Moor House Pictures 1961 - 1964

Moor House-Upper Teesdale Archive
Centre for Ecology and Hydrology, Lancaster

D.T. Crisp, 2007

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PREFACE

During the period 1961 to 1964 the writer was employed by the Nature Conservancy at the Merlewood Research Station to act as deputy to Michael Rawes (who was then the Officer-in-Charge at Moor House), to spend approximately half his time at Moor House and to do research there. The photographs in this book were taken during this period and originated as 35 mm colour transparencies. Many of them were very dark and some digital improvement has been possible. A total of 139 plates has been stored on a CD and, after elimination of some duplicates or near duplicates, some 120 are shown in this book. Many are of rather poor quality but they have been retained because some may be unique records of the events portrayed.

D T Crisp
February 2007

INTRODUCTION

The pictures show aspects of life at and around Moor House. They are presented in approximately chronological order but can be considered under four main headings. First, there are pictures with particular emphasis on the winter of 1961/2 and the very severe winter of 1962/3. Second, a research project on a mineral balance sheet for the Rough Sike catchment (Crisp 1970, Crisp & Robson 1979). Third, on 6 July 1963 a thunderstorm caused very intense rainfall on Knock Ridge. This caused a remarkably large spate in Rough Sike which impinged on the Rough Sike study. It also caused a large double peat slide on Meldon Hill at the head of Lodgegill Sike (Crisp, Rawes & Welch 1964). Both of these phenomena are shown in the pictures. Fourth, there are pictures of a more general nature.

In the text that follows each of these aspects will be briefly described, together with references to relevant plates. The text is then followed by the plates in approximately chronological order and accompanied by captions.

WINTERS AT MOOR HOUSE

During the 1960s winters at Moor House tended to be lengthy and severe.

The winter of 1961/2 is depicted in Plates 1 to 14, 16, and 18-25. At some point(s) during most winters the Moor House access road would be blocked by snow, often to a depth that was too great to be tackled initially by a tractor. It was then necessary to clear the snow by hand (Plates 18 & 23) and use the tractor to make the final clearance (Plates 19 & 25). Winter temperatures were low and the snow was usually "dry" and powdery and, therefore, readily blown about. This led to much of the snow being blown from more exposed ground into hollows and stream valleys (Plates 63A, 63B; 71A, 71B). The deep snow in such places often persisted long after the general thaw. During cold spells exposed peat in such places as Moss Flats would freeze-dry and blow away to become deposited on the snow surface in the stream valleys (Plates 22, 77 & 78).

The winter of 1962/3 is illustrated in Plates 43 to 78. The first large snowfall occurred between Christmas 1962 and the New Year. From then on there was a succession of periods of cyclonic weather and heavy snowfall with winds, alternating with periods of anticyclonic weather with still air and intense cold. Both of these can be seen in the plates. The thaw finally began in early March as a result of a heavy fall of warm rain. Throughout January and February the Moor House access road was blocked by snow and for much of that time the road from Alston to Garrigill was also blocked. There was a period when road access to Alston itself was impossible and the only way in and out was by rail. There were two Landrovers based at Moor House and two others at Merlewood. One of the Moor House Landrovers was at Moor House at the start of the winter and remained there for the duration. The other Moor House Landrover had to be abandoned near Garrigill (Pale 53) and one of the Merlewood ones became trapped near Tynehead (Plate 52) whilst Trevor Crisp and Jim Cragg were at Moor House (Plates 51, 52 & 54).

During the period when Moor House was isolated by road, Michael Rawes, Michael Nelson and Trevor Crisp took turns to walk there from Garrigill or Alston to deliver fresh food (Plates 51, 55, 56 & 68) and attend to other duties such as the digging out of buried equipment (Plates 49 & 62). Nowadays such lone expeditions would fall foul of "The Health & Safety" but in those days we just got on with the job. The trick was to wait for a spell of anticyclonic weather and then attempt to get to (or from) Moor House before conditions deteriorated.

Most of the 1962/3 winter pictures were taken during just two trips. The first was when Jim Cragg decided to accompany the writer to "see what his boys were doing". At that time we were not aware that he had a heart condition! The Landrover was parked near Tynehead and we walked to Moor House. The next day we carried out various duties including the collection of *Sphagnum* samples for Bill Heal (Plate54). On the return journey the weather began to deteriorate as we approached the parked Landrover (Plates51 & 52). As a result of recent snowfall and drifting there was no way in which the Landrover could have been moved. Therefore, it was necessary to walk to Alston (Plates 55, 56 & 57) and return to Grange-over-Sands by train.

Towards the end of February, Tom Hodgson managed to find and mark a route from Moor House to Dorthgill that was suitable for Betty (fell pony) and her sledge. This made it possible to bring in bulky supplies and fuel oil (Plate 72) through the cooperation of Tom Carrick. One weekend during that period we had news that the public road was open to Garrigill and that we could access Dorthgill with a vehicle (Plates 73 & 74). This provided the writer and Diane Avery an opportunity to deliver new pipes for the Rough Sike siphons to Dorthgill for onward carriage by horse sledge to Moor House so that they could be installed as soon as possible after the thaw.

ROUGH SIKE

Observations at Rough Sike were intended to make a mineral balance sheet for the Rough Sike catchment in terms of rainfall inputs and outputs via eroded peat, animal drift, outflow of “terrestrial” insect casualties, material in solution and export via sheep. Amongst other things this involved a metering weir and level recorder (Plates 30 & 35), a thermograph (Plates 31 & 36), sticky topped rafts (Plates 37, 38 & 39), a shelter and storage shed (Plate 42) and two “drift samplers” to capture eroded peat and animal drift. These consisted of a large concrete block with two steel intake pipes attached (Plate 27) connected to two outflow pipes by large bore polythene hose (Plates 28, 33, 34 & 40). Water from the outflow pipes passed through specially designed filters (Plates 34, 40, 86, 87 & 95). During high flows it was necessary to empty the filters at frequent intervals. The metering (lower) weir and the siphons were calibrated against head on the metering weir by the salt dilution method (Plates 114, 115 & 116). Observation showed that frequent emptying of the filters was only necessary when the head on the metering weir exceeded 152 mm and that this did not usually occur unless at least 12.5 mm of rain had fallen within the last 12 hours. Therefore, two warning instruments were used to alert the writer in the event of night time spates. The first was a mercury switch activated by a float sited by the metering weir. This caused a bell to ring at Moor House when the head on the weir reached 150 mm. The second was a raingauge sited in the Moor house backyard which rang a bell when it had collected 12 mm of rain (Plate 92).

EVENTS OF 6 JULY 1963

It was raining at Moor House on the afternoon of 6 July 1963 and it became evident that a thunderstorm was approaching. The writer, therefore, went to the Rough Sike siphons. A little later, even though the intensity of rainfall at the siphons was not exceptional, what amounted almost to a wall of water came down the Sike. It put the siphons out of action and overtopped the metering weir but did not swamp any of the instruments (Plates 88, 89, 90, 91, 93 & 94). In the absence of data from the siphons, estimates of peat concentration were obtained from spot samples taken manually. The maximum recorded concentration of suspended peat was c. 2000 g m^2 .

Some days later word reached Moor House that exceptionally large concentrations of peat had been found in the water at Broken Scar pumping station near Darlington and that water abstraction for public supply had been interrupted for about 7 hours on 7 July. Investigation showed that this was the result of a large double peat slide on Meldon Hill (Plate 97) on July 6. Evidently the rainfall on 6 July showed considerable spatial variation and the intensity along the ridge of Knock Fell must have been enormous. This resulted in a huge discharge of peat and other material down Lodgegill Sike. Large amounts of peat had slid down the hill and carried large boulders from the peat/clay interface (Plates 96, 98, 99, 100, 102, 104, 105. 106, 109 & 110). Large blocks of peat were deposited beside the River Tees near the foot of Lodgegill Sike (Plates 101 & 103). The level of deposited peat on the banks of Lodgegill at a point of fairly steep gradient indicates a peak water level some 15 feet (5 m) above normal (Plates 107 & 108). This must have been an horrendous sight!

MISCELLANEOUS

The few remaining plates include angling (Plates 26 & 113), haymaking in the Moor House meadow (Plate 41), operation of a light trap for moths (Plates 29 & 32), eroding peat at Moss Flats (Plates 75, 119 & 120), Betty and miscellaneous wildlife (Plates 79, 80, 81, 117 & 118), a sunset (Plate 85) and spates in Trout Beck (Plates 111 & 112). Plates 82, 83 & 84 show “National Nature Week 1963” at Moor House. On that occasion the “Great and the Good” (plus some others!) came for a look around. Amongst those identifiable on Plate 83 are Tony Gore (front right with head bowed), Jim Cragg (beyond and slightly to the right of Tony with left hand on hip) and Tom Hodgson (front right speeding out of shot). It is possible that the person on the left of Plate 82 is Mike Hornung.

PLATE 1. Dun Fells from Moor House. November 1961.

PLATE 2. Nether Hearth mine shop from Moor House. November 1961.

PLATE 3. Moor House. November 1961.

PLATE 4. Sunshine recorder. November 1961

PLATE 5. Lower weir, Rough Sike. November 1961

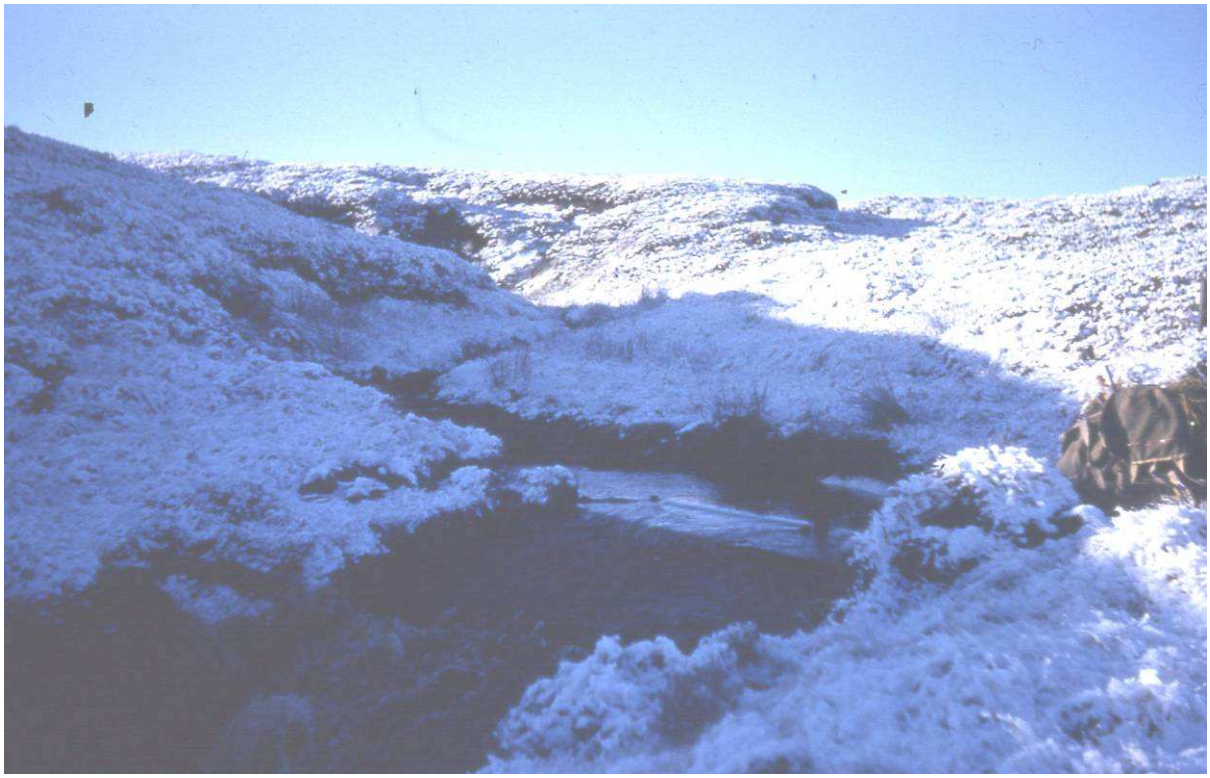


PLATE 6. Upper weir, Rough Sike. November 1961

PLATE 7. Experimental drift sampling net, Rough Sike. November 1961

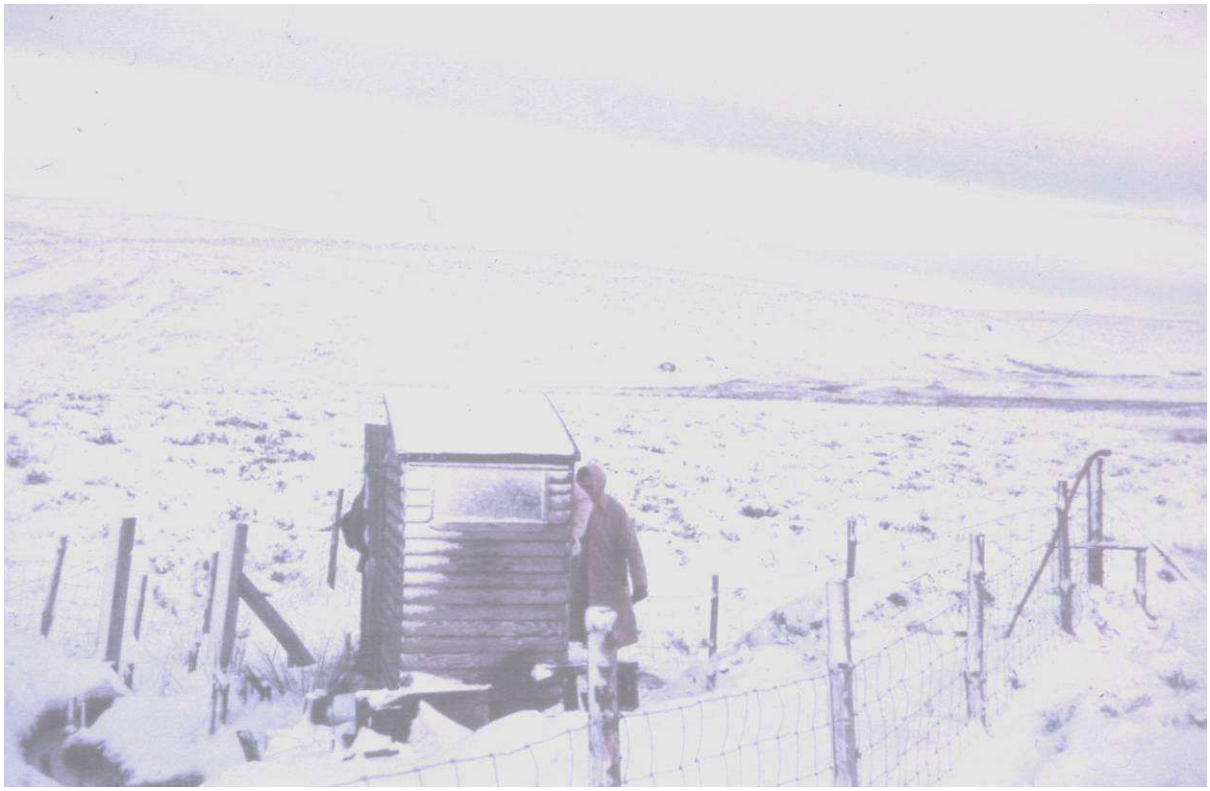


PLATE 8. Weir hut (to house water level recorder) and Dr. Rodda (Institute of Hydrology). November 1961.

PLATE 9. David Welch and icicles near Green Hole, November 1961.

PLATE 10. Trevor Crisp at the pond by the anemograph tower. November 1961.

PLATE 11. Rough Sike lower weir. December 1961.

PLATE 12. Nether Hearth Sike. December 1961.

PLATE 13. Trout Beck falls. December 1961.

PLATE 14. Part of Trout Beck falls. December 1961.

PLATE 15. South Tyne in spate at Dipper Bridge. December 1961.

PLATE 16. Betty during snowfall, in the meadow. January 1962.

PLATE 17. Moor House. January 1962.

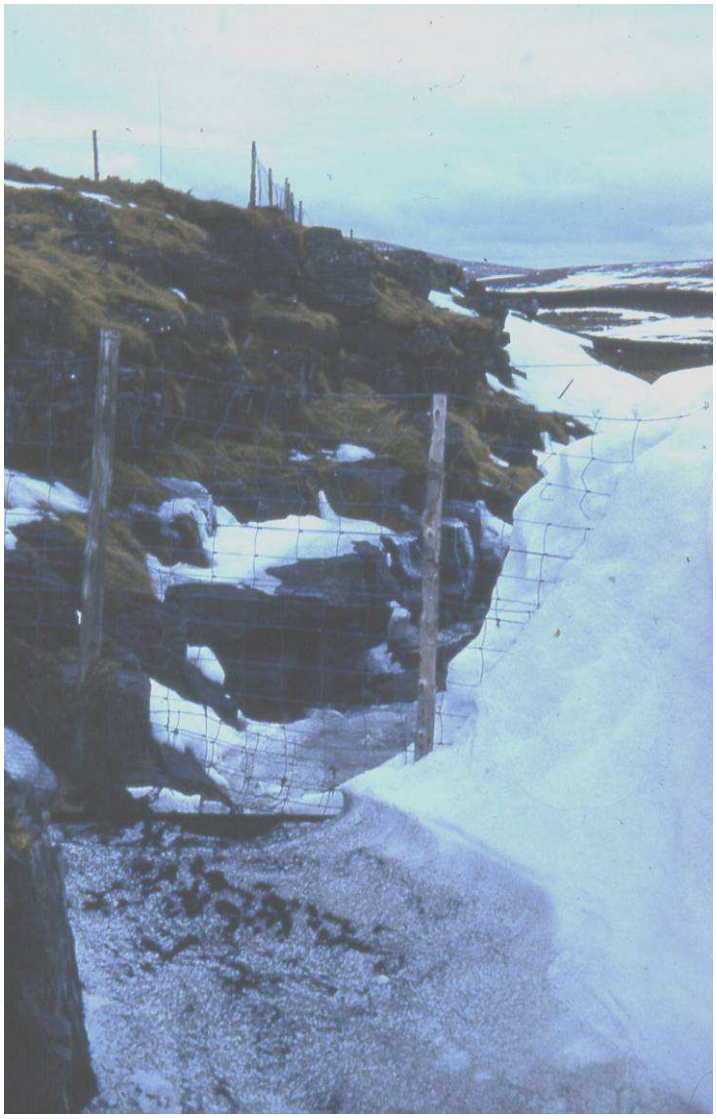
PLATE 18. David Welch clearing snow on the road. January 1962.

PLATE 19. Tom Hodgson in the Massey-Ferguson 35, finishing the job. January 1962.

PLATE 20. The “three fells” from Moor House. February 1962.

PLATE 21. Rough Sike. February 1962.

PLATE 22. Rough Sike – wind eroded peat on residual snow. March 1962.



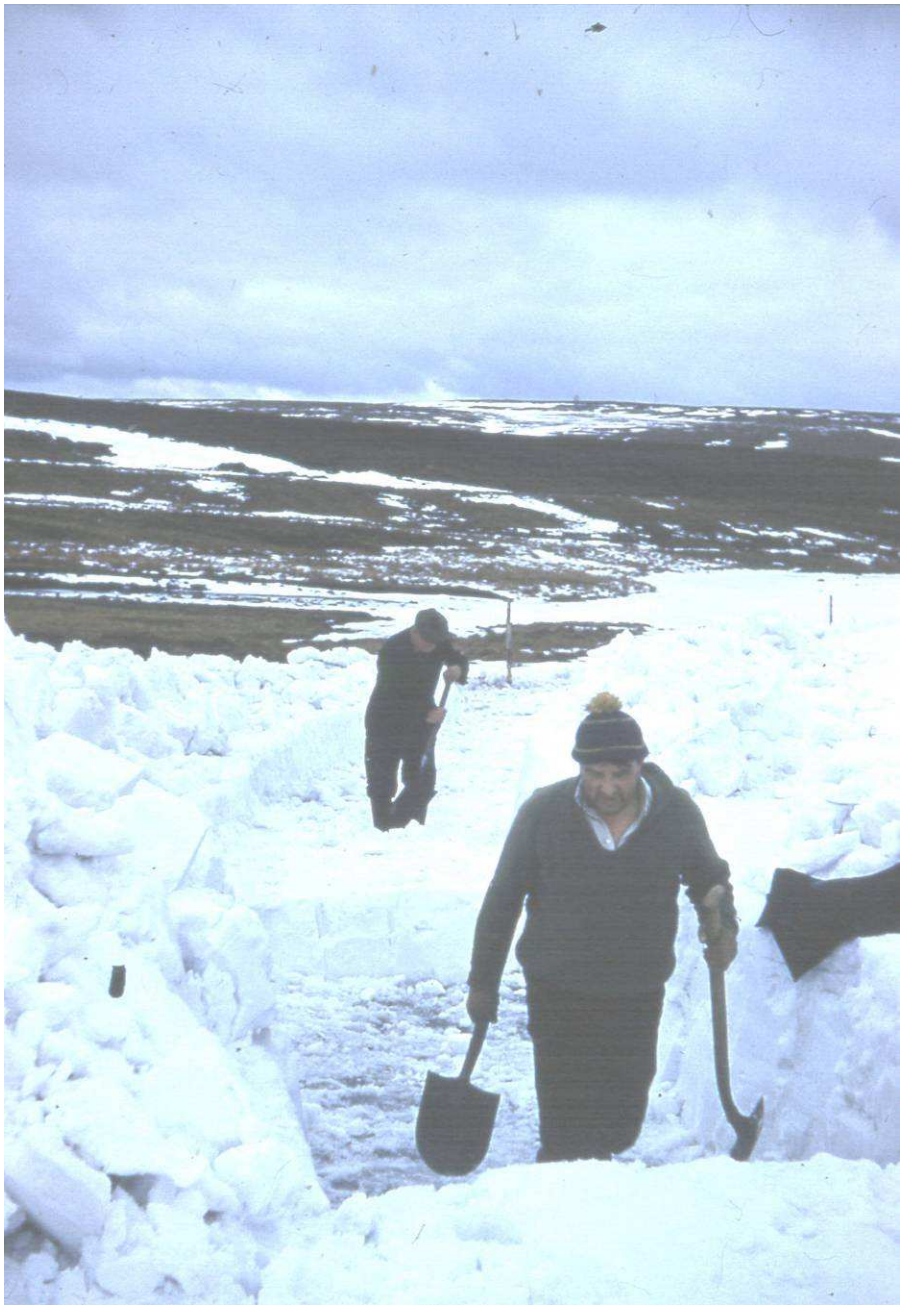


PLATE 23. Tom Hodgson and David Snowdon clearing the road. March 1962.

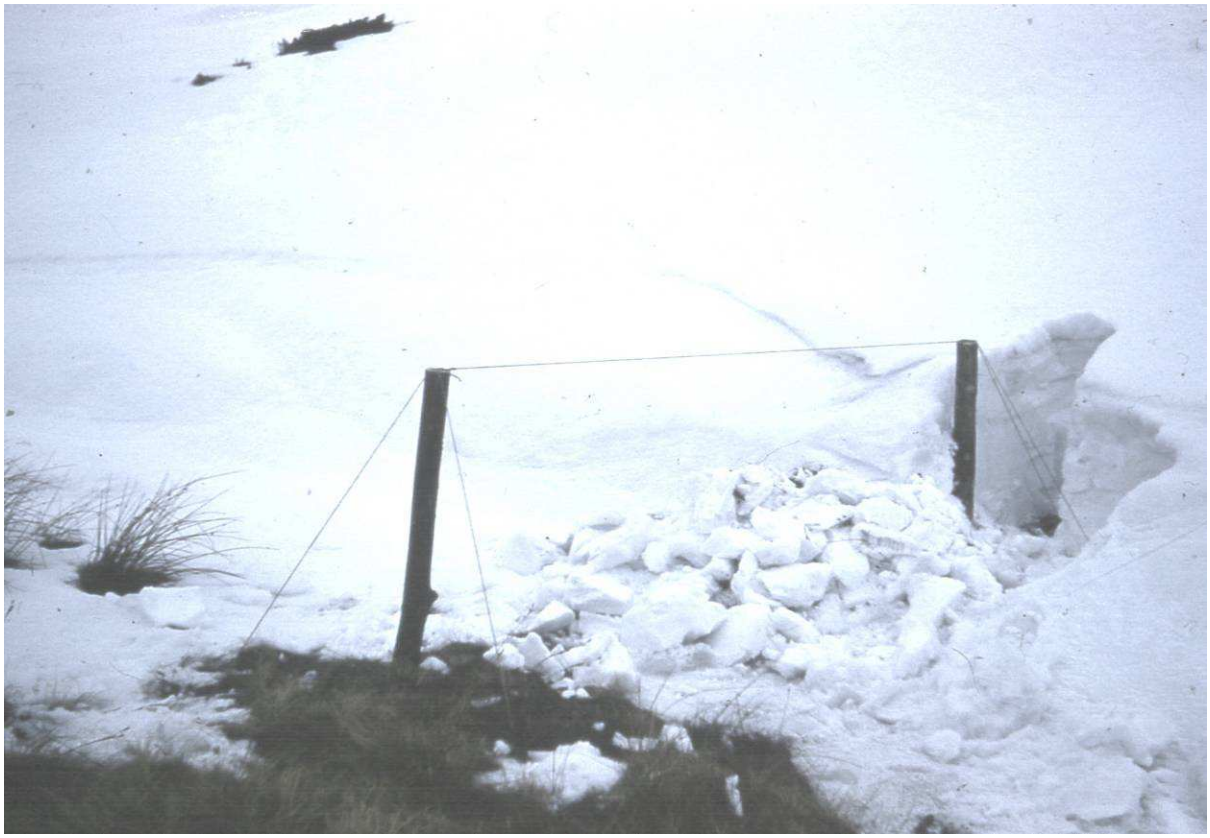


PLATE 24. Stakes for insect trap rafts, Rough Sike. March 1962.

PLATE 25. Tractor clearing snow. March 1962.

PLATE 26. The largest brown trout known to have been caught in the Trout Beck system (length 32.5 cm, weight 366 g). April 1962.

PLATE 27. Concrete block to hold intake pipes for drift sampler, Rough Sike. April 1962.

PLATE 28. Tom & David Hodgson working at the upper weir, Rough Sike. April 1962.

PLATE 29. John Heath's light Trap at Moor House. April 1962.

PLATE 30. Lower weir, Rough Sike. April 1962.

PLATE 31. Thermograph, Rough Sike. April 1962.

PLATE 32. John Heath's light trap in operation. May 1962.

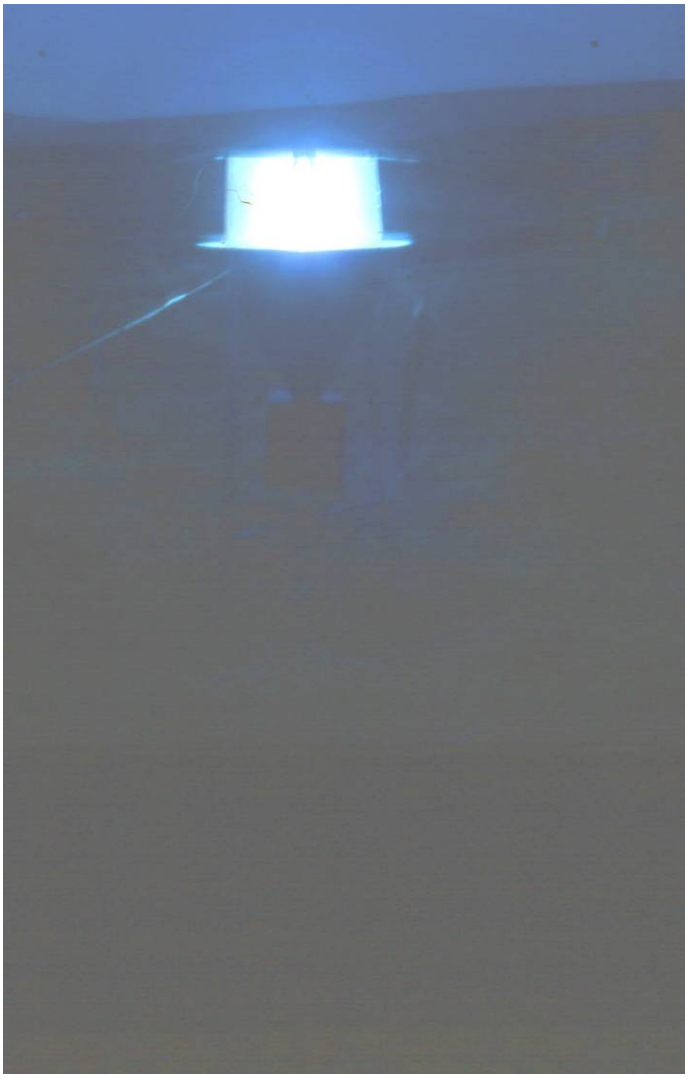


PLATE 33. Siphon pipes at the upper weir, Rough Sike. The "red" siphon is operating. May 1962.

PLATE 34. Siphon pipes at the upper weir, Rough Sike. Prototype fabric filters are fitted. May 1962.

PLATE 35. Lower weir, Rough Sike. July 1962.

PLATE 36. Themograph, Rough Sike. April 1962.

PLATE 37. Insect trapping raft, Rough Sike. July 1962.

PLATE 38. Ian Silversides examines a raft. July 1962.

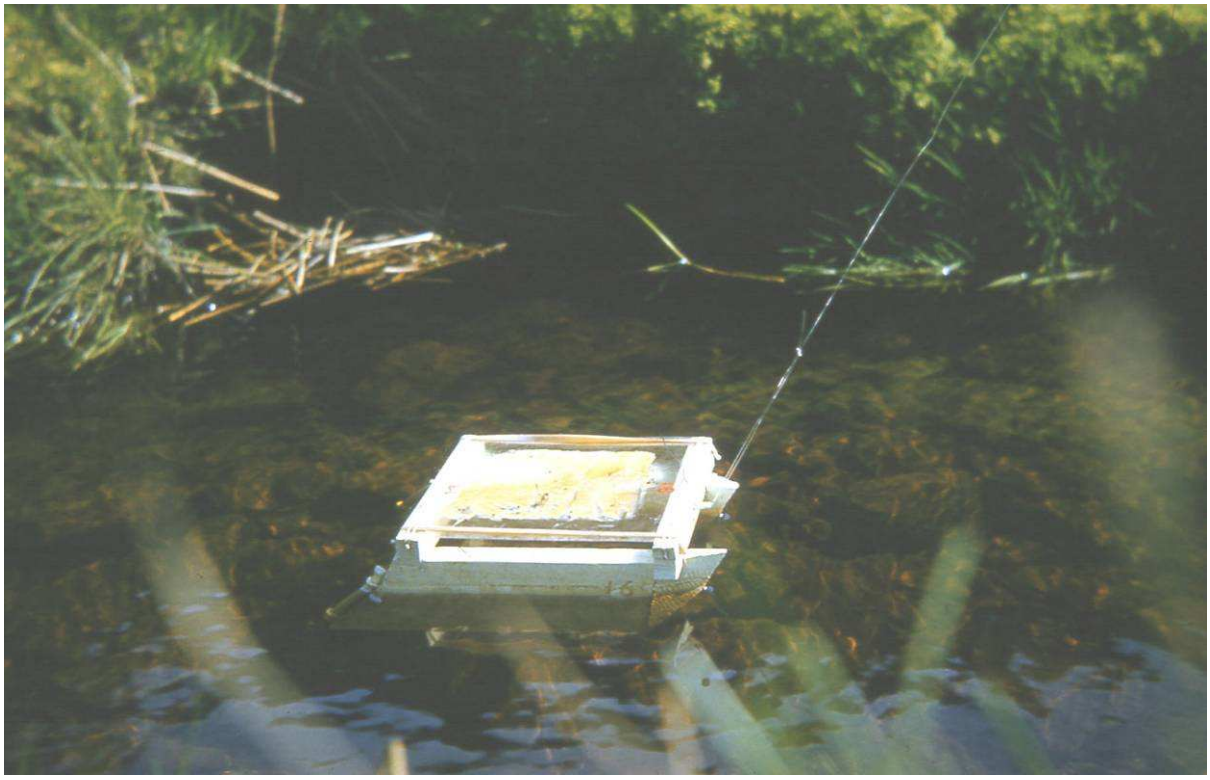


PLATE 39. Insect trapping raft, Rough Sike. July 1962.

PLATE 40. Siphons and filters at upper weir, Rough Sike. Note the final version of filter, made of brass milk gauze. July 1962.

PLATE 41. Haymaking in Moor House meadow. July 1962.

PLATE 42. Store and shelter hut at upper weir, Rough Sike. July 1962.

PLATE 43. Trout Beck Bridge in snow. January 1963.

PLATE 44. Tractor at Trout Beck Bridge. January 1963.

PLATE 45. Landrover TXR on Hartside Pass. January 1963.

PLATE 46. South Tyne valley from Moor House track. February? 1963.

PLATE 47. J.B. Cragg at Tynehead. February 1963.

PLATE 48. Lady Vein. February 1963.

PLATE 49. Excavated thermograph, Rough Sike. February 1963.

PLATE 50. Back of Moor House. February 1963.

PLATE 51. J.B. Cragg at Tynehead. February 1963.

PLATE 52. J.B. Cragg approaches Landrover TXR near Tynehead. February 1963.

PLATE 53. PLATE 54. Landrover STB marooned near Garrigill. February 1963.

PLATE 54. D.T. Crisp taking *Sphagnum* samples at Bog End for O.W. Heal. February 1963.

PLATE 55. Dipper Bridge. February 1963.

PLATE 56. Carrick's Farm. February 1963.

PLATE 57. Howe Hill top. February 1963.

PLATE 58. David & Christina Hodgson near Rough Sike weir instrument. February 1963.

PLATE 59. Weir instrument case, Rough Sike. February 1963.

PLATE 60. Trout Beck valley and Great Dun Fell. February 1963.

PLATE 61. Great Dun Fell. February 1963.

PLATE 62. Excavated weir instrument, Rough Sike. February 1963.

PLATE 63A. Rough Sike lower weir looking towards Moor House (note chimneys). February 1963.

PLATE 63B. As 63A but in Spring 1963.

PLATE 64. Betty in snow. February 1963.

PLATE 65. Nether Hearth trees and grouse traps. February 1963.

PLATE 66. Tynehead. February 1963.

PLATE 67. Road to Herdman's farm. February 1963.

PLATE 68. Carrick's farm. February 1963.

PLATE 69. Tom Hodgson & Tom Carrick with sheep at Dipper Bridge. February 1963.

PLATE 70. Sheep at Dipper Bridge. February 1963.

PLATE 71A. Trout Beck Bridge and weir looking downstream. February 1963.

PLATE 71B. As 71A but in Spring 1963.

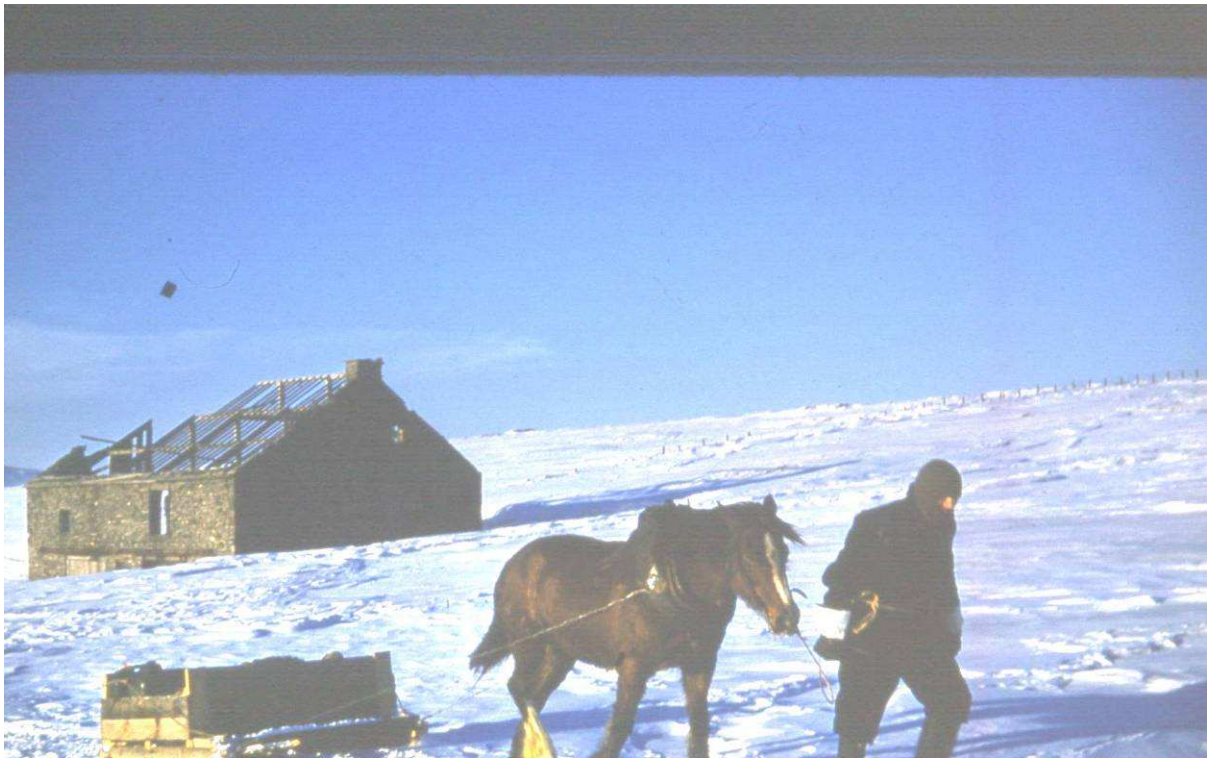


PLATE 72. Tom Hodgson, Betty and sledge. February 1963.

**PLATE 73. Diane Avery near Dorthgill.
February 1963.**

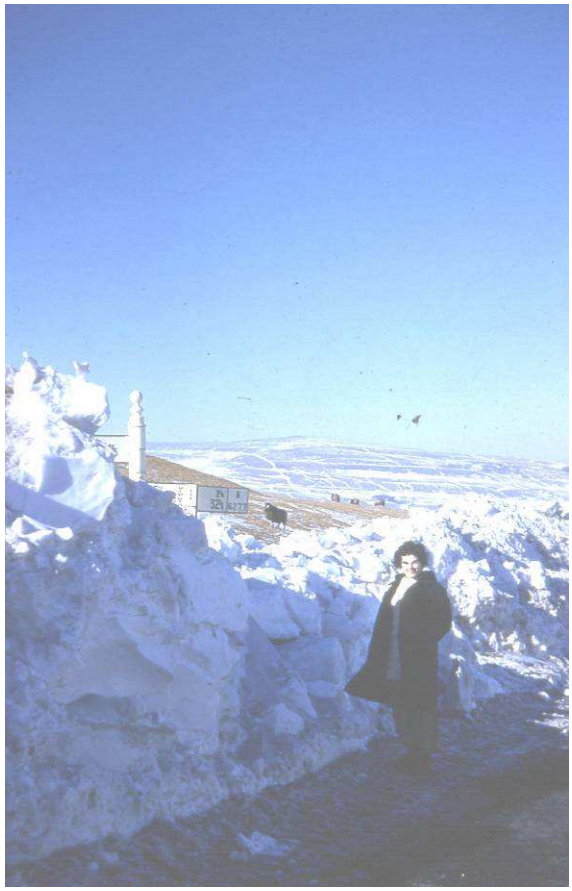


**PLATE 74. Diane Avery at Howe Hill top.
February 1963.**

PLATE 75. Moss Flats. April 1963.

PLATE 76. *Sphagnum* disturbed by ring ouzel. April 1963.

PLATE 77. Wind eroded peat on snow. April 1963.

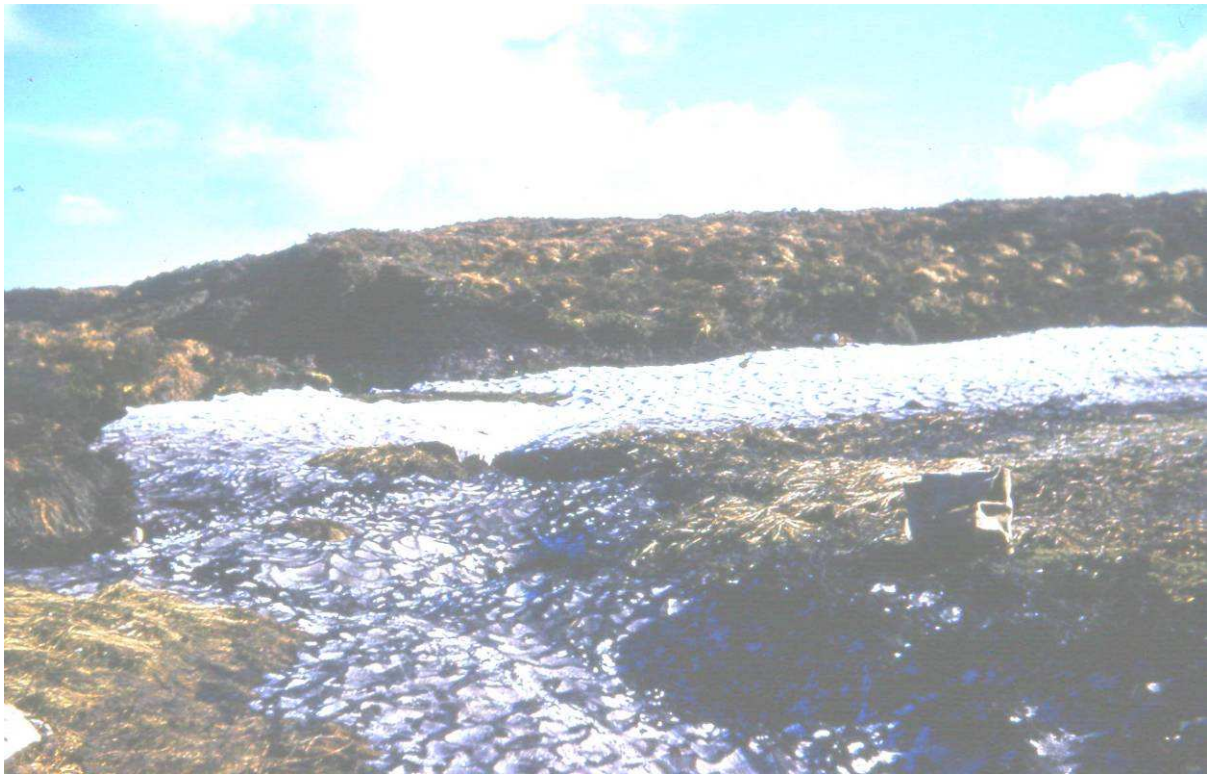


PLATE 78. Wind eroded peat on snow. Rough Sike. April 1963.

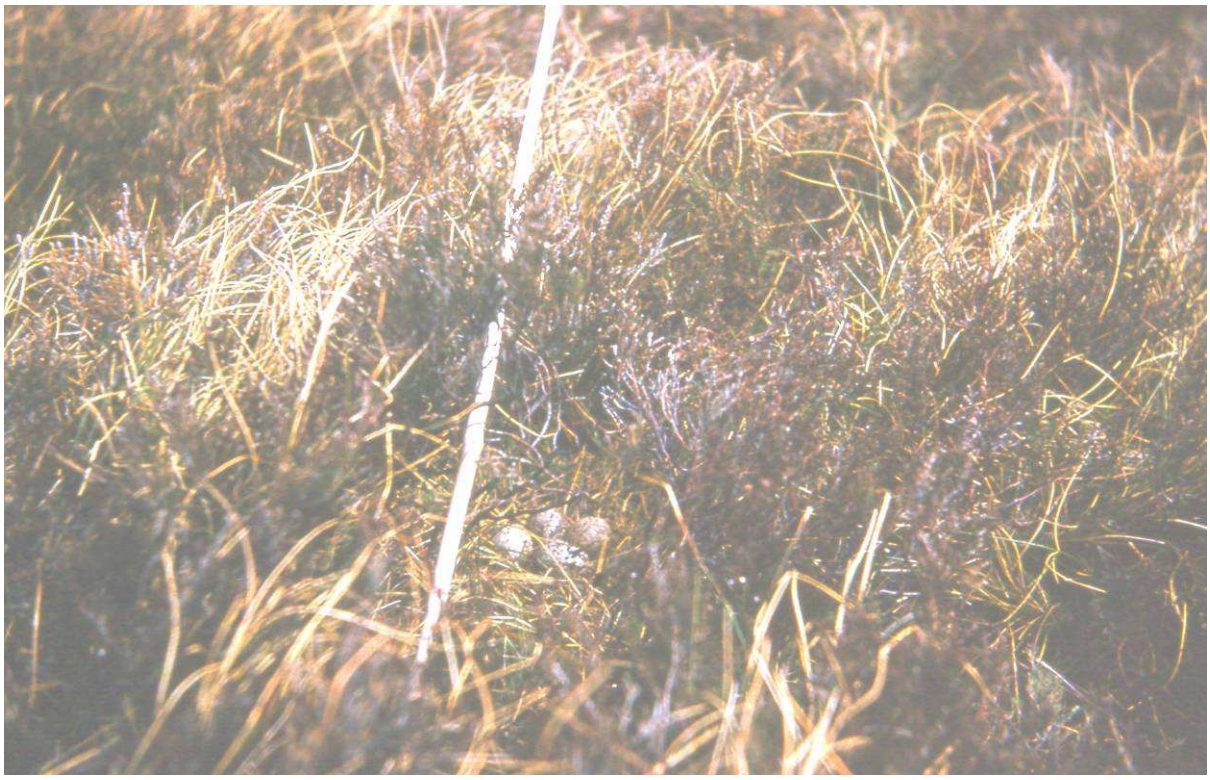


PLATE 79. Grouse nest with eggs near Rough Sike. May 1963.

PLATE 80. The same nest with grouse sitting. May 1963.

PLATE 81. Betty at Rough Sike lower weir. June 1963.

PLATE 82. National Nature Week at Moor House. June 1963.

PLATE 83. National Nature Week at Moor House. June 1963.

PLATE 84. National Nature Week at Moor House. June 1963.

PLATE 85. Sunset and vapour trail, Moor House. June 1963.

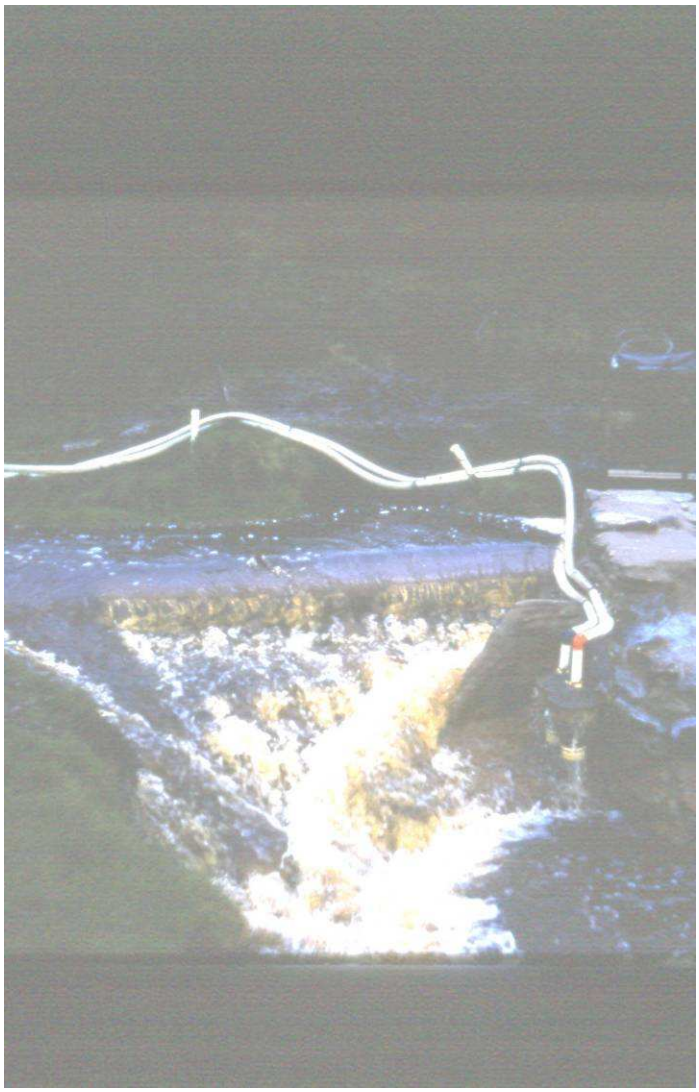


PLATE 86. Siphons in a modest spate, Rough Sike. June 1963.

PLATE 87. Siphons in a modest spate, Rough Sike. June 1963.

PLATE 88. Thermograph during the large spate of 16 July 1963.

PLATE 89. Siphons during the large spate of 6 July 1963.

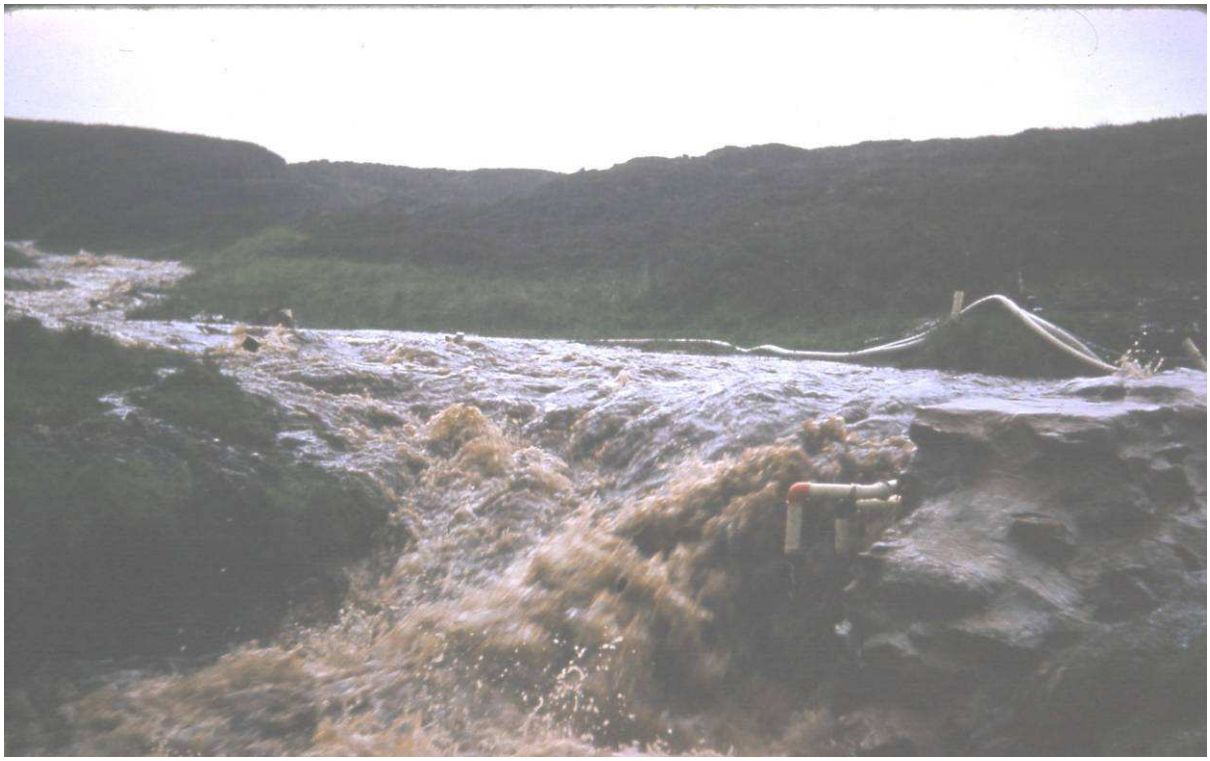


PLATE 90. Upper weir during the large spate of 6 July 1963.

PLATE 91. Store and shelter hut during the large spate of 6 July 1963.

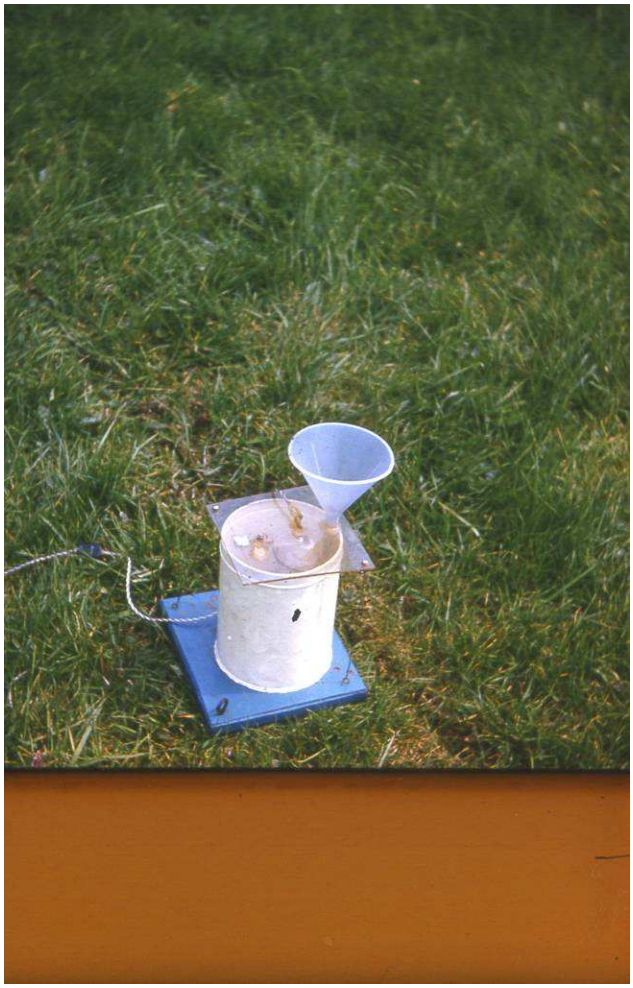


PLATE 92. Rainfall warning instrument on Moor House lawn. July 1963.

PLATE 93. Siphons during the large spate of 6 July 1963.

PLATE 94. Weir instrument during the large spate of 6 July 1963.

PLATE 95. Siphons during a spate.

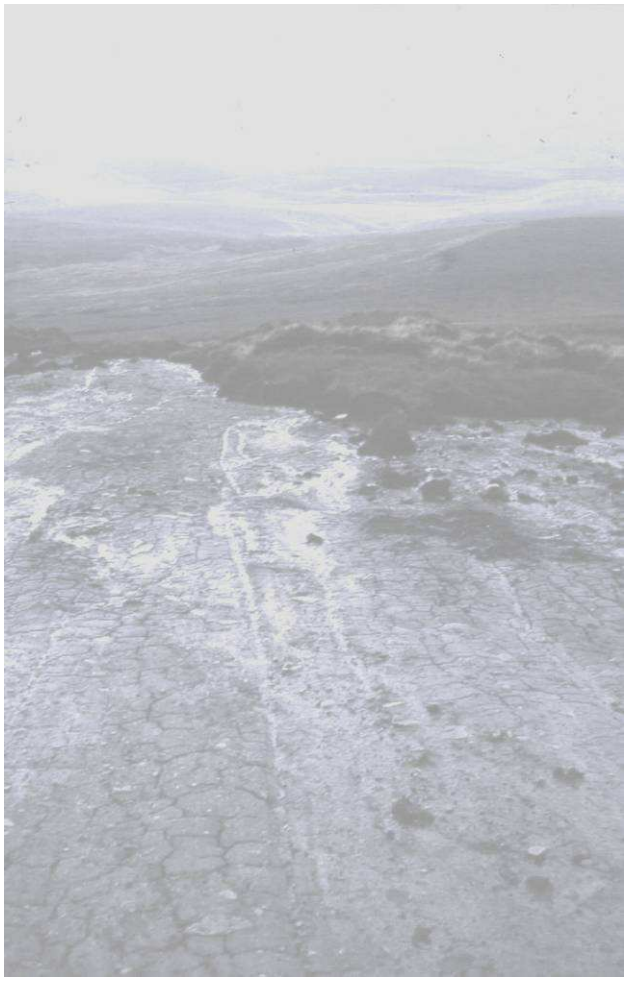


PLATE 96. Results of the Meldon Hill peat slide of 6 July 1963.

PLATE 97. River Tees and Meldon Hill. July 1963.

PLATE 98. Results of the Meldon Hill peat slide of 6 July 1963.

PLATE 99. Results of the Meldon Hill peat slide on 6 July 1963.

PLATE 100. Results of the Meldon Hill peat slide on 6 July 1963.

PLATE 101. Displaced peat blocks by River Tees after the Meldon Hill peat slide on 6 July 1963.

PLATE 102. Results of the Meldon Hill peat slide of 6 July 1963.

PLATE 103. Displaced peat blocks by River Tees after the Meldon Hill peat slide of 6 July 1963. Diane Avery gives scale.

PLATE 104. Results of the Meldon Hill peat slide of 6 July 1963.

PLATE 105. Results of the Meldon Hill peat slide of 6 July 1963.

PLATE 106. Results of the Meldon Hill peat slide on 6 July 1963.

PLATE 107. Upper limit of deposited peat particles on banks of Lodgegill Sike after spate on 6 July 1963. Diane Avery gives scale.

PLATE 108. Upper limit of deposited peat particles on banks of Lodgegill Sike after spate on 6 July 1963. Diane Avery gives scale.

PLATE 109. Results of the Meldon Hill peat slide on 6 July 1963.

PLATE 110. Results of the Meldon Hill peat slide of 6 July 1963.

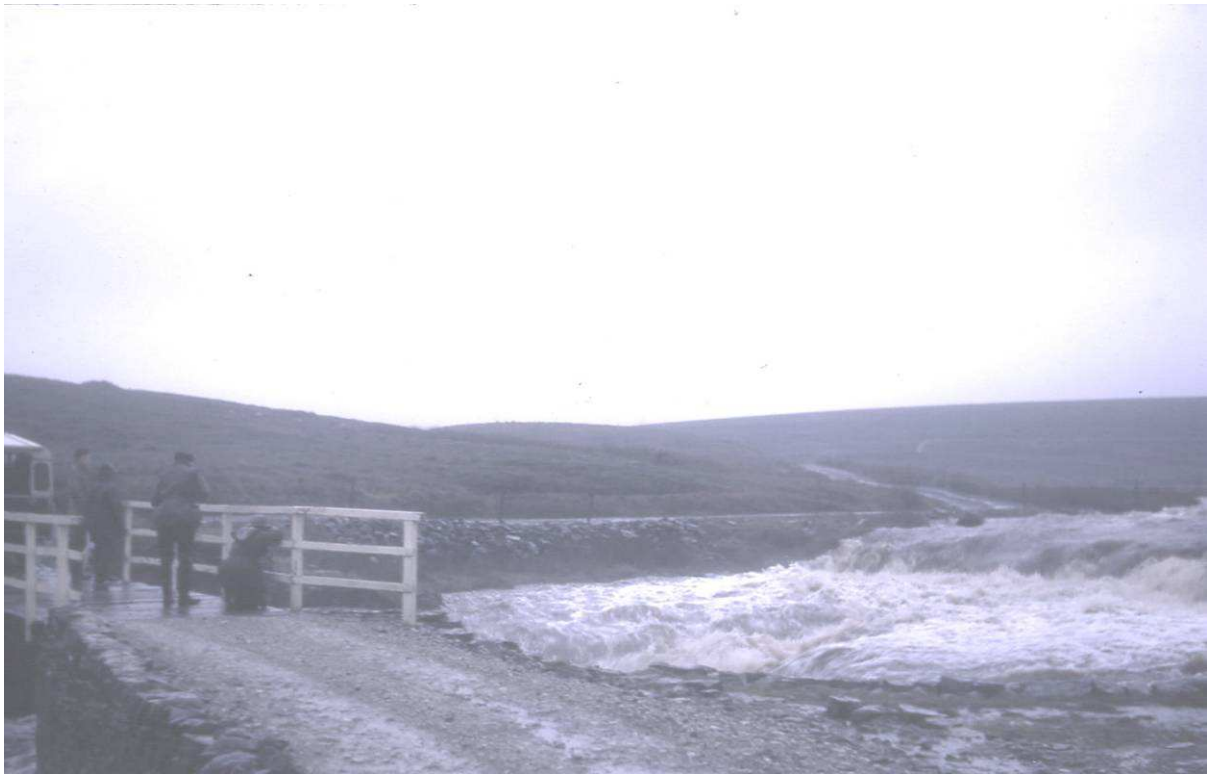


PLATE 111. Trout Beck Bridge and a spate. October 1963.

PLATE 112. Trout Beck Bridge and a spate. October 1963.

PLATE 113. Diane Avery fishing at Trout Beck Bridge. October 1963.

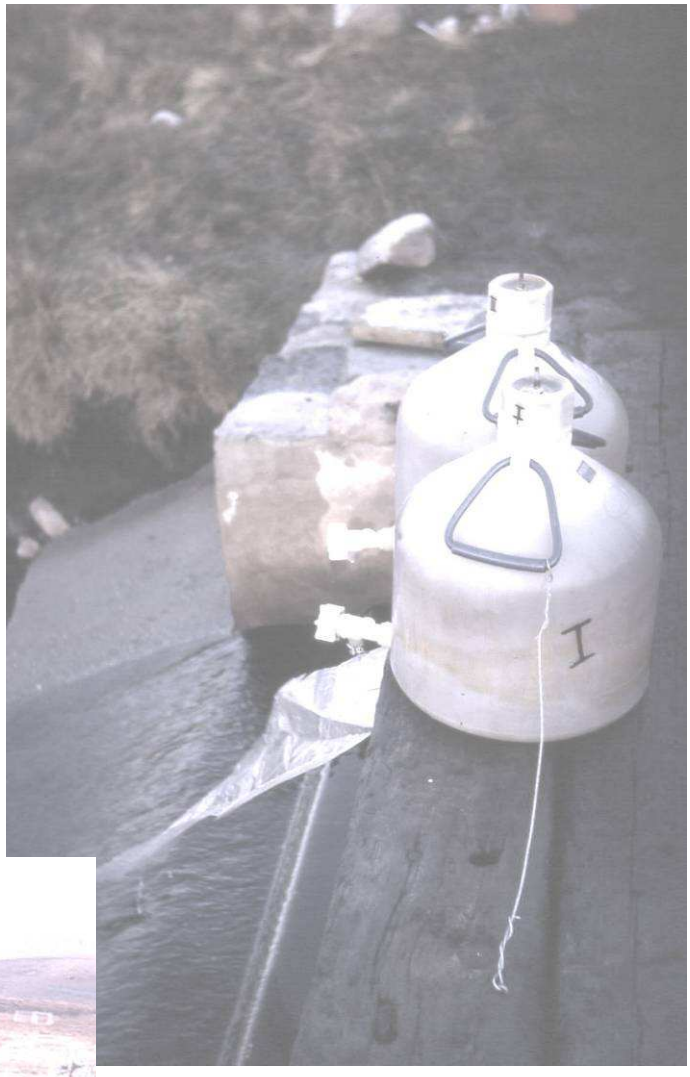


PLATE 114. Aspirators for salt solution weir calibration in Rough Sike. October 1963.

PLATE 115. Diane Avery taking water samples for weir calibration. October 1963.

PLATE 116. Diane Avery taking water samples for weir calibration. October 1963.

PLATE 117. Diane Avery and Betty. March 1964.

PLATE 118. Sheep and lambs at Tynehead. June 1964.

PLATE 119. Moss Flats. June 1964.

PLATE 120. Moss Flats. June 1964.

ACKNOWLEDGMENTS

The writer is indebted to his many colleagues during the period described. Under the leadership of Michael Rawes, the operation of Moor House in those days was very much a team effort. Plates 54, 55 & 56 are duplicates of photographs taken by Jim Cragg.

REFERENCES

Crisp D. T., Rawes M. & Welch D. (1964) A Pennine peat slide. *Geographical Journal* 130, 519-525.

Crisp D.T. (1966) Input and output of minerals from an area of Pennine moorland: the importance of precipitation, drainage, peat erosion and animals. *Journal of Applied Ecology* 3, 327-348.

Crisp D.T. & Robson S. (1979) Some effects of discharge upon the transport of animals and peat in a north Pennine headstream. *Journal of Applied Ecology* 16, 721-736.