

KILL TRAPPING FOR RAT CONTROL

TECHNIQUE

Trap station layout

- Spacing no greater than 100 x 50m apart in a grid in forest, or 25m apart on a line along the edge of the forest. In high density rat areas, the internal spacing of traps should be 100 x 25m. There should be at least one trap station within each rat's home range. Ship rat home ranges vary between 0.6 to 3.2 ha for females and 5.6 to 18.9 ha for males[1].
- Laid out on grids by GPS or, in rough terrain, placed on ridges and spurs with additional lines located on 100 m contours using an altimeter. Spacing should be established as precisely as possible using compass and hip chain. Record all trap station locations on a GPS as waypoints. GPS-mapping of trap locations (i.e. by displaying all waypoints) can be used to determine gaps in coverage. Inaccurate location of lines will cause gaps in coverage where pockets of high rat numbers can persist.

Effective use of traps

- Traps need to be checked and cleared regularly. The frequency of checking is dependent on site factors (e.g. area under protection and the rat population density).
- Initially traps should be checked daily. Once knockdown is achieved, as indicated by low catch rate and verified by monitoring (e.g. tracking tunnels, wax blocks or chew cards), traps only need to be checked once every 2-3 weeks.
- Record trap-catch data collected during trapping checks to enable documentation of results and trends.

EQUIPMENT

Trap type

- Key elements are: catch effectively, kill humanely, easy to use and maintain, light weight, portable and cheap.
- Kill traps must be set in a tunnel or under a cover. The tunnel has three functions: i) orientate the animal relative to the trap, ii) disguise and protect the trap, and iii) keep out non-target species.
- The following trap types are recommended:
 - (i) [Victor professional snapback](#) - Landcare Research have further modified the trap with additional components to ensure the trap kills humanely and avoids non-target captures. This trap has passed the National Animal Welfare Advisory Committee (NAWAC) [kill trap guidelines](#).
 - (ii) [DOC 150](#) and [DOC 200 traps](#) have also passed the NAWAC guidelines and are suitable where mustelids are also being targeted.

Bait and lures

- Key elements are: high palatability, field life aligned with the frequency of field checking, doesn't attract non-targets, easy to use and cheap. Suitable baits include peanut butter, peanut butter mixed with rolled oats, white chocolate and Ferafeed™. Peanut butter lasts 5-7 days, peanut butter/rolled oats mix lasts up to 14 days, and white chocolate lasts up to 5 weeks.
- Baits/lures may need to be alternated over the duration of control programmes.

Maintenance of traps

- Standard Victor professional snapback traps should be treated with a preserving agent (e.g. paint or fence stain/oil) as the wooden base is not treated. This will lengthen the life of the trap.
- A formalised maintenance regime is important. Regular maintenance is essential, including checking for worn pivots, weakened springs & broken trigger mechanisms.
- Should be cleaned regularly with a wire brush. Removes mould, fur and bits of dead animals and allows for identifying what has escaped from an empty sprung trap.
- When checking Victor snapback traps carry spare traps, treadles and pegs. Treadles may be lost when the traps are sprung.

REFERENCE

1. Perry M, Byrom A, Anderson D, Pech R, Warburton B, et al. (2009) Home ranges and movements of ship rats. *Kararehe Kino*: 9-11.