



Meeting: Conservation Services Programme Technical Working Group Meeting
Date: 6 June 2014
Time: 9:30 am– 4:30 pm
Place: G.01, Conservation House, Wellington.
Chair: Ian Angus (ph: 04-471-3081; email: iangus@doc.govt.nz)

Attendance: David Thompson, Kyle Morrison, Jim Roberts, Charlie Edward (NIWA), Richard Wells (FINZ and DWG), Pat Reid (Area 2 Inshore Fisheries Management), Edward Abraham, Finlay Thompson (Dragonfly Science), Johanna Pierre (Dragonfly & JPEC), Graeme Elliot, Kath Walker (Albatross Research), Barry Baker (Latitude 42), Susan Waugh, Sarah Jamieson, Dominique Filippi (Te Papa), Kalinka Rexer-Huber (University of Otago), Barry Weeber (ECO), Andy McKay (MPI observer services), Nathan Walker (MPI), Graeme Taylor, Ian Angus, Katie Clemens, Kris Ramm, Igor Debski (DOC).

Apologies: David Middleton (Seafood NZ)

Presentations:

1. MIT2013-01 Sea Trials of the Kellian line setter Barry Baker (Lat 42)

There was discussion as to whether or not consideration had ever been given to producing a symmetrical device, given the inherent problems with asymmetrically designed devices. BB commented that the original design was symmetrical and that there were good reasons for rejected that design and developing a new one.

PR – Was the use of the flume tank part of 1st or 2nd project?

BB – The flume tank was part of the 1st project, but if you read the report, we recommend putting in device back in tank.

ID – If we go back to a marine engineer to redesign the device (i.e. minor adjustments), we should also get them to reassess whether a symmetrical design is possible or if an asymmetrical one is necessary. This will allow us to be clear as to whether there are possibilities for a symmetrical design.

BB – I'll specifically check with a marine engineer as to why we didn't stick with a symmetrical design in the first place.

AM – What is the lifetime of, and cost per unit?

BB – The cost is roughly 5-6000\$ per unit, and as for its lifetime – I would predict 10 years, depending on the treatment of the devices by line setters.

There was discussion about the nature of the recipients of the newsletter. JP specified that it was generally permit holders who received it, so a mix of people who do and don't go to sea would receive it as well as others. AM was helpful in providing another means through which JP could attempt to get contact details of further interested parties.

4. POP2013-03 Gibson's albatross population study (Auckland Islands)

Kath Walker & Graeme Elliott (Albatross Research)

RW – Did Gibson's albatrosses nest on the main Auckland islands previously?

GE – A few pairs currently do, and there's good evidence that there was greater numbers previously.

There was discussion on using the probability of resighting to factor in the probability of survival.

There was discussion about whether if the partner dies the eggs fail, although this is not necessarily the case. All the really big failures have been early on in the season. GE mentioned that there is strong evidence that there is currently a larger proportion of the population that is no longer breeding compared to in past years.

There was discussion on the difference in foraging patterns in females pre- and post-2005.

There was discussion about the big population crash in 2005-06 and the commencement of the swordfish fishery, and further discussion around the difference in parental care between males and females.

There was discussion about the fact that despite the population increase, numbers are still not back to 2004 levels, and survivorship is variable, so there's no confidence in saying that the population is recovering.

There was discussion as to whether 2005-06 was a bad year for other predator species in the area, whether there was any oceanic data to explain it, similar effects in the hoki trawl survey, and similar issues in population changes in 2000.

5. Aerial survey of Gibson's and Southern royal albatrosses, Auckland Islands

Barry Baker (Lat 42)

There was discussion about why photomontage wasn't used; BB explained that it was due to the widely dispersed nature of the birds. Photomontage was used with Gibson's, but it wasn't the preferred option– transects were the best choice in this case as it was easier to stitch photos together.

KRH – How do you account for birds that look like they're on nests but have no eggs? Is ground truthing carried out?

BB – Ground truthing is carried out for royal albatrosses, but none was done for Disappointment Island as there's no easy access to it. But we can make educated guesses about which birds are actually on nests with eggs.

There was a discussion about the fact that some birds nest behind deep scrub and could be easily missed.

There was discussion about parallax error and the slight distortion resulting from overlaying pictures with different angles and having to check the terrain around the area closely to confirm.

There was discussion about attempting to align ground counts and aerial surveys to get a more accurate count of actual breeding pairs, and the fact that aerial surveys will never be completely accurate with regards to whether or not a bird sitting on a nest has an egg or not. However, aerial surveys are adequate for differentiating between birds that are sitting on a nest vs. those that aren't; and the fact that in low density colonies vs. high density colonies there is less error in the low density ones. This technique would not be suitable for counting colonies with high density.

There was discussion about image resolution, and how to make it better.

There was discussion about how the weather can influence the number of birds in the area. For example, during bad weather birds that are sitting on nests without eggs are likely to leave the nests.

There was further discussion about how to tell whether these birds are sitting on nests with or without eggs.

There was discussion about the breeding season, and the possibility of missing some thinking that the breeding season is over, and having latecomers show up and lay eggs.

EA – Is there room in a helicopter for a photographer to take spot photos?

BB – Yes, typically both photographers do the same thing just in case one missed something. You can then go around the island again and take spot photo of 50 birds and sample them, and then make decisions as to the rest of the population photos based on that.

EA – What type of instrumental data is being collected from the helicopter?

BB – Mainly GPS data, but there is a high level of error associated with that.

EA – So you are not measuring the tilt of the camera, or the distance between the ground and the helicopter.

BB – Not exactly no.

**6. POP2012-06 Salvin's albatross – at David Thompson & Paul Sagar (NIWA)
– sea distribution**

There was discussion about the difficulty in using tags, tag failure rate, and frustration was expressed at the fact that the tags fail so often and the cost involved is so high for little in return. There was mention that the temperature data in some tags may be faulty due to changes made by the manufacturer.

There was discussion about the dwindling sample size, as even those tags that successfully got deployed on birds and didn't initially fail, more tags would have failed at some point throughout the study period.

RW – You could look at observed bycatch data and see how many are getting caught on the Chatham Rise.

BW– Is there any intention to get more tracking data?

ID – Nothing has been developed at the moment, this project was underway during the preparing of next year's annual plan.

There was discussion about the duration of time the birds spent crossing the Pacific, which is important to know with respect to determining which fisheries the birds would be in danger from while travelling, and to which locations in South America they went to.

ID – It would be good if you could add [the above information] into the report, in order to determine to the best ability, the length of time spent traversing the Pacific Ocean.

**7. POP2011-02 Flesh-footed Susan Waugh (Te Papa)
shearwater – population study and
foraging area**

There was discussion about yearly differences in survivorship; SW mentioned that there was little difference between years.

There was discussion about age at first return being potentially affected by younger returning chicks sometimes being displaced by adult grey-faced petrels that nest in the same area.

RW noted discrepancies in the report's results; SW examined them and determined them to be transcription errors that will be corrected in the final report.

There was discussion on the nature of the movement between burrows?

GT – They certainly moved around a lot at the small Kauwahaia Island colony. For a particular breeding pair I'd check all the burrows they had frequented in the last several years, and we employed different techniques for determining this. It would have been impossible to check them all, but I did check many of them.

There was discussion about the fact that different areas on the same island and different islands exhibit different trends, and whether there were concrete reasons for

that. SW stated that we knew of some things that would affect it, but that there was a lot of room for determining further information. GT pointed out that chicks getting killed by grey-faced petrels in one area vs. not in others, and the abundance of sooty shearwaters occupying burrows on one island vs. another could be having an effect.

There was a discussion on burrow-scoping, the technology involved, the percentage of success they had with this technique, and the best practice for its use (i.e. always getting the most experienced individual to operate the scope).

RW suggested using the standard acronym for surface longline (SLL) from now on as it is an industry standard and well understood across the industry.

PR – What other information do you compare; soil samples, land terrain?

SW – No, not really. We collect some behavioural data, but nothing specific about the terrain.

**8. Buller's albatross population study
at The Snares.**

David Thompson (NIWA)

GT – Was there any accounting for birds that may have been hidden by scrub?

DT – For vantage point counts it would be impossible to quantify that.

ID – When were the study sites established? Could they provide more information on the period of population growth?

DT – 1992, so after much of the period of population growth.

There was discussion about the boundaries for the ground counts and for the vantage point counts.

There was discussion about how the density of scrub could radically alter the outcome of the vantage point counts (i.e. less scrub would be easier to count birds in, and dense scrub could hide birds from being counted).

CSP reports tabled for review:

**POP2012-04 Campbell Island and grey-headed albatrosses – population estimates
Paul Sagar (NIWA)**

Other CSP Business

Further written comments on any of the material presented, or the draft minutes, were accepted by email to msp@doc.govt.nz until 23 June 2014.