



PREDATOR TRAPPING NOTES

Northland 2006



SOME KEY POINTS FOR MUSTELID AND CAT CONTROL

1. TRAP SITE SELECTION

1.1. Landscape level

- Should reflect the distribution of the species you are looking to protect e.g. pateke vs kiwi
- Trapping densities typically have been 1 trap to 10 ha for mustelids, but varies with habitat contours, e.g. could be lower density (1/15 -1/20 ha) in areas with large areas of grassland where trapping unproductive, or could be higher density in areas with continuous forest or mosaic habitat where there are many contours that mustelids could be active along.

1.2. Local level

- Select sites where predators are likely to hunt, i.e.
 - stream edges (good for mustelids),
 - bushland edge,
 - fencelines,
 - animal runs,
 - crossings over water courses,
 - fallen trees,
 - ridges (mainly for cats), etc especially saddles
 - along tracks/roads
 - warm sunny sites for cats
- Best sites are where there are converging features like a stream crossing a track at the edge of bush.
- A change in features is also a good site – eg pasture:bush interface
- Select sites that are beneath canopy cover where possible (mustelids especially are likely to be less concerned about overhead predators under canopy and therefore more likely to enter a trap set).

1.3. At the trap site

- A focal point for predators helps, e.g. pampas/flax/log
- Dig ground over at trap site
- If the site is in long grass, keep access open by providing a run, e.g. log over grass to trap site, or weed/spray around the site
- Make an effort to keep site under cover (especially for mustelid traps).

If a trap is in a good place (as per details above) – only consider moving it if it hasn't caught for **2 years!!!**

In a 'hot spot' area you may want to place several traps within a relatively small area.

2. BAITS

2.1. Mustelid baits

DOC Whangarei have recently published the results of a series of statistically robust stoat trials to determine the relative attractiveness of fresh rabbit meat in relation to a variety of potential “long-life” baits, followed by a comparison between the best performing long-life baits (in prep)

The trial concluded that:

- rabbit meat is more effective in catching stoats than pilchards and eggs
- that there was no significant statistical difference in catch between fresh (replaced twice weekly) and salted rabbit meat (replaced fortnightly) although fresh rabbit still caught more stoats.

Other points to note:

- Bait needs to be attractive at all times. Rotten bait wont catch.
- Keeping baits off the ground on wires will delay it going rotten
- With hanging baits (eg in a wooden tunnel) watch bait doesn't interfere with Fenn trap when it is sprung
- Look to maximise air flow through the tunnel to spread the scent as much as possible.
- Placement of bait under the trap is not recommended, as the predator may not cross the trap cleanly which will result in miss catches. Bait also degrades faster on the ground.
- Alternate baits occasionally, e.g. during period of low/nil captures can use eggs to attract the occasional bait shy animals.
- Salted bait is not palatable so it is important to remove old salted baits completely (carry out or bury) so target animals do not get the chance to taste it and be deterred.
- DOC are currently trialling salted possum compared to salted rabbit.
- Long life rabbit bait pastes and blocks have been developed by Connovations, but capture efficacy has not been field-tested.
- Recent reviews of data suggests that salted rabbit is just statistically significantly better than freeze dried rabbit over 2 weeks - that may change with a monthly checking regime.
- Eggs are the least preferred bait – and note that pen trials suggest better performance when eggs are holed.

2.2. Cat baits

- Fresh bait is required – never use salted or preserved bait in traps in which the animal must actually fire the trap by coming into contact with the bait (eg SA Cat trap).
- Minced rabbit best for Conibears/SA Cat Traps
- A mixture of cat nuts and peanut butter is a good longer lasting alternative (although the peanut butter will increase the possum bycatch/interference.)
- Salted bait (e.g. pilchards) is good for legholds and treadle operated cage traps but alternating with rabbit is recommended Canned fish is OK for conibears,
- Alternate baits
- Cage traps – cages need to be stable; also block off rear end of cage to stop pawing, Treadle operated traps are best.
- Timms traps – fish heads are good.
- Remove old baits from the trap site, but it is OK to use fresh bait as enticement.

3. TRAP SETTING

Keep all kill and leghold traps 70 cm off the ground or in a tunnel in areas where kiwi or other birds can access.

3.1 Mustelid Traps

- Wear gloves when handling trapped animals (many target species carry leptospirosis among other things!)
- Take every trap check seriously!
- Keep to a strict routine of what is done to minimise mistakes like leaving safety catches on or obstructions to Fenn bars closing
- Clean out tunnels – keep free of cobwebs/obstructions etc – make it look like the tunnel is being used by animals.
- Use your boot to clear a path from the tunnel entrance back about half a metre – to look like an animal track
- Free and oil the treadle
- Don't put bait under plate
- Single sets - keep fine setting and place bait not too close to blocked off end with mesh.
- 'Hazing' of trap is important to direct animal over treadle.
- Record captures and bait etc

3.1.1 Fenn traps

- Fenn traps are still effective and legal
- Ensure that the treadle plate is level or angled slightly up – and moves freely
- There is value in having a variation in trap type – ie mixture of Fenn and DOC 200
- Fenn Mk IV are easier to set for community members with weaker hands – but wont catch or kill most ferrets!
- Where funding allows – double fenns are preferable to singles (stoats prefer tunnels they can access at both ends).
- Often a rat in one trap will lure a stoat into the other.

3.1.2 DOC 200 single trap in a wooden tunnel

- Note that ferrets may get out of a DOC 200 so DOC 250 should be used where these may be present.
- Big treadle and fine set
- Baffles were made from 20 mm mesh and the entrance hole size was 60 mm square
- The entrance hole should be no larger than 60mm otherwise cats can enter the tunnel and pull out of the trap as it doesn't kill them. A larger entrance hole may produce trap shy cats (unless using a DOC 250.)
- A hole larger than 60mm will also allow possums in which will reduce stoat catch.
- DOC 200s are not approved for cats.
- Wooden tunnels with larger mesh ends are likely to allow more air movement through them therefore increasing the volume of scent for predators to be able to find traps
- Tilt your tunnel so that salty liquid from the bait runs out of the tunnel and not around the trap in order to avoid corrosion
- For more information on DOC 200 best practice sets, contact DOC.
- Note that ferrets have been shown to pull out of DOC 200 traps – and a trap shy ferret can be as dangerous to a kiwi as a wandering dog!

3.2 Cat Traps - SA Cat Traps / ConiBear Traps

These are very effective traps when set correctly – but near enough is not good enough. If not set correctly they wont catch or worse, will produce trap shy animals !

3.2.1 Ramp:

- Angle of the ramp should not exceed 35 degrees.
- Ramp should not be more than 100 mm wide (wider ramp gives more room for rats and target species to go around the side of the ramp and remove the bait without being caught.) Fence battens make good ramps.
- Make sure it is wide enough for a large cat to get up

3.2.2 Mounting plate:

- Secure the trap plate firmly to the tree using screws.
- Choose a straight tree that will let the trap sit as close to the trunk as possible.
- Nail the chain higher up than the trap so that caught animals will hang down.
- The holding plate for the trap should be hard against the top of the ramp – not above it. Push the trap firmly into the plate so it sits at the back and doesn't wobble.
- Ensure the lip of the plate faces upwards slightly– just press down and pull up on the two bottom lips on the plates to realign them.

3.2.3 Trap set:

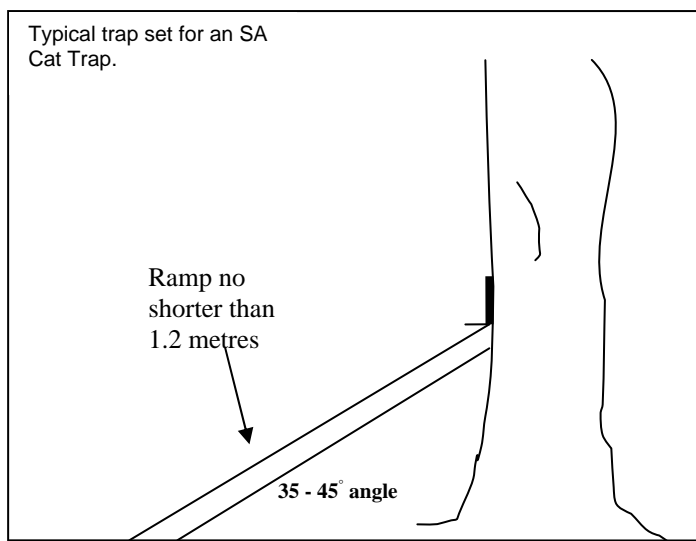
- Have the trigger wires splayed so they section the trap into thirds.
- The trigger pins should be level with or slightly forward of the front of the trap. The spring should be on a 45 degree angle down once set.
- Oil the trigger system (drop of engine oil) at each check – especially if a possum or rat has been caught in the trap.
- Sometimes need to use a chainsaw file in the groove if they become too sensitive - but don't over file! Don't file the back of the washer as it is critical to making the trap go off.
- If the trap will not set try setting the trap with the dog set outside the washer. If the dog is the problem then the trap will keep going off set this way. If the washer is the problem then the trap will stay set.

3.2.4 Bait placement:

- The bait should be placed on the plate and going up the tree above the plate. Bait can also be spread on the ramp as a lure. The bait must be behind the trigger mechanism.

3.2.5 Misc:

- Spraying the trap with black enamel paint can improve the catch rate.
- The trap **must** be set at least 700mm off the ground.



3.3 Frequency of trap checking

- Varies seasonally, and depending on what you are trying to protect
- Kiwi require protection from stoats/cats for their first 6-8 months – but in Northland year round trapping is required because of their very long breeding season, and the presence of ferrets which can kill adult kiwi.
- Fortnightly trap checks from November to June, and monthly checks from July - Oct appears to be sufficient for kiwi protection.
- Pateke may require more frequent trap checks.
- Beware of autumn stoats which will be strong and intelligent and account for a lot of birds at this time of year especially patake and late kiwi chicks.
- If there are high capture rates of rats, consideration could be given to more frequent checks primarily to remove rats from traps, especially in single-set regimes.

4. **MAINTENANCE AND PREPARATION OF NEWLY PURCHASED TRAPS**

Currently no simple solution to prolonging the life of traps.

- Anodising helps prolong the life of the trap (but not if in a tunnel made from tanalised wood). Done by Metal Protection Ltd, Auckland.
- If not anodised, each trap should be dipped in engine/vegetable oil mix before being set in the field (catch rates don't seem to be affected by the use of engine oil).
- At each check the trap should be checked to ensure the treadle plate drops freely. Apply a few drops of engine oil around the dog hinge, and/or tweak the treadle from side to side to free it.
- Bring traps in every 1-2 years and clean - Water blast them and use a wire brush to remove any scale rust. Once dry, dip them into engine oil or a mix of 4ltrs penetrol to 8ltrs of vegetable oil. (Penetrol is available from paint shops)

5. **WHAT IS EATING YOUR CATCH?**

- Mustelids will often make an entry hole in the groin area of possums and work their way into muscle.
- Cats will rip the guts out.

6. **RECORD KEEPING**

- Keep good data!
- Standard sheets available from Helen Moodie of the NZ Landcare Trust
- Map where animals are caught
- Use these data to refine your trapping, e.g. in following years you can be better prepared for focussing on sites and times of year when captures have been high in the past.
- Good data is crucial to maintaining the support of both funders – and others within your project.
- Remember to use your data! Eg monitor what is the rat by-catch from year to year and do the species change in relative abundance?

7. **RIPPLE EFFECTS – OTHER THINGS RESPONDING**

- Besides blue penguin, kaka, quail and pheasants etc benefiting from predator control, pests might benefit in some years also e.g. rabbits, rats, mice and weasels
- If other sensitive or threatened fauna are present, appropriate contingencies might be needed, e.g. control of rats and rabbits - integrated pest management.

8. HEALTH AND SAFETY

- Leptospirosis, camplobactor and numerous other nasties are out there and can take the fun out of living (leptospirosis is carried by both rats and hedgehogs)
- Wear disposable gloves for all handling of traps
- Use water-proof bandaids over cuts and wash your hands before eating or smoking (note the latter is also a hazard!).
- Alcohol based anti-bacterial wipes in sachets are a good way to sterilize your hands before eating in the field.

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