

MERLEWOOD RESEARCH AND DEVELOPMENT PAPER

Number 33

A NOTE ON THE PRESENT STATUS OF THE BRITISH OR LIGHT-TAILED SQUIRREL
(*SCIURUS VULGARIS LEUCOURUS* (KERR 1792)) IN THE UNITED KINGDOM

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R. & D. 72/33

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Description

The Red squirrel (Sciurus vulgaris L.) is subject to much geographical variation and this has led to the description of twelve named subspecies in Western Europe alone. On the continent there are two colour phases, one red and the other dark brown or black. Individuals of the northern subspecies are predominantly red whilst those of the southern subspecies tend to be dark. Squirrels occupying intermediate areas display both colour phases in more or less equal numbers.

The British subspecies is distinguishable from all the others by the fact that its tail bleaches to a creamy white colour during the summer months (May-September), and individuals of the dark phase are unknown (Matthews 1952).

There are two moults annually, a complete one in the autumn, and a partial one each spring. During the latter all the pelage except the tail and ear tufts is moulted. At their first appearance in July or August amongst the roots of the bleached hairs, the new tail hairs are black in colour. As these hairs grow in length they start to bleach, becoming first brown, then pale brown, dull yellowish-brown, and finally almost white between May and September. The hairs of the ear tufts follow a similar cycle, and also become almost white during the summer months. For further information see Barrett-Hamilton and Hinton (1910-12), in which seasonal changes in the pelage are not only described fully but have been illustrated in colour by E. A. Wilson.

Distribution

1. In Historical times.

Formerly the British squirrel was common wherever there were woodlands in Great Britain and Ireland. It disappeared entirely from Ireland, probably in the sixteenth century. By 1840, it had disappeared almost entirely from Scotland, probably surviving only in the Rothiemurchus pine woods in the central

highlands. It became scarce throughout its range in Britain at about this time and many introductions were made into both England and Scotland. Later, in 1900-24, after a period of abundance Red squirrels, not necessarily of the same race, again became scarce (Southern 1964) except in Scotland where they became so abundant that they were classified as pests and a bounty scheme was introduced to try and control their numbers.

Some idea of their abundance may be gained from the numbers killed during the years 1902-1917. 60,450 squirrels were killed during these fifteen years. In 1903 alone, 4,640 were destroyed; in 1906, 6,628 were killed and 1909 produced a record of 7,199. The bounty amounted to 3^d-4^d a tail (Ritchie 1920). With the introduction of the Grey squirrel (Sciurus carolinensis Gm) into Britain in 1876-1929, Red squirrels disappeared again from many parts of their range, and these are now occupied by the larger species, except for one or two localities, where there are extensive areas of coniferous woodland, and in these the two species appear to be able to co-exist.

2. Introductions

All the Red squirrels in Ireland at the present time stem from introductions made in 1815 or thereabouts (Hamilton and Hinton, 1910-1921) but their country of origin is not recorded. In England we know that the subspecies Sciurus vulgaris rursus or fuscoater was introduced into Epping forest in 1910 (Shorten 1954), and in Scotland the type subspecies Sciurus vulgaris vulgaris from Scandinavia was introduced into Perthshire in 1793 (Harvie-Brown 1880-1881). Elsewhere in Scotland introductions were made at various times probably mainly from England e.g. in 1772 to Dalkeith and in 1847 into Argyll. Other introductions of Red squirrels, of unknown provenance, were made in 1824 (Roxburghshire), 1837 (Dumfries from Cumberland), 1866, 1870 and 1872 (Ayrshire), 1844 (Beaully, Inverness-shire), (Harvie-Brown, 1880-1881).

Barrett-Hamilton and Hinton (1910-1921) referring to Macpherson (1892) and Tate (1863-8) suggest that squirrels in Lakeland may not belong to the indigenous race and may have been reintroduced into many parts of the north of England. Certainly in the case of the Ainsdale National Nature Reserve, the Red squirrels were all introduced, probably as recently as 1939, and these are thought to be of German origin.

Since the native Red squirrels were scarce everywhere at the time when most of these introductions were made, it seems likely that most of the squirrels must have been imported originally from the Continent. Where there are no written records of introduction but black or dark brown squirrels occur from time to time the implication is that the local population is almost certainly of hybrid or continental descent since none of these could belong to the British subspecies in which this colour phase is unknown. One black specimen from Penicuik, Mid Lothian, was identified by the British Museum as of the Austrian race. Other specimens of the dark phase have been seen in such places as the Waveney Valley, Norfolk (1949), in Barnstondale in Cheshire (1951) and near Rostrevor in County Down (1950) (Shorten 1953). Mr. R. Gomm of the Nature Conservancy, has shown me a specimen skin he had prepared of a Red squirrel which he found dead on a road near Hayle in Cornwall. Although killed in May (1968), this individual has a dark brown back and tail; it cannot therefore be of the British subspecies either. These records suggest that introductions from the continent must have been widespread.

3. Personal Observations

Whilst working in Scotland (1957-1967), I first saw Red squirrels with almost white tails in the Spey valley. Not being especially interested in this species at that time, I did not realise these belonged to the subspecies unique to Britain; at the time I thought the very white tails must be due to some chance mutation. I had never seen squirrels with this type of colouration before. The only areas in which I noted this type of squirrel were Rothiemurchus, Kinveachy as far as Carbridge from Aviemore, and Abernethy as far as Grantown-on-Spey. How much further up and down the Spey valley this subspecies is distributed is now being determined.

Recently I have looked at the squirrels in many parts of their range in the southern part of the Lake District, and I have yet to see one with a light tail when in its summer coat.

Whether the apparent decline of the British subspecies has been brought about mainly by replacement with other races or is due to hybridization with the continental exotics is not known, but in some areas where the extent of bleaching is variable it would suggest that hybridization is taking place.

Since the light coloured tail in summer is such an eye-catching character a network of observers is being organized throughout the country to determine where else, beside Spocyside, this subspecies still exists as a pure stock.

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