Department of Conservation
*Te Papa Atawhai*

**Meeting:** **Conservation Services Programme Research Advisory Group**

**Date:** 14 December 2018
**Time:** 9:30 am – 2:00 pm
**Place:** G.01, Conservation House, 18-32 Manners Street, Wellington
**Chair:** Ian Angus (iangus@doc.govt.nz )

**Attendance:** Anton Van Helden (Forest & Bird), Debbie Stone (Marine Farming Association), Richard Wells (DWG), David Thompson, Ella Benninghaus, Giacomo Giorli, Jaret Bilewitch (NIWA), Tom Clark (FINZ), Hilary Ayrton, Nathan Walker (FNZ), Janice Molloy (SSST), Lyndsey Holland (MPI), Tamar Wells (Te Ohu Kaimoana), Barry Weeber (Eco), Simon Childerhouse (Cawthron Institute), Graeme Taylor, Shannon Weaver, Trude Hellesland, Igor Debski (DOC)

**Apologies:**
Chris Gaskin (Northern NZ Seabird Trust), Rich Ford (Fisheries NZ, Rosemary Hurst and Malcolm Clark (both NIWA), Oliver Wilson (FINZ)

**Introduction**
**IA** General reminder of the purpose, scope, vision, objectives and overview of strategic statement revised December 2018.

**Update on medium term research plans**
**ID** *Presented overview of medium term research plans, highlighting that corals and reptiles don't currently have plans.*
**ID** *Presented on seabird medium term research plan, last updated in 2017, not updated this year due to finalisation of risk assessments, will be updated in 2019. Presented an update on 2017/18 and 2018/19 research on particular seabird species.*

**RW** Is it possible to get a single table on population studies across both MPI and DOC?

**ID** There is difficulty there with a misalignment of planning stages. We have regular meetings between agencies to make sure priorities don't slip through the gaps.

**BW** Colour coding improvements on slides please so information is readable

**ID** Noted

**ID** *Presented on protected fish medium term research plan, progressing work across the three highest priority species: white pointer shark, spine-tailed devil ray and basking shark.*

**ID** We will look at a better way of demonstrating the 5 year plan in a table as the progress to readers is unclear currently

**ID** *Marine mammal medium term plan overview*

**TC** Is Maui dolphin work sitting separate to CSP?

**ID** We recognise there will be a range of proposals coming from other relevant plans such as Threat Management Plan, all feeding into our prioritisation. These will feed into the February CSP RAG meeting for discussion on prioritisation

**IA** Level of interest is high for Hectors and Māui dolphins so sits separate to this process

**TC** I have a problem with tracking studies being low/medium [priority], believe they are

more important, fundamental to mitigation

**AVH** Agree also

**ID** Good to know the opinions on priorities

**AVH** How is this [marine mammal plan] informed? As surely Māui dolphins would sit as a higher priority to fur seals

**IA** We are trying to perfect a system here, I think what you are asking for is a wider sitting plan

**TC** Its about understanding the totality of work going on, CSP is fishing related, we need to know the other areas are being covered e.g. food availability, it's unclear if this is being covered

**IA** You are right

**SC** The development of priorities is really important, tables 3 and 4 are looking at quite different things e.g. impacts at population level and table 3, of equal importance, is related to impacts on individuals. Moving forward to table 5, need to consider both

**NW** *Presented on MPI research planning process*

**TC** Where is the line between MPI and CSP?

**NW** CSP tend to focus on mitigation projects, population projects are between both. MPI focus on high risk species with longer term time series. Big crossover of mandate between the two organisations, and co-funding on projects too

**IA** It may be that CSP have more expertise in certain areas, or capacity etc. defines allocation

**TC** Why is MFE not involved in aquatic discussions?

**NW** There are involved with MPI on some aspects

**TC** They are certainly involved in freshwater and terrestrial and they certainly will come across [to marine]

**SW** *Presented on the Annual Research Summary 2017/18*

**SW** *Presented on recommendations from 2017/18 INTERACTION projects*

Discussion around electronic monitoring

**BW** These recommendations [put forward following year one of the EM CSP project] should be top priority

**ID** Year two of this project is in development

**TC** Priorities need to link up with FNZ, is this happening?

**IA** Yes, meeting with MPI soon to discuss this

**NW** Presented on MPI interaction projects planned for the 2019/20 year

Discussion around fur seal spatial distribution

Discussion around hoiho project report

Discussion around orca bycatch

**BW** Questions around how this is going to be approached. CRA pots could be of interest to explore in this area

Discussion around camera trials (EM)

**BW** It would be good to have a geographical spread [of camera trials] as well as key fisheries. Instead of a single project, multiple projects might be needed. Set net interactions with Māui and hoiho, set net fisheries in harbours etc.

**DT** DOC and MPI to look at image data to help inform EM, want to improve the quality of images we are getting

**JM** Do they observe the haul?

**BW** Yes presented on the Antarctic working group

**TC** The behaviour and dive profiles of Hector's and Māui dolphins, how they work in the water column [would be beneficial to know]. We see them but the risk is not clear to mitigate against it. It has been done with hoiho but with Hectors and Maui we just have no idea. Difficult to get real information. I know that means tagging but it is an area that is devoid of information and if

we knew more we could mitigate against it. Equally applies to other dolphins and whales too e.g. common dolphins

**AVH** Totally agree with Tom on that. Saying speculative things based on thin data, needing tag and behavioural data

**TC** Technology is changing, one aerial survey is not sufficient. Mandatory to understand that [behaviour]

**GG** Hard animals to work with because they are so small

**AVH** Its about investigating the technology but we aren't even having that conversation yet. Looking at effectiveness of dolphin dissuasive devices- need to know more about this

**JM** Seabird interaction potential: Net captures on DW trawl vessels, know some things but need to when and where they are caught in more detail. Observers do their observations from the bridge so may not be getting the full picture. How to improve data e.g. live camera feed to help observers see what is going on

**BW** Would also help with warp interactions

**JM** Bluenose fishery and birds getting caught on haul, it's hard to know where they are getting caught, far away or close to the vessel?

**ID** This would be more of a characterisation project

**JM** Have we looked at where in the net birds are being caught?

**RW** Would be good to do

**RW** Post-release survival of seabirds, looking for cheap enough technology to apply..

**NW** Issues around observers ability and allowability of attaching devices to animals

**GT** The cost of technology, looking at around $5,000 per bird, so its pricey

**BW** What if you didn't go that hi tech, e.g. dyes/bands over multiple years

**ID** There is some South American research around this that will be looking into also

**GT** Tracking devices would be the only way to get accurate data e.g. Icarus

**ID** The smaller the devices are the lower implications are for the animal

**TC** In the observer programme, needing more coverage on small longline vessels

**NW** Inshore trawl, highest risk but struggle to get observer coverage on these boats

**TC** Might have to get cameras on boats. Need a more structured approach to observer coverage on at risk fisheries

**RW** Patchy distribution of coverage, need aligned liaison and monitoring programme

**BW** Scampi fishery has poor coverage and more coverage urgently needed. And inshore LL.

**ID/GT** *Presented on recommendations from 2017/18 POPULATION projects*

**RW** re flesh footed shearwaters, there's the potential that there is high competition for habitat in certain places, is there anything we could collect to inform that?

**GT** I think so, they compete with grey-faced petrels for burrows and there is mortality when they arrive. Tracking on Ohinau and Lady Alice currently to extend on past work

**RW** From a fisheries perspective, if spatial limitation is impacting the capacity of the population that is something we need to know

**TC** Instantly if numbers go down it is linked to indirect effects of fishing despite there being multiple drivers to population change. It doesn't fit into the remit of CSP

**AVH** There's also indirect effects that aren't from fishing e.g. oil and gas, run off etc.

**ID** We are going to be exploring this more in the future

**TC** Can DOC correct communication around hoiho following trawl track?. Evidence dispels this

myth.
Discussion around inshore indirect effects, climate change, environmental variability and regime shifts in the sub-Antarctic.

DT Multiple stressors are covered by MB e.g. the CARIN project. Linkages with protected species would be quite helpful

Discussion around Chatham Islands seabird research
BW Discussed pest control on the Auckland Islands

IA We are very linked in to that

ID e.g. boat sharing, helicopters etc. to align with pest eradication work. Exciting prospect to deliver work cost effectively with this

Discussion around indirect effects project

TC Indirect effects concern me as how to disentangle fisheries from other factors impacting seabirds..

RW Highlighted that a collective discussion on black petrels in the new year is needed as key questions need to be revitalised.
Discussion around white capped albatross aerial censuses, a meeting in the new year to discuss
Discussion around seabird indicator species
TW Concern around Antipodean albatross, 20 years since last census, population has declines and there hasn't been a re-census since. Concerns around representativeness of study plot

ID There's now extended ground counts and trialling drone counts for a whole census

DS King shag banding study in the Pelorus sound, tagged 11 chicks and one adult, 9 survived. Small window of opportunity to catch a king shag when they are with their chicks. Concerned about numbers so want to broaden research around diets, look into whether different colonies have varying diets.

GT Can collect diet info by pellet regurgitation, DNA on faeces etc. Need to look into whether commercial fishing is an indirect issue re food availability

Discussion around marine mammal research gaps

RW Fur seals: simple collections of data through DOC operational staff for range and distribution of where fur seals exist around NZ.

SC Support the SLL monitoring to keep going. The abundance estimate of orca is 25 years old and should be updated

BW More than one eco-type of orca in NZ

AVH Small population and wide ranging so there is a tendency for it to drop out in terms of the nature of the threat classification system. DOC sightings database work on orca..

TC Genetics of Hectors and Māui dolphins across the top of the South Island need more investigation

AVH The golden bay animals..

RW Genetics needed for population estimation

Discussion on protected fish research gaps, NPOA for sharks and if there is gaps there. MOU in terms of new species to be added to in.

RW Discussed whether shark fins are enough to identify sharks from
DT Provided an overview of population work on coral

DT Thin on knowledge of reproductivity, climate impacts

BW Mitigation doesn't really seem to be touched on for corals

ID Had proposals last year around gear modifications

BW I'd look more at spatial closures, no review of BPAs

TH *Presented on recommendations from 2017/18 MITIGATION projects*
Discussion around supply of mitigation information to vessels/fishers

RW Mentioned that an app would be most effective in terms of keeping most up to date version of material, as well as the accessibility of it. Multiple vessels that need info.

Discussion around liaison programme

**BW** Worth incorporating the NPOA on seabirds and a feedback loop between this liaison programme

**DT** Lack of knowledge on inshore coral fauna

Discussion around the iNature website which would allow fishers to take photos of species and submit for identification

**GT** Proposal to do an assessment on artificial lights e.g. different colours and strengths and how different species are affected. What lighting is most ideal for avoiding deck strikes. For land-based birds green lights are good but this likely wouldn't apply to seabirds as well as they look for phosphorescence which is green in colour etc.

Discussion around mitigation knowledge gaps

**BW** Loss of plastics in the ocean and that fishing gear is a major contributor

**IA** We have an emerging threats programme that would incorporate looking into the plastics issue

**SC** Exploration of mitigation tools (and assessment of their effectiveness to date) for captures of fur seals and dolphins in trawl, set nets and SLL as a joint project between MPI and DOC

**TC** On the dolphins, we are looking at deterrent devices in inshore if working in deepwater. Further work on bait setters in SLL needed, TDRs to inform how lines are behaving underwater. Also, not sure where hook pods have got to

**JM** Bait setters were funded through CSP in tuna fleet, then progress to Australia. Completed R&D so is now ready for use in a commercial setting. More funding is needed in this space. With inshore BLL, float buoyancy and trying to optimise sink rates [needs looking at]

**Further feedback**

The Chair called for any additional feedback, in writing to csp@doc.govt.nz, by **14 Jan 2019.**