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VISIT TO THE BLACKWOOD, RANNOCH  
- AN ECOLOGICAL ASSESSMENT

Report to the NCC

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Visit to the Black wood Bannoch 27-28 December 1973 by C. J. Barr and Miss E. L. Harper (Merlewood Research Station) and A. C. Barr (Local Resident)

After consulting Mr. P. Garrow of the Forestry Commission and Colonel Pearson (who has the shooting rights in the Black wood), it was decided that the visit would be most convenient on the above days.

METHOD

Using a map of Forest Compartments, each block was passed through at least once and twice through the larger ones. Time did not allow a visit to Block 92, but this is not included in the designated Black wood area. Records were made of habitats, vegetation features and wildlife. A standard procedure was adopted to estimate details of the tree layer, as follows:-

1. All trees, saplings and shrubs under 4'3" were divided into seedlings under 20 cm high, and small trees above that height. These two categories were recorded for each species according to their cover value as a percentage of the ground flora. For simplicity only three categories were used; + = present; 1, and 2.
2. For trees over 4'3", the percentage of each species present was recorded. For each species diameter (at 4'3") classes were used and percentage numbers estimated for each of these.

There was some difficulty found in locating the block boundaries where no track existed. However vegetational differences usually provided an obvious division.

SUMMARY DESCRIPTION OF EACH COMPARTMENT

A North Section of designated Black wood (Blocks 92-97)

93 East - This area comprised 90% Scots pine with some young birch saplings. The pine was of relatively even size with the majority having a diameter (at 4'3") of around 3.5 cm. The stand here was moderately dense with a large amount of birch regeneration despite the small number of mature trees. There were a few Scots pine seedlings and saplings. Calluna was growing particularly well here reaching over 1 m in height. There had been some

felling but the cut stumps were difficult to age, some at least being from war-time but others more recent. Only the large trees had been taken out (as in most of the wood) but relatively few in number when compared with areas to the south.

West - Very similar to the eastern and except that there were fewer mature birch trees and a higher proportion of small birches over 4'3".

94 East - Nearer to the loch there was an area of, denser, larger trees, with several pines exceeding 45 cms in diameter and with fewer cut stumps. Young birch, pine, and some seedlings were found.

West - (no data sheet) Similar to the eastern and except that the pines were even larger with perhaps 20% over 45 cms diameter.

93 and 94 West Plantation - The extreme western end of blocks 93 and 94 was a plantation of Scots pine reaching an average height of about 2.5 m. At the northern end of this plantation was an area of more open grassland with patches of planted pine. Cut stumps were not seen implying that either the area was a clearing, or that it was cleared so long ago that the stumps have rotted completely. There were also thickets of young birch in the northern area of 94.

The plantation itself was well drained (even the ditches were dry) and was well used by roe deer.

95 - The north-western end of this block was a flat continuation of the plantation of Block 93 except that the young pines again appeared to have been planted patchily. The more southerly and westerly areas were still fairly open but contained some mature trees. Confusion arose about the southern boundary of this block, as the natural and obvious division between this block and 88 is some way north of that given on the map. If the division given on the map is correct then far more mature wood should be included here, of similar type to those in 88. Cut stumps were present and also some naturally grown seedlings, probably due to the open nature of the ground.

96 - This area has very few other trees than Scots pine. Of these, most were well grown with an estimated 10% over 45 cm diameter. There were also several cut stumps of large trees suggesting a very dense wood before felling. There

were very few young pines and no seedlings were seen, due perhaps to the dense, vigorous Calluna.

97 - Very similar to 96 except that there were almost no young pines under 4'3" and once again, no seedlings were noticed. There were less cut stumps than in 96 but more trees left standing.

B South Section of designated Black Wood (Blocks 87-91, 72, 73 and 75)

87 North - This area was typical of the western upland area of the wood, with intense harvesting or thinning, leaving few trees and many windblown trees mostly uprooted and would appear to be caused by the felling. Most of the remaining trees, were large and tended to be in groups providing mutual strength and shelter. There would seem to have been some planting, again, in patches and a few natural seedlings were to be seen. The area provided a far greater range of habitats (including bogs, bracken, heather, old and young pine "clumps" and numerous fallen trees) than could be seen further north.

South - The upper half of 87 was not included in the designated area and was not studied properly. However, from a glance, it seemed to be open heather moor with isolated groups of middle-aged pines and the occasional clump of young planted pines.

89 - Very similar to 87, being open and having large cut stumps. Again, much planted young pine.

The area of 87 to the south-west, outside the Black Wood boundary was heather moor and birch scrub with some planting of Scots pine and Norway spruce.

88 - Another block with many fallen trees, but unlike further up the hill, there were many more standing dead trees. This area had a denser canopy than either 87 or 89 and also had many more birch, mostly mature. There were also several out stumps in this area.

91 West - There was a comparatively high proportion of birch here, many of which exceeded 45 cms diameter. The Scots pines were fairly even-sized being smaller than those in the wood to the north.

Some cut stumps were seen and pine seedlings were noted in irregular patches. Both pine and birch saplings were growing fairly well.

East - A similar situation to the western end except that the birch, although still plentiful, seemed to be younger, whereas the pines were large, 15% being over 45 diameter at 4'3". There were many dead trees still standing. Young birch and pines (under 4'3") were comparatively common as were pine seedlings.

90 - This area was very similar to ~~88~~ and 89, in that there were several windblown trees apparently resulting from the heavy felling. However, in this block birch was especially common comprising a large proportion of the mature trees while the pine varied in size, with as many as 20% over 45 cms diameter. Much planting of pine had been carried out in patches. Natural pine and birch saplings were common and pine seedlings present. A different feature of this area was the large stretches of bog and surface water in which several seedlings were growing slowly.

75 - This compartment was the worst affected by felling and only a very small number of mature trees were left standing. Birch was regenerating well, and indeed represented half the trees in the block, but none exceeded 5 cm diameter at 4'3". There was ~~less~~ less planted pine and some pine seedlings. If left untouched, this compartment would probably result in a birch wood.

73 - Most of this block was sheltered, lying on the eastern slope down to the Dall burn. As a result there was little wind damage and a reasonably complete stand of mature pine with some birch. Planting of pine had been carried out in gaps, and the odd pine seedling was found.

72 - Lying alongside Block 73 this area was also quite sheltered, but more felling had been carried out with comprehensive "patch" planting of pine. Some of these clumps of young pine had reached 4 m in height and 80% of the pines were planted. It looked as though more recent planting had also been carried out, as small groups of seedlings less than 20 cm high were found. The only specimen of juniper on the survey was seen here.

#### C Reserve area (Blocks 98 and 99)

98 - The most obvious feature of the Reserve area was the lack of cut stumps, suggesting that little or no harvesting had been carried out for a very long time. The distinguishing feature of Block 98 was the large extent of free surface water, bog/marsh and small pools. In one such area, there were a number of dead trees.

Pine predominated in this block with some large specimens; about 30 percent having a diameter greater than 45 cm at 4'3". Other species, besides birch, were present, including Rowan and Bird cherry. When compared with the non-Reserve blocks, this compartment was well wooded.

99 - This block had by far the greater density of mature standing pines of any area of the wood. There were many large pines, 35% with a diameter of 45 cms or more. The only signs of management were patches of young pine near the bottom of the wood which looked to have been planted. No cut stumps were recorded apart from very old overgrown ones. This seemed to be the least interferred with area of the Black Wood.

#### SUMMARIES OF CERTAIN FEATURES OF THE BLACK WOOD

1. Past management - In all areas apart from the Reserve area, cut stumps of differing ages were found. Some were completely rotten and overgrown and really represented a clump of vegetation in the shape of a stump. Others were not overgrown and the wood still intact though obviously fairly old. A third age-group of stumps, perhaps the majority, were composed of hardwood, and were possibly less than 10 years old.

Planting of pine was certainly carried out in places, more especially in the southern areas, because of the grouping of even-sized trees in open spaces. However, other young pines were scattered and it was difficult to ascertain how many were natural and how many planted. These latter trees did decrease in density away from the tracks and in some areas only occurred lining the tracks.

2. Regeneration - Special notice was taken of all tree species growing under 4'3" including seedlings. Again it was very difficult to decide which pines were planted and which were natural. By their uniform size and distribution many of the larger trees in this group appeared to be planted and, indeed, were seen in far greater numbers than were the seedlings. Pine seedlings appeared to be more haphazardly distributed and of different sizes implying natural planting.

Pine seedlings were seen in every block except 96 and 97 where Calluna was very dense. Few were noticed in 93 and 94 where strong Calluna growth also occurred. No other species of seedlings were seen, possibly due to the time of year of the visit, when only stems would be visible. The older groups of young pine trees

(from 20 cm up to 4'3") were seen in every block but were especially prominent near the tracks and in the southern blocks. Birch trees of this size were far more common in the eastern end of the wood, and further up the hill to the south. In terms of natural regeneration, the birch appeared to be in a far healthier state in these areas.

3. Diversity of Habitat - As a general rule, the further up the hillside the more diverse the habitats. All blocks had some dead or fallen trees but the blocks to the south, especially 87, 89, 90 and 95 were rich in dead wood. Likewise these were the wettest areas with some large areas of bog, although all blocks had some areas of wet ground. Rocky habitats were rare throughout the wood except along the tracks.
4. Wildlife - Roe deer were sighted and their fresh droppings were found in most blocks. Brown hare droppings were evident in the blocks bordering the heather moor at the top of the hill. These were recorded in blocks 87, 89 and 91 (East). Rabbit droppings were seen in the plantation near the bottom of the wood. Dissected pine cones were found in blocks 90, 91 (West) 93 (East) indicative of Red squirrels. Other cone fragments were seen elsewhere in nearly all the blocks but could not be definitely identified as evidence of squirrel activity.

Anthills were common throughout the wood. By far the most commonly sighted bird was the Capercaillie, at least 8 sightings in the two days, and the droppings were found in nearly every block. Smaller droppings were seen on some of the cut stumps which would indicate Black game rather than Red grouse as they tend to sit on more exposed perches, such as stumps. Other birds seen or traced were; owl, pigeon, wren, various tits and finches. The population of small birds seemed very scarce, but perhaps this was characteristic of winter conditions.

#### SUMMARY

Only four species of tree were recorded in the wood. Of these about 95% were Scots pine with 5% birch. The occasional Rowan and Bird cherry were seen. The forest Reserve area contained the most trees and the southern blocks 87, 89, 90 and 75 contained least, due to felling and windfall. Cut stumps of large pines were found in all blocks except the Forest Reserve area. Planted and naturally seeded young pines were widespread but more especially in the open areas to the south. Seedlings were also fairly common. Young birches were particularly common in the east of the

wood and to the south. If left alone at the present stage, then the southeastern end of the wood would probably become dominated by birch while the rest of the wood would fill out with pine. There seems to be so much young pine (less than 3 m high) in the wood planted or otherwise, that the wood might well become quite dense even though it would come about quite unnaturally.



