



Female Catkins of European Aspen (*Populus tremula* L.). Aspen flowers infrequently in Scotland. This study is one of the currently funded projects.
(Photograph by R. Worrell)

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THE SCOTTISH FORESTRY TRUST



ANNUAL REPORT 1997-98

SELECTED ITEMS FROM THIS YEAR'S REPORT



Total cumulative and committed expenditure on projects by the Trust has now exceeded £1 million



Procedures for identifying, assessing and monitoring projects have been reviewed and updated



The John Eadie Memorial Fellowship has been established



The current portfolio of projects continues the high quality standards and range of forestry subjects expected of the Trust



There was a net surplus of income/expenditure for the year of almost £12,000



The Business Plan has set annual administration costs including professional fees at less than 2% and annual project funding at 4% of market value of the investment portfolio



The market value of the investment portfolio at 31st March 1998 was £2,777,854

THE SCOTTISH FORESTRY TRUST

ANNUAL REPORT 1997-98

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THE SCOTTISH FORESTRY TRUST AND ITS OBJECTIVES

The Scottish Forestry Trust is a charitable trust which was established in 1983 to promote education, training and research in forestry and silviculture.

The Trustees have determined that, for the time being, the Trust's major contribution should be towards funding research projects, although, as opportunities arise, educational and training projects are also supported. A small proportion of the budget is set aside for publications and travel.

The Trust's primary objective is to support private sector forestry by contributing to the scientific, technical and economic information it requires to enable it to develop its role in UK forestry. Forestry is defined as the forestry industry as a whole, including its contribution to landscape, recreation, wildlife and the environment.

Projects in all of the sciences which bear upon forestry are supported by the Trust. High priority is given to proposals which address industry needs related to policy formation and execution, and to broad management questions. In general terms preference is given to studies of a more applied nature where the benefits are more immediately available to the industry. Notwithstanding that, fundamental work, whose potential to resolve outstanding problems, or reveal new opportunities and possibilities is thought to be high, is also supported.

TRUSTEES 1997-98

Chairman

Sir D W N Landale KCVO
A F Bloomfield OBE
J R Firn*
A N G Laing*
Dr D C Malcolm OBE**
W L Mason*
Dr J A Petty *
N D H Sanders
Sir F M Strang Steel Bt

* Member of Projects and Research Committee

**Chairman, Projects and Research Committee

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A business plan is being prepared for the Trust and the Trustees agreed to relate the budgets for administration and project expenditure to the market value of the investment portfolio. In recent years the capital value of the portfolio has increased significantly while the income in terms of dividends and interest has remained relatively constant. The Trustees agreed that the expenditure on projects should be increased to 4% of the market value of the investment portfolio, i.e. 4% of £2.5 million is £100,000. In recent years the annual project expenditure has been about £75,000. 2% has been budgeted for administration, including all professional fees. Allowing for inflation at about 3.5% and continued economic growth, the capital value of the portfolio is expected to increase by at least 2 to 3% annually. Other aspects of the business plan have still to be finalised, but it was agreed to raise the profile of the Trust by publicising its achievements and taking an even more active part in forestry research in this country.

Sir David Landale KCVO

TRUSTEES' REPORT

The objectives of the Scottish Forestry Trust are to support research, education, and training in forestry and are detailed earlier in this report. These objectives are contained in the Deed which established the Charitable Trust Fund and registered the Scottish Forestry Trust in the Books of the Lords of Council and Session in Edinburgh on 9th June 1983. There have been no material changes in the policies since its establishment.

The "Projects Summary" provides a comprehensive list and brief summary statement of the main projects funded since the Trust was established. Availability of the final reports submitted to the Trust are indicated.

The Trustees during the year were:-

Sir D W N Landale KCVO
A F Bloomfield OBE
J R Firn
A N G Laing
Dr D C Malcolm OBE
W L Mason
Dr J A Petty
N D H Sanders
Sir F M Strang Steel Bt

The address of the Trust is
5 Dublin Street Lane South
Edinburgh, EH1 3PX.

The Board of Trustees has the sole power to make decisions for the Trust. Trustees are appointed for their experience, expertise and objectivity and cognisance is taken of maintaining a good balance of appropriate skills in the Board. A legal adviser regularly attends the full meetings, held three times per year, of the Trustees. The Director is responsible directly to the Chairman for the day to day organisation and management of the Trust's business. A professional investment management company, Stewart Ivory & Co. Ltd, advises the Trustees on its investment portfolio. The accounts are audited annually.

Trustees give freely of their time. In the case of the Chairman and members of the Projects and Research Committee, this for each person is in excess of 10 days per year, whereas other Trustees will spend approximately five days on Trust business.

A statement of Trustees' responsibilities for financial statements is presented in the page preceding the full audited set of accounts. The auditor's observe that the financial statements give a true and fair account of the Trust's affairs at 31 March 1998 and of its surplus for that year. The financial statements prepared comply with the requirements of the Trust Deed and the Charities Accounts (Scotland) Regulations 1992.

Review of Project Portfolio

Projects completed during the year and the current portfolio of projects continue to demonstrate the diverse range of research, educational and training projects that the Trust has supported since its establishment.

Research has been supported to understand better how irregular forest canopies may provide forests, which are more windfirm. The increasing interest in greater diversity in our British forests is also reflected in the projects completed on the effect of species mixtures on log quality and the project on ecological site classification. The latter, which provides a quantitative framework for matching site conditions to species requirements, involved examining the relationship between ground flora and soil nutrient status. As mentioned in the Chairman's Report the Trust was one of the main contributors to a study which compared costs and revenue from forestry and agriculture in Grampian region. The Trust also provided support in supplying home-grown timber for a British Building Establishment/TRADA Project to build and test a six-storey all timber framed building. The Tree Trunk Project, supported by the Trust, was a successful pilot trial in providing educational material on trees, woodlands and their flora and fauna for schools and adult groups. As part of the educational and training portfolio, the Trust supported Miss J. Dunne to accompany a group of senior foresters on a visit to Lower Saxony and the Netherlands to look at Heathland Forests.

Current projects include a study on the effect of bark stripping by deer on log quality and effects of harvesting machinery on soil properties.

The Trust is supporting the publication of a book by Dr Mutch that is primarily aimed at non-professional forestry persons who are interested in forestry. Farmers and conservationists especially are expected to find this book very useful. The establishment of the John Eadie Memorial Fellowship has already been commented upon in the Chairman's Report and further details are included in the section "Current Projects".

Financial Review

The Accounts for the year show an income of almost £106,000 with direct charitable expenditure at £42,167. Management and administration costs were £52,014 compared with £48,009 the previous year. The increase this year was accounted for in increased charges for professional services, accounting, legal and investment management. However for the year there was a net surplus of income/expenditure of almost £12,000 due to a significant underspend of the projects budget. One major project that was to be supported did not proceed and others for various reasons were delayed. The Trustees agreed that this year's underspending of almost £50,000 in the projects budget should be added to that budget for the next year.

Net gains on investments totalled £360,531 compared with £108,000 the previous year due to a more buoyant investment portfolio this year. The Trust has a single General Fund and the Trustees are empowered to use it for any purposes of the Trust or to accumulate revenue, although the rules require that the capital is not so depleted that the Trust cannot act properly as a charitable organisation. Net assets of the Trust at 31 March 1998 were £2,777,854 – an increase of more than 15% on the previous year.

Commitments for grant aid for the next twelve months are £100,841 with a budget of £150,000. It is anticipated that this will result in a deficit of about £100,000 in the income/expenditure balance.

The Trust derives the vast majority of its income from its sizeable investment portfolio. This portfolio is actively managed by the Investment Managers under a Discretionary Fund Management Agreement, with a view to ensuring a reasonably consistent level of income to the Trust to allow it to carry out its charitable activities. During the year the Trustees in preparing a business plan agreed that expenditure on projects should be increased to 4% of the market value

of the investment portfolio, i.e. 4% of £2.5 million (conservative current value) is £100,000. Administration costs including accounting, legal and investment management fees have been budgeted at less than 2% of the market value of the investment portfolio, i.e. £50,000. Even with this increased expenditure on projects, the capital fund of the Trust is expected to continue to increase, taking inflation into account, although not at the rate of recent years.

Signed on behalf of the Board of Trustees.

D W N LANDALE

5 August 1998

Date

PROJECTS SUMMARY

CURRENT PROJECTS

1. John Eadie Memorial Fellowship

During the year the Trustees decided to establish a fellowship in memory of the previous Director of the Trust who died last year. The aim of the fellowship is the betterment of British forestry by making use of expertise not readily available here. Applicants of high professional standing, enthusiasm and ability to communicate their knowledge and expertise were sought. An emolument of £5000 with an additional £1000 for travel in Britain is being provided for a tenure of three months. The first John Eadie Fellow is expected to take up her/his appointment in the summer of 1998.

2. Damping Off Pathogens in Natural Regeneration of Scots Pine (Department of Forestry, University of Aberdeen)

The objectives of this research are to understand the role of Damping-off pathogens, *Pythium*, *Phytophthora*, *Rhizoctonia solani*, on natural regeneration of Scots pine and to compare the susceptibility of different native Scots pine provenances. The funding sought from the Trust will be used for DNA fingerprinting to develop molecular probes for these *Oomycete* and *Basidiomycete* pathogens. These probes will allow the identification of the fungal material at the species and subspecies levels. Fifty five fungi have been isolated from areas of naturally regenerating Scots pine and selective media utilising fungicides have been used to identify provisionally the individual species of fungi isolated.

3. Book "Tall Trees and Small Woods" (Dr W E S Mutch)

This book will help to provide a better understanding of the establishment, silviculture, and value of woods and their ecosystems as well as the marketing of wood. This book addresses the need for more

accessible information and better understanding of woodland management for people who are not fully familiar with all the technical aspects of forestry. Publication is anticipated in May, 1998.

4. Flowering and Seed Production of Aspen in Scotland (*Dr R Worrell*)

Aspen flowers infrequently in Scotland, however in 1996 aspen flowered and set seed profusely. This provided the opportunity to investigate flowering, pollen viability, seed production and seed viability. A paper on this study is being prepared and will be submitted to *Forestry* for publication.

5. Effect of Harvesting Machinery on Soil Physical Properties (*Institute of Environment & Natural Sciences, Lancaster University*).

The objective of this study is to establish the degree and nature of disturbance caused by harvesting on soil physical and hydrological properties and to provide recommendations for incorporation in Soil Conservation Guidelines. A thorough review of the literature has been completed and potential sites inspected. Progress is being made in defining potential cause-effect relationships, identifying a representative sample population and evolving a suitable experimental approach.

6. Timber Degrade Caused to Sitka Spruce by Bark Stripping from Red Deer (*Institute of Terrestrial Ecology, Banchory*).

This study is investigating the effects of bark stripping by red deer on timber quality and economic value of stands of Sitka spruce. Nine stands in Glenbranter Forest, currently 28-39 years old, have been monitored for damage since 1978, and the growth and mortality of the trees recorded. An experienced timber valuer has inspected the stands and estimated a deduction in value due to bark stripping. Sample wounded and non-wounded trees have been felled, sawed and graded and assessed for discoloration and stain damage. Strength tests have still to be completed.

PROJECTS COMPLETED IN THE CURRENT YEAR

1. An Investigation into the Stability of Irregular Forests Using a Wind Tunnel. (*Northern Research Station, Forest Research and Oxford University*).

Increasing interest in more sophisticated silvicultural systems that produce irregular forests has raised questions on their wind stability compared to uniform forest canopies. This study used a wind tunnel and scaled trees and mathematical modelling. Field investigations to answer this question are impractical, expensive and it would be difficult to identify suitable and comparable experimental sites. Results of the comparison of group and uniform forests indicate that the former may offer greater stability than uniform canopies, but these results are being subjected to more detailed and complete analysis as part of a PhD study. An unpublished report is available.

2. The Potential for Extending Forest Cover in Grampian. (*Forestry Industry Council of Great Britain*).

The Grampian Region was selected as an ideal test area to design an analytical framework to indicate the location and extent of economic pressures for new planting, and the types of forest likely to be created, taking due account of social and environmental factors. Since any significant areas of land for new forests must come from agriculture, the analysis looked at the economics of land under farming compared to forestry based on classifications of land which reflected its capability for crops and trees. The study included different scenarios of grants and subsidies and labour options, i.e. contractor v farmer. A report is available from the Trust priced £5.50.

3. Ecological Site Classification for British Woodlands. (*Northern Research Station, Forest Research and Institute of Ecology and Resource Management, University of Edinburgh*).

This project forms part of the continuing development of an Ecological Site Classification (ESC) for forestry in Britain. A programme of simultaneous sampling for soil chemistry, humus type and ground vegetation species composition was carried out at 70 forest sites throughout mainland Britain. The intention was to derive a quantified definition of soil nutrient regime and to demonstrate that both ground vegetation species composition and humus type could aid its assessment in the field. pH and nitrate-nitrogen availability emerged as the most important components of the soil nutrient regime. Most other nutrients were positively correlated with these. A single composite gradient of soil nutrient regime, incorporating all parameters, was defined. Humus type was also found to be related to site position on this gradient. Both vegetation species composition and humus type were thus shown to be effective for the field assessment of soil nutrient regime as defined. Several papers are being prepared for publication. A short unpublished report is available from the Trust.

4. The Effect of Nursing Mixtures on Stem Form, Crown Size and Wood Quality of Sitka Spruce. (*Department of Forestry, University of Aberdeen*).

In this study the effects of larch and pine nurse species on the growth, stem form, branching habit and wood properties of Sitka spruce were examined. These characteristics were investigated at Strathly and Drumtochty Forests and a separate study at Fetteresso Forest considered the added effect of cultivation and fertiliser applications on Sitka spruce being nursed with Scots pine. Both hybrid and Japanese larch promoted a high rate of growth in Sitka spruce that was equal or greater than that of the annually fertilised pure spruce. By comparison lodgepole pine promoted relatively slow, but even growth in the spruce, throughout the life of the stand. Larch was associated with the development of larger branches and more foliage on spruce during the period immediately after canopy closure in comparison with spruce nursed by lodgepole pine. Overall this study suggested that the use of larch is inadvisable as a

nursing species. Lodgepole pine is better able to control growth and branching habit in Sitka spruce, particularly during the critical period immediately following canopy closure with the prospect of better quality sawlogs. A copy of the final report is available from the Trust.

5. Tree Trunk Educational Resources. (*Forestry Authority*).

The Tree Trunk project provided a wide range of information related to community woodlands, multi-purpose forests, native woodlands and uses of timber. The target audiences were formal education groups and environmental groups. The Trust provided financial assistance to support a pilot trial in four regions in Scotland. A positive feedback was reported and good suggestions were made on improvements and possible further developments

6. Timber Frame 2000. (*Building Research Establishment and TRADA Technology*).

The Trust provided financial support to supply home grown softwood to construct and test a six storey timber frame building. This has been constructed in a large airship hangar at Cardington to allow a range of tests to be carried out. Three-quarters of all multi-storey buildings in Britain are up to six storeys. This project is collecting detailed performance data for national buildings regulations and demonstrating technical aspects to architects and the construction industry.

7. Silvicultural Systems of Lower Saxony and the Netherlands. (*Ms J. Dunne*).

The recipient of this award accompanied a group of senior foresters looking at silvicultural systems and techniques employed in Germany and the Netherlands to transform 19th century pine plantations on heathland soils to more diverse forests. The development of continuous cover forests on single tree selections was shown to have many benefits to the forester, the environmentalist and the public, however at the local level there can be difficulties due to soil quality, native species requirements, outside pressures from public and costs. Transformation

of forests to continuous cover management was seen to be a lengthy process, during which time all the benefits will not occur. A paper on the visit is being prepared for publication in a forestry journal.

PREVIOUSLY COMPLETED WORK

1. Fungal Spoilage of Kiln Dried Sitka Spruce at Scottish Sawmills [1997] (*Department of Forestry, University of Aberdeen*).

British sawmills started investing in kiln drying of softwoods in the late 1980s and this was encouraged with the implementation of BS4973 which required a moisture content of 20% or less which could not be reliably achieved in air drying. However kiln dried spruce timber frequently showed a disfiguring sapwood stain, caused by the pigmented sporulating structures of the fungus *Ophiostoma piceae*. The study examined the conditions favouring development of the black stain fungus and has highlighted some improvements in procedures. The results are contained in a PhD thesis at the University of Aberdeen and several papers for publication in refereed forestry journals are being prepared. A short report is available from the Trust.

2. Availability Forecast for the Principal British Hardwoods [1997] (*Timber Growers Association*).

The aim of the predominantly desk-based project was to prepare a 20-year availability forecast for the principal British hardwoods. The report summarises the hardwood resource by region and by species for woodland and non-woodland trees. It was decided that no meaningful and reliable production forecasts by 5 or 10 year periods could be produced for the next 20 years on the information available as broadleaves are subject to widely different management objectives. This report has emphasised the gap in information on the quality of the broadleaved resource and the roundwood produced. Copies of the report are available from the Trust priced £5.50

3. Cashel - Forestry for a Thousand Years [1997] (*Royal Scottish Forestry Society Forest Trust*).

The Scottish Forestry Trust made a single payment of £35,000 to the Royal Scottish Forestry Society Forest Trust for its project to establish a native woodland on the eastern shore of Loch Lomond. This project has been largely funded through the Millennium Forest for Scotland Trust and is expected to attract considerable attention as access, recreation, education and conservation will be the benefits produced against a background of demonstration of the very best of forestry practices.

4. Tolerance of Scots Pine to Low Root Temperatures [1996]. (*Northern Research Station, Forestry Commission*)

In regenerating native pinewoods by planting, frost damage to roots can be a problem. Differences between provenances (four native, a current commercial seed identity and a Swedish seed origin) were observed. No differences in tolerance to waterlogging of native provenances were detected. There were however substantial differences observed in the basic morphological and physiological attributes between the origins. The main results are being published in forestry journals and a report is available from the Trust.

5. Socio-Economic Factors Influencing the Decision to Market Timber in the Private Sector [1996]. (*John Clegg & Co, and Firn, Crichton Roberts Ltd*).

This study was part of a multi-sponsored marketing project *A Strategic Review of Private Sector Roundwood Marketing in Britain*. A sample database of 774 private sector woodland owners was established using questionnaires followed by personal interviews of 133. Main conclusion was that woodland owners could benefit from being more fully supported in technical and marketing skills. Improvements in marketing structures and services are likely to encourage greater quantities of timber onto the market. A report is available from the Trust.

6. Conservation of Scottish Forestry Soil [1996]. (*Institute of Freshwater Ecology. Natural Environment Research Council*).

Fourteen soil types grouped within the peat and mineral soil categories were identified as potentially susceptible to erosion if cultivation and drainage are required prior to afforestation. Organic content is the single most important factor controlling the degree of resistance to mineral soil erosion. This study has helped in understanding the mechanics of erodibility of forest soils and in underpinning the theoretical basis of the Forests and Water Guidelines. A report is available from the Trust.

7. Habitat and Diet of Capercaillie in a Commercial Plantation in Central Scotland [1995]. (*Institute of Terrestrial Ecology, Natural Environment Research Council, Banchory*).

A study which examined the role of Sitka spruce in the diet of Capercaillie living in woodland where half of the woodland is Sitka spruce with larch. A report is available from the Trust.

8. Control of Variation in Density in Sitka Spruce [1995]. (*School of Agricultural and Forest Sciences, University of Wales, Bangor*).

A study aimed at understanding the underlying causes of variation in wood density with particular reference to the silvicultural control of critical strength properties. A report is available from the Trust.

9. The Future Location of Forestry in England and Wales, with Especial Attention to the Transfer of Lowland Agricultural Land [1995]. (*Forestry Industry Council of Great Britain*).

The work describes a system developed to identify, at a national level, the extent, location and type of land likely to be available for profitable transfer from farming to forestry. A report entitled "The Potential for Extending Forest Cover in the Lowlands of England and Wales" is available from FICGB.

10. An Investigation into the Influence of Site Quality on the Productivity of a Range of Major Tree Species [1994]. (*Macaulay Land Use Research Institute and Forestry Commission Research Division*).

A report which examines the productivity of Douglas fir, Japanese larch and Scots pine on better quality sites. Site/yield models allowing the prediction of General Yield Class are presented. A report is available from the Trust.

11. Net Carbon Dioxide Uptake of Scottish Forests [1994]. (*Institute of Ecology and Resource Management, University of Edinburgh*).

The study describes the development and testing of a system for the measurement of carbon dioxide exchange by forest stands. The development is a response to the need to predict how forestry's contribution to the removal of atmospheric carbon will change as the UK's forests mature. A report is available from the Trust.

12. Molecular Methods for the Detection and Identification of *Heterobasidion annosum* [1993]. (*University of Abertay, Dundee*).

A study of immunology methods in live trees and harvested wood. A report summarising the progress made is available from the Trust.

13. Private Forestry Policy in Western Europe [1993]. (*Author: A J Grayson*).

The implementation of policy and the role of financial incentives in Britain, Western Europe and some other countries including Australia and Russia is discussed against the background of descriptions of the historical and social context of forestry, its legislative, policy and administrative framework, and the taxation and grants regimes employed in the individual countries.

Copies of the book are available from the publisher, CAB International, Wallingford, Oxon, OX10 8DE.

- 14. The Development of a Transformation from Uniform Plantations to an Irregularly Structured Forest [1992].** (*Institute of Ecology and Resource Management, University of Edinburgh*).

An enumeration survey 40 years into a 60-year transformation from uniform plantations to an all-aged forest of mixed species on an upland site at Glentress in the Tweed Valley. A report is available.

- 15. The Mechanism of Increased Nitrogen Uptake by Spruce in Mixed Species Stands [1992].** (*Department of Plant and Soil Science, University of Aberdeen*).

A study of the mechanisms by which the "extra" nitrogen which results in improved growth of spruce when grown in mixture with Scots pine, lodgepole pine or larch on poor peats and heathlands becomes available. A report is available.

- 16. "Shake" in Oak [1992].** (*Oxford Forestry Institute, Oxford University*).

A study of the defect, including the relationships of oak leaf flushing and autumn shedding to early wood vessel size and a predisposition to "shake", the role of mechanical stresses in the condition, and an evaluation of its economic consequences. A report is available.

- 17. Survey of Squirrels in Britain [1992].** (*Timber Growers United Kingdom*).

The results of a questionnaire distributed among private woodland owners to determine the current status of both the red and grey squirrels, grey squirrel control, and grey squirrel damage. Designed to be complementary to the Forestry Commission's Annual Squirrel Survey of its forests, and to be combined with it to obtain a more comprehensive assessment. A report is available from TGUK, now TGA.

- 18. The Commercial Potential of Birch in Scotland [1991].** (*The Forestry Industry Council of Great Britain*).

Funded in association with the Countryside Commission for Scotland, the Forestry Commission and Highlands and Islands Enterprise. An investigation, made by commissioning a collection of essays, into the potential economic, silvicultural and ecological benefits of native birch in Scotland. A symposium based on the material in the essays was held in May 1991. Copies of the collection of essays are available, price £5, from the Trust and from the Forestry Industry Council of Great Britain.

- 19. The Ecology of the Great Spruce Bark Beetle (*Dendroctonus micans*) and its Predator, *Rhizophagus grandis* [1991].** (*Forestry Commission Research Division*).

This work contributed to a wider Forestry Commission programme on the development of a monitoring system for *R. grandis* and on the nature of tree resistance to attack by *D. micans*. A report is available.

- 20. Development of a Computer Programme for Forecasting Conifer Wood Production in the United Kingdom [1991].** (*Forestry Industry Council of Great Britain*)

A study which produced a computer programme able to assess the impact of different planting rates on future wood supplies, capable of accommodating differences in species growth rates, treatments and rotation lengths, and of differentiating wood production into a range of top end diameter size classes.

- 21. The Forestry Industry and the Greenhouse Effect [1991].** (*Department of Economics, University College London*).

A study of the economic aspects of the role of forestry in addressing the greenhouse effect, which links policies aimed at reducing carbon accumulations with those concerned to reduce carbon emissions, and which develops the principles on which carbon taxes and credits might be based. Some preliminary estimates are made of both taxes and credits. A published report is available.

22. Designated Areas in Scotland [1991]

A publication which includes descriptive accounts of the main designated areas in Scotland together with maps of their locations at a scale of 1:750,000. Published by the Scottish Forestry Trust from material prepared by the Institute of Terrestrial Ecology. Price of publication £7.95 obtainable from the Trust.

23. Yield Class and Windthrow Hazard Characteristics of Forestry in the Grampian Region [1990]. (*Macaulay Land Use Research Institute*).

A study of the use of predictive models developed at M.L.U.R.I. in the production of information on the forestry potential of the region, and presented in the form of maps of yield class and windthrow hazard. A report discusses the methods and provides a commentary on the maps.

24. The Influence of Wide Spacing of Trees on the Interception of Radiation and the Growth of Trees and Pasture [1990]. (*Department of Forestry and Natural Resources, University of Edinburgh*).

A study of light interception by the tree canopy and by pasture grasses, and its relationship to the growth of both components when combined in agroforestry (silvopastoral) systems. A report summarising the progress made is available from the Trust.

25. The Impact of Forestry on Output and Employment in the United Kingdom and its Member Countries [1989]. (*Fraser of Allander Institute, with additional survey material compiled by the Department of Forestry and Natural Resources, University of Edinburgh*).

Funded in association with the Forestry Commission and Forestry Industry Council of Great Britain. The first comprehensive estimate of the impact of forestry on output and employment on the aggregate UK economy and those of its member countries. A publication is available.

26. Production Forecasting for Private Sector Scottish Forestry [1988]. (*Department of Forestry, University of Aberdeen*).

A survey of the private sector growing stock in Scotland, for the purpose of exploring the apparent discrepancies between the national production forecast produced by the Forestry Commission and estimated actual production by the private sector. A report is available.

27. Current Knowledge and Perceptions of Forestry [1988]. (*Valin Pollen Ltd and Consensus Research*).

A study which identifies forestry's key audiences, their current knowledge and perceptions of the forestry industry, outlines the way in which the communications chain operates to influence opinion and makes recommendations about a more effective communications strategy. A report is available.

28. The Economic Effects of the "Guidelines for the Management of Broad-leaved Woodland" [1987]. (*Timber Growers United Kingdom*).

A study of the economic impact of the Forestry Commission's Broadleaved Policy, introduced in 1985 based on an analysis of the changes in profitability of five major broadleaved species, based on data from sample estates throughout Britain, brought about by the guidelines of the policy. A report is available.

29. Stirling Forestry Employment Study [1987]. (*Firn, Crichton Roberts Ltd*).

Study funded jointly with Stirling District Council and the Scottish Development Agency which analysed employment in the forestry industry in the Stirling District. A report is available.

THE SCOTTISH FORESTRY TRUST

STATEMENT OF TRUSTEES' RESPONSIBILITIES

Charity law requires the Trustees to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the Scottish Forestry Trust and of its income and expenditure for that period. In preparing those financial statements, the Trustees are required to:

- select suitable accounting policies and then apply them consistently.
- make judgements and estimates that are reasonable and prudent.
- prepare the financial statements on a going concern basis unless it is inappropriate to presume that the Trust will continue in existence.

The Trustees are responsible for keeping proper accounting records, which disclose with reasonable accuracy at any time the financial position of the Trust and to enable them to ensure that the financial statements comply with charities legislation. They are also responsible for safeguarding the assets of the Trust and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

THE SCOTTISH FORESTRY TRUST

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR TO 31 MARCH 1998

	Notes	1998 £	1997 £
INCOME			
Investment income and recoverable			
tax credits		85,338	90,124
Bank interest gross		19,382	9,022
Donations		1,255	1,105
		<u>105,975</u>	<u>100,251</u>
DIRECT CHARITABLE EXPENDITURE			
Grants and other charitable expenditure	2	<u>42,167</u>	<u>86,015</u>
MANAGEMENT AND ADMINISTRATION EXPENDITURE			
Employment costs	3	16,500	16,531
Office costs		8,534	8,632
Trustees' expenses		825	1,576
Professional fees	4	19,553	14,792
Finance costs		1,503	1,448
Annual Report costs		4,751	4,682
Depreciation		348	348
		<u>52,014</u>	<u>48,009</u>
NET SURPLUS/(DEFICIT)		11,794	(33,773)
OTHER RECOGNISED GAINS AND LOSSES			
Net realised gains on investments		26,775	36,743
Net unrealised gains on investments		333,756	71,864
		<u>372,325</u>	<u>74,834</u>
SURPLUS FOR THE YEAR		372,325	74,834

The Notes on pages 28 to 31 form part of these Accounts.

THE SCOTTISH FORESTRY TRUST

BALANCE SHEET AS AT 31 MARCH 1998

	Notes	1998 £	1997 £
FIXED ASSETS			
Tangible fixed assets	5	1,040	1,388
Investments	6	<u>2,733,200</u>	<u>2,370,560</u>
		2,734,240	2,371,948
CURRENT ASSETS			
Debtors	7	3,689	5,065
Cash at Bank		<u>48,900</u>	<u>38,247</u>
		52,589	43,312
LIABILITIES: Amounts falling due within one year	8	<u>8,975</u>	<u>9,731</u>
		43,614	33,581
TOTAL ASSETS LESS CURRENT LIABILITIES		2,777,854	2,405,529
LIABILITIES: Amounts falling due after more than one year		—	—
NET ASSETS		<u>2,777,854</u>	<u>2,405,529</u>
FUNDS			
UNRESTRICTED	9	<u>2,777,854</u>	<u>2,405,529</u>

Approved by the Trustees on 5th August, 1998
and signed on their behalf by

D W N LANDALE

Chairman

D C MALCOLM

Trustee

The Notes on pages 28 to 31 form part of these Accounts.

THE SCOTTISH FORESTRY TRUST

STATEMENT OF FINANCIAL ACTIVITIES FOR THE YEAR ENDED 31 MARCH 1998

	1998 £	1997 £
INCOMING RESOURCES		
Donations	1,255	1,105
Investment income	<u>104,720</u>	<u>99,146</u>
TOTAL INCOMING RESOURCES	105,975	100,251
RESOURCES EXPENDED		
Direct charitable expenditure	42,167	86,015
Management and administration	<u>52,014</u>	<u>48,009</u>
TOTAL RESOURCES EXPENDED	94,181	134,024
NET INCOMING/(OUTGOING) RESOURCES BEFORE TRANSFERS	11,794	(33,773)
Transfer between funds	—	—
NET INCOMING/(OUTGOING) RESOURCES FOR THE YEAR	11,794	(33,773)
OTHER RECOGNISED GAINS AND LOSSES ON INVESTMENTS		
Realised gains/(losses)	26,775	36,743
Unrealised gains/(losses)	<u>333,756</u>	<u>71,864</u>
NET MOVEMENT IN FUNDS	372,325	74,834
Balances brought forward at 31 March 1997	<u>2,405,529</u>	<u>2,330,695</u>
Balances carried forward at 31 March 1998	<u>2,777,854</u>	<u>2,405,529</u>

The Notes on pages 28 to 31 form part of these Accounts.

THE SCOTTISH FORESTRY TRUST

NOTES TO THE FINANCIAL STATEMENTS

FOR THE YEAR ENDED 31 MARCH 1997

1. ACCOUNTING POLICIES

The financial statements have been prepared in accordance with applicable accounting standards and the Statement of Recommended Practice, Accounting by Charities.

(a) BASIS OF ACCOUNTING

The financial statements have been prepared under the historical cost convention as modified by the revaluation of investment assets.

(b) DEPRECIATION

Depreciation is provided on the cost or valuation of tangible fixed assets over their estimated useful lives to the organisation. The annual depreciation rates and methods are as follows.

Office equipment: 20% pa straight line

(c) TRUST FUNDS

The Scottish Forestry Trust Funds are held to promote education, training and research in forestry and silviculture.

The Trust has a single General Fund, which is split between capital and revenue. Under the Trust Deed, the Trustees are empowered to use both capital and revenue for any of the purposes of the Trust and to accumulate revenue. This is modified by the Trust rules to require the Trustees not to so deplete capital that the Trust cannot act properly as a charitable organisation.

(d) INVESTMENT INCOME

Investment income is the income received during the year together with the related recoverable tax credits thereon.

	1998 £	1997 £
2. GRANTS AND OTHER CHARITABLE EXPENDITURE		
Fungal Spoilage of Kiln Dried Soft Wood	—	5,845
Lower Saxony Silvicultural Systems	385	—
Tall Trees and Small Woods	2,500	—
Stability of Irregular Forests	4,850	12,890
The Potential of Extending Forest Cover in Grampian	3,000	—
Nursing Mixtures on Stemform, Crown Size and Wood Quality of Sitka Spruce	4,805	9,650
Timber Frame 2000	1,200	—
Effect of Harvesting Machinery on Soil Physical Properties	4,680	—
Ecological Site Classification for British Woodlands	5,540	12,723
Red Deer and Timber Degrade	7,000	—
The Tree Trunk	1,650	3,350
Cashel: Forest for a Thousand Years	—	35,000
Availability Forecast of British Hardwoods	1,557	1,557
Damping off Pathogens of Scots Pine	5,000	5,000
	<u>42,167</u>	<u>86,015</u>

3. EMPLOYMENT COSTS

	1998 £	1997 £
Director's Salaries	15,000	15,000
Social Security	1,500	1,531
	<u>16,500</u>	<u>16,531</u>

	No.	No.
The average number of employees during the year was		
Administration	1	1

4. PROFESSIONAL FEES

	1998 £	1997 £
Auditors remuneration – audit services	880	880
other services	2,175	1,000
Legal fees	822	588
Investment management fees	15,676	12,324
	<u>19,553</u>	<u>14,792</u>

5. TANGIBLE FIXED ASSETS

	Office Equipment	Total
COST	£	£
Brought forward	1,736	1,736
Additions	—	—
Disposals	—	—
At 31 March 1998	<u>1,736</u>	<u>1,736</u>
AGGREGATE DEPRECIATION		
Brought forward	348	348
Charge for the year	<u>348</u>	<u>348</u>
At 31 March 1998	<u>696</u>	<u>696</u>
NET BOOK VALUE AT 31 MARCH 1998	<u>1,040</u>	<u>1,040</u>
NET BOOK VALUE AT 31 MARCH 1997	<u>1,388</u>	<u>1,388</u>

6. INVESTMENTS

	1998	1997
(a) QUOTED INVESTMENTS	£	£
Market Value at 1 April 1997	2,173,298	2,190,831
Additions	389,306	118,329
Disposals	(433,077)	(207,726)
Net unrealised and investment gains/(losses)	<u>333,756</u>	<u>71,864</u>
Market value at 31 March 1998	<u>2,463,283</u>	<u>2,173,298</u>
Historical cost at 31 March 1998	<u>1,412,760</u>	<u>1,398,503</u>

(b) CASH BALANCES HELD AS PART OF

THE INVESTMENT PORTFOLIO	1998	1997
	£	£
Held by Stewart Ivory & Co	<u>269,917</u>	<u>197,262</u>

7. DEBTORS

	1998	1997
	£	£
Taxation recoverable	1,235	3,525
Prepayments	260	310
Accrued income	<u>2,194</u>	<u>1,230</u>
	<u>3,689</u>	<u>5,065</u>

8. LIABILITIES: Amounts falling due within one year

	1998	1997
	£	£
Other creditors	1,548	1,378
Accruals	<u>7,427</u>	<u>8,353</u>
	<u>8,975</u>	<u>9,731</u>

9. UNRESTRICTED FUNDS

	Reserves		Total
	Revenue	Capital	
	£	£	£
Balance at 1 April 1997	119,056	2,286,473	2,405,529
Transfer between reserves	(1,600)	1,600	—
Net surplus/(deficit)	11,794	—	11,794
Net realised gains on investments	26,775	—	26,775
Net unrealised gains on investments	—	333,756	333,756
Balance at 31 March 1998	<u>156,025</u>	<u>2,621,829</u>	<u>2,777,854</u>

10. CONTINGENT LIABILITIES

The Trust has made commitments to pay grants totalling £100,841 over the next 12 months conditional on the research continuing and satisfactory reports being received by the Trustees.

THE SCOTTISH FORESTRY TRUST

AUDITORS' REPORT TO THE TRUSTEES OF THE SCOTTISH FORESTRY TRUST

We have audited the financial statements on pages 25 to 31 which have been prepared under the accounting policies set out on page 28.

Respective Responsibilities of the Trustees and Auditors

The Trustees are responsible for the preparation of the financial statements. It is our responsibility to form an independent opinion, based on our audit, on those statements, and to report our opinion to you. It is also our responsibility to state the fact in our report if we are of the opinion that the Trust has not maintained a satisfactory system of control over its transactions.

Basis of Opinion

We conducted our audit in accordance with auditing standards issued by the Auditing Practices Board. An audit includes examination on a test basis, of evidence relevant to the amounts and disclosures in the financial statements. It also includes an assessment of the significant estimates and judgements made by the Trustees in the preparation of the financial statements, and of whether accounting policies are appropriate to the Trust's circumstances, consistently applied, and adequately disclosed.

We planned and performed our audit so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or irregularity or error. In forming our opinion, we also evaluated the overall adequacy of the presentation of information in the financial statements.

Opinion

In our opinion the financial statements give a true and fair view of the state of the Trust's affairs at 31 March 1998 and of its surplus for the year then ended and comply with the requirements of the Trust Deed under which the Trust was formed and the Charities Accounts (Scotland) Regulations 1992.

Brown Campbell & Company
Chartered Accountants and
Registered Auditor
16 Great Stuart Street
Edinburgh EH3 7TN

Date:- 5th August 1998

THE SCOTTISH FORESTRY TRUST NEEDS YOUR HELP

Forestry, as a science-based industry must continue to seek new opportunities, resolve emerging problems, and find new ways of tackling longstanding ones. Also, in response to demands and pressures from within and outwith the industry, the wider information needs of forestry have continued to grow.

As a result the Trust is receiving an ever-increasing number of good, relevant applications far beyond the capability of its current resources to fund.

The Trustees believe that it is very much in the interest of a healthy and vital private sector that it should benefit from a financially strengthened Scottish Forestry Trust. **The Trust needs your help** in the form of donations of any size. Since the Trust is a charity, Covenants from donors enable tax to be reclaimed by the Trust, thereby increasing the value of any gifts.

DEED OF COVENANT

(listed companies and other corporate bodies)

This Deed of Covenant is made theday of
..... 19..... between

(hereinafter called "the Donor Company") of the one part and the
Scottish Forestry Trust (hereinafter called "the Trust") of the other
part WITNESSETH that the Donor Company hereby covenants with
the Trust that it will during the term of four years from the

.....day of19..... pay
annually to the Trust on the day of

.....in each year for the benefit of the work of the Trust
such a sum as will after deduction of Income Tax at the rate in force
for the time being, leave in the hands of the Trust, the net sum of

..... (.....)

Please return to

The Scottish Forestry Trust
5 Dublin Street Lane South
Edinburgh EH1 3PX

For and on behalf of.....

.....

(Director).....

.....

(Director or Company Secretary).....

.....



Diagram of Value of Assets and Expenditure of the Trust over the Past Ten Years

(a) Market Value of Investment Portfolio by Year at 31/3/98, £2,777,854, (b) Total Cumulative and Committed Expenditure on Projects as at 31/3/98, £1,168,679 and (c) Expenditure on Administration including Professional Fees each year – av. £36,200.

