

Predator Management



Cam Speedy
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If we want the abundance of old to return, we must act...

But predator management does work!



*We can get there – its happening
already.....*



Which Predators...?



***Not all introduced animals are
"EQUAL"***

Predator Management

There are many tools in the predator toolkit
All have advantages, limitations & consequences



NO SILVER BULLETS!
Overused tools get blunt!

A Strategic Approach - The Five 'Pillars' -

- *Right Strategy*
- *Good Design*
- *Careful implementation/delivery*
- *Ongoing monitoring & review*
- *Adaptation & improvement.....*

Predator Management – Thinking Strategically

- Doing nothing is NOT an option
- It's NOT about 'numbers'
- Outcome focus – what are we protecting?
- Know your predator
- Animal Welfare, Non-targets, Public Acceptability & Social License
- The 'Predator Free Mind-set' – doing it right!
- Sustainability

Predator Management – Thinking Strategically

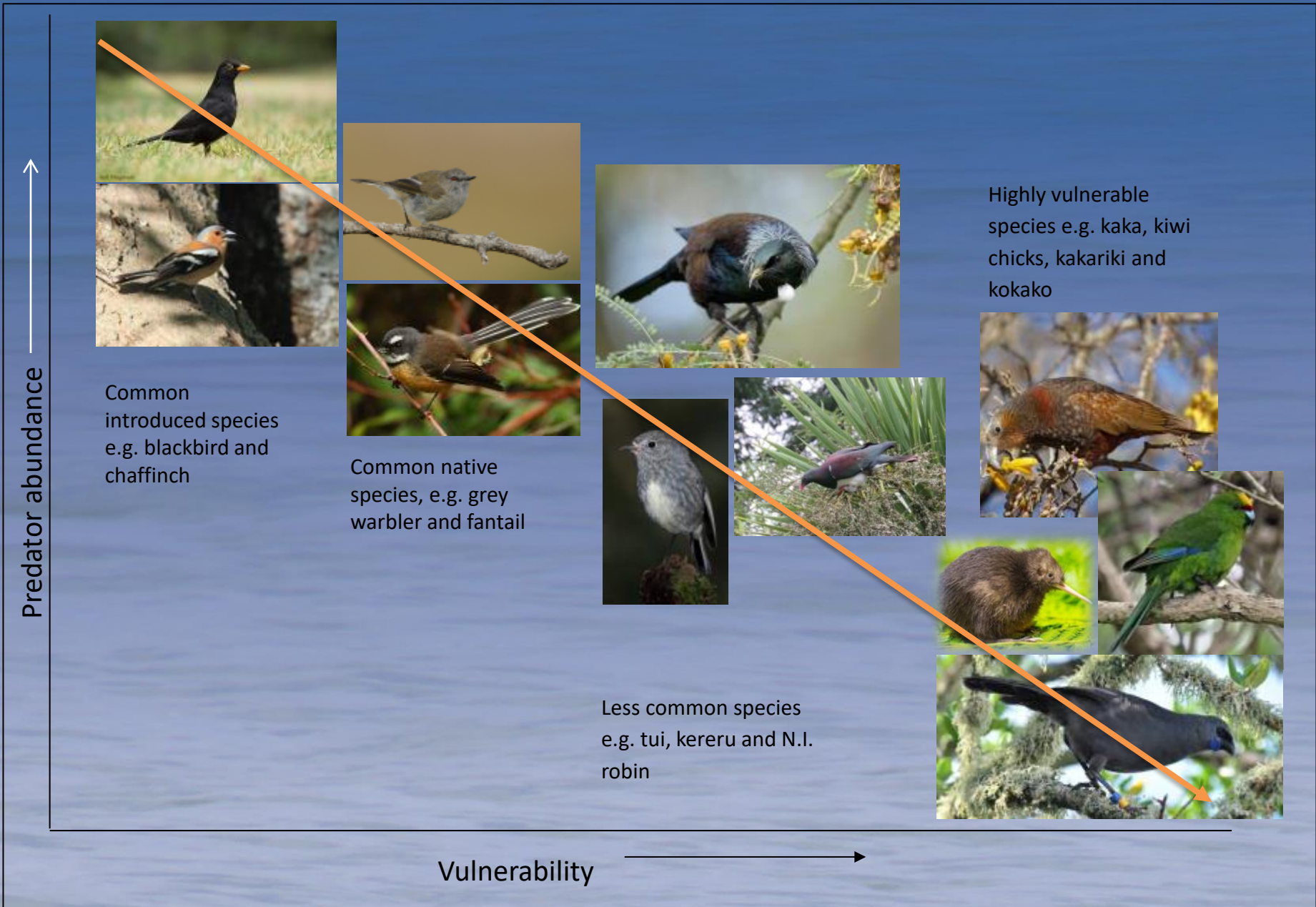
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- **The 'Predator Free Mind-set' – doing it right!**
- Sustainability

A lush, green forest scene. The background is filled with tall, slender trees whose branches and trunks are heavily covered in vibrant green moss. The lighting is soft and diffused, creating a serene atmosphere. In the foreground, several large, bright green ferns with intricate, feathery fronds are prominently displayed, some in sharp focus and others slightly blurred. The overall color palette is dominated by various shades of green, from deep forest greens to bright, mossy greens.

Outcome Focus

The 'Rubber Band' Analogy

- *Do Nothing*
- *Sustained control or 'suppression'*
- *Local elimination*
- *Eradication*



Highly vulnerable species e.g. kaka, kiwi chicks, kakariki and kokako

Common introduced species e.g. blackbird and chaffinch

Common native species, e.g. grey warbler and fantail

Less common species e.g. tui, kereru and N.I. robin

Outcome Focus



Toutouwai

- %Rodent Tracking Index < 5%
- local scale (10's ha)

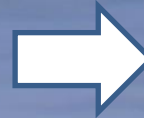
Outcome Focus



Outcome Focus



Kororā - Penguins



- Coastal trapping of Stoats
- Scale - 10's km of coast

Outcome Focus

Kereru



- %RTI (rats) < 5%
- %RTC (possums) < 5%
- Landscape scale (1,000's ha)

Outcome Focus

Kākā



- %RTC (possums) <5%
- %RTI for stoats <2%
- Landscape scale (10,000's ha)

Outcome Focus

Tītī



- stoats
- cats
- Seasonal @ Colony scale

A dense forest scene with moss-covered tree trunks and large, vibrant green ferns in the foreground. The text "Know Your Predator" is overlaid in the center in a yellow, italicized font.

Know Your Predator

Most Powerful 'Tool' is Knowing Your Predator

How does each use the habitat at place?:

- Home ranges
- Breeding rates
- Dispersal – timing & distances



Most Powerful 'Tool' is Knowing Your Predator

What drives them? (the 4 "F's"):

- Food (seed, fruit, prey, weather)
- Family (mating, protection of young)
- Fear
- Fighting (over food, over mates, when challenged - 'fight or flight')



Most Powerful 'Tool' is Knowing Your Predator

Behaviours:

- Cautious-inquisitive
- Dominance-subordinance
- Learned avoidance
- The 'Behavioural Battle'



Device Interaction - Possums



Device Interaction - Possums



- 3 months
- 62 visits
- 0 possums killed

Device Interaction – Stoats



27.36 inHg ↓ 9°C ● 10/06/2022 01:53PM CAMERA 1

Device Interaction – Rats



28.04 inHg ↑ 44°F 03/14/2023 11:20PM CAMERA 1

Device Interaction – Cats



Device Interaction – Cats



28.72 inHg ↑ 22°C) 08/18/2023 02:42PM CAMERA 1

A lush, green forest scene. The foreground is dominated by large, vibrant green ferns with intricate, feathery fronds. Behind them, a dense stand of trees with dark, moss-covered trunks and branches rises. The overall atmosphere is moist and verdant, with soft, diffused light filtering through the canopy. The text "Attention to Detail" is centered in the middle of the image in a yellow, italicized font.

Attention to Detail

A dense forest scene with moss-covered tree trunks and large, vibrant green ferns in the foreground. The background is filled with tall, thin trees and a thick canopy of leaves.

Attention to Detail

**There is no point having kit out there
that predators ignore!**

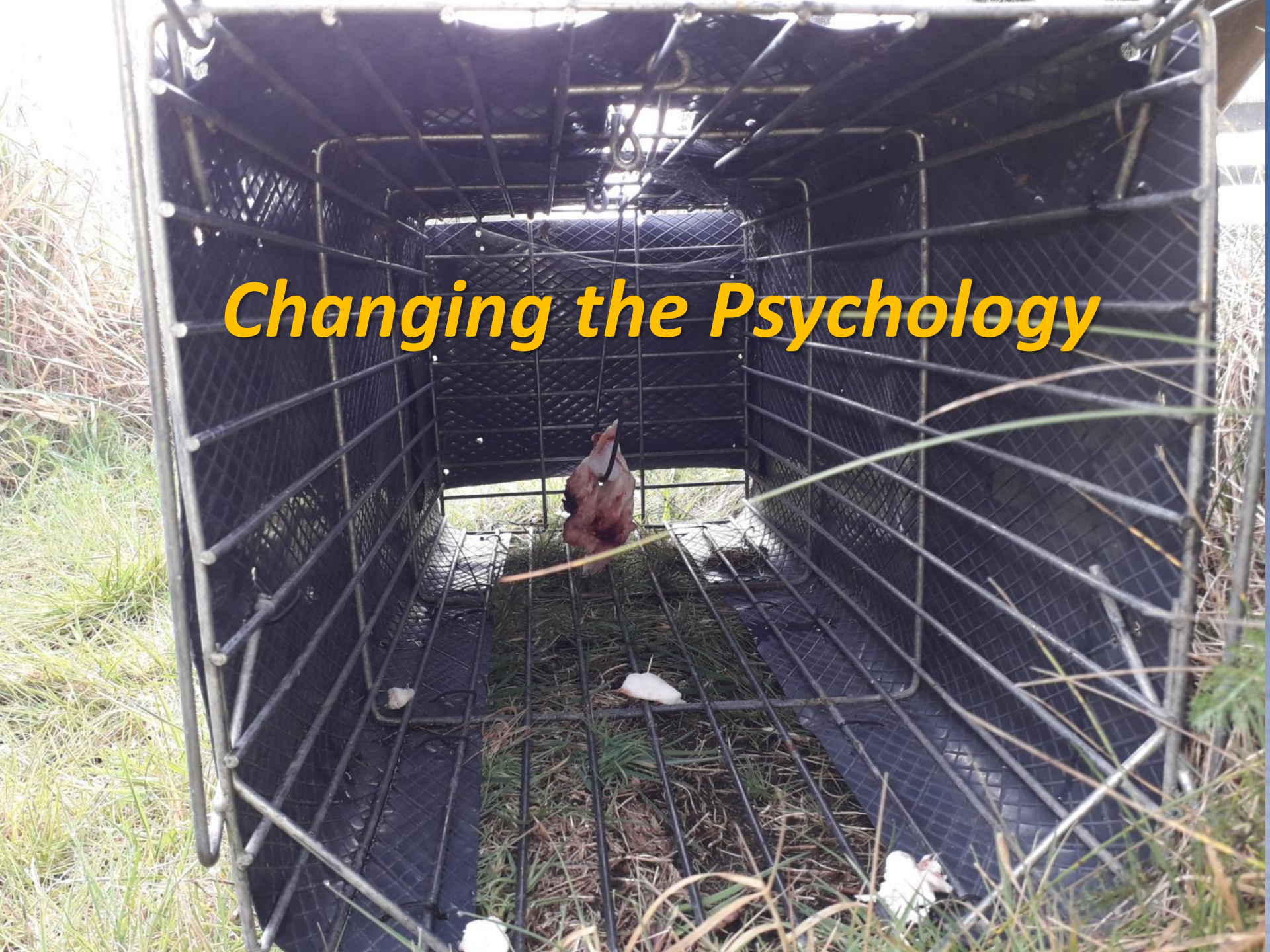


Attention to Detail

*80% of device encounters DO NOT
result in any pest interaction!*



Changing the Psychology



A photograph showing the interior of a metal wire cage. A dog is lying on the floor of the cage, which is covered with some green grass. The cage is made of metal bars and chain-link fencing. A large, red, jagged starburst shape is superimposed over the center of the image, containing the text 'DANGER!' and '- DO NOT ENTER -'.

DANGER!

- DO NOT ENTER -

A photograph of a dog, possibly a pit bull mix, sitting in a wire crate. The dog is looking towards the camera. The crate is made of metal bars and has a black plastic liner on the floor. The background is dark and indistinct. Overlaid on the image is a large, jagged green outline that resembles a starburst or a jagged arrow. Inside this outline, the text "WELCOME! More free Give-aways Inside" is written in a green, bold, sans-serif font. The word "WELCOME!" is on the top line, "More free" is on the second line, and "Give-aways Inside" is on the third line. The word "More" is underlined.

WELCOME!
More free
Give-aways Inside



Possum Night-Clubs



19/11/2020 07:57

Attention to Detail

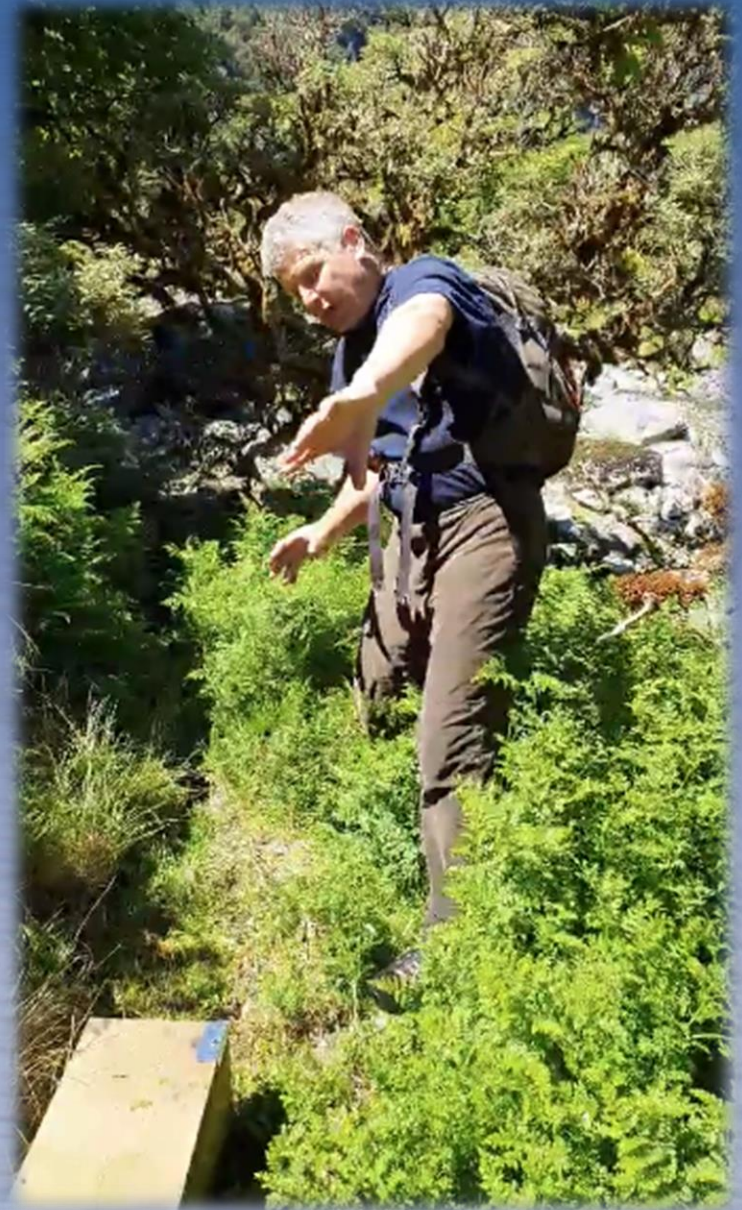
*Set every trap like your life depends on it
– EVERY TIME!:*

- *Freshen up the trap site*
- *Scuff the ground*
- *Use pre-feeding & luring – liberally!*
- *Use hazing/'fencing'/guiding*
- *Make sure the trap is clean & functions*
- *Change bait types regularly*
- *Make the trap site 'exciting'!*



Trap Location

- <20% of traps catch >80% of predators
- Predators are 'efficient' – learn how they use the landscape
- Monitor & critique every set



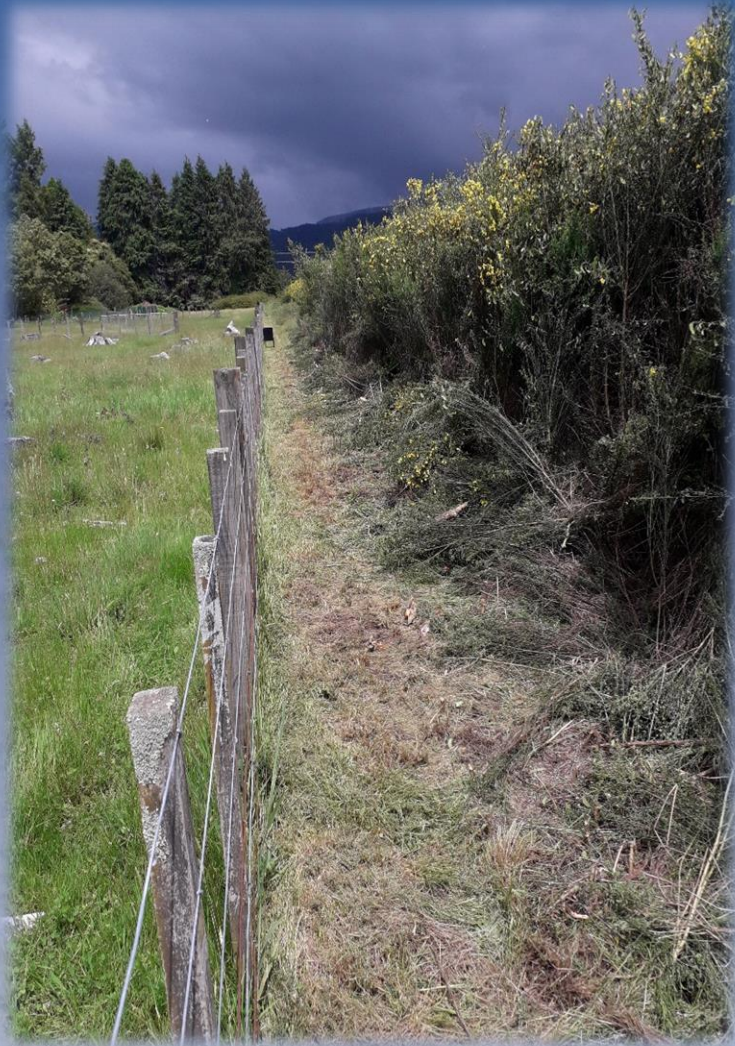


Increasing Interaction Rates using behaviour....

Lower Caution/Increase inquisitiveness

- Close devices*
- Prefeed (7 – 10 days)*
- Utilise pest communication channels*
- Win their confidence – with endorsements from friends & family*
- Food and social interaction cues*
- Train them to do what you want & they'll teach each other*

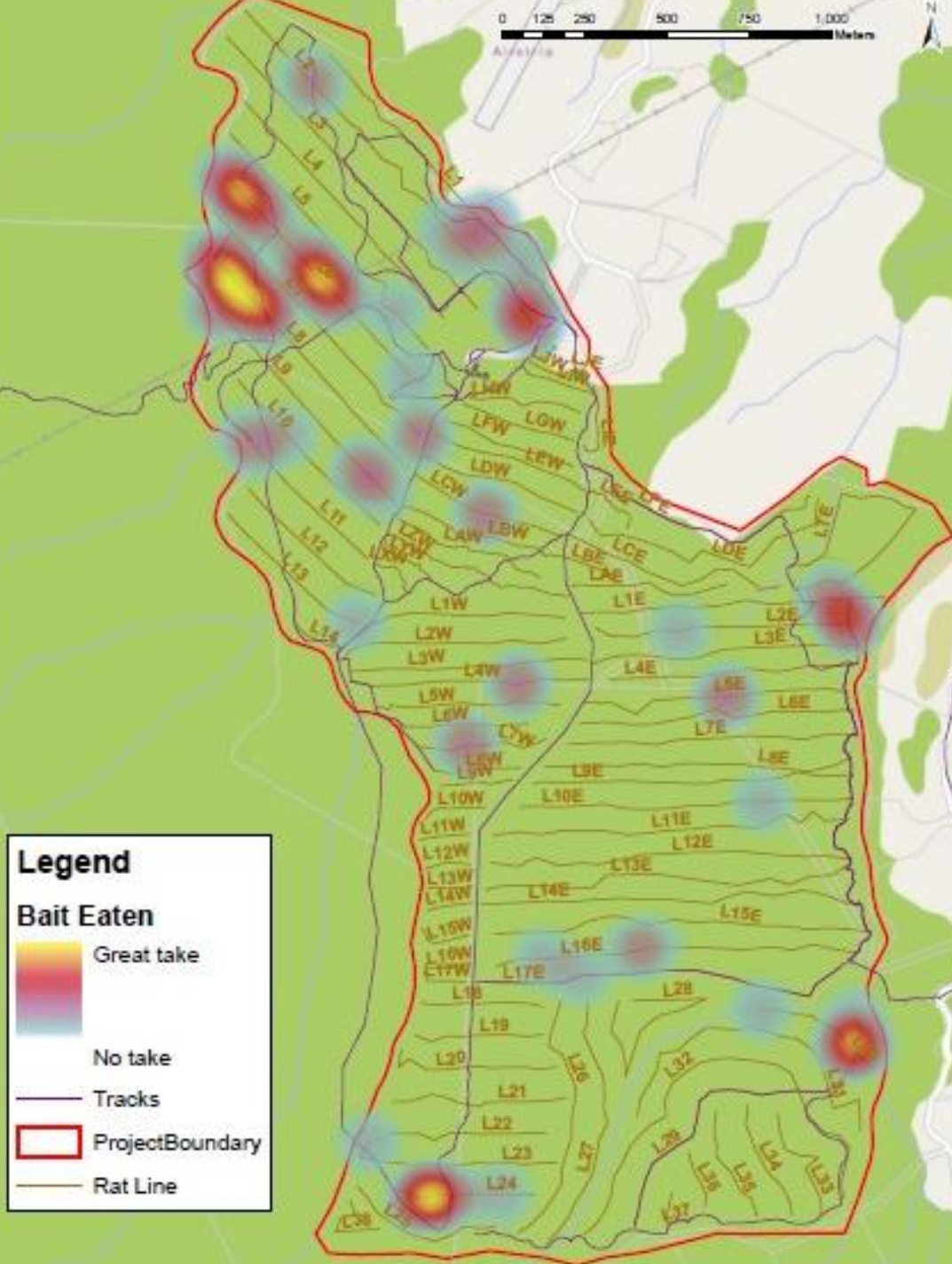
Trap Location

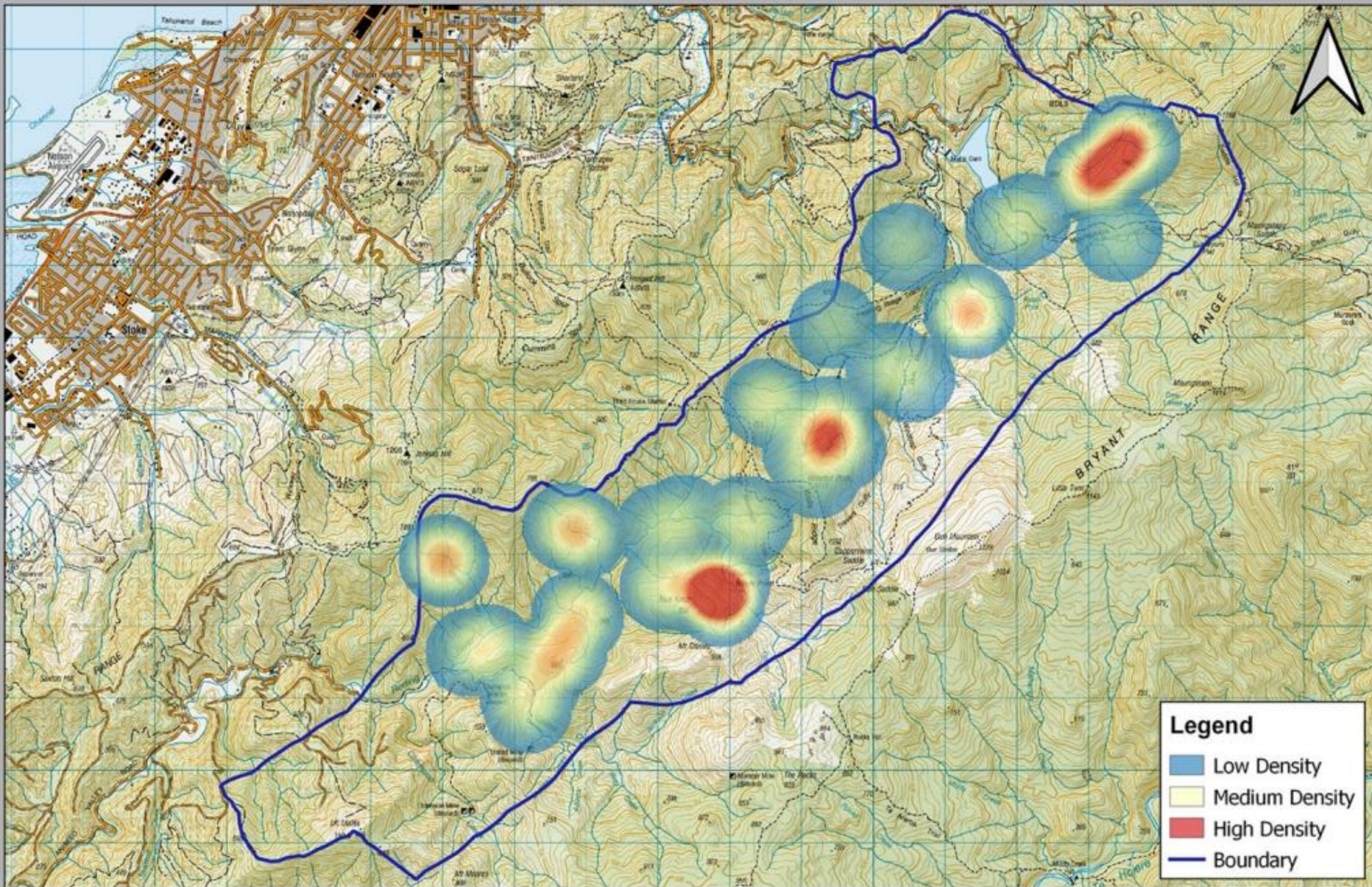


- **Linear features in the landscape**
(roads, tracks, game-trails, rivers, ridges, tree rows, hedge rows, fence-lines, culverts)
- **Ferrets & cats don't like water – target bridges and log crossings**
- **Avoid cold wet sites – warm & dry are always best**
- **Hay-barns make great cat/ferret trap sites**
- **Move traps that don't catch**

Trap Location

- Don't rely on trap set-ups based off office formulated "grids"





0 1 2 km

Goat Distribution Heatmap

Scale at A4 - 1:67 000, NZGD2000 / NZTM200, Copyright Trap and Tigger Ltd ©, Date Produced 15/11/2020



Scent Trails



Scent Trails



Can Scent Trails Help?



*Let the Scents Trails of
Prey Species work for you*



Making it EASY!



Making it EASY!



Making it EASY!





Photo courtesy of Miranda Bennett, Auckland Council



28.82 inHg ↓ 11°C ● 04/15/2022 03:04AM CAMERA 1



Photo courtesy of Miranda Bennett, Auckland Council



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Avoiding a 'fright'





VICTOR

VICTOR

Keeping it Natural!

- In season fruits
- Duck frames @ duck hunting
- Eggs in spring
- Use fresh rodent kills as bait
- PFNZ Calendar



Annual Pest Calendar



Event	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mustelid (ferret, stoat, weasel) juveniles have left nest/den — populations peaking. Consider increased trap servicing. Hot temps and increased microbe/insect activity. Good time to move to mutton fat as bait in DOC200s.	●●●●●											
Whoio juveniles start to fledge; adults begin to moult.		●●●●●										
Second-clutch kiwi chicks emerge from nest.		●●●●●										
Wasp numbers start to increase — caution required.		●●●●●										
Beech mast starts to hit the ground.			●●●●●									
Rodent populations start to increase exponentially.			●●●●●									
Major possum mating period for year — dispersal of juveniles. Opportunity to exploit promiscuity (possum 'night clubs*'). 'Pulse**' bait in bait stations. Rebait and set kill traps.			●●●●									
Annual deer roar — lots of hunters in the bush. Caution required.			●●●●									
Domestic pipfruit (apples, pears) and nuts coming on stream. Possums active in orchards.			●●●●●									
Podocarp mast ripe — adding to rodent population growth.				●●●●●								
Duck shooting in many wetlands and aquatic environments (lakes, rivers, streams, estuaries).				●●●●								
Cooler weather starts to bring rodents inside houses and buildings. Set up traps and bait stations inside in anticipation.					●●●●●							
Best time to take a holiday from predator-free mahi.						●●●●						
Possums active in winter green crops. Target crops for possum control (night-shooting) or trapping on bush-edge possum—runs heading out into crops.							●●●●●					
Time to start ramping up rodent control (pulse baiting) for spring. Rodents starting to starve as beech mast/podocarp fruit disappears. Rodents need to be reduced under 2-5% Tracking Index by 1 October, depending on outcomes sought, and held there through a 4-5 month window.								●●●●●				
Undertake possum control together with rodent control. Pulse bait in bait stations, rebait and set kill traps.								●●●●●				
Intensive rabbit shooting will reduce survival of spring kittens, also reducing opportunity for mustelid and cat population increases.								●●●●				
Start increasing mustelid/stoat trap servicing to protect spring bird breeding.								●●●●●				
Now is a good time to clean and recalibrate your DOC200s. They should activate at about 80g plate weight.								●●				
Weather still cool, low microbe and insect activity. Best time to use fresh meat baits in DOC200s.								●●●●●				
Cat breeding season begins. Kittens in dens. Dumping of domestic kittens common at this time of year.								●●●●●				
Possums on pine catkins — target big old pines for possum control (night-shooting in open terrain or trapping in bush).								●●●●				
Second possum mating period, opportunity to exploit promiscuity (possum night clubs). Pulse bait in bait stations; rebait and set kill traps.									●●●●			
First-clutch kiwi chicks emerge from nest.									●●●●			
Whoio hens start nesting — nests/broods lost to floods will see second clutching well into November.									●●●●●			
Forest bird nesting ramps up for next 4-5 months.									●●●●●			
Eggs common in landscape — best time to use fresh egg baits in DOC200 traps.									●●●●●			
Willow/larch bud break — great night-shooting opportunities for possum control in open terrain.									●●			
Kowhai flowering — good time/tree to target possums.									●●●●			
Female stoats start breeding. Kittens in den, heavy prey harvest. Consider increased trap servicing.									●●●●●			
Mustelid (ferret, stoat, weasel) juveniles start leaving nest — populations begin to peak. Consider increased trap servicing. Hot temps and increased microbe/insect activity. Good time to move back to mutton fat as bait in DOC200s.											●●●●	



* Possum 'night clubs' can be created at sites that might attract possums from distance — on the edge of clearings, ridgelines, etc. Pre-feeding attracts increasing numbers of possums both for food and social interaction. 7-10 days of constant food reward and ongoing social interaction due to the mate, results in significant possum traffic, that can then be targeted with gang trapping (6-8 leg hold traps) or tows (Feraboe®/Double-Tap®/Feracol®) within 5m of the preferred site.

** 'Pulse' baiting = feeding a set amount (300-500g for possums) of bait (eg, Feracol®/Double-Tap®) once per month, to avoid over-feeding and to reduce bait shyness from over exposure to damp/mouldy bait. Remove all uneaten bait when refilling. Dispose of as per label instructions.

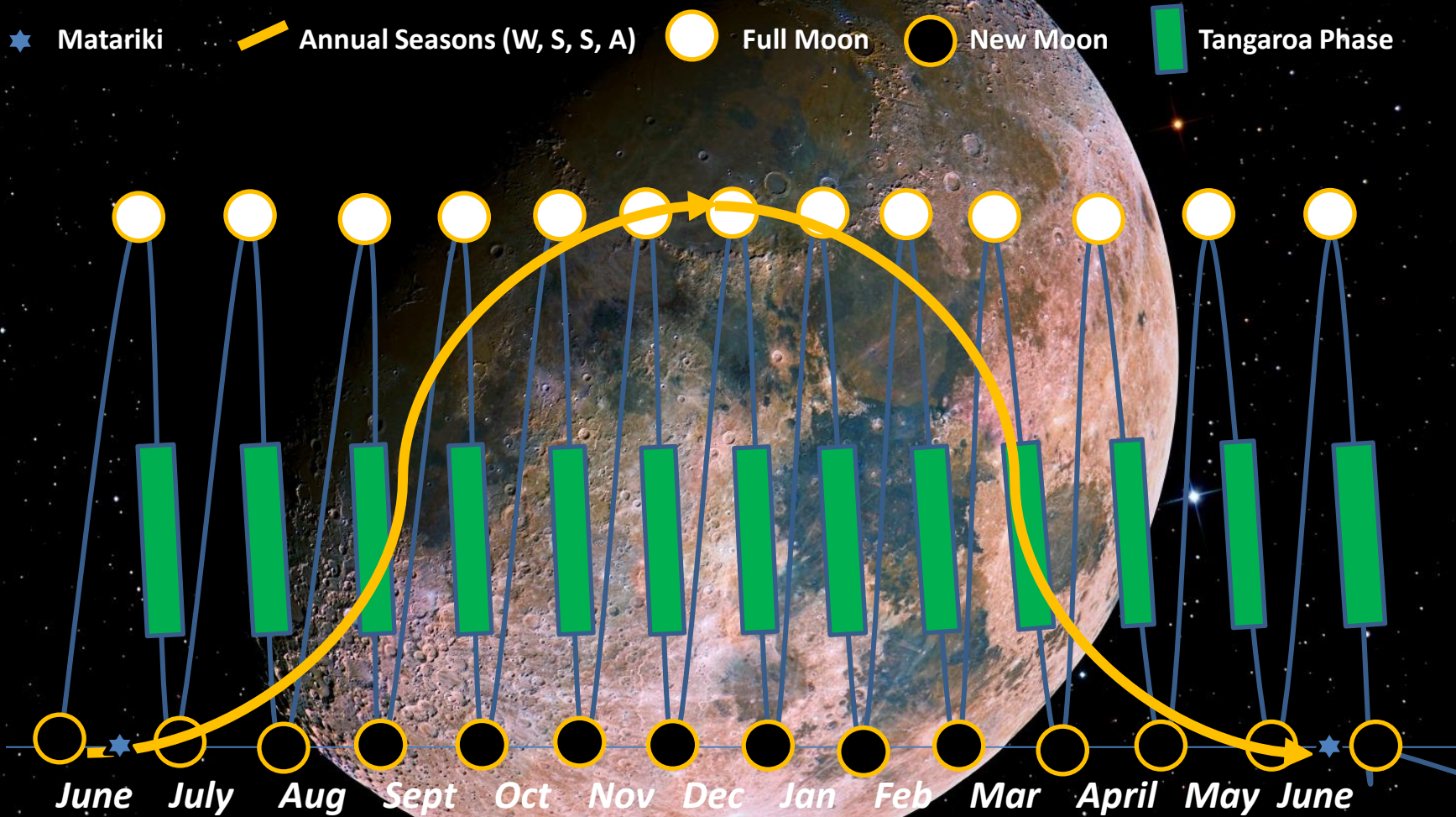
The Rhythms of Nature

- Do you Plant by the moon?
- Do you fish by the moon?
- Do you hunt by the moon?
- Do you trap by the moon?
- Do you watch weather influences?
- Or do you check your traps on a schedule (“every 4th Wed”)?

The Rhythms of Nature

- Learning from Indigenous cultures
- Intuitive observation & connection 'at place'
- Use of 'Mātauranga'
- Understanding 'Maramataka'
- Understanding weather influences

The Rhythm of Nature – the basis of the Maramataka (Māori Lunar Calendar)



Predator Free Mind-set

- You ARE NOT just a 'trap-checker'
- You're a 'gamekeeper'- a predator 'hunter'
- Attention to Detail
- Learning by doing - Intuitive observation & connection at place
- Understanding behaviour
- Understanding weather influences
- Use of 'Mātauranga'
- Understanding 'Maramataka'

Putting it all together...





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*These tricks work – across the board!
All tools, rats to cats*





And they work for bait stations too!

Feral Cats & Ferrets



6 °C 42 °F 11/03/2022 07:20:11 0826



600mm



11 °C 51 °F 03/03/2020 13:04:08 0815



Ferrets



TRAPINATOR **DOC250** Ph: ++64 9 5794089
email: sales@trapinator.co.nz

Feral Cats



Feral Cat behaviour...



Feral Cat Detection/Monitoring



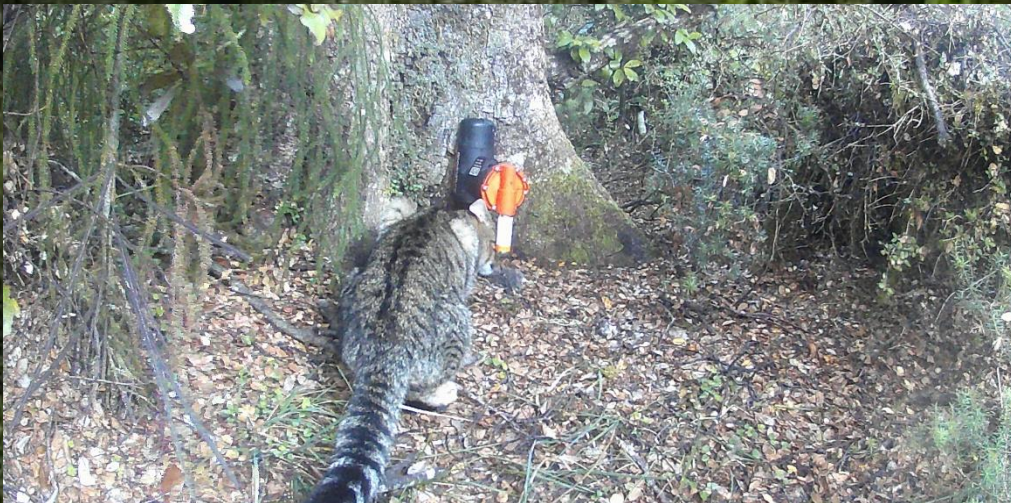
Browning Command Ops
Elite - BTC-4EX



Browning Spec Ops Elite
- HP4 (BTC-8E-HP4)



Playing the Long Game



New Tech...



New Tech...



Tāwhiti Smart Cage

Predator Free Franklin



Tāwhiti Smart Cage

Predator Free Franklin

Summary

- *Every tool can work – every tool can fail*
- *‘Attention to Detail’ is critical - Change it up!*
- *You ARE NOT just a ‘trap-checker’ - have a predator ‘hunter’ mind-set*
- *Understand behaviour - put the animal at the centre of your thinking to win the “battle”*
- *Use of Mātauranga & Maramataka*
- *Understand weather influences*
- *Play the long game – there are NO short-cuts*
- *Doing Nothing IS NOT an option*

www.predatorfreenz.org



Questions/Comments?

