End User Workshop Report

Project Hotspot Phase 1 - August 2016

Using citizen science to better protect coastal threatened species in Taranaki

Contents

Purpose

On Friday 26 August 2016 the Project Hotspot team ran a workshop to provide an opportunity for 'end users' (decision makers, conservation groups, government authorities, scientists, educators and industry) to find out more about the Project. It is hoped that following the workshop everyone will be able to use the findings and recommendations resulting from the project to better protect coastal threatened species in Taranaki.

Task

At the workshop attendees were asked to complete the following task:

On the post-it notes provided write down your **name, job title/role** and **how you can use the Project Hotspot results** to help **better protect coastal threatened species** in Taranaki.

Ideally this might be an action specifically associated with your role. For ideas on how the findings might be relevant to you check the **'what can the results be used for'** sections under each species heading.

Agenda

1. **About Project Hotspot and the relevance for 'end-users':** Dr Emily Roberts (approximately 30 minutes presentation plus discussion)
2. **Action Project presentations:** Oakura School (four groups approximately 5 minutes per presentation plus discussion)
3. **Workshop task:** How can I use the Project Hotspot results? (approximately 15 minutes, including short break)
4. **Action Project presentations:** Highlands Intermediate (three groups approximately 5 minutes per presentation plus discussion)
5. **Afternoon tea** at 15:00

Post-it Note Actions from the Workshop

Topic	Name	Job/Role	How can you use the Project Hotspot results to better protect coastal threatened species?
Litter	Allen Stancliff	Field Officer, Fish & Game	I have carried out research to identify the most likely sources of plastic shotgun wads to the Taranaki marine environment. I will raise the issue with hunting clubs, provide praise to those using biodegradable fibre wads where this is an option and discuss further measures that can be implemented to reduce the supply of plastic wads to the coast.
	Mimié van der Merwe	Enforcement Coordinator, New Plymouth District Council	Have already started discussing with Emily the possibility of changing parking meter invoice tickets to biodegradable paper instead of plastic type paper.
	Nadine Ord	Waste Minimisation Officer, Taranaki Regional Council	Include data on marine litter in waste plans and for projects such as illegal dumping and farm waste. Invite group to speak to the Solid Waste Management Committee.
	Helen Meintjes	Science Manager – Business Support, Taranaki Regional Council	Ensure that some of the ideas and recommendations that have come out of this project are brought to the attention of the Taranaki Solid Waste Management Committee.
	Amanda & Stefan Kiss	Parent Support, Oakura School	Continue to be litter free on our coastlines. Encourage our children to respect nature. Respect sand dunes.
	Halema Jamieson	Ecologist, Taranaki Regional Council	Highlight areas for beach clean-ups and community awareness e.g. dogs, cats etc.
Dog Control	Wayne Beggs	Ranger – Marine, Department of Conservation	More signage at the beach to inform people of the species present and what they can do to protect them e.g. keep dogs on a lead.
	Karl Osten	Animal Control Coordinator, New Plymouth District Council	To identify areas where penguins are breeding and when. This data would help my team to get the message out to the dog owners on the importance of keeping their dogs controlled and secured at all times.
Biodiversity & Community Projects	Halema Jamieson	Ecologist, Taranaki Regional Council	Data will highlight areas to promote and target habitat protection and predator control e.g. through Key Native Ecosystem establishment and community projects.
	Jane Bowden Dobson	Partnership Ranger, Department of Conservation	Show Taranaki Mounga Project partners (Iwi, NEXT, DOC) the power of Project Hotspot and citizen science in general.
	Leigh Honnor	Regional Biodiversity Coordinator, Wild for Taranaki	Can be used to motivate/engage people to take action in their communities/neighbourhoods to protect biodiversity i.e. dog control, setting traps. Tailor management required in an area i.e. predator control, when landscape-scale biodiversity restoration is undertaken. Baseline data to measure any changes as a result of management.
	Martha Dravitzki	Landscape Architect, New Plymouth District Council	To host community initiatives to create habitat/maintain the environment.
Industry	Bridget Harrison	Environmental Manager, Port Taranaki Limited	Identify important habitats around Port Taranaki so we can protect them in our operations and engineering projects.
Oil Spill Response	Bruce Colgan	Senior Environmental Advisor, Shell Todd Oil Services Limited	As a member of the Maritime New Zealand National Response Team for Oil Spill Response, having local knowledge and insight into where these threatened species are located is vital information for planning and protection in the event of a spill response
	Flo Blyde	Oil Spill Response, Taranaki Regional Council	Will be able to use the information from the GIS map layers to assist wildlife response teams identifying areas where threatened species are prevalent.
	Eve Kawana-Brown	Buisiness Development Manager, Massey University	Connect Wildbase at Massey to the Project Hotspot data collection/display tools, as they are keen to connect with Taranaki on oiled wildlife response initiatives.
Scientific Research	Mariana Horigome	Project Oceanographer, MetOcean	We can combine the findings of Project Hotspot with our environmental/oceanography data, providing complete/cross area solutions to the industry and community.
	Hannah Hendriks	Manage Marine Mammal Database, Department of Conservation	Populate the national marine mammal database. Provide data to NIWA for cetacean habitat modelling.
	George Mason	Philanthropy – Funding Tertiary Education Research, George Mason Charitable Trust	Taranaki based projects: a) What are the priority topics? b) What tertiary education institutes are specialists in that field?
Policy & Planning	Martha Dravitzki	Landscape Architect, New Plymouth District Council	Useful to refer to examples when considering the value of the environment and appropriate policy to protect the environment. To consider the importance of habitat maintenance of council reserves to protect the habitat. To raise awareness of long term effects of activities. To create access to the coast to increase the opportunity to experience the environment.
	Halema Jamieson	Ecologist, Taranaki Regional Council	For informed decisions regarding regional and district planning.
	Hannah Hendriks	Manage Marine Mammal Database, Department of Conservation	Provide data to marine reserve decision makers on what marine mammals occur in these areas.
Consents (Applications, Regulation & Submissions)	Halema Jamieson	Ecologist, Taranaki Regional Council	Use contemporary distribution and abundance data to provide informed advice to communities and consent applicants on the potential impacts of proposed development etc. and the best way to avoid adverse effects to threatened coastal species in the process.
	Bruce Colgan	Senior Environmental Advisor, Shell Todd Oil Services Limited	Can provide useful input into preparations of Assessments of Environmental Effects or Environmental Impact Assessments, particularly in identifying locations of threatened species, and understanding areas and environmental resources that may be at risk in the event of an unforeseen incident.
	Ellen Squire	Consents Officer, Taranaki Regional Council	Can use the data to help consent officers construct appropriate coastal consent conditions.
	Nicolette West	Policy Analyst, Taranaki Regional Council	Use sightings information in submissions on consent applications within the EEZ.
	Anne Scott	Ngā Motu Marine Reserve Society	Use data etc. to further the Society's work to educate and protect the Taranaki coastal marine environment e.g. submissions.
	Anna Johnston	Consents Officer, Taranaki Regional Council	Can use the information to develop appropriate consent conditions for specific locations around the coast.
	Barbara Hammonds	Ngā Motu Marine Reserve Society	Information on species for use in better protecting them through submitting to local, regional and central government on coastal development proposals.
Education & Training	Hannah Hendriks	Manage Marine Mammal Database, Department of Conservation	Improve awareness about marine mammals and how to behave around them.
	Anne Scott	Ngā Motu Marine Reserve Society	Support the Experiencing Marine Reserves programme to use the Project Hotspot website for Taranaki School Projects. Raising awareness of threatened species amongst groups and councils that the Society works with.
	Chania Hattle	Environmental Consultant, 2C Consulting NZ	Ensuring training of clients includes consideration of environmental awareness, locally and nationally.
	Bruce Colgan	Senior Environmental Advisor, Shell Todd Oil Services Limited	Internal education – we have a large number of staff and contractors who are also members of the community. Raising awareness internally at work of initiatives such as Project Hotspot, not only allows us to become involved (through workplace groups), but promotes wider community awareness and involvement via interactions outside of the workplace.
	Lucy Graydon	Project Director, Venture Taranaki	Let people know about Project Hotspot, how to get involved and what the findings are. Look for opportunities to continue to support amazing community projects like Project Hotspot.
	Vic Metcalf	National Coordinator, Participatory Science Platform	Share your stories and results internally within agencies and externally so policy makers and other communities know what they can do to make a difference.

About

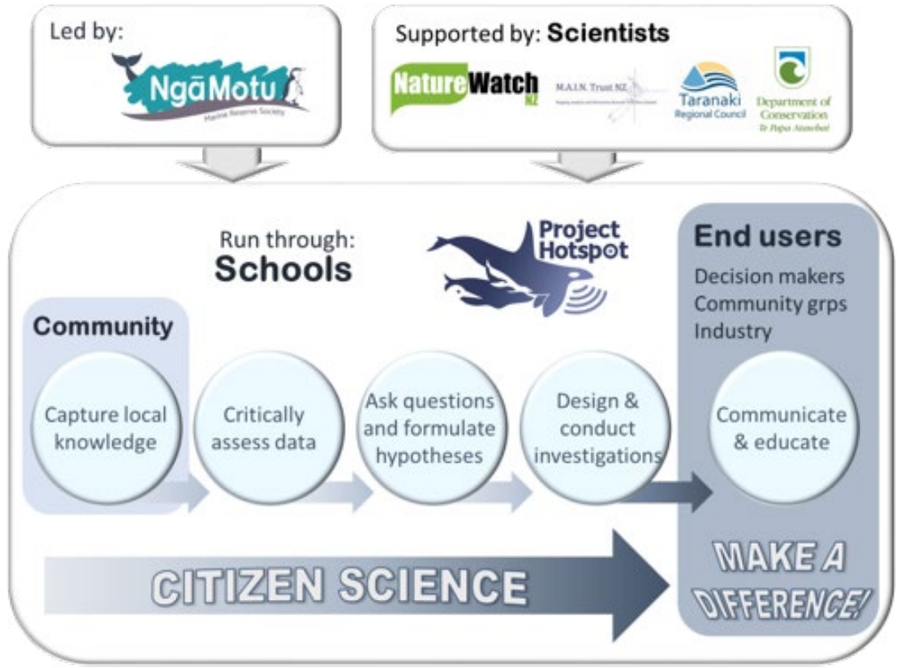
Project Hotspot is a Taranaki-based citizen science project driven by the Ngā Motu Marine Reserve Society and funded by the Curious Minds initiative. The project runs through schools and is supported by scientists and community groups.

Our Aim

To capture local knowledge on four coastal threatened species in Taranaki (orca/kera wēra, reef heron/matuku moana, little blue penguin/kororā and New Zealand fur seal/kekeno) and use this information to better protect these species and their habitats.

The Issue

The Taranaki coast provides valuable habitat for a number of threatened seabirds and marine mammals. In order to protect these vulnerable species from potential threats, including loss of habitat and pollution, it is important to know where they occur and when. Valuable information can be gained from locals who visit the coast on a regular basis. Unfortunately this community-sourced information has often been poorly documented in the past.



The Policy

In relation to indigenous biodiversity, Policy 11 of the New Zealand Coastal Policy Statement 2010 states:

To protect indigenous biological diversity in the coastal environment:

a) Avoid adverse effects of activities on:

i) Indigenous taxa that are listed as threatened or at risk in the New Zealand Threat Classification System lists;

ii) Taxa that are listed by the International Union for Conservation of Nature and Natural Resources as threatened;

For this policy to work reliable records of where ‘threatened’ and ‘at risk’ species occur and when are required. Through Project Hotspot we have been able to build more accurate mapped information on the abundance and distributions of the four selected species. These data are freely available to everybody through the Project Hotspot website. It is hoped that the use of this information will lead to more informed decisions on how our coastal environment is managed.

Orca, Kera Wēra

NZ Threat Classification: **Nationally critical**

NZ Population: **Less than 200**

Main Threats: **Boat strikes and pollution (including noise)**

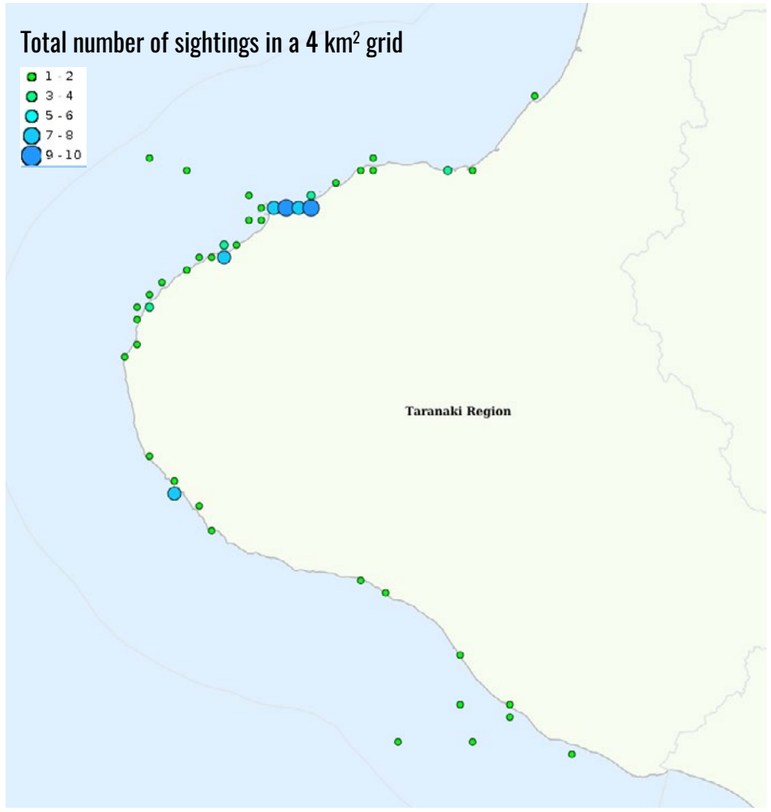
Sightings

The Project Hotspot team have worked with the Department of Conservation (DOC) to ensure that all orca sightings recorded to date in Taranaki coastal waters can be viewed on one map.

As part of the project we have recorded both recent and historic sightings. Through Project Hotspot we have recorded 74 sightings and have obtained a further 40 sightings from the national DOC database. **In total** there have been **114 orca sightings** reported to Project Hotspot and/or DOC in Taranaki to date, with the majority of sightings being made since 2014.

Since the **beginning of November 2015** (i.e. the start of the project) there have been **67 orca sightings** reported on **23 different days** in Taranaki coastal waters.

The mapped sighting results, including an interactive map showing orca behaviour, are available on the Project Hotspot website. For more information about how the sightings are recorded (including quality control) and how to use the interactive maps on the website please refer to the **'How To'** section.



What can the results be used for?

- To raise awareness of the potential presence of orca amongst those who operate vessels (boats, ships, yachts, jet skis) in Taranaki coastal waters.
- To raise awareness of the importance of the rules around marine mammals: http://www.doc.govt.nz/nature/native-animals/marine-mammals/sharing-our-coasts-with-marine-mammals/
- For inclusion in Assessment of Environmental Effects (AEE) and/or submissions relating to proposed offshore and inshore activities.
- To inform marine spatial planning i.e. marine protected areas.
- To help assess the NZ Threat Classification status for orca.
- To gain a better scientific understanding of the movements of orca around the New Zealand coastline.
- For school projects.

Individual orca can often be distinguished by unique features on their dorsal fin.

Photo Credit: Chaddy

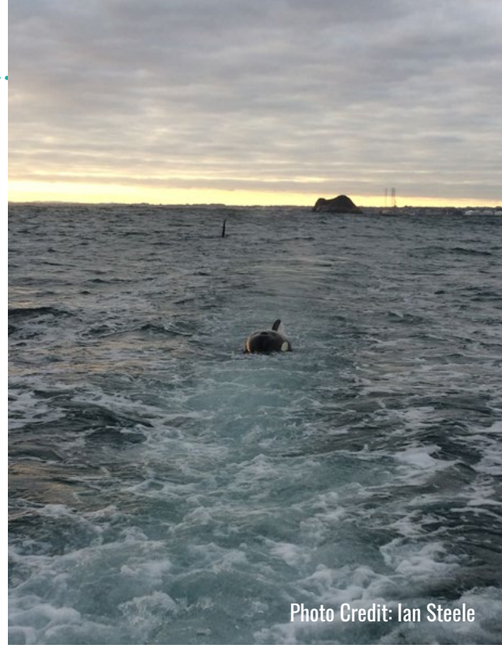


Photo Credit: Ian Steele

Other Taranaki Orca

Photo Credit: Domi Z

Flexi-fin

This male orca gets around! Using the distinctive flexi-looking shape in this dude's dorsal fin we have been able to identify him on a number of different occasions.

Above anti-clockwise from top: Flexi-fin is spotted around the Sugar-Loaf Islands by Ian Steele on 15 August 2015; once again he is sighted by Jasmine Newsome in Port Taranaki on 8 February 2016; amazingly Flexi-fin is then seen by Andrew Wright in the Manukau Harbour on 12 February 2016 (just four days after being spotted in New Plymouth!!)

Photo Credit: Domi Z

Photo Credit: Chaddy

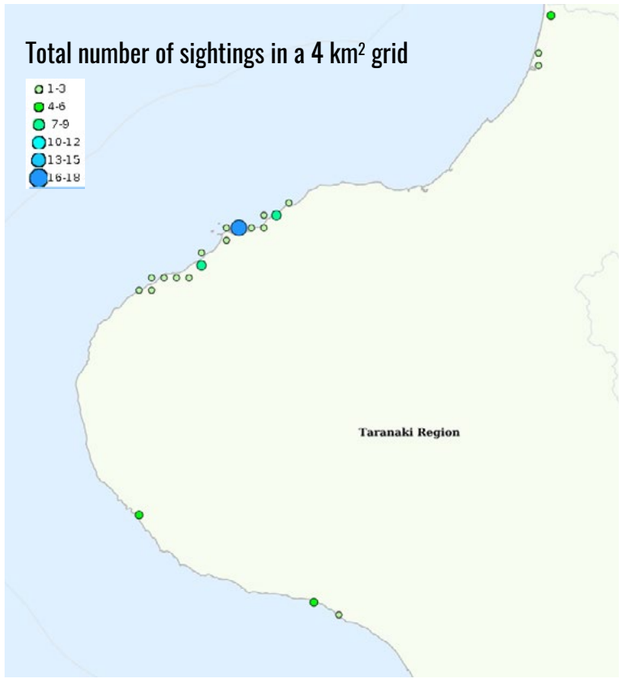
Reef Heron, Matuku Moana

NZ Threat Classification: **Nationally endangered**
NZ Population: **Only 300 to 500 birds**
Main Threats: **Coastal development and disturbance by people/dogs**

Sightings

As part of Project Hotspot 69 reef heron sightings have been reported around the Taranaki coastline to date. The majority of sightings have been reported from North Taranaki at boulder reefs, estuaries and/or river mouths.

As the project continues to develop we will attempt to establish whether there are fewer reef herons in South Taranaki or whether there are less sightings due to fewer people to report sightings and coastline which is less accessible.



Leg Tattoos

The Project Hotspot team has discovered that individual reef herons can be identified by their distinctive leg markings. As a result, nine different reef herons have been identified in Taranaki to date and we have been able to track their movements around the Taranaki coastline.

What can the results be used for?

- For inclusion in AEE and/or submissions relating to proposed activities in reef heron habitat (intertidal reefs, estuaries, river/stream mouths, nesting areas).
- For inclusion in oil spill response plans.
- To help assess the NZ Threat Classification status for reef heron.
- As baseline information for further scientific research on reef herons.
- For school projects.

Kelpie

Kelpie is a young Reef Heron named by students from Oakura school.

Jagger

Jagger was first spotted at the Waiwhakaiho River mouth but has since been seen as far south as Ohawe!

Photo Credit: Karen Pratt

Alfred

This grumpy looking Reef Heron was named by students at Oakura school. Alfred likes to hang out down at the Waiwhakaiho River mouth.

Smart

Smart was named after Hotspot Hero Sharyn Smart and has been spotted multiple times near Okato.

Tidy

Spotted multiple times at Tapuae, Tidy was named after Hotspot Hero Francois Husillos (High Tide Cafe)

Little Blue Penguin, Kororā

NZ Threat Classification: **At risk, declining**

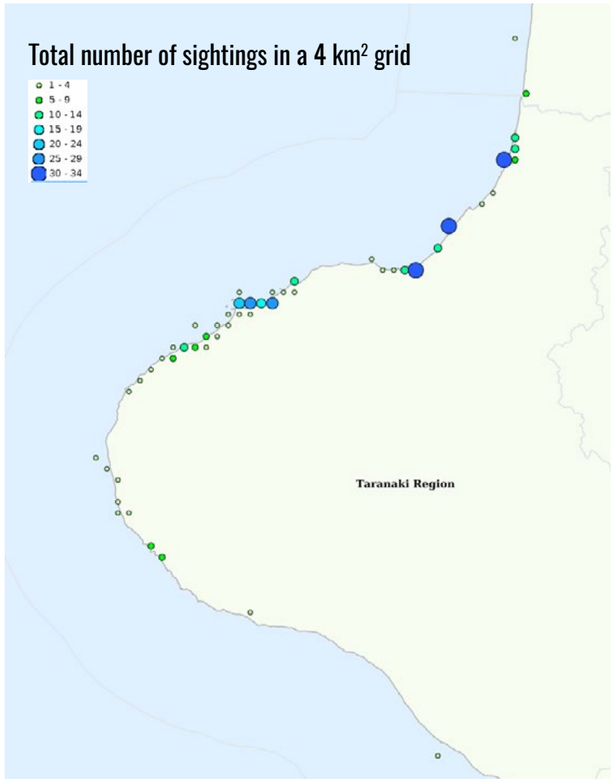
NZ Population: **50,000 to 100,000 birds**

Main Threats: **Predators (dogs, cats, stoats) and coastal development and marine litter (entanglement and ingestion)**

Sightings

As part of Project Hotspot and previous investigations by the Ngā Motu Marine Reserve Society **187 little blue penguin sightings** have been reported around the Taranaki coastline to date. These reports include sightings of live birds, dead birds and footprints. The majority of sightings have been reported from sheltered North Taranaki sites, where suitable habitat is available. Penguins at these sites are often at risk from coastal development and attack by predators (dogs, cats and stoats).

There are fewer recorded penguin sightings in South Taranaki which is likely due to a combination of scarcity of suitable nesting habitat, less people to report sightings and coastline which is less accessible to humans. Interestingly research by scientists at Te Papa has shown that little blue penguins nesting on Motuara Island, Marlborough travel to waters off South Taranaki to feed (approximately 170 km). Fishermen have also reported little blue penguins feeding in coastal waters off South Taranaki. This is clearly an area of further investigation for the Project Hotspot team.



Live Webcam

Local groups have long held concerns for the loss of habitat impacting on penguin roosting and nesting sites. Starting in the 1990s they installed artificial burrows in several places. The earliest artificial burrows were constructed of concrete, and more recently, projects used the wooden box design. By installing dataloggers with a wireless transmission, data on temperature and penguin movement was collected and analysed. It was discovered that the burrow design had a significant effect on the daily temperature range experienced inside the burrow, and this appeared to put penguins off using the wooden models. Concrete burrows were preferred. Some burrows in the Port area have been modified to make them more natural and thermally stable, and now with a surveillance camera system inside one burrow, a better understanding of the behaviour patterns of the resident penguins is obtained. Videos and images show the number of penguins and their activities, and it means that assumptions made using remote monitoring (dataloggers) will be more accurate.

Click on this link to see information and videos on the surveillance of little blue penguins that live in the port.

What can the results be used for?

- For inclusion in AEE and/or submissions relating to proposed activities in penguin habitat (offshore and nearshore feeding areas, inland coastal environments with suitable shelter).
- For inclusion in oil spill response plans.
- To help assess the NZ Threat Classification status for little blue penguin.
- To help inform how best to protect penguins in Taranaki, providing guidance on where best to focus predator control to improve the health of existing colonies.
- As baseline information for further scientific research on little blue penguins.
- For school projects.

Photo Credit: Sharyn Smart

Photo Credit: Sharyn Smart

Photo Credit: Sharyn Smart

Penguin or Gull?

Sometimes it can be tricky to distinguish penguin footrpints from those of other birds but in general little blue penguins: leave footprints heading in a direct line between sea and shore; have a distinctive waddle-like gait which show up in the footprint pattern like that pictured below.

Little blue penguin are out at sea feeding during the day so most daytime observations are of their footprints!

This penguin was initially found injured at the port 6 Jan, nursed back to health at Wildbase Hospital, and rereleased fighting fit on 12 March.

Photo Credit: Sharyn Smart

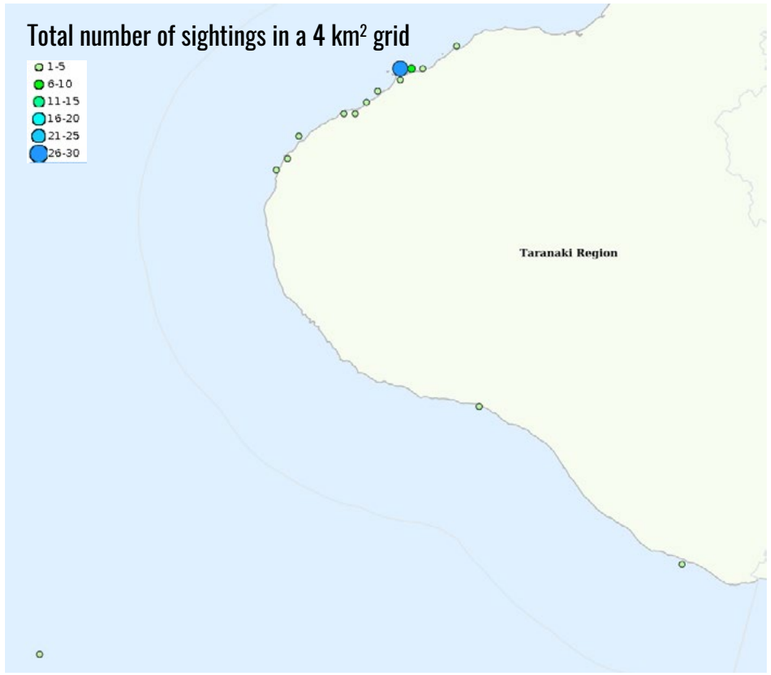
New Zealand Fur Seal, Kekeno

NZ Threat Classification: Not threatened (regionally distinctive)
NZ Population: Approximately 100,000
Main Threats: Human activities including entanglement

Sightings

New Zealand fur seal numbers are thought to be increasing nationally. However, prior to the start of Project Hotspot, local data was scarce.

As part of Project Hotspot **56 New Zealand fur seal sightings** have been reported around the Taranaki coastline to date. The majority of sightings have been reported from around the New Plymouth area due to the close proximity to the Ngā Motu/Sugarloaf Islands where there is an important breeding colony and haul out areas.



What can the results be used for?

- To raise awareness of the potential presence of seals amongst those who operate vessels (boats, ships, yachts, jet skis) in Taranaki coastal waters.
- To raise awareness of the importance of the rules around marine mammals: http://www.doc.govt.nz/nature/native-animals/marine-mammals/sharing-our-coasts-with-marine-mammals/
- For inclusion in AEE and/or submissions relating to proposed offshore and inshore activities.
- • To inform marine spatial planning i.e. marine protected areas
- As baseline information for further scientific research on New Zealand fur seals.
- For school projects.

Other Threatened Species

The Taranaki coastline provides valuable habitat for a number of other threatened species. The Project Hotspot team have been photographing and reporting sightings of these species on NatureWatch NZ. For more information about threatened species found around the Taranaki coastline, including their threat status, check the Other Threatened Species page on the Project Hotspot website.

Species

White Heron

NZ Dotterel

Caspian Tern

Banded Dotterel

Pied Shag

Red Billed Gull

White Fronted Tern

Pied Stilt

NZ Pipit

Variable Oystercatcher

Royal Spoonbill

Black Shag

Little Black Shag

At Risk:

- Declining
- Recovering
- Naturally Uncommon

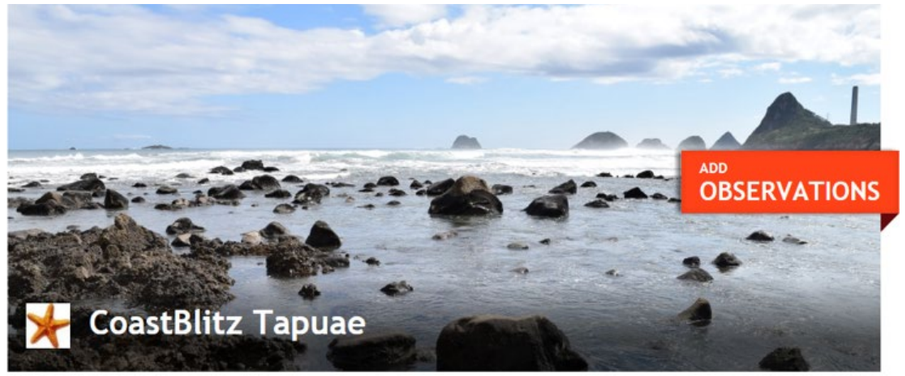
Threatened:

- Nationally Critical
- Nationally Endangered
- Nationally Vulnerable

Experiencing Marine Reserves

The Tapuae Marine Reserve provides the ideal location to undertake action projects and learn more about potential risks to threatened species. The two main Project Hotspot schools have conducted the field component of their action projects at either end of the reserve, with Highlands Intermediate focussing on the northern section and Oakura School on the southern section.

In addition, the Project Hotspot team have set up CoastBlitz Tapuae in NatureWatch NZ, building a record of species occurring within the reserve over time. Both schools have provided an important contribution to the species sightings recorded within this project and for more information check the School Blogs on the Project Hotspot website.



Stats

Totals	Most Observations	Most Species	Most Observed Species
225 Observations »	emily_r 122 observations	emily_r 40 species	Domestic Dog 35 observations
81 Species »	oakura 26 observations	oakura 17 species	New Zealand Fur Seal 26 observations
19 People »	nga-motu 18 observations	parkecology 8 species	Orca 11 observations
	enzedfred 15 observations	felixcollins 4 species	Pacific Reef-heron 10 observations
	parkecology 12 observations	nga-motu 3 species	Little Blue Penguin 9 observations

As Project Hotspot develops the team continues to build links with the Experiencing Marine Reserves (EMR) programme. Both initiatives share a common goal to raise awareness, understanding and involvement in marine conservation through provision of experiential environmental education opportunities. For those schools undertaking the EMR programme, the action projects for Project Hotspot can also double as projects for EMR.

What can the CoastBlitz results be used for

- To highlight the value of marine reserves.
- As an educational resource.
- To raise awareness of the presence of threatened bird species amongst dog owners.
- To enable the sharing of knowledge.

Action Projects

With guidance from scientists and teachers, students from Highlands Intermediate and Oakura School have been undertaking their own research investigating potential threats to species within the Tapuae Marine Reserve.

Action Projects: Oakura School

Footprint Whanau

Action Project: Do dogs pose a threat to penguins and other ground nesting birds in the Tapuae Coastal Strip Key Native Ecosystem?

Findings: Dog footprints were recorded at 97% of the access points from the beach to the Tapuae Coastal Strip Key Native Ecosystem along a 750 m stretch of coast.

Recommended Actions: With permission from the New Plymouth District Council place signs at access points to the Tapuae Marine Reserve raising awareness of the threat of dogs to birds and informing people of the law around dog control.

Litter Legends: Top-Ten

Action Project: Is the composition of marine litter in the Tapuae Marine Reserve similar to that found internationally?

Findings: The composition of litter in the Tapuae Marine Reserve was different to the top ten items found internationally. Items found in the marine reserve included fishing line, syringes and plastic shotgun wads in addition to rope, bottle caps and plastic bags.

Recommended Actions: Work with Fish and Game to reduce the number of plastic shotgun wads entering the marine environment.

Litter Legends: Micro-plastics

Action Project: Do microplastics (<2.5 cm) pose a threat to marine organism in the Tapuae Marine Reserve?

Findings: Along a 750 m stretch of the Tapuae Marine Reserve we collected 330 pieces of microplastic filling two jars. Further research indicated that these microplastics can be ingested by a variety of different organisms with the potential to cause harm within marine food weds.

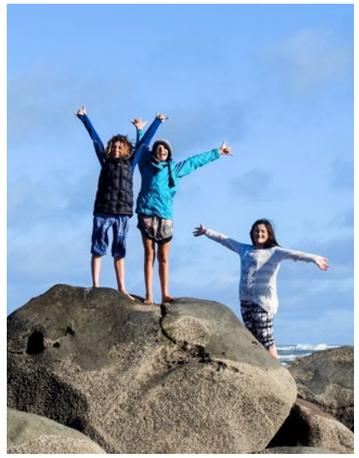
Recommended Actions: Make signs and flyers to raise awareness of microplastics, encouraging people to dispose of litter responsibly. Encourage regular beach cleans.

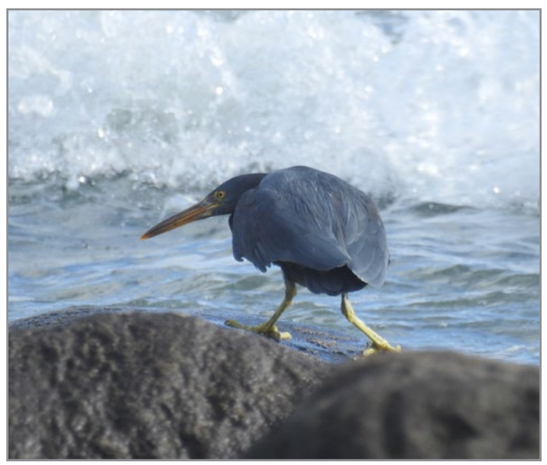
CoastBlitz Crew

Action Project: What 'threatened' and 'at risk' species occur in the Tapuae Marine Reserve?

Findings: 'Threatened' and 'at risk' species that have been sighted in the Tapuae Marine Reserve include reef heron, little blue penguin, black shag, white-fronted tern, Caspian tern and orca.

Recommended Actions: Produce an identification guide to raise awareness of 'threatened' and 'at risk' species in the Tapuae Marine Reserve. Produce flyers informing the general public of the potential risks to these species.





Action Projects: Highlands Intermediate

Ticket Team

Action Project: Are plastic parking tickets less likely to break down than paper parking tickets? Do plastic parking tickets pose a threat to species in the Tapuae Marine Reserve?

Findings: On a fieldtrip to the Tapuae Marine Reserve we found a number of plastic parking tickets on the beach. Experiments in the lab showed that the current parking tickets are almost indestructible!

Recommended Actions: Work with New Plymouth District Council to phase out the use of plastic parking tickets, and replace them with biodegradable parking tickets in the New Plymouth central business district.

Predator Posse

Action Project: Why is there no sign of little blue penguins at the northern end of Tapuae Marine Reserve?

Findings: On a fieldtrip to the Tapuae Marine Reserve we were surprised that we could find no penguin sign on the shore, despite what appeared to be good nesting sites. We investigated the potential threat from predators using tracking tunnels.

Recommended Actions: To set up a network of traps to catch rats and mustelids in possible nesting areas, and to develop a roster for checking and maintaining the traps.

Dog Control Crew

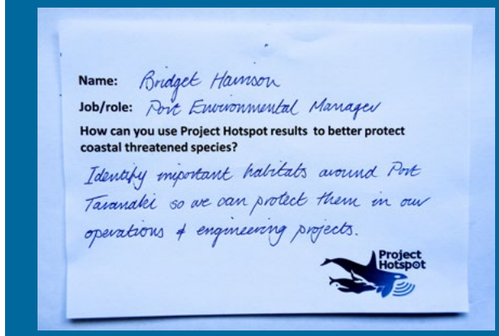
Action Project: Do dogs pose a threat to penguins and other ground nesting birds at the northern end of the Tapuae Marine Reserve?

Findings: After several trips to the Tapuae Marine Reserve we noticed dogs off leads, and dog footprints leading into possible nesting habitat.

Recommended Actions: Work with New Plymouth District Council to create signage to inform the public better about threats to wildlife from dogs, and also of the regulations around dog control at the northern end of Tapuae Marine Reserve.

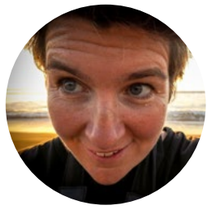
Making a Difference:

Example from the Port



During the Project Hotspot End User Workshop Bridget Harrison (Port Environmental Officer) realised that the many of the students had never had the opportunity to see fur seals up close. One of the best places to see fur seals in Taranaki is at Mikotahi Beach but this area is located in the middle of the port and is strictly off limits to the general public. On the morning of 6 September 2016 Bridget arranged for students from Oakura School to visit the port including tours of the seal colony at Mikotahi Beach, penguin nesting boxes around Chaddy's Charters, other threatened bird species out from Chaddy's and presentations at the Marine Information Centre. The morning was a massive success with the students stoked to see seals, penguins and threatened shag species (pied shag, little black shag and black shag). A massive thank you to Bridget, Fred King, Port Taranaki, Chaddy and the Ngā Motu Marine Reserve Society for organising such an amazing experience for the students.

Project Hotspot Team


Emily Roberts


Elise Smith


Shane Orchard


Pat Swanson

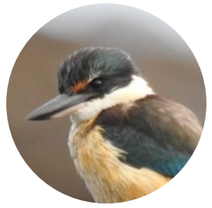

Josh Richardson

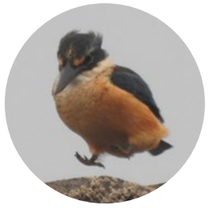

Hannah Hendriks


Callum Lilley

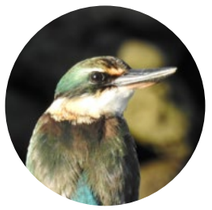

Halema Jamieson


Denise Rowland


Raewynne Niwa


Gillian Mackay


Brent Dunnet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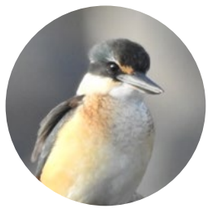

Shakira Derbyshire

Project Hotspot Heroes

The success of Project Hotspot is entirely reliant on awesome support from the community. Here's a massive shout out to those who have gone beyond the call of duty providing sightings, photos, videos and other support.

Special thanks to Sharyn Smart, Allen Pidwell, Francois Husillos, Abbie Diggleman, Chaddy, Daisy Lean, Jade Butler, Ian Steele, Stefan Bienert, Nathan Crook, Craig Williamson, Nicole Sturgess, Damon Flett, Bridget Harrison, Fred NZ (Port Security), Karen Pratt, Andrew Tulloch, Jacqui Tulloch, Dominika Zielinska, Andrew Wright, Claire Hunn, Toni Corbett and Allen Stancliff.

New Zealand Government

Venture TARANAKI
Te Puna Umanga

CURIOUS MINDS
HE HIHIRI I TE MAHARA

Appendices

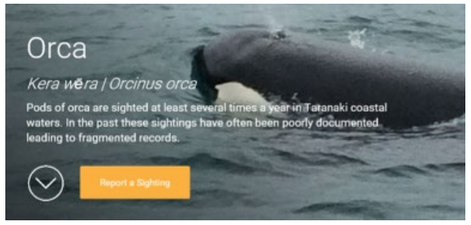
Appendix 1: Workshop Attendees

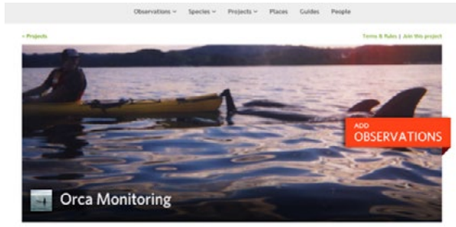
Allen Pidwell (Surfbreak Protection Society, New Plymouth Surf Riders Club)
Anna Johnston (Consents Officer, Taranaki Regional Council)
Anne Scott (Ngā Motu Marine Reserve Society)
Barbara Hammonds (Ngā Motu Marine Reserve Society)
Barry Hartley (Birds New Zealand, Taranaki Branch)
Beverley Wallis (Senior Manager, Ministry of Education)
Bridget Harrison (Environmental Manager, Port Taranaki Ltd)
Bruce Colgan (Environmental Advisor, Shell Todd Oil Services)
Craig Williamson (CEO, Surfing Taranaki)
Denise Goodman (Partnership Ranger-Education, Department of Conservation)
Denise Young (Policy Analyst, Taranaki Regional Council)
Elise Smith (MAIN Trust NZ, Ngā Motu Marine Reserve Society)
Ellen Squire (Consents Officer, Taranaki Regional Council)
Emily Roberts (Marine Ecologist, Taranaki Regional Council, Ngā Motu Marine Reserve Society)
Eve Kawana-Brown (Business Development Manager Taranaki, Massey University)
Flo Blyde (Administration Officer-Inspectorate, Taranaki Regional Council)
George Mason (George Mason Charitable Trust)
Gillian Mackay (Oakura School)
Halema Jamieson (Ecologist, Taranaki Regional Council)
Hannah Hendriks (Marine Species Data Technician, Department of Conservation)
Helen Meintjes (Science Manager – Business Support, Taranaki Regional Council)
Helen Sillars (Specialised Investments, Ministry of Business, Innovation and Employment)
Jane Bowden-Dobson (Conservation Partnership Ranger, Department of Conservation)
John Cockrem (Institute of Veterinary, Animal and Biomedical Sciences, Massey University)
Joshua Richardson (South Taranaki Co-ordinator, Project Hotspot)
Karl Osten (Animal Control, New Plymouth District Council)
Leigh Honnor (Regional Biodiversity Co-ordinator, Wild for Taranaki)
Lucy Graydon (Project Director, Venture Taranaki)
Mariana Horigome (Project Oceanographer, MetOcean Solutions Ltd)
Martha Dravitzki (Landscape Architect, New Plymouth District Council)
Mimié van der Merwe (Enforcement Coordinator, New Plymouth District Council)
Nadine Ord (Waste Minimisation Officer, Taranaki Regional Council)
Nicolette West (Policy Analyst, Taranaki Regional Council)
Pat Swanson (Experiencing Marine Reserves, Highlands Intermediate)
Peter McComb (Managing Director, MetOcean Solutions Ltd)
Rachelle McBeth (Senior Environmental Planner–Consents, New Plymouth District Council)
Raewynne Niwa (Education Partner, Project Hotspot)
Rowan Williams (Team Leader Consents, New Plymouth District Council)
Sam Tamarapa (Iwi Communications Officer, Taranaki Regional Council)
Sharyn Smart (Hotspot Hero)
Thomas McElroy (Marine Technical Officer, Taranaki Regional Council)
Victoria Araba (Consents Officer, Taranaki Regional Council)
Victoria Metcalf (National Coordinator of the Participatory Science Platform)
Wayne Beggs (Ranger-Marine, Department of Conservation)

Appendix 2: ‘ How to’ Guides

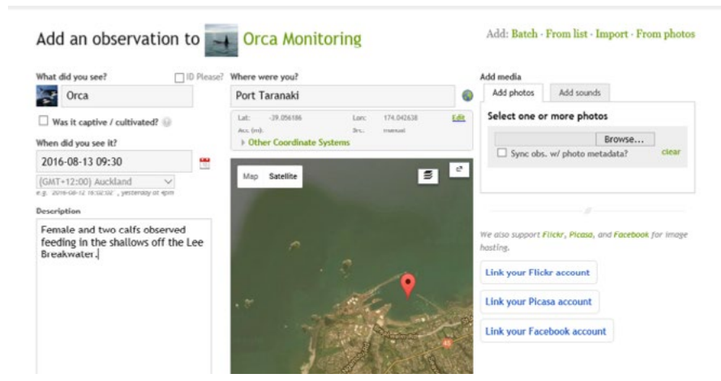
How to Enter Sightings

1. On the Project Hotspot website click on the ‘Report a Sighting’ link for the species that you have seen.

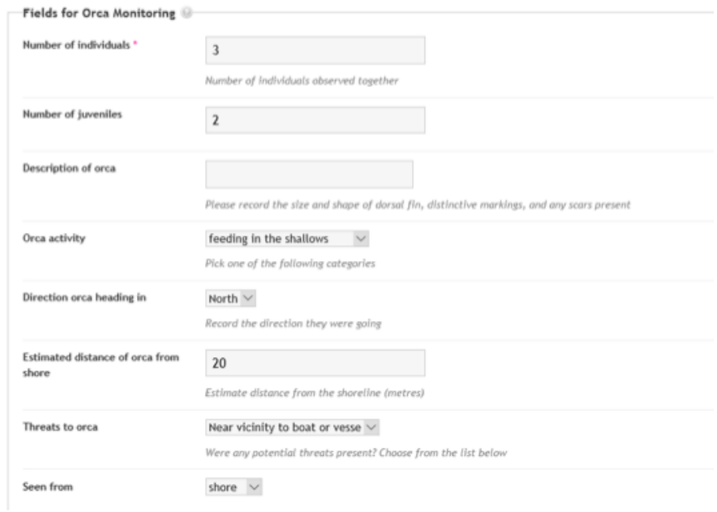




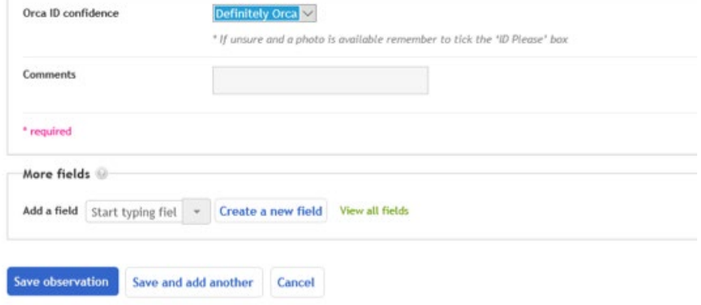
2. This will take you to the monitoring project for that particular species in NatureWatch NZ. The project page includes useful statistics on the sightings recorded to date including maps and photos. To add a sighting select ‘Add Observation’ (you will need to sign up to NatureWatch NZ if you haven’t already).



3. Select the species that you sighted under ‘What did you see?’. Select the date from the drop down list and add the time in 24 h format e.g. 09:30. Type in the location under ‘Where were you?’ and press enter. Zoom in on the map and drag the red pin until it is in the correct position (you can switch between map and satellite view to help find the exact location). Use ‘browse’ to select photos from your computer/device.



4. Fill in the remaining fields.

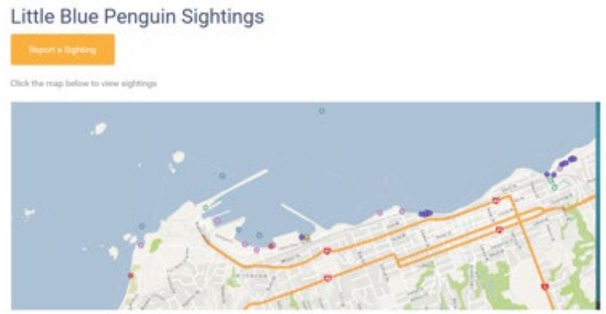


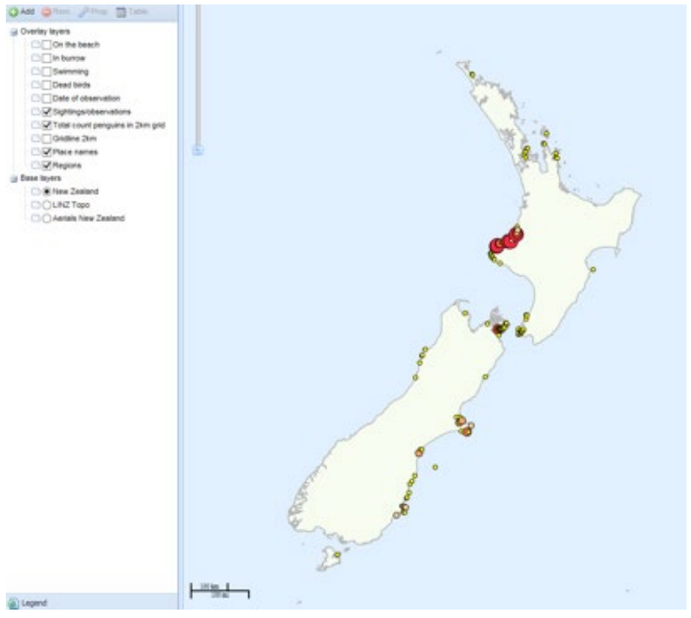
5. DON"T FORGET TO CLICK ON ‘SAVE OBSERVATION’

6. Once you've added your observation, NatureWatch NZ curators will provide feeback. If you have added a photograph and the NatureWatch NZ curators agree with your identification, your observation will be upgraded from ‘Needs ID’ to ‘Research Grade’. This adds a level of quality control to the data collected for Project Hotspot.

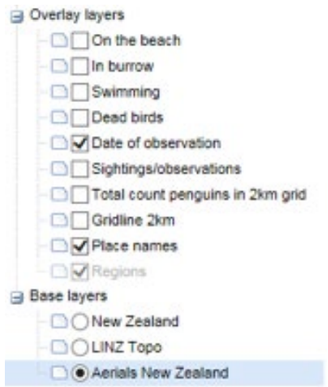
How to Use Sightings Maps

1. On the Project Hotspot website click on the map for the species that you are interested in.





2. This will take you to an interactive map hosted on the MAIN Trust NZ site.



3. Select the overlay layer that you are interested in. Using these options you can investigate sightings records, sightings by date, behaviour and/or the total count per 2 km x 2 km grid square. TIP: If you can't see a layer, it might be because another layer is placed over the top of it: Deselect any layers that you are not interested in viewing.

4. Click on 'Legend' at the bottom left had of the screen to find out what the different symbols represent.

5. Zoom in on the map to the area you are interested in. You might want to change the base layer view at this stage. Select 'Aerials New Zealand' for a satellite view.

6. To view the data associated with each sighting click on 'Info' and then click on the observation of interest.

7. If you have any further questions about how to use the maps or access data feel free to get in touch with the Project Hotspot team project@hotspot.org.nz

Acknowlegdement: QGIS and Geoserver OSS

Report Graphic Desgin by Josh Richardson

www.hotspot.org.nz