The hands-on guide to predator control

For community groups and projects

PREDATOR FREE NZ

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We gathered eight experts with the finest minds — and dirtiest boots — to share their knowledge on predator control. Then we mixed their insights with existing best-practice resources to create a hands-on guide to help sharpen your skills and get more impact from your efforts.

Is this guide for you?

These guidelines are for community predator control groups that already know the basics and want to become more effective at targeting specific predator species. For an introduction to trapping in your backyard, visit www.predatorfreenz.org.

Expert-backed information

This guide uniquely blends the field experience of leading predator control practitioners and existing best-practice resources, including the Department of Conservation's Practical guide to trapping, to offer hands-on and tangible recommendations for predator control.

With thanks to: Biz Bell (Wildlife Management International Ltd), John Bissell (Backblocks Environmental Management Ltd), Tim Day (Day in the Bush), Tim Sjoberg (Pest Free Banks Peninsula), Lindsay Wilson (Hollyford Conservation Trust), Cam Speedy (Wildlife Management Associates Ltd), Michelle Bridge and Nick Poutu (Department of Conservation).

Trap recommendations

- All included traps have passed National Animal Welfare Advisory Committee (NAWAC) guidelines.
- We've narrowed down the trap recommendations for each target species. While other traps are available, our recommendations aim to reduce decision-making time and are based on what consistently works in the field.

Toxin recommendations

This guide focuses on toxins that don't require a Controlled Substance Licence (CSL) to keep things simple and accessible. While there's a range of choices for toxins, our recommendations are based on effectiveness in the field.

CROSS-SPECIES BEST PRACTICE

Principles for predator control

There's no one-size-fits-all approach to predator control, but these solid principles can help you make smart decisions along the way.

This guide is not a rule book to follow precisely, but we hope it provides strong direction.

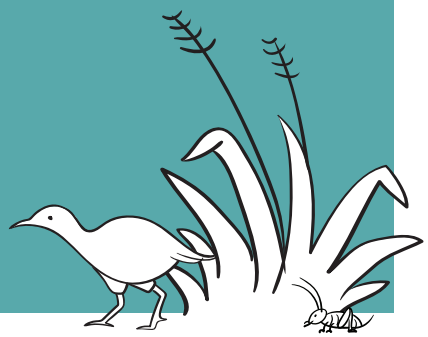
We recommend tweaking your approach based on location, habitat, budget, season, time available, and experience.

Predators behave differently across environments and adapt over time, so it's important to record your observations, stay flexible and be ready to adjust.

Stay realistic based on the time, money and people-power you have available.

Key principles

1. Know your outcomes and goals
2. Understand your target predators
3. Play the long game
4. Take your time, reduce caution
5. Maximise quality at every set-up
6. Be flexible
7. Keep it real



1. Know your outcomes and goals

Start by defining your outcomes and how you'll measure progress. What species are you protecting? What predators are you targeting? Are you aiming for initial knockdown or ongoing suppression?

- **Set realistic targets.** Identify the native wildlife improvement you're aiming for, and the reduction in predator numbers needed to get there.
- **Keep good records.** Monitor predator numbers and changes in the species you are trying to protect. This will help you spot what's working — and what's not — and adjust your approach.
- **Record both captures and empty traps.** A full data set will provide a complete picture and if a trap isn't catching anything, you can modify your approach.
- **Log lure use.** So you know what works well, and how it varies at different times of year.
- **Keep careful records of which toxins are used, how and where they are applied, and when.** Keep track of what works and doesn't, to avoid overusing the same toxin.

2. Understand your target predators

Animal behaviour isn't static. It changes with season, habitat, and landscape. What works once may not work next time, so being curious and adjusting your approach will go a long way. Take a look at our species-specific guides to help your understanding.

- **Think like your target predator:** How would a rat approach this trap? What might entice it to enter?
- **Consider how predators behave in a specific location.** Dense vegetation, food availability, waterways or human activity can affect how predators move and interact with traps.
- **Try using cameras or tracking tunnels** to understand how and why animals interact (or not!) with your traps and bait stations.

3. Play the long game

Upfront investment can save costs over time, so invest in durable and effective tools.

- **Plan for the future.** Your traps may not need to be safe for kea or kiwi now, but if those species rebound, consider what safety precautions you need in place. Design your project now for the change you want to see.
- Cost is always a factor, but it is more useful to consider **'cost per catch' rather than 'cost per trap'** i.e. a more durable and powerful trap might be a better investment than several cheaper ones.
- More durable traps (e.g. treated wood and stainless steel) may be heavier to transport, but **this effort is a one-off** compared to replacing traps over time.

4. Take your time, reduce caution

If animals have a bad experience with traps or bait stations (e.g. become scared from wobbly traps or get sick from a sub-lethal toxin dose), they may avoid them for good. Take the time to understand what's happening and adjust your approach. Make your set-up inviting. Let animals get used to new smells, flavours, and device locations.

- Put unset traps and boxes in place for a while before setting so **animals get used to them**.
- **Pre-feeding builds trust**, associates your device as a food source and increases the chance of success once traps are set or toxins added. Leave traps lured but unset or bait stations filled with non-toxic bait to get animals used to it.
- If traps start to catch fewer animals, **try unsetting them and pre-feed for a couple of weeks** before turning them back on. This activates scent trails and encourages social interaction around traps.
- Animals may take a while to interact with your traps or take bait, not necessarily because they are trap-shy, but just hesitant. Keep an eye on it, adapt your approach if needed, and **use your records to spot patterns and improve results over time**.

5. Maximise quality at every set-up

Small changes can have big impacts. It's better to have fewer devices performing well than spread yourself too thin.

- Your trap or bait station is competing with natural food sources and environments, so ensure it stands out to predators by making it appealing and inviting. **Lure and blaze around the area, and scuff the entrance.**
- **Schedule maintenance** into your plan to ensure everything works as it should. Check traps are calibrated, weight-tested and firing well, and that lure is appealing and replaced regularly.
- **Ensure trap boxes, tunnels and bait stations are secure and don't move.** Wobbly devices can deter animals from entering.

6. Be flexible: Adjust device placement and timing

Observe what's happening and what's working in your project space. As predator numbers change, adjust device placement, seasonal deployment, and how often you check devices.

- **Place traps and bait stations along linear landscape features** like ridgelines, rivers, and tracks where animals are most likely to travel. It is better to pick good natural features than stick to a rigid grid.
- Move a trap or bait station a few metres off your trapline if that's a better spot.
- Consider the seasons and vulnerable times for the species you are trying to protect. **You may need to intensify your efforts at certain times within the year,** e.g nesting or change up your lures based on seasonal availability of natural food sources.

7. Keep it real

Big goals are great, but every project has limits — **budget, time, and people**. Use this guide to improve the efficacy of your predator control, but tailor it to what you can sustainably manage.

- **Consider trap numbers, location and density**. Weigh this against the number of people involved and how frequently they can service the traps.
- Choose lures and replacement schedules carefully. **Lures can lose appeal over time.** Some lures (e.g. whole eggs) last longer; others (e.g. meat) dry out or rot quickly. Align your lure strategy with your trap-checking schedule to strike the right balance.
- Save time and have more impact by **targeting multiple species**. Savvy device choice, spacing and placement can make the most of your trapline. The scent of other caught animals will also attract your target species.

Safe and effective toxin use

Toxins can be useful, particularly for initial knockdown over large areas when predator numbers are high. This can be followed by ongoing trapping.

Careful toxin choice, planning and other considerations are needed, including:

- Land type: Consulting and permissions with landowners, councils, residents, land users etc.
- Safety of people distributing the toxin
- Safety to pets, birds and other non-target species
- Environmental impact
- Storage, timings and method of toxin distribution

As a starting point, our species-specific guides offer recommendations for toxins that do not require a Controlled Substance Licence (CSL). We recommend working with experienced contractors for additional advice and support to design a plan tailored to your area and goals.

Planning and using toxins safely

- **Less is more:** Use only the minimum amount of toxin needed and remove it when done. Overuse and sub-lethal doses can lead to resistance or wariness among target predators, making the toxin less effective next time.
- **Don't harm what you're trying to protect:** Toxins can pose risks to the environment, native species, other animals, and the food chain through secondary poisoning. For example, kiwi may become ill after eating poisoned slugs and snails.
- **Site specifics:** Before selecting a toxin, consider the site specifics. For example, in remote areas, can bait be removed again easily, and will it spoil in the meantime? In residential areas, think about how to keep bait away from kids and pets.
- **Beware bait thieves:** Think about what other predator species are around and plan your toxin and trapping sequence accordingly. Be aware of other species taking the bait; for example, you may need to reduce rats before possums. If your bait is vanishing fast, don't assume success. It could be one greedy possum or a bunch of mice. Cameras can be helpful here to understand what's going on.
- **Mix it up:** Changing to a different toxin can also help minimise resistance and overuse. Using the same toxin repeatedly will reduce its effectiveness.

Technique is everything

Using different toxins correctly will keep costs down, avoid over-feeding and minimise environmental impact.

- **One feed may be all that's needed:** With single-feed toxins like Brodifacoum, the animal eats a lethal dose, but it takes multiple days to work, so it may continue feeding in the meantime. Monitor your bait take to avoid unnecessary waste and toxins in the environment.
- **Avoid sub-lethal doses:** Multiple-feed toxins like Pindone require animals to consume enough to get a lethal dose over time, so check bait take and be prepared to top up regularly. If the bait runs out before they've eaten enough, it won't work. The animal may feel unwell, learn to avoid the bait, and communicate this to their colonies.
- **Pulse like a pro:** Pulsing means making toxic bait available in the right amount, at the right time, and then removing it while it takes effect. Pulse again (along with trapping) to catch any remaining animals.
- **Pre-feed to draw them in:** For some toxins, pre-feeding with non-toxic pellets is useful to get predators used to bait and stations. Once the bait is switched to toxic, they are more likely to eat more and get a lethal dose before symptoms set in. (This doesn't apply to all toxins, so check the manufacturer's instructions depending on what you're using.)
- **Tidy up:** Don't put new bait on top of old, mouldy bait. Old bait is less appealing, risking sub-lethal doses. Remove unused toxins and dispose of them safely according to the manufacturer's instructions.
- **Fresh is best:** Be aware of toxin freshness and store it carefully. Don't buy too much and use it quickly after purchase. Maintaining high-quality, palatable bait is critical.
- **Keep baits dry:** Moisture will seep into the baits during transfer into the bait station and accelerate degradation of pellets — even under an umbrella. A good rule is not to lay bait if more than 10mm of rain is forecasted that day.
- **Make it appealing:** As with trap boxes, ensure your bait station is appealing to the pests you are targeting: blaze and scuff around entrances, rub lure around the area and entrance to encourage them with scent.

Safety to yourself, others and non-target species

- **Storage and handling:** Wear gloves and wash your hands thoroughly after handling toxins and storage containers. Ensure storage bins are firmly sealed, labelled, and out of reach of kids and pets.
- **Lock it up:** Ensure bait stations are locked or secured to ensure the toxin only reaches target predators.
- **Let people know:** Post appropriate signage in areas where the toxin has been distributed.
- **Think about pets and wildlife you want to protect:** Carefully consider the potential effects on pets and native species in the area.
- **If you suspect poisoning:** Call the National Poisons Centre on **0800 POISON (0800 764 766)**.

A few final notes of caution

- **Note on CSLs:** This guide is for people without a CSL (Controlled Substance License) or a handler's license. This means we cover **chronic toxins** (used in bait stations), not **acute toxins** (like 1080, feratox/cyanide and PAPP). Find out more about getting a CSL online. Alternatively, consider working with a professional contractor with a CSL. Your regional council or local DOC office may be able to provide details of contractors.
- **Note on Brodifacoum:** We recommend particular caution with Brodifacoum because it can get into the food chain (e.g., through slugs, snails, possums, and pigs), and can cause secondary poisoning to pets and non-target species. DOC restricts its use on the mainland, and MPI is currently reviewing it. In the future, it may require a handler's certificate.
- **A note on toxins in our species-specific guides:** We have included toxin guidance for ship rats, Norway rats and possums in our species-specific guides. Mustelids and feral cats require acute toxins that require a CSL and are therefore not covered by this guide. We recommend you contact a professional contractor for assistance when using toxins targeting mustelids and feral cats. Contact your regional council, local DOC office or Predator Free New Zealand Trust for a list of contractors.

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