Department of Conservation
*Te Papa Atawbai*

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| Meeting: | Conservation Services Programme Technical Working Group |
| Date: | 26 March 2025 |
| Time: | 9:30 am – 11.00 am |
| Place: | Microsoft Teams Meeting |
| Chair: | Kris Ramm (Marine Bycatch and Threats Manager) |

**Attendees:** Kris Ramm, Hollie McGovern, Lyndsey Holland, Erin Hewetson, Hendrik Schultz (DOC), Juan Parada (Greenpeace Aotearoa), Diana Macpherson, Brit Finucci, Owen Anderson, Malcolm Clark, Di Tracey, Jaret Bilewitch (NIWA), Chelsea McGaw (Forest & Bird), Ben Steele-Mortimer (SNZ), Karen Tunley (FNZ), Laura Kaikkonen (University of Helsinki), Kazuto Senga (Sanford), Barry Weeber (Eco)

**Apologies:** Jack Fenaughty (Sanford)

**Presentations:**

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| 9:35 am | INT2022-04 Risk assessment for protected corals | NIWA |
| 10:20 am | INT2023-10 Understanding coral bycatch – assessing large catches | NIWA |

## 1. INT2022-04 Risk assessment for protected corals

Brit Finucci, Owen Anderson and Laura Kaikkonen presented the results of the risk assessment for protected corals.

**Discussion:**

**BW** Species resolution is an important issue. It would be good to see what the difference is between spatial and community classification scale in regard to risk. Ongoing issue with lack of information about where the taxa has been in the past, basing it on bycatch information and whether we can get better information about current status.

> **BF** The models could be run on any spatial scale there was interest in, we used bioregions as an example to show how model works at this time.

> **OA** Species distribution models are based on abundance estimates from camera surveys, not bycatch data.

**BSM** Is the draft report still open for comments or feedback outside of this particular working group?

> **KR** Yes we normally give a further two weeks after the meeting for further comments, however can be flexible with that timeframe if necessary.

**LH** Any recommendations on how we can combine the different outputs of the three methods into something CSP could use, as we don't manage fisheries interactions at a bioregion scale? Can you comment on how realistic recovery rates in DRBS model are, recognising these are estimates of rates. DRBS assumption was that recovery trajectories are based on cessation of fishing, which we know isn't the case. Just wondering how that might affect the results?

> **OA** Recovery rates is an area of considerable uncertainty, area we need to do most work to get those values as good as we can. A lot of discussion about what r values going into RBS, and what recovery actually looks like. In this case it's not recovery to full biogenic habitat or anywhere near carrying capacity, but based on numbers. What they saw on the Chatham Rise work was recolonisation by stylasterids and sea pens, so had higher R-values. But some of branching corals showed very little recovery over several decades so had lower R-values. These are just examples of how recovery works under RBS and feeds into whatever management tools might be applied e.g. fishing area closures.
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> **LH** Probably optimistic in terms of that assumption which won't be the case in some areas.
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> **BF** Depends on what the objectives are when assessing risk, if EEZ scale is not appropriate, those methods can be applied at any scale. We recommend moving forward that Bayesian network PSA is a useful tool that incorporates all three methods, and takes over some of limitations seen in RBS and PSA.

**JB** Were bamboo corals or primnoids included in gorgonian category? Is there any scope to dig into why uncertainty for primnoids and stylasterids exists with respect to Bayesian network results?

> **OA** Diversity of species in groups create the uncertainty. We looked at bamboo corals separately to gorgonaian group.
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> **JB** Would be interesting to see what the gorgonian category looks like in exclusion of those groups.

**BW** Regarding recovery rates and the problem with doing it on a numbers basis. Can RBS or other methods be used with a recovery to 50% of scale that to biomasss rather than numbers, which seems to be low level of recovery?

**OA** Talking in number terms as that is how abundance models work, we would need new models to convert models based on numbers into biomass, and we need catchability knowledge too. If we had distribution models based on biomass we could look at it in that way but don't currently have that level of information. Would have to develop new models based on catch weights, which is doable and there is potential for it in the future but we're not there yet.

## 2. INT2023-10 Understanding coral bycatch – assessing large catches

Owen presented the method and results of the assessing large coral catches project.

**BW** Threshold used, picked 95% of reported catches as trigger level, whereas you could have used other triggers in terms of being high captures. Is there a percentage figure for the proportion of large captures that meet the threshold that are verified?

**OA** Threshold values are somewhat arbitrary, there's been a lot of debate in SPRFMO space on thresholds, but the actual value is not so critical here, Seemed like 95% was fairly subjective but looking at some preliminary plots of distributions of catch weights, wanted to set something that was fairly conservative in comparison to current thresholds. Generally fairly low, but room to play around if they find that's an overwhelmingly large number of suspicious records to deal with then those values could be raised. Conversely if nothing is coming through then the values could be changed. This will be considerable improvement to current thresholds being used. Particularly as there are no thresholds for many of them. There isn't a table of numbers of verified or not records, but could probably create one.

**LH** Do you have a sense of whether through time observer coverage changes could explain any of the data, or if most large catches were early in the time series which we might expect **OA** Didn't look at observer coverage over time, but there are a lot of factors that would influence large catches overtime.

**Discussion:**

Any additional comments should be provided to csp@doc.govt.nz by 5pm, 10th April 2025. Close of Meeting @ 11:00 am.