



## THREATS TO RED SQUIRRELS

### **The Spread of Grey Squirrels**

The grey squirrel was introduced into Britain in the late 19th century (1876 onwards), and has replaced the native red squirrel in most of its former British range. Red and grey squirrels occupy a similar ecological niche, as they are both small tree-dwelling mammals that rely on similar food sources (tree seeds, nuts, berries, etc). However, because of differences in their ability to digest large seeds from broadleaved trees (in particular, acorns), grey squirrels have a competitive advantage over red squirrels in broadleaved and mixed woodland, as they are able to feed on these seeds before they are fully ripe, and gain more nutritional benefit from them than red squirrels. This results in weight loss and reduced breeding success for reds.

**The presence of the [Squirrelpox virus](#) is now the single largest threat to the survival of red squirrels in Scotland.** Grey squirrels are carrying the virus into Scotland from England but while it does not harm them, it is fatal to the native red. Red squirrels that contract the disease suffer from discharge and lesions around the face and genitalia, increasing lethargy, and generally die within two weeks. In the presence of this disease grey squirrels can displace and replace red squirrels 20 times faster than if the disease is not present.

### **Changes in Woodland Habitat**

Between 1914 and 1945, there was extensive felling of woodlands throughout Britain. These, and subsequent felling of Scots pine and Norway spruce plantations as they mature, have largely been replaced with new plantations of Sitka spruce, that offer a limited and unpredictable food supply for red squirrels. Remaining woodlands have been further fragmented by the loss of an estimated 52.5% of the hedgerow habitat in Scotland between the 1940s and 1980s (SNH, 1997). Continuity of habitat is important, and the loss of hedgerow links between woodlands can result in the isolation of red squirrel populations.

Felling can also lead to the isolation of red squirrel populations from both each other and their food sources, and increases the risk of losses from predation if red squirrels have to cross open areas.

### **Road Kills**

A number of red squirrels are killed as the result of road accidents, particularly on smaller, less used country roads where there is woodland bordering either side of the road.

### **Predation**

Red squirrels that come to gardens to feed are vulnerable to predation from domestic cats, particularly if they have to cross open ground to get to feeding stations. Natural predators of red

squirrels include pine martens and birds of prey, which may have a significant effect on local populations where squirrels become a favoured prey item. It should be noted that predators are just as likely to take grey squirrels as reds.

## **HOW TO STOP THIS - WHAT IS BEING DONE TO HELP RED SQUIRRELS?**

### **The Spread of Grey Squirrels**

**Grey squirrel control** is now a major component of the RSSS project. **Grey squirrel control** is being carried out by professional Grey Squirrel Control Officers employed by Scottish Natural Heritage and Forestry Commission (Scotland). A network of landowners, estate managers, farmers and gamekeepers is also being built up to report sightings of grey squirrels and monitor and control the grey squirrel population across south Scotland.

### **Changes in Woodland Habitat**

Extensive upland planting of conifers over the last 80 years (albeit mainly Sitka spruce) has led to a 3- to 4- fold increase in woodland habitat, which although far from ideal, favours the red squirrel over the grey, and could in time provide a stable heartland for the red squirrel population.

The RSSS project has produced a booklet entitled 'Woodlands for Red Squirrels' and a Guidance Document 'Identification of Priority Woodlands and Guidelines for their Management', which provide advice to landowners and forestry managers on how woodland habitats can be managed favourably for red squirrels. In addition, the Red Squirrel Project Officers work closely with Forest Enterprise and Scottish Natural Heritage at the consultation stage of Forest Design Plans.

### **Road Kills**

All road kills reported to the Red Squirrel Project Officers (or the Scottish Borders Biological Records Centre/Dumfries & Galloway Records Centre) are recorded and marked on a map. In Dumfries and Galloway, road kill blackspots have been identified, and road signs have been installed in a number of sites, in order to raise awareness among motorists and reduce the number of red squirrel fatalities.

### **Disease**

**If a dead red squirrel is found the body should be sent for **Post Mortem** examination. Any outbreaks of disease identified from the examination will be investigated. Intensive control efforts are being applied to attempt to stop the spread of pox carrying grey squirrels in a northerly direction.**

Supplementary feeding of red squirrels is not advised, however if red squirrels come to your garden and you are feeding them, **it is important to make sure that any feeders are kept as clean as possible, to prevent the spread of disease**. If both red and grey squirrels are seen using the same feeder, **STOP FEEDING IMMEDIATELY** due to the risk of transmission of the [Squirrelpox virus](#).

### **Predation**

Red squirrel feeders in gardens should be sited close to trees, allowing red squirrels a quick escape route from cats and other predators which may take advantage of an exposed feeding station.

Red squirrels cannot be directly protected from natural predators, although appropriate habitat management can help to minimise losses.