



Nature: Woodland Management / Species Protection: Red Squirrels Downfield Golf Club

THE CHALLENGE

On the Downfield course some of the woodlands derive from the old estate that preceded the development of the golf course, including some semi-natural broadleaf woodland with a reasonable age range and species mix. However, the bulk are mixed conifer plantations planted over the past fifty years and poor in terms of species and age diversity. This presents problems for the club in terms of shade, poor air circulation, vulnerability to windblow and ultimately the long term viability of the woodland structure so important to the play and landscape character of the course. However, the conifer woodlands with their high proportion of native Scots pine are valuable habitat for the local stronghold of red squirrels, a target species in the Tayside Biodiversity Action Plans (www.taysidebiodiversity.co.uk).

THE SOLUTION

Consequently, the club aim is to ensure the long term preservation of the woodlands in a way that would benefit golfers and the environment alike, with a particular emphasis on management for red squirrels.

Assisted by Dundee City Council and funded by Woodland Grant Scheme, the club produced a Woodland Management Plan, (now part of a wider environmental management plan for the course) which included:

- A specimen tree inventory detailing condition of parkland trees, recommendations and cost;
- Tagging and mapping of all specimen trees;
- A woodland inventory and total timber plan, a 10 year work programme and financial schedule;
- Recommendations on future planting schemes;
- Recommendations on possible grant aid; and
- Liaison with statutory bodies, i.e. Forestry Commission (www.forestry.gov.uk/scotland) and Local Planning Authority.

In 2000, Downfield successfully applied for funding from the Forestry Commission's Woodland Grant Scheme (now incorporated into SRDP Funding). The club received their yearly £1500 grant on the condition they adhered to a 5 year tree maintenance programme.

This 5 year programme included tree thinning and removal of dead, dying and suppressed trees to encourage new plants through natural regeneration. Plantation work was carried out in house, with Dundee City Council assisting in the pruning or removal of parkland trees. In the past, felled trees were burnt on site but the purchase of a chipper has enabled recycling of all the wood up to 8" in diameter for surfacing paths and mulching landscaped areas round the clubhouse. Some chippings are returned to the woodland floor although care is taken to ensure this does not suppress valuable ground flora. Any felled trees thicker than 8" are stacked within the woodlands out of play to rot down naturally creating a habitat for many species. If possible dead trees are left *in situ* for use by birds such as woodpeckers.

Broadleaf woodland tends to favour grey squirrels over reds, and it is the dominance of the native Scots pine as well as larch and spruce in the conifer plantations which makes Downfield such ideal habitat for reds, Britain's native squirrel.

The club recognises their great fortune in having red squirrels present, and sees them as a significant asset and responsibility. Whilst the club will retain and manage the areas of broadleaf woodland that exist around the course for their biodiversity value, they recognise the vital importance of sustainable conifer woodlands in the campaign to save the red squirrel, and are operating their woodland management to this end. Some forked or hollow trees will be left to provide potential sites for squirrels to build their dreys. Even pine trees which have to be removed are inspected for cones before felling to avoid loss of an important food source for the red squirrels. The development of understorey, edge planting, ground layer and logpiles will over time provide increasing amounts berries, fungi and other food sources to supplement the red squirrels' diet.



Log piles within thinned conifer plantation



Ground layer regeneration after thinning

Information has been displayed to the members since 2004 to the present day. This highlights the struggle of the reds against the greys which includes habitat issues and the diseases that greys carry without harm which spreads to and kills reds.

Members are encouraged to record their sightings of reds and greys along with hole number sighted on. The club have extended this sheet to include any other wildlife spotted during their round. The information on the reds and greys builds a map and highlights red sightings and where the greys are located. Downfield actively traps grey squirrels to reduce their numbers which is helping consolidate red numbers.

THE OUTCOMES

- An increased knowledge of habitats and species and considerable enhancement, diversification, extension and creation of new habitats and features in and around the woodlands as well as improved habitat linkage across the course.
- The programme of work is resulting in a stronger, healthier woodland structure and long term viability. Rhododendron and other invasive and non-native plant species have been controlled or contained, whilst thinning has resulted in edge and understorey development from natural regeneration and improved ground layer diversity through light penetration and soil disturbance.
- Log piles and standing deadwood provide further habitat niches, whilst bird and bat boxes offer valuable nesting and roosting sites.
- Complementary works have included the restoration of a former curling pond for wildlife within part of the woodland, and associated improvements are underway in the management of the interconnected ponds, ditches, buffer strips and rough grassland around the course. For over fifteen years, a local nature enthusiast has been recording species found at Downfield and sending lists, spawning records and other information to Dundee's 'NatureBase' biological record centre at McManus Galleries. Downfield now provides hope for red squirrels.