Department of Conservation
Te Papa Atawhai

Meeting:	Conservation Services Programme Technical Working Group (DOC) **Aquatic Environment Working Group (MPI)**

Date:	7 March 2013
Time:	9.30 am – 4:00 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): CSP TWG Martin Cryer (ph: 04-819-4253; email: martin.cryer@mpi.govt.nz): AEWG

MINUTES FOR CSP TWG

Attendance: David Middleton (Seafood NZ), Paul Breen (Breen Consulting for Seafood NZ), Richard Wells, Aaron Irving (DeepWater Group), Katrina Subedar (Forest and Bird), Liz Slooten, Bruce Robertson, Stefan Meyer (Otago University), Dan Fu, Ian Doonan (NIWA), Simon Childerhouse (BPM), Jack Fenaughty (Sanford Ltd/Silvifish), Barry Weeber (ECO), Edward Abraham, Finlay Thompson, Katrin Berkenbusch (Dragonfly), Martin Cryer, Ben Sharp, Vicky Reeve, Michelle Beritzhoff, Derek Slooten, Tania Cameron, Kerry Huston, Rohan Currey, William Arlidge (MPI), Ian Angus, Igor Debski, Kris Ramm, Louise Chilvers, Laura Boren (DOC)

Apologies: Karen Baird (Forest and Bird), Martin Cawthorn, Rob Mattlin.

IA clarified progress in strategic statement development and link to ToR which will be available after the meeting for further discussion. IA highlighted interest in feedback on new ToR.

In response to a query from BR on role of TWG in peer review or advice, IA outlined that a process will be put in place to perform peer review of CSP projects, including use of sub-groups etc as required, will be outlined in ToR. MC outlined process used for AEWG.

LS suggested processes used for example at IWC would be appropriate.

MC – this approach would be consistent with MPI ToR, though the group is lead to reach a consensus where possible

1	**POP2012-02. New Zealand sea lions – demographic assessment of the cause of decline at the Auckland Islands. Presentation of data summary and proposed methodology.**	**Ian Doonan (NIWA)**

LS/BW – scale of pup production chart more suited to Dundas than SB, could use different scaling

LC – some of the older counts used very different methods so may be misleading if plotted together

MC – in regard captures, how will animals exiting a SLED be dealt with?

IDoonan – this level of detail will be considered at next stage of project

BW – what about range of resighting effort over time? Will effect interpretation of cohort survival

IDoonan – resighting probability is a large part of the work, just presenting raw data today

SC – how are older animals dealt with as tagged animals are only to a certain age

IDoonan – will be considered at expert workshop

LS – surprised detailed analysis not available on Dundas

LC – not enough resight effort is possible on Dundas

IDoonan – will look at Dundas data and get as much as possible, but probably likely to be restricted to survival

LS – there should focus on data collection at Dundas as it is the largest colony

PB/DM – resighting probability at Sandy Bay as well as Dundas should be considered

PB – what measure of resighting effort will be used?

IDoonan – number of days, can consider in more detail at expert workshop

SC – number of days is likely the only measure likely to be available

PB – has the relative effort on resighting changed on a per day basis

LC – after pup production estimate resighting is primary objective of field work so effort always directed at that primarily

BW – other factors as well as days are important to consider, for example weather

IDoonan – can be considered, but need input records from field team

LC – weather is important, all (but one) years have good and bad weather periods so unlikely to be biased, can use weather records

EA – could consider variation in day to day resighting per day as a measure of resight variability

LC – this will also vary according to change in behaviour of animals over the season

PB – as well as a season sight/resight there is more information available, e.g. number of resights, should be used

LS – yes, this kind of information should be used in model

SC – could consider relaxing the criteria for determining breeding status, e.g. only one observation of pup birth is required

LC – the criteria do allow for this as confirmed or suspected pupping is recorded

SC – some animals breeding on Dundas later move to SB

IDoonan – yes, using a date cut-off in recognition of this

LS – will tooth data be used to inform age class in the model

IDoonan – yes, also year class strength

LS – is it an issues that there are few observations of young age classes?

IDoonan – will be dealt with in the modelling

LC – from a behavioural point of view younger females may prefer SB as it is less crowded than at Dundas

LS – describing temporal variation may be quite optimistic, and correlating these with other factors will be complex

IDoonan – agree, hard to predict success at this stage

LS – recommend keep modelling simple

PB – will you build on Gilbert approach?

IDoonan – constrained to using SEABIRD, but will consider other approaches to the extent they may be relevant

DM – can provide code from work by Gilbert, that may be able to build into modelling approach

SM - how many parameters will there be?

IDoonan - quite a lot, can use hyper parameters to simplify

PB – where will priors for modelling come from?

IDoonan – will be considered in next stage

SM – how will you identify key demographic parameters?

IDoonan – not yet known, will be informed by expert workshop

2	POP2012-01. New Zealand sea lions – Auckland Islands population study. Draft ground count results.	Simon Childerhouse (BPM)

BR - any impact of helicopter disturbance at Dundas?

SC/LC – was monitored closely, no effects identified

LC – were resights made on every day on Enderby?

SC – no, some days were dedicated to resighting, others with none

DM – this detail should go into final report

BW suggested using resight man days to record effort

SC – number of resights per day is probably best measure of effort

LC – also need to consider total number of animals present

There was discussion on how resights are made

LS – should not consider multiple resights on a day

LC – historically data collection was recorded as daily resight

BS – standardising resights by effort surely is very important

SC – needs to be considered by modellers

LS – if field effort is maintained at this low level for future years, this will impact modelling, will need to consider very carefully the sensitivity to resight effort

RC – need to consider resight discovery curve

BW – there may be observer difference as well

SC – probably too much detail, could be something for future consideration, indeed future surveys should consider how effort is recorded

PB – how many live counts were made?

SC – on 16 Jan at SB only a single count was made, but multiple counts were made on other days

DM/LC/PB – discussion on historical methods for direct counts

PB – a single count at SB varies from methodology presented previously, need to discuss in final report, and if a comparison between methods is useful, this should be reported

SC – apologised that capacity limited the number of counts possible, will report

DM – counts should also be made available through the sea lion database

IDebski – clarified this data was in scope for the sea lion database

PB – raw data for M-R should be reported to allow independent calculation of pup production

SC – will do in final report

PB – were animals present at SEP?

SC – no females sighted there

LS – were animals tagged at SEP seen elsewhere?

LC – would need to check resight data

PB – in previous years there was standard error reported?

SC – no standard error available for dead pups, which complicates things

PB – should be reported

DM – could estimate standard error for dead counts at Dundas where multiple counts were made

LS – in relation to temporal modelling, might be useful to consider jumps in time series

RW – agree modelling approaches should be kept simple and focus on major changes

Discussion on how a measure of pup production may reflect impacts on different parts of the population, including lag effects etc

RW – dead pup counts at Dundas and Fig8 is consistent with previous years, only SB varies

DM – is verification process happening within the database?

SC – this was the plan, but there were some technical issues entering into the database, so raw sightings in spreadsheets ready for upload into database

PB – what verification process is being used, and is validation separate?

SC – data entered as it appears in notebooks, and changes, determination of breeding status etc will be recorded, process of verification during database upload will be recorded

There was discussion on optimal periods for collecting resighting data and temporal variation in discovery curves etc

PB – will a draft final report be circulated for comment?

IA – yes

KS – what is timeline for finalisation of report given upcoming research planning?

IA – will endeavour to finalise as much as possible prior to development of next year's research plan

LS – requested that results be presented in a broader context, rather than relying on just a comparison of change in pup production to last year

PB repeated a request raw M-R data for earlier years (pre-2004), which may need correcting as other data had small errors

IA – will follow up

3	MIT2012-03 Review of mitigation techniques in setnet fisheries. Draft results.	Simon Childerhouse (BPM)

BW – need to also consider alternative fishing methods for target species

SC – agree, but out of scope of current project

LS – should change scope to include this

LS highlighted a recent International Marine Mammal - Gillnet Bycatch Mitigation Workshop which discussed these issues. Further details can be found at the following web page:

http://bycatch.org/marine_mammal_gillnet_bycatch

LS – should keep political issues separate from technical review, economic evaluation would be appropriate

SC highlighted the scope of project was to review literature, not a primary investigation

RW – noted work in jack mackerel trawl with acoustic deterrents

SC – still seeking input from other studies that may not have yet been reported

LS noted that, in relation to beaked whales, there was a decline in effort and some spatial closures related to turtles as well as use of pingers

DM – are you also assessing the type of study?

SC – yes, including use of experimental approach, robust statistical analysis etc

KS – has compensation been used to encourage change in fishing gear?

SC- yes, in at least one international example

MB – perhaps express the pros and cons as a range of results for each factor

LS – supports such an approach

SC – yes, will consider in summarising findings in final reporting

BS – fishery closures are management actions, not mitigation, only very fine scale spatial-temporal closures which change distribution of effort is mitigation

BW – should be considering remedies as well as mitigation

MB – are visual deterrents used for cetaceans?

SC – no, primarily for turtles

MB – are conclusions for certain species-areas likely to reflect overall conclusions?

SC – no, in some cases results are useful for certain species in certain situations

LS highlighted a robust study of pingers with Hector's dolphin

SC – will discuss further with LS

SC – presentation and list of publications will be provided on the CSP web pages, please advise if other material is available

An updated copy of references included in the draft findings has been posted alongside these minutes. Please advise SC and the Chair if you are aware of any other relevant material made available **since 2007.**

4   CSP Observer Programme. Options for future protocol   Kris Ramm (DOC) for return of seabirds for necropsy.

RW noted that ramp up in observer coverage is just for offshore fisheries, so makeup of bycatch likely to remain quite constant

MC – does option 3 risk missing rare species?

KR – yes, more dependant on observer identification ability

Kerry – most observers are quite reliable

IDebski – option 2a would provide more material to verify identifications

RC – return of a feather for genetic analysis as well?

KR – yes, but there are some issues on relying on this

RC – would only be used when photos are not definitive

RW – EA has done some analysis on observer identification

EA – although identification generally good, there are issues with birds such as black petrel and Westland petrel

There was discussion on use of ancillary data and relative costs of necropsy, necropsy tasks and photographing

DM – need to consider species by species identification issues before deciding which species to apply protocols, could also consider on an observer by observer species

DM – should also consider collecting some representative ancillary data for commonly caught species

IDebski – yes, as we could get from first return of each species from each trip (Option 2a)

BS – some trips may require all birds back, if observer targeting understanding an interaction

MC – also need adapt photo protocols

JF – option 2a looks very workable, also need strict photo protocols, targeted at cryptic species

KR – agree, work has been advanced in tightening up photographic protocols

LB – could prioritise which species to necropsy amongst those brought back

RW – need to consider storage of genetic material if to be collected routinely

BW noted some offshore fisheries have not historically been well covered and should return all birds

IA called for any input from those with particular suggestions for options

IA closed the CSP TWG meeting, and called for any further feedback in writing by Thursday 21 March 2013.