



# Bringing tūi back



## Hamilton Halo

The Hamilton Halo project was launched in 2007 by Waikato Regional Council. Its focus is on increasing the number of tūi and bellbirds that survive in bush breeding areas and making the city an attractive place for those birds to stay, feed and breed successfully.

To improve nesting success, Waikato Regional Council carries out pulsed pest control (rat and possum) at key breeding sites in the Hamilton Halo area before the tūi breeding season. Other native species of birds (such as bellbirds), plants and invertebrates also benefit. Having more birds survive to maturity in the bush means there are now more dispersing into surrounding areas where tūi and bellbirds have not previously bred, such as Hamilton.

In winter, tūi are known to commute into the city from summer nesting forests to feed on native and exotic plants. Since the Hamilton Halo project was established, and with pest control undertaken via other initiatives, there has been a growing number of tūi staying in Hamilton beyond the winter feeding and into the breeding season, which is very exciting.

## Increasing our biodiversity

Prior to the Halo project, unlike other urban areas, Hamilton had very few iconic native species like tūi, bellbird and kererū. These species are important pollinators and dispersers of native plants and are also highly valued by residents of the city.

To increase the number of tūi visiting the city, breeding success has had to increase in the forest ranges surrounding Hamilton.

Research results show that without predator control, tūi nesting success is very low – only about a quarter of nests will host fledglings. This is mainly due to the high population of ship rats and possums, which climb trees and invade tūi nests, eating the eggs and chicks. To improve nesting success, Waikato Regional Council carries out pulsed rat and possum control at selected high priority sites in an approximately 20 kilometre radius ('halo') around Hamilton.

Hamilton Halo also works with Hamilton City Council, community groups and landowners on pest control and plantings at key sites within the city. This provides year-round sources of food and safe habitat for the tūi and bellbird populations that have increased in numbers in the bush and now need more habitat to breed in.

Native birds like tūi and bellbird were once scarce in Hamilton due to the impacts of pests (rats and possums) and loss of habitat and food sources. Initiatives like Hamilton Halo and Nature in the City (HCC) and the efforts of other groups are helping to bring them back.

# The Halo 'recipe'

The pest control methodology or 'recipe' is a crucial component of the Hamilton Halo project. Halo sites receive pest control on a 'three years on, two years off' basis and the focus is on the intensive control of rats. The aim of the pest control is to achieve a rat tracking index (RTI) of less than five per cent prior to October. While rats are the main target species, a co-benefit of the work is that possum numbers are also dramatically reduced. This assists birds to breed and fledge successfully and improves forest health because pests are no longer eating its foliage.

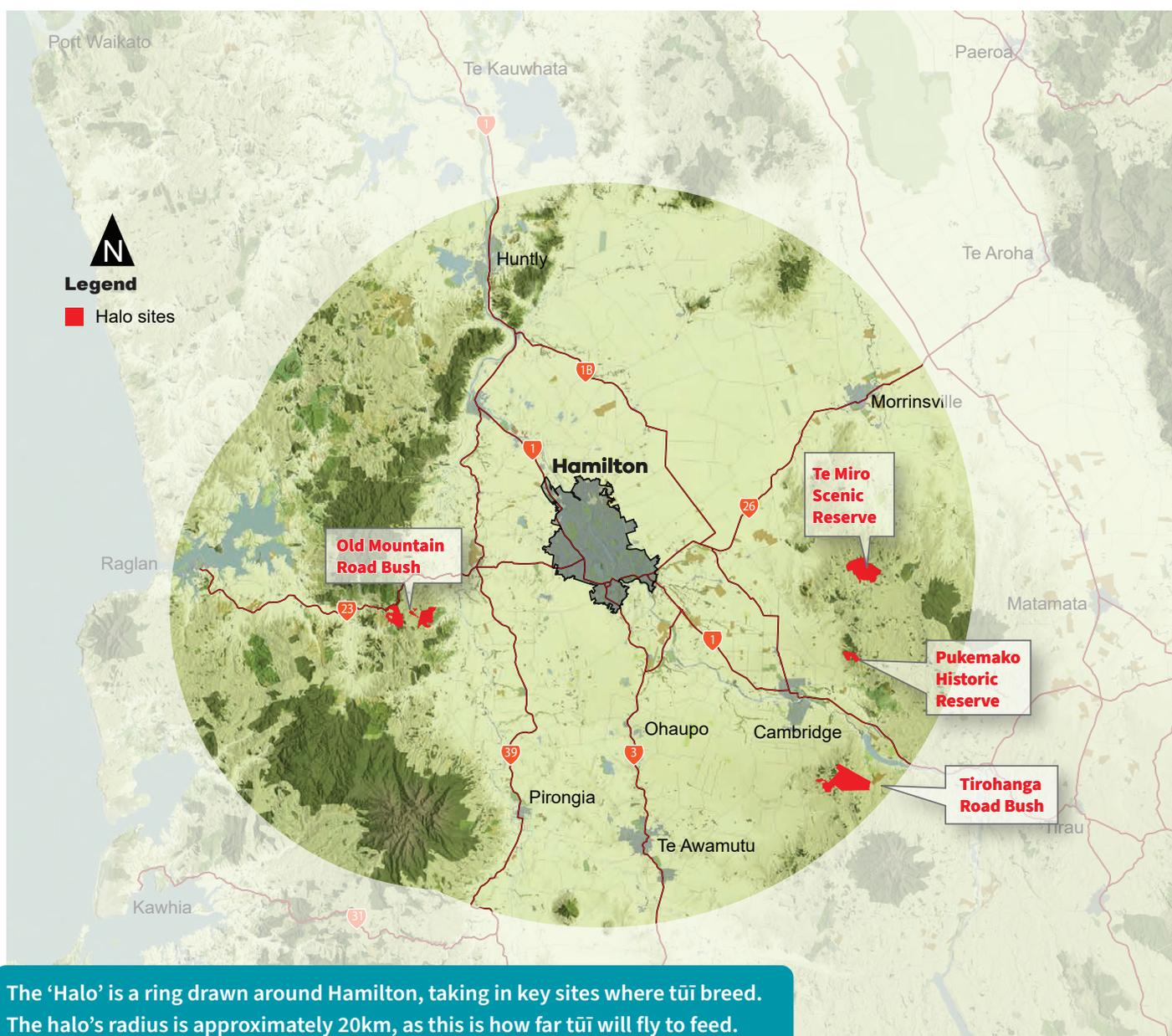
## Bird numbers

### Bird counts in Hamilton

Manaaki Whenua Landcare Research has conducted five-minute bird counts every two years in Hamilton since 2004. These show that tūi distribution and abundance has increased significantly in the city, both in the breeding and non-breeding seasons. This indicates that more tūi are now staying on and breeding in Hamilton rather than just visiting, which is a key success indicator for Hamilton Halo.

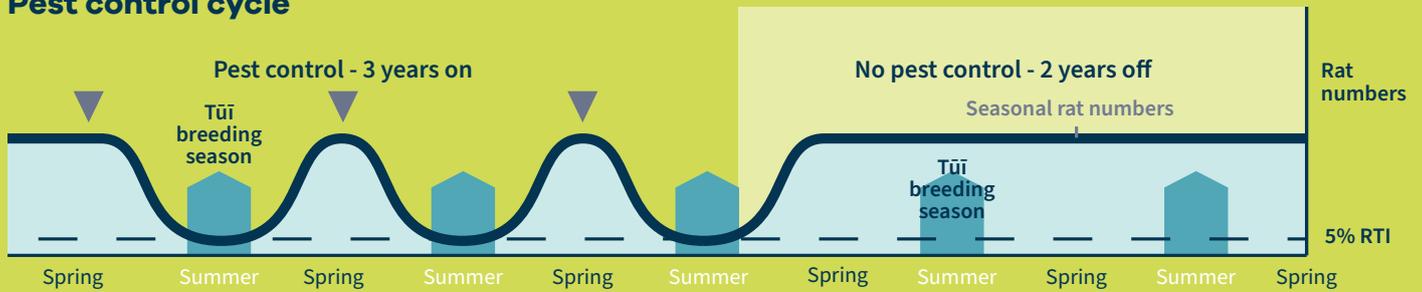
### Bird counts at Halo sites

Waikato Regional Council contracts Manaaki Whenua Landcare Research to undertake bird counts in Halo forest sites where rat and possum control is undertaken. By repeating the bird counts we are able to record changes in bird species numbers, as well as the abundance of each of those species at each Halo site. The good news is the most recent counts in 2021 show that tui are now resident in Hamilton year round, with researchers recommending the planting of more suitable food trees for them in the city and increasing localised pest animal control.



The 'Halo' is a ring drawn around Hamilton, taking in key sites where tūi breed. The halo's radius is approximately 20km, as this is how far tūi will fly to feed.

## Pest control cycle



## Pest control

### Rats



Rats feed on lizards, young plants, seeds, bird eggs and chicks. They also threaten other native species as they eat invertebrates, native snails, frogs and a variety of fruit.

Waikato Regional Council is happy to provide advice to anyone who wishes to undertake rat control on their property. There are two introduced European rat species in New Zealand: ship rats and Norway rats.

#### Rat control

Making your backyard unfavourable to rats is probably one of the simplest means of control. Clearing your backyard of rubbish or any scrubby weed areas, as well as enclosing your compost heap, will mean that rats will have less habitat to live in on your property.

The most effective time for rat control is in the winter and spring. Rat 'snap traps' are available from hardware stores and some supermarkets. Locate traps in places where rats are likely to live, or where signs of rats are seen. Bait traps with peanut butter or chocolate, ensuring the bait is firmly attached to the bait pedal. If traps are placed outside they need to be covered or placed in a tunnel so children and pets can't get to the bait.

#### Signs of rats

- Rat droppings – 10mm spindle shaped.
- Unusual smells – an ongoing rat problem can create a stale smell.
- Holes – appear in the garden, approximately 7-12cm in size with a pile of earth near the entrance.
- Rat runs – a continuous depression in grass or other low vegetation, and a smooth pathway may be visible on bare earth.
- Gnawing – often to the bottom of wooden doors and sheds.
- Scattering – of compost being dragged out of bins or heaps.

### Possums



Possums affect native birds by preying on their eggs and young, and competing with native birds by eating young leaves, flowers and fruit. They also ruin fruit trees and roses, carry bovine tuberculosis (TB) and generally cause a nuisance.

Waikato Regional Council carries out possum control in some areas, but it is also the responsibility of landowners in other parts of the region, especially in urban areas.

#### Possum control

There is a variety of possum control options available, including live-capture traps, single set and self-resetting kill traps, and toxins.

For more information, see the Waikato Regional Council 'possum control' factsheet at [waikatoregion.govt.nz/possums](http://waikatoregion.govt.nz/possums) or call 0800 800 401.

#### Signs of possums

- Tattered leaf remnants, partially eaten leaves, flowers and fruit beneath feed trees. Heavy and persistent possum browsing will kill a tree.
- 'Runs' (tracks) used nightly by possums to travel to and from feeding areas (very distinctive in grassed areas).
- Claw marks on trees, fence posts and gates.
- Bark biting (horizontal bites) on trees.
- Possum droppings scattered under food trees and in the forks of trees.
- Droppings approximately 2.5cm long and slightly thicker than a pencil.

# Planting

Increasing the area of vegetation suitable for native birds to feed and nest in is an essential requirement for their return. Fortunately, there have been nearly 20 years of planting carried out by community organisations in Hamilton parks, reserves, riverbanks and gullies, which has helped to provide year-round food sources for tūi. Nevertheless, every urban resident and home gardener can increase the chances of tūi visiting the city by planting the right species. As well as tūi, other birds, native butterflies, moths, skinks, geckos and beneficial insects can all be attracted to your garden by offering a suitable habitat for them to find food and live in.

## Recommended food source plants

Tūi and bellbirds are primarily nectar feeders, so aim to have flowers or juicy berries to span the seasons beyond the main winter and spring period when tūi may visit and when nectar and fruit is in short supply in native forests.

Smaller trees and plants such as kōwhai, flax, wineberry and five-finger grow easily in Hamilton and can be planted in urban sections. Larger trees such as kahikatea, rewarewa, kohekohe and pūriri may be more suitable for larger properties, school grounds, parks or gullies.

For best results, plant in autumn and winter as the soil is naturally moist. On our website, you will find a useful gardener's guide for attracting tūi and bellbirds. Go to [waikatoregion.govt.nz/hamiltonhalo](http://waikatoregion.govt.nz/hamiltonhalo).

## Pest plants

Watch out for introduced, weedy plant species that can be harmful in natural areas and impact desirable plants. [The Waikato Regional Pest Management Plan and website](#), and [Weedbusters website](#) will help you identify some of the worst weeds and give you information on how to control them.

Flax flowers are a popular food source for tūi.



## Related publications

To request a copy of the following publications, call Waikato Regional Council's freephone 0800 800 401 or visit [waikatoregion.govt.nz](http://waikatoregion.govt.nz) for more information.

[Gardener's guide – planting for tūi in the Hamilton area](#). Waikato Regional Council.

Waikato Regional Council's animal pest factsheets: [Possum](#) and [Priority possum control in the Waikato](#).

[Plant me instead](#). (2007). Also available from Weedbusters (see 'contacts' below).

To request a copy of the following publication, contact Hamilton City Council or visit [hamilton.govt.nz](http://hamilton.govt.nz).

[HCC's Nature in the City Strategy 2020-2050](#).

## Contacts

For additional advice and information on pest control and other ways you can assist to protect our region's biodiversity, call 0800 800 401.

For information on what Hamilton City Council is doing to help restore 'Nature in the City', including opportunities to volunteer and be involved, visit [hamilton.govt.nz](http://hamilton.govt.nz) or call 07 838 6699.

For advice and information on pest plants, contact 0800 800 401, or visit [waikatoregion.govt.nz](http://waikatoregion.govt.nz) or [weedbusters.co.nz](http://weedbusters.co.nz).