## by **Dr Andrew Stringer**Pictures **Nick Martin**

ine martens are forest-dependent mammals, related to stoats, badgers, weasels and otters. They are native to Britain and used to be a common sight. However, they were eradicated from much of England and Wales by Victorian gamekeepers, and are now one of Britain's rarest mammals. They are still found in parts of Scotland and Ireland, and a small number were recently moved to mid Wales as part of a species recovery project.

They have a very broad diet, mainly eating small mammals such as mice and voles. They also eat birds, invertebrates, large quantities of berries when in season, and – grey squirrels...

Predators such as pine martens are essential for the health of local ecosystems. As a generalist, pine martens will eat what is most common. For instance, a study in Scotland showed that the most commonly taken birds were woodpigeons. By capping the populations of our most common species, pine martens help to provide a natural balance.

Bark stripping by grey squirrels can be particularly damaging to the forestry industry, with impacts on beech, sycamore, and oak alone estimated in 2001 to cost the sector £10 million per rotation. The

most exciting recent research on pine martens is the discovery of their impacts on grey squirrels. This was first demonstrated in central Ireland, where the natural recolonisation of pine martens has led to the eradication of grey squirrels from six counties. More recent evidence from Scotland supports this conclusion, showing that pine martens have clear impacts on grey squirrel populations, with subsequent beneficial effects for red squirrels. What is most striking from this research is how quickly it could happen: for instance, pine martens have only been recorded in the borders of Scotland over the last five years, but within that time they have already had clear impacts on grey squirrel populations.

The key reason for pine martens' impacts is due to evolutionary history – while every native species in the UK has lived alongside pine martens for millions of years, the grey squirrel has not. This means they are not adapted to avoid predation by pine martens, and are simply unequipped to deal with the threat. There also seem to be further effects than just predation - it is possible that pine martens are affecting grey squirrels' behaviour and reproductive rates.

The pine marten is currently very rare in England and Wales, but a population has recently been established in central Wales. A second project, led by Gloucestershire Wildlife Trust, Vincent Wildlife Trust and Forestry Commission, is now proposed for the >>

>> Forest of Dean and Wye Valley. A recently published feasibility study shows this second project would reduce pine martens' extinction risk in England and Wales from 22% to 5%, virtually ensuring the pine martens' survival. We are planning a five-year project, with adaptive management and detailing monitoring - including what impacts they have on grey squirrel populations and levels of squirrel damage. However, one of the key hurdles to now overcome is funding for the project. The project would be carried out to the highest standards and would only go ahead if the necessary funds are in place. This could take several months and Gloucestershire Wildlife Trust, a charity, has launched the first stage of a fundraising campaign.

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Learn more about Mission Pine Marten Appeal www.GloucestershireWildlifeTrust.co.uk/Mission

## **FTN WEB RESOURCES**



Information sheet Managing forest and woodland for pine martens www.confor.org.uk



## What can land managers do?

Forestry managers who are currently working in areas where pine martens are present can take several steps to encourage these mammals. Pine martens are happy in all woodland types (the 'pine' is a misnomer), but they do need healthy populations of their prey to survive. Long-term retentions and continuous cover forestry can often be beneficial for wildlife, and encouraging a more diverse understorey and increasing levels of forest 'clutter' can help populations of small mammals - pine martens' primary prey. The Vincent Wildlife Trust's Managing forest and woodland for pine martens information sheet is a useful resource for anyone who would like to find out more (see left).



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