

## Habitat Tuatēawa predator trapping trial (2023 – 2026); proposed design.

**DRAFT May 2023**

### **AIM:**

To determine whether Habitat Tuatēawa can effectively control targeted pest mammals using traps alone.

### **EXPLANATION:**

- Maintaining control of targeted pests (ship rats, stoats and possums) is central to Habitat Tuatēawa achieving its restoration goals. While important progress has been made maintaining effective ongoing control of these pests involves significant challenges. Further improvements based on trials such as this, and new information from other sources will be important.
- Various control approaches and tools have been used by Habitat Tuatēawa over the years involving different combinations of traps and toxins. Bait stations continue to be replaced with traps in line with a declared aim in our strategic plan (2022-2026) to complete the transition to a toxin-free regime by 2026 provided conservation outcomes are not jeopardised.
- The current regime is largely based on trapping by volunteers on cut tracks (“lines”) targeting various combinations of the targeted pests. A brief (1 month) “pulse” of toxic baits (typically first-generation anti-coagulants and/or cholecalciferol) has been applied in recent years to augment trapping to achieve a “knockdown” of rodents at the critical Spring bird nesting season.
- Trials such as this will be important in identifying and evaluating traps and other novel devices that could potentially underpin a transition to a toxin-free regime without jeopardising ecological outcomes.
- Engaging with members, landowners and other partners and seeking their advice and support in the design, implementation and evaluation of this trial can be expected to lead to further benefits. Results will underpin Habitat Tuatēawa’s future pest control decisions. Experience gained and networks expanded may also lead to additional benefits felt beyond Tuatēawa. DOC’s initial expression of support for initiating this trial is acknowledged.

### **TRIAL TIMING & DURATION:**

- Ideally the trapping trial will commence at the start of the forest passerine nesting season (August – November) this year (2023). This will require a proposal to be approved by the HT Committee and supported by various stakeholders, funds allocated, equipment purchased and deployed and local operators engaged, trained and supported within 3 months. **What are the implications of a later start?**

### **TRIAL AREA:**

- A trial area will be selected which:

- Lies within the Habitat Tuatēawa Pest Control Area and on Public Conservation Land (and approved by DOC).
- Is representative of the vegetation and terrain of the greater area.
- Is accessible and easily traversable by trappers.
- Is large enough to provide useful data, but not so large that regular trial activities are beyond available resources.
- A 30 hectare area between Tuatēawa Road and the northern end of Waihirere Drive, north of Puriri Place meets these criteria.

*Append Trap.NZ maps showing proposed trial area and northern comparison area, and showing existing and proposed trapping grids.*

## TRAPPING NETWORK

- A trapping network will be established based on specialist advice and current best practice that overlays parts of existing, largely inoperative control lines (MR and MR) between Puriri Place and the northern end of Waihirere Drive.
- Existing rat traps (A24 Goodnature auto-re-set and DOC200s in boxes) within the trial area will be removed and replaced with double-set Victor box traps (see below). This will allow the efficacy of this trapping regime using Victors to be evaluated, as well as providing a comparison with our existing trapping/pulsed toxin regime in adjacent areas.
- In line with current best practice for rat control 40 traps will be installed 50 metres apart along lines roughly 100 metres apart and approximately 1km long (See map).
- Stoats and possums will also continue to be targeted in the trial area using species-appropriate traps (DOC200s, Sentinels).

## TRAPS

- Based on specialist advice 40 double-set Victor box traps will be deployed along both lines (Approximately 1km long) at 50m spacings. These traps have been recommended by Cam Speedy based on his national overview of community led predator control projects. Box-based Victor snap traps are effective in catching both rats and stoats and are relatively cheap (Attach photo). The boxes could potentially be constructed by a Habitat Tuatēawa volunteer.
- 2 AT220 automatic re-setting traps will also be deployed to augment the snap trap array. These traps are widely recognised as highly effective in catching rats, including in areas where trap-shy rats may be present. The AT220s will be moved to different locations within the trial area to enhance their effectiveness.

## TRAPPING REGIME

- The Victor traps need to be checked and re-set manually with implications for (volunteer) labour inputs. The frequency of checking will need to be determined based on available labour and capture rates.

## MONITORING

- Monitoring trapping effort and trap-catch will be an important component of this trial – both, within the trapping-only area, and the nearby ‘non-treatment’ area (ie a similarly-sized area nearby where the normal traps + toxin regime will be maintained). (See map showing treatment and non-treatment areas).
- Trail cameras will be a key. It would be problematic to use tracking tunnels to monitor tunnel-shy rats. Surveillance cameras have evolved in recent years. They are now a valuable monitoring tool and are used extensively. They provide opportunities to learn more about how animals behave around traps and other devices, and a basis for making further refinements to improve the efficacy of control.

## EVALUATION & REPORTING

- Specialist advice and support will be sought in collating and interpreting data collected, as well as peer review in reports prepared for stakeholders.

## ADMINISTRATION & COORDINATION?

- Support and oversight?
- Advocacy...?
- Networking...?

## SUPPORT

HT members...

DOC – including approval to operate on PCL... Note that this trial will be undertaken solely on PCL...

WRC?

PEHCCT?

## COSTS

- |  |         |
|--|---------|
| • 40 Double set Victor box traps @ \$35                                      | \$1400  |
| • “Smooth Blue” bait and “Lure-it” lure                                      | \$100?  |
| • 2 AT220 auto-resetting traps @\$500 each                                   | \$1000? |
| • 5 surveillance cameras (See Cacophony website/Grant Ryan). 5 at \$250 each | \$1250  |
| • Other costs?   |         |

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**NEXT STEPS** ????????

- Secure HT Committee's support & inputs...
- Secure DOC approval & support...
- Advise neighbours/seek their support to concept?...
- Establish oversight group
- Engage project operators including project manager
- Engage with appropriate networks (eg PFHCCT)...

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