

# NZ sea lion/pakake/whakahao Threat Management Plan Forum 2022

27 September 2022 09:30 – 15:30

Ōtākou Marae and online

**Purpose:** To discuss emerging issues in South Island and Rakiura sea lion conservation and to gather initial feedback from the first five years of the sea lion Threat Management Plan

**Kaitiaki hui:** Hoani Langsbury, Te Rūnanga o Ōtākou

**Speaker for the manuhiri:** Mark Witehira, Te Rūnanga o Ngāi Tahu

**Chair & Timekeeper:** Kris Ramm, Manager Mountains to Sea Team, Department of Conservation (DOC)

**Facilitators:** Sarah Wilson (independent), Laura Boren (DOC)

**Notetakers:** Kat Manno (DOC), Mel Young (DOC)

## Agenda

Time	Topic	Items	Presenter
9:30	<b>Pōwhiri</b>		
10:00	30 min morning tea		
10:30	<b>Karakia; meeting starts</b>		
	Welcome; introductions/pepeha Context and Aims of the Forum <a href="#">Terms of Reference</a> Threat Management Plan 2017-2022: <a href="https://www.doc.govt.nz/Documents/conservation/native-animals/marine-mammals/nz-sea-lion-tmp/nz-sea-lion-threat-management-plan.pdf">https://www.doc.govt.nz/Documents/conservation/native-animals/marine-mammals/nz-sea-lion-tmp/nz-sea-lion-threat-management-plan.pdf</a>		Kris Ramm
11:00	<b>Threat Management Plan review &amp; new role: Kaitakawaenga Mahere Whakahao (<a href="#">mātauranga Māori project on the NZ sea lion</a>)</b>		Rauhina Scott-Fyfe/ Brogan Handcock

<i>Presentations 10 mins each followed by 5 mins pātai/questions &amp; kōrero/discussion</i>			
11:15	Overview	<ul style="list-style-type: none"> <li>• Overview of topics &amp; facilitation</li> </ul>	Kat Manno/Sarah Wilson
11:30	South Island Pup Survival	<ul style="list-style-type: none"> <li>• Moss's MSc</li> </ul>	Moss Thompson
11:45	Rakiura population	<ul style="list-style-type: none"> <li>• Rakiura population update &amp; aquaculture</li> </ul>	Phred Dobbins (MS Teams)
12:00	Murihiku updates	<ul style="list-style-type: none"> <li>• Catlins GPS tracking</li> <li>• Wero</li> </ul>	Ros Cole
12:15	South Island orphaned pups	<ul style="list-style-type: none"> <li>• Orphaned pup decision tree</li> </ul>	Jim Fyfe
12:30	<b>Karakia;</b> 45 min lunch		
13:15	Fisheries New Zealand	<ul style="list-style-type: none"> <li>• FNZ update</li> </ul>	Greg Lydon (MS Teams)
13:30	Update on actions from Forum 2021	<ul style="list-style-type: none"> <li>• Review actions from 2021 Forum (<a href="#">minutes</a>)</li> </ul>	Kat Manno
13:40	<b>Facilitated discussion</b> (1 hour)		
	NZ sea lion Threat Management Plan 2017-2022: Measures of Success <a href="https://www.doc.govt.nz/globalassets/documents/conservation/native-animals/marine-mammals/nz-sea-lion-tmp/sea-lion-tmp-measures-of-success.pdf">https://www.doc.govt.nz/globalassets/documents/conservation/native-animals/marine-mammals/nz-sea-lion-tmp/sea-lion-tmp-measures-of-success.pdf</a>		Sarah Wilson/Laura Boren (MS Teams)
14:40	Facilitated discussion wrap-up & summary (20mins)		Sarah Wilson
15:00	Meeting review <b>Karakia; meeting ends</b>		Kris Ramm

## Attendance

**In-person:** Amanda Nally (NZ sea lion Trust/NZSLT), Annie Wallace (DOC), Brogan Handcock (Aukaha), Bronwyn Bain (Forest & Bird; landowner), Charlie Barnett (DOC), Chelsea McGaw (Forest & Bird), Hanna Ravn (NZSLT), Hoani Langsbury (Te Rūnanga o Ōtākou), Janet Ledingham (NZSLT), Jean Davis (Fisheries New Zealand/FNZ), Jim Fyfe (DOC), Jim Watts (DOC), Kat Manno (DOC), Kris Ramm (DOC), Mark Witehira (Te Rūnanga o Ngāi Tahu/TRONT), Mel Young (DOC), Moss Thompson (University of Otago), Nadia Wesley-Smith (Te Rūnanga o Ōtākou), Rauhina Scott-Fyfe (Kāti Huirapa Rūnaka ki Puketeraki), Robyn Shanks (Catlins Coast Inc.), Ros Cole (DOC), Sarah Wilson (Independent facilitator), Sian Mair (Sea Society), Suzi Flack (Puketeraki Rūnaka/whānui), Tony Brett (FNZ)

**Online:** Amélie Augé (WildCoast NZ), Ben Steele-Mortimer (Deepwater Group), Greg Lydon (FNZ), Laura Boren (DOC), Letitia McRitchie (DOC), Micah Jensen (WildVetCare), Philip Heath (FNZ), Phred Dobbins (DOC), Rosa Edwards (Fisheries Inshore New Zealand/FINZ), Scott Jarvie (Otago Regional Council/ORC), Simon Childerhouse (Environmental Law Initiative/ELI), William Gibson (FNZ), Zoe Lunniss (Dunedin City Council/DCC)

**Apologies:** Ben Hodgson (TRONT), Brent Matehaere (Surf Lifesaving New Zealand), Bruce Robertson (University of Otago), Derek Morrison (Box of Light), Krista Van der Linde (World Wildlife Fund/WWF), Kylie Grigg (Te Ohu Kaimoana), Lynda Langridge (independent), Neil Harraway (Otago Conservation Board), Philippa Agnew (Otago Conservation Board), Richard Miller (Sanford Ltd.), Sarah Cumming (FNZ), Scott Weatherall (Surf Lifesaving New Zealand), Shona Sangster (Southland Conservation Board)

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## Meeting Notes

### Threat Management Plan (TMP) review & new role: Kaitakawaenga Mahere Whakahao – Rauhina Scott-Fyfe (Kāti Huirapa Rūnaka ki Puketeraki) and Brogan Handcock (Aukaha)

Rauhina began with a review of the [mātauranga Māori project on the NZ sea lion](#) from 2019. This report was divided into a number of sections including interviews with Kāi Tahu whānui, references to the species in waiata and whakataukī, and research into the historic records and names used for NZ sea lions. Rauhina brought attention to the finding that although NZ sea lions are listed as rāpoka in the Ngāi Tahu Claims Settlement Act, rāpoka is the term for leopard seal. There are a number of more appropriate te reo Māori names for sea lions, including kake (female sea lions), whakahao (male sea lions), or pakake (sea lions/seals), described on p.56-57 of the report.

The report recommends engagement at all levels and at all stages in the TMP process; Kāi Tahu whānui want to be seen in the new Threat Management Plan (TMP). Kāi Tahu perspectives must be woven into the future of sea lion conservation, and Kāi Tahu engagement will need to be resourced appropriately. Brogan's role at Aukaha was developed from the recommendations of the report, to enable and facilitate the voice of mana whenua in the TMP review and the future direction of the TMP.

Brogan introduced herself as the new Kaitakawaenga Mahere Whakahao. The role is based at Aukaha, a rūnaka-based consultancy service operating within the takiwā of sea lions. This role could equally be housed at Te Ao Mārama Inc., but Aukaha are housing the role at present.

Brogan is currently developing relationships with Kāi Tahu whānui to figure out what this type of co-governance might look like and how we might form the TMP review. Although the Kāi Tahu voice was not part of the initial TMP, the new TMP will be codesigned with Kāi Tahu.

Brogan and Rauhina emphasised that reciprocal relationships are always needed between researchers and mana whenua. Kāti Huirapa Rūnaka ki Puketeraki have a periodic hui where researchers are invited to do short presentations, facilitating connections between researchers and mana whenua in areas of shared interest. The University of Otago is starting a Centre of Indigenous Science in 2023, which will enable scholarship based on ngā kaupapa Māori in sciences.

### South Island Pup survival MSc – Moss Thompson (University of Otago)

Moss presented his Master's research on South Island pup survival. Using data from the DOC and NZSLT tagging and resighting [databases](#), Moss modelled survival estimates for different age classes and analysed survival rates against demographic/environmental variables. Moss found higher pup survival rates in the South Island in the past 20 years (2002-2021) compared with those reported in the Auckland Islands by [Chilvers & MacKenzie in 2010](#). The trends observed could be attributed to reduced interactions with fisheries in the South Island population compared with the Auckland Islands colonies, increased food availability (quality/availability nearshore), or decreased risk from male aggression/disease from dispersed (non-colonial) breeding behaviour. Moss emphasised the considerable increase in data collected on the South Island population since the NZSLT launched their app for sea lion tag resightings in 2018.

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Amanda asked about the choice to compare survival rates with 2010 data; Moss confirmed that he chose the Chilvers & MacKenzie 2010 study because of the similarities in data structure. Simon and Laura commented that it would be good to compare Moss's results with the [Quantitative Risk Assessment of Threats to NZ sea lions \(Roberts & Doonan 2016\)](#), which includes a detailed survival rate analysis with more recent data.

### **Rakiura update – Phred Dobbins (DOC)**

Phred gave an update on the Rakiura population, which has been steadily growing in recent years. There are increasing reports of sea lions interacting with humans, particularly around Paterson Inlet/Te Whaka a Te Wera, where there have been boat strikes, dog attacks, shootings, and tourists approaching sea lions for selfies in recent years. Phred has been approached by the salmon farm at Big Glory Bay for advice on sea lion deterrents, as they have concerns about animals gaining access to the salmon pens, feeding on the fish, and interacting with divers as they maintain the nets underwater. The farm managers have been very receptive to Phred's suggestions and are keen to get in touch with other industry participants and suppliers who have been working on exclusion devices for fish farming.

Jim Fyfe asked if noise deterrents had been investigated; Phred confirmed that any noise deterrents would need to be approved under the *Marine Mammals Protection Act 1978* to ensure they did not harass or injure animals. Phred said it was clear that there would need to be some investment in sturdier nets that would withstand sea lion and shark teeth, and that there are some such products on the market. The aquaculture standards state that industry has a duty to protect farmed salmon from predators; DOC's role is ensuring that protection/exclusion mechanisms used by the industry are not harming sea lions. Simon commented that the Big Glory Bay operation should get in touch with the farming operations in the Marlborough Sounds to share knowledge of marine mammal exclusion devices; Phred confirmed this connection had been made. Hanna asked if future aquaculture operations proposed off the coast of Otago were aware of the potential issues with sea lion interactions; Phil (FNZ) confirmed that Fisheries NZ have produced "best practice guidelines" for minimising and mitigating interactions between finfish open ocean aquaculture and marine mammals.

**Action: Phred to share this report and continue to engage with the Big Glory Bay aquaculture facility to support their efforts to reduce sea lion interactions with the salmon farm**

### **Catlins GPS Tracking and "Wero" – Ros Cole (DOC)**

Ros Cole presented the summary and initial findings of the recent project with Simon Childerhouse and Micah Jensen to satellite tag animals in the Catlins area over the winter months. The tags have now been recovered and the data are being downloaded for analysis in the final report next year. Initial indications are that the animals are spending a lot of time in inshore coastal areas, near the coast and upstream in estuaries. The animals are also spending considerable time travelling over land, which raises concern about increasing deaths of animals on coastal roads (we have had four reported deaths of sea lions on coastal roads since 2019). Ultimately, these data and the outcomes from the final report will feed into coastal plans, which should improve understanding of habitat use and protection of the animals.

**Action: Kat to share results of the Catlins tracking study with DCC, ORC and CDC**

Ros then presented a summary of the situation with the Catlins four-year-old sub-adult male sea lion named "Wero". Wero is an unusually aggressive sub-adult male sea lion who likely killed four of the Catlins pups last  
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summer. After confirming the cause of death of these pups through necropsies, DOC assembled a team to assess the situation and available options; possible actions ranged from “do nothing” to euthanasia. At the time of the assessment, Wero had not killed any more pups, and the decision was made to monitor his behaviour and re-convene the group to assess and consider options again if he continues to kill pups in 2023.

Hanna asked who made the choice of team members consulting on the Wero issue; Ros confirmed that it was the DOC Operations Manager who was the decision-maker in this situation. Kris said the key was putting together a small team with a range of skills to provide clear advice to the decision-maker.

### **Orphaned pup decision tree – Jim Fyfe (DOC)**

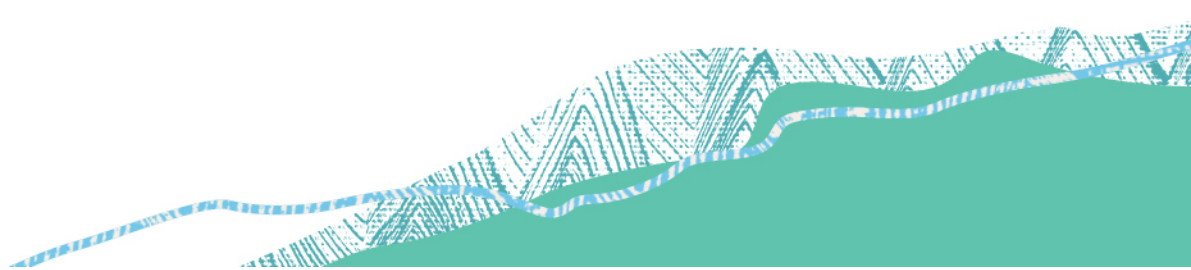
Jim Fyfe presented his work on decision-making, support networks and research needs to enable future responses to orphaned pups in the South Island population. When we have an orphaned male, it is an easy decision to euthanise the animal if it’s starving, but with orphaned female, the decision becomes more difficult. There are supplementary feeding and foster options, but each case is unique and there are limited resources to support feeding and captive rearing.

Sian asked about the likelihood that a female sea lion would feed an orphaned pup. Simon said that 6% of females at the Auckland Islands have been observed feeding two or more pups, so we know that it can happen naturally, which indicates this could be a management strategy for abandoned pups. As far as supplementary feeding orphaned pups, Micah’s work has indicated that imprinting is not a concern after pups are two weeks old, but that habituation would remain an issue beyond that age. Jim emphasised the need to start discussions early and to maintain solid connections with the rūnaka, to enable the best decisions to be made with available resources. Micah indicated that there could be some helpful information coming out of the Catlins tracking study that would add to our understanding of maternal foraging strategies and the pup rearing period. Overseas experience indicates that it might be possible to captive rear a cohort of animals in response to a large-scale event like an oil spill, but that single pups would be difficult to socialise properly in captivity.

### **Fisheries New Zealand: deepwater fisheries and aquaculture – Greg Lydon & Phil Heath (FNZ)**

Greg (FNZ) presented a summary of deepwater fisheries interactions with NZ sea lions over the past seven years. The FNZ Operational Plan to reduce NZ sea lion captures in the Squid 6T fishery expires in 2023, and mortality rates reported in recent years are well below the annual limit of 52 sea lions set in the current [Operational Plan](#). Sea Lion Exclusion Devices (SLEDs) are now mandatory in the Squid 6T fishery (by circular, January 2022), and Fisheries New Zealand consider that they have now accounted for cryptic mortality from SLED encounters. The NZ sea lion population estimate is currently being updated by FNZ and DOC in the lead-up to the TMP review.

Simon commented that the scampi fishery (SCI6A) now has a higher level of bycatch than the SQU6T fishery and asked whether there are any plans for mitigation there. Greg responded that FNZ are trying to increase observer coverage in this fishery, and SLEDs are not compatible with the scampi net design. FNZ also note that sea lions are often released alive from this fishery since interactions usually occur during the hauling of the net, and that current initiatives for cameras on boats should increase our understanding of bycatch rates and mortality rates.



Phil (FNZ) introduced the [Best Practice Guidelines for Open Ocean Aquaculture](#) published by Fisheries New Zealand in 2021, noting that these guidelines are for new farms, not existing farms. The advice is aimed at different styles and sizes of cage for open ocean environments.

Amanda asked about the increased risk of disease in finfish farms and the cumulative effects of waste discharge from aquaculture; Phil responded that as farmed animals aren't native, we don't have the same issues with disease transmission pathways as there are with native species. Phil stated that in order to significantly reduce the risk of disease spreading in NZ waters farms would have to be spaced out over large distances and it would be prohibitively difficult to find sufficient space to consent multiple sites. Phil said that open ocean aquaculture allows for greater dispersal of waste compared with inshore farms, and there is a study currently underway looking at organic enrichment from aquaculture facilities. Jim Fyfe asked if there was any way of testing sea lion mitigation options before a farm is built; Phil responded that the best way to test these approaches will be to build a farm using international best practice, and then monitor and adapt the facility as necessary.

### Actions from 2021 Forum - Kat Manno (DOC)

Kat (DOC) summarised progress on actions from the 2021 NZ sea lion Forum:

- Action for the Technical Advisory Group: Can the TAG confirm if the truncated or missing data from the last two field seasons affect population modelling?  
**DONE; distributed to Forum group and recorded in TAG 2021 report.**
- Action for Forum members: The Forum members agreed that individuals and groups could give feedback on their official position after the meeting, for incorporation into the report.  
**DONE; Forum 2021 report finalised and uploaded to the webpage.**
- Action: Chris Page to work with the NZSLT to develop support materials for volunteer training.  
**NO PROGRESS; Chris Page has left DOC and the Marine & Coastal Species Liaison Officer role has not been extended.**
- Action: Chris Page to advocate for the expansion of the summer ranger programme.  
**NO PROGRESS (summer ranger programme still exists but has not expanded); Chris Page has left DOC and the Marine & Coastal Species Liaison Officer role has not been extended.**
- Action: Chris Page to reach out to local Councils to determine the barriers to Forum attendance and develop a plan to improve attendance in the future.  
**NO PROGRESS; Chris Page has left DOC. (Kat and Jim Fyfe reached out to local councils prior to this hui and we do have representatives from DCC and ORC this year (ORC also attended last year), but we have been unable to attract representatives from CDC, ES and WDC).**
- Action: Forum members to submit their views to Council Long-Term plans to advocate for improvements to volunteer capacity, road signage and coastal habitat where sea lions are present.  
**DONE.**
- Action: Chris Page to include a flow chart of role accountabilities and photographs of DOC staff in the next He Pānui Pakake newsletter  
**DONE.**
- Action: Mel and Kat to distribute these minutes to the Forum participants, incorporate feedback and upload the final report to the web for discussion at the next TAG hui.  
**DONE; Forum 2021 report finalised and uploaded to the webpage.**

Kat noted that there are three initiatives in this list that have stalled with the departure of the Marine & Coastal Species Liaison Officer (Chris Page) from the Department at the end of 2021. Although these are important initiatives for the sea lion TMP, progress has slowed due to capacity at DOC. Work with the NZSLT to update education materials for tamariki is a priority this year, and this initiative, along with coordination and updating of sea lion signage, are priorities for this coming winter.

**ACTION: Kat (DOC), Jim Fyfe (DOC) & Hanna (NZSLT) to coordinate the update of sea lion education materials**

**ACTION: Kat, Jim, Ros, Charlie and NZSLT to coordinate update of sea lion signage**

Ros noted that spatial data outputs from the Catlins GPS tagging project will be useful for engaging with council planning processes, and that there are periodic opportunities available to DOC and others to input into coastal plans. Kat said that TMP resourcing for the Liaison Officer position had been reprioritised into Brogan's role, as increased engagement with mana whenua is foundational and essential to the future of the TMP. Jim Fyfe acknowledged that although engagement was initially structured through the Liaison Officer role, there were drawbacks with that model and relying on one person to build and maintain these relationships.

### **Facilitated Discussion: Measures of Success (TMP 2017-2022) - Sarah Wilson**

*The afternoon discussion was a capture of views on the overall success of the first five years of the sea lion Threat Management Plan. Participants were asked to identify aspects of the TMP that were working well and aspects that needed improvement.*

Forum participants said that it was great to see increasing numbers of sea lions on the South Island and Rakiura and increased public awareness and engagement in some areas in recent years. However, there was a general feeling that public education is still falling behind.

Nadia (Te Rūnanga o Ōtākou) said that locally, Hoopers Inlet creche site is a big problem. The site attracts large numbers of people and there is a lot of bad behaviour there, including kids jumping into the water and pups being hit by vehicles. There has been some good media coverage, but people need to know what to do and what not to do, and there needs to be more emphasis on how human actions can impact the sea lions.

Janet (NZSLT) commented on the behaviour of people at Allan's beach ignoring the signage and walking their dogs where they should not be. Janet and Amanda think that new sea lion signage is a priority and that the signs need to be clear and impactful, and placed on roads as well as beach access tracks. There was some support for QR codes on signage, so material can be updated electronically.

Suzi (Pūketeraki Rūnaka) said that the naming of sea lions in Ōtākou has made a big difference and local people feel a close personal connection to the animals. There are regular positive interactions with waka and tamariki on the awa because the sea lions (not the people) are initiating the interactions. There is still a lot of bad behaviour, particularly with vehicles on beaches, and education is needed to get the message out to young people and beach users. There are rules on some beaches now, but councils are not often out enforcing them. Charlie responded that DOC compliance can investigate infringements, if the report has good photos and details about the incident.

Robyn (Catlins Coast Inc) was concerned at the failure of the Liaison Officer role, as the Conservation Board pushed for a sea lion liaison officer position as critical to the function of the initial TMP, and when it was finally filled, the role was shared with the hoiho programme and lacked focus and direction. Kris acknowledged that the role was funded in the initial TMP and it took a while to get off the ground, but that there were drawbacks with putting all of that function on one person, and perhaps engagement and education should be spread across more than one role. Ros said that the role was initially intended to facilitate and coordinate efforts across DOC and others, to streamline communication.

Hanna said that there is an urgent need for a sea lion programme for schools; the NZSLT has an old school programme but it is fisheries-focused and no longer relevant. There is also a need for updated pamphlets and videos for education. All of this is possible, but it needs coordination and funding.

Hanna said that the NZSLT are keen to expand their sea lion app so that the public can feed into it. The app is currently private and restricted to members tracking individual animals, but the NZSLT are keen to explore additional functions that could be used for increasing public engagement.

Brogan said that she is concerned with the lack of resourcing for mana whenua. There needs to be resourcing to enable mana whenua to reconnect with taoka species and there needs to be resourcing for long-term roles especially, in this space, because relationship-building takes time. This sentiment was echoed by others in the hui as both an opportunity and a risk if funding is not secured in the long-term.

Kris agreed that the lack of confidence in long-term funding is a real problem, and that this should be a concern that is raised in the review of the TMP. Ros said that resourcing is the bigger picture. We need to empower mana whenua to take the lead and we need to secure long-term resourcing for research and initiatives that can feed into council planning.

Robyn asked if we could look outside DOC to fund some of these roles. There was agreement that there are funding opportunities within different organisations, and that we may be able to capitalise on networks and funding streams that already exist. Jim Fyfe mentioned that Surf Lifesaving New Zealand has just approached DOC for assistance with beach education for sea lion interactions, for example, and this is a big opportunity to tap into a national network of resourcing and education.

**ACTION: Jim Fyfe to follow up with Surf Lifesaving New Zealand and NZSLT to develop sea lion education materials**

**ACTION: Kat to work with the DOC media team to launch a social media campaign for sea lions on roads**

**ACTION: Kat & Kris to continue to look for funding opportunities that will enable more engagement from mana whenua and secure commitment to long-term TMP initiatives (in conjunction with TMP review)**

### **Facilitated Discussion: Measures of Success (TMP 2017-2022) – Laura Boren**

*The online session had quite different themes due to the makeup of the group. Themes were more fisheries- and science-focused, and the facilitation was modelled on a “Keep, Stop, Start” format.*

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Using the “Keep, Stop, Start” concept the overarching themes from the group were:

**Keep** – participants valued engagement in Forum and Advisory groups, however some noted that they would appreciate more frequent engagement. The applied research in the first five years was good, though the future focus of research might need to shift. There was support for the ongoing monitoring of colonies; fisheries representatives noted the huge value of the Auckland Islands dataset to their fisheries risk assessments, but there was interest in looking for ways to reduce monitoring effort there to allow increased emphasis on Campbell Island, Rakiura, and South Island populations.

**Stop** – The last five years of the TMP saw considerable effort on SLEDs and cryptic mortality; following the regulation of SLEDs in the Auckland Islands squid fishery this year, there was support for moving on from discussion of cryptic mortality and SLED efficacy to focus on new and emerging issues.

**Start** – forward planning with stakeholders and securing budgets in advance so that planning can be done on a multi-year timescale. The group want to look to the future and get ahead of some emerging issues, including:

- interactions with aquaculture
- interactions with scampi fisheries
- interactions with inshore fisheries
- road accidents
- interactions with coastal developments
- climate change effects
- changes to sea lion behaviour from increased human interactions and habituation

The group agreed with the need for increased advocacy and education with members of the public and fisheries industries.

## **Summary**

Sarah asked for a general feel on the efficacy of this Forum. Kris said that the Forum is about facilitating the connections between people, and he wants to understand if the current format is the best use of people’s time.

Jim Fyfe said that in the formation of the Forum, he pictured a more integral and supported group with more people representing different interested groups, and the Forum membership has ended up a bit more haphazard due to the lack of continuity from the failed Marine & Coastal Species Liaison Officer role. Hanna said the NZSLT and community groups find it frustrating that they are not involved in decision-making. Phred agreed that the aquaculture industry should be approached earlier next year, as they had expressed interest in engaging in this hui, but they had other commitments.

**ACTION: Phred/Kat/Greg to ensure that aquaculture representatives are approached in a timely manner for an invitation to next year’s Forum**

Sarah thinks things have come a long way since the start of the NZ sea lion Threat Management Plan. Significant progress has been made since the Minister of Conservation and the Minister of Primary Industries started the initiative in 2014. Sarah reminded the group that the sea lion population was declining at the start of the TMP; we have come through a difficult time, and now we can look strategically to the future. Hoani agreed and applauded the group for the great progress that has been made, from arguing about the efficacy and design of SLEDs to legislating SLEDs and stabilising the population.

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