



An Roinn
Ealaíon, Oidhreacht agus Gaeltachta
Department of
Arts, Heritage and the Gaeltacht

The
Vincent Wildlife
Trust



How to exclude pine martens from game and poultry pens

*Practical steps you can take to protect game and domestic
fowl from pine martens*

Adapted from an original VWT pamphlet by E. Balharry

Introduction

As Irish pine marten populations recover, keepers of game and domestic fowl are asking the following questions:

- Can game birds in release pens be protected from martens without considerable expense?
- Can domestic fowl be protected from martens?
- Will martens reach plague proportions locally?

This leaflet addresses these questions.

1. Preventing pine marten predation on penned game birds

Martens can usually gain access to pens in three ways. In order to exclude them successfully, all three methods of entry need to be prevented.

(a) Preventing access over a fence using electric fencing

Electric fencing will deter martens from climbing up and over mesh walls of release pens. The current-carrying wires are held off the main fence on insulators. A predator climbing the fence and touching both the main fence and one of the electric wires will earth the current and experience an electric shock. This shock alarms but does not injure or kill the predator.

For this system to work it is essential to ensure that:

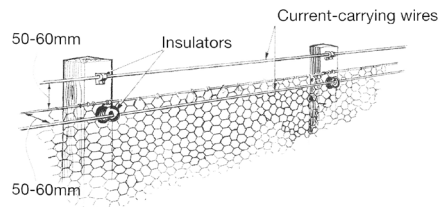
- The predator remains in contact with the current-carrying wire for longer than the pulse interval (the voltage is generated by an energiser which emits short pulses at about one second intervals).
- The predator does not jump over or pass under the current-carrying wires without touching them.

Line wire electric fencing

The most usual form of electric fencing on or around pens consists of between one and three line wires.

Although one wire will work, we recommend placing at least one wire 50-60mm above the top of the fence and one wire 50-60mm out from the mesh, parallel with the top of the fence.

Positioning wires at lower levels may increase the chance of a marten passing too quickly over them and missing the voltage pulse, or jumping over them. Martens take only two to three seconds to climb up and over a 1.8m fence.

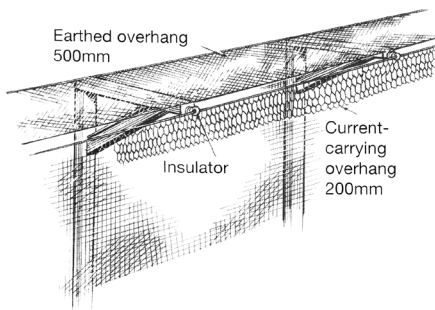


Line wire electric fencing

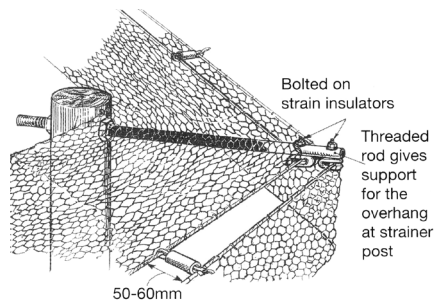
Overhang electric fencing

This is a certain defence against martens as it has been used to contain them in captivity. Short-circuits are prevented by the rigidity of the construction.

Martens will take considerably longer to negotiate the overhang than to pass over the top of line wire fencing and therefore are certain to encounter an electric pulse every time they attempt to cross the fence. The overhang will also prevent a predator jumping forwards after receiving a shock. We recommend this type of fencing for newly-built permanent enclosures.



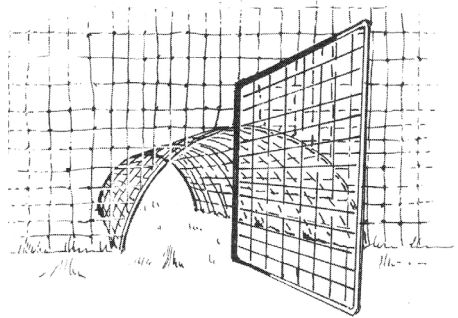
Overhang electric fencing



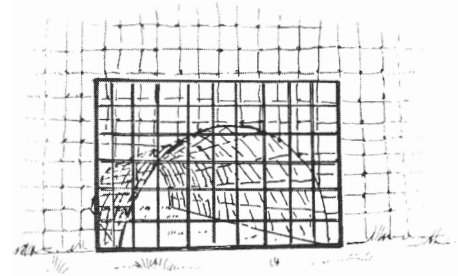
Detail of overhang electric fencing

(b) Preventing access through holes in a fence

A marten can squeeze through a hole into which it can get its head. The skull width of an adult marten averages 58mm for males and 50mm for females. Thus we suggest ensuring a pen has no gaps greater than 45mm in its construction and that a mesh size of 31mm is used.



Martens will actively search for a hole through which to squeeze and may enlarge holes in rotten wood, but do not chew through sound wood or wire to enter pens. They can also dig, so the mesh at the bottom of the fence will need to be dug in or well-pegged down, to prevent them digging under it.



Pop holes should be shut at dusk to prevent predator access

Re-entry tunnels for game birds (pop holes)

Some martens will be deterred completely from approaching pens once they have received an electric shock; others over time will re-approach close to the fence and will thus discover re-entry tunnels.

The best way to keep martens out of pop holes is to keep the holes shut at night when martens are most active. We suggest shutting the pop holes between dusk and dawn for at least five to six weeks after releasing poults.

(c) Preventing access via tree branches

Martens can jump a horizontal distance of about 2m and climb trees with ease. A gap in canopy cover around the pen is essential and at least 3m is recommended.

2. Preventing pine marten predation on domestic fowl

Making a hen house marten-proof

Hen houses are generally marten-proof when constructed of new timber but tend to deteriorate over time, particularly around the base. There have been incidents of martens gaining access to hens, which had been shut in, by enlarging a hole in rotten wood.

Holes of about 50mm in diameter will allow a female marten to enter a hen house. There has also been at least one case where a marten entered by lifting a sliding door, thus the door needs to be fixed shut.

- Ensure that there are no holes into the hen house greater than 45mm in diameter.
- Replace any rotten wood.
- Close the hen house door during the hours of darkness after the hens have gone to roost.
- Secure the door to prevent it being lifted by a pine marten.

Using electric fencing

Hens can gain additional protection from electric fencing that is switched on at night after they have gone to roost. One or two current-carrying wires on the hen house, just off the ground, will deter martens from digging at rotten wood at the base of the house. Such electric fencing may also deter martens from visiting and thus reduce the risk if, on occasion, the hens are not shut in at night.

When it is not possible for someone to open and close the hen house each day, the hens can be protected within a fenced enclosure with line wire electric fencing as described earlier. In this situation the hen house door does not then need to be shut at night.

3. The pine marten in Ireland - *Martes martes*

Introduction

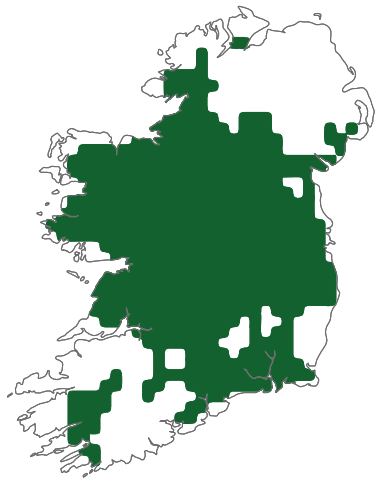
The pine marten is native to Ireland and is one of our rarest mammals. Once common throughout the country, by the 20th century this species had become extinct from the majority of the island, surviving only in a few isolated and fragmented populations, mainly in the west. This decline was the result of hunting of martens for their fur, loss of habitat and both direct and indirect poisoning and persecution.

Distribution and population

The pine marten is gradually recolonising Ireland and returning to areas where it has not been seen for decades.

Following the introduction of legal protection, numbers built up slowly in its refuges in the west and south. From there, facilitated to some extent by the expansion of forestry, it has spread into the midlands and the north-west. In recent years small numbers have reached the east coast. Although the marten population is recovering, its slow reproduction rate and large territory size means it never reaches high densities.

The marten, as its Irish name (*cat crainn*) suggests, spends most of its time in trees. It is found mainly in deciduous and coniferous woodland, but has also adapted to scrubland.



Current distribution of the pine marten in Ireland

Description

The pine marten is related to the Irish stoat, otter and badger and adults are about the size of a domestic cat. The coat is a rich brown colour, with a large patch of pale-coloured fur over the throat and chest.

Martens have large feet, large ears ringed by pale fur, and a long bushy tail. In summer the coat is sleek and dark brown, except for the throat patch, whilst in winter it is mostly light brown with dense underfur.

Martens weigh between 1.0kg-2.2kg and the head and body measure about 60cm, with females lighter and smaller than the males.

More pine marten facts

- Pine martens are solitary animals.
- Adults of both sexes exclude other martens of the same sex from their territory - thus in any one patch of ground, only one adult of each sex will be present.
- Breeding occurs once a year, with two or three kits born in spring.
- Maternity dens are in hollow trees, rabbit burrows, tree roots, rock crevices, and roofs of houses.
- Martens are slow reproducers, males mating in their third year, females in their second.
- Diet is varied and includes berries, fruits, insects, frogs, birds, small mammals and carrion.

Legal protection of martens

The pine marten is protected in Ireland by both national and international legislation. Under the Irish Wildlife Acts it is an offence, except under licence, to capture or kill a pine marten, or to destroy or disturb its resting places. For further information on licences please email: wildlifelicence@ahg.gov.ie.

The European Union's Habitats & Species Directive further obliges Ireland to maintain the favourable conservation status of the pine marten throughout its range.

The Vincent Wildlife Trust

The Vincent Wildlife Trust has been playing a key role in mammal conservation in the Republic of Ireland since 1991, specifically bat conservation. VWT staff work independently, but are in close liaison with the National Parks and Wildlife Service. Today, the Trust is currently working on a number of Irish mammal species, including the pine marten. Where a need is identified, the Trust will initiate a research programme that will support other bodies working to safeguard the future of all mammals in Ireland.

Contact: The Vincent Wildlife Trust, Donaghpatrick, Headford, County Galway
Tel: 093 35304, **Email:** katemcaney@vwt.org.uk
www.mammals-in-ireland.ie

The National Parks and Wildlife Service

The National Parks and Wildlife Service (NPWS), part of the Department of Arts, Heritage and the Gaeltacht, provides the legislative and policy framework for the conservation of nature and biodiversity in the Republic of Ireland. It also oversees its implementation, based on good science, with particular emphasis on the protection of habitats and species.

Contact: National Parks & Wildlife Service, 7 Ely Place, Dublin 2
Tel: 01 8883242, **Email:** natureconservation@ahg.gov.ie
www.npws.ie

Notice Nature (www.noticenature.ie) is Ireland's public awareness campaign on biodiversity and aims to raise awareness of the importance of biodiversity and to encourage everyone to play their part in its protection. This will help halt the damage being done to our plants and animals and the landscape, waters and habitats in which they live.

