



Red squirrels feeding at a hopper (A.C. Baxter)



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RED SQUIRREL SUPPLEMENTARY FOOD HOPPER

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Abstract

The hopper is designed to feed red squirrels but not grey squirrels. It is for use in areas where both red and

grey squirrels are present.

Background

The range of the red squirrel in Britain continues to contract and the concern is that this attractive species may disappear completely from mainland England and Wales within the next 20 years (Gurnell & Pepper, 1991). This decline is believed to be connected to the relative efficiency with which red and grey squirrels

exploit the available food and space in conifer and broadleaved habitats. Conservation measures are therefore needed now, and the supplementary feeding of red squirrel populations seems appropriate. The technique of supplementary feeding is novel, and changes may be made as experience is gained.

Presentation of food

Supplementary food may be provided in target areas of woodland or nature reserves, parks and gardens where both red and grey squirrels are present. It should be given continuously over moderate periods of time, perhaps two to three years, to boost a red squirrel population in severe decline, or for periods of less than

a year to maintain a population during periods of natural food shortage. However, avoid providing too much food because this encourages red squirrels to bury the surplus which is then available to grey squirrels. The correct amount can only be determined by observation.

The food

A suitable food mix is: 4 parts yellow maize, 4 parts wheat, 2 parts peanut and 1 part sunflower seed.

A small amount of hazel nuts or pine nuts (Russian) can be added but they are expensive.

The hopper

The food is given through a hopper which allows red squirrels access to the food, but which 'tips out' grey squirrels, because of their greater weight, before they reach the food.

The hopper has a see-saw floor in the tunnel entrance; it is set to hold up in the open position when a

320g weight is placed just inside the entrance, and to fall down to the closed position when a 400g weight is added. Adjustments are made by either moving the magnet forwards or backwards or altering the position of the counterweights. It is important to ensure that floor movement is not obstructed.

Siting hoppers

Hoppers should be sited where there is evidence of red squirrel feeding. They can be grouped in clusters of two or three, avoiding competitive exclusion from the food supply by dominant squirrels. It is suggested that hoppers within a cluster should be 20 m to 30 m apart, and clusters should be at a density of 1 every 50 ha.

Hoppers should be mounted on a wooden platform to provide operational rigidity and stability. The platform should be secured above ground level, without

damaging the host tree. The height will be determined by local circumstances and will generally be between two and three metres: it should not be so high as to make checking and topping up difficult, but also not so low that it is vulnerable to damage and theft. The hopper should be positioned either with the tunnel entrance pointing away from the tree (see front cover) or between two branches.

Figure 1: Hopper details

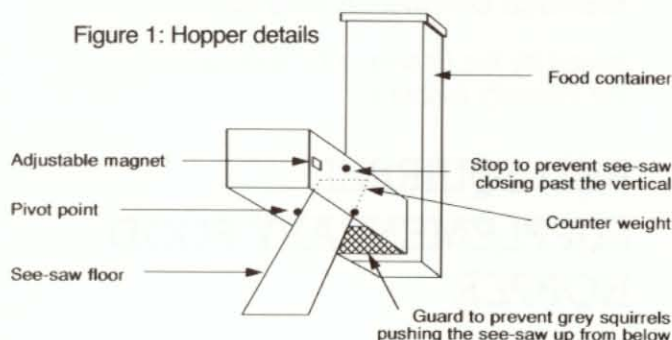
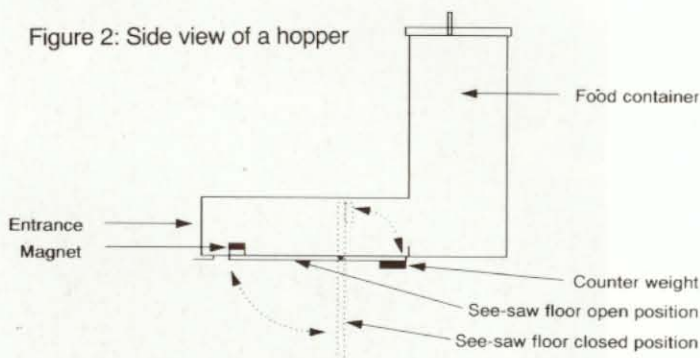


Figure 2: Side view of a hopper



Maintenance

The hopper must be visited regularly to top up the food and ensure the see-saw is operating correctly; the pivot will occasionally need a little lubrication with a light oil. Wood mice, bank voles and small birds will also feed from the hopper and if, for any reason, red squirrels do

not feed the see-saw can become obstructed by an accumulation of food fragments from the small-mammal feeding. Any spilled food found in the tunnel entrance must be removed.

Suppliers

Hoppers are manufactured by and available from Alp Thermo Products of 24 Willsbridge Hill, Willsbridge, Bristol, Avon BS15 6EY (Tel: 0272 491175).

Pine nuts are supplied by John E Haith Ltd of Park Street, Cleethorpes, South Humberside DN35 7NF.

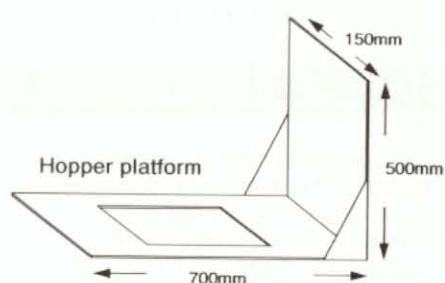


Figure 3: Hopper platform details



Figure 4: Red squirrel taking food from a hopper (A.C. Baxter)

Reference

GURNELL, J. & PEPPER, H.W. *Conserving the red squirrel*. Research Information Note 205. Forestry Commission, Edinburgh.

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