Department of Conservation
Te Papa Atawhai

Meeting: **Conservation Services Programme Technical Working Group**
Date: 17 June 2015
Time: 9:30 am – 4:15 pm
Place: Level 4 Conference Room, Conservation House, 18-32 Manners St, Wellington.
Chair: Ian Angus (ph: 04 471 3081; email: iangus@doc.govt.nz)

Attendance: David Thompson, Jim Roberts (NIWA), Richard Wells (DWG/FINZ), David Middleton (Trident, DWG/FINZ), Nathan Walker, Michelle Beritzhoff-Law, Rohan Currey (MPI), Karen Baird, Katrina Goddard (Birdlife International/Forest & Bird), Johanna Pierre (JPEC Ltd), Rochelle Constantine (Uni of Auckland), Mike Percy (FOMD), Dave Goad (Vita Maris), Kalinka Rexer-Huber (University of Otago), Graham Parker (Parker Conservation), Richard Wells (DWG), Igor Debski, Laura Boren, Katherine Clements, Paul Crozier, Kris Ramm, Katie Clemens-Seely, Graeme Taylor, Will Arlidge, Sarah Michael (DOC), Milena Palka (independent), Tom Clark (SNZ).

Apologies:

CSP TWG presentations:

1 POP2014-01 New Zealand sea lion project – final results Sarah Michael (DOC)

DM –There were a few locations I haven't heard about in previous reports and years, would be good to add a map to illustrate these
DM– Most pups found in Sandy Bay?
SM – Yes, from late January
DM – It would be good if this was documented in the report
DM – Cumulative graphs are helpful, but start date had changed this year so some uncertainty on left of the graphs, this should be documented for previous years too
MP – Is hookworm linked to starvation?
SM – No, pups normally get it from their mother's milk, and they overcome it as they get bigger and stronger.
DM – Maps really helpful that show dispersal of pups from beach, would be good to document this in reports too
JR – It would be useful to analyse necropsy data from previous years to look at sex ratio of dying pups by each specific cause.
SM – In humans there is a bias towards males for *Klebsiella*
JR – Is starvation rate higher or lower to previous years?
SM – around the same
DM – Increase in number of resights this season is reflective of effort, this needs to be quantified with regards to previous years were there was less effort.
JR – Useful but tricky as effort differs between different dates over each season so need to think about how we can summarize this, but agree it needs to be looked at
DM – Half pups flipper tagged and micro chipped and half chipped only, the report doesn't show if the pups were selected at random, this needs to be made clear in the report. The impact of tagging on chipping needs to be looked at.
– Footnote on page 8; negative bias needs further thought with respect to previous years.
– Report mentions that in the mark recapture estimates, some caps had fallen off pups and this was first time I had seen this documented, does this happen each year and would this bias

previous years' results? It would be useful for this to also be included in the report. Also reports needs to state that animals marked in MR estimates were chosen randomly.
– It's helpful to see individual counts are shown in the appendices, but some counters consistently counted less than others. This needs to be highlighted in report.
NW – how many samples will be tested for *Klebsiella*?
SM – necropsy samples; we need further $$, but environmental samples; we intend to sample all.
RW – there is a student at Canterbury Uni working with fur seals and drones

2	**MIT2014-01 Protected Species Bycatch – annual report**	**Johanna Pierre (JPEC Ltd)**

DM – It would be interesting to know which best practice things were highlighted, and it would be useful to have them in the newsletter.
JP – yes, can be documented in project reports.
KB – Do you get feedback from fisherman on the newsletter?
JP – Not this year but there has been some in previous years, and further evaluation is planned for next year.
KB – maybe you should solicit them for ideas?
JP – there is an email link for this in the newsletter
KB – what subjects are people most interested in?
JP – in previous years there has been good feedback across all the subjects mentioned in the newsletter

3	**MIT2014-02 Tori line development for small vessel longline – project update**	**Johanna Pierre (JPEC Ltd)**

KB – highlighted problems in the Pacific with small vessels not required to use tori lines, so this project is very timely
KB – has collaboration been sought internationally, particularly Japan who is a major player in the Pacific
JP/ID – yes, feedback through ACAP contacts and Japanese researchers has been sought, but no feedback was received from Japan. Will follow up again when there are firm plans from this project
KB – happy to assist with contacts
DM – are performance issues clearly quantified
JP – not as such from the outset, as many best practice performance measures are difficult to apply to small vessels, will be developed as designs are developed, and can be tested formally following outputs from this project
GP – will you consider how birds interact with aspects of the tori line, particularly as observations from small vessels can be difficult
JP – protocols for at-sea testing yet to be developed, but will consider
DG – noted there has already been a lot of development already by individuals, and this project can bring all these learnings together

4	**POP2014-02 White-capped albatross – mark-recapture feasibility study**	**David Thompson & Jim Roberts (NIWA)**

DM – are apparently incubating birds not known if incubating or not incubating?
DT – not incubating – sitting on empty nest, clarified in report
KB – is the variability in loafers and birds sitting on incubating birds determined by environmental conditions and thus able to be accounted for?
DT – they are related to environmental conditions, but very hard to unravel
KB – so aerial survey would always require ground truthing

DT – depends on what you're measuring and reporting, to estimate true number of breeding birds is difficult
DM - similar partitions used in simulator and estimation process?
JR – yes
DM – would be worth investigating previous applications of SeaBIRD, to see how many have had sufficient observations of non-breeders
JR – only requires low levels, these were seen for example with Southern Buller's albatross
DT – more likely for a species that is not truly biennial such as white-capped albatross
ID – can field protocols be developed to maximise sightings of non sightings?
DT – yes, estimates used in power analysis based on experience
GT – advantage of ongoing banding rather than just resighting on cohort
JR – additional banding would be particularly useful for biennial species
RW – could investigate mark-recapture data from shy albatross
GT – if not banding birds each year, the cohort will age over time rather than maintain age structure
KB – can we also investigate juvenile survival?
ID – yes, important parameter in previous applications of SeaBIRD modelling, but out of scope of this investigation
DM – noted this estimation is a useful exercise, but need to consider immigration/emigration etc that would affect match between data generation and estimation
DM – the rationale for informing level-2 risk assessment is misplaced as mark-recapture provides net rates

5 POP2014-02 Burrowing petrels – review of survey methods — Graham Parker (Parker Conservation)

DM – consistency in if multiple species occupy burrows
GP – varies by species and substrate
DG – do individual observers improve over time with learning?
GP – yes
DM – very useful study, should include an appendix of studies and scoring
GP – needs careful interpretation as it varies by species
DM – should distil recommendations into a flow chart to design study
GP/KRH – do have summary table, will consider suitable formats

6 MIT2014-03 Seabird liaison officers — Dave Goad (Vita Maris)

RW – vessel numbers reported those visited or those on the list?
DG – on the list
RW noted that skippers need to understand live captures are still captures and need to be reported
KB - same gear for targeting swordfish and bigeye?
DG – similar gear, but will shoot a bit differently in terms of target depth and time of shooting
RW noted that establishing the right balance of depth of audit information collected by observers etc is important, but hard to achieve
TC – was there a difference in attitude between skippers who bought into SMPs, between bottom and longline skippers
DG – there is a big variation between individual skippers, but not really a difference between fleets
KB – what do skippers base their assessment of whether they're doing enough?
DG – may be based on comparing to bad historic practice, but better informing fishermen is key to develop their understanding of what is acceptable

GP highlighted the importance of handling birds for safe release, particularly large birds like albatross
DG – do distribute handling guidelines, but could be more training around this
GP – Birdlife in South Africa developed quite a lot of material
GT – could develop an instructional DVD
KB – considering this with growing involvement in recreational fisheries
RW noted that recent industry work with inshore trawl was producing similar results
KR noted that there would be a planning meeting for similar future work with industry representatives to pick up on learnings
KB – will the outputs from this planning be reported back to the CSP TWG
KR – yes
KB – important to address issues such as audit, and the documentation of it

7	**White-chinned petrels Auckland Islands – update (includes components funded as part of POP2014-02)**	**Kalinka Rexer-Huber (Otago University)**

RW – transect densities quite patchy, what was this related to?
KRH – not unexpected, most burrowing petrels have patchy distribution; habitat preferences were found in this study and lead to quite high error around final estimate
GP – some areas were simply not suitable, e.g. bare rock
GT – how many burrows in Fairchild Garden area?
KRH – did not quantify, but probably upper hundreds in a small area
KB – have geolocator data been investigated? Will make an interesting comparison with Antipodes birds.
KRH – were issues with data retrieval – currently with manufacturer
GT – interesting that white-chins are restricted to cliff ledges on a pest free island like Adams
KRH – interesting comparison with Disappointment, where vegetation was alpine. Would need certain soil depth and vegetation types. Lack of burrows over many parts of the island consistent with observations from Gibson's albatross research
DM – will you aim to extrapolate an estimate to all of Adams Island?
KRH – can only extrapolate to similar areas, for which aerial photographs will help. Will be clear about which areas have not had an extrapolated estimate, but these will be areas where few birds expected.
DM – could do some low level of sampling in background stratum
KRH – yes, will quantify any burrows observed when moving between core areas, to build evidence for excluding those areas from the extrapolation.
GT – could cruise the coast slowly at night to listen for birds to identify areas where birds are present.

Non-CSP Presentations:

8	**Māui dolphin abundance estimate – Year 1 progress report**	**Rochelle Constantine (Auckland Uni)**

MP– Is group size linked with season?
RConstantine - Very little data on that due to lack of funding, there is no money to survey in winter
KRH– How are you assigning individuals to populations of origin?
RConstantine - Through allele structure, individuals fall out very well from this process.
DM– To keep mark recapture estimate unbiased, you need to ensure random sampling for a population or check the randomisation as you. As focussing on areas of high abundance this needs to e considered in working up the data

RConstantine – Covering the whole potential area would be far too expensive therefore have chosen the area as a trade-off to ensure representativeness.
Some discussion around the development of appropriately randomised areas survey design incorporating the best available distribution mapping.
DM – Will the samples be incorporated in to the genetic population modelling and will this be reported?
RConstantine – we haven't been contracted to do this work as yet so this will all be dependent on funding.
RCurrey – sex bias in sampling maybe an indication of negatively biased abundance estimate.
A call was made as to sample design given funding restraints and objective. Given that we feel that this is an appropriate design.
MP – 38 individuals were identified, will this be compared to the previous year's sampling in order to identify which animals are new?
RConstantine – the animals are being DNA fingerprinted to identify which of these animals have been sampled before report will be with DOC 30 June
MP – public sightings seem to have increased south of Tarnaki this year, perhaps as a result of higher public awareness? Interested in getting more genetic samples from this area
IA – agree this could e useful however it's always a balancing act of priorities for funding
LB – infrequency of sightings make it difficult to plan a survey so we have relied on ad-hoc responses to sightings however timing can always be an issue for this.
Discussion on this point is deferred to the Maui's Research Advisory Group

Some discussion had about the release dates for reports
IA – a decision on this is yet to be taken and will need to consider relationship issues and any issues of misinterpretation.

9 Grey petrel - Campbell Island 2014 survey Graham Parker (Parker Conservation)

RW – are they on Jacquemart?
GP – there has never been a good investigation in order to say, potentially good habitat for them.
RW – has some bearing in re-colonisation and spill-over
GT – personal observations suggest complete failure of nests on Campbell prior to rat eradication so likely an offshore islet may have acted as a sanctuary.

CSP Reports tabled:

POP2014-02 Southern Buller's albatross at the Snares 2015 Paul Sagar (NIWA)

Any other business

DM – is there a background report on the Southern Buller's which contains more details and references?
ID- there is a series of reports however no single detailed source for methodology. Will consider how best to progress this for future reference.

Close of meeting.