

New Zealand Sea Lion Forum

September 25, 2024



Department of
Conservation
Te Papa Atawhai

New Zealand Government



Etiquette

- › Please leave your camera on 😊 and mute your microphone when not talking.
- › You can use the chat function to ask questions or signal the Chair you would like to speak if needed.
- › Please be patient and do not talk over others.
- › Please respect Chair decisions; we have a tight agenda and will need to move from topics after certain times.
- › Recording of the meeting is not permitted.



Reminders

- › Section 4 of the Conservation Act 1987 requires that the Act (and the Acts in the First Schedule) must be interpreted and administered as to give effect to the principles of Te Tiriti o Waitangi (the Treaty).
- › New Zealand sea lions are a taonga species under the Ngāi Tahu Claims Settlement Act 1998, in which the Crown acknowledges the cultural, spiritual, historical and traditional association of Ngāi Tahu with sea lions.
- › This commits the Crown to consult with and have particular regard to the views of Ngāi Tahu when the Minister of Conservation makes policy decisions concerning the protection, management or conservation of New Zealand sea lions.



New Zealand Sea Lion Forum 2024

Wednesday September 25, 2024, 9:30 – 12:30

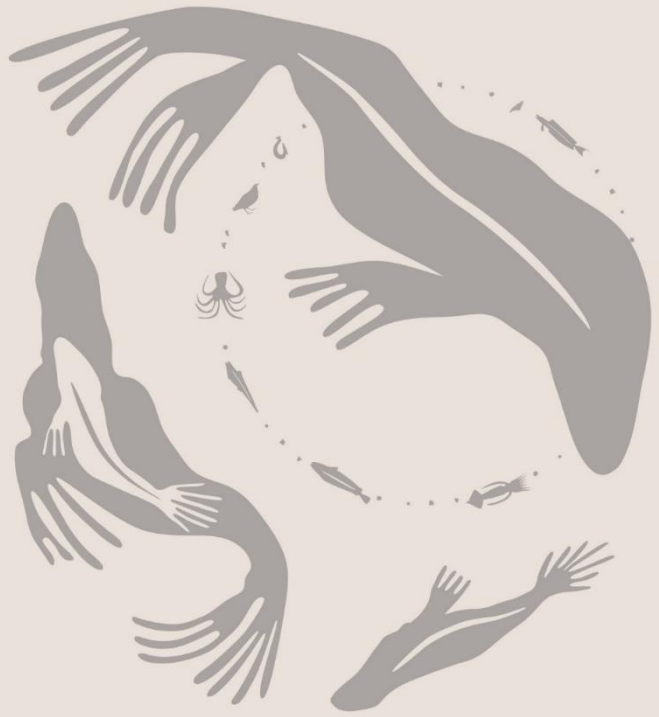
- 9:30 – Opening and welcome – Rauhina Scott-Fyfe
- 9:35 – Aukaha introduction – Inge Andrew
- 9:40 – Tohu – Kate Stevens West
- 9:45 – Ngāi Tahu introduction – Jana Hayes
- 9:50 – Review of the NZSL TMP and the new New Zealand Sea Lion Action Plan 2024 – 2029 – Jody Weir
- 10:10 – Murihiku Report – Lance Hall
- 10:20 – Jade’s Pup – Charlie Barnett
- 10:25 – Rakiura Report – Phred Dobbins
Aquaculture/ports/marinas next steps
- 10:40 – Diet samples as potential learning resources – Hanna Ravn
- 10:55 – Otago Report – Jim Fyfe
Huna’s Story
- 11:10 – Updates from the New Zealand Sea Lion Trust – Shaun McConkey
- 11:30 – Wider Wildlife and Roads Discussion – Carol Bannock Waka Kotahi
- 11:50 – Jim Roberts – RAPCON and New Zealand sea lions on the international stage
- 12:10 – Next steps discussion – Jody
- 12:20 – Summary and closing – Rauhina Scott-Fyfe



9:30

Opening and welcome
Rauhina Scott-Fyfe





9:35

Aukaha introduction

Inge Andrew





9:40

Tohu introduction

Kate Stevens West





9:45

Ngāi Tahu introduction

Jana Hayes





9:50

Review of the NZSL TMP and the *new*
New Zealand Sea Lion Action Plan
2024 – 2029

Jody Weir

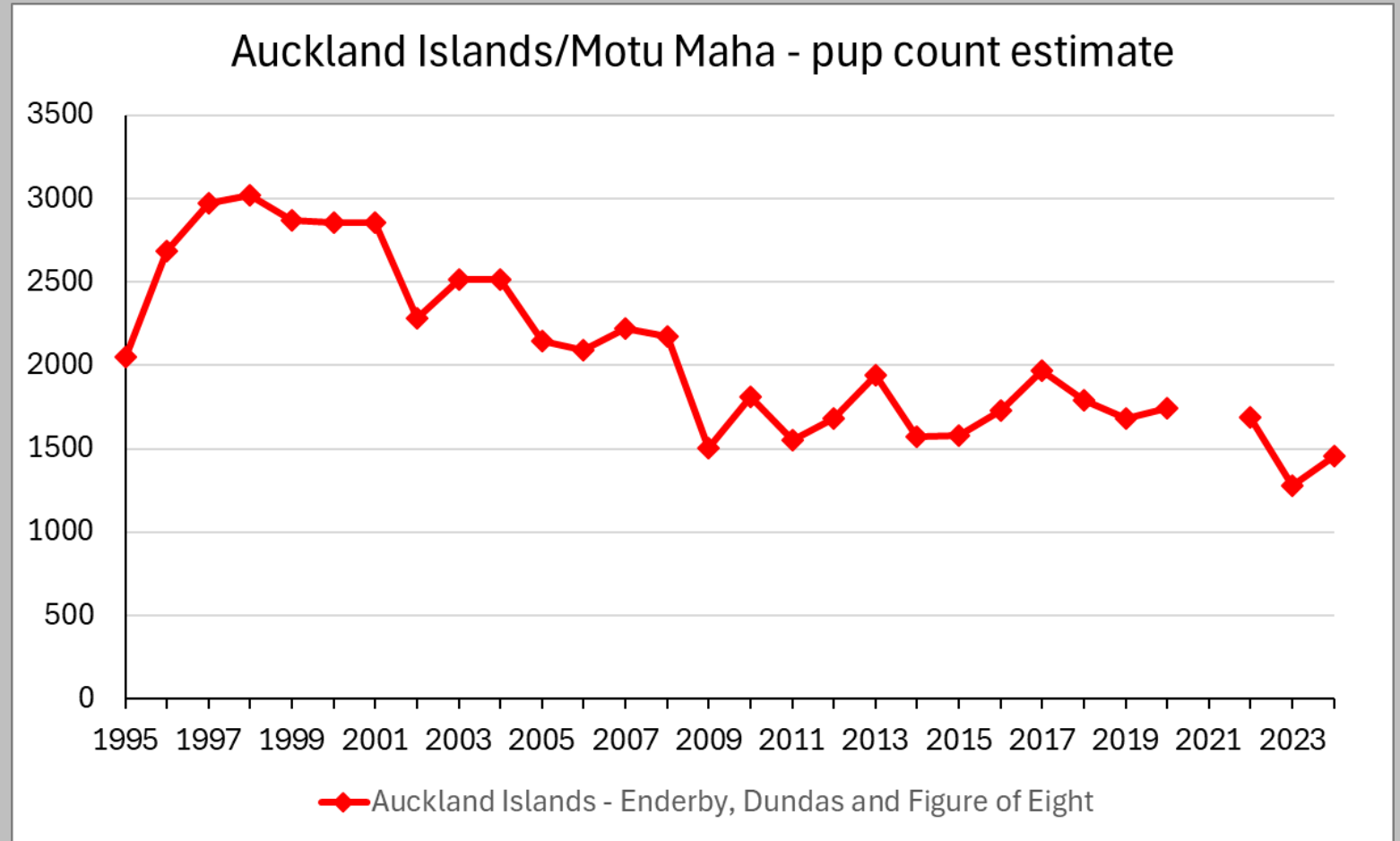


New Zealand Sea Lion Threat Management Plan

Measures of Success

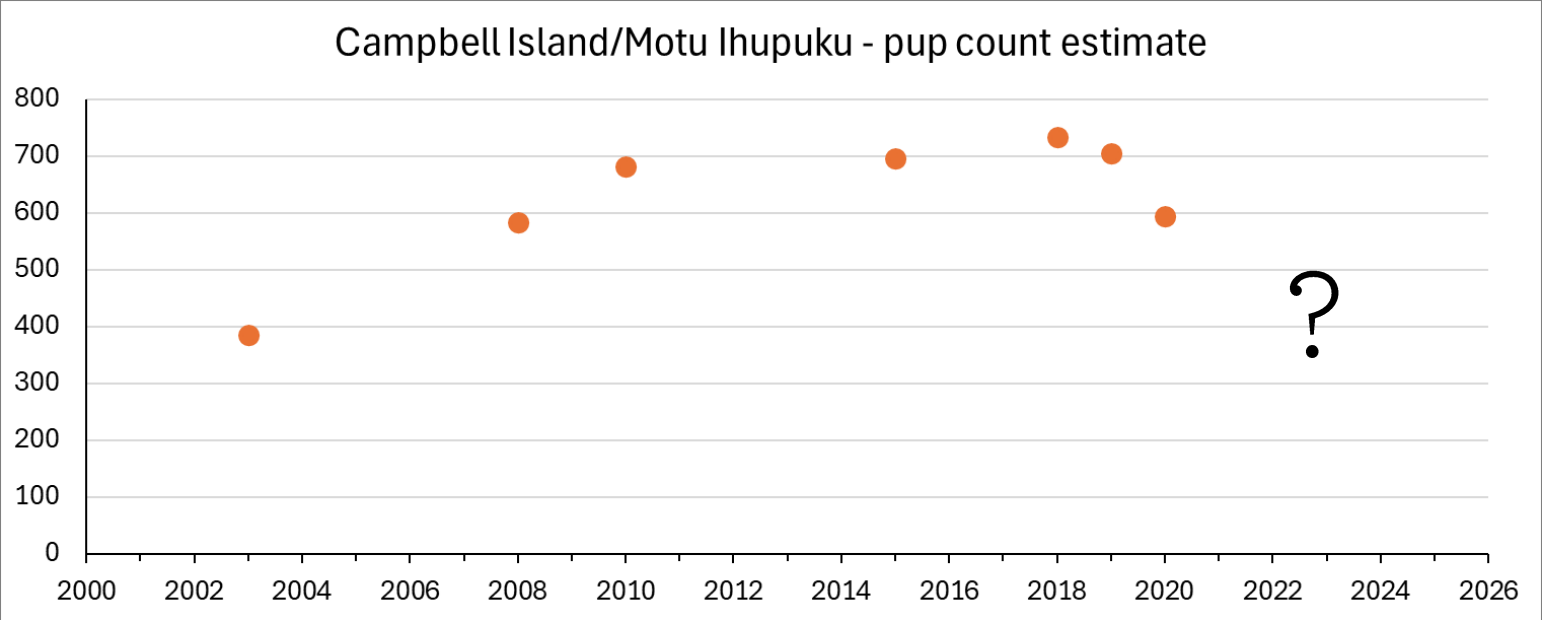


Motu Maha/ Auckland Islands



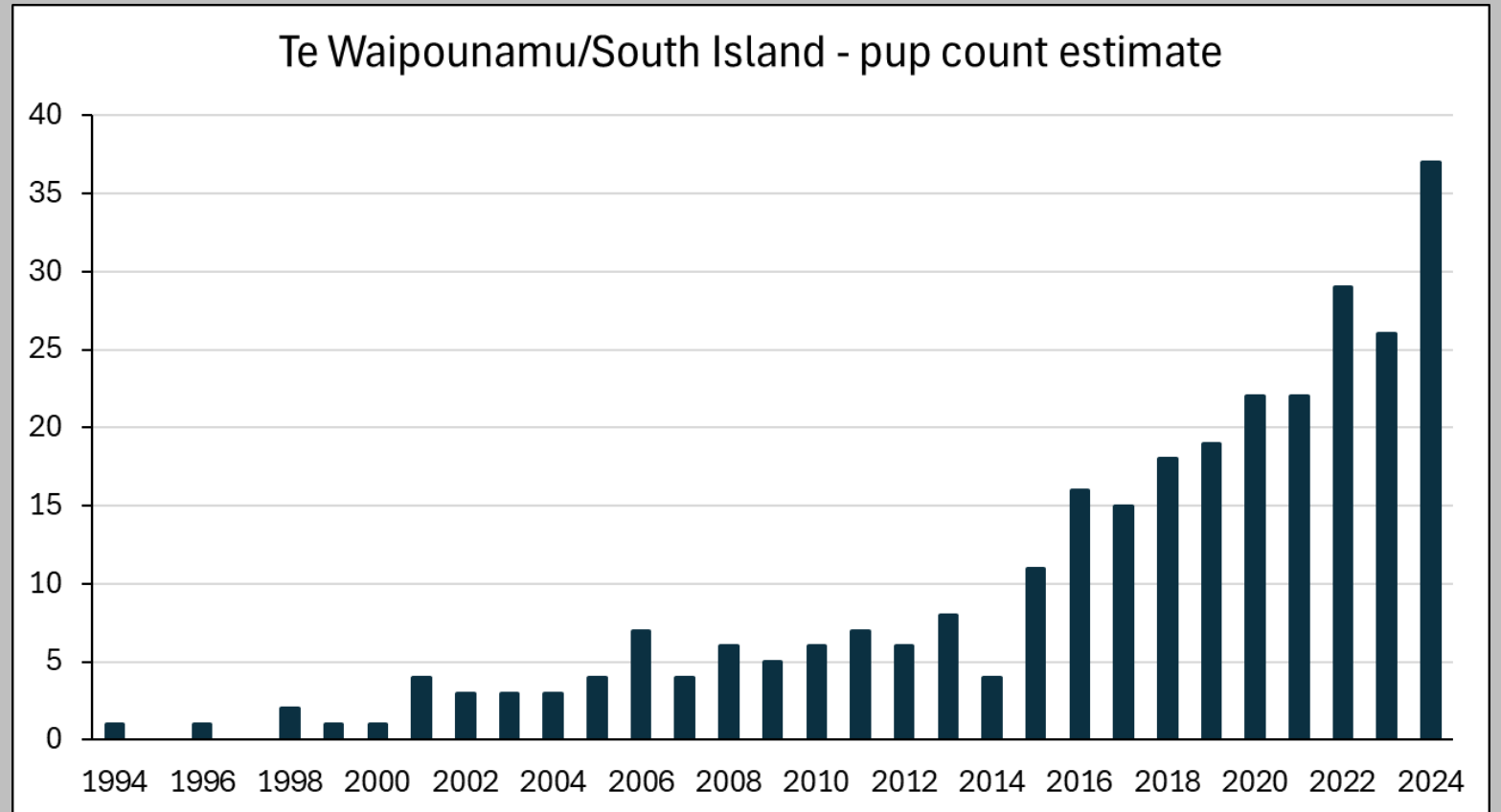
Motu Ihupuku/ Campbell Island

Not measured



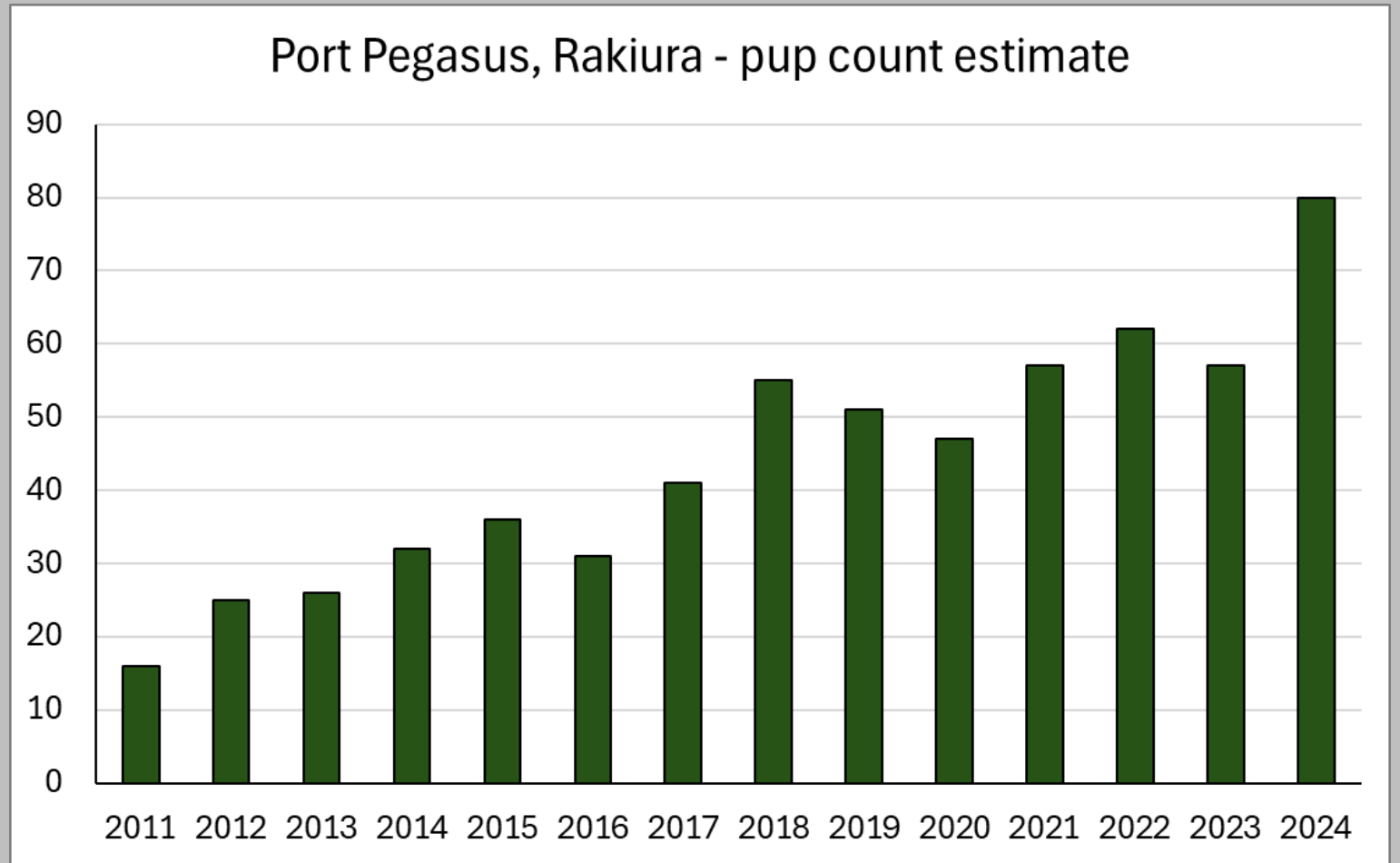
Te Waipounamu/ South Island

31 + 6 = 37 pups



Port Pegasus,
Rakiura

80 pups



Traffic lights – Measures of success	2016/ 17	2017/ 18	2018/ 19	2019/ 20	2020 /21	2021 /22	2022/ 23	2023 /24
Motu Maha/Auckland Islands Adult female survival rate and pup survival rate improve Pup numbers are consistently above 1,575 (2014) and ideally over 1,965 (2017)	?	?	?	?	?	?	?	?
	✓	✓	✓	✓	?	✓	✗	✗
Motu Ihupuku/Campbell Island Pup counts are consistently at or above 696 (2015) Pup mortality rates are consistently lower than 40% per annum Frequency and consistency of monitoring sea lions has increased	?	✓	✓	✗	?	?	?	?
	?	✓	✗	✗	?	?	?	?
	✗	✓	✓	✓	✗	✗	✗	✗
Rakiura/Stewart Island Pup counts remain higher than 35 for 5 years in a row, qualifying the site as a new breeding colony Pup production continues to increase to allow for colonial breeding There are no cases of deliberate human-caused mortality Public involvement in the conservation of sea lions increases	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✗	✗	✓	✓	✓	✓
	✓	✓	✓	✓	✓	?	✗	✗
	?	?	?	?	?	?	?	?
Te Waipounamu/South Island Pup counts increase to above 16 per year, eventually reaching 35 There are no cases of deliberate human-caused mortality Public involvement in the conservation of sea lions increases	✓	✓	✓	✓	✓	✓	✓	✓
	✗	✗	✓	?	✓	✓	✓	✗
	?	?	?	?	?	?	?	?
Across the New Zealand sea lion range Pup mortality from falling into natural holes is reduced Disease research informs recommendations to reduce pup mortality from <i>K. pneumoniae</i> Estimation of SLED efficacy and cryptic mortality affecting adult survival improves The effects of climate change and fisheries on sea lion nutritional status are better understood Sea lion breeding sites developing and establishing at new locations The NZ sea lion threat status improves from Nationally Critical to Not Threatened	✓	✓	✓	?	?	?	✓	✓
	✓	✓	✓	?	?	?	?	✓
	✓	✓	✓	✓	✓	✓	✓	✓
	✗	✗	✗	✗	✗	✗	?	?
	✓	✓	✓	✓	✓	✓	?	?
	?	?	✓	✓	?	?	?	?

Review process

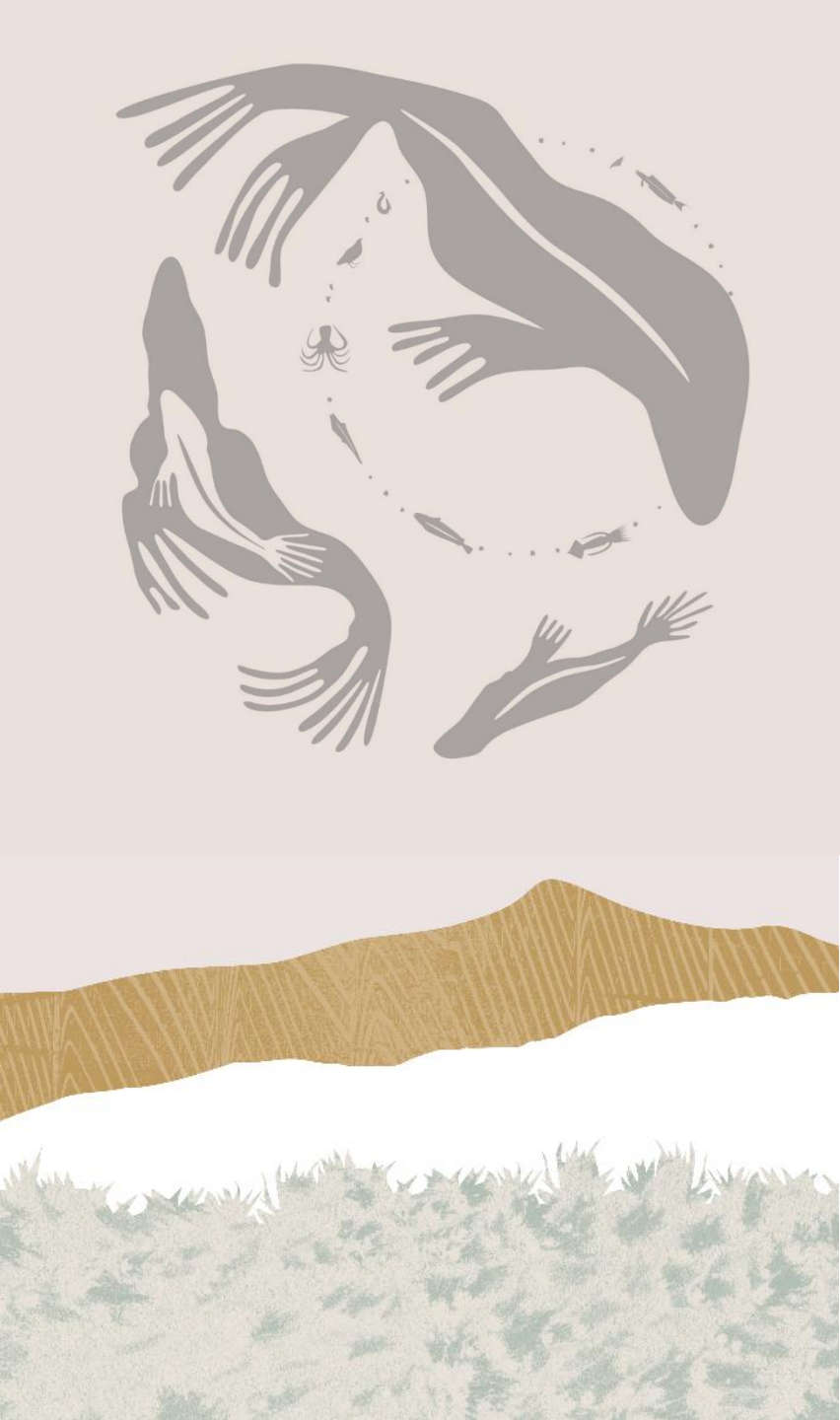
- Review and feedback each year since 2017
- August 2023 TMP review hui
- September 2023 TMP review hui
- Pre-meeting questionnaires
- Weekly meetings to integrate mātauranga Māori as the foundation of the new plan for sea lions (began in February, hosted by Aukaha)
- June 19th online hui to present the proposed new approach
- July 5 – August 5, 2024 feedback sought and received through online questionnaire format
- August – September finalising the NSLAP document

Review findings

- Despite efforts thus far, sea lion pup counts are not where we want them to be
- Avoidable deaths are still occurring
- In some cases, it is time to move from understanding to actions
- Set specific SMART goals
- Take a more adaptable pathway approach as unpredictability continues
- Follow through on what we can do
- Underpin all with Mātauranga Māori

New Zealand Sea Lion Action Plan 2024 - 2029





Vision:

Every individual and organisation acts in a way that promotes the long-term viability and resilience of New Zealand sea lions, with the ultimate goal of restoring the mauri of sea lions and their habitats.

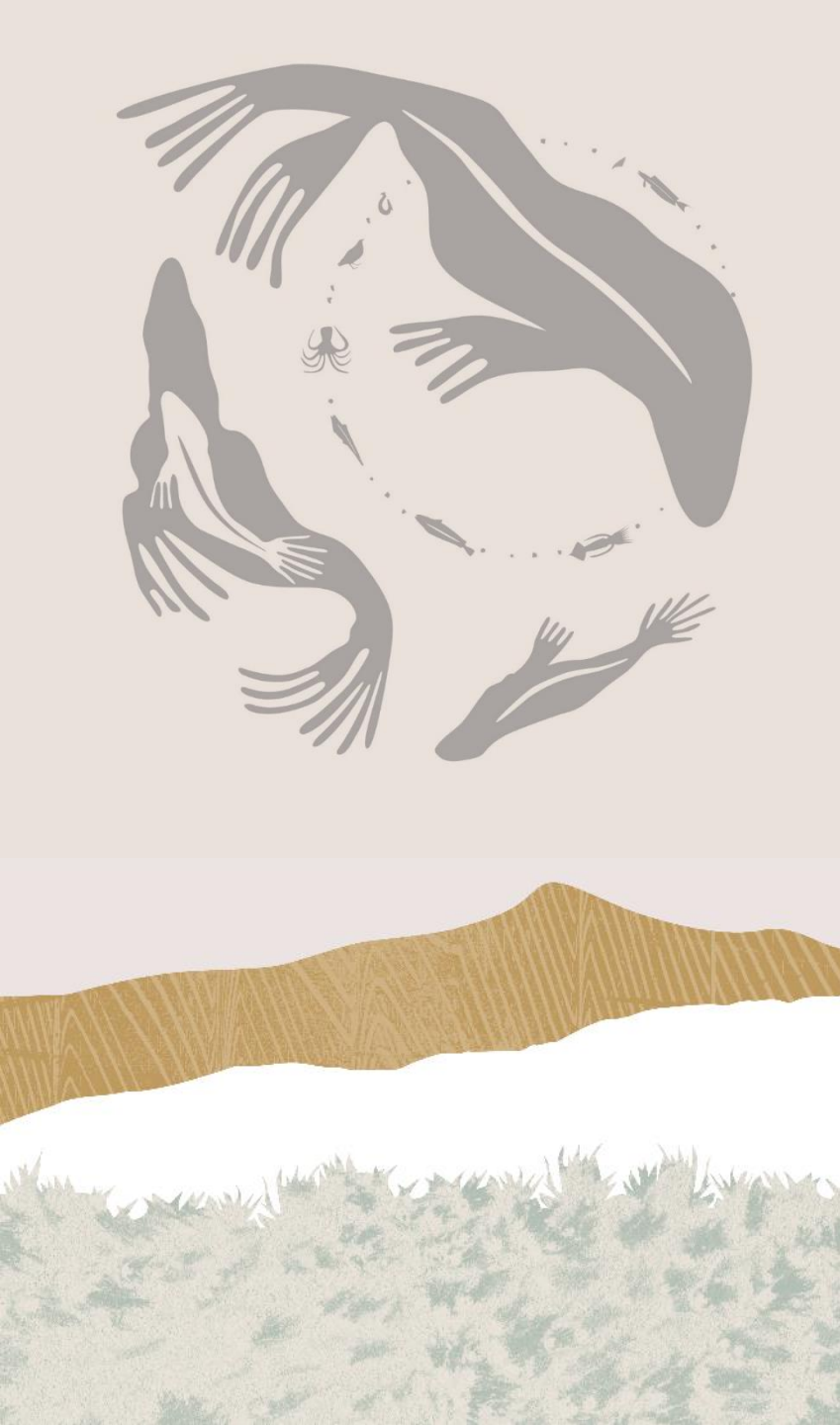


Vision:

Every individual and organisation acts in a way that promotes the long-term viability and resilience of New Zealand sea lions, with the ultimate goal of restoring the mauri of sea lions and their habitats.

Measures of success:

- No avoidable deaths
- ‘Not Threatened’ status



Vision:

Every individual and organisation acts in a way that promotes the long-term viability and resilience of New Zealand sea lions, with the ultimate goal of restoring the mauri of sea lions and their habitats.

Strategic approach:

- Look to, integrate and embed Mātauranga Māori into all efforts to achieve the vision.
- Connect more regularly with people and organisations involved in sea lion mahi.
- Develop and strengthen connections between the wider public and sea lions
- Increase opportunities for mana whenua specifically to connect with sea lions.
- Develop and deliver integrated cultural and ecological learning resources



Actions:

1. In place of this Forum, coordinate an Annual sea lion wānanga to include more diverse voices and space for workshop discussions
2. Maintain the TAG annual meetings established in 2017
3. In person pre-season hui to connect with those in sea lion operations in Te Waipounamu and Rakiura
4. In person post-season hui to connect with those in sea lion operations in Te Waipounamu and Rakiura
5. Develop and distribute a Quarterly NZSLAP Newsletter
6. Scope and source funding for integrated cultural and ecological learning resources
7. Establish a Community Liaison role, administered through Aukaha, beginning October 2024

NB In addition to these opportunities to engage, there are also the CSP annual meetings, technical meetings, AEWGs, etc.



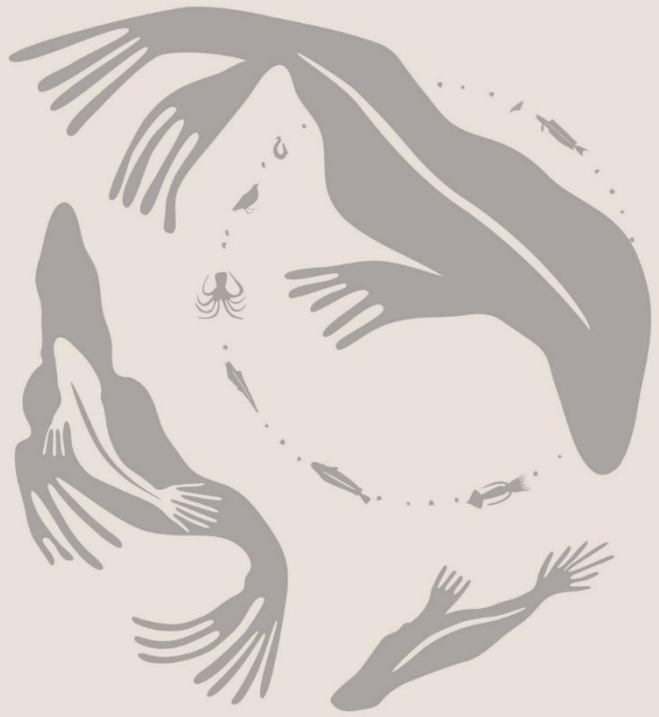
Actions:

8. To better understand and reduce the risks posed by pinniped proximity to roads, establish a sub-committee with a national and international lens.
9. To prevent negative interactions between sea lions and aquaculture, work with the aquaculture industry to implement and action best practices that align with increasing numbers of sea lions at Rakiura and Te Waipounamu.
10. To prevent negative interactions between sea lions and ports and marinas, work with port authorities to implement and action best practices that align with increasing numbers of sea lions at Rakiura and Te Waipounamu.
11. 'In alignment with the Te Mana o te Taiao – Aotearoa New Zealand Biodiversity Strategy aspirational goal of 'zero bycatch of non-target species by 2050' develop mitigation approaches to reduce and eventually stop bycatch.'



Actions:

12. To reduce early pup mortality from terrain traps the 'Planks for Pups' programme is monitored and maintained.
13. To reduce early pup mortality from exposure/hypothermia, purpose-built pup shelters will be set up in key areas on Campbell Island
14. To reduce mortality from disease, Ivermectin is administered to pups at the Sandy Bay colony.
15. To monitor the health of the population, undertake a comprehensive field work programme on the Auckland Islands December 2024 – March 2025
16. To monitor the health of the population, recommence a field work programme on Campbell Island, beginning in 2024
17. Beginning with a feasibility approach, develop a process by which a subset of pinnipeds bycaught in commercial fishing or otherwise accidentally killed, are made available to artists, archaeologists and wider studies.



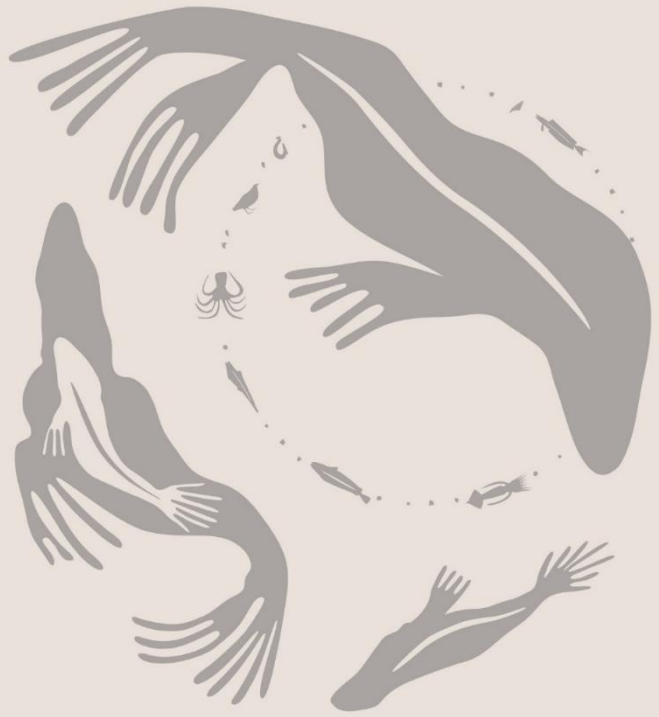
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Murihiku Report
Lance Hall





10:20
Jade's Pup
Charlie Barnett





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Rakiura Report
Phred Dobbins





10:40

Diet samples as potential learning
resources

Hanna Ravn





10:55
Otago Report
Huna's Story
Jim Fyfe





11:10

Updates from the
New Zealand Sea Lion Trust
Shaun McConkey

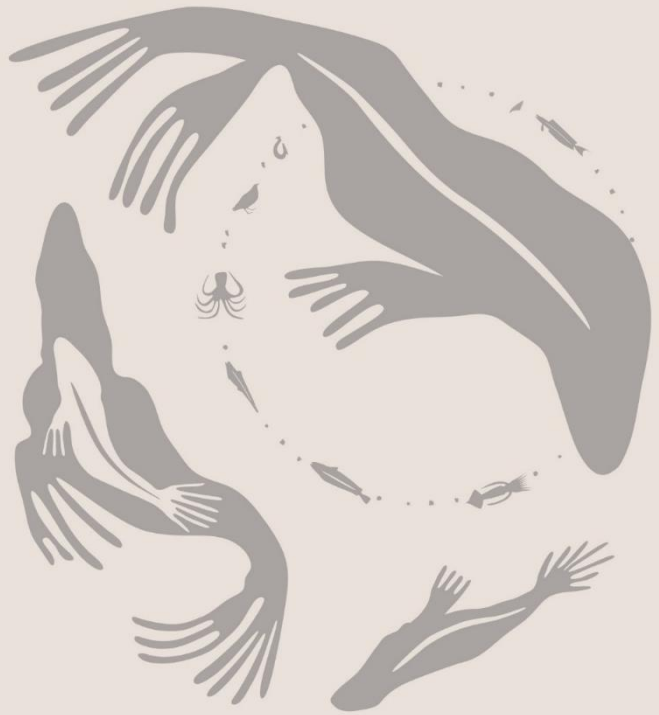




11:30

Wildlife and Roads Discussion





11:50

RAPCON and New Zealand sea lions on
the international stage

Jim Roberts





11:30

Wider Wildlife and Roads Discussion





12:10

Next steps discussion





12:20

Summary and closing
Rauhina Scott-Fyfe



Pre-season effort

- Sea lion education and training day in conjunction with the surf lifesaving club.
- Sea lion specific signage installed at key entry points.
- Communications with accommodation providers and other key members of the public.
- Opportunistic advocacy with the public in key sea lion locations.



Sea lion signage installed at Kaka Point. *Photo: Charles Barnett*

New Zealand Sea Lions... Give us space!



← At least 10 m →



- We like our space so keep your distance, please.
- If we roar or charge, you are too close. Back away!

Living with sea lions:

After centuries of being hunted, we are returning to mainland beaches. Big and beautiful, we can also be bold and boisterous.



- Try not to surround us, even if we are sleeping.

Attention Dog Owners:

- It is a legal requirement that dogs be kept under control around wildlife.
- If dogs are permitted here...

Dogs must be on a leash at all times in this area

Dog issues?
Contact Clutha District Council
Phone : (03) 417 8109



Department of Conservation
77 Popoi Avenue

For more information, visit www.sealiontrust.org.nz

- We often sleep in the dunes. Look out for us!
- Please don't provoke us for a photo. Be patient and you will get more natural photographs.
- We have **no** desire to eat you!
We much prefer squid, fish, and crabs.



- Do not attempt to handle us as we can bite and may also be carrying diseases.

Photographs : Colin Emslie

If you are concerned for the safety of any wildlife on this beach please contact the Department of Conservation Hot Line : 0800 DOC HOT (0800 362 468)

Close up of sea lion signage installed at Kaka Point. Photo: Charles Barnett

Recruitment

- 32PT and 2T5N gave birth for the first time this year.
- This brings the known Catlins breeding female population to 13 individuals.
- 7 pups were born this season with 5 pups surviving.
- 4 pups were tagged this season.



Three adult female sea lions and two tagged pups at Cabbage point. *Photo: Lance Hay*

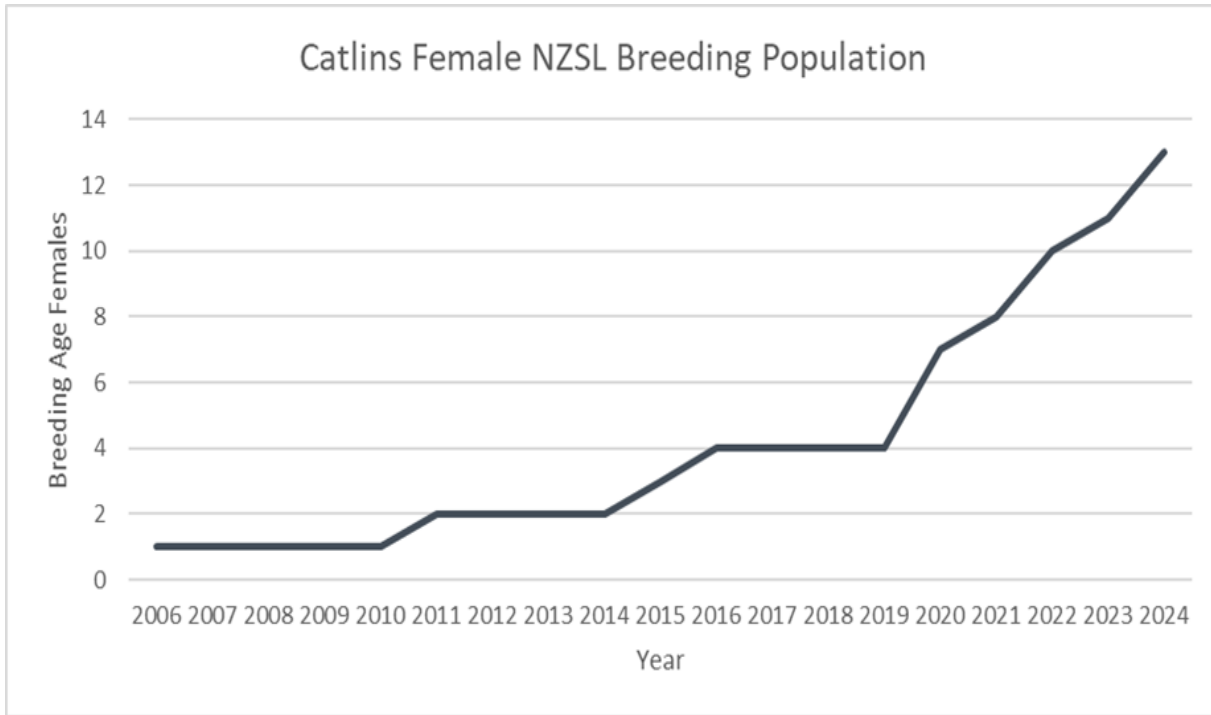


Figure 1: The number of breeding age female sea lions in the Catlins population from 2006-2024

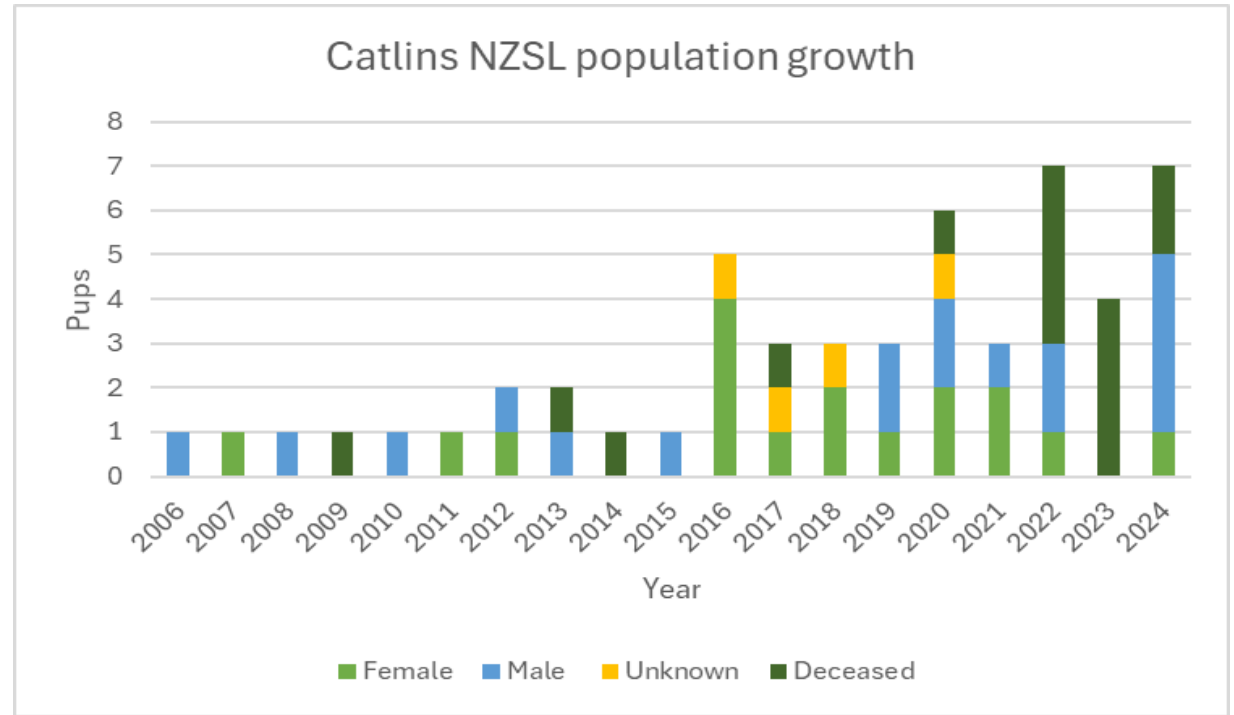


Figure 2: Total count of annual Catlins NZ sea lion pup births, 2006-2024.

Mortality

23/24 season:

- Two reported sea lion deaths, neither attributed to deliberate human caused mortality.
- Unknown adult male, suspected TB.
- Still born pup, birthed by 32PT.

After the 23/24 season report was completed:

- 5P9E (Jades pup), deliberate human caused mortality. (Charlie will cover)



5P9E (Jades pup) at Cabbage point (12/04/2024). *Photo: Lance Hay*

Interactions & Incidents

- Seven incidents involving sea lions were reported this season
- Five of the seven incidents were on or around roads, in some cases causing traffic to be interrupted.
- One incident involved a group of children harassing at least two sea lions while being encouraged by adults. (Lodged in the DOC CLE system)

Achievements and Challenges

Achievements

- Advocacy work with pamphlets and info being provided by DOC staff and NZSLT volunteers throughout the season.
- Seven pups being born in the Catlins this season, with four being tagged.
- Five pups survived this year compared to zero out of four pups surviving in the 22/23 season and three out of seven pups surviving in the 21/22 season

Challenges

- Increased presence of sea lions in and around roads.
- Lack of staff and resources to be able to manage every incident.
- Limited resource to undertake more sea lion pup searches and monitoring this season.
- Negative interactions involving sea lions continue to be a problem

Acknowledgements

- New Zealand Sea Lion Trust – Providing pamphlets and working with the local community. They have assisted in tagging of pups.
- Surf life lifesaving club – Actively participating in pre-season sea lion education and training day.
- Locals for their involvement and engagement with the protection and advocacy of sea lions in their neighbourhoods.
- DOC staff



Otago pup births 2023/24

- 31 pups born at Otago Peninsula

Otago Peninsula

Total - 31 (32?)

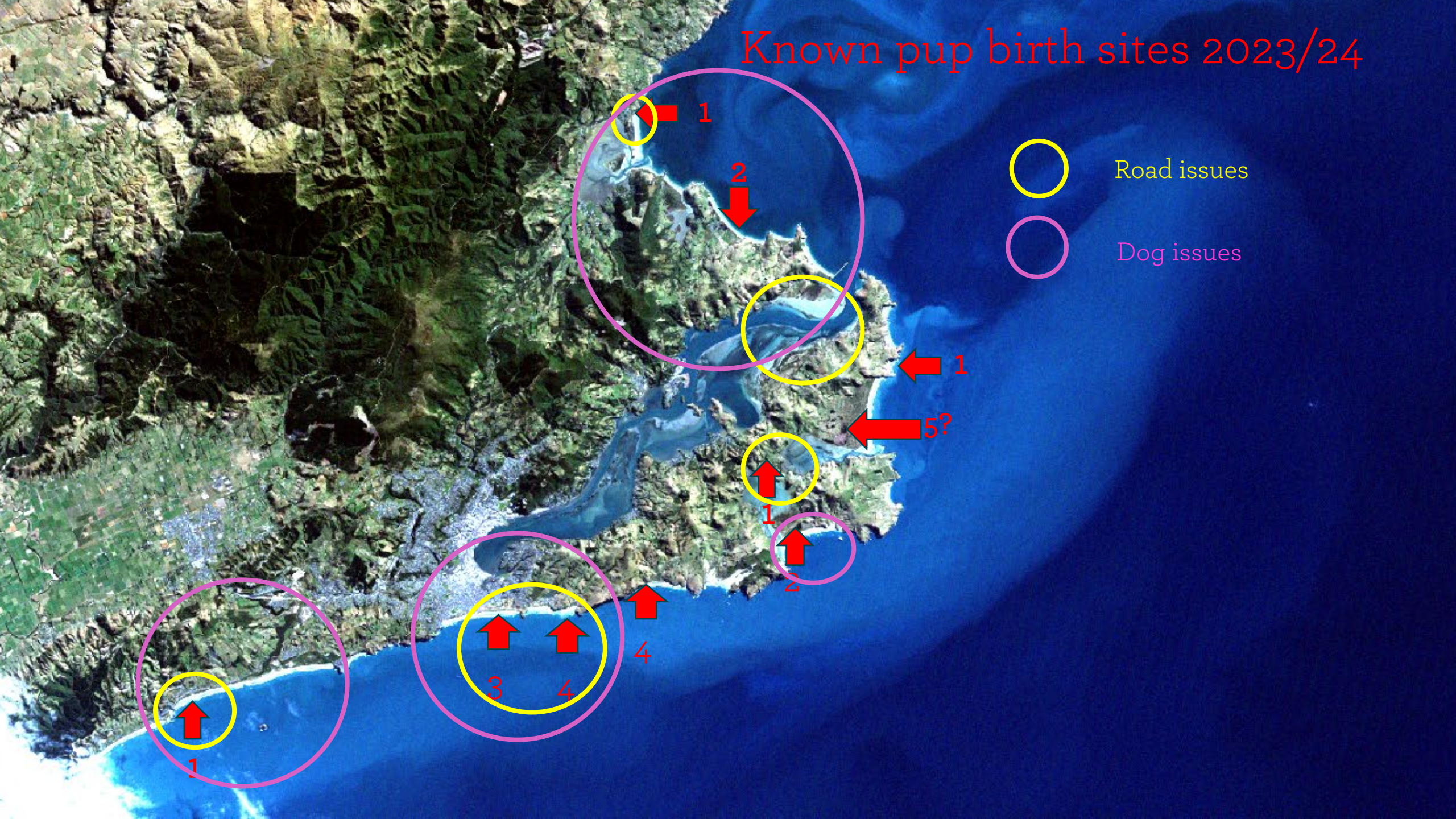
Deaths - 2

Tagged - 29

(17 Male, 12 Female)



Known pup birth sites 2023/24



Sea Lion Road Events Report 2023/24

This summer breeding season saw an unprecedented amount of sea lion activity around roads.

Changes in behaviour related to the breeding season begins in October, with significant increases in activity near roads apparent from December till March.

A sub-adult male, Huna, was killed on the Road at Smaills Beach on Boxing day 2023.

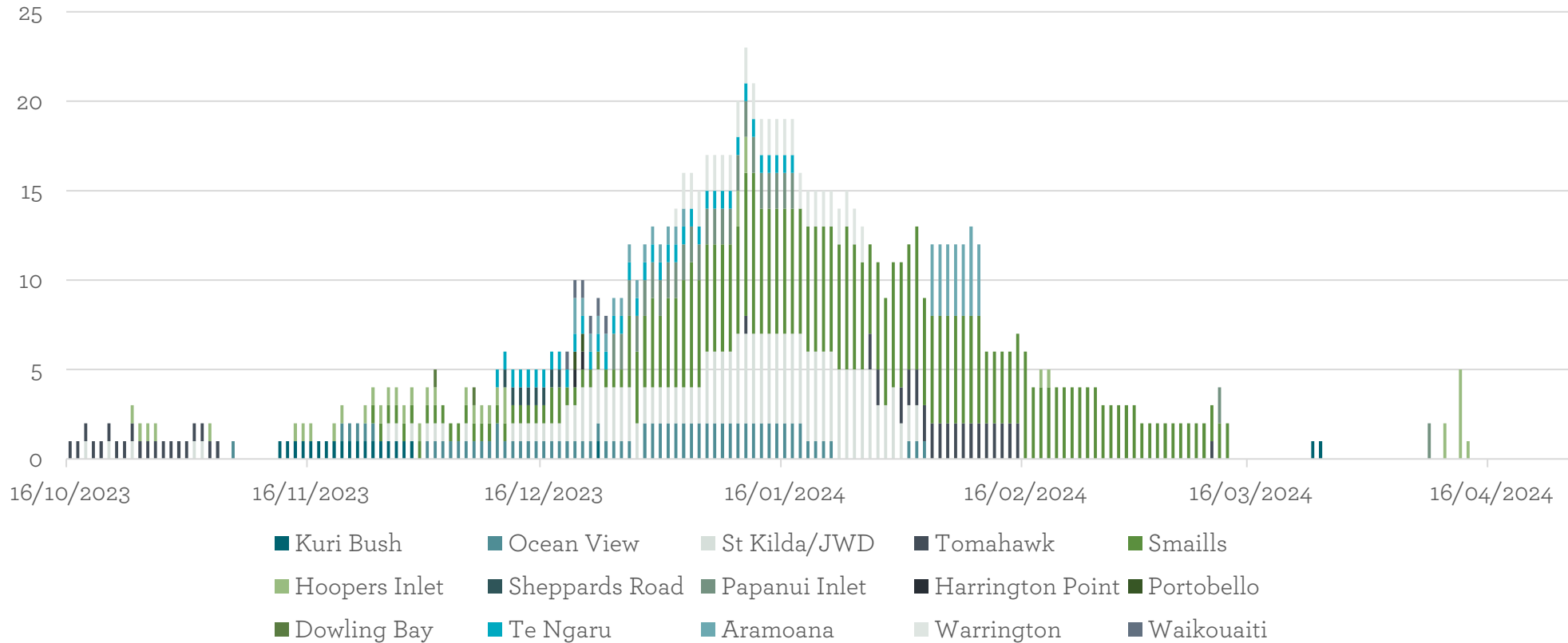


Figure: The number of sea lions being managed around roads each day in the Dunedin area 2023/24 (Graph produced by Giverny Forbes, DOC/DCC Ranger).



Smail's Beach is a prime pup birth site we are currently managing

Issues and current work.

- ▶ Sea lions are now an integral part of our summer beach life in Dunedin. We are needing to do advocacy on every front – made possible by summer rangers.
- ▶ Tracking whakapapa helps us understand sea lion seasonal habitat needs. Continue tagging and monitoring
- ▶ Work with Runaka, Councils and communities ... get sea lions on the agenda for climate adaption; rethink coastal infrastructure - secure habitat.
- ▶ Targeted signage and education programmes is an ongoing need. Advocacy, but we will also sometimes need to back this up with compliance.
- ▶ Planning for sea lion space going forward. Site plans and communication plans could be rolled out for key sites. Manage commercial viewing.

Kai for pakake

Using participatory science to investigate diet of mainland New Zealand sea lion

Hanna Ravn

Marine Megafauna Research Group

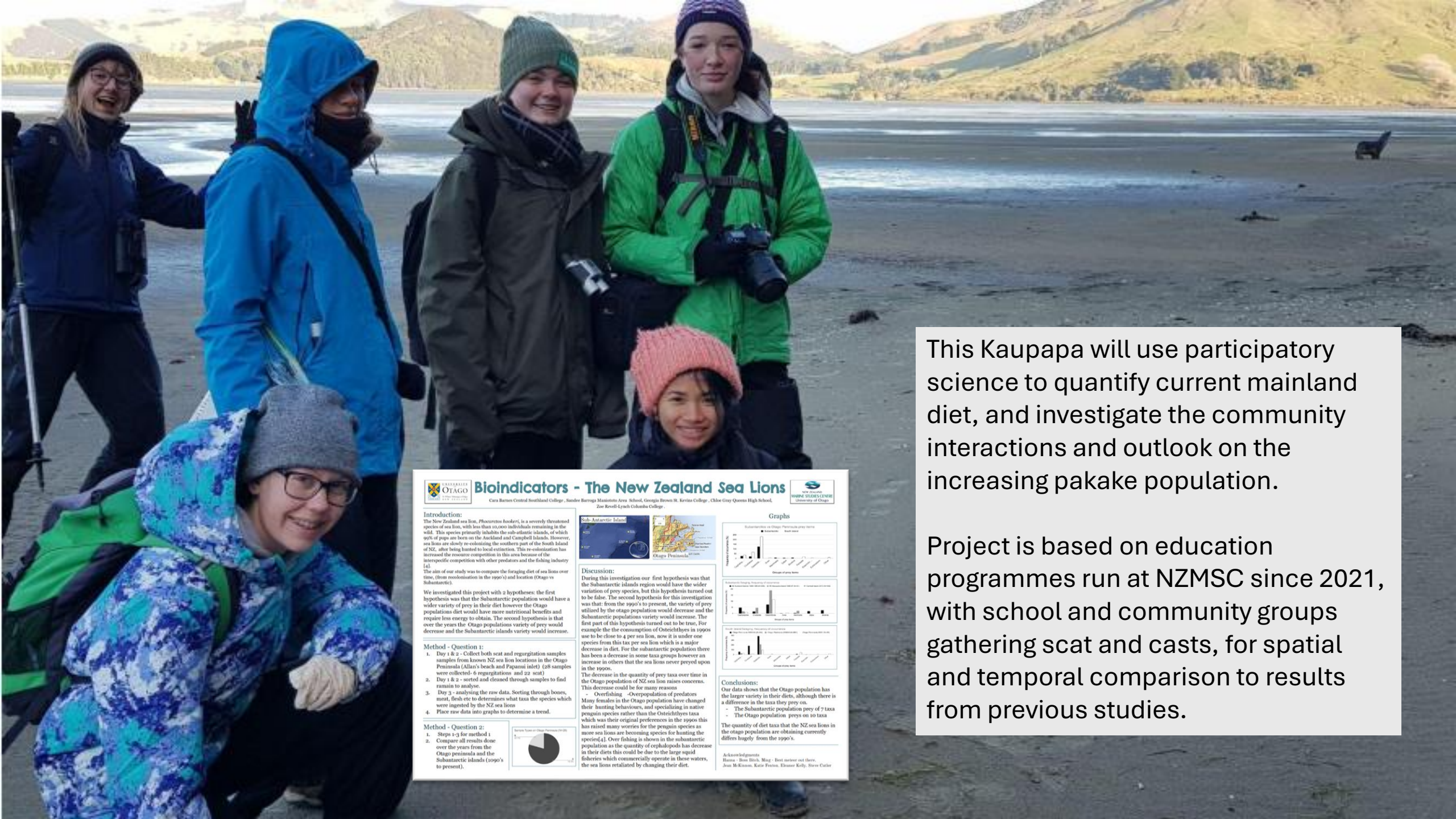
University of Otago



COASTAL PEOPLE : SOUTHERN SKIES

Centre of Research Excellence





UNIVERSITY OF OTAGO
Bioindicators - The New Zealand Sea Lions
 Cara Barnes Central Southland College, Sander Barrago Maniototo Area School, Georgia Brown St. Kevin's College, Chloe Gray Queens High School, Zoe Revell-Lynch Columbia College


Introduction:
 The New Zealand sea lion, *Phocarctos hookeri*, is a severely threatened species of sea lion, with less than 10,000 individuals remaining in the wild. This species primarily inhabits the sub-atlantic islands, of which 99% of pups are born on the Auckland and Campbell Islands. However, sea lions are slowly re-colonising the southern part of the South Island of NZ, after being hunted to local extinction. This re-colonisation has increased the resource competition in this area because of the interspecific competition with other predators and the fishing industry [4].

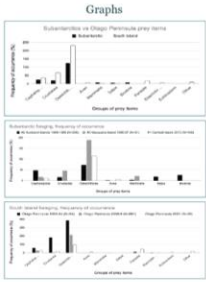
The aim of our study was to compare the foraging diet of sea lions over time, (from recolonisation in the 1990's) and location (Otago vs Subantarctic).

We investigated this project with 2 hypotheses: the first hypothesis was that the Subantarctic population would have a wider variety of prey in their diet however the Otago populations diet would have more nutritional benefits and require less energy to obtain. The second hypothesis is that over the years the Otago populations variety of prey would decrease and the Subantarctic islands variety would increase.

Method - Question 1:
 1. Day 1 & 2 - Collect both scat and regurgitation samples from known NZ sea lion locations in the Otago Peninsula (Alan's beach and Papamoi inlet) (28 samples were collected- 6 regurgitations and 22 scat)
 2. Day 1 & 2 - sorted and cleaned through samples to find remain to analyse.
 3. Day 3 - analysing the raw data. Sorting through bones, meat, fish etc to determine what taxa the species which were ingested by the NZ sea lions
 4. Place raw data into graphs to determine a trend.

Method - Question 2:
 1. Steps 1-3 for method 1
 2. Compare all results done over the years from the Otago peninsula and the Subantarctic islands (1990's to present).

Sub-Antarctic Island


Graphs


Discussion:
 During this investigation our first hypothesis was that the Subantarctic islands region would have the wider variation of prey species, but this hypothesis turned out to be false. The second hypothesis for this investigation was that: from the 1990's to present, the variety of prey utilized by the otago population would decrease and the Subantarctic populations variety would increase. The first part of this hypothesis turned out to be true, for example the consumption of Osteichthyes in 1990s use to be close to 4 per sea lion, now it is under one species from this tax per sea lion which is a major decrease in diet. For the subantarctic population there has been a decrease in some taxa groups however an increase in others that the sea lions never preyed upon in the 1990s.

The decrease in the quantity of prey taxa over time in the Otago population of NZ sea lions raises concern. This decrease could be for many reasons

- Overfishing
- Overpopulation of predators

Many females in the Otago population have changed their hunting behaviours, and specialising in native penguin species rather than the Osteichthyes taxa which was their original preferences in the 1990s this has raised many worries for the penguin species as more sea lions are becoming species for hunting the species [4]. Over fishing is shown in the subantarctic population as the quantity of cephalopods has decrease in their diets this could be due to the large squid fisheries which commercially operate in these waters, the sea lions retaliated by changing their diet.

Conclusions:
 Our data shows that the Otago population has the larger variety in their diets, although there is a difference in the taxa they prey on.

- The Subantarctic population prey of 7 taxa
- The Otago population preys on 10 taxa

The quantity of diet taxa that the NZ sea lions in the otago population are obtaining currently differs hugely from the 1990's.

Acknowledgements
 Hanna - Bone Block, Ming - Best outfit out there, Jean McKinnon, Katie Foster, Eleanor Kelly, Steve Cutler

This Kaupapa will use participatory science to quantify current mainland diet, and investigate the community interactions and outlook on the increasing pakake population.

Project is based on education programmes run at NZMSC since 2021, with school and community groups gathering scat and casts, for spatial and temporal comparison to results from previous studies.

Project Timeline



Samples are collected in 1-2 locations, twice a month from April 2024 to March 2025. Current sample locations has been around the Otago Peninsula, but more locations are expected as breeding season comes upon us.





All samples will be GPS tagged and photographed onsite, before taken back to the lab for rinsing and sterilising.





A good amount of the samples found so far, has been allocated to individuals. Examples here of Hipi with her pup, and a couple juveniles with scat/regurgitates next to them.



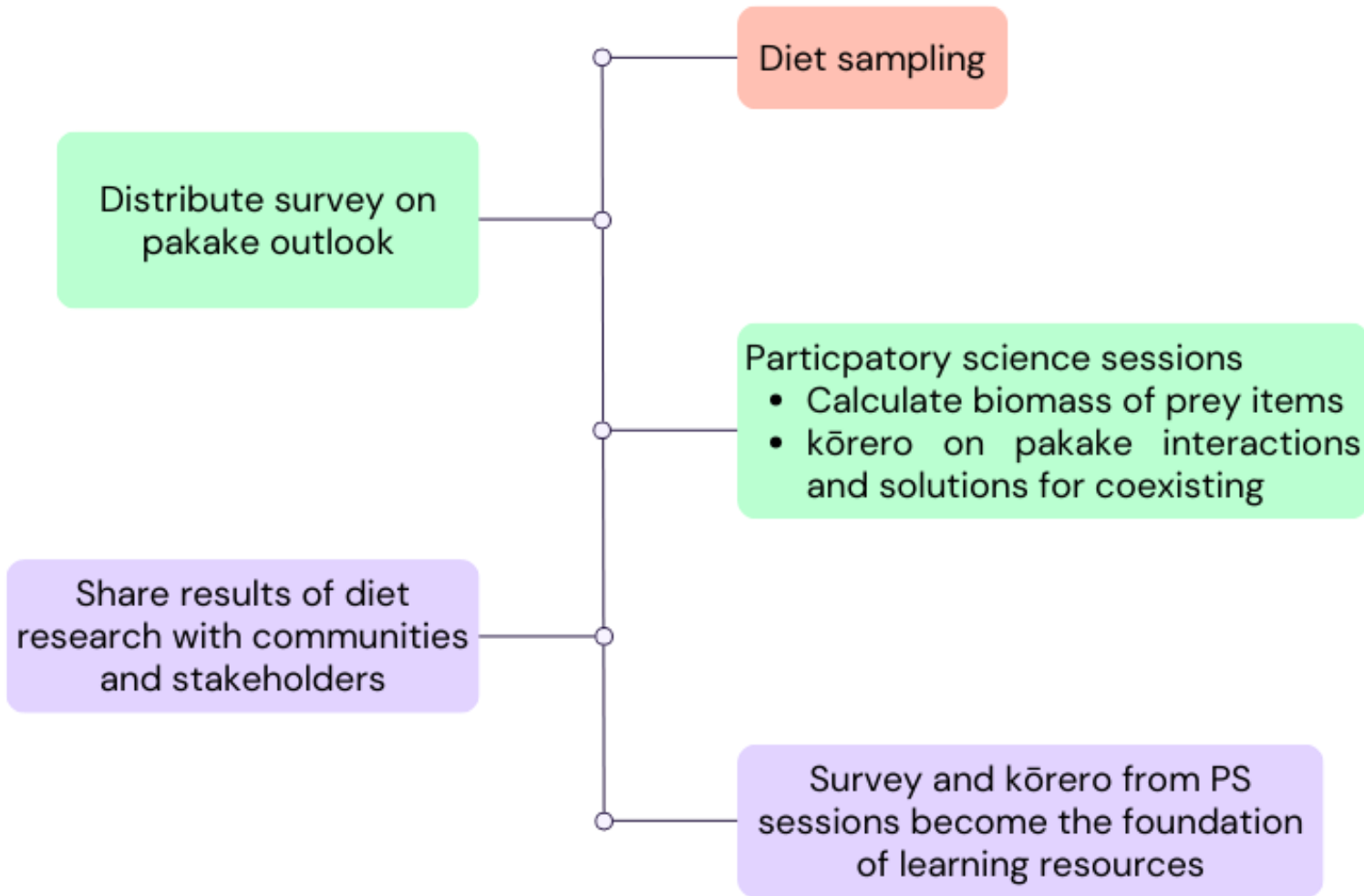
Examples of samples after they have been rinsed. All are photographed again, before hard parts used for analysis, and gastrolits, are kept. E.g large amounts of hard parts not able to be used in ID, are discarded.





Examples of end result that will be used for the participatory science sessions.





OUTLOOK ON A SPECIES

Evaluation of Public Outreach and Educational
Strategies Regarding Conservation Efforts of the
New Zealand Sea Lion

Jessica Desmond
Matthew Dunster
Andrew Egger
Thomas Nuthmann
March 6, 2015

Sponsored by



Seeking advice

- What groups/stakeholders should be priority for the PS sessions?
Based on locality, profession, or something third?
- What pātai would you want to hear answered?
E.g. how often do you on average encounter sea lions within a year?

A survey to help inform on the above, will be sent to all Forum and TAG members early November 2024.



Any questions for me?

Kæmpe mange tak!!

Will Rayment, Yolanda van Heezik, Chris Lalas & Sally Carson

CPSS, MMRG, Jim Fyfe, Shaun McConkey (and rest of NZSLT team), Sophie White, Suzi Flack, Mel Young, Amélie Augé, Jody Weir, Ōtākou Rūnaka, OPERA, YEPT, NZMSC, Rauhina Scott-Fyfe, Cody Phillips, all field volunteers, and many more wonderful humans.

Contact: hanna.ravn@otago.ac.nz