

FORESTRY COMMISSIONERS' TOUR

EAST (SCOTLAND) CONSERVANCY

RANNOCH FOREST - 28TH JUNE 1963



Thursday 28th June

Visit to Rannoch Forest

Timetable and Itinerary

9.00 a.m. leave Pitlochry
11.00 a.m. arrive Rannoch Forest, Barracks Section
12.25 p.m. arrive Dall Section of forest - lunch
1.55 p.m. arrive Black Wood of Rannoch
3.30 p.m. leave forest
4.00 p.m. tea at Dunalastair Hotel, Kinloch Rannoch
4.45 p.m. drive through Glenerrochty and by Calvine
to Pitlochry
6.30 p.m. arrive Pitlochry

Notes on Stopping Places

1. Barracks Section - Compt. 417: From the P.63 planting area can be seen a view of the Barracks area and part of Black Corries. The enclosure here comprises 4,000 acres of which 3,750 acres are considered plantable. It is planned to afforest the whole block in 10 years. Planting started in P.61 the main species used being Sitka spruce and Pinus contorta with lesser amounts of Scots pine and Japanese larch. Ploughing is done to nearly 100% - tine and drainage ploughs - partly by contract and partly by our own ploughs.

All red deer inside the fence were killed off in 1960 by the shooting tenant (see general notes on the forest).

2. Upper Region of Dall Burn: View across Camghouran Farm and Dall Hill block. The fringe of the Black Wood can be seen to the north east. From here one can also see the large areas of flat ground originally requested by the Red Deer Commission for deer wintering ground.

About 3,000 acres are enclosed meantime - this includes the Carie and Dall Hills. Planting on Dall Hill is planned to begin in P.66 and to be completed in P.69. Meanwhile the retention of the original sheep fence leaves Dall hill available for grazing.

3. West End of Black Wood: 240 acres here reserved to the Research Branch for work on growth and seeding of Caledonian Scots pine (see note on Research in the Black Wood). Some of the better types of trees in the Black Wood can be seen from this point but there is little evidence of successful regeneration.

Mr. Henman of the Research Branch will demonstrate the Research work in the Black Wood.

4. Camghouran Farm: Here can be seen successful natural regeneration of Scots pine from the Black Wood. The form and quality of tree are good. Details are:-

Age	: 70-80 years
Elevation	: 850 feet
Trees per acre	: 220
Volume per acre	: 4,400 h.ft. O.B.
Basal area	: 166 sq. ft./acre
Total height of dominant tree	: 63 feet
Mean Q.G.B.H.O.B.	: $10\frac{3}{4}$ "
Quality Class	: III

The first thinning was done in 1956 when 240 trees/1,400 h.ft. per acre were removed. The total volume production per acre is 5,800 h.ft. and the mean annual increment 77 h.ft. per acre.

5. Black Wood: This gives a general picture of the type of woodland remaining - a thin stand of trees of varying ages, quality and condition. The unreceptive conditions for natural seeding are due to rank vegetation and insufficient drainage.

Craiganour plantation, P.51 to P.55 can be seen across the loch on the north shore.

General Note on Rannoch Forest

Supervisory Staff: D. A. Woodburn - D.O. I
P. Garrow - Forester
D. M. Elliot - Assistant Forester
J. D. Menzies - Assistant Forester

Situation: The forest area comprises the greater part of the lower slopes of the land south of Loch Rannoch, extending westwards south of the River Gaur to beyond the West Highland railway line. There are 5 detached sections: Black Corries on the west shore of Loch Laidon, Rannoch Lodge at Bridge of Gaur, Camasericht and Craiganour on the north shore of the loch and Lassintullich, a recently acquired block east of the village of Kinloch Rannoch.

Area: The total area of the forest is 45,617 acres made up as follows:-

Acquired woodlands	-	1,111 acres	
Planted by Forestry Commission	-	3,325 8,844	1638 S.P.
Land in hand remaining to plant	-	7,821	"
Proposed resumptions for planting	-	3,950	"
Agricultural and grazing	-	23,340	"
Forest Workers Holdings	-	191	"
Unplantable and Other	-	5,879	"

Planting was begun by the Commission in 1949.

Previous Utilisation: With the exception of the Black Wood of Rannoch and several small blocks of Scots pine with other conifers, the whole area has in the past been in hill farming use, mainly the grazing of sheep and to a lesser extent cattle. There are at present three hill sheep farms within the main south block, two of these Finnart and Invercomrie will be permanent but Camghouran will be extinguished as planting proceeds. The higher slopes are deer forest and in the past these were let in beats by the Proprietor for stalking seasons to private individuals. The grouse bag has never been large but the stalking has always been of good repute.

Apart from a few planted areas of Scots pine and larch,

the main acquired wood is the Black Wood. The survival of this fragment of the old Caledonian pine forest is possibly due to its remoteness. Very little is known of its history before the 18th century. It is recorded that the Black Wood passed into the hands of the Robertsons of Struan in 1398. After the Rising of 1745 the estate was forfeited and taken over by the Commissioners of Forfeited Estates. It was returned to the Robertsons in 1784 and remained the property of this family until sold to the Wentworth family in 1857.

From the middle of the 18th century the records of the wood are fairly complete. It was enclosed in 1765 to prevent unrestricted grazing and this measure must have done a great deal toward the survival of the wood. At the beginning of the 19th century, a company from the south bought the wood from the Robertsons and began felling operations. To offset transport difficulties a system of canals was dug through the wood and the timber floated to Dundee. In 1895, the Black Wood was again enclosed but this time with the object of sheltering deer. The present lack of young trees is probably very much the result of this second enclosure.

Exploitation was accelerated by the building of the West Highland railway and continued until the last war when the Canadian Forestry Corps removed the best of the remaining trees. As a result of this exploitation, although 670 acres have been designated the Black Wood, this area is by no means fully stocked. Over most of it only scattered groups of the old trees remain and natural seeding is very limited and localised.

Houses: The Forestry Commission built 14 houses for the accommodation of the forester and forest workers at Kinloch Rannoch. In addition 26 houses were acquired with the estate and of these 8 are occupied by workers. The remainder were sold to Rannoch School and to private individuals.

Roads: The length of road constructed by the Forestry Commission to date is 8.7 miles. There is quite a large mileage of existing estate roads in the forest, laid out for sporting purposes, but these will need to be brought to a higher standard before being fit for timber traffic.

Planting Programmes: These are large and for the period of the recent past and immediate future are as follows:-

F.Y. 58	188 acres	F.Y. 63	750 acres
F.Y. 59	409 "	F.Y. 64	800 "
F.Y. 60	415 "	F.Y. 65	820 "
F.Y. 61	714 "	F.Y. 66	800 "
F.Y. 62	700 "	F.Y. 67	800 "

Industrial Staff: At present there is a labour force of 32 men and 2 boys.

Deer Control: In the years immediately following the first programme of work on the forest, numbers of deer killed were low. From 1955 to 1959 inclusive, total kills of both estate and Commission keepers amounted to 217 beasts of all categories. With the beginning of work on the later acquisition enclosure of ground to be planted was necessary on the Barracks section east of the railway line and this work was completed in one year, 1960. It was essential to get rid of all animals inside the deer fence. The farming community objected to our driving them out and the Red Deer Commission recommended that as wintering ground had been much reduced we should shoot all deer within the fence and a number outside it. In the season 1960-61 this was carried out, a total of 217 deer being killed on the F.C. planting ground within the fence and 113 additional animals on Invercomrie farm.

In July, 1960 a small Advisory Committee comprising a landowner, a farmer and a forest officer was formed to look into the question of deer on the remainder of the forest and to report. At the same time the Red Deer Commission undertook a deer census over this part of Perthshire, to include the entire Rannoch basin and Glen Lyon. This census disclosed a total of some 1,600 stags, 3,356 hinds and 1,306 calves on all properties - 13 estates; of these 482 stags, 721 hinds and 326 calves were reported to be then on Commission ground.

The advice of the small Committee and the result of the census led the Red Deer Commission to make some proposals to the Forestry Commission on the subject of control of red deer; these proposals were not entirely acceptable to the Forestry Commission and after discussion were modified to read as follows:-

- (i) the area which the Commission would fence on Dall in 1961-62 would be reduced by 80 acres;
- (ii) no decision meantime would be taken to fence off the flat at the head of the Dall burn (1,640 acres approximately, all plantable);
- (iii) the Forestry Commission agreed that 350 hinds should be destroyed on Dall, Croiscrags, Finnart and Barracks but this might take more than one season; and
- (iv) consideration of the proposal to fence right across Dall linking the Dall-Carrie fence with the Barrack fence would be deferred until a decision was taken with regard to (ii).

All this can be amplified on the ground.

The Forestry Commission took up the matter of killing the extra hinds. These were shared out among the four existing shooting tenants and at the end of the recent hind shooting season 322 had been shot.

Research Work in the Black Wood of Rannoch: Work in the Black Wood by Research Branch began in August 1948, two years after its acquisition, when the Ecologist produced a comprehensive report on its condition, supported by an intensive survey of each of the main vegetation types by means of 7 two-acre quadrats throughout the wood.

- In 1949 2 experiments were established to try to determine the factors which control the natural regeneration of the wood. In the first, a variety of treatments of the surface vegetation and soil was applied within 2 small fenced areas (1 in Compt. A.5 in the Experimental Reserve, the other in Compt. 3). Natural seedfall was supplemented by sowing, but the resulting establishment of germinated seedlings was disappointing owing to the very heavy losses in the first few years, due, it was thought, to drought and frost-lift. Subsequent growth of the surviving pine seedlings has also been poor, despite the addition of phosphate fertiliser at time of sowing; but the growth of rowan and birch plants already present on the site.

following the elimination of deer-browsing, is most striking. The second experiment was to promote the establishment of pine seedlings which had germinated from natural seed fall on drainside spoil and knolls in Compt. A.1, by weeding and/or top-dressing with phosphate fertiliser. Despite these treatments the seedlings eventually perished under the effects of drought, frost, heather competition, weevil attack and browsing by deer and capercaillie.

In November, 1955, 240 acres of the western end of the wood were demarcated as an Experimental Reserve, and a plan for the management of the Reserve was prepared by Silviculturist (North). The main object of the Reserve is to prohibit any large-scale artificial alteration of the ecological conditions while at the same time following the natural evolution of the area by means of periodic charting of 5 permanent two-acre quadrats. Changes in the distribution of the various vegetation associations are very slight and no clear trend is discernible. In addition, the development and decline of trees is being followed on 2 representative areas by assessments of height, girth and health at 10 year intervals. The collection of cones within the Reserve is undertaken only when the supply from good trees in the rest of the wood is inadequate.

Since 1956 the amount and periodicity of natural seed fall has been studied by means of seed traps set out on two of the ecological quadrats. Twenty traps on each two-acre area have indicated falls of viable seed in the region of 200,000 per acre in 1956 and 600,000 to 1 million per acre in 1958, with negligible amounts in 1957, 59, 60 and 61. Practically no seedlings resulting from these seed-falls have been found in the Reserve.

The Geneticist has selected 10 Plus trees within the wood as being particularly desirable phenotypes from the range of variants in this native population.

