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The critical question of new forest location - The location of new forests must not be left to the whims of the land market, but prescriptive land planning is not likely to be acceptable either. In the late 1980s indicative forest strategies were developed, particularly in Scotland, whereby areas were zoned as to their sensitivity with respect to new afforestation. The techniques and resources available through developments in GIS now permit more sophisticated analyses as to where new woods and forests might best be located. Such techniques will still be 'indicative'; local conditions and knowledge must ultimately determine where new woodland goes. A challenge will be matching new woodland to soils and locations, not just that are suitable now, but that will remain so in the changing climate over the next 50-100 years.

### **29. Policy drivers for change in management of trees and woods – an NGO perspective. *Mr Mike Townsend, Senior Advisor – Conservation Team Leader, Woodland Trust***

Policy drivers arise from a range of policy influences on agents. Those influences can include emerging knowledge and innovation, the social and political context, the existing or proposed legal framework and policy heritage, as well as specific events, all of which interact to produce particular policy directions. That which constitutes a significant policy driver is a function of two factors. Firstly one's own objectives – what is the transformational change we wish to see - policy drivers in that context can be both positive and negative, aiding change or resisting it. Secondly the aims and objectives of other actors able to bring about that transformational change – what are their motivations, obligations, and institutional structures which might support change. Policy drivers for the management and expansion of tree cover and woods in the UK have historically been framed by such issues as creating a strategic reserve of timber, generating rural employment, creating recreational opportunities, landscape and aesthetics and probably most recently around biodiversity and related environmental issues.

However, new policy drivers are emerging forged from the imperative created by the projections of climate change and the way in which it has amplified issues which were in any case significant in their own right. These offer opportunities to develop a new role and perspective on tree cover in Britain. Climate change in particular has become a key policy issue affecting not just forestry and trees but almost everything. Management and expansion of tree cover can meet key adaptation targets for public bodies. A recognition of ecosystem services has begun to attach a value to the wider benefits associated with trees and woods in the provision of a range of social benefits including water management, mitigating urban heat island effect, improving air quality, carbon storage and supporting an increase in agricultural production in a way which is environmentally sustainable. These new areas offer significant opportunities for trees and woods, but also challenge traditional notions of management.

The paper will look at these new areas and the opportunities they offer from the perspective of an NGO operating in the sector. What is the scale of the opportunities and the challenges created by these new policy drivers? How might it affect the way in which we approach policy issues? Does it create new audiences with new perspectives requiring a different type of evidence and policy response? How will it affect the way we view the management of trees and woods?

## 3.5 Parallel Session C. Governance: Communities and woodland

### **30. New virtue in virtuous forests: Community woodlands in Scotland a decade on. *Dr Rhys Evans and Dr Alexandra Franklin, Integrate Consulting***

Discursive claims for virtue are a key feature of the way which people and communities valorise their local woodlands. These have been a key part of campaigns by communities for the establishment of their Community Woodlands since the early days of the Community Woodland movement in Scotland.

This paper revisits research undertaken by the author into Community Woodlands in Scotland nearly a decade ago. That research resulted in the publication of a chapter titled “The Virtuous Forest: discursive interventions in Community Woodlands Trusts in Scotland – an interim report” (O’Brien 2003) which, in part, looked at the discursive claims made by proponents in the constitution of their Community Woodlands. Nearly ten years on, the nature of what is ‘virtuous’ has changed as the sector has developed, as have the skill and venues used by proponents to claim virtue for their woodlands. This report addresses these new virtues based upon in-depth Case Studies conducted by the author in Scotland eight years later.

### **31. Uncovering community histories at Bennachie, Aberdeenshire. *Jennifer Fagen and Dr Jo Vergunst, University of Aberdeen***

This paper examines the role of the Forestry Commission in a setting where tensions between ‘landowner’ and ‘community’ perspectives have been apparent. It tracks changes in the governance of the forest and hill of Bennachie both over recent decades and through a landscape history project funded by a community group associated with the hill. Data is presented from ethnographic and historical research that has taken place in diverse settings around the hill. The data is then related to broader trends in forestry governance and rural community development.

In the north east of Scotland, the Forestry Commission have found themselves to be in control of a land resource that is rich in archaeological remains and histories remains of crofting. Crofts were often made on poor marginal land that was later felt to be suitable for forestry. Now, as interest in the history of crofting increases, tensions over land use and management are becoming apparent again. On Bennachie, a crofter ‘colony’ of the 19th and early 20th century is very significant to the local landscape as the crofters are seen as part of a traditional folk culture that stood against the power of large estate landowners. In the mid 1970s, a pioneering community group was formed to care for the hill and encourage exploration of this 19th and 20th century history in particular. Access to the archaeological remains is often problematic however, as the house foundations and field boundaries are planted over with trees – demonstrating the lesser value that such remains had in past decades.

In contemporary discourse the Forestry Commission emerges both as an enabler of community development on Bennachie (by providing access to the hill and gradually diversifying land use on it) and yet also, on occasion, as one of a number of professional organisations who have come to take over the functions of the community group. As community development and care for the landscape become increasingly professionalised, questions emerge about how to encourage genuine community involvement in decision-making about cultural heritage and the environment.

### **32. The impacts of community-based woodfuel heating – case study findings from rural Cumbria, UK. *Jennifer Rogers, Dr Eunice Simmons, Dr Ian Convery and Dr Andrew Weatherall, University of Cumbria***

Community renewable energy projects have been proposed as a way of promoting social change in energy systems. Public opposition to large scale renewable energy developments is well-documented and research suggests smaller scale developments with higher levels of community involvement or community leadership are likely to be more acceptable. Engagement in such projects is also anticipated to promote greater engagement with energy issues and potentially more sustainable energy practices. However, there has been little research into the extent to which these expectations are fulfilled by community renewable energy projects.

This paper reports findings from a case study of a project to develop woodfuel heating initiated and led by community members as a social enterprise in a village in rural Cumbria, UK. Semi-structured interviews were carried out over a two year time period with the project leaders and other residents representing varying attitudes towards the scheme to assess and compare the experiences and perceptions of participants and those not directly involved. The impacts of the project beyond the community were also considered.

The qualitative data provided a detailed picture of the project’s development and social impacts which would not have been detected with simple quantitative measures of project outputs. Findings indicated widespread awareness of and support for the project because it was expected to increase the economic, social and environmental sustainability of the area. The community scheme appears to have directly

increased uptake of woodfuel heating in the local area although there is less evidence that it has prompted widespread further change towards more sustainable energy practices in other aspects of residents' lives. The community-based approach was particularly appropriate in addressing a number of barriers to increasing woodfuel heating identified by residents. Finally the conditions which facilitated this project's impacts will be considered to assess the learning opportunities for other community renewable energy projects.

### **33. Constructing partnerships with state forestry, the British experience. *Dr Bianca Ambrose-Oji, Dr Anna Lawrence, Jenny Wallace and Dr Amy Stewart***

Forest governance in Great Britain (GB) has experienced a transformation over the last twenty years. As the pressure for self-sufficiency in timber has receded, and with a population of more than 60 million, priorities have shifted towards the provision of public benefit from Britain's woods and forests. To do that, the FC has developed a wide range of partnerships with other government departments, local government, community organisations and environmental NGOs. This has taken place in the wider context of a general shift to partnership as means of policy delivery in the UK, since the mid-1990s; and through the experience of devolution. When the Labour government came to power in 1997, Scotland and Wales were offered through referenda the opportunity for their own governments. Forest policy and management was devolved to the new national administrations. Each of England, Scotland and Wales has developed its own national forest strategies, institutional structures and processes.

This paper examines the evolution of the concept and practice of 'partnership' in these contexts. Particularly notable are the diversity of such partnerships arising as forestry moves into the less conventional spaces of 'urban forestry' including (in England) the Black Country Urban Forest, the National Forest, and 12 Community Forests, (in Scotland) the Central Scotland Forest. In Scotland and Wales a profusion of individual community woodlands has also arisen in more rural contexts, often through a history of adversarial relations evolving into horizontal partnerships, networks and associations between community organisations, which in turn have formed partnerships with the FC.

A different pressure, which underlies a more strategic but less tangible drift towards partnership, is generated by the decentralisation of responsibilities for spatial planning. Instead of national budgets being set for woodland creation and management, allocations are made by regional and local governments, placing new and diverse demands for evidence and relationship, on those responsible for woodland management. Again, these take different forms in each constituent country of GB.

This paper draws on discourse and content analysis, observation and interviews with actors from the state Forestry Commission (FC) and partner organisations, to explore perceived drivers, impacts and outcomes of 'partnership', its meaning to different participants, and ways in which partnerships have been assessed. It links this with on-going research exploring the ways in which the FC has responded to such evaluations, and to other stimuli, and analyses the extent to which formal and informal evaluation can be considered as a strand of a learning approach to governance. It evaluates these experiences against critiques of the partnership concept, including legitimacy and accountability; power asymmetries; compatibility and communicability of meanings attributed to partnership; compatibility with changing scales and rhetorical strands of governance. The paper concludes with a discussion of the governance options available to the actors in British forestry.

## **3.6 Parallel Session D. Forest science and evidence at the policy interface**

### **34. Improving the evidence base for forestry: A stakeholder approach to identifying policy-relevant research priorities. *Gill Petrokofsky, Oxford University***

Debates about science and society in Europe have moved from those focused on the public understanding of science to those about public engagement with science. The current (2004-2014) ten-year investment strategy for science and technology in the UK recommends engaging the public in debates about science

further 'upstream' in the scientific and technological development process, including end-user involvement in programmes operated by the research councils.

Multi-purpose forestry policies have been developed to achieve a 'socio-ecological utopia' in which forests must provide an expanded timber resource, while also helping to conserve wildlife habitats, regenerate degraded land, provide employment opportunities, contribute to reduced net carbon emissions, and enhance the quality of urban life and the health of all the people. Research has had to adapt to this enormously broad suite of requirements with no parallel expansion of funding. This paper describes a project that was set up to test both a new process for engaging stakeholders in an 'upstream' debate about research priorities and to examine the extent of the evidence base which could inform the chosen priorities. Details are presented of the survey process and the outputs from a workshop designed to engage people with a professional interest in forestry in a process to determine the most important policy-relevant research questions for a forestry research agenda. The workshop was the second phase of a participatory exercise involving over 450 people working in the UK and Ireland in an online survey of attitudes to forestry policy and research. The term 'forestry' was defined broadly to include any aspect of trees in wooded landscapes and their associated products and services. The project was specifically aimed at researchers and policy-makers working in the broadly defined field of forestry, and at woodland owners who might reasonably expect to have an interest in priorities for a national forestry research agenda. Survey participants contributed 1594 research questions under the broad categories which define the three pillars of sustainability: environment, society and economy. They were debated and prioritised by 51 people who attended a 2-day workshop at which the questions were categorised into themes and, separately, by 108 people who participated in an online vote which presented the questions in the same themes. An examination of attitudes to the quality and accessibility of the evidence base in forestry reveals high levels of dissatisfaction amongst these stakeholders. There would appear to be a real opportunity for forestry to engage in a formal process of research synthesis to support policy-relevant research.

### **35. Wildfires in Wales: The uneasy relationship between people and their trees. *Mr Matt Jollands, Forest Research***

The South Wales valleys contain the largest urban fringe forest in Western Europe. With urban centres of population sitting in such close proximity to woodlands and forested areas the potential for both the use and misuse of this particular public space increases. One of the major issues facing the Forestry Commission, the Fire Services, and local communities in South Wales is the number of wildfires in grassland and forests that are deliberately started each year. With often more than 5000 grass, gorse and forest fires occurring each year in the South Wales Forest District *Coed y Cymoedd*, an area of 30,000 hectares of forest and with a population of over 1.5 million, fires are a serious issue.

Ongoing research by Forest Research in into wildfires in South Wales will be used to discuss both conflict and accord between communities and the land managers of public forested spaces. This paper will examine conflicting discourses at play in South Wales, with particular emphasis being placed on the management of, and perceptions surrounding, incidences of wildfires. While local people view wildfires as a natural phenomenon, or at most a minor issue, Forestry Commission Wales and the Fire and Rescue services spend hundreds of thousands of pounds in an effort to decrease wildfires. This difference of opinion demonstrates a disconnection between perceptions of institutional and community stakeholders. Further, a lack of agreement between groups as to the cause and severity of the wildfire issue has potentially contributed to the relative lack of success in previous attempts to decrease the setting of wildfires.

Additionally to this, the issue of wildfires will be looked at through the lens of conflicting perceptions of ownership of forested areas. This will focus on the definitions that different groups give to 'legitimate' and 'illegitimate' activities in South Wales forests. A common perception is of young people being detached from woodlands, and this perhaps holds true in the traditional sense. However many young people in the valleys are enthusiastic, although perhaps 'illegitimate' users of their local forests.

From discussions and observations with institutional stakeholders and community members this paper will present an interesting discussion concerning forest management, including the pros and cons of a movement towards post productive forestry regimes, and community engagement in South Wales

This paper will conclude by asking if there is potential to bring together legitimate and illegitimate users of the forests in agreement over forest use. The enacting of behaviour change through bringing potential 'misusers' into a legitimate discussion of forest use with land managers and other users could have potential for encouraging a change of perspective for land managers in their dealings with residents and forest users in South Wales.

### **36. Public Evaluation of the content and change of Scottish woodlands. *Dr Maria Nijnik and Prof. David Miller, Macaulay Institute***

This paper addresses consultation with people as a means to understand the diversity of the forest policy alternatives and provide a sharper insight into existing values and preferences concerning forestry development held by the public. While public values and viewpoints affect policy decisions, empirically determining stakeholder perspectives has been a difficult task. The current paper develops and applies a socio-economic deliberative support tool to contribute to a better understanding of public attitudes and preferences to be able to specify and analyse policy options and to assist in the selection, evaluation and implementation of the most publicly acceptable policy decisions.

The paper employs Q-method to examine human subjectivity on policy decisions concerning the integration of woodlands in rural landscapes in Scotland. Q-method offers a potentially useful contribution to the formulation and refinement of current policies as it helps to elucidate the range of existing attitudes, e.g. to woodlands development, and the spectrum of sustainability to which they may relate. When, as concerning landscape changes, input from local communities is important, the applied research tool is unique since its results are driven by the public, and all at once they are systematic and scientifically rigorous.

In course of the research, the attitudes of people in Scotland concerning policy options on the forestry changes have been revealed and assessed from the standpoint of the persons being observed. Important criteria of the respondents' perspectives have been identified and key factors influencing the attitudinal diversity have been explained. The paper has put forward some innovative perspectives on the areas of consensus and conflict between people related to the future of rural landscapes. The research outcomes have provided insights for understanding how the diversity of opinions on land use changes could influence the selection and evaluation of sustainable forest policy measures. Through the different importance accorded by the respondents to the integration of woodlands in rural landscapes, we have become aware of the public priorities and of the factors that can hamper the process of afforestation.

Despite at times the entirely opposite visions regarding the key objectives of the future of forestry, all identified groups of public attitudes currently observed in Scotland have a very strong emphasis on woodlands regeneration. The attention is paid to the recognition of the importance of aesthetic values of landscapes, people's rights to enjoy their beauty and to the necessity of attracting tourists in the remote rural areas. More specific attitudes distinguished in course of the analysis reveal that people prefer natural woodlands over monoculture plantations, and give a preference to native species rather than to invasive. The results of the analysis signify a general public consensus on the necessity of the expansion of woodlands in Scotland, as offering a wide range of benefits to the people, environment, and to the economy.

### **37. Tools for sustainability impact assessment of forestry policies: what role for social science? *Dr Dave Edwards, Forest Research***

Increasingly social scientists are being invited to contribute to applied research projects that aim to develop decision support systems (DSS) for managers, planners and policymakers in the forestry sector. Often, the role of social science is loosely understood by project managers to be synonymous with 'stakeholder engagement', which is seen as a means to enhance uptake of DSS, or sometimes, more cynically, to increase the prospects of funding. Social science may be regarded as making a relatively benign contribution, which can be left to run in parallel to the 'real' work of land use modellers. Consequently few expectations may be placed upon social scientists in interdisciplinary teams.

This paper seeks to highlight the multiple roles that social science is playing in the development of DSS using examples from three recent EU funded projects. The SENSOR project (2004-08) developed a model to assess the likely impacts of new European policies on the sustainability of land use at regional level across Europe. EFORWOOD (2006-09) developed a similar 'Tool for Sustainability Impact Assessment'

(ToSIA), which focused on forestry-wood chains in Europe. Most recently, Northern ToSIA (2008-11) will operationalise ToSIA by applying it to case studies in Scotland, Norway, Sweden and Finland.

Arguably the most important contribution has been to challenge assumptions about the willingness and ability of potential end users to adopt new DSS. Through institutional analysis, end users can be identified precisely to help reveal exactly how models would fit into and add value to existing policymaking processes, and to use these insights to inform model development. A second contribution is to show how different stakeholders can potentially contribute to all stages in the development of DSS through selection of scenarios and indicators, weighting and aggregation of indicators, refinement of assumptions used in models, validation of outputs and dissemination of results. Thirdly, impact assessment procedures often ignore the intangible social values associated with forests such as landscape character and recreational use, and social scientists can contribute by seeking ways to quantify and model such benefits through studies into public preferences and application of participatory modelling techniques.

The different roles can be mutually supportive. The ability to facilitate stakeholder engagement in ways that may provide useful insights for development of DSS is dependent partly on how well the researcher can understand the technical aspects of modelling as well as the institutional and political context of the end user. Effectiveness is also enhanced by treating each project as 'action research' whereby development of the DSS is embedded in a 'live' policymaking or planning process that is occurring concurrently, allowing deeper engagement between policymakers and researchers. The importance of this work is highlighted by reports that a number of DSS have been developed in the forestry sector that remain underutilised, for a variety of reasons. In response, the experience gained is being used to prepare guidance on how future DSS might be conceived, commissioned, developed, implemented and maintained within the forestry sector to enhance their uptake and use.

## 4. Poster Abstracts

### **POSTER 1: Woodlands, community development and social enterprise. *Debbie Bartlett, University of Greenwich***

Woods matter to different people in different ways. Over the last decade concern has been expressed by conservation organisations regarding the apparent decline in coppice management of ancient woodlands in the south east and the effects on wildlife, particularly woodland birds, dormice and butterflies. So woods are valued for their wildlife and as places that can be visited for 'natural' experiences. But who are the people who work in the woods actually doing coppice management and what do they value?

Socio-economic research has revealed that there are still family businesses who have been working the same woodlands for up to eight generations (and possibly more – but this is the limit of documentation). These businesses do not conform to current economic development models and are not easily helped by current policy instruments. However in terms of sustainable forest management and human satisfaction and well being they are close to the ideal – the workers are there because they love working in the woods. Focus groups, individual interviews and business analysis techniques have revealed that traditional coppice businesses are stable but, although they'd all like to earn a bit more, they don't want to expand.

Grant aid packages are all based on the assumption that businesses need help to expand. This is illustrated by the plethora of market based initiatives aiming to 'resurrect' the coppice industry – unfortunately, while these have benefited individuals they have passed the existing industry by. Likewise recent machinery grants aim to make cutters more efficient by providing bigger, better kit but, particularly if loans have to be taken out to raise the 50% of the cost, is this reflected in more profit? And how does owing money affect the all important enjoyment of the work? What they want is continuity of woodlands, to work a more stable market and help with the cost of insurance, particularly regarding young co-workers.

If woodlands are to be sustainably managed then stable businesses caring for their local woods must surely be as good as it gets? And the longstanding tradition of coppice management is part of our – and the workers – cultural heritage. In the developing world these people would be cherished as a resource and efforts made to sustain their livelihoods developing management strategies with the participation of all the stakeholder groups, including the people involved in the business of coppice woodland management.

In the face of global economic down turn perhaps we should be looking at the example set by some environmental organisations in the US who have developed position statements encouraging a move to steady state – rather than development – business paradigms?

Debbie Bartlett has carried out research into the socio-economic aspects of the coppice industry in part fulfilment of a PhD thesis.

**POSTER 2. Not just the chips: Woodland, people and the log market. *Amanda Calvert, Highland Birchwoods***

A significant amount of woodland in Scotland is currently under-managed. The sale of woodfuel can offer a new source of income, increasing the incentive for sustainable woodland management. The promotion of use of woodfuel to help reduce our reliance on burning fossil fuels, places emphasis on the new markets, which in turn, creates opportunity not only for rural employment but can also have additional positive impacts on woodland ecology and public amenity.

Much of the effort and hard drive to achieve greater production and use of woodfuel has been centred on the use of pellets and chips. But one of the most cost-effective, easy to implement mechanisms, to fulfil the above, is the production and use of logs.

Although not supported by grant or investment schemes, in rural areas wood burning stoves are being installed at a vast rate. For example in 2009, in a small town in the Highlands with a population of around 2000, one installer fitted 167 new wood burning stoves. This market will require a high quality sustainable supply of logs. If future incentives, such as the Renewable Heat Incentive, which is set to be introduced in April 2011 only support renewable heat that is produced using automated equipment, local producers of woodfuel will concentrate where they are likely to get the highest return – turning to production of chip or sale of wood for pellets. Although this could undoubtedly stimulate some communities into forming companies that can benefit from RHI, it could also have a detrimental effect on the rural poor who would not be able to afford to fit expensive automated equipment. The challenge will be to ensure that the market is balanced and that all can benefit.

**POSTER 3. The collaboration between art and forestry in Scotland. *Jennifer Clarke, University of Aberdeen***

This research aims to create new knowledge by understanding, describing and analysing the relationships between art, forests, and forestry in contemporary Scotland. This will contribute to emerging perspectives in anthropology, focusing on the relationships between creative practices and the environment. This will be explored through the role of art and aesthetics in collaborations between art and forestry - the way in which art comes to be made in, or about, forests, and similarly, the aesthetics of forestry management and planning. This work looks at what is involved in creatively producing and interpreting the forest, and how this can be a focus for understanding the different ways in which people engage with the environment.

Significant shifts in forestry policy and practice in recent decades have been led by changing attitudes and knowledge about sustainability. A contrasting argument is explored here however, based on the perception that the 'environment' is not a passive, static entity, but instead; a responsive ecological system. This is demonstrated through examples of art and forestry management. Recent approaches in both physical and social sciences have begun to discuss the 'value' of ecological aesthetics in environmental decision-making, education and awareness; however, research so far is unsubstantial and this perspective demands further attention. This paper therefore presents that contemporary art practice connects to these environmental issues, both politically and ecologically, and that the role of the artist in



society today - fundamentally concerned with their responsibility to their subjects - reflects these ethical issues.

This paper argues therefore, that it is necessary to maintain the broadest definitions of forest art to include objects, events, artists and their relationships with their subjects, and the forest. Using this approach to aesthetics, the idea that art belongs in a distinct sphere is rejected. It is instead felt that this theory is deeply related to the moral, social and practical; the value and force of art and aesthetics can only be understood by the recognition of its social significance. The follow questions are asked: How can art practices open up the ways people understand forests, what they are, and what they are for? How can forestry, understood as a skilled, creative practice, forests and forest products, be productively communicated to the public?

**POSTER 4: Foraging in South Devon: Wild food extraction and woodland management. *Mr Tom Lawson, University of East Anglia***

The recent economic crisis and growing public interest in environmental issues has resulted in increased popularity of foraging edible plants in the UK. Rising public interest is evident in the recent increase in media exposure. This trend has led to commercial interests entering the frame, with some restaurants and shops now selling wild food products in order to supplement their income. This study investigates stakeholder perceptions and potential woodland management outcomes of increased utilisation of edible plants. The focus is on woodland in the South Devon area. A local resource analysis revealed that potential for further extraction of wild foods exists in the region for members of the public and possibly small-scale commercial interests. It was concluded that increased encouragement of the public to forage, through the provision of information and community involvement-based schemes, has the potential to benefit all stakeholders. Increase in commercial foraging however is likely to be more complex and potentially problematic. The main recommendation given is to woodland owners to produce clear and equitable policies on the foraging of wild foods, both for members of the public and commercial interests. At present these policies are either vague or non-existent which could lead to conflict and resource depletion if further increases in extraction were to occur.

**POSTER 5: Live it, breathe it, walk it – Map pack research. *Mr Hugh McNish Forestry Commission Scotland***

Evidence continues to build demonstrating the holistic health boosting benefits of taking exercise in greenspace and woodlands. Consequently, interventions that support physical activity and exposure to greenspace and woodlands are underway at various levels. While there has been substantial public investment in the production of map packs across the UK, no robust research has been carried out into their efficacy. This study investigated the impact map packs had on the walking and physical activity levels of the local community in the Castlemilk area of Glasgow. The Castlemilk map packs were produced using participatory appraisal techniques to help local people contribute to the design and development of the map pack and walking routes. These included before and after questionnaires applied to a stratified convenience sample of the population, before and after footfall counts and a tracked population cohort sampled using participatory appraisal tools. More than half of the follow-up questionnaire respondents had seen a map pack with just short of 1 in 5 of those surveyed having used one for walking. An increase of 3.7% in those meeting recommended minimum physical activity levels was recorded between baseline and follow-up stages. A more marked increase of 5.3%, compared to the baseline measure, was recorded in the cohort of the convenience sample who had seen the map packs. Of the routes in the packs those in the quieter, woodland settings experienced greater increases in walking prevalence due to map pack usage.

**POSTER 6: Young men in woods and forests. *Elinor Predota, Newcastle University***

In the field of academic research into young people and 'nature', there is a gap in knowledge around how young people engage with and perceive woods and forests (Bell, Ward Thompson, Travlou 2003; Ward Thompson, Aspinall, Bell et al., 2004). The Forestry Commission has a particular interest in young masculinities in these environments, connected to policy agenda around education, health and anti-social behaviour (Lovell, 2009; Roe, Aspinall and Ward Thompson, 2009; Bell et al., 2004).

This research on 'Young men in woods and forests', funded by Forestry Commission GB, aims to explore the intersections of masculinities, youth-hoods and nature-society interactions, through a focus upon the

work and play of young men in woods and forests in or near areas of social, economic or other deprivation. The objectives include the identification of how young men of particular classes and in particular locations interact with and perceive woods and forests, the factors that influence their use – or non-use – of woods and forests, and what roles engagement with woods and forests do, or could, play in their everyday lives. The poster outlines the academic and policy context of the research, and the contributions the research aims to make to both – in particular to the Forestry Commission Scotland's Woodlands In and Around Towns programme.

**POSTER 7: The BeWEL Network: Linking Environmental Behaviour, Well-being and Nature. *Dr Louise Reid, Dr Colin Hunter and the BeWEL research team, University of Aberdeen***

There is an urgent need to better understand factors that may influence the tendency of an individual to undertake desirable, pro-environmental behaviours, such as; increased recycling, changes in transport and purchasing behaviours, and reduced electricity and water use. The paper will introduce the work of BeWEL (Behaviour for Well-being, Environment & Life); a new Research Council-funded Exploratory Network of 16 investigators from five Institutions established to provide novel, cross-disciplinary perspectives on well-being and pro-environmental behaviours. BeWEL brings together expertise across key areas of the arts, social science, psychology, biology, and computing and medical sciences, and has been specifically established to explore hitherto under-researched potential links between the tendency to undertake pro-environmental behaviours and: (1) the ways in which people interact with nature; (2) how exposure to forms of sensory contact with nature affects brain function, other physiological responses and feelings of personal well-being; and, (3) age related changes in brain function and emotional processing. The paper will elaborate on these objectives and, in particular, assess the role that woodlands play in the BeWEL conceptualisation of 'nature'. The paper will also discuss the links made between woodlands, well-being and pro-environmental behaviours from within the BeWEL network. More information about BeWEL can be found on our website: [www.bewel.net](http://www.bewel.net).

**POSTER 8: Small Woodland Ownership and Management for Dormice. *Jenny Wallace, University of Greenwich***

Privately owned woodland is frequently the result of 'woodlotting'; a practice that has caused much concern amongst conservationists and Government agencies in recent years, particularly in the South East. Lotted woods are those which have been split into several small compartments that are then sold separately to a number of individual 'small woodland owners', typically for leisure use and personal enjoyment. Characteristically, this is the result of private investment companies who buy, maintain, and re-sell woodland on (at a profit) as a series of lots. In Kent, 44 woodlands had been, or were in the process of being lotted in 2007, a figure treble that of 5 years earlier. This is a very real and growing issue and is viewed negatively by many as woodlotting represents fragmentation of the woodland habitat; where different and often conflicting management practices may take place in adjoining lots. Ownership of lots by essentially 'untrained' individuals is subsequently held responsible for poor and unregulated woodland management.

Alternatively, woodlotting could be viewed as an exciting new opportunity for 'ordinary' people to become actively involved in woodland conservation management and therefore provide for a network of enthusiastic individuals. In response, the concept of focusing on the individual habitat requirements of one priority species was developed as a means of improving woodland management by small woodland owners.

The decline of the Hazel dormouse (*Muscardinus avellanarius*) is believed to be, primarily, the result of a decline in traditional woodland management techniques over the last century, combined with the effects of habitat fragmentation. By encouraging and reinstating suitable management techniques for the dormouse including reconnecting fragmented patches through the provision of a suitable hedgerow network (achieved with the backing of the Dormouse and Hedgerow UK BAPs), it is believed that many other threatened woodland species could also benefit enormously. This would include several woodland breeding birds and butterflies that are 'characteristic of traditional woodland.

So could this species, one of the UK's most charismatic and fully protected mammals also be effectively used as a communication and engagement tool? Could working with initiatives such as the People's Trust for Endangered Species' 'Hedgerows for Dormice Project' and the development of a new incentive

particularly focused on 'Managing Small Woodlands for Dormice' be the key to sustainable small woodland management? It is hoped that this approach will inspire those not necessarily familiar with woodland policy, or those overwhelmed by management options, to implement small, grant-aided management for dormice, to the benefit of a variety of species.

This theory is applied to the woodlands of the Nominated World Heritage Site 'Darwin's Landscape Laboratory' in Kent; proposing a strategy for appropriate woodland management to this effect.

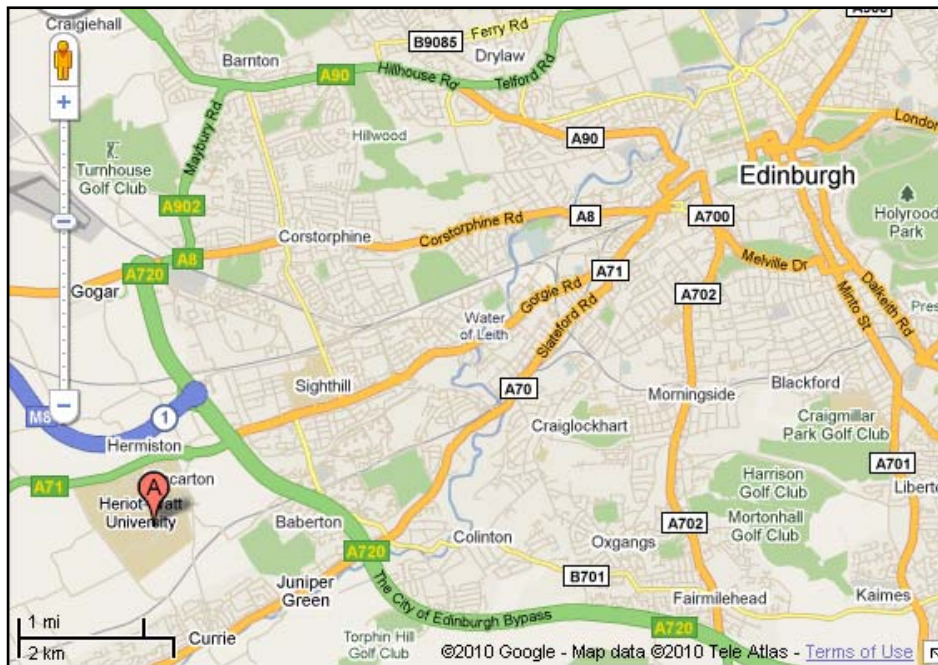
## 5. Venue information

### 5.1 How to get to Heriot Watt University

**By Bus:** The journey to Heriot-Watt University by bus takes approximately 30-40 minutes from the city centre, depending on the time that you are travelling. Lothian Buses offers services 25, X25, 34, 45 and N25 (night bus) to Heriot-Watt University.

**By Air:** Edinburgh International Airport is served by scheduled national and international flights. The airport is on the west of the city, just three miles from the campus. The journey by taxi takes about 10 minutes.

**By Car:** Heriot-Watt University's Edinburgh Campus is easily accessible by car, both from the centre of Edinburgh (6 miles) and from all major routes leading to the city. The University is half a mile from the Calder Junction of the A720 City of Edinburgh By-Pass and the A71 (there are signs for Heriot-Watt University on the approach to Calder Junction). On the M8, from Glasgow, turn right at Hermiston Gait roundabout following the signs for the A71. The A720 is a dual carriageway which skirts Edinburgh and can be accessed from all the major routes entering and leaving the city: A90 (North), M8 and M9 (West), A702 (South and M6), A7 and A68 (Borders and South), A1 (South and East).



**Visitor parking:** All visitors must use Visitors Car Park A or B on entering the campus. Car Park C is for visitors to Edinburgh Conference Centre. Disabled visitors should make arrangements in advance to ensure an appropriately allocated parking space is made available.

## 5.2 Campus map

### Gait Map

#### ACADEMIC BUILDINGS

- 1 **Colin Maclaurin Building** - Gait 1  
Mathematics  
Actuarial Mathematics and Statistics
- 2 **John Muir Building** - Gait 1  
Biology  
Marine Science and Environmental Management  
Sport and Exercise Science  
International Centre for Brewing and Distilling (ICBD)
- 3 **Earl Mountbatten Building** - Gait 2  
Information Technology  
Computer Science  
Electrical, Electronic and Computer Engineering  
Optoelectronics
- 4 **David Brewster Building** - Gait 2  
Applied Psychology  
Physics  
Combined Studies
- 5 **William Perkin Building** - Gait 2  
Chemistry  
Marine Science and Environmental Management  
Sport and Exercise Science
- 6 **James Nasmyth Building** - Gait 3  
Occupational Health and Safety  
Mechanical Engineering  
Mathematics
- 7 **John Coulson Building** - Gait 3  
Chemical Engineering
- 8 **Site of the Postgraduate Centre**
- 9 **Edwin Chadwick Building** - Gait 4  
Built Environment
- 10 **William Arrol Building** - Gait 4  
Built Environment
- 11 **Gibson Craig Wing** - Gait 12  
Management (see also Mary Burton Building)
- 12 **Henry Prais Building** - Gait 12  
Languages
- 13 **Esmée Fairbairn Building** - Gait 12  
Management and Languages
- 14 **Business Executive Centre** - Gait 11
- 15 **Edinburgh Business School** - Gait 11
- 16 **Mary Burton Building** - Gait 11  
Accountancy  
Economics  
Management (see also Gibson Craig Building)
- Institute of Petroleum Engineering** - Gait 3
- 17 **NExT Building**
- 18 **Jim Brown Building**
- 19 **Conoco Building**
- 20 **Tom Patten Building**
- 21 **Centre for Flow Assurance**
- 22 **Enterprise Building**
- 23 **Energy Academy**

#### SERVICES

- A University Main Reception/  
Edinburgh Conference Centre
- B George Heriot Wing:  
Press and Public Relations/Management  
Services - Gait 9
- C Health Centre - Gait 9
- D Students Union - Gait 7
- E Estate Office/Research Park Office - Gait 6
- F Recycling Centre - Gait 5
- G Media Services, Graphics and Printing - Gait 6
- H Procurement Services - Gait 6
- I Mail Room - Gait 6
- J Nursery - Gait 1
- K Allen McTernan Building: University  
Information and Computing Services - Gait 2
- L Scott Russell Building:  
Careers Advisory Service/Technology and  
Research Services/Scholar Unit/Educational  
Development Unit - Gait 3
- M Chaplaincy - Gait 4
- N Hugh Nisbet Building:  
Catering/Shops deliveries/Student Welfare  
Services/Development and Alumni
- O Media Services, Audio Visual - Gait 12
- P Cameron Smail Library - Gait 12
- Q Museum and Archive, Mary Burton Centre -  
Gait 12
- R Student Recruitment and Admissions
- S Lord Balerno Building: Academic Registry/  
Finance Office/Human Resources
- T Centre for Sport and Exercise - Gait 10
- U Sports Academy - Gait 10

#### RESIDENCES AND FLATS

- a Linlithgow Hall - Gait 1
- b Pentland Hall - Gait 1
- c Ettrick Hall - Gait 1
- d Yarrow Hall - Gait 1
- e Midlothian Hall - Gait 1
- f Caddon Hall - Gait 1
- g Lord Thomson Hall - Gait 16
- h George Burnett Hall - Gait 16
- i Robin Smith Hall - Gait 16
- j Robert Bryson Hall - Gait 12
- k Paul Stobart Building - Gait 12
- l Lord Home Hall - Gait 13
- m Leonard Homer Hall - Gait 9



#### EDINBURGH CONFERENCE CENTRE

- A James Watt I (Auditorium)  
James Watt II

#### Meeting Rooms

- Y Leonard Homer Conference Lounge
- Z Top Floor: Cedar Room, Cedar Suite  
Oak Room, Beech Room
- Middle Floor: Lecture Theatre 4
- Ground Floor: Lecture Theatres 1-3

#### Catering outlet

- C Top Floor: College Lounge
- Middle Floor: Main Dining Room  
Cafe Brio
- Ground Floor:  
Microbyte Restaurant  
The Venue Cafe

#### Shops/Bank

- C Ground Floor: Campus Shops, Bank  
Hairdresser, Bookshop

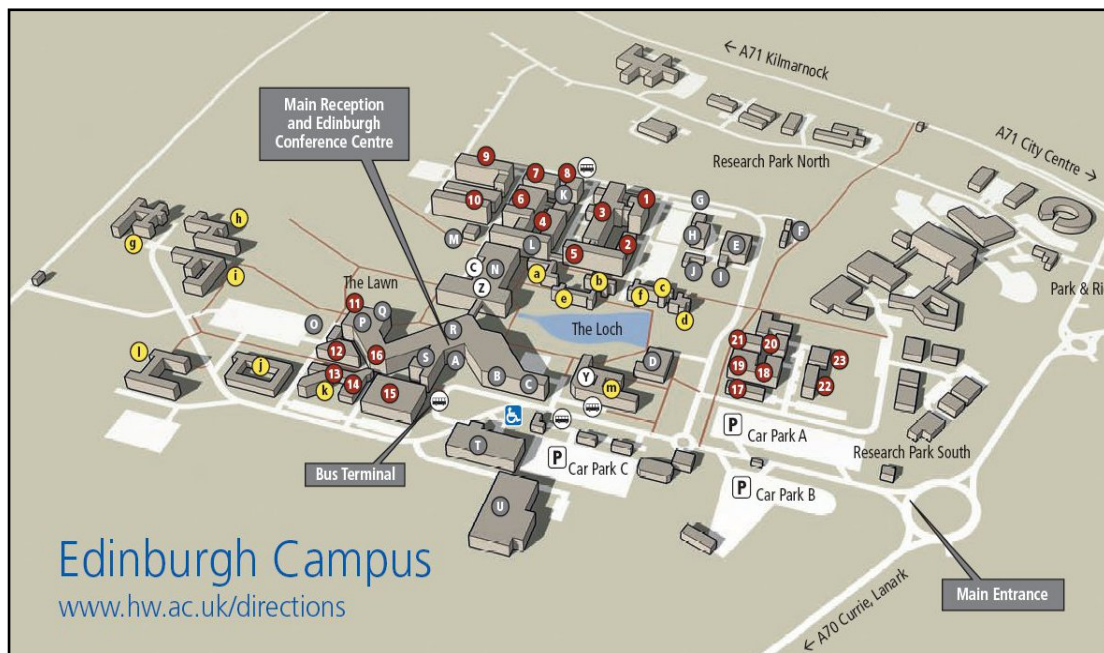
#### Accommodation

- A Visitors who have reserved overnight  
accommodation should check in at the  
James Watt Centre visitor reception.

#### Parking

- All visitors must use Visitors Car Park A or B  
on entering the campus. Car Park C is for  
visitors to Edinburgh Conference Centre.

- Accessible parking - blue badge holders  
only. Additional accessible parking spaces  
are available throughout the campus,  
disabled visitors should make  
arrangements in advance to ensure an  
appropriately allocated parking space is  
made available.



Edinburgh Campus  
[www.hw.ac.uk/directions](http://www.hw.ac.uk/directions)

## 6. Notes



**Forest Research**

The Research Agency of the  
Forestry Commission