Identification
The pine marten is a medium-sized animal, about the size of a domestic cat. It has a slender and elongated body, and a long bushy tail. It has prominent rounded ears that have a pale outline. Its fur is chestnut to dark brown in colour. Pine martens have a distinctive creamy-yellow bib on the throat that extends to the chest. The pine marten may be confused with the American mink or feral ferret, but mink fur is dark chocolate brown or black in colour and there are no throat or chest markings, although there is usually a white chin patch. Feral ferrets have white faces with a characteristic facial mask, which can be quite variable.

Habitat and range
Pine martens like woodland, preferably large-scale deciduous woodland, but they will also live in small pockets of deciduous woodland, as well as in commercially managed coniferous plantations. In the absence of woodlands, pine martens will live in scrub, rocky areas and crags; in fact, any place that provides shelter and food. They prefer to rest and breed above ground, usually in tree cavities, but where these are not available, they will use a variety of sites such as rock crevices, burrows, buildings, nests, squirrel dreys and log piles.

The pine marten is a territorial animal. The size of its territory can range from 50-400 hectares, with some overlap between neighbouring individuals (one hectare is approximately the size of an international rugby pitch).

Distribution and population
The pine marten is currently found throughout the island of Ireland and is present in every county, but is less common in Mid-Ulster and parts of the south, particularly Limerick and Cork. The pine marten almost became extinct in Ireland during the 20th century, but its population has recovered due to legal protection, restrictions on the use of poisons and the increase in coniferous plantations. Based on a survey conducted in woodlands, the most recent estimate of the population size for the pine marten in the Republic of Ireland suggests a population of approximately 4,000 animals.

Diet
Although a carnivore, the pine marten has a varied diet and eats both animal and plant material, including small mammals, birds, amphibians, invertebrates, berries, fruits, fungi and carrion. The pine marten will eat what is plentiful locally and will exploit food left out for pets and birds, and will take food from rubbish bins.

Behaviour
Pine martens are solitary animals and adults avoid contact with each other throughout most of the year. They are active during the daylight hours of spring and summer, which is when they breed. In autumn and winter they are mostly active at night, and in winter they spend most of their time in resting and dens sites. The pine marten is extremely agile and is a very confident climber.

Reproduction
Pine martens mate once a year in July and August but the young (called kits) are not born until the following March or April. Pine martens use ‘delayed implantation’, which means that fertilised eggs are not implanted in the uterus until January. This ensures the kits are born when food is plentiful during the summer months. The number of kits born (between one to five) stay with their mother in the natal den for about six weeks, but can remain with her for up to eighteen months, when they are fully grown and able to disperse to set up their own territories. Only a small number of kits will survive to become adults and breed. Martens do not breed until they are at least two years old.
Longevity
A pine marten can live for up to 12 years, although the majority of individuals do not live more than five to eight years. Pine martens are killed by foxes and eagles, but they face a range of other challenges for survival, including habitat fragmentation, being killed while crossing roads, and persecution.

Interactions with squirrels
Research has shown that the recovery of the pine marten population in certain parts of Ireland has caused a significant decline in the number of non-native grey squirrels, which in turn has led to an increase in the numbers of the native red squirrel. The grey squirrel was introduced to Ireland in the early 20th century and soon displaced the red squirrel, through a combination of disease and competition for food. Adult grey squirrels are twice the size of red squirrels and, although they have a very similar life cycle and biology to the red squirrel, they have a broader diet.

It is still unclear how the pine marten is causing the decline of the grey squirrel, but it may be that by spending more time foraging on the ground, grey squirrels are easier for a pine marten to catch and kill. It is also possible that the presence of the pine marten is raising stress levels in the grey squirrel and affecting its reproduction. In contrast, red squirrels have lived alongside the pine marten for thousands of years and they return to woods with pine martens quite quickly after the grey squirrels disappear.