Department of Conservation
Te Papa Atawhai

Meeting: Conservation Services Programme Technical Working Group

Date: Tuesday 5th September 2023
Time: 10:00 am – 12.30 pm
Place: Microsoft Teams Meeting
Chair: Kris Ramm (Manager, Marine Bycatch and Threats team)

Attendance: Kris Ramm, Lyndsey Holland, Karen Middlemiss, Igor Debski, Hollie McGovern, Graeme Taylor, Tiffany Plencner (DOC), Sadie Mills, Amelia Connell, Richard O'Driscoll, Jaret Bilewitch, Jason Hamill (NIWA), Barry Weeber (ECO), Andrew Biggerstaff, Susannah Lynch, Karen Tunley (FNZ), Dave Goad (Vita Maris), Peter Frost (Science Support), Chelsea McGaw (Forest & Bird), Ben Steele-Mortimer (SNZ Deepwater Council), Ben Leslie (DOC Liaison Officer), Zak Olsen (Skipper), John Cleal (SNZ Deepwater and Inshore DOC Liaison Officer), Sunkita Howard, Penny Turner (The Navigators)

Apologies: Rosa Edwards (SNZ Inshore Council), Karli Thomas (DSCC)

Presentations:

10:00 am	POP2022-04 Deep diving into decades of uncatalogued corals	NIWA
10:50 am	MIT2022-02 Barriers to mitigation uptake	The Navigators
11:50 am	MIT2023-07 Novel seabird bycatch mitigation for floated demersal longline fisheries: project scoping	DOC

1. POP2022-04 Deep diving into decades of uncatalogued corals (NIWA)

Sadie Mills and Amelia Connell presented the results of the deep dive into uncatalogued corals project. A total of 652 protected coral samples collected from the NZ EEZ were identified by experts and updated in the NIWA Invertebrate Collection (NIC) *niwainvert* database.

Discussion:

JB Can you comment on temporal aspect of where different samples are coming from (i.e. observers, trawl surveys and biodiversity surveys). Is it correct that biodiversity surveys have dropped off quite substantially and most of the newer samples have come from observers and trawl surveys?

> **SM** Correct. We're still collecting a lot from biodiversity surveys but not doing as many as in previous years. Ocean Survey 2020 funding helped in revitalizing some off

the biodiversity surveys, and there were some international vessels coming in around 2010, however were using ROVs and only collecting one or two corals from each site, so physical collection numbers dropped. Observer and trawl survey collections are more common now, but not from as wider distribution so volume of material is less.

LH Thanks for massive effort on this project, interesting to see how much was from biodiversity surveys. If funding was available, which areas would you like to survey for corals that are not included in the collection?

AC Biodiversity surveys on the West Coast, as that area is deeper so fisheries surveys don't often happen there. There is a gap between the coast of Otago and Bounty trough area which would be good to survey. Modelling in the far bottom area of Subantarctic Plateau has shown habitat types to be good areas for animals to be living.

LH It's sometimes hard to tell which areas have been surveyed for both presence and absence and it would also be good to combine results with DTIS surveys, so it would be good to ground truth with the coral hotspots project (POP2021-02), as there is the map showing all the Deep Towed Imaging System (DTIS) surveys that have been undertaken across the EEZ. I'd be curious to see if there was video footage of places where there were no collections made.

BW Great to see this work being done and all the old samples getting identified to some sort of level. Are gorgonians the priority? And in areas where you found new species, are those hotpots or areas where there are single samples?

SM That will be a future project feeding this dataset into modelling to identify areas with hotspots. Definitely focussed on gorgonians. Jaret Bilewitch identified the new family, and if we delve into Plexaurid and Paramuriceids we will find a huge amount of diversity there as well. They are a group that just hasn't been looked at taxonomically in our region.

BW Very helpful given this work is important in terms of identifying what is there and where they are.

LH There is a parallel hotspots project (POP2021-02) looking specifically at abundance that has shown areas where there was particularly high numbers of corals. However, the results were based on video data which is very difficult to use to get species level ID of corals due to the resolution of the footage, so the hotspots definition in that project centred on numbers of individuals in a certain cell size rather than using a species richness metric of diversity. Whereas this project is looking at species level IDs , so need to consider both in parallel so we can see which areas have high numbers of individuals and high species-level diversity at the same time. From there we can look at which areas might be prioritized for any kind of management.

BW –Reflecting on work being done using the video sampling to work out abundance as opposed to individual specimens that's clearly an area that needs a lot more

sampling to get a lot more data, clearly data deficient in a number of areas so maybe needs to be tied together ideally, it would be useful to link videos / abundance of specimens with the specimens to compare corals from the same transect areas

SM People doing video identification normally rely on a physical specimen from the same transect area to verify the ID of the footage. Sometimes specimens are not collected, which makes it very difficult to verify the video ID and they have to stay at the higher-level identification of the corals.

PF It may be worth trying to anticipate the possible impacts of future offshore development projects on areas that contain significant coral diversity, e.g. threats posed through sea bed mining and windfarm developments.

SM Agreed especially if we see an area with a data gap, we should be looking there to get that data.

KR Very good point, although obviously that kind of work falls outside of the funding scope of CSP, but the more information that is available will point things in the right direction.

2. MIT2022-02 Barriers to mitigation uptake (The Navigators)

Penny Turner presented the social research findings from qualitative interviews with skippers, owner-operators and owners of small vessel bottom longline (BLL) vessel operators.

Discussion:

PF With respect to the expressions of concern about/frustrations with requirements to take up seabird bycatch mitigation measures, surely this is where we need some quantitative social science research. What proportion of fishers interviewed were expressing these views/frustrations? (And what proportion of all the fishers approached to be interviewed took up the offer, and do you have any insights into those who declined the opportunity, especially why?)

PT Typical approach with qualitative research is to understand main themes and work out where to focus on, then look at the portion within the population that feel that way to understand how widespread it is, either using someone independent that is not attached to fisheries, DOC or industry, or use DOC Liaison Officers, and measure through audits.

KR This is about how we could bring in a more quantitative method into this; we want to prioritize areas within the qualitative report and look at areas where numbers could give us a bit more of a push.

BW Last year's FNZ dashboard report on seabird bycatch includes a view of bottom hand-baiting, and shows an ongoing increase in seabird bycatch in the BLL fleet over the last couple of years. It does seem like BLL is doing slightly better in the audits than SLL fleet; 50% of

audits were adhering to all aspects of the Protected Species PSRMPs, whereas in SLL all failed, although only 3 audits in SLL fleet last year and 14 in the BLL fleet. Clearly some issues there and would be good to know whether you presented any information on bycatch or circulated the dashboards to fishers?

PT We didn't present actual figures; they are aware seabirds are being reportedly caught in big numbers within the fleet, but as they are not experiencing it as individuals, they don't understand what's going on. Need to think about how we shift from 'I'm not experiencing this' to 'the fleet is experiencing this' so they can get some understanding about why it's so important to keep up the mitigation practices. Regarding the increase in captures, this could be due to an increase in fishers reporting the captures over time. Fishers do want to better understand the situation; we need to help them understand where this is happening and how to help.

BW Some of this is also calculations on the basis of coverage.

KR Useful next step will be to look at understand how we can incorporate these findings into the DOC Liaison Programme.

SH Thought you did a fantastic job of capturing themes relating to drivers and barriers to bycatch mitigation. I have been interviewing SLL fishers recognized all barriers and drivers from interviews that I have done in my research. So often with fishermen that I have spoken to, a main theme is that 'nobody is listening to us, and there is no point even talking about it because I can't get my perspective across'.

PT Thanked SH and noted that a theme through all the interviews is that fishers are so thankful to be listened to and think that's why they all engaged in the interview to get their perspective across. Some fishers even mentioned their wellbeing, where they felt like they were finally being given a chance to feel heard.

SH Surprised to hear some of the feedback from fishers on LO's saying they felt well supported when they had a capture event. Do you think that the way you accessed the skippers, and even the organization that you are inadvertently representing, may have affected the type of feedback you received regarding the Liaison Officers?

PT No, as when I did a similar project for SLL, the feedback was very different where the DOC Liaison Programme for them at that time wasn't seen nearly as favourable. Also, the skippers weren't all picked by the DOC Liaison Officers; I focused on getting a good spread of fishers to interview. Another way to do it would be to use FNZ, which is what we had done in a previous project, however on this occasion, the LOs were closer to the skippers. The feedback does differ by fishery and the issues that they are facing, as well as the Liaison Officers and what they are dealing with.

SH I've heard a lot more from SLL and it's quite different. Is there a report from your work with the SLL?

PT Yes, SLL report is from a CSP project from two years ago and is available online.

BS-M Given the challenges the Bluenose fleet will be facing in the next couple of years especially with cameras coming on boats, is there any urgency to review the regulations and mitigation standards to accommodate some of these issues raised by the skippers? Don't think that should be brushed over lightly as quite a serious matter that we have to look into, especially for that fleet. It's a good opportunity for DOC and FNZ to kickstart looking into that review process again.

KR Will look at recommendations for consideration. Are there any FNZ representatives that would like to comment?

SL Resonates with FNZ and agree there is a need to push the review of BLL regulations through with a bit more urgency, as once cameras are onboard they won't have many other options. Highlights the need to get it done quickly.

TP BLL Mitigation Standards are currently going through an initial review to assess any new information that has come in since they were first adopted. This social research will be a component that will be considered in that review process.

3. MIT2023-07 Novel seabird bycatch mitigation for floated demersal longline fisheries: project scoping (DOC)

Igor Debski provided an overview of the project objectives and ran through potential mitigation research options in relation to recommendations from MIT2022. Dave Goad gave a recap on previously presented MIT2021-03 Methods for increasing sink rates for bottom longline.

Discussion:

BW Wondering whether there needs to be further broadening (i.e. more vessels) to ensure full range of operational factors are being covered.

DG Think we did a pretty good job given the time we had. Using same vessel meant everything is reasonably consistent, so can be sure that any changes are as a result of changes to gear configuration. I am confident that gear configuration is the driving factor, so differences between boats will be relatively minor, with the caveat that results from one boat will not be exactly the same for other boats. It's very straightforward to change the gear set, in relation to what the boat is targeting, as the gear is mainly clipped on. We tried to encompass a range of set ups across the whole fleet. We could potentially go back to risk management plans or skippers and make sure that we did a reasonable job and add anything else onto the wish list if needs be.

ID Feel the next stage is to run through process of getting information out to skippers through the Liaison Officers to see how they can uptake some of those recommendations.

NH Regarding the modified float set ups, what length of line was there between the backbone

and the float, and did that pose problems at hauling or tangle ups? What are your thoughts going forward about whether that could be something we could encourage in the Snapper fleet for getting their gear down faster when floating?

ZO Plan to test some modified weighted floats for the gear to see if feasible for Snapper longline fleet. All seemed to have desired effect of getting it below water but need to do substantially more testing to see if it is feasible around hauling, as we weren't catching fish so not aware if there's tangle ups. To get uptake with fishers we need to prove to them that it does work, because no one can afford to go out fishing and not catch fish for a day just to try something out. In my opinion from an operational perspective, it can provide the realist results the quickest and relatively low input to initiate.

ID Sounds like a good idea to collect data on the use of those designs in fishing and operations.

ZO Could do a little bit more work around tori lines but think next steps are operationalising in real world fishing conditions.

NH I've been supplied some rope that's copied off these trials and am making up two or three of the modified drag sections to give one Snapper boat who is really keen to try it out.

BL Good aerial extent results and good to get some data on heavier weights. Regarding figures on 12 and 15kg weights, is the data you have finalised and useable? It would be useful for boats to have this information and test, before they go and buy new gear. Also with tori line gear and aerial extent, any photos of what you were using would be good to have.

DG Results are reasonably robust and hopefully one pager we drew up has that information. The Liaison Officers will be able to talk it through with fishers, and ensure they are mentioning those caveats (i.e. if shooting with rope then it will sink slower). We will need to make sure it's gone through the review process, with input from people like Rosa Edwards.

BL It would be useful if this information was circulated to Bluenose and deep BLL fleet ideally before Christmas to utilise in the new season.

TP We can work with Dave and the Liaison Officers offline to make sure the one-pager is finalised and available for circulation, but I am keen to get us back on track on the scoping of this current project. Curious to hear more discussion around where we should be prioritising mitigation, and maybe even considering further development of the adaptive management tool, as presented on Igor's slide earlier.

ID One focus of this project could be supporting data collection in operationalisation of advice that has come out of Dave's project, working the Liaison Officer's in combining the information and also collecting the real-world fishing operations data on how some of those things are performing, and that does raise the question about having the tools available on the boat.

JC Results are pretty good, but there are quite large differences in datasets. Need to go back to MPI to go through observer datasets and get the average weights and distances and check

the gear and check against Dave's gear and Dave's results, and the way the observer trips treatments were managed/data collected, as the two results are too far apart.

> **ZO** They will never get close to the sink rate when running floats between weights at low speed with loose backbone. If running little to no tension, you will run into problems with how the gear sinks.

ID We will be accepting feedback over next couple of weeks, and will schedule a follow up for anyone particularly interested. There is quite a lot of work to do on getting data regarding how trials translate into operational use. We need to be thinking about how data is collected in a good and consistent way.

JC Just thinking how far we've come, as it wasn't that long ago that we were getting boats to run tori lines and now have gone so much deeper into it.

> **ID** Thanks to everyone who has been involved over the last couple of years, we really are making some changes and having that good data comes the basis for reviewing standards and regulations.

Any additional comments should be provided to csp@doc.govt.nz by 5pm, 27 September 2023.

Close of Meeting @ 12:35 pm