



# Kiore / Pacific rat / Polynesian rat

## Exotic animal

Although uncommon in New Zealand, the kiore is the world's third most widely distributed rat, having been spread by people throughout the Pacific region. These rats were introduced to New Zealand and New Zealand's offshore islands from Polynesia by the twelfth century. They were used by Māori for food and for their pelts, which were used to make traditional cloaks.

Kiore have brown fur, which is darker along the spine, with grey and white on the belly. They are smaller and less aggressive than the other two rat species in New Zealand, the Norway and ship rat.

Of the many introduced mammals to New Zealand, kiore are unusual because of their association with the migration of Polynesians throughout the Pacific and because of their cultural and spiritual values to some iwi.

### Where is it found?

At the time of European settlement, kiore were widespread throughout the mainland. Today the species is restricted on mainland New Zealand to Southland, South Westland and Fiordland, and elsewhere to Stewart Island and a number of offshore islands.

### Kiore facts

- It was originally thought that kiore were mainly vegetarian, but evidence has proved that they will eat almost anything they find, including seeds, fruits, leaves, insects, lizards, and the eggs and chicks of some birds.

- Kiore adapt easily to living in a wide range of conditions and habitats including beech forests, secondary kākara forests, broadleaved coastal scrublands and tussock grasslands as high as 1300 metres.
- Kiore sometimes strip bark from trees and dig up small seedlings. They also dig small holes up to 10 cm deep in the ground in search of food.
- Kiore shelter underground among rocks and in tree stumps but don't seem to excavate tunnels or nests.
- They are mostly active at night and tend to be solitary. Males associate with females only for mating.
- Pre-European Māori considered kiore a delicacy. Rats fattened on a diet of berries and other plant material, especially miro fruit, were trapped and preserved in their own fat.

Kiore  
D. Veitch



## Did you know?

By comparing the DNA of kiore in New Zealand with kiore in various South Pacific islands, scientists have been able to trace the ancestry of Māori from Polynesia. Kiore are useful for tracking Polynesian migration routes because the rats were adept stowaways on large waka. Also, because kiore are poor swimmers, humans must have been responsible for their dispersal.

Current DNA evidence suggests that Māori most likely came from the Cook Islands and Tahiti, because the kiore in these islands are genetically most similar to the kiore in New Zealand.

## Why is it a problem?

Once considered harmless, the kiore's destructive habits first became evident on offshore islands. On islands where kiore were absent, nesting seabirds like white-faced storm petrels, northern diving petrels, fairy prion and little shearwaters were more abundant. Islands where kiore were removed also showed an increase in insects, lizards, small birds and native plant seedling growth.

Kiore are now thought to have been responsible for the extinction or reduction on the mainland of a significant number of native species including flightless beetles, giant weta, land snails, frogs, skinks, geckos, tuatara, bats, some species of small seabirds such as Cook's petrels and small land birds such as the New Zealand snipe. The kiore not only harm our native wildlife by eating the actual animals, but also by eating seeds, fruit and leaves, kiore can modify forest as well as leaving native wildlife with an insufficient food supply.

Kiore  
M. Aviss



Kakapo egg predated  
by kiore, Codfish  
Island  
D. Merton



## What is DOC doing?

In 1995 the Department of Conservation released a kiore strategy document that advocated the elimination of kiore and other rodents from island reserves administered by the department. DOC has successfully eradicated kiore (and other rodents) from a number of offshore islands and plans to pursue eradication on all fifteen islands under its administration where kiore are present. Removal of kiore from these islands would reduce the rat's New Zealand range by only four per cent.

The strategy also recognises the cultural and spiritual value of kiore to some iwi and acknowledges that kiore are likely to remain on the mainland and on some islands (outside of the department's administration) for cultural or scientific reasons. Recognising that Māori sometimes have a cultural interest in kiore, it is the Department's practice to consult prior to eradication programmes.

## For further information

For further information you can access the Department of Conservation web site at [www.doc.govt.nz](http://www.doc.govt.nz) or contact your nearest Department of Conservation office.

See also [www.kiore.com](http://www.kiore.com)

