

Agenda: Tūturuatu workshop 1 -

Date: 31/10/2022 Facilitator: Sarah Wilson
 Time: 1:00pm-3:00pm Note taker: Laura Boren
 Venue: Online – [Teams Link](#)
 Resources: Short version of draft recovery plan, Motutapu 2019 report, Site criteria for shore plover, Workshop Terms of Reference
 Purpose: To understand all the context that underpins the Tūturuatu recovery programme.

Context

1:00p m	Karakia, Welcome, Introductions Kia kotahi mai ki te ao nei Kia kotahi mai ki te whenua nei Kia kotahi mai ki te wairere nei Kia kotahi mai ki te hau ora Kia kotahi mai ngā lwi katoa Patu ki tahi ngā Manawa e	Be as one with the universe Be as one with the earth Flow as one with the sacred waters Breathe as one with the fresh winds Be as one as the people Let our hearts beat in unison
1:30p m	Format and structure of the hui	Structure for today, and other days, meeting protocols using Teams
1:40p m	Context from Director's	Jack Mace and Ian Angus
2:00p m	Round table context sharing	Facilitated discussion led by Sarah
2:45p m	Next Steps/Wrap up	Sarah will set expectations for the next session and work being done in between sessions
2:55p m	Close Kia hora te marina Kia whakapapa pounamu te moana Kia tere ai te karohirohi i mua i o koutou huarahi Haumi e Hui e Tāiki e	May the calm be widespread May the sea be as smooth as the surface of pounamu May the rays of sunshine forever dance along your pathway. Stand together / Be together/ Affirm!



Tūturuatu Workshop 1: Context

31-Oct-2022

Attendance:

Name	Role	Affiliation
Laura Boren	Science Advisor Aquatic	Department of Conservation
Sarah Wilson	Facilitator	
Christine Reed	Biodiversity Manager	Pukaha National Wildlife Centre
Brian McDonald	Media and Comms Advisor	Department of Conservation
Kat Smith	Conservation Team Leader	Pukaha National Wildlife Centre
Anne Richardson	Wildlife Manager	Isaac Conservation and Wildlife Trust
Raelene Berry	Senior Conservation Ranger	Pukaha National Wildlife Centre
Leigh Percasky	Assistant Wildlife Manager	Isaac Conservation and Wildlife Trust
Sheree Smith	Acting Ops Manager/Supervisor Bio/Rec East Coast	Department of Conservation
Rebecca Lander	Bio Senior Ranger, East Coast	Department of Conservation
Ian Angus	Director Terrestrial Science	Department of Conservation
Troy Makan	Technical Advisor	Department of Conservation
Jamie Cooper	Biodiversity/Biosecurity Ranger Chatham's	Department of Conservation
Kate McInnes	Veterinary Science Advice	Department of Conservation



Department of
Conservation
Te Papa Atawhai

Clement Lagrue	Science Advisor, Ecosystems	Department of Conservation
Brett Gartrell	Professor, Vet	Massey University Wildbase
Laurence Barea	Science Advisor Terrestrial	Department of Conservation
Lorraine Stephenson	Governance Board Member	Rangitāne o Tamaki Nui a Rua
Dave Houston	Technical Advisor	Department of Conservation
Rachel Ward	General Manager	Cape Sanctuary
Tryphena Cracknell	Ops Manager, Hawkes Bay	Department of Conservation
Irina Cubrinovska	PhD candidate	University of Canterbury
Ash Murphy	Science Manager Terrestrial	Department of Conservation
Emma Kearney	Ops Manager, Auckland Inner Islands	Department of Conservation
Kathy Houkamau	Ops Manager, Wairarapa	Department of Conservation
Rose Collen	Captive Facilities coordinator	Department of Conservation
Denise Fastier	Senior Ranger Bio, Hawkes Bay	Department of Conservation

Karakia/Welcomes/Introductions

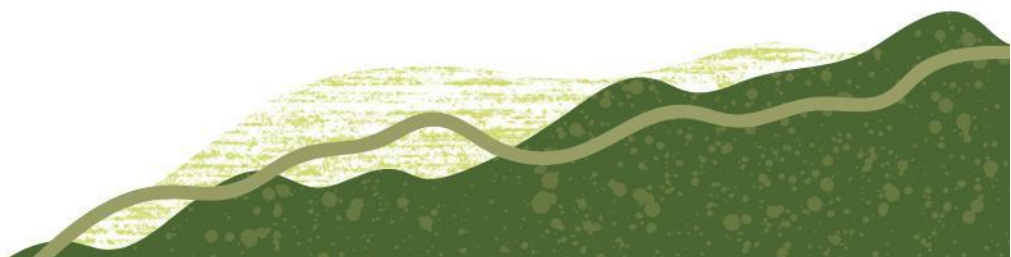
Laura opened with a karakia, and then Sarah welcomed everyone to the workshop setting the guideline for introductions asking everyone to provide their name, affiliation and what type of context they bring to the table. There was a wide range of expertise in attendees

Director's Context

Ian Angus, Acting Director Terrestrial Science thanked all for supporting the workshops and the shore plover work across years. Apologies from two key directors from the operational arm of DOC, Jack Mace (Lower North Island) and Andrew Baucke (Auckland) were expressed.

Ian reiterated the DOC commitment to work with iwi and partners to protect species. To be successful in this task Ian reflected that there was a need to be clear what species needed conservation action and to be confident on recovery actions. The need for DOC to prioritise to ensure resources were allocated wisely across years was noted. The recovery work on shore plover was highly valued, but some recent events, at release sites and in captive management, suggested it was timely to bring people together to assess the recovery effort and to discuss if there were options that should be explored to improve the likelihood of success. The workshops aimed to provide an avenue for such discussions, and from these, refresh and update the shore plover recovery plan. Ian noted the commitment from all participants to the recovery work and appealed that discussions be undertaken respectfully to ensure a collaborative, open working style going forward.

Shore Plover 101



Dave Houston, Technical Advisor in the Terrestrial Unit and subject matter expert on Tūturuatu shore plover gave a short introduction on the species. The presentation is attached. Key notes from the presentation include:

- Shore plover were once widespread (at least believed to be) and definitely in the South Island.
- They disappeared from the North Island first, 1872 was the last observation of shore plover on the mainland.
- Since then they have been confined to the Chatham Islands.
- They are capable of reasonable flights.
- Ranked as threatened – nationally critical
- ~250 birds, over half of the population is on the Chatham Islands (South East Island/Rangatira, and Mangere with occasional visitors to Pitt)
- The second largest population is Waikawa Island.
- Captive management requires large breeding and flocking aviaries. There is a comprehensive husbandry manual to guide the work at the captive facilities.
- Dave summarised 50 years of translocation history, some notable points in the translocation history.
- Waikawa Island had a successful start up and work began to establish Mana Island.
- Rat incursion on Waikawa set the population back and Mana was put on hold while dealing with the rat incursion. Since then though, the Waikawa population has done well.
- Issues faced at Motutapu have included avian predation and stoat incursion. Generally speaking adult survival hasn't been high enough to grow the population successfully. So the population hasn't increased the same way Waikawa did.
- Island borne juveniles more likely to survive than new chicks, but need to establish breeding pairs on an island to get to that point.
- To do that transfer <40 day old chicks for rearing and releasing.
- Translocation time always subject to change due to disease, breeding etc.
- There must be post release monitoring to determine outcomes of the release and adapt management.
- Avian pox is an issue in captive facilities that can impact numbers of birds available and when they are available to release.
- Working with Wildbase Massey University (vaccine) and Canterbury University (genetic resilience) to improve circumstances for captive shore plover.

Following the presentation there was a question as to whether Avian Pox has been seen in the wild or is it mainly affecting captive birds?

RC: yes it mainly affects captive birds though one case was seen on Motutapu and there was one suspected case on Mana Island.

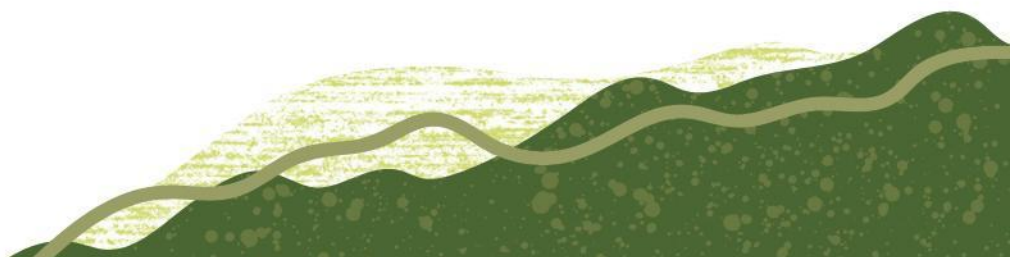
BG - Standing water and freshwater, as well as diet leading to softer skin play a part in making the captive birds more susceptible, genetics plays a part as well.

KM- Similar is seen with captive penguins.

Breakout Sessions Summary

The group was split into 7 breakout rooms to discuss their context in the Tūturuatu recovery plan. When the group came back together as one the individual groups reported back on their discussions. Key points from the groups were as follows:

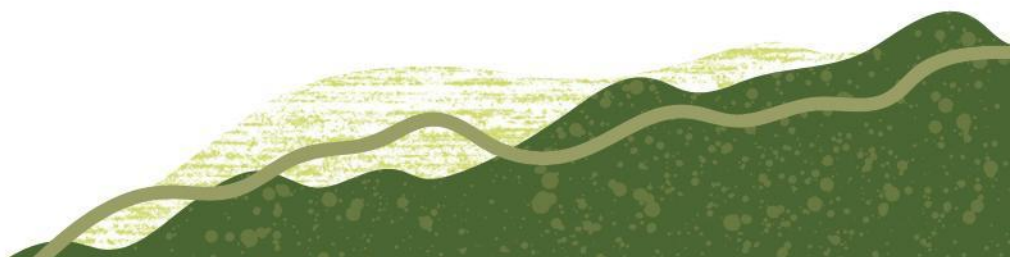
- Five pairs of shore plover at Isaac, all breeding. There is a concern about the safety of the birds being bred at captive sites and a desire to want to know they are going to go somewhere safe.



- Have we got enough islands/release sites to consider? And have we the funding/resourcing to ensure getting through the establishment phase at release sites.
- At captive facilities need safe aviaries, this requires maintenance (some old vintage ones that need an upgrade).
- Reflecting on the avian pox. There are many keen to talk more with Brett.
- Another factor to keep in mind and whether we can address it now... climate change. How to pick release sites that can go forward in light of climate change? How might we do that?
- Birds can recover from Avian Pox with the vaccine but lesions but can be quite deforming or damaging.
- Pox impacts juveniles. So should be immune once released if get them through the rearing stage. Genes from the Chatham Islands more resistant to pox. There is a plan to teach captive facility staff how to vaccinate.
- Climate change. Flooding, and water quality issues high rain fall overwhelming the riparian planting so getting more faecal matter from the rivers. Contamination comes through in the water boatman food for juveniles. Not a problem that's going to go away any time soon. Water management will be a big issue going forward.
- Nutrition will need some work but it keeps them alive and keeps them breeding.
- But recognition that these are secondary issues to whether we have adequate release sites.
- Chatham's Rangatira birds provide top ups to the captive facilities. There is concern from local communities as to how the translocations impact the population. Key desire from this is to provide good communication to all interested in shore plover recovery.
- Motutapu has issues with predation, key concern how to manage this and how to connect everyone to communicate effectively, especially about the whakapapa of the birds.
- Cape Sanctuary relatively new in this space, but keen to know end goal. Sometimes requested not to breed too much if not places to go. Expensive job to run if can't do the full thing. Keen to understand whether mainland predator free areas could be assessed as a potential tūturua habitat.
- Particular lessons/context regarding the Chatham's – it's a remnant population. It's there because there have never been rats on Rangatira. Shore plover were extinct on the mainland before stoats were released. If we have more islands like Rangatira could be beneficial for shore plover.
- Why the islands with bush are not holding the birds with ruru and kahu, when on other sites there are gulls and skua. Maybe to do with ruru being night predators and shore plover not very astute at night.
- Relationship management for Waikawa Island. Helping manage Helen's time. Resource hungry for biosecurity. How can we think outside the box.
- How we develop relationships with iwi at each area?
- Climate change needs to be at the forefront of everything we do.

Key themes that have come up

There were a few key themes that kept coming up through the discussion these were:



- Where to put the birds
- Avian Pox
- Genetics
- Climate Change

Last discussion points before closing

Desire to go through in more detail reason for success and failure of some of the sites

It's not just about the science but also the communities the birds are part of (whakapapa of the birds important)

Context on avian predation and the establishment phase of a new population. Comes down to small sample size. Avian predator control (APC) is not a forever thing, they can survive in the presence of avian predators – but it comes down to a numbers game. APC is a temporary measure. What is the right number? What is manageable? Mammal predation may be a completely different story.

A point was made about difficulties of releasing waders. An example with Kaki stilts – 40 years – 1000's of birds pumped into the Mackenzie basin but population only in the low hundred's. Long term, resource intensive. However, it was raised we can't compare the black stilt to the shore plover due to them being on the mainland and susceptible to many more predators.

There is a concern about whether to continue to release at Motutapu?

One of the issues with translocations is knowing the fate of the birds. It's often put down to dispersal, but we don't always know what happened. Recent release on Motutapu – two left the island. Managed to get one back. Highlighted the importance of monitoring and different techniques for monitoring (transmitters).

Mana second release, 30 birds, which dispersed. Six were caught on the mainland and returned and put transmitters on. There was a falcon that resulted in mortalities, some observed. The benefit of transmitters, and having observers to identify issues we need to address. Issues that need to be managed will be different for different release sites.

Group talked about raptors with Laurence. Falcons an issue at Pukaha. Haven't managed ruru on sites before. Don't have a method, and not sure of appetite for controlling ruru.

Process for translocations starts with an outline for the idea. Goes through a consultation for a translocation proposal. Pulls out all the issues that might impact potential success.

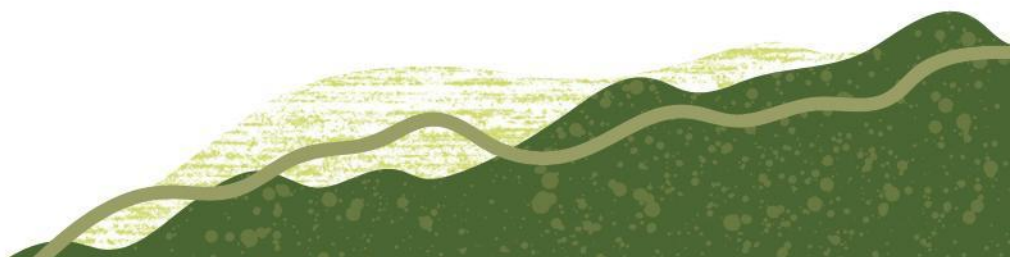
Reporting for each site is done separately.

There is a process for determining other sites. Also a student who looked at islands. Need zero mammalian predators. Don't know all the islands available to us, especially as some are privately owned and also don't know the habitat for all these. But starting to compile. Need to think about the minimum population size they can support (a reasonable number of birds). MSc thesis attached.

Being mindful of the long term and what other sites might become available in the future, e.g. with various predator free projects.

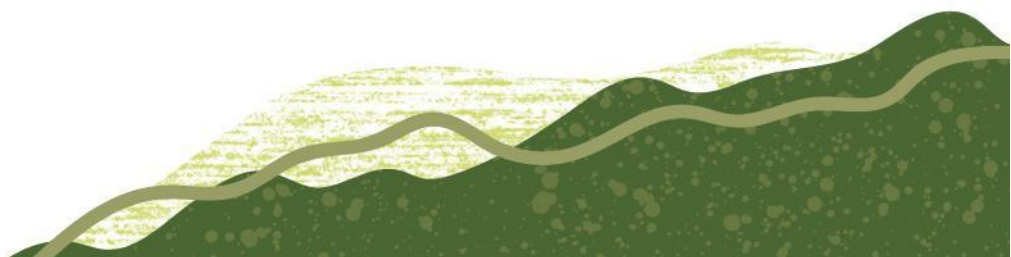
Conclusion

Next session will focus on Critical Issues and start to narrow the focus on the concept of site selection and safe sites to translocate birds to.



A finishing comment

Something many of us expressed in our intros but that we didn't expressly verbalise as important context - is how much we all care! There are a lot of us passionate about tchuri wat' and working hard for their survival.



Agenda: Tūturuatu workshop 2 – Critical

Date: 3/11/2022 Facilitator: Sarah Wilson
 Time: 1:00pm-4:00pm Note taker: Laura Boren
 Venue: Online – [Teams Link](#)
 Resources: Summary from Context Workshop, Slides from Shore Plover 101, Site assessment table 2006, Quinnell 2021 MSc
 Purpose: To understand the range of critical issues faced by the Tūturuatu recovery programme, focusing on what critical issues need to be addressed to ensure suitable wild sites can be adequately maintained.

issues

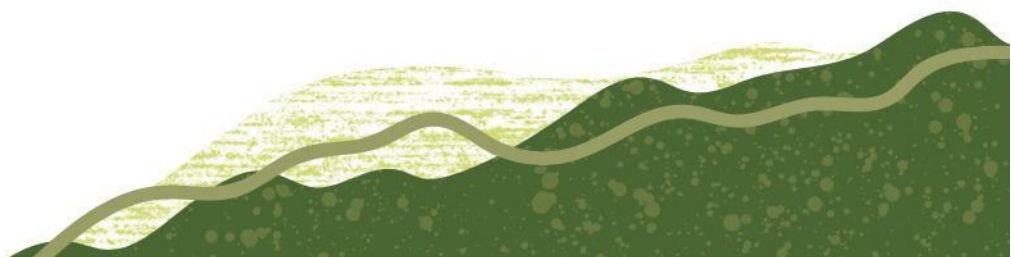
1:00	Karakia, Welcome, Introductions Kia kotahi mai ki te ao nei Kia kotahi mai ki te whenua nei Kia kotahi mai ki te wairere nei Kia kotahi mai ki te hau ora Kia kotahi mai ngā lwi katoa Patu ki tahi ngā Manawa e	Be as one with the universe Be as one with the earth Flow as one with the sacred waters Breathe as one with the fresh winds Be as one as the people Let our hearts beat in unison.
1:15	Format and structure of the hui	Structure for today, and meeting protocols using Teams
1:20	Context from Jack Mace – Ops Director LNI	
1:30	Summary from Workshop 1	For those that were unable to attend the first workshop this will provide a brief summary of the context discussed, have we missed anything?
1:40	Set up for the breakout groups	A brief recap of the situation and goals of the workshop series to set the scene for the breakout groups
1:50	Breakout groups (via Teams)	Warmup conversations prior to the round table on critical issues
2:10	Round table of critical issues	Facilitated discussion led by Sarah to uncover the range of: “How to”, and “What if” statements that apply to the programme. At this point the scope is wide and open to all aspects of Tūturuatu recovery.
3:00	Break and Themes work	This will be an opportunity for attendees to have a break. Laura will go away with the full list of critical issues and group into themes.
3:15	Report back on themes and decide on focal issues	Laura to report back on themes, and further discussion will narrow the scope to focus on the critical issues that are vital to resolve for Tūturuatu recovery to succeed.

3:45	Next Steps/Wrap up	Risk mapping exercise to be presented at next session
3:55	Close Kia hora te marina Kia whakapapa pounamu te moana Kia tere ai te karohirohi i mua i o koutou huarahi Haumi e Hui e Tāiki e	May the calm be widespread May the sea be as smooth as the surface of pounamu May the rays of sunshine forever dance along your pathway. Stand together / Be together/ Affirm!

Critical Issues Notes 3 Nov 2022

Attendance:

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Laura Boren	Science Advisor Aquatic	Department of Conservation
Sarah Wilson	Facilitator	
Christine Reed	Biodiversity Manager	Pukaha National Wildlife Centre
Brian McDonald	Media and Comms Advisor	Department of Conservation
Kat Smith	Conservation Team Leader	Pukaha National Wildlife Centre
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Rebecca Lander	Bio Senior Ranger, East Coast	Department of Conservation
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Troy Makan	Technical Advisor	Department of Conservation
Jamie Cooper	Biodiversity/Biosecurity Ranger Chatham's	Department of Conservation
Kate McInnes	Veterinary Science Advice	Department of Conservation
Clement Lagrue	Science Advisor, Ecosystems	Department of Conservation
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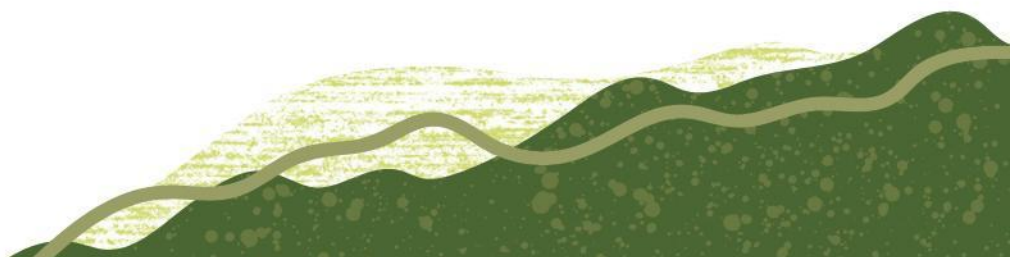
Laurence Barea	Science Advisor Terrestrial	Department of Conservation
Lorraine Stephenson	Governance Board Member	Rangitāne o Tamaki Nui a Rua
Dave Houston	Technical Advisor	Department of Conservation
Rachel Ward	General Manager	Cape Sanctuary
Tryphena Cracknell	Ops Manager, Hawkes Bay	Department of Conservation
Irina Cubrinovska	PhD candidate	University of Canterbury
Ash Murphy	Science Manager Terrestrial	Department of Conservation
Emma Kearney	Ops Manager, Auckland Inner Islands	Department of Conservation
Kathy Houkamau	Ops Manager, Wairarapa	Department of Conservation
Rose Collen	Captive Facilities coordinator	Department of Conservation
Denise Fastier	Senior Ranger Bio, Hawkes Bay	Department of Conservation
Hilary Aikman	Director Terrestrial Biodiversity	Department of Conservation
Hine Carberry	Environmental Officer	Rangitāne o Tamaki Nui A Rua
Hineatatu Dorset	Environmental Cadet	Rangitāne o Tamaki Nui A Rua
Jack Mace	Operations Director Lower North Island	Department of Conservation
Liz Lowe	Owner	Cape Sanctuary
Marina Toatoa	Representative	Tawapata South Incorporated
Tammy Steeves	Associate Professor	University of Canterbury
Andrew Baucke	Operations Director Auckland	Department of Conservation

Karakia/Welcomes/Introductions

Laura opened with a karakia, and then Sarah welcomed everyone to the workshop. She initially asked how many had attended Monday's session of which many people had, with about seven new attendees today. She asked everyone to introduce themselves by providing their name, affiliation and level of experience with tūturuatu they bring to the table. Like Monday there was a wide range of expertise in attendees. Sarah also commented on a statement in some of the material provided prior to Thursday's workshop, the Quinell 2021 report, in comparing tūturuatu's situation with human society – that their main threats to their survival are a housing crisis and gang rivalry.

Director's Context

Jack Mace introduced himself and his role as Operations Director of the Lower North Island, which is responsible for two of the secure populations of tūturuatu as well as the Pukaha National Wildlife Centre.



He provided some background on the species and summarised the current strategy for tūturuatu as being three pronged:

- Maintain the established populations through biosecurity and monitoring
- Captive breeding of chicks to facilitate translocations to wild sites
- Having islands to translocate to to build their resilience in the wild

He summarised the issues seen both at the release side, and at the captive facility side of the process. Noting that we don't want to waste time and money we want to assess if our strategy is right? If it's right, does it need any tweaks? Equally he wanted to consider, who are the people to help resolve this and provide a diversity of thought. This was the reason for bringing this group together.

Summary of previous workshop

Laura provided a brief summary of Monday's workshop touching on tūturuatu 101 presentation by Dave Houston, and some of the common themes and additional comments that came through towards the end of the session.

The common themes of the context discussion were:

- Where to put the birds
- Avian Pox
- Genetics
- Climate Change

Some additional points made that provided good context included:

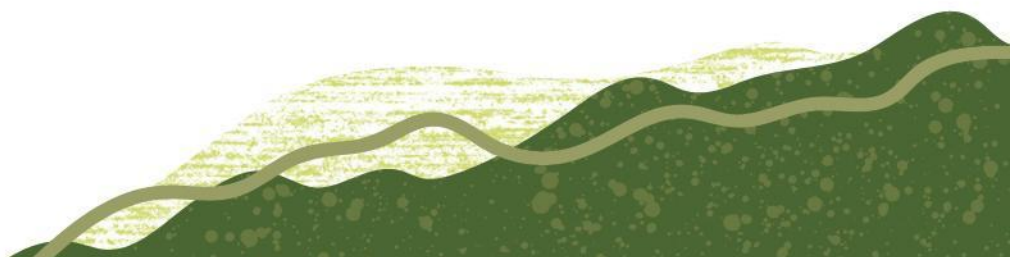
- The importance and value of monitoring post release to understand the fate of the birds
- The fact that every potential release site will have different issues that need to be addressed, no one recipe for success
- The numbers game of how many birds are enough for a successful release
- Avian predator control is only temporary to get the population through the establishment phase

Brief context prior to break out groups

Sarah explained the process for the break out groups and what critical issues are, in terms of framing as "How to's" and "What if's". Laura provided a reminder of the goal of the draft recovery plan:

"Protect shore plover from extinction and improve their threat ranking by increasing the total population across multiple sites, with the specific goal of an increasing wild population of >250 individuals across five or more locations by 2030."

Round up of Breakout Groups:



(Please note that I will have missed some of these and the transcriptions are not always helpful, so for those of you who were note keepers please send me your list of Critical Issues to update the final document)

Group 1 Hine / Sarah / Christine / Kat / Raelene

Hine has been unable to provide her introduction at the beginning of the session so did a brief intro here. She initially highlighted the relationship of Rangitāne of Tamaki Nui A Rua with Mt Bruce and the gift back of Pukaha from Rangitāne to the nation. Her interest to connect up the mahi happening here, becoming more involved in helping to learn, find out what our matauranga / values are around manu in general. She was joined by her niece Hineatatu Dorset who is a cadet in environmental issues so they work closely together.

Christine mentioned the goal to enable Rangitāne to drive Pukaha and the staff support them.

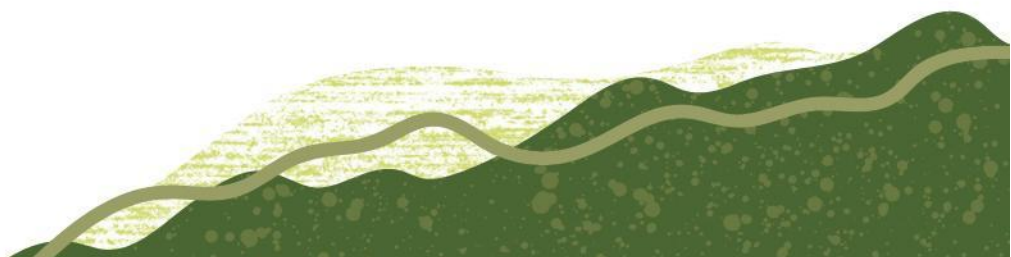
Critical issues raised:

- How to ensure some level of national coordination, accountability and funding?
- How to adequately resource those release sites.
- Acknowledging not just DOC funding – How to find other sources of funding?
- Example of the \$1-2mill required for rebuild of aviaries
- What if there a possibility to have an in situ captive aviary at release site?
- What if you had all the \$ what could you do?
- How to build resilience in the captive programme in light of climate change? (e.g. flooding risks increase as more frequent storm events)
- How to get investment in infrastructure?
- What if mana whenua lead the work?
- How to enable to matauranga to influence decisions?
- What if it wasn't 50 hectares?

Kate / Rebecca / Tammy / Ilina

In response to the critical issue about the size of habitat, Tammy provided this information: knowingly creating small population can be dangerous – signing up to decades of maintenance with no chance of building resilience, 'if it can't grow, don't go'.

- How to continue to manage genetics to prevent inbreeding and manage long term survival (cryptic inbreeding)?
- How do we continue to support the captive management as it's vital to the genetic management as well?
- How to resource the programme sufficiently?
- How to coordinate across the regions with resources etc?
- How to give effect to matauranga?
- How to ensure we consider the views of all and not create obstacles?



- How to identify safe sites?
- How to ensure we're all on the same waka?
- How to coordinate with other species work so we don't inadvertently create a site that attracts predators?
- How to incorporate climate change?
- How to manage disease?
- How to protect the Chatham Island pops (Pitt might be a solution)?

Dave / Jamie / Tryphena

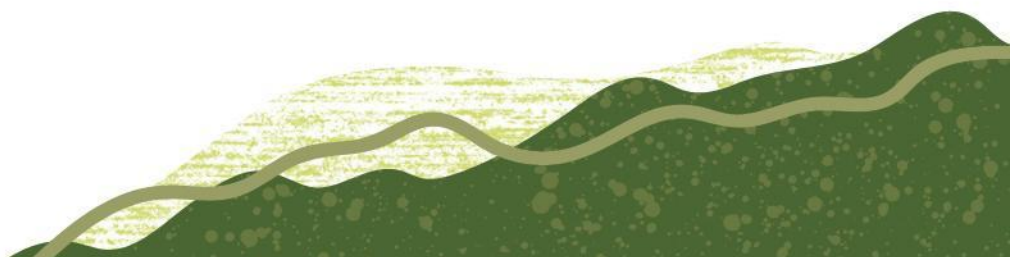
Focused conversations on the Chatham's, Waikawa and Motutapu sites

- How to ensure strong operational leadership?
- How to effectively deliver work at site?
- In cases where we get external funding how can we ensure that the team at place can use it?
- For captive sites - how to ensure that all the captive sites are adequately resourced?

Rachel / Sheree / Emma

Focus was on resourcing and funding as well as Waikawa

- How to ensure relationships are good with local iwi noting that some sites are iwi owned?
- How to ensure there is a national strategy to avoid current piece meal approach that is reliant on individual local offices?
- How can we share learnings across different predation events?
- How can we be less risk averse? Use those things as learning experiences rather than a reason to stop something
- What if we lose our captive facilities – due to number of reasons – funding, frustrations, delays?
- How to keep funding support?
- What if there are alternatives to increase the captive facility capacity – keeping breeding onsite? Zoos?
- How to ensure a national funding strategy?
- What if a multi species approach could work as these islands are not just for shore plover, they support other species too?
- How to ensure there is a strategy where sites are reassessed regularly as some that are not suitable may become so through Predator Free?
- How to ensure there is regular input back to the wider group on suitable sites?
- How to ensure thinking outside the box is encouraged?
- What if there are mainland options?



- How to balance risk e.g. yes there is risk... but is the risk of doing nothing worse?

Ash / Denise / Brett

- How to provide safe sites for release
- What if research provided info on diet to provide more resilience?
- How to manage water quality through climate change?
- How to resource releases?
- How to resource captive facilities?
- How to ensure genetic diversity?
- How to ensure sufficient juveniles for release?
- How to achieve wider community engagement?
- How to ensure there are enough safe sites for release?
- How to decide what are the next three wild sites (note that we need to be thinking about some more if want to meet 2030 goal)?
- What if it wasn't an island?

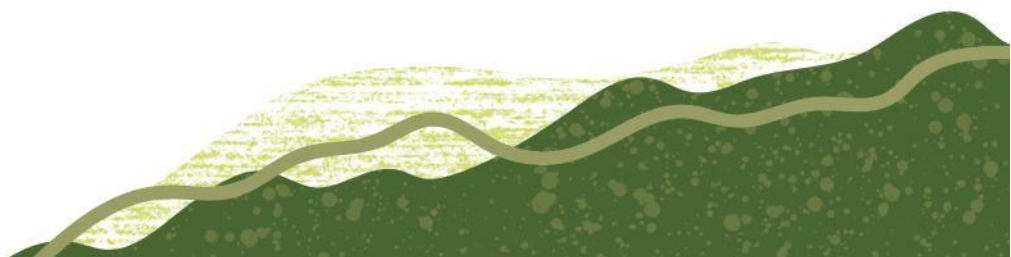
Laura / Andrew / Rose and Laurence

Focused on Motutapu and what are the critical issues there

- What if a sites didn't have a comprehensive monitoring programme? (e.g. cameras and transmitters for post release monitoring)
- How to ensure risk of invasion/reinvasion is low?
- How to understand what the avian predator population is and how to manage them?
- How to understand whether a site is suitable or not?

Andrew gave some thoughts on various islands in the gulf that could be an alternative to Motutapu, an example of balancing pros and cons of a site was highlighted with Little Barrier and the Mokohinau's, one has better habitat, low invasion risk, low avian predators but is difficult to access for monitoring, vs the other that has an active and competent team but the habitat might be less desirable. Andrew raised the question though that if the birds were historically more widespread then you might assume they are capable of living at a wider range of sites?

- How to understand what avian predator control is possible, palatable, appropriate?
- How to ensure effort and birds not wasted?
- What if there are alternative actions to freezing eggs if there are concerns about a release going ahead? Trailing other sites if Motutapu not suitable?
- How to determine whether to continue with a site?
- How to test alternative responses/develop a response plan? How to assess the predator situation before a release?



- How to understand the distribution of falcon or other predators and look at sites in relation to that? In the context of testing other opportunities.

*Some of this discussion reinforced Rachel's comment on how to not let risk aversion cause the extinction of the species

Critical Issues provided by Troy in advance of the meeting

Critical issues:

1. How to ensure we focus on the critical issues that are impacting shore plover the most. I.e., which issues we focus on that are likely to have the biggest impact on species recovery
In the face of limited resources, low numbers and a large range of issues we need to make sure we focus our resources in the places that have biggest impact on species recovery
2. How do we communicate the extreme sensitivities of this species to predation. Especially when it comes to requests to be considered as a release site?

Need to be clear that the mammalian predation risk for this species is extremely high. The birds disappeared from mainland NZ basically within moments of rats arriving. There is no other NZ species that has been shown to share this kind of sensitivity. We have seen numerous island or fenced sanctuaries suffer incursions where most other species have only small declines or are in the short term unaffected. For shore plover every incursion has resulted in a quick decline to either extinction or functional extinction.

3. What if the current translocations sites and sites being considered are as good as it gets?
Due to current shore plover requirements the number of sites available to us for translocation are limited. There has been extensive research into potential available sites. So, if we are looking for a site that has the potential for a higher success rate, I am not convinced it exists.

4. How do we pick apart the issues of a perceived 'poor site' versus 'just a lack of resource to be able to implement adequate management to make a site suitable'?
It's clear from the translocation history that those sites with better resourcing have been successful at establishing populations (in the end). Mangere, Mana (the first time) and Waikawa have all had a higher level of resourcing which has enabled those sites to figure out their specific issues then implement management to address the issues that were faced or address them before they became an issue. Our more recent releases haven't been as successful, but haven't had the same levels of resourcing.

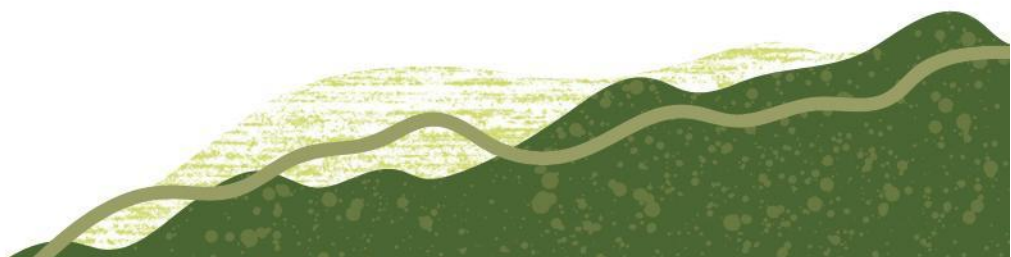
Break

The group took a 15-minute break while Laura attempted to summarise the key themes or focal areas of the critical issues.

Summary of themes

Laura presented a series of approximately eight rough themes which were refined and turned into six themes and two cross cutting themes for the purpose of Friday's workshop.

Themes:



1. How to assess wild sites for site selection and continuance?
2. How to ensure captive facilities have the appropriate capacity and support? Include consideration of alternatives to bolster (e.g. in situ, or use of other facilities like Zoos)
3. How to ensure national coordination, accountability, and strategy
4. How to ensure funding is sustainable and adequate
5. How to ensure we balance risk aversion with the vulnerability of the species to give tūturuatu the best chance of recovery?
6. How to ensure research on genetics and disease informs recovery and resiliency?

Cross cutting themes

1. How to enable mana whenua leadership, connections between sites (whakapapa of the birds), and successfully weave Mātauranga through the recovery plan
2. How to ensure the consequences of climate change are understood and taken into consideration in recovery actions to ensure resilience.

Some final questions

Who are our audiences?

- Directors
- Decision makers in DOC
- Mana whenua
- Site managers

Tammy noted that in comparison of where the recovery plan sits now, the conversations on disease, genetics, climate change all speak to resiliency and this is new and should be picked up.

Also comment to be mindful not to separate out matauranga as its own critical issue,

- How to ensure matauranga is woven through the whole process?

Christine notes the devil in the detail and themes will lose the detail and essence.

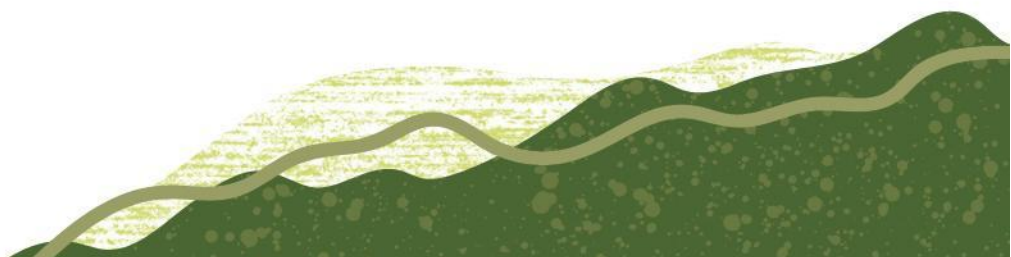
- How to ensure that Directors can listen/read and understand the detail?

Dave noted that regarding engaging with tangata whenua at site, in the past the programme has not been great but we have been making strides in recent times. We need to do more with that. Site leadership.

- How to enable others to do the work?
- How to maintain the momentum in recent successes?
- How to fund the exploration of new sites (noting this has not been resourced before)?

Rachel asked about next steps and accountability from Directors – will there be feedback from the Directors? Hate for this work, ideas and solutions to hit a brick wall.

Denise reminded us that more detail comes out in Friday's workshop so we won't lose the detail.



In light of some of the questions asked Sarah asked Laura for some thoughts on next steps. Laura highlighted that the summaries will be pulled together into a report and circulated to the group to enable finalising before it is presented to Directors. The exact next steps are unknown, but that there would be a way for Directors to report back on their decision and what next steps will be, re recovery plan, resourcing, further issues to resolve etc.

Wrap up session: what was your light bulb moment (summary or spotlight)

Tryphena – used Teams really well. Exciting to have had treaty partners here on the journey. Thank you for bringing us together. Really positive and safe space to have the conversation.

Sheree – Tryphena summed it all up. Isn't it awesome that we're all here? How to keep momentum and keeping iwi on board.

Rose – lovely to see you all.

Rebecca – aha moment – climate change for wild sites. Good to get more of an understanding on the challenges faced by captive sites.

Rachel – reflecting on past meetings where the same issues get discussed over and over, this has been the most positive and things that are a bit more out of the box aren't being laughed out of the room. A feeling that people's views are really being listened to and thanks to Directors for calling this.

Laurence – reflecting that it's not just DOC work its multiple people / stakeholders etc. Experience from leading the kokako recovery group – look at how they shifted from not being just DOC focused to now having partners come to the group. Picking up on the comment of small populations. Is there a potential to create a meta population?

Kate – amazing people in the room and so much expertise. Huge number of cogs but feeling like don't have someone driving it. How do we make it all work together?

Jamie – regarding the comment about being over cautious what about being 'risk diverse' how do we find the balance? They are currently looking for a third site for black robin – might not be DOC-led – more private entities coming in

Irina and Tammy – good to see there's a lot of people agreeing with one another this highlights that we know the species well and what the species needs. Particularly happy that the Director's asked for this. Really excited about it and keen to see it keep going.

Tautoko what Laurence said. A lot of these conversations are the same. Is there a way the leadership of these groups to talk to each other? Some issues not unique to a species.

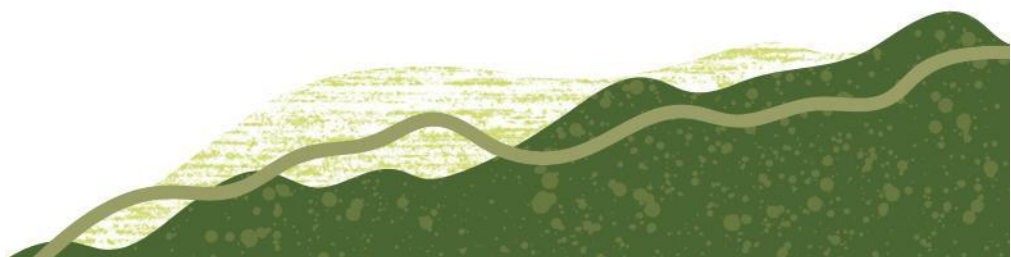
Tautoko Tryphena, iwi, hapu, imi led

Thinking deeply about the whakapapa – love to see better connect between the whakapapa of the birds. E.g. Waikawa birds are not just Waikawa birds they also connect to Rangatira. How to connect the iwi and imi that all have relevance to the sites?

Denise – resourcing, don't think that all of the resourcing could come from DOC. All of the great minds in this room, how can we not do the best for this bird? Getting everyone together like this will drive process. Resilience – maybe 5 wild site populations might not be enough anymore?

Dave – thanks for running the process. In the old days we'd come together in person and argue and then drink together in the evening and solve all the problems.

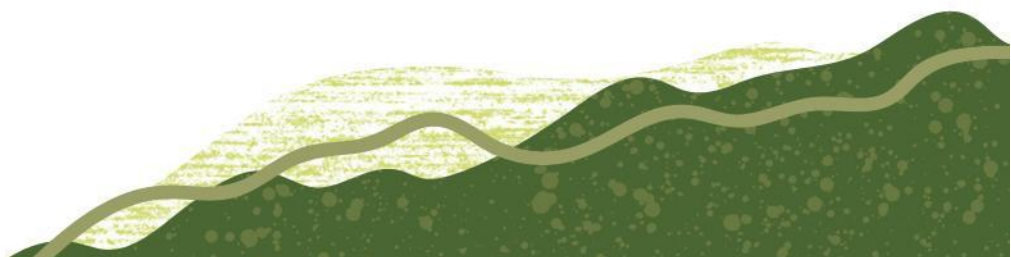
Kat and Raelene – national coordination and funding and accountability, enjoyed the workshops, great learning.



Brett – was cynical about the format but pleasantly surprised. Excited about this undervalued species is getting some attention. Word of warning – very fragile species but also individuals. Please consider that in thinking about being risk averse.

Ash – thanks for pulling together. Tautoko Brett's comments on risk aversion. Good to have the mix of new and experienced.

While Laura didn't verbalise her light bulb moment – it's added here: from experience in the southern marine species (Hoiho, Hector's dolphin and sea lion) keen to explore the multi species concepts to see if that would help. And how to keep the momentum.



Agenda: Tūturuatu workshop 3 – Suggested

Date: 3/11/2022 Facilitator: Sarah Wilson
 Time: 1:00pm-4:00pm Note taker: Laura Boren
 Venue: Online – [Teams Link](#)
 Resources: Summary from Context Workshop, Slides from Shore Plover 101, Site assessment table 2006, Quinnell 2021 MSc
 Purpose: To provide and discuss potential solutions or ways to resolve the critical issues with a view to improving the potential for success in Tūturuatu recovery.

ways forward

1:00	Karakia, Welcome, Introductions Kia kotahi mai ki te ao nei Kia kotahi mai ki te whenua nei Kia kotahi mai ki te wairere nei Kia kotahi mai ki te hau ora Kia kotahi mai ngā lwi katoa Patu ki tahi ngā Manawa e	Be as one with the universe Be as one with the earth Flow as one with the sacred waters Breathe as one with the fresh winds Be as one as the people Let our hearts beat in unison.
1:15	Summary from previous workshops	For those that were unable to attend either of the prior workshops this will provide a brief summary of the context discussed and critical issues raised
1:30	Structure and format for the hui	Structure for today, and meeting protocols using Teams
1:45	First break out session – prep for deep dives	Based on the topics/themes groups break up and discuss the context, critical issues and postulate a range of solutions for further discussion
2:15	Report back	Groups report back on first session
2:40	Break	
2:50	Round table discussion	What would your top priority be for moving forward if funding wasn't an issue
3:20	Next Steps	Group discussion and questions on next steps, and round table of usefulness of the workshops
3:55	Close Kia hora te marina Kia whakapapa pounamu te moana	May the calm be widespread May the sea be as smooth as the surface of pounamu



	Kia tere ai te karohirohi i mua i o koutou huarahi Haumi e Hui e Tāiki e	May the rays of sunshine forever dance along your pathway. Stand together / Be together/ Affirm!
4:00	Solve all the problems over a drink	For those who can and are interested, please stay on the line for a Friday evening happy hour with a beverage of your choice

Set up for Breakout Groups

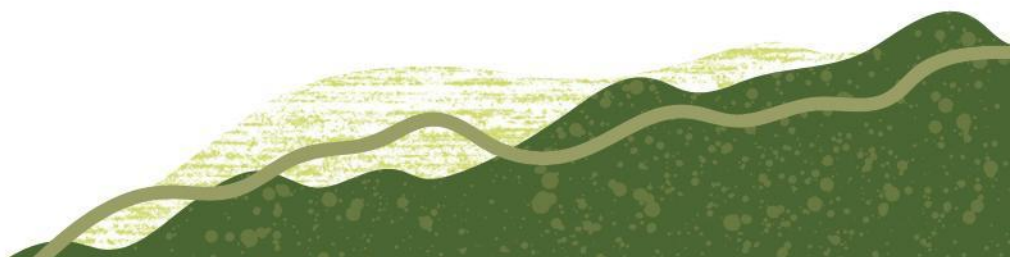
The groups will be divided into the following six themes based on the rough grouping of critical issues raised. There are also two cross cutting themes. We ask everyone to have a look at these themes and in the introductions we will ask you to let us know which group you feel you could most contribute to and then a second choice. This will be used to allocate breakout groups.

Themes:

7. How to assess wild sites for site selection and continuance?
8. How to ensure captive facilities have the appropriate capacity and support? Include consideration of alternatives to bolster (e.g. in situ, or use of other facilities like Zoos)
9. How to ensure national coordination, accountability, and strategy
10. How to ensure funding is sustainable and adequate
11. How to ensure we balance risk aversion with the vulnerability of the species to give tūturuatu the best chance of recovery?
12. How to ensure research on genetics and disease informs recovery and resiliency?

Cross cutting themes

3. How to enable mana whenua leadership, connections between sites (whakapapa of the birds), and successfully weave Mātauranga through the recovery plan
4. How to ensure the consequences of climate change are understood and taken into consideration in recovery actions to ensure resilience.



Tūturuatu Workshop 3: ways

forward 4-Nov-2022

Attendance:

Name	Role	Affiliation
Laura Boren	Science Advisor Aquatic	Department of Conservation
Sarah Wilson	Facilitator	
Brian McDonald	Media and Comms Advisor	Department of Conservation
Kat Smith	Conservation Team Leader	Pukaha National Wildlife Centre
Raelene Berry	Senior Conservation Ranger	Pukaha National Wildlife Centre
Sheree Smith	Acting Ops Manager/Supervisor Bio/Rec East Coast	Department of Conservation
Rebecca Lander	Bio Senior Ranger, East Coast	Department of Conservation
Ian Angus	Director Terrestrial Science	Department of Conservation
Troy Makan	Technical Advisor	Department of Conservation
Jamie Cooper	Biodiversity/Biosecurity Ranger Chatham's	Department of Conservation
Kate McInnes	Veterinary Science Advice	Department of Conservation
Clement Lagrue	Science Advisor, Ecosystems	Department of Conservation
Dave Houston	Technical Advisor	Department of Conservation
Rachel Ward	General Manager	Cape Sanctuary
Tryphena Cracknell	Ops Manager, Hawkes Bay	Department of Conservation
Ilina Cubrinovska	PhD candidate	University of Canterbury
Ash Murphy	Science Manager Terrestrial	Department of Conservation
Kathy Houkamau	Ops Manager, Wairarapa	Department of Conservation
Rose Collen	Captive Facilities coordinator	Department of Conservation



Department of
Conservation
Te Papa Atawhai

Denise Fastier	Senior Ranger Bio, Hawkes Bay	Department of Conservation
Tammy Steeves	Associate Professor	University of Canterbury
Jenna Hobbard	Supervisor Chatham Islands	Department of Conservation
Cassidy Solomon	Imi Ranger Chatham Islands	Department of Conservation

Karakia/Welcomes/Introductions

Laura opened with a karakia and provided a summary of the previous sessions. Sarah welcomed everyone to the workshop setting the guideline for introductions asking everyone to provide their name, affiliation and their first and second choice themes are. These were recorded in a table to be able to assign breakout groups later. As there were few people who picked the funding theme, this was combined with the National theme as they were viewed as a close fit.

Group round ups:

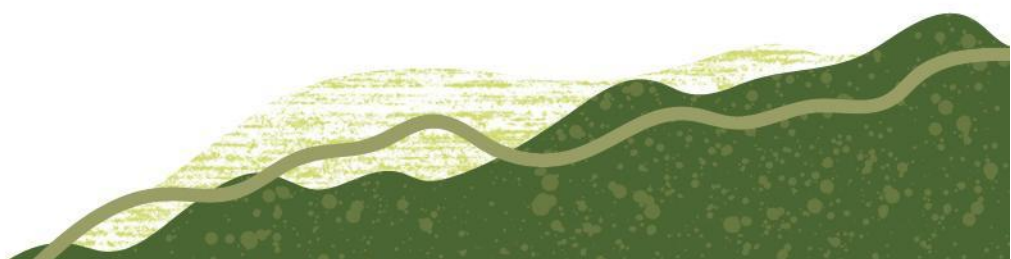
1) Wild sites

Jamie / Dave / Denise / Jenna and Cass

- Key things needed are good safety, food, ongoing management.
- Knowing and assessing an actual site this work has largely been done via Quinnell, Dowding.
- Need to consider Climate change, disease risk, e.g. avian malaria etc, storms
- There are differing relationships with iwi at each site, for example at Motutapu there was some separation between iwi and site managers but this has closed up over time. Need to continue closing that gap, have good conversations from the start for any new wild sites.
- Noting that where eggs go, and issues with captive losses impacts iwi and imi relationships on the Chatham Islands.
- Are there other sites on the Chatham's to explore, e.g. there is a pair on Pitt – how to treat that? Not an official site but links into the concept of the meta population or meta wild site across a series of islands within a region.
- Christine – there has been a lot of assessment of sites done, but it hasn't been transparently displayed. Clear criteria, clear selection process.
- This focus was on site assessment but not so much site selection. While there is a lot known and the groundwork has been laid for the assessment how does this translate into site selection for getting future sites on the table? Site visits and early conversations with iwi.
- Ash mentioned there is a site selection ranking matrix and criteria used for orange-fronted parakeets, which is used to inform wild site decisions. This could be modified for shore plover.

2) Captive sites

Christine/Kat/Raelene/Kathy/Sarah/Illina



- Timing of release of birds to go from aviaries to release site. The operations side is often out of sync with the captive timing. Could adjust to reduce risk of disease on birds. This might also address any issues with the number of birds. Getting birds onto sites sooner rather than later.
- Potential solution – streamlined process to sync the process between captive to release
- There is an issue of funding, ongoing capital costs of maintaining aviaries
- Potential solution – DOC providing help / facilitation to broker relationships with philanthropists etc
- Importance / issue of having just three facilities (also staff capacity) – need to spread the risk wider in the face of climate change and disease etc.
- Involvement of mana whenua, integration into the captive process – iwi involvement is variable across the captive facilities
- A feeling that DOC under rated their value and very focused on wild sites – but acknowledge that wild sites can be very risky.
- Importance of captive pops as insurance policy (especially if they went extinct in the wild) ensuring they are our insurance policy.

3) National strategy and funding

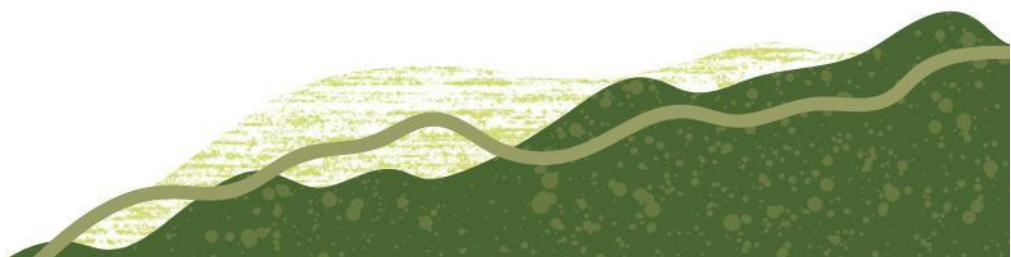
Ash -/ Brian/ Troy / Tryphena

- The underlying requirement a national strategy is confirmed Accountability. For shore plover, Jack (LNI Ops Director) has single point accountability (SPA), this differs from other RG that have governance groups.
- There is an existing directors group but is not formalised and does not necessarily function in the way a governance group would, e.g. including external partners, treaty partners.
- We have a strategy but not a current recovery plan finalised (it's in draft form). It needs to be resourced adequately to finalise it having mana whenua involvement.
- Need actions of a GG flow to the RG which also flows to everyone else.
- There are other models – Kakapo or Takahe, and Orange frontier Parakeet that we could look at and borrow from. (Also other species programme examples, Hoiho, etc.)
- Potential to consider/try multi species approaches – this is in relation to some partners having a difficult time engaging in so many different groups, that to treat some species together that have common issues, might provide for a more streamlined process.
- Adaptive management framework?
- National coordination team?
- Across recovery groups there used to have a RG leader forum. Fallen over lately and hasn't been replaced. It would be good to get that going again.

4) Risk aversion

Laura / Rachel / Clement / Rose

- The question was raised: How are we risk averse and where is it coming from so Rachel provided some context.
- Within DOC in general there is risk aversion – e.g. permits etc, there is a culture of it, it comes from a good place.
- History with failed islands, then there was the 2006 assessment of potential sites, but not really heard any solutions. 99% to do with funding and resourcing but a small proportion of inaction could be due to risk associated with the vulnerability of the birds.



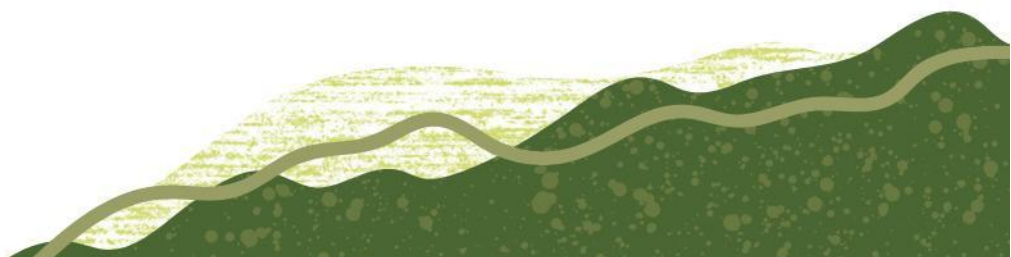
- In light of the lack of funding and little to no solutions, captive facilities are asked to halt breeding because we don't have enough islands for the birds to go to, because of the genetics, or there's a stoat incursion. Which is a waste of time, resources and the birds.
- Belief that the issue of stoat incursion on a release site and the over-representation of genetics on Waikawa have happened and were resolved so unlikely to happen again and if they do, we know what to do.
- A solution to prevent such a thing happening again would be getting the next release site further progressed. Raratoka is a good candidate but needs a lot of ground work, especially to reach 5 sites by 2030.
- Solution could be response or contingency plan for various scenarios.
- Clement – understanding the impact of an invasion that wipes everything out. Makes people risk averse. One freak event can damage what was a successful translocation. Learnings from the freak event should lead to contingency planning. The example Clement used led to an on-site aviary to deal with contingency, might be able to breed some on the island. Ability to have on site facilities – might guide what sites you pick.
- Based on the current number of birds you have – breeding what you can is way to go, need sites to go to.
- There should be a general response for shore plover wherever they are, e.g. an incursion response – even if it is district led. We have the Chalky example going on at the moment, with a stoat – look at species on the island – what are their contingency plans for those species and implement them.
- Standard operating procedures – example marine mammal response. Doesn't have to be exact, doesn't have to capture all variation, but needs to give general guidance on what next. Better to be proactive than reactive. We may already know what the actions are, but if they aren't clearly laid out for all working in the Tūturuatu space it makes it harder to act swiftly.
- Rachel – you had a quote you read out – can you please send that through.
- Solutions to explore - process to establish next release sites. Make a plan for the coming years and initiating next sites to have a back-up. Response to incursions pre-planned / SOPs.

5) Research / resilience

Tammy / Kate/ Rebecca and Sheree

- This group spent a lot of time on context so didn't really get to solutions
- Within research there is a need to create the space to share the context
- We have excellent work going and relationships in the research space
- Keen to see evidence-based research
- Barriers – not about people but actually about \$
- What it takes to contribute. The role Brett plays was used as an example – a lot of time and expertise is often provided in kind.
- People see how DOC is being constrained so we need to look for opportunities to integrate
- Resilience of the species is a big issue. We know, we care, we just need to be able to resource.
- Limitations on people with the right skills to do the work / banding, blood collection, succession planning.

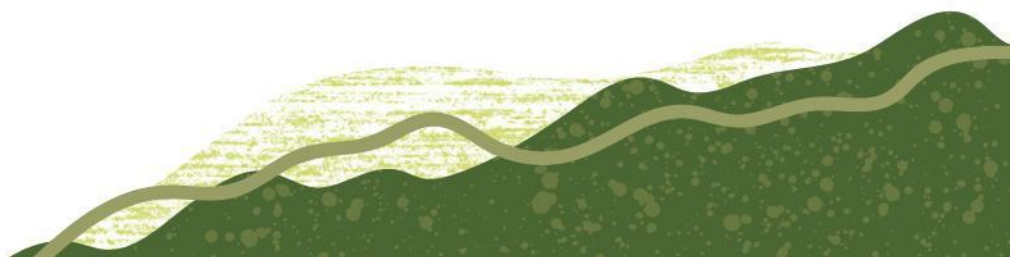
Break the group broke up for 15 minutes. Upon return some questions/concerns were raised about the process from here.



- Troy – concern about where to next, what will the end result of the workshops be?
- Rose – what to do about Motutapu – what to do to make it work, a belief that it can work if resourced adequately
- Unlikely to achieve the goal of today's workshop today, a follow up workshop to refine would be useful, with some additional rules of engagement.
- Purpose of a follow up would be: clearly articulate what the issues are, what is missing, and prioritised

Round up of the room:

- 1) What would be your top priority for moving forward action to take if funding wasn't an issue?
 - Tryphena – if we had national coordination – a GG, accountability and strong strategy, mana whenua leadership and cross cutting theme – resources to facilitate our treaty partners to be able to engage
 - Troy – adequately fund the current programme to see if it works.
 - Tammy – tautoko Tryphena – having a governance group – critical.
 - Rose – agree with the three T's, underpins our problems. Spend the money that we have. It's enough to get going with Motutapu for the year.
 - Rachel – agree with all the previous points. Adding flesh – GG 100%, hapu to hapu-led. Being proactive – looking at site selection
 - Laura – Finalising the current recovery plan but in doing so have a short- and long-term plan, e.g. the current approach is more the short term, but we have some longer term actions including selecting and kicking off new sites that need some process around them.
 - Kathy – agree with everything said thus far. Question that needs resolving soon – captive facilities need support. Decision to make about what we're going to do about that
 - Kat – GG and need aviary that is safe for our birds
 - Raelene – agree with everything that's been said
 - Christine – great exercise – replacement of the aviary, 5 pairs not producing (2 years delay)
 - Kate – Tryphena said it all, but also agree with Rose – get our current stuff running really well, national governance to get it humming
 - Jamie/Jenna/Cass – Rank/rate all our potential release sites including consideration of Landowner limitations and financial limitations. Have a stepwise process for establishing new sites.
 - Ilina – agree with Tryphena, highlight each site and each site unique, importance of each site, iwi and imi relations
 - Sheree – upskilling people in the right roles – improve capacity
 - Rebecca – tangata whenua are involved in the project – GG
 - Denise – agree with others, higher profile, relationships and engagements, comms plan. This is one of the rarest waders in the world
 - Dave – echo all the comments been made, GG, fund the current programme. Our limiting factor, next area future sites. We've been resource limited in exploring additional sites.
 - Clement – look at the biological suitability of two sites. Look into the landowners and resource it well
 - Ash – Governance – secure funding for the existing work. Reprioritising for immediate work potentially
 - Ian –co-governance – how do we drive species programmes? In principle very supportive – is it the best way forward to do single species or multi species. How do we do that model effectively. Is there a way to do it more efficiently.



Context refresh from Ian

What we wanted from these workshops: to test, ensure that we all understand the issue, and see if there are better ways of doing the work, or new ways. What's a milestone that we want to set that is realistic. Line of site – aspirational, but then have a practical milestone. A lot of people understand the issue, but we have struggled to get traction. How do we build upon that? Where do we want to be in 5 years so we can move this on. How do we tell the story to have impact.

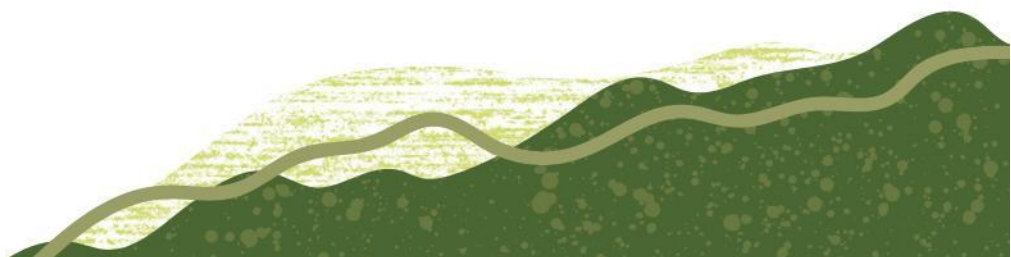
Tammy – Epic opportunity to learn from other species. Kakariki programme was cash strapped then suddenly got money and took a while to get going, let's plan now so can hit the ground running. Regarding single vs multi species – due to complexity – would advocate for single species and the opportunity to lead from the front. Hapu to hapu engagement.

Ian – We are learning all the time. How do we do these programmes better. Need a pragmatic action plan to take forward and finalise the strategy.

Sarah reminded us of where we came from. Thanks for the opportunity to test and talk things through. When it comes to solutions it really gets hard and we often need more time on the solutions. We're learning as we go on this process.

A final Rapid fire round up before closing - Has this been useful?

- Ash – yes – but last session was difficult – be brainstorming and have another session
- Christine – yes, 1 pager, strategy, actions, milestones
- Clement – useful. Yes, hope I have been useful. Not be too focused on single species. Need to learn from each other and not be too siloed.
- Dave – been great to share context and issues. Not sure we have cracked the nut. Prioritise and go forward
- Denise – the most useful thing is that everyone has been here and had an opportunity to contribute. Because of the three – driving thought and progress.
- Sheree – hugely helpful.
- Becky – helpful, investment of time.
- Ilina – useful, good to see everyone and agreement
- Jamie – allowed us to get out of our bubbles and talking to each other
- Kate – taking people out of their normal thinking
- Kat and Raelene – found useful hearing the wider views gave better appreciation
- Kathy – very useful. Massive amount of time investment. Big ups to Sarah cause we are all still here.
- Rachel – useful. Cautiously optimistic that the momentum will keep going. Looking forward to the one pager
- Rose – useful – especially the last hour or so. Agree with Christine. Skirted around some issues. Funding, and practical way forward, we need to catch up to the birds, need to reinstall them. This has helped bring us all back together. Lucky to have had you Sarah
- Tammy – thinking about single species vs multi – national connect vs at place. We need treaty partners. Black robin example. Cautiously optimistic. Learn from one another. Can't railroad local context
- Troy – been great to get this group of people together. A lot of work to do. Not sure we landed the purpose.



- Tryphena – really useful. I agree with Catherine. Good to have everyone, cool group. Thanks for strong facilitation. Tight time frame within the week. Need more sessions. One or two more would do it.
- Ian – how hard species recovery work is. Worked on some issues where people don't care, this is different. Glad we have these processes. Hopefully do more of these sessions going forward. Proud to work with some great people in the Department. Moment to refresh and reflect. Feel better off now than a week ago.
- Laura - was always going to be a push and suspected more time was needed. We made some good distance and next steps will be so assess what more effort will be needed to wrap up the draft recovery plan.

Closing remarks from Sarah and Laura closed with a Karakia.

