

## ELEVENTH ANNUAL EXCURSION

For the eleventh annual excursion the Society travelled to the Lake District where we were the guests of the British Forestry Commission. The visit, which lasted from the 1st to the 4th June, was an outstanding success and the Society owes a great debt of

gratitude to Mr. Barrington, Conservator for North-west England, and to the other officers and friends who were to a very large extent responsible for the success of the excursion.

#### FIRST DAY

After a halt for coffee in Carnforth we visited Dalton Forest where the District Officer, Mr. Crossland, welcomed us on behalf of the Forestry Commission.

Dalton Forest comprises a series of detached blocks with a total area of 833 acres, of which 743 acres are plantable. The annual planting programme is 70 acres and the plantable reserve is 345 acres. Of principal silvicultural interest was an area of outcropping carboniferous limestone at Dalton Crag. Although heavily eroded the area provides potentially a soil of high fertility. The immediate problem is to establish a pioneer crop to protect the surface and accumulate leaf fall for soil improvement. The final crop is intended to be beech.

Our next stop was at Foulshaw Woods (Westmoreland) where a central block of 447 acres contains over 20 feet in depth of peat, the base of which is at tide level. This is a recently acquired area and the approach to its afforestation has been to a great extent experimental. In the spring of 1953 a series of trial pilot plots was laid down as a guide to the establishment of likely species on five main vegetational types, namely: (1) Pure *Molinia*; (2) Pure *Calluna* and other heathers; (3) *Myrtle*; (4) *Bracken Shelf*; (5) Groups of *Natural Birch*. A sixth plot was turfed and left for natural regeneration of *Scots Pine*. The pilot plots for each type were S.P., *Thuya*, P.C. *Red Oak*, sessile oak, *Tsuga*. The plots which show most promise are P.C. *Tsuga* and S.P., and *Red Oak* which, so far, is doing remarkably well on a sphagnum peat. Direct sowing of *Scots Pine* has also been tried on a small scale.

On the second day we travelled by bus from our headquarters in Windermere to Thornthwaite forest in Cumberland. This forest comprises an area of 5,515 acres made up of a number of detached blocks lying to the east, west and north of Bassenthwaite Lake, with extensions westwards through the Whinlatter Pass. The geological formation is Ordovician (Skiddaw slates) and only the lower slopes and benches carry appreciable deposits of glacial drift. Rate of planting is slightly over 100 acres per annum and the species used are *Douglas Fir* on the lower slopes, *European Larch* and *Japanese Larch* on the intermediate slopes, and *Sitka Spruce* and some *Norway Spruce* on the higher slopes. Planting has been taken successfully to 1,600 feet and experimentally, to over 1,700 feet.

The first planting was carried out in 1920 and the first thinning in 1937. Over 2,000 acres are now at the thinning stage. Last year 225,000 c.f. were extracted at a cost of 6*d.* per c.f.

During the last seven years 35 miles of forest roads were constructed. Of these 17 miles of main roads and 9 miles of feeder

roads are capable of carrying motor traffic. The cost of roads amounted to £100,000 of £25 per acre. All main roads and feeders have 9 ft. of metalled surface. Tarmacadam was used on the steep slopes (gradient 1' to 4' or 5') to prevent undercutting and erosion.

The administrative centre of the forest was a spacious tarmacadamed area on which a number of buildings stood. The forest office is a two-roomed wooden structure 11' by 20'. It is linked with two telephone points in the forest. In the mechanics shop (50' x 40') we saw a bus being sprayed and a lorry engine undergoing repairs. In the coachbuilding shed a lorry body was under construction. A point of interest was the extensive use made of buses in the running of the forest. Buses were used for bringing in labour, as mobile offices, shelters, stores, repair units. Other features of the administrative centre were a loading bank, wet weather shed, creosote tank, petrol and oil store, etc.

Fire-fighting equipment consists of a jeep with a petrol-powered pump attachment and a light mobile petrol powered pump which can be carried by two men. Special fire-fighting reference maps are kept in the District Office, Foresters' Office, Local Fire Brigade, and Local Army H.Q. Fixed rendezvous are marked on the maps and by reference to these points delay and confusion can be avoided in times of emergency.

During our tour of the forest we were most impressed by the high degree of organization brought to bear on all forest operations. The tariff table system, described as an accurate method of measuring standing thinnings, was explained by the District Officer, Mr. Begley.

Those who participated will for long remember Thornthwaite for its many points of silvicultural interest and for the many fine views it afforded of the enchanting countryside in which it is situated.

In the evening the Society entertained those associated with our excursion to dinner, which proved a most enjoyable function.

### THIRD DAY

On Thursday the Society visited Grizedale Forest (Lancashire). This forest comprises some 5,807 acres distributed as follows: Plantations acquired, 222 acres; Plantations laid down up to September, 1953, 4,016 acres; Nursery, 1 acre; Plantable reserve, 593 acres; Agricultural land, 893 acres; Unplantable and others, 82 acres; Total, 5,807 acres.

Grizedale Forest covers a compact area of the High Furness fells centred on Satterthwaite and extending from Coniston Water on the west to Esthwaite Water on the east. Two small detached blocks lie to the north of Hawkshead. Large areas of existing woodland were acquired with the Grizedale Hall estate, and over half a million hoppus feet of timber was felled from these during the last war. Planting started in 1937 and has proceeded at an average, but rather variable, rate of about 240 acres a year. Thinning of the first

formed plantations started in 1952; in addition there is a steady programme of work in the remaining woods. Existing estate cottages have been augmented by fourteen new houses built under Ministry of Works contract and completed in 1948/49.

Climate is relatively mild and the rainfall high (about 70 inches per annum) and well distributed. The higher ground above 800 feet is fully exposed. The geological formation is Silurian, with a characteristic broken topography of rocky knolls, interspersed with stretches of glacial drift and peaty hollows. Variable site conditions provide scope for planting a wide range of tree species.

The agricultural land remains under Forestry Commission management and a feature of the forest is the close integration of land use made possible by this arrangement. As the poorer grazing has been taken progressively for planting the principal farms have turned over largely to dairying, and this change will be helped by the extension of mains electricity which an increased population has now made economic.

Grizedale Hall, used as a prisoner-of-war camp for German officers during the war, is at present unoccupied, but the associated buildings have all been put to good use, and house one of the Commission's principal seed-stores, tools and equipment, offices, garages and repair shops. The walled garden is converted to a small nursery for raising ornamental and other trees for special purposes; part of it, with the associated glass houses, is employed by Research Branch for work on vegetative propagation and tree breeding. The former estate sawmill, in full production during the war, at present cuts only small lots of timber for estate use.

The remaining estate woodlands are being preserved and managed with particular attention to their amenity value. They include interesting examples of former oak coppice, typical of the Furness area, under conversion to high forest, and older specimen trees and plantations of coniferous species now being planted on a large scale. Natural regeneration of both hard woods and conifers occurs freely under suitable conditions and has been helped by the virtual extermination of rabbits.

Red, fallow and roe deer are present in small numbers. There are no grey squirrels. Acute fire risk occurs for short periods only.

With the approach of large-scale thinning, and to provide necessary access to the more remote parts of the forest, the forest road system is being progressively extended, and nearly eleven miles of all weather roads have been constructed since 1947. This work began initially as part of a post-war labour relief scheme for the Barrow area and many of the men employed on it, and on forest operations, are still recruited from that district.

Grizedale Forest at present provides direct employment for seventy-eight men or, on forest operations only, one man to every 71.8 acres of existing plantations.