

Northland Regional Council is responsible for the management and control of plant and animal pests in Northland.

Pests of particular concern in the region are identified in the Northland Regional Pest Management Strategies. These are a collection of action plans that describe why and how plant and animal pests will be controlled and the functions of the Biosecurity Act 1993.

Stopping potential pests from entering the region is the most cost efficient form of biosecurity control. In addition, the strategies identify pests which can be eradicated, and where it is possible to manage existing pest infestations to levels where they no longer pose a threat to our natural environment, economy and health.

The Council works in partnership with local communities and industry to promote pest management and facilitate pest control.



A mustelid trap mostly used for catching stoats – available from the Regional Council.

Regional Pest Management Strategies

Pest species in Northland are listed in the Regional Pest Management Strategies (RPMS). These strategies provide guidance on how pest plants and animals should be managed in the region.

During the 2008-09 financial year the Council began the process of reviewing the RPMS and decided to merge the existing 25 documents into three – marine pests, animal pests and plant pests. This process was completed during 2009-2010 and the new RPMS were ratified by the Council in July 2010.

The RPMS have been developed to address new pest threats while providing for more flexible management of existing pests. The new strategies cover a broad suite of plants and animals, and introduce a new category, marine pests. They aim to ‘future-proof’ pest management and reduce the impact that pests are having on our region’s economic, environmental and cultural values.

The new RPMS (Marine, Plant and Animal) place greater emphasis on investigating new options for controlling pest plants, such as biological control, and also increasing the scale of pest control areas to link existing community projects – such as Community Pest Control Areas (CPCA) – to protect biodiversity on private land in Northland.

The new RPMS are available via our website at www.nrc.govt.nz/rpms or by phoning 0800 002 004.

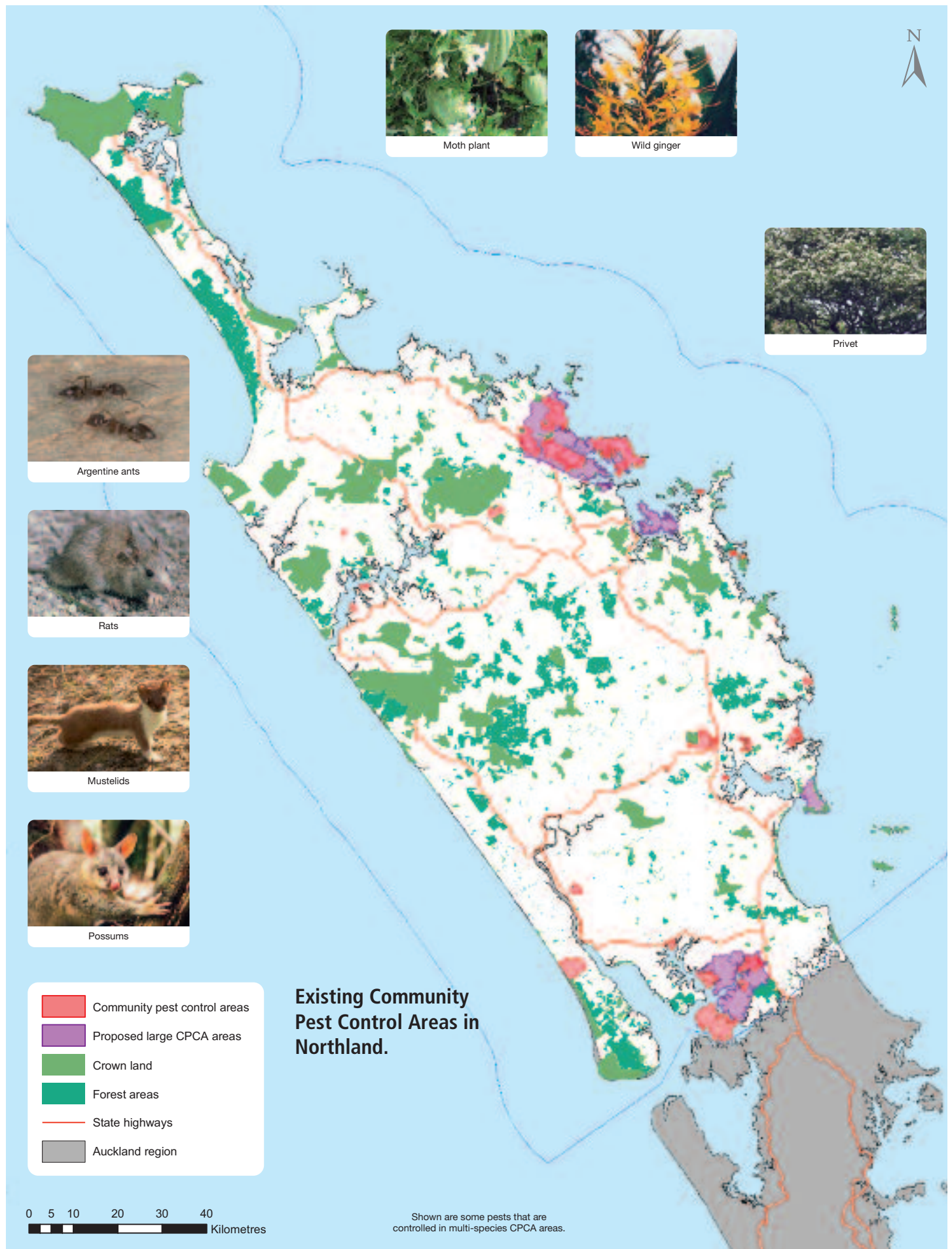
Biosecurity performance targets

Reduce the adverse impacts of pest organisms, pest plants and animal pests on the environment, the economy and human health:

- Carry out a five year formal review of all pest management strategies by 1 July 2010.
- Prepare new Pest Management Strategies as required and in accordance with the provisions of the Biosecurity Act.
- Develop one marine management strategy to enhance the region’s marine capability and response to marine pest invasions by 2010. Implement by 30 June 2012.
- Conduct annual monitoring on tropical grass webworm at seven sites annually and report webworm larval presence to property owners as appropriate.
- Establish at least one new partnership with a pest agency and five new community pest plans (CPCA) annually and report to the Environmental Management Committee.
- Achieve low to moderate density of possums in specified areas.
- Provide a pest identification service and respond to all enquiries within five working days.



Collecting marine samples from a fouled hull – marine pest surveillance.



Pest plants

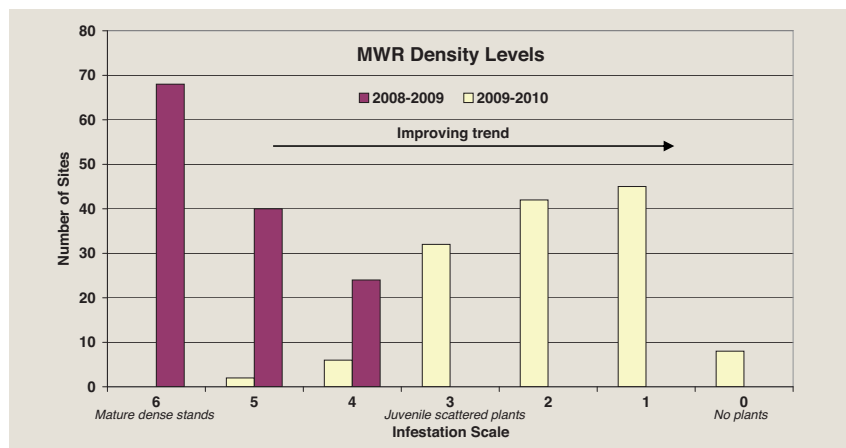
Manchurian wild rice

This plant is a major invader of wetlands, river margins and poorly drained pasture and has been recognised as a pest plant of national importance. A collaborative approach between the Northland Regional Council and Ministry of Agriculture and Forestry Biosecurity New Zealand (MAFBNZ) has been agreed to ensure its containment within the Northland region.

Manchurian wild rice is widespread in the Kaipara district and covers approximately 500 hectares with the main infestation found next to the Northern Wairoa River and its tributaries. There are more than 300 outlier sites – sites that are not connected to the main infestation – which are currently being targeted by the programme.

Infested sites require repeated spraying however eradication of the plant can be achieved providing a programme of sustained control is maintained. When sites are visited the status of the plant on that site is graded against a six-point scale; mature dense stands rate a six on the scale, juvenile scattered plants three, and zero represents a bare site with no plants visible.

Sites which have now received at least three repeated sprays have shown a dramatic decline in the number of mature plants and percentage ground cover. There are a growing number of sites where the plant's status can be recorded as scattered juvenile plants or nothing at all.



Hornwort and egeria (oxygen weed)

In May 2009, grass carp were released into Lake Roto-otuauro (Swan) on the Poutō peninsula to control these very invasive aquatic plants. Lake Swan is the only lake on the Poutō peninsula to have hornwort so it is vital to control it before it spreads to other neighbouring, high value lakes.

Monitoring carried out in March 2010 showed that most of the egeria and approximately 50% of the hornwort have already been removed by the grass carp.

In June 2010, grass carp were released into Lake Heather, north of Kaitāia. This high value dune lake is also infested with hornwort and egeria and grass carp are expected to have an impact on these weeds over the coming summer months. Fish will be removed from the lakes once the pest plants have been eradicated, which is predicted to take up to five years.

Pest invertebrates

Community projects to control and manage Argentine ants have proven very successful and surveys of existing Argentine ant control areas were undertaken during 2009-2010. A survey of the Mangaiti Beach CPCA indicated that the overall infestation is controlled with some small residual populations surviving poisoning. A survey of Skudders Beach CPCA indicated the same results.



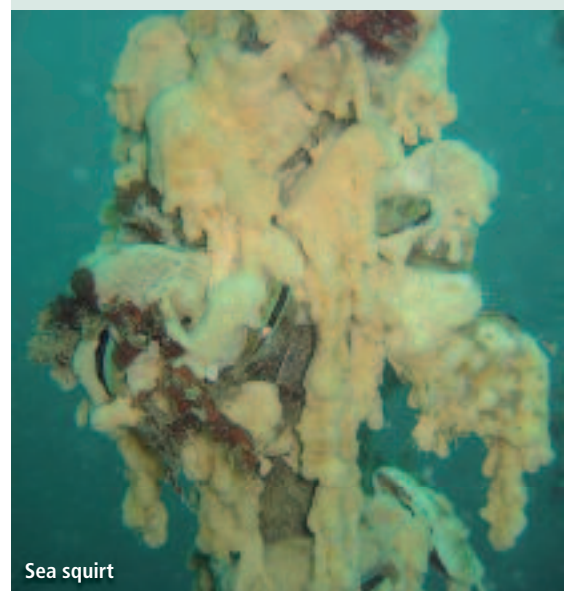
Manchurian wild rice

Pest control

During 2009-2010, the Council biosecurity team responded to 959 enquiries in relation to pest management.

Biosecurity staff carried out monitoring and/or control of:

- Pest plants – including Manchurian wild rice, Nassella tussock, Spartina, African feather grass, Bathurst bur, nodding thistle and Lantana.
- Invertebrate pests – including guava moth, tropical grass webworm, gum leaf skeletoniser and pest ants, such as Argentine ants.
- Pest animals – including possums, mustelids, cats, rats and goats; and
- Maritime invaders – such as sea squirt.



Sea squirt

CASE STUDY: Whāngārei Heads

Since 2002 the Whāngārei Heads Landcare Forum has been carrying out a successful kiwi recovery project at the Whāngārei Heads.

Local Landcare groups at the Heads formed the WHLF – the Landcare groups are made up of locals carrying out pest management and revegetation work in their own backyards. They run an extensive kiwi predator trapping network over the peninsula with traps largely purchased through funding from the Northland Regional Council.

The kiwi population in the area has increased from approximately 80 in 2002 to more than 300 today. The recovery work has strong community support and has included a recent increase in publicity through the WHLF's website www.backyardkiwi.org.nz and road signage to make visitors aware of kiwi in the area.

The Regional Council has recently funded a Pest Control Project Manager to co-ordinate ongoing work at Whāngārei Heads. The Whāngārei Heads Landcare Forum is continuing a decade of work done to remove forest invasive weeds with a major Regional Council-funded project working from the Bream Head end of the peninsula northwards over the next several years.



Philip King of WHLF about to release a kiwi at Kauri Mountain.

Biocontrol

Few people realise it but Northland is a battleground for a largely unseen war between a host of tiny insects and fungi and some of the region's worst weeds. In the last five years alone, more than 50 releases of different 'biocontrol' agents have occurred in Northland to help control weeds such as Californian, nodding and Scotch thistles, alligator weed, broom, gorse, mistflower and ragwort.

Before bio agents can be released into New Zealand, there is a rigorous process of trial and experimentation overseen by the Environmental Risk Management Agency (ERMA). Imports are strictly controlled and scientists can take several years to satisfy the risk assessment criteria and complete trial work. This is to ensure that the bio agents don't pose a risk to New Zealand's native plants or animals.

In 2009-2010 considerable progress has been made in establishing nursery sites for biocontrol agents, releasing and identifying new agents and nurturing existing agents in Northland.

The Irish parasitoid of the clover root weevil is finally established in Northland. The wasp has survived and bred from a release of 700 parasitised weevils in December 2007 at Taupo Bay. In May 2009, 88% of the weevils collected at Taupo Bay had been parasitised by the wasp.



It is expected that this site will serve as a source of parasitised weevils to be redistributed around Northland.

A number of new biocontrol agents have also been released in Northland in 2009-2010. The Portuguese strain of gorse thrips has been successfully introduced to the Far North from a population in South Taranaki. It is hoped that this strain will be more suited to the Northland climate than the Cornish strain of gorse thrips which has a restricted distribution at Uretiti, Ruakaka.

A trial release of the pirate bug, *Orius vicinus*, collected from Otago, has been made in the Far North. This is a generalist predator of thrips, aphids and mites. A ladybird, *Serangium maculigerum*, recently discovered in Auckland has been moved to Kerikeri to combat the citrus whitefly, a relatively new pest affecting the citrus industry.

A novel approach for the control of the guava moth (also known as the fruit-driller moth) is being-trialled in two environments – urban habitat in the Far North and at a commercial macadamia orchard in Kerikeri.

Initial results indicate that mating disruption using the Asian peach moth pheromone, is reducing damage to macadamia nuts by guava moth by up to 50%. However, it is not as effective in the home garden due to a number of conflicting factors.

Community projects

Community projects which target multiple pest species are increasingly popular and Regional Council staff have now helped set up 30 community plans – five in the last year – involving around 620 people, and 23,000 hectares of land. Community plans are used to help support the protection of kiwi and other endangered fauna as well as deliver weed control.