



ANIMAL AND PLANT PESTS

Principal findings

- There is a new, potentially very serious pest: Argentine ants have come to town
- Possums are still considered the most serious pest in Gisborne District. Over 39,000 possums were eradicated during this reporting period
- Nodding thistle is the most widespread eradication group plant, with 896 documented active sites in 2006
- There were two active rookeries found in 2006. Poisoning was only partially effective with a 75% kill at one site, and a zero kill at the other site
- Rabbit populations are at an acceptable level. Some rabbit control work was carried out where requested by residents.

What is a pest?

A pest is an organism that could cause serious harm to our district's indigenous biodiversity, soil and water, waahi tapu (sacred sites) and taonga, or may cause economic damage or affect human health or enjoyment.

Gisborne District has a Regional Pest Management Strategy that sets out procedures to eliminate, restrict and minimise the impacts of unwanted pest organisms. The Gisborne District Council has a management role, to ensure pest control is effective and coordinated with neighbouring councils and other agencies.

Total Control Pest: the possum

Possums remain the priority pests in this district. Not only can possums cause severe damage to indigenous vegetation, plantation forests and erosion-control conservation trees, they are potential vectors of bovine TB, and therefore a threat to Gisborne District's TB-free status.

In rural areas, control is achieved with a combination of night-shooting, poisoning and trapping. Cage traps were issued to 22

town residents in 2005 and 50 in 2006, in response to nuisance possums.

Night-count monitoring

This is a statistically sound method of determining abundance of possums (and rabbits) along marked routes comprising a 'corridor' 25km long by 100m wide, extending across rural land.

Council field officers carry out annual pest surveys along the routes over three consecutive nights between February and March of each year. The operator rides a motorcycle and uses a head-mounted spotlight to count pests seen within 50m on either side of the route. Numbers are recorded at 1 km intervals, the highest count taken as the result, expressed as pests per kilometre.

The Huia-Tahunga count route had the highest recorded possum density in 2006. Private possum hunters have since carried out control for fur recovery purposes and it is anticipated that a decline in possums will be recorded in 2007.

No counts have been carried out in Waikura Valley since 2003 because of the poor condition of the count route track. An alternative route is to be established.

Rabbits

Rabbits occur throughout Gisborne District, and are most abundant in sunny, north-facing areas with free-draining ash, pumice or sandy soil types and where pasture is grazed short and in poor condition.

Rabbit populations can rapidly increase during extended dry spells because high proportions of juveniles survive to breed.

Lush, well-managed pasture does not favour rabbit proliferation, and prolonged wet, cold spells cause high mortality of juvenile rabbits. It will be interesting to see whether this effect is noted in 2007 surveys, following the severe wet weather of 2006.



Night count possum monitoring results 2005

Count route	2005		2006	
	Possums/km	Rabbits/km	Possums/km	Rabbits/km
Water works/Waingake*	2.5	0.1	▲ 3.2	0.2
Highland/Tahora	7.8	0.2	▼ 4.6	0.1
Waimaha -Tahunga	4.9	0.8	▲ 5.0	0.6
Huia - Tahunga	<i>New count route in 2006</i>		6.4	0.6
Te Apiti - Whatatutu	<i>Last counted 2004</i>		▼ 1.5	0.2
Moko moko – Tolaga/Tokomaru Bay	<i>Last counted 1999</i>		▲ 2.5	0.1

* This route was newly established in 2005

▲ possum numbers have increased since previous survey

▼ possum numbers are down on the previous survey

How many rabbits are too many?

Rabbit populations are measured against a national scale for rabbit infestation: the Gibb scale. A rabbit night-count in excess of 5 rabbits per kilometre would equate to 'level 3' on the Gibb scale, the trigger point at which control is required.

Level 3 rabbit infestations do occur from time to time in the Gisborne District, usually as isolated incidents. In most cases, Council pest officers have undertaken control in conjunction with scheduled possum night-shooting activities. However, it is the landowner's responsibility to maintain rabbit levels below the level 3 threshold and Council can initiate compliance procedures where landowners do not meet this obligation.

Rabbits can also be a nuisance in urban areas; they may scratch holes in lawns and golf courses and destroy garden plants. Control in town is not so simple. Safe-catch cage traps can be used but the capture-rate is low. Pindone pellets can sometimes be used in town if placed safely out of the reach of children and pets.

Rabbit control by shooting was carried out on 5 properties in 2005 and 3 in 2006. Poisoning (using Pindone baits) was carried out on 2 properties in 2005 and 3 in 2006). These activities were all in response to requests for service from residents in rural and fringe-urban areas: actual rabbit numbers did not exceed the level 3 benchmark in these instances.

Eradication Pest: The rook

There are periodic sightings of rooks in Gisborne District, the birds invariably arriving from Hawke's Bay, usually after rook control has been carried out in Wairoa District.

Sightings are always promptly investigated: we do not want this destructive pest establishing here.

Rooks can damage a wide range of crops especially newly sown cereals. They have been seen pulling out entire fields of seedling plants to get to the seeds under the soil, and can damage pasture searching for grass grubs, exposing soil to erosion.

Rooks were first seen in Gisborne on Kaiti Hill in 1966. Since then twenty rookeries (nest sites) have been recorded. These sites have been surveyed annually, since 1974.

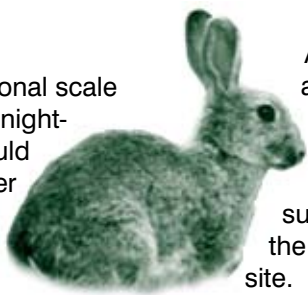
Eighteen rookeries were recorded as extinct (inactive) and 2 were active in 2006. The active rookeries were in Hangaroa and Tiniroto districts, and 28 rooks were counted.

Rooks are cunning birds, and it is not recommended to shoot at them: this usually only succeeds at dispersing them widely. The accepted method of control is by directly poisoning nest sites.

A contractor carried out this work in September 2006, using a helicopter with the operator suspended in a harness beneath. The sticky poison was applied by hand-gun to 14 nests. Birds ingest the poison while preening.

Pest kills for 2005 and 2006

	Possums	Rabbits	Goats	Feral cats	Ferrets	Hares/others	Totals
2005	22,692	1,900	824	112	6	1,310	26,844
2006	16,678	1,809	675	98	3	1,153	20,418



A 75% kill-rate was achieved at one site, but control was unsuccessful at the other. 2007 surveys will focus on the remaining active site.

An information pamphlet on rooks is available from the Gisborne District Council.

Feral goats

Goats are scattered throughout Gisborne District, but are most prevalent in plantation pine forests and on steeper, poorer pasture.

Goats can browse native forests bare of regenerating seedlings. Trees planted for erosion-control are particularly vulnerable: goats may even chew through the protective plastic sleeves to strip bark off poles. Feral goats are recorded wherever seen by Council field officers, and they are managed on a "site-lead" basis. This means goats are controlled where they threaten specific areas of significant indigenous vegetation, or newly planted conservation trees.

Information on goat populations is collected to identify risk areas, management requirements, and ultimately strategies will be developed to halt further spread of goats to clear areas of the district.

Three requests for control of feral goats were received and responded to in 2006.



Above: Feral goats heading into indigenous vegetation.

Ferrets

There were 6 requests for service and 8 telephone enquiries in 2005, and 4 requests for service and 2 phone enquires received and responded to in 2006. All of these involved predation on poultry and ducks. Catch traps were supplied in each case.

Argentine ants: a new threat

Argentine ants, described as one of the most invasive insect pests in the world, are present in several locations in Gisborne District. In Gisborne City, Argentine ants have been identified in an area between Customhouse Street, Waikanae Stream and the Taruheru river to Lytton Road. Infestations of Argentine ants have also been confirmed in the rural community of Manutuke.

Argentine ants travel on well-used trails, five or more ants wide, in a continuous column from colony to food source.



Above: A rook poisoning operation.



They are small (2-3mm) and brown (most other ant species are black). If a nest is disturbed, numerous ants rush out to investigate. They are not poisonous but they do bite and some people may be allergic.

We don't know how long the ants have been in Gisborne, but they will be impossible to eliminate, and Council has decided that control will be the responsibility of local residents.



Council holds stocks of *Xstinguish* ant bait, developed by Landcare Research, specifically for controlling Argentine ants. The bait will be provided at cost to residents with confirmed Argentine ant infestations, or a private contractor can carry out control work.


Argentine ants are a nuisance to people. In homes, they have been known to get into screw-top jars, refrigerators and microwaves. But their most serious effects are on ecosystems as they may displace native ants and other foraging insects. Attacks on nesting birds have been reported in New Zealand.





Above: Argentine ant tending a scale insect.


Overseas they are considered one of the worst insect pests in citrus, viticulture, avocado and tomato crops.

There is potential for economic loss through:


 The dispersal of *Homopterans* (e.g., scales, aphids), which Argentine ants disperse and protect in return for the honeydew excreted


 Potential to chew holes in plastic drip irrigation pipes (this has caused losses in orchards overseas)

 Contamination of food products

 Robbing of bee hives and predation of bees, affecting both honey production and pollination

 Potential to kill newly hatched poultry chicks

 Possible trade restrictions with countries that do not currently have Argentine ants (including China and Korea)

 Possible transmission of pathogens from one plant to another through ants feeding on sugary exudates and the transfer of sap-feeding *Homoptera*.

Council staff received 32 ant-related enquiries from residents in 2006 and an additional 6 random sites were visited with a private pest contractor. Thirty-four infestations were confirmed as Argentine; the other 4 were common black ants.

The Gisborne District Council has published two information fact sheets on Argentine ants and control of infestations using *Xstinguish* bait.



Above: Application of *Xstinguish* bait to Argentine ant trails.

When is a plant a pest?

As the saying goes: A weed is a plant in the wrong place.

The status of plant pests varies within Gisborne District. Some plants are of limited distribution and low density, but have the potential to cause very serious adverse effects. These comprise the *Eradication Group*.

Other pest plants are widely spread, well established and are therefore not considered possible to eradicate. These plants, the *Containment Group*, are managed to reduce their density and seed production, normally within a defined zone along the boundary of the infested property.

There are some plants the public considers problematic or a nuisance in specific situations. These *Limited Group* plants comprise mainly garden escapees and if provided with the correct information, residents can manage these plants themselves.

There is another group of plants that warrant pest status nation-wide. They comprise the *National Pest Plant Accord*



Above: A nodding thistle monitor site (*Eradication Group*).

List. Parties to the accord are regional councils, the Department of Conservation, the Nursery and Garden Industry Association and MAF/Biosecurity NZ.

Eradication Group plants

These are of high priority: there are 15 plants in this category and the long-term objective is complete eradication. In the short term, the objectives are that there will be no increase in distribution and a reduction in density.



Above: *Containment Group* plant. Bathurst bur.

Known infested properties are inspected annually, and all new reports investigated. Individual sites are recorded using GPS coordinates and are given a clearly visible identification marker.

Landowners with *Eradication Group* plants on their land have statutory obligations to implement prescribed control practices to the satisfaction of an authorised Council Officer.

Control programmes and *Notices of Direction* can be issued to landowners where control of *Eradication Group* plants is not carried out satisfactorily. There are generally a small number of *Notices* issued each year (5 in 2005 and 3 in 2006). These achieved compliance, with one site requiring ongoing maintenance.



Above: *Climbing spindle-berry* with ripening berries (*Eradication Group*).

Inspection and monitoring for Eradication Group plants

Eradication plant	Properties inspected		Number site inspections		Active sites found		Non-active sites	
	2005	2006	2005	2006	2005	2006	2005	2006
African feathergrass	2	1	2	12	2	2	2	10
Australian sedge ¹	1	2	1	2	1	1	1	1
Banana passionfruit	25	21	25	47	21	38	4	9
Boneseed	21	23	21	68	15	38	6	30
Boxthorn ²	0	0	-	-	-	-	-	-
Burdock	51	58	51	185	36	116	15	69
Climbing spindle-berry	10	9	10	25	8	21	2	4
Gorse ³	7	8	7	73	6	42	1	31
Nodding thistle	108	91	2,685	2,889	1,024	896	1,841	1,993
Red cestrum	2	2	2	2	2	1	1	1
Spiny emex	8	12	125	91	41	24	84	67
Undaria	0	0	-	-	-	-	-	-
Variegated thistle ⁴	35	37	35	54	30	53	5	1
White edged nightshade	6	6	6	11	4	9	2	2
Woolly nightshade	133	112	133	284	109	259	24	25
Totals	382	409	3,103	3,743	1,299	1,500	1,984	2,243

1. Applies to all other Wards except Waiapu and Matakaoa. 2. & 3. Waikohu only. 4. Matakaoa only

Inspection and monitoring for Containment Group plants

Containment plant	Properties inspected	
	2005	2006
Australian sedge ⁵	1	1
Barberry	2	3
Bathurst bur	5	3
Blackberry	37	34
Boxthorn ⁶	2	3
Buddleia	0	1
Common pampas	0	0
Gorse ⁷	33	32
Hawthorn	0	0
Holly leaved senecio	11	6
Montpellier broom	3	2
Old man's beard	61	59
Purple pampas	0	1
Ragwort	16	9
Spartina	0	0
Star thistle	27	24
Sweet briar	0	0
Thorn apple	2	1
Variegated thistle	46	40
Wild broom	3	9
Wild ginger	1	6
Totals	250	234

5. Applies to Waiapu and Matakaoa Wards only
6 & 7. Applies to all wards except Waikohu

Containment Group Plants

There are 21 plant species in the Containment Group, widely spread across the district, abundant in some places, and they are unlikely to be eradicated.

Council's objective is to prevent infestations spreading onto neighbouring land that is clear of these plants. There are statutory obligations and rules requiring land owners to control any Containment Group plants a specified distance back from a defined boundary, thereby creating a 'buffer zone'.

Control programmes and Notices of Direction were issued for 4 Containment plants in 2005 and one in 2006. All achieved compliance.

Limited Group Plants

There are 7 plants in this group. Generally 'garden escapees', they are abundant in suitable habitats close to towns and settlements, only cause adverse affects in specific areas, and are unlikely to be eradicated. Council staff will respond to enquires, provide awareness of the adverse affects and can recommended control methods.

Enquiries were received from residents about blue morning glory (3 enquiries), mignonette/Madeira vine (3 enquiries), Chinese- and tree-privet (11 enquiries). In each case the site was inspected and control advice given.



Regional Surveillance and National Pest Plant Accord Groups

There are 2 plant species in the Regional Surveillance list and 112 in the National Pest Plant Accord List. All are banned from propagation, sale and distribution.

Council Plant Pest Officers carry out an annual surveillance of garden plant retail shops to ensure that none of the plants in this group are being sold to the public. No breaches of statutory obligations were found in 2005 and 2006.

The National Plant Pest Accord list of plants has been updated for 2006/2007. Information booklets with coloured photos of banned plants will be provided to all garden retail plant outlets.

Pest fact sheets

The Gisborne District Council has produced a series of fact sheets on animal and plant pests, including recommended control and eradication methods. These can be picked up from the reception in Fitzherbert Street, or contact the Pest Division by phoning Gisborne District Council on (06) 867 2049.

