

Trapping Tips Workshop:

Rats:

In NZ we now have three species of rats. The Kiore which is the smallest, the Norway rat – the biggest, and the ship rat – the most common.



Kiore



Norway rat. Image credit: Ngā Manu.



Ship rat. Image credit: Ngā Manu.

In our area we are only concerned about the Norway and ship rats as Kiore are only found on offshore islands and in parts of Fiordland. Norway rats are often found near waterways and less likely to climb, while ship rats are good climbers so often in the canopy. They like to stick to areas that are messy, smelly and easy to access. Both of these rats are neophobic – afraid of new foods or situations, so we need to be cunning to get them into our traps!

Rats are considered a major threat to our wildlife as they compete with our local wildlife for food. They eat weta, other insects, snails, frogs, lizards, tuatara, birds + bats as well as flowers, fruits and seeds of plants. They breed very rapidly making them difficult to control.

Trap tips:

- Place traps near waterways, or along fenceline/retaining walls. They prefer to run along some sort of shelter than out in the open.
- Can try melting a small amount of cheese onto the trap mechanism.
- Build tunnels around the rat traps to make them more attractive. Can be a simple coreflute stapled tunnel.
- If you catch a rat, rub it around the trap and along the ground near the trap – some committed trappers drag a dead pest the whole way along their trap line to make a scent trail!
- Peak rat trapping numbers are in Spring

Stoats:

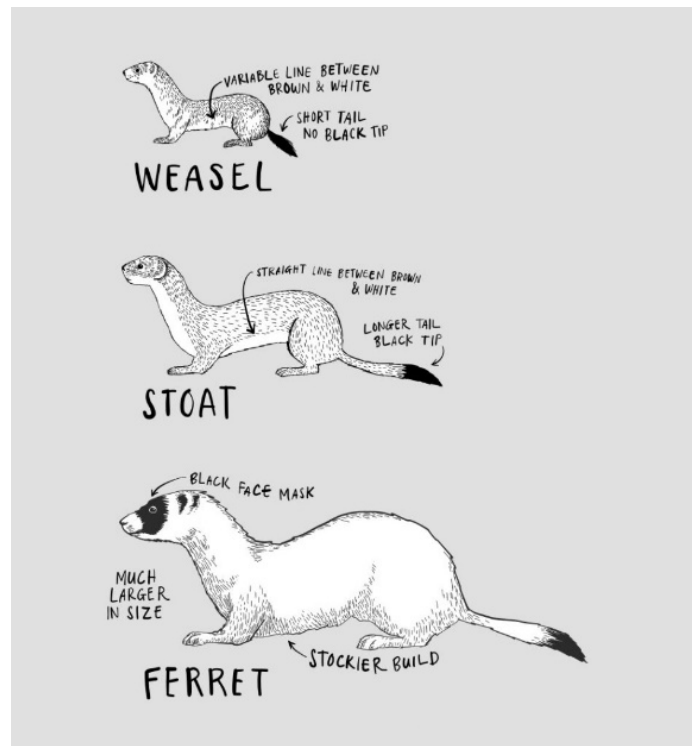
Stoats live in any habitat in NZ where they are able to find prey. Anywhere from beaches to remote high country, up to very high altitudes and in all types of forest, scrub, dunes, tussock and farm pastures. Stoats have a very good sense of smell, hunt both day and night and are very good climbers so very good at getting our birds nests both up in the trees and ground nesting birds. They are able to travel long distances very quickly, one young stoat travelled 70km in just two weeks! They are also efficient swimmers and can swim over 1km. They are unfortunately neophobic, sometimes making it tricky to get them into our traps. DOC describes these guys as “public enemy #1” to our native birds. A female can have up to 12 kits at once, and the females can become pregnant at 2-3 weeks old, before they have even opened their eyes.

Trap tips:

- Dec/Jan/Feb are prime months for catching stoats as they are gullible juveniles dispersing from mothers.
- If you have caught a stoat, rub it in and around the trap to try and lure other stoats or mustelids to the trap. You can also drag the stoat from the trap out to the walking track or tracks they may be using – pests will follow the scent trail. Don't underestimate scent trails! Lots of animals follow the same paths so once an animal starts visiting a location other predators will be attracted and come to have a look.

Weasels:

The smallest of our three mustelids, females weighing up to 80g while males weigh up to 150g. They live in gardens, farmland and scrub. They hunt birds, eat eggs, insects and lizards, although small – they are able to kill something as big as a rabbit and carry it back to their dens!



Ferrets:

Ferrets are not as widely spread as stoats, they tend to stick to farmland and open country but aren't found in forests. Especially around our area, ferrets can be found wherever there maybe rabbits. Ferrets do most of their hunting in at night and they can have a home-range from anywhere between 3-70 hectares depending on food. As well as rabbits, ferrets also eat birds eggs, attack and kill native bird chicks and can also kill adult birds. They can also pose as a threat to our riverbed breeding birds including stilts, dotterels and pied oystercatchers. As well as our birds, they can also eat a lot of insects, skinks and geckos.

Trap tips:

- Peak trapping for ferrets is end of Summer coming into Autumn. If you are in an area that you know have lots of ferrets and you have the time, it would be great to rebait traps weekly during this time as fresh bait is key for catching ferrets.
- Ferrets are often found along roads as they scavenge roadkill. Try placing traps in verges and culverts along road edges.
- Due to rabbits, they often thrive along edges of farmland – so place traps along the boundary between farmland and bush.
- Although DOC200s can kill ferrets they are not NAWOC approved so if you are in an area with high ferret numbers it would be worth swapping out some DOC200s for DOC250s.

Hedgehogs:

Hedgehogs are abundant throughout NZ and pose a big threat to our natives. There is estimated to be between 2 and 4 hedgehogs per hectare, but can be up to 8. Hedgehogs are a major predator for riverbed breeding birds and have also been known to kill and eat chicks of a variety of ground-nesting birds. They also decimate our invertebrates, including the rare giant native centipede, weta and other rare insects. Hedgehogs have also been known to eat our native snails and lizards – so although often viewed as a low risk, the more we are learning about them we are realizing the huge impact they can have on our natives.

Trap Tips:

- Fishy cat food or fresh meat works well.
- We recently trialed a mixture of sardines with salami at the Arrowtown Golf Course and had hedgehogs in almost every trap.
- Its recommended to target these guys at the beginning of birds breeding season, and in the autumn before they are going into winter hibernation.



Possums:

Possums are spread throughout most of New Zealand, can be found wherever there is shelter and a good food supply. They live in trees, but can also move across open country. Possums often follow the same track, which is helpful when it comes to trapping. Although mostly vegetarian in Australia here they have been seen to predate on birds eggs and eating both chicks and adult birds. They also compete with our native birds for nectar and berries.

Trap Tips:

- Blaze under traps. We have recently trialed blazing with a simple mixture of flour icing sugar and cinnamon and having luck with traps that hadn't caught anything in a long time. Blaze up the tree and around the trap, introduced pests will then take that scent away on their paws, fur and breath, communicating this food source to others.
- Try mayo lure to change things up, especially Trapinators that are harder to use apple on.
- If you have some pesky possums that aren't getting caught you can make a "possum nightclub". You can bait in and around a bunch of possum traps but not set them – can do this for a week or so, until you know that the bait is going so traps are being visited regularly, then set the traps. This can be particularly useful in the breeding season March/April then again in September/October.
- Add a ramp, possums seem to love ramps. Unlike the rest of our pests, possums are neophilic, so very intrigued by new things. We have recently been using ramps on our AT220s and some of our Flipping Timmys with good results. Make sure the ramp is screwed into the tree so is solid and wont move. You can also add lure to the top of the ramp and along the ramp. This can work for Trapinators, Flipping Timmys, A12s and AT220s. These don't have to be perfect, can just grab an old piece of scrap wood lying around, aim for a 45 degree angle, about 30cm below your trap.
- Place traps near pathways they may use, farmtracks or fencelines. They don't like getting their bellies wet so prefer moving through shorter grass.
- Can try apple with cinnamon, feijoas, other fruit, aniseed, carrots.
- Possums love pine pollen catkins on old Pinus Radiata trees – making them good sites in the spring.

Safety Tips:

<p>If your trap is still set, use a safety clip – they are \$2.50 for a pack of five from Trapinator or free at the DOC Visitor Centre.</p>	
	<p>For setting DOC 250's or if you are having trouble setting DOC 200's, use a trap setting tool. They are \$40 each but well worth it for ease and safety.</p>

- Always let someone know where you are going and when you will get back. Carry a phone if you will have coverage and if you are heading to the back of beyond, carry a PLB.
- Wear gloves to avoid contact with rotting carcasses.

General Tips:

- ❖ Make sure the traps don't move! Especially for the neophobic species, if they try to enter the box trap and the box moves, its likely these will then become trap shy and won't ever go into a trap. We have been using a grubber to even out the ground- this also helps to remove overgrown grass from traps. If traps get too overgrown its harder for pests to find – remember we want to make it as easy as possible for the pests to enter the traps! You could also place a large rock on top to help weigh it down.
- ❖ If you are wanting to set the trap off so you can service your trap, it is worth taking an old pair of woolly socks – setting off the trap empty can crack the welds on the trap mechanism.
- ❖ Wear gloves! Pests don't like the smell of humans, especially nice clean soapy or sanitized hands! Keep the same pair of gloves for trapping, this way they will smell of bait and any pests that you are removing from the trap.
- ❖ Most catches occur in the first few days of the trap being serviced – fresh is best!
- ❖ Pre-baiting in and around traps. This can be for box traps and possum traps. For box traps spreading some meat around the trap and around the entrance can entice pests to the trap. For possums you can prebait with apple or the blaze mentioned earlier.
- ❖ Change lures regularly! If a pest is going past a trap often, they need a reason to have their heads turned and be interested in the traps. Using new novel baits can sometimes achieve this.

- ❖ Make sure trap entrances are smooth so pests don't get scratched on the way in – again this could result in a trap-shy pest. You can achieve this by filing them down, some groups place plastic piping along the edge of the baffle to make it smooth.
- ❖ Scuff up the ground around the traps, pests find this interesting! This can be done while grubbing/ removing longer grass too.
- ❖ REMOVE OLD BAIT. Preferably take a small paint scraper with you to remove all the gunk – mouldy baits can definitely put off pests.
- ❖ Soaking a dishwash sponge in different attractants such as mutton fat, bacon fat, fish burly or pate – could also try doing this with the lure-it products from Connovation.
- ❖ For mustelids and rats using whole eggs can act as both scent and visual lures. Eggs are mostly important in Spring when birds are breeding so lots of eggs around which pests will be searching for. Cam Speedy suggests laying the eggs on their side rather than vertical as that is how they would find them in the wild. For the rest of the year if you can't keep up with changing eggs, you could try decoy eggs! They around \$3.50 from Connovation but will last years! If you notice an egg in your trap is smelly and old but don't have a fresh egg to replace – still remove the old egg, it could put a pest off.
- ❖ Raw mutton fat is a great lure for mustelids and rats – ask a local butcher! Keep this in the freezer to prolong its lifespan.
- ❖ If you are having issues with mice coming into your DOC traps you could try a mouse trap at the BACK end of the box where your bait is. If a mouse gets caught that is a bonus fresh bait that could hopefully catch a rat or a mustelid. Make sure you don't put the mousetrap on the other side of the trap near the entrance – just incase another pest was to set it off on its way in, making another trap-shy pest that mightn't go back into a box trap.
- ❖ Tie coloured ribbon or flagging tape around any tools so you can find them easily when dropped.
- ❖ Look for well worn areas where animals travel through to place traps, you can also place logs along the side of the path to try and guide the pest towards the trap. Make sure the traps are placed parallel to these trails and that the pest has a clear line of sight through the trap.
- ❖ If you're trap hasn't been catching anything for a while – mix it up! Try moving the direction of the trap or moving the trap 1 or 2m into a different location.
- ❖ There are also lots of great videos on YouTube for different trapping suggestions. Predator Free NZ Ltd has some good ones, Cam Speedy is great!

TrapNZ Tips:

- ❖ Make sure you load your trapline up on TrapNZ before heading out to do your trapline, then don't close the app! The app will continue to work if you are not in service and will upload everything automatically when you come back into service. Settings = go into project settings in App and download the map tiles so you can see the background map when out of coverage.
- ❖ We find it easiest to log each trap results as you go, saves you having to do it when you get home and doesn't take long!
- ❖ If you have noticed some of your traps haven't been catching and you are wanting to move the trap, make sure (if moved more than a 1m or so) you move it on TrapNZ – particularly if you have many people on your trapping group; as this will allow them to find the trap!
- ❖ Make sure you are inputting the kills for the correct traps. When entering the result double check you are on the right trap e.g. if you are entering a possum Flipping Timmy kill, don't enter it on a DOC200. This is also important for when we are running reports on different trap types. To help with this it is a good idea to label your traps, paint pens work well. We have quite often found results of possums entered in for DOC200s or mice killed by Trapinators which skewed results when doing analysis.
- ❖ Please make sure when you rebait the traps you are also entering this into trapNZ with which specific bait you used – this way we can see which baits are working the best etc.
- ❖ When rebaiting with rabbit and egg please click on both “fresh rabbit” and “whole egg”. This is very helpful for when we are running reports and trying to figure out which baits work best for catching each pest.
- ❖ Just as it is important to add your kills onto TrapNZ it is equally important to add zeros. Otherwise it is impossible to know when the trap was last checked or serviced, or how effective the trap is in its current location. It may look like a trap hasn't been checked in over 100 days but really it has been, it just hasn't been catching animals.

zero is a Number



Zeros record effort

Imagine a trap record from a trap:

STOATS

CHECK 1: 1
CHECK 2: 0
CHECK 3: 0
CHECK 4: 0

If we only record 1s but not 0s the record looks like:

STOATS

CHECK 1: 1

In the first scenario we know there were 4 checks undertaken (and got a stoat ¼ times), but in the second scenario we have no idea of the effort.

Zeros encode information

Imagine a crappy movie. If it is recorded in a digital format then that movie is literally recorded as 1s and 0s:

0111010001101000110101010100
0100111010101000101001110100011
100001101010101010001001101001
01000

Remove the zeros and it looks like this:

11111111111111111111111111111111

We have made that crappy movie even crappier. By removing the 0s we have effectively removed all the information – to the extent there is no story left to tell... the same applies to our trapping history.

Maths loves 1s and 0s

Mathematics is the language of patterns. There are lots of mathematical techniques which can handle presence-absence data (i.e. with 1s & 0s), or count data which includes 0s.

There are only a few techniques which can use presence-only data (i.e. 1s only) and these are not usually useful for analysing trap data.

If you ever want someone to analyse your trapping data then you will need to record absences (times your trap didn't catch anything).

We can only truly understand why a trap catches something by understanding why similar traps caught nothing.

