



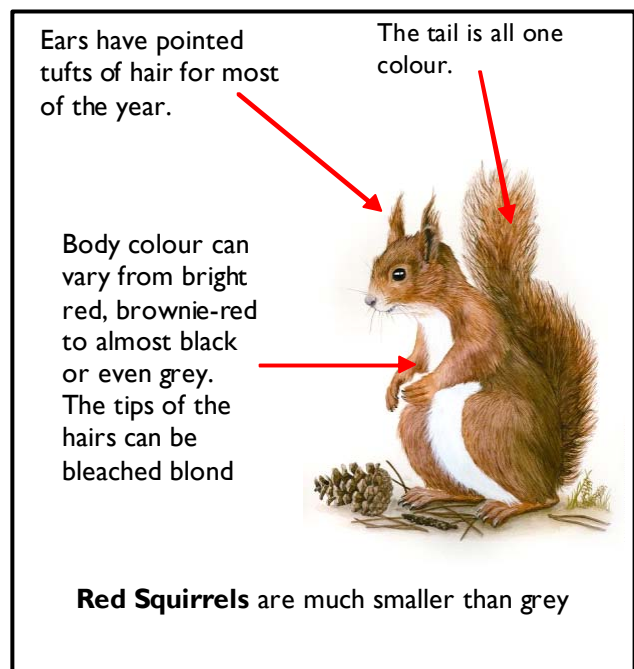
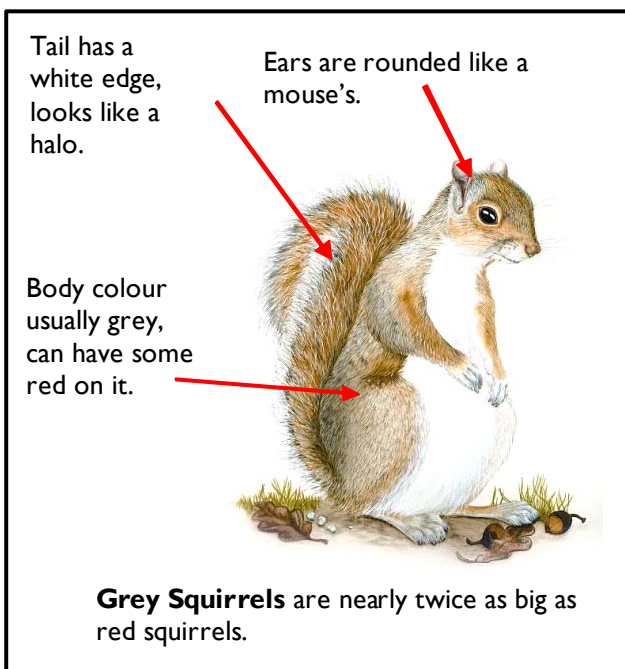
Reds vs Greys

Red squirrels are now endangered throughout the UK, mainly due to the introduced grey squirrel.

Grey Squirrels

Grey squirrels are native to the east coast of America where they are mostly found in broadleaved forests. They were first introduced from America to Henbury Park in Cheshire, England in 1876. At least 30 other introductions were made in England, Scotland and Ireland, until it became illegal to introduce grey squirrels in 1932.

Grey squirrels are also Tree Squirrels, but they are bigger and heavier than red squirrels and spend more time on the ground.



Greys – A problem for Reds

a) Food Competition

Grey squirrels need more food than red squirrels to survive as they are bigger. They often eat unripe nuts and focus on the large seeded broadleaves like beech, sycamore, the chestnuts and oak.

They also have a huge advantage over red squirrels in oak woodlands as they can digest acorns. Unripe acorns have tannins which are poisonous to many animals, including horses. Red squirrels have never needed to learn how to digest these tannins and prefer not to eat unripe acorns. In broadleaved or mixed woodlands, grey squirrels take advantage of many nuts and seeds earlier and also eat more food in the autumn and winter. They are then in better condition to breed in the spring and the kittens are more likely to survive into adults.

b) Spreading Disease

The grey squirrel is known to carry anti-bodies to the squirrelpox virus. This means the grey can catch the virus and creates antibodies, but does not die from the illness. About 70% of grey squirrels that have been tested have these antibodies.



Red squirrels die from this disease, usually within two weeks of catching it. They develop blisters and lesions on their eyes, nose, ears, mouth, paws and genitals. It becomes hard for them to move around, feed, drink or escape from predators.

As grey squirrels have moved into areas with red squirrels they have taken the virus with them. The virus has been passed on to red squirrels, which then die. The grey squirrels increase in number and move onto another woodland, taking the virus with them.



Red squirrel with lesions from squirrelpox virus

Giving the Reds A Fighting Chance

There is one type of woodland where red squirrels do better than greys – conifer woodlands (both the conifer plantations or natural pine forests). Conifer cones have very small seeds and a squirrel will need to eat a lot of cones every day to survive.

Red squirrels need about 420 Kilo Joules (Kj) of energy every day to survive. One Sitka Spruce cone has about 5 Kj of energy, so red squirrels will need to eat at least 84 Sitka Spruce cones. Red squirrels are small enough to get enough energy from these cones and breed so that they can survive in the long term.

Grey squirrels will need at least twice as much energy as red squirrels and so will need to eat at least twice as many cones. This makes it hard for grey squirrels to survive and reach large numbers in conifer woodlands.

Red squirrel conservation projects in the North of England and Scotland, where there are both red and grey squirrels, focus on protecting red squirrels in large conifer forests and plantations.

However, as many of these forests have broadleaved woodlands nearby – particularly alongside rivers and roads – the red squirrels need a helping hand from humans if they are going to survive in the long term.

Humans help red squirrels in three different ways:-

- Planting and managing forests for red squirrels so that there is enough food for the reds to eat. Large seeded broadleaves are kept to a minimum so that grey squirrels find it hard to move into these forests.
- Providing extra food for red squirrels in gardens and in the forests.
- Controlling grey squirrels by trapping and killing them is sometimes necessary when the grey squirrels are seen in, or close to, the red squirrel forests. If they were not killed, they may pass the squirrelpox virus onto the red squirrels. This could then pass from one red squirrel to another and many would die.