

Mustelids (ferrets, stoats and weasels) were first introduced in the 1880s to control New Zealand's growing rabbit plagues, but this had a very limited impact on rabbit populations. They have played a major role in reducing New Zealand's native fauna, particularly endemic flightless birds who have suffered heavy predation. Recently ferrets have also been discovered to be carriers of Bovine Tb and have been confirmed responsible for many adult kiwi deaths.

Mustelids are a major threat to poultry farms, especially 'free-range' farms, and will also target pets such as guinea pigs or rabbits. Ferrets, stoats and weasels live in home ranges which vary in size up to 200 ha. Males inhabit larger areas than females. Most young are born during spring or early summer and the size of litters is dependent upon the abundance of food. Stoats are the major cause of Kiwi chick death accounting for approximately 65 percent of wild born Kiwi chicks within the first weeks of life.



Ferret (*Mustela furo*)



Stoat (*Mustela erminea*)

Photo: Landcare Research

Status as a pest animal in the Bay of Plenty

Mustelids are a Restricted Pest Animal (refer to the Bay of Plenty Regional Council Regional Pest Management Plan).

Landowners are not required to control mustelids on their property but are encouraged to do so.

Bay of Plenty Regional Council will offer advice and support to landowners to assist in controlling populations. Financial assistance may be available from Bay of Plenty Regional Council by way of approved programmes.

Mustelid species in New Zealand

Ferrets (*Mustela furo*)

Body: Male ferrets grow up to 440 mm and females up to 370 mm in length. They have a creamy-yellow undercoat, with long black guard hairs, which give a generally dark appearance. Legs and tail

appear darker than the body. The lighter facial region has a dark mask around the eyes and across the nose.

Physical Ability: Smell and hearing are ferrets' main senses; their eyesight is poor by day, but better at night. Ferrets, compared to stoats, are poor swimmers and climbers.

Diet: Primarily rabbits, rodents, birds, eggs, possums, hedgehogs, frogs, eels, insects and carrion.

Preferred Habitat: Ferrets are relatively common throughout farmland and along forest margins, particularly in areas containing high rabbit numbers.

Stoats (*Mustela erminea*)

Body: Stoats have long thin bodies with smooth pointed heads, ears are short and rounded. They are smaller than ferrets; males grow up to 300 mm and females up to 250 mm long. Their fur is dark brown with creamy white under-

parts. Stoats have relatively long tails with a bushy black tip.

Physical Ability: Stoats have sharp claws and are very nimble tree climbers. They are strong swimmers and islands within 1.5 km of the mainland are vulnerable to stoat invasion.

Diet: Primarily rabbits, rodents, birds, eggs, possums, lizards, freshwater crayfish, insects, and occasionally carrion or household rubbish.

Preferred Habitat: Stoats can be found anywhere from beaches to the high country, in native or exotic forest, scrub, dunes, tussock and on farmland. Stoats often hunt natural pathways and bush edges.

Weasels (*Mustela nivalis vulgari*)

Body: Weasels are the smallest mustelid in New Zealand, with males growing to about 200 mm. Their fur is brown with white underparts often broken by brown spots. Their tails are short, brown and tapering.

Physical Ability: Weasels run, swim and climb as well as stoats, but have a shorter stride and cover less distance.

Diet: Commonly feed on mice, small birds and eggs, lizards and weta. They will occasionally tackle larger prey such as rabbits.

Preferred Habitat: Weasels are the rarest of the mustelids found in New Zealand. They prefer modified habitats such as farmland, forest margins and scrub, and can occasionally be found in suburban gardens.



Weasel (Mustela nivalis vulgari)

Field sign

Mustelid scats (droppings) are long and thin, often with a characteristic tapering twist at each end. They are often filled with fur, feathers and bone fragments, and are hard and black when dry. Mustelids secrete onto their scats a thick, oily, powerful smelling yellow fluid called musk. The scats are often placed in conspicuous positions, such as in the middle of a track, as a sign to other mustelids in the area.

Another mustelid characteristic is that they eat the brain and flesh from the neck and head area of their prey.

Trapping

To be effective, control must be carried out intensively and be sustained over wide areas. Most possum and rabbit traps can be used to catch mustelids and there are also specialist mustelid traps available.

Mustelids will investigate any tunnels and burrows encountered while hunting and trap tunnels or

covers must be used to cover the set traps. This will also prevent the capture of non-target birds and animals. Ensure that the tunnel is pinned to the ground so animals such as dogs and domestic stock cannot dislodge it.

Bait traps with fresh fish, poultry, rabbit or an egg, salted rabbit can be an effective longer lasting bait. Ping-pong balls can also be used as a visual lure though fresh bait is much more effective.

Setting kill traps

Set traps along natural pathways, stream and drain edges, fence lines, bush edges or where mustelids have been sighted.

Never wash traps after they have caught a mustelid, as the scent left by the captured animal will attract others, acting as a natural lure. Mustelids are sensitive to smell therefore handling of traps by a human should be kept to a minimum where possible. It is also a good idea to use disposable gloves when handling the trap to limit the exposure of human scent, this often increases trapping efficiency.

Types of traps

DOC series traps (DOC150, 200, and 250 Traps)

DOC Series traps are a recent improvement in effective mustelid control tools, they were developed as a result of research into more effective and humane traps. Each trap size has its limitations and these features should be well understood before purchase.

The DOC 250 trap will kill all mustelids and consideration should be given to integrating this larger trap into a protection programme to humanely control ferrets. Upgrading of materials, to stainless steel treadle plates is very cost effective as earlier plates are prone to rust. Stainless steel trap bodies are well worth considering if setting in a coastal environment. It is recommended that traps be test fired and the spring-off weight tested to ensure it meets the specifications before field deployment.

The DOC 200 traps the are most commonly used for stoat control, double set traps are available for purchase for use in areas of high rat densities, as often a rat will be the first pest to interact with a trap. Once killed, the rat acts as an additional attractant to mustelids and often increases catch rates.



KBL Tunnel Trap/Timms Trap

The KBL Tunnel Trap is very similar to the Timms possum trap but has a tunnel entrance to prevent non-target animals from being accidentally caught. Timms possum traps can be baited with meat or fish to catch mustelids. Before considering this option, ensure that there is no possibility of catching pet cats, as they will probably be attracted to the bait.

Holden box trap

Box traps are specifically designed for live capture of mustelids. They are live capture traps so any non-target animals caught can be released unharmed. These traps can be baited with meat, fish or eggs, however once they are scented by captured animals, baiting is not necessarily needed. By law, live capture traps must be checked within 12 hours of sunrise on the day after which they were set. Live captured animals must be killed humanely by a competent operator.

Fenn traps

Fenn traps have long been the main trapping tool for mustelids. Recently during testing of trap effectiveness Fenn traps failed the National Animal Advisory committee (NAWAC) humane killing test and consequently are being withdrawn from service as their working lives are completed.



Possum leg-hold traps

(e.g. Victor No. 1)

Possum leg-hold traps should not be used to target mustelids as they do not kill humanely.

Exclusion fencing

Poultry and pets are best protected by ensuring mustelids cannot access the animal enclosures. Ensure enclosures have netting floors or have netting walls buried in the ground using heavy galvanised wire netting.

Alternatively, if constructing a permanent enclosure with concrete foundations, extend the nib wall 30–45 cm below ground level and place a 30 cm wide ledge at that level.

How we can help

Bay of Plenty Regional Council staff are available to assist in advising appropriate control methods and demonstrating control techniques if required.

For more information contact a Bay of Plenty Regional Council Land Management Officer.



Weasel and rat



Stoat

Products

The following companies sell the products mentioned in this fact sheet. These are by no means the only suppliers and you are encouraged to shop around for the product that suits your needs.

CMI Springs

PO Box 3963, Auckland
Phone: 09 579 4089
www.cmisprings.com

Products: DOC 150, 200, and 250 kill traps

Haines Pallet Co

111 Hutt Park Road, Seaview,
Wellington
Phone: 04 568 6898
www.hainespallets.co.nz

Products: DOC 150, 200, and 250 kill traps

Predator Control

74c Greerton Road,
Gate Pa, Tauranga
Phone: 07 571 8670
www.predatorcontrol.co.nz

Products: DOC 150, 200, and 250 kill traps

Predator Traps

www.predatortraps.com

Official website for DOC series trapping systems - with stockist links

Trappers Cyanide Ltd

303 Laidmore Road, Amberley,
North Canterbury
Phone: 03 314 9940
www.traps.co.nz

Products: Bushmaster leg-hold traps, Cage traps, Holden Mustelid trap, Trappers cyanide, Amyl Nitrate.



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