

# the state of our environment



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Gisborne 2009 and 2010

## Biosecurity

### Principal findings

- Two dry, hot summers resulted in increases in the populations of pest animals
- Active rookeries were poisoned in 2009 and 2010
- Argentine ants have increased their range beyond properties identified in 07/08
- Over 42,000 possums, 5,600 rabbits and 5,000 hares were killed during this reporting period

The revised Regional Pest Management Strategy (RPMS) for the period 2010 – 2015 was implemented during this reporting period. It provides for the management of 25 animal pests (five more than the previous RPMS) and 45 plant pests (also five extra species). It also incorporates the National Pest Plant Accord banned plant list.

There has been a change in the name of our group from Pests and Plants to Biosecurity Division. Animal Pest and Plant Pest Officers have had a change in title and are now Animal and Plant Biosecurity Officers, and the Division has been relocated from Awapuni Road to 31 Banks Street.

Two dry, hot summers in a row were ideal for pest animal breeding, and survival of young to reach breeding age, especially in areas where a combination of suitable habitat and light pumice soil types combine to create

ideal environments. The number of hares shot in 2010 was a significant increase on previous years and contributed to the high total pest count for that year.

### Pest: rooks Status: eradication

Seven surveys were carried out in response to rook sightings in rural areas during 2009-2010. There was a report of up to 12 rooks in Matawai district, and three separate reports of several rooks in the Tahunga area (that were probably sightings of the same group of birds). No rookeries were found in those areas, and surveillance will continue.

Two known nesting areas near Tiniroto were targeted for control during the period. This was carried out by hand application of a toxin mixed with petroleum jelly applied into the inside of nests by an operator suspended beneath a helicopter. The birds' feathers become coated with the mixture, which they ingest during preening. It's fatal usually within hours to two days. No rooks were sighted returning to either of the rookeries.

	2009	2010
Location of rookery	Raukura/Tiniroto	Waihau/Tiniroto
Number of rooks reported	35 - 40	20 - 25
Sites monitored (active)	7 (1)	7 (1)
Nests occupied/poisoned	4	9



### How do I know if I've got Argentine ants?

Workers are about 2.7 mm long and a honey-brown colour. If crushed, they give off a subtle oily scent, very different to the sharp smell of formic acid released by other ant species. Foraging workers move steadily in trails several ants wide that tend to go over, rather than around, objects in their path. A trail seen crossing the floor of a Gisborne warehouse was 8-ants wide.



Above: An Argentine ant tending a scale insect.

Argentine ant trails will often ascend trees, from which they may be gathering nectar, or worse, "farming" aphids, scale insects or mealy bugs as sources of honeydew. There have been reports of very sick citrus trees in Gisborne District covered with both Argentine ants and the scale insects they are tending. The ants will even move scales to new branches and new trees.

Argentine ants are aggressive colonisers, usually displacing most other ant species. Colonies contain several queens, producing large numbers of offspring and often cooperate with other colonies of their own species to form "super colonies" over wide areas, containing multiple nests linked by their wide trails.

Both Tasman and Bay of Plenty regional councils have attempted extermination to no avail. Argentine ants are now so widely distributed that extermination is not a realistic possibility.

### What can we do to control Argentine ants?

Bring a sample of ants in to the Council and initiate a "Request for Service". If confirmed as Argentine, you can then purchase specialised Xstinguish gel bait tubes at cost price of around \$45 per 325-gram tube.

The best course of action is to work with affected neighbours to ensure bait is laid simultaneously, giving a wider kill-zone and much lower chances of being re-invaded from neighbouring properties within the year. The Council can help to co-ordinate treatment amongst neighbours, if needed.

### Pest: Argentine ant

#### Status: limited control

Argentine and Darwin's ants are species that have been added to the 2010-15 RPMS. The main focus is on raising public awareness, encouraging and co-ordinating control initiatives by affected landowners. Council can provide information and specialised ant bait at cost price to residents who wish to undertake control of Argentine ants.

A co-ordinator was employed for a 5-month period from October 2010 to initiate an Argentine ant awareness programme. Three community meetings were held at Manutuke, and over 100 residential properties in that community visited, to provide residents with information on Argentine ants. Forty-three properties along Whakatoa and Waingake Roads had confirmed Argentine ant infestations.

Elgin, Te Hapara, Mangapapa, Whataupoko and Kaiti were targeted for ant awareness in the city. Argentine ants were identified at two locations at Turihaua and Whangara. Inspection of the Turihaua area will be carried out during spring months and if necessary baits will be laid along the camping area. A residential property at Hexton was found to have Argentine ants that were quickly controlled by the occupiers.

Door knocking by the co-ordinator expanded outward from residential properties known to have had Argentine ant infestations, and confirmed the ants had spread beyond properties where they were identified in 07/08.

Year	Number of requests for service received	Confirmed Argentine ants	Not Argentine
2007	20	17	3
2008	66	43	26
2009	69	44	25
2010	84	65	19

### Pest: possums

#### Status: total control

While the majority of possum control by Council officers is conducted in the rural areas of the district, staff respond to between 30 and 40 calls each year from urban residents where the odd possum has been attracted to fruit and nut trees and even roses. Council can loan a cage trap, and staff will collect and dispose of trapped possums.

General property surveillance in rural areas enables officers to identify possum distribution and density, and determine control methods appropriate to the time of the year, possum habitat, site accessibility, seasonal farming activity and available resources.

In addition there are 4 possum and rabbit night count routes established and monitored on an annual basis. Two others have been discontinued due to forest harvesting in the Mangatu and Mokomoko Forests through which the monitoring routes pass.



Above: Possum control using bait stations.

Waimaha and Huia count routes had a high count of possums/km, and are targeted for control operations in 2011. There are private possum trappers engaged in possum fur recovery on the part of the property adjacent to Te Urewera National Park. We expect to report a decline in possums/km in this area in the next State of Environment report.

#### Properties targeted for possum control 2009-2010

Year	Number of properties inspected	Properties where poison laid	Properties where traps laid	Properties targeted for night shooting
2009	107	32	12	78
2010	98	52	17	90

#### Possum and rabbit night-count monitoring results for 2009 – 2010

Count route	Possums/km 2009	Rabbits/km 2009	Possums/km 2010	Rabbits/km 2010
Water works/Waingake	4.2	0.2	2	0.2
Highlands-Tahora	3.9	0.1	2.6	0.1
Waimaha	10	0.5	5.1	0.7
Huia	9.7	0.2	9.6	0.2

#### Pest kills for 2009 and 2010

	Possums	Rabbits	Goats	Feral cats	Ferrets	Hares	Totals
2009	21,294	2,794	824	216	6	1,112	26,246
2010	21,587	2,826	986	195	11	4,068	29,705

#### Total control plant pests

These are pest plants that are restricted in abundance or range, but have a high potential to spread and cause serious effects if not contained and controlled.

The invasive seaweed, *Undaria (Undaria pinnatifida)*, has become established; it is no longer possible to eradicate this species, and it has been transferred from total control to containment status. Californian stinkweed (*Navarretia squarrosa*) has been transferred from regional surveillance status to total control, and an additional species, monkey comb vine (*Pithecoctenium crucigerum*) has been added: there are now a total of 16 plant pest species in this group.

Gorse is a total control plant in Waikohu ward only. Elsewhere across the district it is a containment category plant pest. Similarly, variegated thistle has total control status in Matakaoa ward only, and is a containment category plant pest elsewhere.

Infestations of Californian stinkweed are limited to five locations comprising eight sites under surveillance and control. Having this plant transferred to total control status allows for the control of all active growth to restrict any further dispersal: previously it was monitored and control measures were limited.

Currently there is one known infestation of monkey comb vine in Gisborne District that is contained and being controlled within a QEII Covenant at Tolaga Bay.

The majority of field activity for the total control status plants for 09/10 has been focused on nodding thistles followed by woolly nightshade, burdock, banana passionfruit and boneseed.

Properties with active nodding thistle infestations are inspected by rotation, at least every 8 weeks, depending on the number of active sites, control effectiveness, distribution and density during peak growth periods.

#### Total control plant pests (2010-2015):

African feathergrass, Australian sedge, banana passionfruit, boneseed, boxthorn, burdock, climbing spindle-berry, Californian stinkweed, gorse, monkey comb vine, nodding thistle, red cestrum, spiny emex, variegated thistle, white edged nightshade, woolly nightshade.

#### Containment plant pests

This group of 22 plant pests are abundant in suitable habitats across the district, and are therefore unlikely to be eradicated; the goal is containment to prevent further spread.

Control is focused on maintaining a weed-free buffer around boundaries

of infested properties, where adjacent land is free of or is being cleared of containment status plants. Council will take appropriate measures if a complaint is received regarding containment plants spreading over the boundary from an infected property onto clear land.

**Containment plant pests (2010-2015):** Australian sedge, barberry, bathurst burr, blackberry, boxthorn, buddleia, common pampas, gorse, hawthorn, holly-leaved senecio, Montpellier broom, old man's beard, purple pampas, ragwort, spartina, star thistle, sweet briar, thorn apple, Undaria, variegated thistle, wild broom, wild ginger.

**Limited control plant pests**

This group of plant pests are abundant in suitable habitats but generally only cause problems close to residential properties. Control of these plants is at the land occupier's discretion. There are nine limited control status plant species in the 2010/15 RPMS; an additional two species have been added. Council officers will



Above: Total control plant: Monkey comb vine *Pithecoctenium crucigerum* that is an evergreen perennial woody vine, native to Mexico, Brazil and northern Argentina. Regarded as an aggressive environmental weed, monkey comb can rapidly smother and choke native vegetation causing a breakdown of the forest structure, stopping germination of native species.



Above: Containment plant: *Undaria pinnatifida*, a brown seaweed, was first found in Wellington Harbour in 1987. It has since spread along the east coasts of the North and South islands, and to Stewart Island. It grows rapidly and excludes many native coastal species such as pink kelp, (which pāua depends on). It is native to the northwest Pacific, where it is a food. Also known as Japanese or Asian kelp, it has been described as the gorse of the sea. It is possible undaria could be harvested for export from infected New Zealand waters.



Above: Mexican daisy is a limited control plant.

respond to public enquires regarding limited control plants, or request for service reports, and can provide plant identification and advice on suitable control options.

**Limited control plant pests (2010-2015):** Blue morning glory, common ivy, Japanese honeysuckle, mignonette vine/ Madeira vine, moth plant, periwinkle, smilax, tree/Chinese privet, Mexican daisy.

**National Pest Plant Accord – NPPA**

Gisborne District Council is part of a national collective of agencies that monitors garden retail outlets for the presence of any plant species banned from propagation, sale or distribution. There are three Council Biosecurity authorised by MAF Biosecurity to carry out surveillance of local garden retail outlets at least twice a year. During this reporting period only one banned plant was found at a retail outlet, and was removed and destroyed.

A review of the 2008 NPPA list of banned plants is being carried out and a new revised list will be available by 2011/12.

**Total control plant pest: Nodding Thistle**

Warm dry conditions through spring, summer and autumn both years were unfortunately ideal for seed germination and growth of thistles. Of sites monitored, 26% were active in 2009 and 28% were active in 2010. In addition, two landowners reported additional infestations of nodding thistles, and 53 new sites were added to the monitoring programme as a result. The new sites were generally on the perimeters of known active sites.



	Properties surveyed	Number of site visits	Active sites	Non-active sites
2009	181	1364	363	1001
2010	182	2131	607	1524