

**MAINLAND ISLAND RESTORATION OPERATION  
(MIRO) INC.**

**Northern Forest Trappers' Handbook**

**December 2018**

## Contents

MIRO's Health & Safety Principles for Volunteers .....	3
Handling Poisonous Baits and Dead Animals .....	4
Handling Kill Traps with Powerful Springs.....	4
Working on or Near Tracks in the Northern Forest.....	5
Working Off-Track .....	6
Reporting Accidents.....	7
Trap Maintenance .....	7
Tips About Lures .....	8
Servicing Your Line and Reporting Your Catch.....	9
Useful Contacts .....	10
Acknowledgements.....	10
Appendix 1. Bait and Trap Supplies at the Menzshed .....	11
Appendix 2. Opening the Bait Bunker.....	12
Appendix 3. Gear List.....	13
Appendix 4. Safety Information for Bromadiolone (in Contrac Blox at 0.005%).....	14
Precautions .....	14
First Aid.....	14
Symptoms.....	14
Ingestion by Dogs.....	14
Appendix 5. Safety Information for Diphacinone (in Ditrac Blocks at 0.005%).....	15
Precautions (almost identical to those for Bromadiolone) .....	15
First Aid.....	15
Symptoms.....	15
Ingestion by Dogs.....	15

## **MIRO's Health & Safety Principles for Volunteers**

- First and foremost, always be thinking about the safety of yourself and those around you. What are the main hazards and how can you mitigate them?
- If it doesn't feel safe, don't do it! Take your time; think of another way; ask for help if you need it, so that you are always working within your capabilities.
- It is essential that you follow the relevant H&S Guidelines for the task you are undertaking. The Guidelines have been developed over a number of years by experienced people and are reviewed annually.
- Immediately report to a committee member any incident or activity that you think is unsafe. And if you see ways of doing things better and safer, share your thoughts with a committee member so that we can all benefit.
- Make sure nothing you do endangers other users of the East Harbour Regional Park.
- If you're not feeling well that day — don't go!

**Remember — at the end of the day, everyone must go home safe!**

## Handling Poisonous Baits and Dead Animals

- The rat baits for the Pelifeed® stations are poisonous to varying degrees, depending on the type, so can be dangerous when ingested and can also be absorbed through the skin. Similarly, dead animals may be infected with diseases such as TB, leptospirosis or campylobacter. Use protective gloves at all times when handling the poisonous baits, traps and carcasses.
- The rat baits we usually use are Contrace Blox (bright blue), which contain 0.005% Bromadiolone as the active ingredient. Details of this poison and First Aid treatment are given in Appendix 4 at the back of this booklet. At times, GW have instead supplied Ditrac Blocks (pale grey/green), which contain 0.005% Diphacinone. This is potentially more poisonous to dogs — see Appendix 5.
- Try not to leave rat bait residue on the ground as it may be eaten by dogs or birds — put it in a rubbish bag with the mouldy baits. If you have a dog with you on your run, it pays to tie it up while servicing each site as they can be quick to take any loose bait.
- Dispose of carcasses by throwing them well clear of the track and waterways.
- Dispose of mouldy bait in the labelled bucket in the Bunker at the Menzshed in Days Bay. You can also return unused bait to the Bunker. If you store unused bait at home, make sure it is always in a locked place and out of reach of young children.
- Ensure that you wash your gloves and clothing and wipe out backpacks after each trip. Keep (well-wrapped) food and water in a separate compartment from the poison. Carrying the poison, lures, gloves and rubbish bag in a heavy-duty plastic shopping bag is a way of keeping these items separate from other gear and means you don't have to remove your backpack at every site.
- Should you feel unwell after a trap servicing trip, seek medical attention and be sure to tell your doctor that you have been handling rat poison and carcasses. The symptoms for TB, leptospirosis and campylobacter are easily accessible on the internet.

## Handling Kill Traps with Powerful Springs

MIRO uses Timms and Possum Master kill traps for possums and DOC200 traps in wooden boxes for stoats, rats and hedgehogs. You must be trained by a designated MIRO trap trainer before using any of these traps because they are strong enough to break fingers and cause lacerations if they go off unexpectedly. Wear your protective gloves in case of disease or infection. We are also starting to trial goodnature self-resetting traps (A12 and A24).

The Timms trap does not have a safety catch, so must be triggered before renewing the lure. This can be done by stamping on the top of the trap with your foot. However, your trainer can also demonstrate a gentler way of releasing the trap (which is better for the trap) by putting it face down on the ground, holding it with your knee, and releasing it gradually by holding the cord with one hand while releasing the trigger bar with the other hand. Fingers must be kept clear of the front opening at all times. The trap must be secured to the ground (with steel pegs) or to a tree to work safely — if it gets toppled, the kill bar can be accessed through a much larger opening, putting non-target animals or people at risk.

The Possum Master has a safety catch which must be moved to the SAFE position before doing any work on the trap. Be sure to hold the fly arm down firmly with one hand while securing (and later releasing) the safety catch. When the trap triggers, the fly arm springs

out a surprising distance and the trap itself jumps if it is not secured, so keep your head well clear of the fly arm at all times in case of accidental triggering. It is good practice to move the safety catch to the SET position only when you leave a site. Get into the habit of having a last look back at the trap as you leave to make sure it is set — **it is surprisingly easy to leave these traps in the SAFE position!** If the Possum Master safety catch is broken off at one end, plan to replace the trap on your next visit. If it is broken at both ends, please remove it immediately, return it to the MenzShed for repair and get a replacement for next time.

The DOC200 is the most powerful trap that MIRO uses, so treat it with respect. After opening the lid of the box, make the trap safe by putting the safety clip in place, making sure it passes under the kill bar handle (as otherwise it's easy to knock the clip off). Then trigger the trap with a stick so that the safety clip holds the pressure of the kill bar. Better still, instead of using the safety clip, push your square drive screwdriver through the kill bar handle and then down the gap between the DOC200 mechanism and the box. You can then clean the trap and replace the lure. If the DOC200 has caught something, first reset the trap and secure it with the screwdriver or safety clip as explained above. Then, with gloved hands, remove the carcass, clean the trap and replace the lure. The DOC200 has a strong spring, so you may need to use the setting tool to reset the trap. Work within your capabilities — ask for help if you need it. Some setting tools do not work as well as they should — if you cannot fully set the trap with the tool, ask the MIRO Trap Repairer for a replacement that works. Finally, remove the safety clip (or screwdriver) before securing the wooden lid of the box with the screw. If the lid cannot be fastened securely, the trap must be left unset. The following video is a great introduction to using the DOC200:

<https://www.youtube.com/watch?v=kABskKb1NzE&index=2&list=PLFVxEmJHAaHpmjDSEI4vETSlA2CFeKgT>

Both the goodnature A12 (possum trap) and A24 (stoat and rat trap) kill with a gas-powered piston that strikes horizontally at the top of a vertical tunnel that the pest animal has put its head up into. The traps are thus quite safe if you keep your fingers out of the tunnel! On the top of the trap is a lure bottle that screws into the top of the tunnel, so it's possible to put your fingers in that end if you have removed the lure, but your finger will first meet the trigger needle, which will trigger the piston. To test the trap, push the trigger needle gently with a piece of stick rather than your finger. As the traps are gas-powered (with small CO<sub>2</sub> canisters), they are safe if the canister is removed **AND THE LAST CHARGE HAS BEEN RELEASED BY TRIGGERING THE TRAP!** Goodnature advise removing the CO<sub>2</sub> cylinder if you are moving the trap, but from our experience this is unnecessary, providing you exercise appropriate care (the trap tunnel is not very accessible when the trap is correctly mounted vertically close to the ground, but is when the trap is unmounted, but it's easy to make it safe with duct tape).

## **Working on or Near Tracks in the Northern Forest**

Servicing trap lines on major public walking tracks close to residential areas is a relatively low risk activity. Take gear that would be appropriate for a walk in the park given the time of year (Appendix 3 contains a fairly exhaustive gear list that you can select from). As there will usually be other people walking the track then any extra risk from doing the trap line by yourself will be low, but you should still tell someone where you are going and when you are due out. A fully charged mobile phone should be carried and will usually have reception.

The MIRO Trapping Coordinator tries to ensure a good match of the physical ability and bushcraft skills of the volunteer with the type of trap line (some lines are on major public

tracks while others are off-track in wilderness type areas). If you are finding your line too challenging, please ask to be reassigned to something more manageable.

You are advised to take some First Aid supplies such as painkillers and bandages to help with minor lacerations and bruises. If you are taking any medications (e.g. asthma inhaler), make sure you have them with you. It also pays to have some emergency food (e.g. OSMs) and drinking water in case you are delayed.

In the advent of a more severe medical emergency, phone 111 and ask for AMBULANCE. If you do not have mobile phone reception, walk to a higher point until reception is found. The 111 medical controller will want to know:

- Where you are (making it clear you are in an inaccessible area)?
- What has happened?
- Who is involved (especially the number affected)?

In emergency situations, it is common to feel panicked. Taking some slow deep breaths will help, as will taking a minute to write down the answers to the Where, What and Who questions before you make the call.

Finally, we do not expect you to service trap lines in adverse weather because cold, wet and windy conditions greatly increase the risk of hypothermia. Check the weather forecast before making the decision to go (e.g. MetService rural forecast at <http://www.metservice.com/rural/wellington#!/wainuiomata>). If the weather looks bad, postpone your trip — trap lines can always be done at a later time.

### **Working Off-Track**

More risk is involved in servicing traps lines that are not on public walking tracks or major routes, especially if they are in remote parts of the Park with no mobile phone coverage. For these lines, good physical ability and tramping and bushcraft skills are necessary and it is recommended that trappers travel with a companion so they can give first aid and go to a high point and phone for help. Boots and either long puttees or long trousers are strongly advised for working off-track, as some slopes are steep and slippery and the undergrowth hides fallen branches and logs, some of which can be sharp. It is recommended that you replace footwear when the treads get smooth — new treads do grip much better than worn ones. Also try to avoid servicing your line immediately after heavy rain as the ground will be much more slippery then.

In addition to a fully charged mobile phone, it is important to carry a suitably equipped first aid kit, a whistle, warm clothing that is sufficiently wind and rain proof to overnight (e.g. warm hat, merino top, polar fleece jacket, raincoat, leggings, over-trousers), as well as some emergency food and water. Ideally, a Personal Locator Beacon (PLB) would also be carried, as this greatly increases the speed of rescue and thus your chances of surviving. One MIRO PLB is available to be booked out from the MIRO Secretary and another from Reg Cotter (see Contacts List). A Hi Viz top is also recommended when off-track — these are available from the MenzShed.

There are no major rivers in the Park, but even Gollans Stream and Butterfly Creek can become impassable after heavy rain. These days it is easy to check recent rainfall on the MetService website, so if in doubt check the rainfall prior to making the decision to service your line.

All of the trap line routes should already be marked with square pink plastic markers so that they can be followed from either direction, but these can disappear or become obscured with

time. Please check annually that others will be able to follow your line — markers are available from the Menzshed. Sites should be marked with the square pink markers over the top of blue rectangular markers and labelled with the site name. If your route becomes too difficult due to fallen trees, please notify the East Harbour Ranger (see contact list) and ask that the route be cleared. When you are not fully familiar with a route (e.g. you haven't done it for some time) it is advisable to carry a map and compass or a GPS with spare batteries. All MIRO trap sites are now geo-referenced, so we can supply files to upload the locations of your traps to your GPS or we can supply .pdf maps of your (and nearby) lines (send requests to the MIRO geolocation database custodian on contact list).

It is essential that trappers travelling alone off major tracks leave intentions with someone, clearly stating the route, equipment carried and time due out. If you are overdue, your contact person should phone 111 and ask for POLICE. Don't forget to tell your contact person when you are out!

Finally, Greater Wellington allows deer hunting by private shooters in the park for about one month each year (usually April). We will notify you of the dates when we receive them from Greater Wellington (there are some non-hunting days during the period as well). Hunting is potentially hazardous for trappers, so you should not service traps when hunters are operating and you should wear Hi Viz clothing off track at any time. In addition to the private hunting, there may be times when professional hunters are engaged (for two weeks on the last occasion). Again, we will notify you of these times.

## Reporting Accidents

All notifiable incidents (when the person affected required professional medical attention i.e. beyond 1<sup>st</sup> Aid), must be communicated to the East Harbour Park Ranger (See contacts) as soon as possible, as Greater Wellington Regional Council is required to communicate these events to Worksafe NZ. All minor accidents including near misses should be reported promptly to the MIRO Health & Safety Coordinator (see Useful Contacts below). Reporting near misses will help us learn from the event and, if necessary, change the way we work to lessen the chance of future accidents.

## Trap Maintenance

Traps must be maintained in good condition to remain effective and safe to handle. You will be able to carry out some field repairs, but often replacement is necessary. Appendix 1 lists the supplies that are contained in the Bunker at the Menzshed in Day's Bay and the supplies that need to be requested from the Menzshed Contact. If you are not confident with field repairs, bring the trap in for servicing — leave it in the bunker with a note saying what is wrong.

The Timms trap can sometimes become overly sensitive. This can usually be corrected by slightly bending the trigger bar. If this doesn't work, bring the trap in for repair. The nylon cord used to set the trap by pulling up the kill bar eventually becomes worn. New ones are available from the Menzshed and are easily replaced in the field. The most common problem with Timms traps are rusted out springs (and sometimes other parts). If one spring is broken, please remove the trap for repair — a single spring does not give enough force for a humane kill.

For the Possum Master, besides the safety catch breakages mentioned earlier, failure of the springs due to rust is common. As for the Timms, please remove Possum Masters for repair, even if only one spring is broken. Rusted out lure holders can also be repaired. A field repair

that can be undertaken is the replacement of the rubber hooks, although it is not easy to get new hooks fully inserted. An alternative is to use thin copper wire, threaded through the hook hole, twisted on itself, and then bent over the nylon cord. Both hooks and copper wire are available from the Menzshed. If you are desperate, then the nylon cord can be temporarily held with a loop of grass threaded through the hole for the hook. Finally, the nylon cord (or noose) can also be replaced in the field, but follow the exact path through the trap as the original cord. The replacement cord is the same as for the Timms, so is available from the Menzshed. Possum Masters in the Northern Forest are fixed to trees with a variety of methods, but we are now providing chains, hooks and staples with all replacement Possum Masters. This is to prevent traps with possums in them being predated by pigs. The staple should be placed at about the same level as the pivot on the fly arm and the hook allows easy removal for servicing.

For the DOC200, cleaning the trap is the most important thing, especially around and underneath the treadle. The trap sensitivity adjustment will be checked separately every year or two — this is not straightforward, so if you are unhappy with how the DOC200 mechanism is working the simplest thing is to trigger the trap, unscrew the mechanism and return it to the Miro trap repairer for readjustment. A common fault with the stainless steel version of the DOC200 is for the treadle not to pop up sufficiently when you are setting the trap, due to the spring being too weak. This adds to the risk in working with the trap, so if cleaning around the treadle does not fix the problem, the mechanism should be brought in for adjustment.

### **Tips About Lures**

For the possum traps, the Menzshed maintain stocks of cereal-based lures in the bunker. These have different hole sizes for the Possum Master (large) and Timms trap (small). Some Timms traps have an especially thin trigger bar, so hold the lure in place with a piece of rubber or vegetation. When rats are plentiful, the cereal lure can be wrapped in fine wire mesh and secured with thin lacing wire. This will be stocked by the Menzshed when needed, as will plastic lures, which require scented dough to be inserted in them. Cinnamon sticks and apple are good alternatives to the cereal bait — trappers are encouraged to experiment, but you will need to supply these yourself. Containers of scented flour are kept in the bunker — the flour should be sprinkled liberally to make a white blaze on the tree or ground close to the trap — possums are inquisitive, so will be attracted both by sight and smell. You can also place a stone or log on the Timms traps to add interest for possums!

For the DOC200s, dried rabbit is kept frozen in the Menzshed, so needs to be ordered in advance or picked up on a Tuesday or Thursday morning. If you have some left over, keep it in your freezer for next time. Fresh eggs can also be used, with some trappers preferring to put a small hole in them so that the scent can get out, but this means they go bad more quickly. We don't try to stock eggs, so you will need to supply these yourself. Baits should be fresh, so you can use a freshly caught rat or stoat if you wish — cut in half it can be used to bait two traps. You can also experiment with other attractants such as dribbling Chinese fish sauce near to the trap entrance. Finally, some people believe that disguising (or 'hazing') the traps helps attract stoats, although the evidence for this is mixed. One approach is to put wood or other forest floor detritus each side of the trap entrance and then scrape in between with your hand or boot so as to make a clear path to the front door. The rationale is that stoats like to hunt down burrows, so a burrow-like entrance will attract them.

The purpose of the rat bait stations near to the possum traps is to kill rats and mice so as to prevent them eating the possum lure. This seems to be only partly successful, as in times of high rodent numbers the possum bait is often eaten (even if sometimes the rat bait has not



been taken) — in these cases the wire mesh or plastic lures will help. However, it is still worthwhile to ensure that the rat bait stations are operational. Check the bait at the bottom of the tube. If it is mouldy and unpalatable, then remove it and put a fresh bait at the bottom. While the bait can be rotated, with some less fresh bait left at the top, mouldy baits should be removed. If consumption is low, just use 4–5 blocks rather than filling the Pelifeed® station to the top.

Check that the entrance to the feeder is placed where rats and mice can access it. Also check that it is sloping downwards, so that water doesn't pool inside the feeder and make the bait go mouldy faster. From time to time, as the trees grow, a new position may need to be found for the feeder. You may also need to take replacement plates (from the MenzShed) that hold the feeder onto the trees as most older plates are nailed on and are very difficult to remove. For this reason, it is better to use stainless steel square drive screws, rather than nails.

### **Servicing Your Line and Reporting Your Catch**

The current recommendation is for the lines to be serviced monthly. If you would like to change to a different line, either easier or harder, or would like some extra help, then email the Trapping Coordinator. Also, please say if you have spare time and are able to help fill in for others when required. We realise that, over time, people's other commitments change, so if you feel a need to take a break from doing your line don't hesitate to discuss it with the Trapping Coordinator.

Please email a site-by-site report of your catch to the MIRO Trapping Coordinator after each servicing trip on the standard spreadsheet that will be provided. For bait consumption, just enter the number of new blocks you have inserted and the number of mouldy blocks you removed. The spreadsheet calculates the difference between these two numbers to get the consumption — any changes in the total number of blocks you choose to leave will get averaged out. As we develop new spatial information systems, knowing things such as pest animal catch and possum lure and rat bait consumption will help us respond better in terms of improving the trap network, altering the servicing frequency, making more robust lures available and even changing the type of rat bait.

If you are in the park, find a possum in a trap and have your gear with you, it is a good idea to remove the possum and reset the trap. If you come across a trap which no longer has a lure, add another lure. Please report catches to the Trapping Coordinator so that we have a complete picture of what is being trapped. Please also report any pest sign such as from deer or goats, pig rooting, invasive weeds or any hazards, such as wasp nests, on your trap line by sending an email to [info@miro.org.nz](mailto:info@miro.org.nz).

## Useful Contacts

- Gail Abel H: 562 7023 M: 021 952 210 [gail@wildwelly.nz](mailto:gail@wildwelly.nz)  
MIRO Trapping Coordinator  
MIRO Committee Member
- Jo Greenman (GW) M: 021 873060 [Jo.Greenman@gw.govt.nz](mailto:Jo.Greenman@gw.govt.nz)  
East Harbour Regional Park Ranger
- Rob Masters (GW) W: 830 4123 M: 021 919 402 [Rob.Masters@gw.govt.nz](mailto:Rob.Masters@gw.govt.nz)  
Senior Biodiversity Officer, Greater Wellington Regional Council
- Manas Chakraborty M: 021 133 7264 [manas209@gmail.com](mailto:manas209@gmail.com)  
MIRO Health & Safety Coordinator  
MIRO Committee Member
- Mike Parker [mikeandcarolynparker@gmail.com](mailto:mikeandcarolynparker@gmail.com)  
Menzshed Contact for regular bait and trap supplies
- Parker Jones H: 562 7607 [parker\\_jones@xtra.co.nz](mailto:parker_jones@xtra.co.nz)  
MIRO Menzshed liaison for special requests to Menzshed  
MIRO holder of loan PLB
- Terry Webb H: 562 0236 M: 021 962 156 [Terry.Webb454@gmail.com](mailto:Terry.Webb454@gmail.com)  
MIRO Trap Repairer  
MIRO Geolocation Database Custodian  
MIRO Chair
- Sally Bain H: 977 4507 M: 021 113 0062 [iain.sally@gmail.com](mailto:iain.sally@gmail.com)  
ERAT Project Leader  
MIRO Committee Member
- Reg Cotter H: 568 6960 [regpetone@gmail.com](mailto:regpetone@gmail.com)  
Alternative bait supplier and holder of second loan PLB

## Acknowledgements

MIRO is committed to ensuring the health and safety of its members. To help achieve this, the 2015/16 MIRO Committee developed health and safety guidelines for trappers that are contained in the first part of this Handbook, while other parts draw on earlier MIRO material. This version incorporates valuable feedback on earlier versions from a number of MIRO trappers and the current MIRO Committee, for which we are very grateful.

## Appendix 1. Bait and Trap Supplies at the Menzshed



### EASTBOURNE & BAYS

The Menzshed is located at Williams Park by the Duckpond near Kereru Rd. They operate on a Tuesday and Thursday morning from 9.00 a.m. to 12 noon, so all email orders need to be placed by Monday or Wednesday evening or you can call in personally during these times.

Your order will be prepared and placed in the small concrete bunker on the south side of the Menzshed with your name on it. There is a combination lock on the door (see Appendix 2 for access details).

Remember to specify the number of:

- Possum Master or Timms lures (you need to be specific regarding the trap type);
- Rat baits (in bags of 25);
- Stoat lures (dried rabbit meat — these are refrigerated and so not stored in the bunker except as part of your order); and
- Bottles of flour lure.

However, you can go to the Bunker and source Possum Master lures, Timms trap lures, scented flour, blocks of rat bait, protective gloves and High Viz vests at any time if you prefer, but please email a list of what you have taken to the MenzShed Contact (see Useful Contacts list).

You have to pre-order the following items by sending an email to the Menzshed Contact as they are not stored in the bunker:

- Dried rabbit baits for mustelids, used in the DOC200 traps, which are kept frozen until needed;
- Replacement Timms and Possum Master traps, Pelifeed® Stations, Caps and Wires;
- Replacement Possum Master wires (we are now using copper wire versus the plastic hooks);
- Replacement Possum Master and Timms nylon cords;
- DOC200 setting tool, square driver screwdriver and safety staples; and
- Pink tape, square pink trap line markers and rectangular blue trap site markers.

A bucket for mouldy bait (labelled) is left in the Bunker. Bag and return any mouldy bait there.

Bait can also be ordered from Reg Cotter at 1 Bolton St, Petone (just off the Esplanade). Reg leaves bait orders on his veranda for collection, mouldy bait can be returned to Reg and other supplies ordered from him (see Useful Contacts list).

## **Appendix 2. Opening the Bait Bunker**

The locking system for the Bunker at the Menzshed uses a 'key safe' fastened to the door of the Bunker which contains the key to the padlock on the door. Detailed below is the procedure to follow to open the door.

1. Enter the code by pressing the buttons on the key safe in that order; you will hear a click when each button has been pressed fully.
2. Slide the top button down, the front part of the safe will open from the top and attached to this is the key; use this to open the bunker padlock. Do not detach the key from the metal safe front.
3. If the safe does not open you may have incorrectly entered the code, in this case slide down the lower button marked 'clear' and try again.
4. When you have taken your order from the bunker lock the padlock.
5. Re-enter the code as in (1) above.
6. Replace the key and front of safe into the body of the safe, bottom first and slide the top button down.
7. The front of the safe will now go into the body, if not, clear the code as in (3) and try again. Please check that it is secure.

Any problems please call the Menzshed Contact.

This sounds a bit complicated, but when you have done it a couple of times it becomes easy. Should you wish to have a practice come to the shed on a Tuesday morning and we will guide you through (if you get to the shed at about 10 a.m. we will also offer you a cup of tea).

### Appendix 3. Gear List

This is a fairly exhaustive list of what can be useful on your trap line. What you need will vary according to factors such as the time of year, weather, remoteness, types of traps, etc., so use this list as a prompt for what to take on your line. If anything useful is missing, please let us know!

- Possum lure (2 kinds)
- Scented flour
- Rat poison
- Rubbish bag
- Protective gloves
- Stoat lure (dried rabbit or eggs)
- Square drive screwdriver or hex nut spanner for opening DOC200s, depending
- Safety staple for DOC200s
- DOC200 setting tool
- Cleaning brush
- Hardcover notebook and pencil
- Spare nylon cord for Possum Master and Timms traps
- Spare copper wire for Possum Master
- Spare 40 mm stainless steel screws
- Boots, warm socks and puttees
- Warm clothing (warm hat, merino top, polar fleece top, raincoat, leggings/trousers, over-trousers, gloves)
- Food (lunch, OSMs)
- Water
- Headlight
- Personal medications
- 1st Aid
- Toilet paper
- Whistle around neck
- Candle and matches for emergency fire lighting (not in drought conditions!)
- Swiss Army knife
- Charged mobile phone
- GPS with spare batteries or map and compass
- Hi Viz vest
- Personal Locator Beacon (PLB; a MIRO PLB can be booked out from the MIRO Secretary)

## Appendix 4. Safety Information for Bromadiolone (in Contrac Blox at 0.005%)

Bromadiolone is a second-generation, single-feeding, anticoagulant rodenticide, which is less toxic to non-target animals in primary and secondary poisoning situations than other single-feeding anticoagulants.

### Precautions

- Store in original container, tightly closed in a safe place away from foodstuffs.
- Avoid all contact by mouth. Wash hands and exposed skin before meals and after any contact.
- Prevent access to baits by children and domestic animals, particularly cats, dogs, pigs and birds. Toxic to fish and wildlife.
- Do not use where food or feed could become contaminated. Dispose of empty containers safely.
- Avoid contamination of any water supply with baits or empty containers.

### First Aid

Note: this advice is much more conservative than the precautions above

Ingestion: Have person sip a glass of water if able to swallow. Do NOT induce vomiting unless instructed by a doctor. Phone the National Poisons Centre (0800 764 766) or a doctor as soon as you are able.

Eye contact: Hold eye open and rinse slowly with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. If irritation develops, obtain medical assistance.

Skin contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. If irritation develops, obtain medical assistance.

### Symptoms

Ingestion of excessive quantities may cause nausea, vomiting, loss of appetite, extreme thirst, lethargy, diarrhoea, bleeding.

### Ingestion by Dogs

Dogs are not particularly susceptible to Bromadiolone and would need to eat many blocks to be badly affected. The following article shows how to calculate lethal doses of a number of anticoagulants: <http://www.aspcapro.org/sites/pro/files/d-dbriefoct2002.pdf>.

For more information on Bromadiolone see the Safety Data Sheet:

[http://www.belllabs.com/images/uploaded\\_files/files/0000/0949/12455-79\\_Contrac\\_All\\_Weather\\_Blox\\_0116.pdf](http://www.belllabs.com/images/uploaded_files/files/0000/0949/12455-79_Contrac_All_Weather_Blox_0116.pdf)

## Appendix 5. Safety Information for Diphacinone (in Ditrac Blocks at 0.005%)

Diphacinone is a first-generation, multi-feed, anticoagulant rodenticide, which has a wider toxicity range in dogs than Bromadiolone, so can be up to ten (10) times more toxic.

### Precautions (almost identical to those for Bromadiolone)

- Store in original container, tightly closed in a safe place away from foodstuffs.
- Avoid all contact by mouth. Wash hands and exposed skin before meals and after any contact.
- Prevent access to baits by children and domestic animals, particularly cats, dogs, pigs and birds.
- Do not use where food or feed could become contaminated. Dispose of empty containers safely.
- Avoid contamination of any water supply with baits or empty containers.

### First Aid

Note: this advice is much more conservative than the precautions above

Ingestion: Phone the National Poisons Centre (0800 764 766) or a doctor as soon as you are able. Do not give anything by mouth or induce vomiting unless instructed.

Eye contact: Hold eye open and rinse slowly with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. If irritation develops, obtain medical assistance.

Skin contact: Wash with soap and water. If irritation develops, obtain medical assistance.

### Symptoms

Ingestion of excessive quantities may cause nausea, vomiting, loss of appetite, extreme thirst, lethargy, diarrhoea, bleeding.

### Ingestion by Dogs

Dogs are potentially susceptible to Diphacinone, so need to be checked by a vet if they eat just a few blocks (which could be 10% of a lethal dose). The following article shows how to calculate lethal doses of a number of anticoagulants:

<http://www.aspcapro.org/sites/pro/files/d-dbriefoct2002.pdf>.

For more information on Diphacinone see the Safety Data Sheet:

[http://www.belllabs.com/images/uploaded\\_files/files/0000/0728/ditrac\\_super\\_blox\\_all\\_weather\\_0814.pdf](http://www.belllabs.com/images/uploaded_files/files/0000/0728/ditrac_super_blox_all_weather_0814.pdf)