Controlling Pest Animal Invaders







Pest Animal Invaders

In the Tasman-Nelson Regional Pest Management Plan

These pest animals are; compromising the biodiversity of our region and potentially threatening, forestry, horticulture and agriculture.

AUSTRALIAN MAGPIE – Gymnorhina tibicen

Victoria and Tasmania, Australia Eradication Pest Animal – Golden Bay



Origin – Introduced from Tasmania and Victoria into the Maitai Valley by the Nelson Acclimatisation Society in 1865. In early settlement magpies were kept as cage birds and were often shown at A&P Shows.

Characteristics – A characteristic "Orddle, Warddle, Arddle" call. There are two phases of magpie white backed and black backed. In our region white backed predominate and black backed are rare.

Management issues – Magpies are very territorial and their aggressive nature inhibits our native birds. This aggressive behaviour can include attacks on cyclists and children during their nesting season, of August to September.

Control methods – <u>Catch cages:</u> Live catch cages can be borrowed short-term from Tasman District Council. Contact your local Biosecurity Officer (see back page).

BRUSHTAIL POSSUM – Trichosurus vulpecula

Tasmania, Australia

Site-led Pest Animal – Waimea Estuary



Origin – The first possums were imported from Tasmania and were brought to Riverton, Southland in 1858. The Nelson Acclimatisation Society released large black fur possums at Wakapuaka, Nelson in November 1891. These possums were obtained from Southland.

Characteristics – Possums are nocturnal and sleep in dry den sites during the daylight. They are very dexterous and can traverse aerial cables. They are marsupial and raise their embryos in their pouch.

Management issues – Possums are carriers of Bovine TB and can infect cattle and deer with this disease. They selectively feed on certain native plants changing forest composition and causing the extinction of rare plants. They also predate native bird eggs and their nestlings. If lemon skins are eaten off, this is a sure sign of possum browse.

Control methods – <u>Kill traps</u>: Kill traps are available on short-term loan from Tasman District Council. Contact your local Biosecurity Officer (see back page). <u>Poison</u>: Anti-coagulant poison pellets, dispensed from bait stations are recommended for killing possums. (See back page for pesticide brands.)

FERAL CAT - Felis catus

Europe

Site-led Pest Animal – Abel Tasman National Park and Private Enclaves, Nelson City (specific high-value biodiversity sites), St Arnaud Village, Waimea Estuary



Origin – Introduced at the same time as European arrival, as most ships had cats on board to control rats on their ships.

Characteristics – Feral cats are exceptionally agile and are highly attuned predators. They have acute hearing and night vision.

Management issues – Feral cats feed on native birds, reptiles and insects. Although feral cats can carry Bovine TB, the incidence is generally very low in cats. Cats are hosts for the Toxoplasmosis parasite. Their faeces spread Toxoplasmosis cysts to farm animals, humans and via water to our native dolphins.

Control methods – <u>Catch cages</u>: Live capture cages can be borrowed short-term. Contact your local Biosecurity Officer (see back page).

FERAL EUROPEAN RABBIT – Oryctolagus cuniculus

Europe

Eradication Pest Animal – Golden Bay



Origin – First imported at earliest settlement, rabbits were breeding on Rabbit Island/Nelson, as early as 1849.

Characteristics – Rabbits are more active at night. Ideal conditions for them are low grazed or mown pasture. Rabbits defecate in piles in the same location. These piles, known as pellet heaps, are where rabbits reliably frequent. Rabbits can produce up to approximately 36 offspring in prime conditions and peak numbers generally occur in November to December. They dig burrows.

Management issues – Rabbits will dig scrapes in grasslands and can nibble and ring bark, both horticultural or amenity plants.

Control methods – <u>Poison:</u> Anti-coagulant poison Pindone pellets, are recommended to poison rabbits (*See back page for pesticide brands*). <u>Catch cages:</u> Live catch cages are available on short-term loan. Contact your local Biosecurity Officer (*see back page*).

RHD: Rabbit haemorrhagic disease virus was originally illegally released in 1997. Since then it has been responsible for the occasional, seasonal rabbit population decrease. With time rabbits are developing an immunity to RHD.

FERRET - Mustela furo

Europe

Site-led Pest Animal – Waimea Estuary



Origin – Originally introduced from Great Britain, individual ferrets were kept in Nelson as pets as early as 1870 and were used in the sport of rabbiting. Run holders over run by rabbits, made further liberations in mid 1880s. In August 1883, there were mass liberations in the Awatere, Marlborough.

Characteristics – Ferrets are the largest of the three mustelids and are poor climbers. They do not inhabit native forest.

Management issues – Ferrets are carriers of Bovine TB and can infect cattle and deer with this disease. Generally, their prey are rodents, but they will eat birds and reptiles. They will kill domestic poultry.

Control methods – <u>Kill traps:</u> Kill traps can be borrowed short-term. Contact your local Biosecurity Officer (see back page).

INDIAN MYNA – Acridotheres tritsis

India
Exclusion Pest Animal



Origin – Introduced to both islands from Melbourne, Australia in 1871, to combat invertebrate pests. Christchurch liberations did not breed.

Characteristics – Voice is a loud noisy "Chickork-Chickork-Chickork". The same family as the starling. Located north of 40°S. Prefers warmer climate, hence they have not colonised the south.

Management issues – They destroy other bird eggs and their nestlings.

Report sightings – If seen please contact your local Biosecurity Officer (see back page).

INDIAN RING-NECKED PARAKEET – Psittacula krameri

India and neighbouring countries including North Africa.

Fradication Pest Animal



Origin – Introduced as cage birds. Not yet at large in our region.

Characteristics – They are larger than our native parakeets and have a rose coloured band that extends around the nape of the neck. Red beak.

Management issues – In the North Island, caged birds have been released into the wild. An environmental and horticultural pest.

Report sightings – If seen please contact your local Biosecurity Officer (see back page).

NORWAY OR BROWN RAT – Rattus norvegicus

Europe Site-led Pest Animal – Waimea Estuary



Origin – The first European rodents to become established in New Zealand, arriving on the earliest explorers' sailing ships.

Characteristics – The Norway rat is the larger of the two European rats weighing up to 500 gm. It has a short body with a thick tail, which is slightly shorter than the body. Just before autumn rats come inside buildings and dwellings to shelter during winter.

Management issues – Rats feed on native birds, reptiles, insects, seed and crops.

Control methods – <u>Kill traps</u>: Kill traps can be purchased. (*See back page for trap brands*). <u>Poison</u>: Anticoagulant baits are probably the most effective way to control rodents. (*See back page for pesticide brands*).

SHIPS RAT – Rattus rattus

Europe

Site-led Pest Animal – Waimea Estuary



Origin – Introduced as stowaways on early European explorer's ships.

Characteristics – The ships rat weighs up to 170 gm. The scaly tail is longer than the combined length of the head and body. They have larger ears that the Norway rat. Just before autumn rats come inside buildings and dwellings to shelter during winter.

Management issues – Rats feed on native birds, reptiles, insects, seeds and crops.

Control methods – <u>Kill traps</u>: Kill traps can be purchased. (*See back page for trap brands*). <u>Poison</u>: Anticoagulant baits are probably the most effective way to control rodents. (*See back page for pesticide brands*).

ROOK – Corvus frugilegus

Britain

Eradication Pest Animal



Origin – They were introduced from Britain into Nelson City by the Nelson Acclimatisation Society in June 1866. These birds did not breed and eventually died out.

Characteristics – A characteristic "KAAH" crowing call. Accumulate in rookeries high up in mature trees. Can be confused visually with black oystercatchers and their call can be confused with grey cranes. They nest during October.

Management issues – Flocks descend on pre-emergent crops and feed on germinating seeds.

Report sightings – There are no known rookeries in our region, however rooks are rare and occasional visitors to our region from the lower North Island. Do not attempt to shoot rooks, as this will disperse them. If seen please contact your local Biosecurity Officer (see back page).

STOAT – Mustela ermine

Britain

Site-led Pest Animal – Waimea Estuary



Origin – Originally introduced from Britain in mid 1880s by run holders over run by rabbits. In August 1885, they were liberated in the Wairau Valley, Marlborough, our closest neighbour. Five years later, they began appearing in Nelson.

Characteristics – Stoats are capable of climbing trees. They are able swimmers and will threaten wildlife on offshore islands. They have a long bushy tail with a black tip.

Management issues – These predators have been responsible for the extinction of many native birds and reptiles.

Control methods – <u>Kill traps</u>: Kill traps can be borrowed short-term. Contact your local Biosecurity Officer (see back page).

WALLABIES - Bennett's Macropus rufogriseus and Dama Macropus eugenii

Tasmania, Australia
Exclusion Pest Animals



Origin – In 1870, a Captain Thomson brought several Bennett's wallabies from Tasmania to Christchurch. In 1874 two females and a male were liberated on the Hunter Hills near Waimate Canterbury. In 1912 smaller Dama wallabies from South Australia were released in the Rotorua District of the North Island.

Characteristics – They are kangaroo like, have a long tail and hop on their back legs. They are also nocturnal and marsupials.

Management issues – Bennett's wallaby are the most likely to be obtained and/or released in our district, as they are established in the mid to lower South Island. Wallabies are a threat to pastoral farming and native shrub communities. **Note:** Image left is a Bennett's wallaby.

Report sightings – If seen please contact your local Biosecurity Officer (see back page).

WEASEL – Mustela nivalis vulgaris

Britain

Site-led Pest Animal, Waimea Estuary



Origin – Introduced from Britain in mid 1880s by run holders over run by rabbits. In August 1885 they were liberated in Wairau Valley, Marlborough, our closest neighbour. Five years later, they began appearing in Nelson. In 1901 weasels were seen in Motupipi, Golden Bay.

Characteristics – Weasels are the smallest of the three mustelids and are capable of climbing trees. They are able swimmers and will threaten wildlife on offshore islands. They have a short hairy tail, lacking any black tip.

Management issues – These predators have been responsible for the extinction of many native birds and reptiles.

Control methods – <u>Kill traps:</u> Kill traps can be borrowed short-term. Contact your local Biosecurity Officer (see back page).

Other Pest Animal Invaders

BROWN HARE – Lepus europaeus occidentalis

Britain



Origin – The variety of brown hare in New Zealand are originally from Britain. They were imported from Melbourne and Tasmania and released in small groups by the Nelson Acclimatisation Society, from 1868 to 1873. Initial successful releases were at Wakapuaka, Stoke and the Waimea Plains. In our region, they established so successfully, that all seasonal hunting protection was soon removed.

Characteristics – Hares will not eat poison baits. Larger than rabbits and brown colour, with black tips on their ears. They are mainly solitary by nature, except during the breeding season. They are mainly nocturnal.

Management issues – Hares browse young trees planted in grassland. Damage includes bark chewing and a characteristic 45 degree cut angle of stem leaders.

Control methods – **Shoot:** Probably the best way to control them, as they will not eat poison baits.

EUROPEAN HEDGEHOG – Erinaceus europaeus occidentalis

Europe



Origin – Originally imported to Christchurch from Britain in 1869, for nostalgia and control of insect pests in gardens. They were introduced to Nelson, from Christchurch. In 1906 a solitary hedgehog was donated to the Nelson Queens Gardens Aviary. Further hedgehogs were similarly, donated in 1914, from The Wood area of Nelson. In 1917 hedgehogs were reported as being particularly plentiful around Nelson.

Characteristics - Are nocturnal and hibernate June to August.

Management issues – Hedgehogs feed on insects, reptiles and ground nesting birds' eggs and chicks.

Control Methods – <u>Kill traps</u>: Hedgehogs are able to flatten their prickles and push through a trap tunnel, which exclude ground birds. In some cases, the width of the access tunnels may need to be increased. Kill traps can be purchased. (See back page for trap brands).

FERAL GOAT – Capra hircus

Europe



Origin – First introduced by Captain Cook in his voyage of 1773 and 1779. Further liberations in the 19th century by sealers, whalers and settlers. Introduced as farm goats. By 1850, large numbers had escaped into the Maitai Valley of Nelson.

Characteristics – Goats are very agile and will inhabit steep terrain and clamber onto steep difficult objects. Both sexes have horns.

Management issues – Goats graze native understory as high as they can reach, by standing on their back legs. They effectively remove the understory zone of forests.

Control Methods – Catch pens: Catch pens can be built, to live capture goats. Shoot: Probably the best method, if appropriately safe. Dogging: Specialist goat control businesses can be contacted. For further detail, contact your local Biosecurity Officer (see back page).

FERAL PIG – Sus scrofa

Europe



Origin – The very first pigs were introduced to the Marlborough Sounds by Captain Cook in his two voyages of 1773 and 1777. From 1790s further liberations followed with explorers and European and North American sealing, whaling and trading vessels visiting New Zealand. Feral pigs were well established around most Māori and European settlements by 1840.

Characteristics - Pigs have poor eyesight but have acute senses of hearing and smell.

Management issues – Pigs can do a lot of damage by rooting up pasture and the understorey of native forests. They are also carriers of Bovine TB.

Control methods – <u>Catch pens</u>: Catch pens can be built, to live capture pigs. <u>Dogging</u>: Throughout our region, there are recreational hunters with pig dog packs. Occupiers, who are having pig damage on their land can, individually contact such hunters.

HOUSE MOUSE – Mus musculus

Europe



Origin – Self-introduced, stow away on early sailing vessels

Characteristics – Mice are more active at night. They are essentially ground dwelling, but can swim and climb reasonably, but not as well as ship rats. They are prey for rats. Mean weight is 15 gm. Just before autumn mice come inside buildings and dwellings to shelter during winter

Management issues – Mice feed on native birds, reptiles, insects, seeds and crops.

Control methods – <u>Kill traps</u>: Kill traps can be purchased. (*See back page for trap brands*). <u>Poison</u>: Anticoagulant baits are probably the most effective way to control rodents. (*See back page for pesticide brands*).

PUKEKO – Porphyrio melanotus

New Zealand and Australia



Pukeko are game birds and can be shot if a Fish & Game gamebird license is obtained. If persistent damage occurs outside of gamebird season, you may obtain a "Permit to Disturb Game Birds", issued by a Fish & Game Ranger.

Characteristics – Live in wetlands and damp farm pasture. Blue coloured feathers.

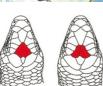
Management issues – They will pull out plants, such as vegetable seedlings, horticultural trees and amenity plants. They also predate the young of other waterfowl.

Control methods - Shoot: During game bird season or contact Fish & Game.

PLAGUE SKINK – Lampropholis delicata

Australia





Plague skink Native skink



Origin – It was accidentally introduced in the early 1960s presumably in cargo shipments and is now extremely common in the top third of the North Island. In approximately 2000 the first arrival in the South Island, was at the Riverlands Industrial Estate, Blenheim, in cargo imported direct from Australia. Discovered and destroyed at Riuwaka , in kitset chemical toilets (ex Auckland), in 2022. Not yet known to be established in our region.

Characteristics – Small brown lizard, iridescent rainbow sheen to scales visible under bright light. Dark brown stripe down sides of body, sometimes white stripe present as well. One large undivided scale on top of their head. They lay eggs, in contrast to native skinks that give birth to live young.

Management issues – Eats a wide variety of invertebrates, competes with native lizards. They also thrive in urban areas, gardens, commercial areas, industrial sites, garden centres, and waste ground. Plague skinks are excellent stowaways and will frequently enter freight and shipping containers.

Control methods – Check for stowaways when moving gear, vessels, goods, pot plants or freight. Potting mix in potted plants is a favoured breeding habitat. Check these for any of their small white eggs, especially if plants are to be used in restoration projects. Trapping has been trialled as a method to remove new populations

Report sightings – If seen please contact your local Biosecurity Officer (see back page).

ROCK PIGEON – Columbia livia

Southern Europe, North Africa, East Asia



Origin – Introduced from Britain by settlers as pets and for pigeon racing. Pigeons are well renowned for their homing ability and were used for transporting messages. Unfortunately, some birds have formed wild breeding colonies.

Characteristics – They particularly like to roost in Phonex palms, buildings or the superstructure of road bridges.

Management issues – Pigeons frequent the same roost sites and foul where they roost. They will also frequent stock feed containers that are feeding grain, particularly to horses.

Control methods – **Bird spike strips:** Can be affixed to house ledges to prevent pigeons from roosting. **Poison:** Feed Alphachloralose grain to pigeons. This pesticide has a strong narcotic effect and the pigeons become sleepy and unable to fly. You can then readily collect and destroy them. The narcotic action means you can allow non-target birds to recover by placing them in warm conditions. (*See back page*).

Caution! Firearms

Before using firearms, you must have a current "Firearms License" issued to you, by the NZ Police. Firearms are to be used in accordance with the legal requirements of the NZ Arms Code.

Animal Welfare Act 1999 – Obligations

All animal types are protected by this act, including pets, livestock and pest animals. The intention of the act is to alleviate animal suffering and to ensure that a set standard of animal welfare conditions are observed. There are specific rules in the Act, which must be complied with; Section 36 Trapping Animals covers trapping and Section 30D Captured Animals covers live capture.

Subsidised backyard traps

Tasman and Nelson Councils separately sponsor ratepayers to purchase traps from a backyard trapping programme. Each property can purchase three individual traps – one possum kill trap, one mustelid tunnel trap and one rat tunnel trap. Tasman residents can purchase from Tasman District Council Service Centres. Nelson residents can purchase them from the Department of Conservation Information Centre at Millers Acre, Halifax Street, Nelson.

Pesticides notes – Always read label instructions!

Alphachloralose – Brand names: Pestoff Bird Control Paste, Pestoff Treated Wheat.

NOTE: All the following pesticides are anticoagulants.

Brodifacoum – Brand names: Pestoff Possum Bait, Pestoff Rodent Blocks, Final Rodent Block.

Bromadiolone – Brand names: Contrac Rodent Block, Maki Block.

Difethialone - Brand name: First Strike.

Diphacinone – Brand name: Ditrac Rodent Block.

Pindone – Brand names: Pindone Rabbit Pellets, Pindone Pellets Possum & Rats.

Pesticides, traps and bait stations – These are available at farm supply businesses and online from the following supplier websites.

Helpful websites

Pestoff Pest Control - www.pestoff.co.nz

Connovation - www.connovation.co.nz

Find-A-Pest – www.findapest.nz

Good Nature – www.goodnature.co.nz

Key Industries - www.keyindustries.co.nz

Pest Control Research Store - www.traps.co.nz

Pest Detective - www.pestdetective.org.nz

Pestrol - www.pestrol.co.nz

Possummaster Industries Ltd – www.possummaster.co.nz

Contact your local Biosecurity Officer:

Nelson Te Kaunihera o



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