



# How grey squirrels outcompete red squirrels



There are a number of different ways that grey squirrels outcompete red squirrels and cause them to die out in an area once the two species are in direct competition (assuming the greys are not controlled).

## Size and condition

Being twice the size, grey squirrels have a physical advantage over reds. Greys can weigh up to 600 grams; reds are typically 250-300 grams. This extra weight means greys can store more fat reserves and are better equipped to survive bad weather, especially over winter (neither greys nor reds hibernate). Fat storage and physical condition is also a factor come spring when greys are more likely to be able to breed successfully than reds.

## Feeding behaviour

When looking for food, grey squirrels spend as much as 80% of their time on the ground. Red squirrels typically only spend 30% of their time on the ground. This is an important factor in allowing greys to more rapidly increase their body weight, especially in autumn before times of scarcity over the winter months.

## Types of food

Both grey and red squirrels mainly eat tree seeds but the grey has a key advantage in broadleaf woods in that it is able to eat many types of seed, such as acorns, before they are fully ripe thus depriving the reds of a vital food source come autumn. Greys are not as keen on pine seeds as the reds but will still eat them if other seed types are limited.

## Habitat preference

Grey squirrels are broadleaf woodland specialists having originated in the oak & hickory forests of eastern North America. While reds can live in broadleaf woods, they prefer Scots pine or mixed conifer forests. In most of the UK it is the greys preferred habitat that is more plentiful whereas in Scotland large conifer forests, including remnants of Caledonian pine forest remain but are isolated thus stopping the reds spreading out as easily.

## Population Density

Grey squirrels can live at much higher densities than red squirrels. In broadleaf woods, greys can live in numbers of up to 9 squirrels per hectare. Even in their preferred habitat of Scots pine/ mixed conifer forest, reds only live at an average density of about one squirrel per hectare. This means there are more greys capable of finding mates to breed.

## Migration

Grey squirrels can colonise woodland at a rate of 6 miles per year and due their preference for ground dwelling they are able to cross fractured habitat more easily than reds which prefer to move through tree canopy. Greys can reach new woods, parks and gardens more easily, come into contact with other greys and expand their numbers ever further and faster.