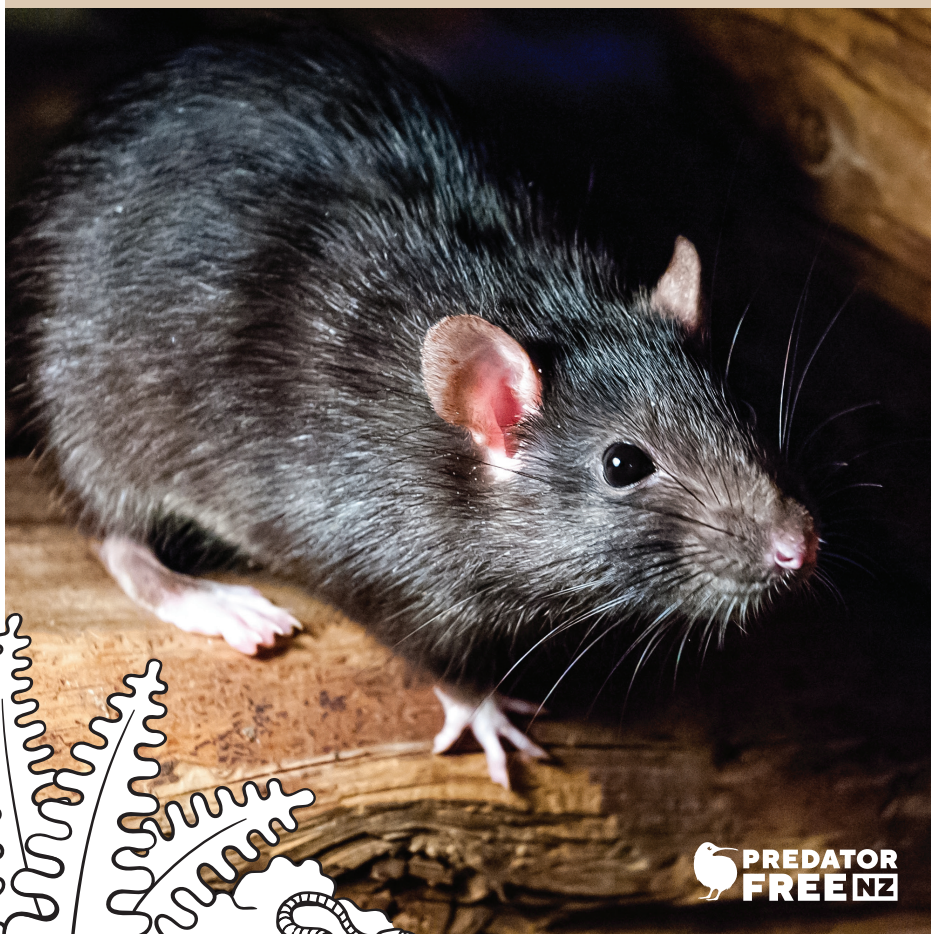


A GUIDE TO

Ship rat control

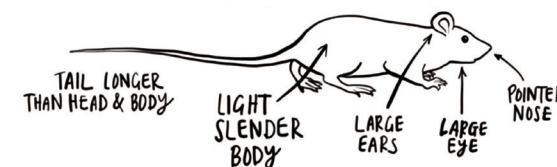
Climbing, cautious critters

This guide focuses on ship rat control and assumes you're familiar with general predator control practices. For general predator control advice, visit predatorfreenz.org.



Behaviour insights

- **Strong climbers:** They spend a lot of time in trees — place traps in trees as well as on the ground.
- **Neophobic:** They are cautious of new things. To overcome this, try prefeeding: leave traps lured but unset or bait stations filled with non-toxic bait for a week or two.
- **Exploratory:** Ship rats have a home range of approximately one hectare (100m x 100m), but this can fluctuate with food availability and population density, so it's worth maintaining the size of your trap network even if there seem to be fewer signs of rat activity.
- **Driven by scent:** Rats rely heavily on smell. To boost your success, rub lures around trap box entrances and use scented blaze to draw them in.
- **Widespread, frequent, fast breeders:** Ship rats reproduce fast. Focus on getting numbers down at the key times of vulnerability for native species you're protecting (e.g. early springtime for most birds).



Understanding ship rats

It's helpful to know whether you're dealing with ship rats or Norway rats, as they behave differently and like different lures. However, it can be hard to tell what species is present and you might have both.

You'll probably need to catch a few rats before you can tell which species is present. You can also try experimenting with different lures to see which are eaten first: ship rats prefer sweet flavours like peanut butter, Norway rats prefer fatty lures like meat or fish oil.

As a general rule of thumb, ship rats are more common, especially in forests. If you're near waterways or urban areas, Norway rats are more likely. (Kiore are not covered in this guide.)



Lures: Sweet tooth

Ship rats are less picky than Norway rats and will eat many things.

Top lures

- Peanut butter (mixed with rolled oats to make it go further)
- Nutella
- Aniseed flavoured lures
- Local/seasonal foods like apples, macadamias or walnuts

Pre-feeding works

Pre-feeding — luring unset traps or using non toxic bait in bait stations — helps rats become familiar with a trap and lure and reduces their natural caution.

Flour blaze around rat traps will increase interest by providing an appealing scent. **Blaze when the ground is dry:** try flour with icing sugar and aniseed or cinnamon.

In springtime, you'll be competing with abundant natural food, so go big. **Try applying generous amounts of blaze at and around trap locations.**



Tip: Avoid mice eating up your lure by:

- Placing a mousetrap at the end of the trap box. A caught mouse will have the bonus benefit of attracting rats and stoats.
- Place lure in a container like a tea strainer or hang it up high to protect it from nibbling mice.

Traps: Types, placement and timing

Recommended traps

These traps should be in their bespoke wooden tunnel/box to protect wildlife and people.

- **Victor Professional:** Cheap and effective, but degrade over time, so factor in replacement cycle and overall budget. Regular maintenance will stretch their lifespan. Make sure you buy genuine Victor Professionals, not the low-quality imitations.
- **DOC 200:** A solid long-term choice. Though more expensive, these traps are more robust and durable. They are also ideal for targeting Norway rats, stoats, hedgehogs, and heavier weasels.

Other trap options

- D-Rat Supervisor is helpful for placing up trees.
- Goodnature A24 is self-resetting, requiring less frequent checks.
- NZ AutoTrap AT220 is a self-resetting possum trap that can catch rats, too.

Important: In areas with kiwi, weka, and kea, the trap box design will be different — longer vestibule lengths, side entrances and/or metal fittings may be required. Check the DOC trap box dimensions online.



Note: The exterior mesh entrance on the wooden box should be 50mm x 50mm.

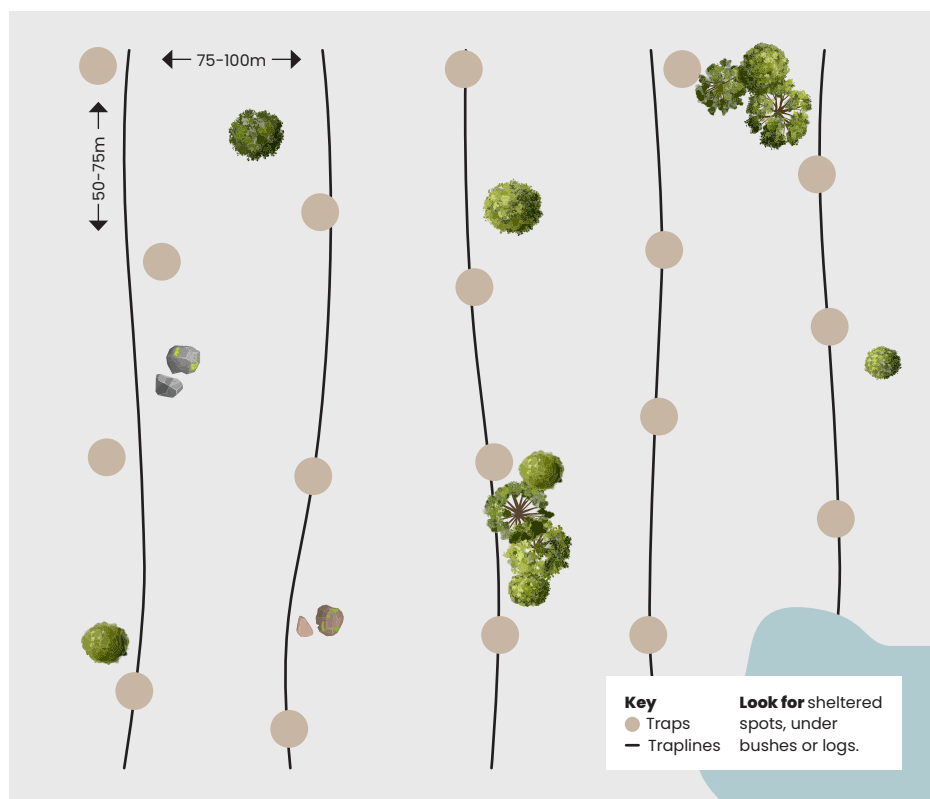
- This can be increased to 60mm x 60mm if you are also trapping Norway rats and stoats in a DOC 200 box.
- Rats are more likely to enter a trap box if they can see through it — mesh is good for visibility.

Trap density and grid

Your trap density and grid will vary based on your goals and capacity.

Recommended grid

- 75–100m between traplines
- 50–75m between traps along traplines
- Consider placing traps closer together for initial knockdowns, areas with high rat populations, or at the edges of your project zone



Tip: If your grid point lands in a damp spot or down a bank, **shift the trap upslope to better, drier, warmer terrain**, where rats are more likely to run. Explore up to 10m from the grid point.



Trap location and placement

Prioritise high rat habitat areas (e.g. forests, bush) and landscape features: ridges, gullies, fence lines.

A grid layout is recommended, but it's not a rule. It's worth wandering 10–15 metres from the proposed grid to find the best trap site.

Look for:

- Dry, warm, level ground
- Sheltered spots, as rats are less confident out in the open – try under bushes or piled up logs

Trap checking frequency

- **Initial knockdown:** Check traps as frequently as possible
- **Suppression:** Every 2–4 weeks

Pay attention

- Record your trap checks – remember recording no catch is as useful as catches. Lots of groups use Trap NZ to log trap checks.
- Adjust timing as needed based on higher populations and vulnerable times for the species you're protecting.

Toxins for ship rats

Toxins are a powerful tool for controlling ship rats — especially in rough terrain, when there are high numbers, or across large areas.

Use toxins to reduce rat populations at the time the species you are protecting are most vulnerable. Consider using when natural food sources are low (e.g. late winter): toxins will become more appealing to rats when there is less to eat. This advice covers toxins that don't require a Controlled Substances Licence (CSL). For further information around toxins for rats, head to predatorfreenz.org/toolkits.

Recommended toxins

- **Pindone (pellets):** Highly palatable and low toxicity to birds.
- **Diphacinone (pellets, paste or blocks):** Rats need to eat less to get a lethal dose, but it's less toxic to mice if you're targeting them as well.

Recommended bait stations

- Philproof bait stations can be used for pellets, paste or blocks.
- Black 'Tomcat' bait station (or similar) are used for toxin blocks.

If possums are around, fit possum-proof baffles to the Philproof bait station (possums will eat all the ship rat toxin without receiving a lethal dose). Or use black 'Tomcat' -style bait stations, which possums can't access.

Both Pindone and Diphacinone are highly palatable but require rats to feed on them multiple times over several nights to get a lethal dose. Ensure a constant, fresh supply of toxin is available, enough to feed all the targets, and monitor carefully. Check every few days at first. Top up if required, then leave for a few weeks until uptake stops, then remove the leftover toxin. Check the manufacturer's instructions for exact timings.



Tip: Pre-feeding can help overcome bait shyness and resistance: stock bait stations with tasty, non-toxic lures to encourage rats before switching to toxins.

Boost initial interest at the bait station by adding scented flour blaze around the area.



Bait station location and placement

Similarly to your trap network, place bait stations in locations where ship rats are present (ridges, gullies, fencelines) and then backfill to a grid of 75-100m (between lines) and 50-75m (between bait stations along lines), depending on feasibility.

Remember that ship rats like to climb, so place bait stations higher up as well as on the ground. Create ramps or platforms with branches or planks at bait station locations to provide easy access to bait stations installed higher up (but be aware of the safety of non-target wildlife and pets too).

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).



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.