



Meeting: Ministry of Primary Industries Aquatic Environment Working Group/
Conservation Services Programme Technical Working Group Meeting

Date: 17 April 2014

Time: 9:30 am– 2:30 pm

Place: G0.1 Conservation House, Wellington.

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

Attendance: Bruce Robertson (Otago University), Katrina Goddard (Forest & Bird), Rohan Currey, Nathan Walker (MPI), Simon Childerhouse (Blue Planet Marine), Karen Baird (Forest & Bird and Bird Life International), David Thompson, Paul Sagar (NIWA), Barry Baker (Latitude 42), Milena Palka (WWF), Edward Abraham (Dragonfly Science), David Middleton (Seafood NZ), Richard Wells (FINZ and DWG), Ian Angus, Sarah Wilson, Laura Boren, Katie Clemens, Kris Ramm (DOC)

Apologies: Elizabeth Bell (WMIL)

Presentations:

1. POP2013-01 New Zealand sea lion population project (Auckland Islands) - Ground count Simon Childerhouse (BPM)

RW– Is there a 2014 field season extension report available?

SC – There will be a final report at the end of the month that will put all the data together.

There was discussion on whether or not pups were removed from the sites. SC confirmed that pups were removed at Sandy Bay for autopsy, but not at Dundas Island.

RW– Could you have tagged more pups at Dundas Island?

SC– Yes we could, but are constrained by logistics.

Discussion ensued about the nature of logistical constraints that would be involved if the team were to attempt tagging more individuals. Constraints were deemed to be primarily around cost associated with the increased time and personnel necessary.

RW – Is it possible to get a spreadsheet of PIT tags by year.

SC– Yes, all of that should be retrievable through the New Zealand sea lion database hosted by Dragonfly Science, they should be able to develop a filter for that.

SC– We will provide more detailed analysis of resighting data for the final report due at the end of the month.

NW– Was the pulse in pup mortality infection or starvation related?

SC– We are not sure, but we think infection, possibly *Klebsiella*, which was why we extended the field season.

RC – It would be fascinating to have that information plotted along with time series so that if we are aware that there's a particular time when this mortality spikes, we can better plan for next field season.

A debate ensued about whether this information was ever collected under the CSP contract, it was never presented officially at the CSP Technical Working Group (CSP TWG), but the data were collected.

SC –The CSP TWG should think about the importance of this data, and if we want to collect it, then how to do so, etc. One of the team members that we use for future trips could be a vet and could collect that data during the trip.

There was discussion about when the DeepWater Group would publish the information. RW will make the data available as soon as possible, but in the interim, SC has provided a preliminary report which is now available on the CSP meetings webpage [here](#).

There was discussion about how data was collected in the field. DM asked whether SC would be reporting on the new forms in the final report. Currently, as described by SC, all data are collected in water proof field notebooks and then transcribed into excel upon return to the huts. DM suggested that now would be a good time to review the method of data collection, to ensure that all data were being collected in a standardised way. Further discussion took place on the standards of data collection until IA suggested that this topic be parked until later, such as when further field work has been approved.

SC sought advice from the CSP TWG on how best to determine the minimum sample size required for tagging research for future Animal Ethics Applications. Suggestions such as power analysis were put forward. The discussion then turned to further logistical difficulties and health and safety risks, and how to overcome them.

KB – Could the team that goes down there be possibly contributing to the spread of disease, i.e. are the pups being tagged also dying?

SC– We’ve considered that idea. The tags are clean going in, but these animals are living in a dirty environment. We do use the same applicators, but the parts touching the animals are always clean, and the microchips are sterile. We do use the same table to put the pups on, but when moving from colony to colony we are sure to sterilise gear and clean everything as a bare minimum.

BB – The animals themselves mix freely amongst areas.

KB– You are still putting something into the pup, and there could be consideration as to whether that increases disease transmission risk.

RC– Does any examination of that area take place?

SC– Yes, for any pups that die, the tags get cut out and sites get examined.

KB– We’ve used disinfectant on birds in the past.

SC – We used to do that, the problem here is more that an open wound is created.

KB – How many tagged vs. untagged pups get sick and die?

SC– We can’t check that for Sandy Bay as we tag them all at that location, however, we, could check that for Dundas Island.

RW– These animals do usually have umbilical wounds, etc and still manage to survive.

SC– Or open bites, etc.

KB– True, but we should still consider human contributed risk.

BR– With regards to the mortality data is there a possibility that protocols have changed. In the past years there have been bacterial deaths, but can old samples be examined to see if protocols changed, etc? I.e. did you become better at detecting *Klebsiella* and could that account for the increase in *Klebsiella* related deaths?

SC- Since the big mortality event in 1998, there have been more vets on the team from Massey. I can't comment on whether their techniques would have changed over time, the 2002 and 2003 pup mortality events were bacterially driven, and while it's possible that our methods have changed, I doubt it. It's more likely that the vets have become better at recognising it. As we become more familiar with it we might be looking for it, but so far these results are only very preliminary, we need to wait for histopathological analysis before knowing if the mortality is really attributed to *Klebsiella*.

BR - mentioned that the media had reported that 600 pups were dying every year of *Klebsiella*. There was discussion as to where the number had originated from and the TWG agreed that the conclusion from the media was premature as Massey had not yet completed their analyses.

IA- The Minister of Conservation wants to see a Threat Management Plan process followed for the New Zealand sea lion. A joint options paper has been provided to Ministers around what DOC and MPI suggest going forward. It will be staged as we've got research being reported on that needs to be considered as a whole, and we have to account for that in terms of field work, etc. The focus will be on the sea lion and reducing risks to the sea lions; we will also look at other research and options on off shore islands and other locations. Information will be announced in the coming weeks, and there will be a process through which people will be able to contribute, and CSP will continue to be part of that through field work if everyone supports the plan and research proposed.

IA- We are very keen to take suggestions forward on this project through the submission process on the CSP annual plan (field time extensions, helicopter, H&S). We will run a process before field season to discuss logistics, data collection, etc. and will keep everyone appraised.

SC- The final report is due end of this month, and I'm really keen to hear back from people with regards to any suggestions.

DM- I'd like to see a very detailed description of the methods. Over time, the methods are not well enough described.

SC- I presented a methodological paper to the TWG last year, and included feedback received from last time. If you could let me know if there are other things that aren't covered in that that you want, let me know, the final report won't necessarily include methods.

DM- Also, I suggest reviewing the forms and data processes, and adding that in to final report.

RC- Following up on pup weight sections would be really useful to have. It would be particularly interesting to fill in the gaps for Dundas Island

The final revised methodology report on the New Zealand sea lion project, as presented by Simon Childerhouse can be found [here](#) (also located on the CSP Meeting webpage - 21 Nov 2013).

2. POP2013-01 Review of set net mitigation techniques

Simon Childerhouse (BPM)

There was discussion and clarification as to the definitions for different types of set netting (such as surface set netting and ring netting).

DM- Have you tabulated the different approaches?

SC - Yes I have, at the back of that report there is a list of all papers, including comments on statistical design. I'm just trying to capture broad level in this talk.

There was discussion on the logistical difficulties of properly testing acoustic deterrents, and the need to properly determine when these devices would lose output, when fluctuations in frequency occurs, and the time it takes for the devices to drop off. SC mentioned that in the review those that were successful were used by people who knew what they were doing and who checked them routinely, etc.

There was discussion on research done in Queensland on dugongs and inshore dolphins, the use of dual frequency pingers, and the potential for incorrect frequencies to attract animals to nets rather than repel them.

There was some discussion on the technical definition of "hanging ratio".

KB - Did you find switching to a different fishing technique to catch the same fish described as an effective technique to get around fisheries exclusions?

SC- No, didn't find that in our research

KB - If we are to use fisheries closures as useful methods of protection for dolphins and seabirds, this could be important.

SC- We didn't spend as much time on that. In Mexico, financial compensation was given to fishermen to afford them the opportunity to get new fishing gear and try different methods of fishing in the same way.

There was discussion on the efficacy of dolphin dissuaders and studies overseas involving dolphins and pingers. SC mentioned that Hector's and Maui's dolphins are poor candidates despite some successful experiments overseas, as they do not echolocate enough for the pingers to be effective.

There was some discussion on the meaning of the term "effectiveness" and how it applies differently to scientific effectiveness and management effectiveness and how the two are different. SC agreed to change it to: "...to meet its management goal".

There was some discussion about the lack of proper scientific studies that were included in the report (not a criticism of the presenter's work, just a statement that that information is not available in the literature).

There was some discussion about the use of visual deterrents for birds, penguins, etc.

There was discussion surrounding expanding the seabird liaison officer into recreational fishing, however, prior to doing so, other sources of funding would need to be investigated for that aspect.

BB mentioned that southern seabirds were investigating gill netting - workshop on June 5th.

3. POP-2013-02. White-capped albatross population estimate (Auckland Islands)

Barry Baker (Latitude 42).

There was some discussion about whether one can definitively tell which birds are breeding vs. loafing from aerial photos.

DT – Did you factor in temporal variation?

BB– No.

NW– Has ground truthing been undertaken?

BB– Ground counts occurred in 2006 and 2007, the percentage of non-breeding birds was low in the colony, the highest they ever saw was 10%, most of the time it was under 5%.

NW– I’m more interested in what we’re seeing in the colonies, it would be interesting to scale up by what hasn’t returned to the colony to breed.

BB– There is evidence to show that 25% of annual breeding species in fact don’t breed every year. So there is no real easy way of determining what the total population is.

NW– The colony size is fluctuating.

BB– It is complicated because the species is biennial rather than annual,

DT – They are an intermediate species, one that adopts slightly more biennial strategy, but then tends to stay in the same area, potentially even occupying nests despite not breeding.

BB– A similar strategy to the Shy albatross. If you do these counts at peak egg laying in the middle of the day, loafers aren’t present.

KB – How confident are we that the birds you’re counting as breeding are breeding, if we aren’t doing any ground truthing?

IA – In the draft annual plan, ground truthing has been proposed for this coming year.

There was more discussion about how one can tell whether a bird is breeding or loafing.

There was some discussion on the trend analysis that was used and the different results that produces.

Clarification was sought on the definition of “not on a nest”. BB clarified that those data referred to birds that were clearly not breeding.

There was discussion around the percentage of non-breeders in the colony at different times of the year. BB– if we’re there in decemenber, that number is pretty low, a portion of that percentage is probably attributed to some birds that have failed at breeding but are still defending nest sites. One third of the nests we can see do not have birds on them and this is potentially linked to the biennial aspect to their breeding (not all birds breeding yearly, some breed every second year).

RW– Could you go back and look at the nests and see if they stay unoccupied? For examples, how often each nest is unoccupied, etc.

BB– Yes, we could do that.

PS – The percentage non-breeders varies throughout the breeding season, typical of albatrosses. The proportion breeding from one year to the next varies significantly from one year to the next.

BB stated that it would be highly desirable to do a count in December, and another one in January. IA stated that the feasibility of such a plan would depend on whether a research station gets established in the Auckland islands. RW wanted to see ground truthing conducted at Disappointment Island.

4. POP-2012-06. Salvin's albatross - aerial population estimate and at-sea distribution

Barry Baker (Latitude 42)

RW – do you see more egg loss there?

PS – No.

BB – Parts of Albatross Island are similar to the Bounty Islands – any nesting material would be highly contested for. When they are incubating, they're always continually building their nests.

DM – I'm assuming that all other islands had the same amount as Proclamation Island?

BB – Yes.

BB stated that it would be advantageous to conduct survey earlier, for example in mid September, to maximise the chance that loafers would not be present.

There was discussion around moving the aerial survey. Concerns were raised that ground truthing has already been under taken for the current time of year that aerial surveys take place. However, it was stated that earlier ground counts could be corrected, and a few TWG members did like the idea of moving the surveys, but agreed that ground truthing would need to be undertaken again.

There was discussion around whether one standalone ground truthing research stint would be useful, or how many you'd need in a row, or where the long standing research has been carried out, etc.

There was discussion over whether this population should continue to be studied or if should continue monitoring at The Snares instead.

RW – We currently have lots of data, and should use that to inform ourselves of what we should look at and how, etc. I feel that we should go to the Bounty Islands earlier, but if that would add even more uncertainty, than that's less desirable.

IA – in the proposed CSP annual plan 2014-15, there is no proposed survey at the Bounty Islands.

BB – Depending on how quickly you want to get a trend, you need more data points, and how quickly you get the data points (every year) will inform how quickly you get the trend (vs. data collected every several years).

RW – We need to analyse all the data that we have prior to making decisions on what research we will be undertaking on this species for the medium term.

Other CSP Business

For comments regarding the proposed CSP annual plan 2014-15, submissions were accepted in writing to csp@doc.govt.nz by noon (12pm) Monday 28 April 2014.

Further written comments on any of the material presented, or the draft minutes, were accepted by email to csp@doc.govt.nz by 1 May 2014.