such practices are.
- **GT / BW** Is there any between reviewer differences and comparison?
  - **JP** There is evidence of it in some cases, but comparisons are not made consistently. There is no accurate power analysis to compare it.
- **GP** Is there any way to know the outcome of an interaction? For example, whether it is light or heavy contact?
  - **JP** It's hard to know the fate of an interaction. There have been very few cases

trying to determine between light and heavy interactions.

#### **Northern Royal Albatross Census – Peter Frost (Science Support)**

- GT Surprising number of birds counted during that time period as laying doesn't occur until late August
- Discussion around Northern giant petrel breeding behaviour
- KRH Could the 30-day difference in chick hatching between islands explain the difference in breeding success?
  - PF Yes, exactly.
- Discussion around the effect of different substrate / vegetation on breeding success and egg breakage.
- GT Clarified that Northern royal albatross chick ages were verified at Tairoa head.

#### **POP2017-01 Seabird population research: Chatham Islands 2017-18 – Mike Bell (WMIL)**

- GT Did counts separate live chicks from empty/dead?
  - MB Yes
- KB Do you think eggs are breaking because they are on rocks? Is your impression that it is a big sister problem?
  - MB Yes and yes.
- GT Were your counts after the laying period?
  - MB Yes, we saw no evidence of laying while we were there.
- Discussion around breeding frequency, intervals and methods for addressing these questions.
- Discussions around the cause of the differing population trajectories between islands, including differential overlap with fishing.
- KRH Was adult mortality associated with the storm? The effects may only be seen now as birds are maturing.
  - MB Minimal adult mortality was seen.
- Further discussion around the effects of storm activity on these colonies through time.
- GT Increasing temperatures at Tairoa head showed chicks dying from heat stress, could this be seen in the Chathams?
  - MB This has been seen in the Chathams.
- PF Notes count made by him were for apparently occupied sites.
- KB How do island owners feel about the establishment of a colony on the main Chatham Island?
  - MB Owners are supportive.

#### **POP2017-06 Indirect effects on seabirds in north-east North Island region – Chris Gaskin (NNZST) & Peter Frost (Science Support)**

- PF MPI holds an AER database where all spotter plane records are held and georeferenced, would be useful to get this.
  - Hilary to follow up
- PF Has anyone looked at the behavioural change over time for birds on fish schools? If bird numbers reduce will the efficiency of school detection reduce?
- KRH Judy McGuinness working on DNA based detections of diet
- BW Is there an inverse relationship between salps and krill?
  - CG We will be structuring the project to detect this more in the future.
- Discussion around the nutritional value of jellyfish and their potential role as a source of hydration.

- GT Have you seen any schools of small fish being preyed up on?
  - CG Yes, but often much closer to shore. We did see seabird interactions with the schools closer to shore.
- KRH Is there any fisheries data that show changes in fish abundance?
  - CG Limited data at this point.
- Discussion around the ethics approvals and associated permits needed to collect fish samples.
- KRH Has there been any sampling of the abundance of different fish species in the gulf between years?
  - CG I'm not sure if there is any data on that.
- CG Tracking work done on gannets found that birds were feeding across a band in the Gulf – might be seeing portioning of food between colonies. Potentially something similar being seen in red-billed gulls.
  - PF This is a hugely cross-disciplinary area, so it is important to hear from other researchers.
- BW The focus is on the Gulf?
  - CG At the moment. We will be getting some samples from the cetacean people working in the Gulf, but it is likely we won't get a huge amount of information from that.
- KRH Have you considered net capture of birds at the schools to determine feeding?
  - CG It would be logical, but it's a hard thing to do. It comes back to the bigger picture things such as drivers.
- PF Is there anyone that could do a whole system area food web model?
  - CG There has been minimal work around snapper etc. but the focus tends to be on estuaries.
  - PF Am meaning models to identify data that we crucially need to understand the system in that area, not predict population sizes etc.

**POP2017-04 Seabird population research: Auckland Islands 2017-18: white-capped albatross – Graham Parker (Parker Conservation)**

- GT Are birds alpha numerically banded?
  - GP Not in the first year but have been since.
- Discussion around the complexities/limitations of extending the field season to allow for changeover in mates and reducing resight rates.
- KB Does the posture of the bird indicate incubation?
  - GP We did look into this but don't believe you can conclusively tell.
  - PF The angle of the camera can change how the birds posture looks.

**POP2017-04 Seabird population research: Auckland Islands 2017-18: Gibson's albatross – Graeme Elliot (Albatross Research)**

- PF How much of the increase in birds breeding could be due to new birds coming into the breeding population?
  - GE The increase in number of nests is driven by the increase in recruits. Most of them are locals.
- GT Could you age the birds from their plumage to see if they are new or old birds coming from Adams Island?
  - GE No, not really.
  - KRH You can see if it's a young bird or a really old bird but differentiating more than that will be hard.

## White-chinned petrel population research – Kalinka Rexer-Huber (Parker Conservation)

- ID The birds going over to Chile in December to April, do they have different breeding times or are they failed breeders?
  - KRH Failed breeders.
- ID It is interesting that it is mostly the Antipodes birds that go to South America.
  - KRH Yes it is, very few of the Auckland Island birds go over there.
- PF Are the longitudinal distributions a part of the GLS faults?
  - KRH Yes partially, but some of them are birds that left early to South America.
  - GT There's tendency for data on the equinox to go southwardly.
- GT Amazing to see how similar this is for Gibson's, almost an exact overlap with distribution patterns?
  - ID Some of these fisheries that the birds overlap with in South America will be regulated through RMFO's, but they might not be following those very well. The main problem is that we don't know enough about it.
- KB Huge potential around assessing fisheries risk. Distributional data seemed to point to preferential occupation of space, so good to do next step and overlap that with fishing effort as we know white-chinned petrels are highly bycaught.

## POP2015-05 Flesh-footed shearwater: various locations population project – Patrick Crowe (WMIL)

- Discussion around oceanographic drivers behind foraging distribution including ocean gyres, and outflow from Manukau and Kaipara harbours.
- KRH Was this years tracking at the same or different times to the last tracking year?
  - PC Yes, chick rearing last year, incubation this year.
- KRH How did you determine the outer boundary?
  - PC We mapped the area before doing the searches
- ID Hot spot of bird activity of map may be due to high level of fishing effort as it is just outside New Zealand and Australian EEZ.

End of meeting