No 110

ROUDSEA WOOD, MEATHOP WOOD, AND OTHER WOODLAND SITES IN NORTH-WEST ENGLAND:
A BIBLIOGRAPHY OF RESEARCH PUBLICATIONS, MAINLY FROM MERLEWOOD

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Grange-over-Sands Cumbria LAll 6JU

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INTRODUCTION

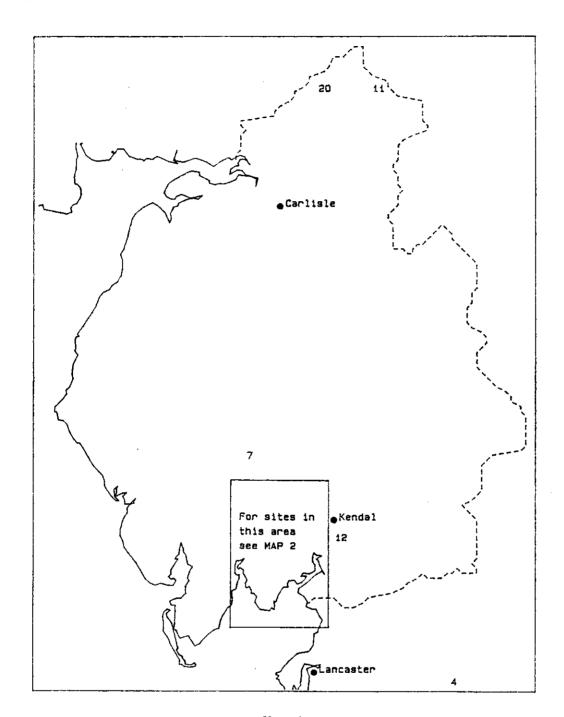
Merlewood was the first research station to be set up by the Nature Conservancy in the early 1950s in order to provide laboratories for the moorland and woodland soils programmes. Significant in the choice of location was the proximity of the proposed Reserve at Roudsea Wood, the Meathop Moss Reserve, the experimental Reserve at Moor House and a number of other sites of special interest. The results of research work at these sites has been published in journals, conference proceedings and books.

A bibliography of research publications relating to Moor House National Nature Reserve has already been produced 1 , and the results of studies there under the International Biological Programme (IBP) have also appeared 2 .

This bibliography lists the publications which have resulted from research at the woodland and forest sites, and in the case of Meathop Wood, which was the main IBP site in the UK for studying the productivity of woodlands, includes work by scientists from universities and other institutes. Most of the references should be readily available through normal library channels, but in case of difficulty, please apply to the Librarian at Merlewood.

Rawes, M. 1982. Moor House publication list. (Aspects of the ecology of the northern Pennines 2). Bowness-on-Windermere: Nature Conservancy Council, NW Region.

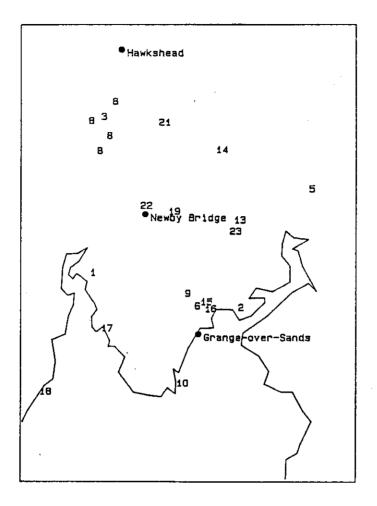
²Heal, O.W. & Perkins, D.F., eds. 1978. Production ecology of British moors and montane grasslands. (Ecological studies vol. 27). Berlin: Springer.



Map 1

Sites

- Bowland Forest
- Elterwater Alder Wood
- 11 Kershope Forest 12 Larkrigg Spring
- 20 Stone Chest Plantation



Map 2

Sites

1	Roudsea Wood	14	Low Fell Wood
2	Meathop Wood	15	Merlewood
3	Bogle Crag Wood	16	Merlewood Lodge Wood
5	Brigsteer Woods	17	Old Park Wood
6	Eggerslack Wood	18	Sea Wood
8	Grizedale Forest	19	Staveley Plantation
9	Heaning Wood	21	Three Birks Wood
10	Humphrey Head Wood	22	Wintering Park
13	Lawns Wood	23	Witherslack Woods

BIBLIOGRAPHY

Roudsea Wood (SD 330820)

Roudsea Wood, declared a National Nature Reserve in 1955, is one of the most varied woodlands in the British Isles. It lies in the south of the English Lake District and is about five miles west of Grange-over-Sands. The main part of the wood is situated on two parallel ridges, one of Carboniferous limestone, the other of Silurian slate. The limestone ridge supports coppiced ash-oak woodland with the oak being mainly pedunculate; the slate ridge, on the other hand, carries a contrasting sessile oak-wood, with birch.

Research effort at Roudsea was concentrated initially on the biological and chemical processes occurring in the soil and litter, but attention was also given to the problem of poor natural regeneration of the oak-wood, and its defoliation by Tortrix viridana caterpillars. The decomposition studies were extended to include work on the fungal succession on decaying bracken.

1. BOCOCK, K.L. & GILBERT, O.J.W. 1957.

The disappearance of leaf litter under different woodland conditions.

Pl. Soil, 9, 179-185.

2. BOCOCK, K.L., GILBERT, O., CAPSTICK, C.K., TWINN, D.C., WAID, J.S. & WOODMAN, M.J. 1960.

Changes in leaf litter when placed on the surface of soils with contrasting humus types. I. Losses in dry weight of oak and ash leaf litter.

J. Soil Sci., 11, 1-9.

3. BOCOCK, K.L. 1963.

Changes in the amount of nitrogen in decomposing oak litter of sessile oak (Quercus petraea).

J. Ecol., 51, 555-566.

4. BOCOCK, K.L. 1964.

Changes in the amount of dry matter, nitrogen, carbon and energy in decomposing woodland leaf litter in relation to the activities of the soil fauna.

J. Ecol., 52, 273-284.

5. BUNCE, R.G.H. 1968.

Biomass and production of trees in a mixed deciduous woodland. I. Girth and height as parameters for the estimation of tree dry weight.

J. Ecol., 56, 759-775.

6. BUNCE, R.G.H. 1969.

Site classification and classification of Lake District woodlands. (Merlewood research and development paper no. 9). Grange-over-Sands: Nature Conservancy.

7. CAPSTICK, C.K., TWINN, D.C. & WAID, J.S. 1957.

Predation of natural populations of free-living nematodes by fungi. Nematologica, 2, 193-201.

8. CAPSTICK, C.K. 1962.

The use of small cylindrical samplers for estimating the weight of forest litter. In: Progress in soil zoology, edited by P.W.Murphy, 353-356.

London: Butterworths.

9. CARLISLE, A. & BROWN, A.H.F. 1965.

The assessment of the taxonomic status of mixed oak ($\underline{Quercus}$ spp.) populations.

Watsonia, 6, 120-127.

10. FRANKLAND, J.C., OVINGTON, J.D. & MACRAE, C. 1963.

Spatial and seasonal variations in soil, litter and ground vegetation in some Lake District woodlands.

J. Ecol., 51, 97-112.

11. FRANKLAND, J.C. 1966.

Succession of fungi on decaying petioles of Pteridium aquilinum. Ecol., 54, 41-63.

12. FRANKLAND, J.C. 1976.

Decomposition of bracken litter.

Bot. J. Linn. Soc., 73, 133-143.

13. GILBERT, O. & BOCOCK, K.L. 1960.

Changes in leaf litter when placed on the surface of soils with contrasting humus types. 2. Changes in the nitrogen content of oak and ash leaf litter.

J. Soil Sci., 11, 10-19.

14. GILBERT, O.J. & BOCOCK, K.L. 1962.

Some methods of studying the disappearance and decomposition of leaf litter. In: Progress in soil zoology, edited by P. W. Murphy, 348-352.

London: Butterworths.

15. HEAL, O.W. 1964. The use of cultures for studying Testacea (Protozoa: Rhizopoda) in soil.
Pedobiologia, 4, 1-7.

16. HEATH, J., BOCOCK, K.L. & MOUNTFORD, M.D. 1974.

The life history of the millipede Glomeris marginata (Villers) in north-west England. In: Myriapoda, edited by J.G.Blower, 433-462. (Symposia of the Zoological Society of London no. 32). London: Academic Press.

17. HOWARD, P.J.A. 1966.

The carbon-organic matter factor in various soil types. Oikos, 15, 229-236.

18. HOWARD, P.J.A. 1966.

Some ecological aspects of soil organic matter. M.Sc. thesis, University of London.

19. HOWARD, P.J.A. 1967.

A method for studying the respiration and decomposition of litter. In: Progress in soil biology, edited by O.Graff & J.E.Satchell, 464-472.

Amsterdam: North-Holland Publishing Co.

20. HOWARD, P.J.A. & HOWARD, D.M. 1985.

Numerical analysis of soil physiological data. (Merlewood research and development paper no. 105).

Grange-over-Sands: Institute of Terrestrial Ecology.

21. LATTER, P.M. & HEAL, O.W. 1971.

A preliminary study of the growth of fungi and bacteria from temperate and antarctic soils in relation to temperature. Soil Biol. Biochem., 3, 365-379.

22. MACRAE, C. 1957.

Some observations on Tortrix defoliation. Q. Jl For., 51, 332-333.

23. SATCHELL, J.E. & NELSON, J.M. 1962.

A comparison of the Tullgren-funnel and flotation methods of extracting Acarina from woodland soil. In: Progress in soil zoology, edited by P.W.Murphy, 212-216.
London: Butterworths.

24. SATCHELL, J.E. 1962.

Resistance in oak (Quercus spp.) to defoliation by Tortrix viridana L. in Roudsea Wood National Nature Reserve.
Ann. appl. Biol., 50, 431-442.

25. SYKES, J.M. & BARR, C.J. 1973.

Dry weight and mineral composition estimates for 15-year-old mixed hardwood coppice in Roudsea Wood. (Merlewood research and development paper no. 50).

Grange-over-Sands: Nature Conservancy.

26. SYKES, J.M., HORRILL, A.D. & MOUNTFORD, M.D. 1983.

Use of visual cover assessments as quantitative estimators of some British woodland taxa.

J. Ecol., 71, 437-450.

27. TWINN, D.C. 1962.

The extraction of free-living nematodes from forest soil and litter. In: Progress in soil zoology, edited by P.W.Murphy, 261-267.

London: Butterworths.

28. WAID, J.S., CAPSTICK, C.K. & TWINN, D.C. 1957.

A quantitative method of estimating fungal infections of natural populations of free-living nematodes. Pedologie, 7, 159-161.

Meathop Wood (SD 436795)

In 1963, the International Biological Programme was initiated as a cooperative effort on the part of scientists throughout the world to study the basic processes of biological productivity. The main UK site for studying the productivity of woodlands was Meathop Wood, about two miles from Merlewood near the shore of Morecambe Bay. It is situated on an outcrop of Carboniferous limestone, and is a coppiced wood, with oak, ash, birch and sycamore standards dominating the canopy and an understorey of hazel.

Research at Meathop was concerned with the production and standing crop of the trees and ground flora, the amount of energy and nutrient yielding material entering the plant-soil ecosystem, the types and biomass of the organisms present, and the relative contribution of the different groups of soil organisms to the processes of decomposition.

- BOCOCK, K.L. 1973. The collection of soil temperature data in intensive studies of ecosystems. (Merlewood research and development paper no. 47). Grange-over-Sands: Nature Conservancy.
- 2. BOCOCK, K.L. & ADAMSON, J.K. 1976.

Estimation of soil temperatures from meteorological data. Annu. Rep. Inst. terr. Ecol. 1975, 13-15.

3. BOCOCK, K.L., JEFFERS, J.N.R., LINDLEY, D.K., ADAMSON, J.K. & GILL, C.A. 1977.

Estimating woodland soil temperature from air temperature and other climatic variables.

Agric. Meteorol., 18, 351-372.

4. BOCOCK, K.L. & ADAMSON, J.K. 1982.

Soil temperature in a deciduous woodland in north-west England. (Merlewood research and development paper no. 87).

Grange-over-Sands: Institute of Terrestrial Ecology.

5. BRIDSON, J.N. 1985.

Lipid fraction in forest litter: early stages of decomposition. Soil Biol. Biochem., 17, 285-290.

BROWN, A.H.F. 1974.

Nutrient cycles in oakwood ecosystems in NW England. In: The British oak, edited by M.G.Morris & F.H.Perring, 141-161. Faringdon: Classey.

7. BUNCE, R.G.H. 1968.

Biomass and production of trees in a mixed deciduous woodland. I. Girth and height as parameters for the estimation of tree dry weight.

J. Ecol., 56, 759-775.

BURGES, N.A. 1976.

The Meathop Wood and the Pasoh rainforest projects. Phil. Trans. R. Soc. B, 274, 283-294.

9. CHAPMAN, S.J. & GRAY, T.R.G. 1986.

Importance of cryptic growth, yield factors and maintenance energy in models of microbial growth in soil. Soil Biol. Biochem., 18, 1-4.

10. FARQUHARSON, F.A.K. & PAINTER, R.B. 1973.

Determination of runoff from the Meathop site. (abstract). Bull. Br. ecol. Soc., 4(3), 6-7.

11. FARQUHARSON, F.A.K. 1973.

A study of the nutrient losses in run off from a mixed deciduous woodland.

M.Sc. thesis, University of Lancaster.

12. FRANKLAND, J.C. 1973.

Fungal biomass and activity. (abstract).

Bull. Br. ecol. Soc., 4(3), 5-6.

13. FRANKLAND, J.C. 1974.

Importance of phase-contrast microscopy for estimation of total fungal biomass by the agar-film technique. Soil Biol. Biochem.. 6. 409-410.

4. FRANKLAND, J.C. 1975.

Estimation of live fungal biomass.

Soil Biol. Biochem., 7, 339-340.

15. FRANKLAND, J.C. 1975.

Fungal decomposition of leaf litter in a deciduous woodland. In: Biodegradation et humification, edited by G.Kilbertus, O.Reisinger, A.Mourey & J.A.Cancela da Fonseca, 33-40. Sarreguemines: Pierron.

16. FRANKLAND, J.C., LINDLEY, D.K. & SWIFT, M.J. 1978.

A comparison of two methods for the estimation of mycelial biomass in leaf litter.

Soil Biol. Biochem., 10, 323-333.

17. FRANKLAND, J.C., BAILEY, A.D. & COSTELOE, P.L. 1979.

Ecology of a woodland toadstool Mycena galopus.

Annu. Rep. Inst. terr. Ecol. 1978, 26-28.

18. FRANKLAND, J.C., BAILEY, A.D., GRAY, T.R.G. & HOLLAND, A.A. 1981.

Development of an immunological technique for estimating mycelial biomass of Mycena galopus in leaf litter.

Soil Biol. Biochem., 13, 87-92.

19. FRANKLAND, J.C. 1981.

Mechanisms in fungal successions. In: The fungal community: its organization and role in the ecosystem, edited by D.T.Wicklow & G.C.Carroll, 403-426.

New York: Dekker.

20. FRANKLAND, J.C. 1982.

Biomass and nutrient cycling by decomposer basidiomycetes. In: Decomposer basidiomycetes, edited by J.C.Frankland, J.N.Hedger & M.J.Swift, 241-261. (British Mycological Society symposium 4). Cambridge: Cambridge University Press.

21. FRANKLAND, J.C. 1984.

Autecology and the mycelium of a woodland litter decomposer. In: The ecology and physiology of the fungal mycelium, edited by D.H.Jennings & A.D.M.Rayner, 241-260. (British Mycological Society symposium 8).

Cambridge: Cambridge University Press.

22. GRAY, T.R.G. & WILLIAMS, S.T. 1971.

Microbial productivity in the soil. In: Microbes and biological productivity, 255-286. (Symposium of the Society for General Microbiology no. 21).

Cambridge: Cambridge University Press.

23. GRAY, T.R.G. & WILLIAMS, S.T. 1973.

Bacteria and actinomycetes: biomass and activity. (abstract). Bull. Br. ecol. Soc., 4(3), 5.

GRAY, T.R.G., HISSETT, R. & DUXBURY, T. 1974.

Bacterial populations of litter and soil in a deciduous woodland.

II. Numbers, biomass and growth rates.

Rev. Ecol. Biol. Sol, 11, 15-26.

HALE, W.G. 1973.

Soil and litter fauna. (abstract).

Bull. Br. ecol. Soc., 4(3), 5.

26.

HARKNESS, D.D., HARRISON, A.F. & BACON, P.J. 1986.
The temporal distribution of 'bomb' ¹⁴C in a forest soil.

Radiocarbon, 28, 328-337.

27. HARRISON, A.F. 1971.

> The inhibitory effect of oak leaf litter tannins on the growth of fungi, in relation to litter decomposition.

Soil Biol. Biochem., 3, 167-172.

28. HARRISON, A.F. 1973.

The distribution and cycling of phosphorus. (abstract).

Bull. Br. ecol. Soc., 4(3), 7.

29. HARRISON, A.F. & HARKNESS, D.D. 1976.

Mean residence times of organic matter in woodland soils.

Annu. Rep. Inst. terr. Ecol. 1975, 47-48.

30. HARRISON, A.F. 1978.

> Phosphorus cycles of forest and upland grassland ecosystems and some effects of land management practices. In: Phosphorus in the environment: its chemistry and biochemistry, 175-199. (Ciba Foundation symposium 57).

Amsterdam: Excerpta Medica.

31. HARRISON, A.F. & PEARCE, T. 1979.

Seasonal variation of phosphatase activity in woodland soils.

Soil Biol. Biochem., 11, 405-410.

32. HARRISON, A.F. 1985.

> Effects of environment and management on phosphorus cycling in terrestrial ecosystems.

J. environ. Manage., 20, 163-179.

33. HARRISON, A.F. & INESON, P. in press.

Nitrogen cycling in an oak-ash woodland in northern England examined using the computer model FORTNITE. In: The temperate forest ecosystem, edited by Yang Hanxi, Wang Zhan & P.A.Ward. Grange-over-Sands: Institute of Terrestrial Ecology.

34. HATTON, O.M. 1979.

The biology of Tomocerus species Collembola.

M.Phil. thesis, Liverpool Polytechnic.

35. HEAL, O.W., SWIFT, M.J. & ANDERSON, J.M. 1982.

Nitrogen cycling in United Kingdom forests: the relevance of basic ecological research.

Phil. Trans. R. Soc. B, 296, 427-444.

36. HERING, T.F. 1966.

> The terricolous higher fungi of four Lake District woodlands. Trans. Br. mycol. Soc., 49, 369-383.

37. HIBBERD, J.K. & SYKES, J.M. 1973.

Root production by trees and shrubs. (abstract).

Bull. Br. ecol. Soc., 4(3), 3-4.

38. HISSETT, R. 1970.

> The bacterial population of leaf litter and soil in a deciduous woodland.

Ph.D. thesis, University of Liverpool.

39. HISSETT, R. & GRAY, T.R.G. 1973.

Bacterial populations of litter and soil in a deciduous woodland.

I. Qualitative studies.

Rev. ecol. Biol. Sol, 10, 495-508.

40. HISSETT, R. & GRAY, T.R.G. 1976.

Microsites and time changes in soil microbe ecology. In: The role of terrestrial and aquatic ecosystems in decomposition processes, edited by J.M.Anderson & A.Macfadyen, 23-39. Oxford: Blackwell Scientific.

41. HOWARD, D.M. & HOWARD, P.J.A. 1980.

Microbial decomposition of tree and shrub leaf litter. 3. Effect of species, source of litter, type of soil, and climate on litter decomposition.

Oikos, 34, 115-124.

42. HOWARD, P.J.A. 1967.

A method for studying the respiration and decomposition of litter. In: Progress in soil biology, edited by O.Graff & J.E.Satchell, 464-472.

Amsterdam: North-Holland Publishing Co.

43. HOWARD, P.J.A. 1971.

Relationships between activity of organisms and temperature and the computation of the annual respiration of microorganisms decomposing leaf litter.

Ann. Zool. Ecol. Anim., 197-205.

44. HOWARD, P.J.A. & McNEILLY, B.A. 1973.

A preliminary attempt to estimate rates of ammonification and nitrification in soil in the field. (Merlewood research and development paper no. 45).

Grange-over-Sands: Nature Convervancy.

45. HOWARD, P.J.A. & FRANKLAND, J.C. 1974.

Effects of certain full and partial sterilization treatments on leaf litter.

Soil Biol. Biochem., 6, 117-123.

46. HOWARD, P.J.A. & HOWARD, D.M. 1974.

Microbial decomposition of tree and shrub leaf litter. 1. Weight loss and chemical composition of decomposing litter. 0ikos, 25, 341-352.

47. HOWARD, P.J.A. 1975.

Factors affecting weight loss and respiration of decomposing tree and shrub litters at Meathop Wood (IBP main woodland site).

Annu. Rep. Inst. terr. Ecol. 1974, 54.

48. HOWARD, P.J.A. & HOWARD, D.M. 1979.

Microbial decomposition of leaf litter of trees and shrubs. Annu. Rep. Inst. terr. Ecol. 1978, 83-85.

49. HOWARD, P.J.A. & HOWARD, D.M. 1979.

Microbial decomposition of tree and shrub leaf litter. 2. Respiration of decomposing litter in relation to temperature and moisture.

Oikos, 33, 457-465.

50. HOWARD, P.J.A. & HOWARD, D.M. 1985.

Numerical analysis of soil physiological data. (Merlewood research and development paper no. 105). Grange-over-Sands: Institute of Terrestrial Ecology.

51. JEFFERS, J.N.R. & SYKES, J.M. 1973.

Bias in the estimation of ground flora production. (Merlewood research and development paper no. 44). Grange-over-Sands: Nature Conservancy.

52. LOWE, V.P.W. 1970.

Assessment of small mammals on the Meathop type hectare in March 1970. (Merlewood research and development paper no. 20). Grange-over-Sands: Nature Conservancy.

53. McNEILLY, B.A. & HOWARD, P.J.A. 1973.

The colorimetric determination of ammonium and nitrate in woodland soils. (Merlewood research and development paper no. 46). Grange-over-Sands: Nature Conservancy.

54. MOSSE, B. & HAYMAN, D.S. 1973.

Effects of mycorrhiza on phosphate uptake of some plant species from Meathop Wood soil. (abstract).
Bull. Br. ecol. Soc., 4(3), 6.

55. MOSSE, B. 1975.

Specificity in VA mycorrhizas. In: Endomycorrhizas, edited by F.E. Sandars, B. Mosse & P.B. Tinker, 469-484. London: Academic Press.

56. MOSSE, B. 1978.

Mycorrhiza and plant growth. In: Structure and functioning in plant populations, edited by A.H.J.Freyson & J.W.Woldendorp, 269-298.

Amsterdam: North-Holland Publishing Co.

57. O'CONNOR, F.B. 1973.

Energy flow. (abstract).

Bull. Br. ecol. Soc., 4(3), 9.

58. O'NEILL, R.V. & SATCHELL, J.E. 1973.
A dry matter production model. (abstract).

Bull. Br. ecol. Soc., 4(3), 8-9.

59. SATCHELL, J.E. & LOWE, D.G. 1967.

Selection of leaf litter by <u>Lumbricus terrestris</u>. In: Progress in soil biology, edited by O.Graff & J.E.Satchell, 102-118. Amsterdam: North-Holland Publishing Co.

60. SATCHELL, J.E., LINDLEY, D.K. & HIBBERD, J.K. 1971.

Computation of confidence limits for estimates of net primary production. In: Systems analysis in northern coniferous forests, edited by T.Rosswall, 75-82. (Bulletins from the Ecological Research Committee no. 14).

Stockholm: Swedish Natural Science Research Council.

61. SATCHELL, J.E. 1971.

Feasibility study of an energy budget for Meathop Wood. In: Productivity of forest ecosystems, edited by P.Duvigneaud, 619-630. (Ecology and conservation 4). Paris: UNESCO.

62. SATCHELL, J.E. 1975.

The Meathop Wood Project.

Annu. Rep. Inst. terr. Ecol. 1974, 62.

63. SATCHELL, J.E. 1983.

A history of Meathop Woods. Part I - pre-history. Trans. Cumb. Westm. antiq. archaeol. Soc., 83, 25-32.

64. SATCHELL, J.E. 1984.

A history of Meathop Woods. Part II - The Middle Ages to the present.

Trans. Cumb. Westm. antiq. archaeol. Soc., 84, 85-98.

65. SMITH, P.H. 1973.

Consumption by herbivores. (abstract). Bull. Br. ecol. Soc., 4(3), 4.

66. SPINK,M. 1975.

Growth and metabolism of soil fungi. Ph.D. thesis, Liverpool Polytechnic.

67. STUTTARD, R.A. 1972.

Production studies of woodland Collembola. Ph.D. thesis, Liverpool Polytechnic.

68. SWIFT, M.J., HEAL, O.W., LINDLEY, D.K. & HIBBERD, J.K. 1973.

A decomposition model. (abstract).

Bull. Br. ecol. Soc., 4(3), 8.

69. SWIFT, M.J., HEALEY, I.N., HIBBERD, J.K., SYKES, J.M., BAMPOE, V. & NESBITT, M.E. 1976.

The decomposition of branch-wood in the canopy and floor of a mixed deciduous woodland.

Oecologia, 26, 139-149. 70. SWIFT,M.J. 1978.

Growth of Stereum hirsutum during the long-term decomposition of oak branch-wood.

Soil Biol. Biochem, 10, 335-337.

71. SYKES, J.M. & BUNCE, R.G.H. 1970.

Fluctuations in litterfall in a mixed deciduous woodland over a three-year period, 1966-68.

Oikos, 21, 326-329.

72. SYKES, J.M. & BARR, C.J. 1973.

Dry weight and mineral composition estimates for 15-year-old mixed hardwood coppice in Roudsea Wood. (Merlewood research and development paper no. 50).

Grange-over-Sands: Nature Conservancy.

73. SYKES, J.M. & BUNCE, R.G.H. 1973.

Aerial dry matter production by trees and shrubs. (abstract). Bull. Br. ecol. Soc., 4(3). 3.

74. SYKES, J.M. & TAYLOR, K. 1973.

Dry matter production by ground layer vegetation. (abstract). Bull. Br. ecol. Soc., 4(3), 4.

75. SYKES, J.M. 1984.

Natural root grafts in some native British tree species. Arboric. J., 8, 67-72.

76. TAYLOR, K. 1980.

The growth of Rubus vestitus in a mixed deciduous woodland. J. Ecol., 68, 51-62.

77. TAYLOR, K. 1982.

Inorganic nutrition of Rubus vestitus in a mixed deciduous woodland.

J. Ecol., 70, 93-100.

78. THOMAS, J.O.M. 1972.

Production studies on woodland Acari, with particular reference to the Cryptostigmata (Oribatei). Ph.D. thesis, Liverpool Polytechnic.

79. WHITE, E.J. & CARLISLE, A. 1968.

The interception of rainfall by mixed deciduous woodland. Q. Jl For., 62, 310-320.

80. WHITE, E.J. 1969.

Aspects of nutrient income to the forest ecosystem and of the nutrient cycle within the forest.

M.Sc. thesis, University of Wales.

81. WHITE, E.J. & TURNER, F. 1970.

A method of estimating income of nutrients in a catch of particles by a woodland canopy.

J. appl. Ecol., 7, 441-461.

82. WHITE, E.J. 1973.

The distribution and cycling of macronutrients other than phosphorus. (abstract).
Bull. Br. ecol. Soc., 4(3), 7-8.

Cumbria: General

1. ADAMSON, J.K., ed. in press.

Cumbrian woodlands: the resource and its future. (ITE symposium). Grange-over-Sands: Institute of Terrestrial Ecology.

2. BOCOCK, K.L., MOUNTFORD, M.D. & HEATH, J. 1967.

Estimation of annual production of a millipede population. In: Secondary productivity of terrestrial ecosystems, edited by K.Petrusewicz, vol. 2, 727-739.

Warsaw: Panstwowe Wydawnictwo Naukowe.

3. BUNCE, R.G.H. 1969.

Site classification and classification of Lake District woodlands. (Merlewood research and development paper no. 9). Grange-over-Sands: Nature Conservancy.

HARRISON, A.F. 1975.

Estimation of readily-available phosphate in some English Lake District woodland soils Oikos, 26, 170-176.

5. HARRISON, A.F. 1975.

Phosphorus availability and rate of organic phosphorus mineralization in Lake District woodland soils.

Annu. Rep. Inst. terr. Ecol. 1974, 52-53.

6. HARRISON, A.F. 1977.

Seasonal patterns of soil phosphatase activity. Annu. Rep. Inst. terr. Ecol. 1976, 36.

7. HARRISON, A.F. & PEARCE, T. 1979.

Seasonal variation of phosphatase activity in woodland soils. Soil Biol. Biochem., 11, 405-410.

8. HARRISON, A.F. 1979.

Variation of four phosphorus properties in woodland soils. Soil Biol. Biochem., 11, 393-403.

9. HARRISON, A.F. & BOCOCK, K.L. 1981.

Estimation of soil bulk-density from loss-on-ignition values.

J. appl. Ecol., 18, 919-927.

10. HARRISON, A.F. 1981.

Phosphorus in woodland soils.

Annu. Rep. Inst. terr. Ecol. 1980, 36-43.

11. HARRISON, A.F. 1982.

³²P-method to compare rates of mineralization of labile organic phosphorus in woodland soils. Soil Biol. Biochem., 14, 337-341.

12. HARRISON, A.F. 1982.

Labile organic phosphorus mineralization in relationship to soil properties.

Soil Biol. Biochem., 14, 343-351.

13. HARRISON, A.F. 1983.

Relationship between intensity of phosphatase activity and physico-chemical properties in woodland soils. Soil Biol. Biochem., 15, 93-99.

14. HELLIWELL, D.R. 1973.

A comparative study of wooded and non-wooded land in a part of the English Lake District.

(Merlewood research and development paper no. 39).

Grange-over-Sands: Nature Conservancy.

15. HOWARD, P.J.A. & BENEFIELD, C.B. 1970.

Selection of characters for the classification of soil humus
types. (Merlewood research and development paper no. 21).

Grange-over-Sands: Nature Conservancy.

16. HOWARD, P.J.A. & HOWARD, D.M. 1985. Numerical analysis of soil physiological data. (Merlewood research and development paper no. 105). Grange-over-Sands: Institute of Terrestrial Ecology.

Bogle Crag Wood (SD 338932)

- ALLEN, S.E., CARLISLE, A., WHITE, E.J. & EVANS, C.C. 1968.
 The plant nutrient content of rainwater.
 J. Ecol., 56, 497-504.
- BROWN, A.H.F. 1974.
 Nutrient cycles in oakwood ecosystems in NW England. In: The British oak, edited by M.G.Morris & F.H.Perring, 141-161.
 Faringdon: Classev.
- 3. CARLISLE, A. 1965.

 Carbohydrates in the precipitation beneath a sessile oak Quercus petraea (Mattushka) Liebl. canopy.

 Pl. Soil, 22, 399-400.
- 4. CARLISLE, A., BROWN, A.H.F. & WHITE, E.J. 1965.

 The interception of precipitation by oak (Quercus petraea) on a high rainfall site.

 Q. J1 For., 59, 140-143.
- 5. CARLISLE, A., BROWN, A.H.F. & WHITE, E.J. 1966.

 Litterfall, leaf production and the effects of defoliation by

 Tortrix viridana in a sessile oak (Quercus petraea) woodland.

 J. Ecol., 54, 65-85.
- 6. CARLISLE, A., BROWN, A.H.F. & WHITE, E.J. 1966.

 The organic matter and nutrient elements in the precipitation beneath a sessile oak (Quercus petraea) canopy.

 J. Ecol., 54, 87-98.
- 7. CARLISLE, A., BROWN, A.H.F. & WHITE, E.J. 1967.

 The nutrient content of rainfall and its role in the forest nutrient cycle. In: Proc. 14th Congr. IUFRO, vol. 2, 145-158.
- 8. CARLISLE, A., BROWN, A.H.F. & WHITE, E.J. 1967.

 The nutrient content of tree stem flow and ground flora litter and leachates in a sessile oak (Quercus petraea) woodland.

 J. Ecol., 55, 615-627.
- 9. CARLISLE, A., BROWN, A.H.F. & WHITE, E.J. 1968.

 Nutrient cycles in a semi-natural oak Quercus petraea woodland in a high rainfall area in north western Britain. In: Proc. 6th World Forestry Congr., vol. 2, 2457-2461.
- 10. HERING, T.F. 1965.

 Succession of fungi in the litter of a Lake District cakwood.

 Trans. Br. mycol. Soc., 48, 391-408.
- 11. HERING, T.F. 1966.

 The terricolous higher fungi of four Lake District woodlands.

 Trans. Br. mycol. Soc., 49, 369-383.
- 12. HERING, T.F. 1967.

 Fungal decomposition of oak leaf litter.

 Trans. Br. mycol. Soc., 50, 267-273.

13. HOWARD, P.J.A. 1967.

A method for studying the respiration and decomposition of litter. In: Progress in soil biology, edited by O.Graff & J.E.Satchell, 464-472.

Amsterdam: North-Holland Publishing Co.

Bowland Forest (SD 750585)

1. BROWN, A.H.F. 1978.

The Gisburn experiment: effects of different tree species on the activity of soil microbes.

Annu. Rep. Inst. terr. Ecol. 1977, 41-42.

BROWN, A.H.F. 1982.

The effects of tree species, planted pure and in mixtures, on vegetation and soil at Gisburn.

Annu. Rep. Inst. terr. Ecol. 1981, 74-75.

3. BROWN, A.H.F. & HARRISON, A.F. 1983.

Effects of tree mixtures on earthworm populations and nitrogen and phosphorus status in Norway spruce (Picea abies) stands. In: New trends in soil biology, edited by P.Lebrun, H.M.Andre, A.de Medts, C.Gregoire-Wibo & G.Wauthy, 101-108.

Ottignies-Louvain-la-Neuve: Dieu-Brichart.

CHAPMAN, K. 1986.

Interactions between tree species: decomposition and nutrient release from litters.

Ph.D. thesis, Lancaster University.

5. CHRISTENSEN, B.T. 1982.

The effect of afforestation on carbon and nitrogen in the soil at Gisburn: a pilot-study.

(Merlewood research and development paper no. 89).

Grange-over-Sands: Institute of Terrestrial Ecology.

6. CHRISTENSEN, B.T. 1982.

The effect of afforestation with Sitka spruce on soil carbon dynamics at Gisburn: a simple model study. (Merlewood research and development paper no. 90).

Grange-over-Sands: Institute of Terrestrial Ecology.

7. HARRISON, A.F., DIGHTON, J. & BROWN, A.H.F. 1982.

Application of the P-deficiency bioassay to trees. Annu. Rep. Inst. terr. Ecol. 1981, 84-85.

8. HILL, M.O., LATTER, P.M. & BANCROFT, G. 1985.

A standard curve for inter-site comparison of cellulose degradation using the cotton strip method.

Can. J. Soil Sci., 65, 609-619.

9. HOWSON, G. & BROWN, A.H.F. 1980.

Effects of different tree species on soil at Gisburn.

Annu. Rep. Inst. terr. Ecol. 1979, 107-108.

10. OGDEN, J.M. 1985.

Does afforestation with Sitka spruce affect soil organic matter? Annu. Rep. Inst. terr. Ecol. 1984, 131.

11. OGDEN, J.M. 1986.

Some effects of afforestation on soil organic matter. Ph.D. thesis, Stirling University.

Brigsteer Woods (SD 487880)

1. SATCHELL, J.E. 1967.

Colour dimorphism in Allolobophora chlorotica Sav. (Lumbricidae). J. Anim. Ecol., 36, 623-630.

Eggerslack Wood (SD 408796)

1. BOCOCK, K.L., HEATH, J. & BLOWER, J.G. 1973. Some observations on the biology of the millipede Geoglomeris jurassica Verhoeff, 1915. J. nat. Hist., 7, 691-697.

HEATH, J., BOCOCK, K.L. & MOUNTFORD, M.D. 1974. The life history of the millipede Glomeris marginata (Villers) in north-west England. In: Myriapoda, edited by J.G.Blower, 433-462. (Symposia of the Zoological Society of London no. 32) London: Academic Press.

KALMUS, H., SATCHELL, J.E. & BOWEN, J.C. 1955. On the colour forms of Allolobophora chlorotica Sav. Lumbricidae. Annu. Mag. nat. Hist., 8, 795-800.

SATCHELL, J.E. 1967.

Colour dimorphism in Allolobophora chlorotica Sav. (Lumbricidae). J. Anim. Ecol., 36, $6\overline{23-630}$.

Elterwater Alder Wood (NY 335043)

HOWARD, P.J.A. 1966. The carbon-organic matter factor in various soil types. Oikos, 15, 229-236.

Grizedale Forest (SD 342918; SD 335907; SD 346943; SD 329929)

CARLISLE, A. & BROWN, A.H.F. 1967. The estimation of mean timber and bark densities of entire oak stems from samples taken near the base of standing trees. Q. J1 For., 61, 294-297.

FRANKLAND, J.C., OVINGTON, J.D. & MACRAE, C. 1963. 2. Spatial and seasonal variations in soil, litter and ground vegetation in some Lake District woodlands. J. Ecol., 51, 97-112.

HERING, T.F. 1963. 3.

Growth of litter fungi in a forest soil. In: Soil organisms, edited by J.Doeksen & J.van der Drift, 183-189. Amsterdam: North-Holland Publishing Co.

NEWELL, K. 1979.

Fauna/mycoflora relationships.

Annu. Rep. Inst. terr. Ecol. 1978, 85.

NEWELL, K. 1980.

The effect of grazing by litter arthropods on the fungal colonization of leaf litter. Ph.D. thesis, University of Lancaster.

NEWELL, K. & HEAL, O.W. 1982.

Stump decomposition.

Annu. Rep. Inst. terr. Ecol. 1981, 85-86.

NEWELL, K. 1984.

Interaction between two decomposer basidiomycetes and a collembolan under Sitka spruce: distribution, abundance and selective grazing. Soil Biol. Biochem., 16, 227-233.

8. NEWELL, K. 1984.

Interaction between two decomposer basidiomycetes and a collembolan under Sitka spruce: grazing and its potential effects on fungal distribution and litter decomposition. Soil Biol. Biochem., 16, 235-239.

Heaning Wood (SD 398805)

1. BOCOCK, K.L. & HEATH, J. 1967.

Feeding activity of the millipede <u>Glomeris marginata</u> (Villers) in relation to its vertical distribution in the soil. In: Progress in soil biology, edited by O.Graff & J.E.Satchell, 233-240. Amsterdam: North-Holland Publishing Co.

2. BOCOCK, K.L., HEATH, J. & BLOWER, J.G. 1973.

Some observations on the biology of the millipede Glomeris jurassica Verhoeff, 1915.

J. nat. Hist., 7, 691-697.

3. HEATH, J., BOCOCK, K.L. & MOUNTFORD, M.D. 1974.

The life history of the millipede Glomeris marginata (Villers) in north-west England. In: Myriapoda, edited by J.G.Blower, 433-462. (Symposia of the Zoological Society of London no. 32).

London: Academic Press.

4. HERING, T.F. 1966.

The terricolous higher fungi of four Lake District woodlands. Trans. Br. mycol. Soc., 49, 369-383.

5. LAKHANI, K.H. & SATCHELL, J.E. 1970.

Production by Lumbricus terrestris (L.)

J. Anim. Ecol., 39, 473-492.

Humphrey Head Wood (SD 392741)

1. HOWARD, P.J.A. 1966.

The carbon-organic matter factor in various soil types. Oikos, 15, 229-236.

2. KALMUS, H., SATCHELL, J.E. & BOWEN, J.C. 1955.

On the colour forms of Allolobophora chlorotica Sav. Lumbricidae. Ann. Mag. nat. Hist., 8, 795-800.

3. SATCHELL, J.E. 1967.

Colour dimorphism in Allolobophora chlorotica Sav. Lumbricidae. J. Anim. Ecol., 36, 623-630.

Kershope Forest (NY 492790)

HORNUNG, M., ADAMSON, J.K., REYNOLDS, B. & STEVENS, P.A. 1986.
 Influence of mineral weathering and catchment hydrology on drainage water chemistry in three upland sites in England and Wales.
 J. geol. Soc., 143, 627-634.

Larkrigg Spring (SD 514878)

1. LAKHANI, K.H. & SATCHELL, J.E. 1970.

Production by Lumbricus terrestris (L.)

J. Anim. Ecol., 39, 473-492.

Lawns Wood (SD 433858)

1. TONKIN, J.M. 1983.

Activity patterns of the red squirrel (Sciurus vulgaris). Mammal Rev., 13, 99-111.

2. TONKIN, J.M. 1983.

Ecology of the red squirrel (Sciurus vulgaris L.) in mixed woodland.

Ph.D. thesis, University of Bradford.

Low Fell Wood (SD 420908)

1. McNEILLY, B.A. & HOWARD, P.J.A. 1973.

The colorimetric determination of ammonium and nitrate in woodland soils. (Merlewood research and development paper no. 46).

Grange-over-Sands: Nature Conservancy.

Merlewood (SD 409796)

1. ALLEN, S.E., CARLISLE, A., WHITE, E.J. & EVANS, C.C. 1968.
The plant nutrient content of rainwater.
J. Ecol., 56, 497-504.

2. BOCOCK, K.L. & HEATH, J. 1967.

Feeding activity of the millipede Glomeris marginata (Villers) in relation to its vertical distribution in the soil. In: Progress in soil biology, edited by O.Graff & J.E.Satchell, 233-240.

Amsterdam: North-Holland Publishing Co.

3. FRANKLAND, J.C., OVINGTON, J.D. & MACRAE, C. 1963.

Spatial and seasonal variations in soil, litter and ground vegetation in some Lake District woodlands.

J. Ecol., 51, 97-112.

4. NICHOLSON, P.B., BOCOCK, K.L. & HEAL, O.W. 1966.

Studies on the decomposition of the faecal pellets of a millipede (Glomeris marginata (Villers)).

J. Ecol., 54, 755-766.

Merlewood Lodge Wood (SD 412794)

1. LAKHANI, K.H. & SATCHELL, J.E. 1970.

Production by Lumbricus terrestris (L.).

J. Anim. Ecol., 39, 473-492.

2. SATCHELL, J.E. 1963.

Nitrogen turnover by a woodland population of <u>Lumbricus terrestris</u>. In: Soil organisms, edited by J.Doeksen & J.van der Drift, 60-66. Amsterdam: North Holland Publishing Co.

Old Park Wood (SD 338780)

1. KALMUS, H., SATCHELL, J.E. & BOWEN, J.C. 1955.
On the colour forms of Allolobophora chlorotica Sav. Lumbricidae.
Ann. Mag. Nat. Hist., 8, 795-800.

2. SATCHELL, J.E. 1967.

Colour dimorphism in Allolobophora chlorot

Colour dimorphism in Allolobophora chlorotica Sav. (Lumbricidae). J. Anim. Ecol., 36, 623-630.

Sea Wood (SD 294735)

1. HOWARD, P.J.A. 1966.

The carbon-organic matter factor in various soil types. Oikos, 15, 229-236.

Staveley Plantation (SD 386864)

1. BRIDSON, J.N. 1985.

Lipid fraction in forest litter: early stages of decomposition. Soil Biol. Biochem., 17, 285-290.

Stone Chest Plantation (NY 480790)

1. BOCOCK, K.L., BAILEY, A.D. & HORNUNG, M. 1982.

Variation in soil temperature with microrelief and soil depth in a newly-planted forest.

J. Soil Sci., 33, 55-62.

2. SYKES, J.M. & LOWE, V.P.W. 1978.

Monitoring changes in plants and animals at Stone Chest, Cumbria. Annu. Rep. Inst. terr. Ecol. 1977. 30-31.

3. SYKES, J.M., LOWE, V.P.W. & BRIGGS, D.R. 1985.

Changes in plants and animals in the first 10 years after upland afforestation.

Annu. Rep. Inst. terr. Ecol. 1984, 16-21.

Three Birks Wood (SD 379928)

1. HERING, T.F. 1966.

The terricolous higher fungi of four Lake District woodlands. Trans. Br. mycol. Soc., 49, 369-383.

Wintering Park (SD 366868)

HARRISON, A.F. & HARKNESS, D.D. 1976.
 Mean residence times of organic matter in woodland soils.
 Annu. Rep. Inst. terr. Ecol. 1975, 47-48.

Witherslack Woods (SD 4385)

1. SATCHELL, J.E. 1967.

Colour dimorphism in Allolobophora chlorotica Sav. (Lumbricidae). J. Anim. Ecol., 36, 623-630.

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