



**Peatland Programme**

DELEGATE HANDBOOK

# Investing in Peatlands: Delivering Multiple Benefits

CONFERENCE

University of Stirling 20 – 22 June 2011

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### About the IUCN UK Peatland Programme

The International Union for the Conservation of Nature (IUCN) is a global organization, providing an influential and authoritative voice for nature conservation. The IUCN UK Peatland Programme promotes peatland restoration in the UK and advocates the multiple benefits of peatlands through partnerships, strong science, sound policy and effective practice.

Find out more at [www.iucn-uk-peatlandprogramme.org](http://www.iucn-uk-peatlandprogramme.org)

Welcome to the IUCN UK Peatland Programme's second annual conference,

### 'INVESTING IN PEATLANDS – DELIVERING MULTIPLE BENEFITS'

Following on from the success of our Durham Conference in 2010, this year's event is another exciting opportunity to bring together all those with an interest in securing the future of our peatlands. Whether an expert or observer we aim for these Conferences to allow a broad exchange of ideas across all sectors. This is a key time to be discussing our peatlands and we hope you will enjoy participating in this agenda setting event.

This conference is part of a series of annual IUCN UK 'Investing in Peatlands' conferences from 2010 to 2012. Peatlands are a global priority, recognised for their biodiversity importance as well as for vital ecosystem services such as regulating our water and climate. The challenge ahead is how to deliver these multiple benefits and reverse the decline and deterioration that has been inflicted by past failure to recognise and value our peatlands. There is clear evidence that Investing in Peatlands to maintain and restore these vital parts of our living landscape makes sense and will be more costly if we don't act now.

The value of the services that our natural environment provides is increasingly being appreciated and peatlands are one of the key examples with a growing evidence base to help quantify these benefits. At this Conference we will present some of that evidence in the key findings from our Commission of Inquiry on Peatlands which brought together a wide range of expertise across the academic, land manager and policy making arena.

This year's Conference looks at how we now bring about the urgently needed investment in the peatlands. Through understanding and communicating the important role that peatlands play it should be possible to ensure that we reward sustainable peatland management.

On behalf of the IUCN UK Peatland Programme and this year's Conference partners Scottish Natural Heritage we thank you for helping take this exciting agenda forward.

Rob Stoneman, Chair IUCN UK Peatland Programme

Roddy Fairley, Scottish Natural Heritage

## 1. REGISTRATION AND ACCOMMODATION CHECK IN

### Conference registration

**Registration is in the Atrium at the Andrew Millar Building**, and will be open from 17:00pm on Monday 20<sup>th</sup> June to allow delegates to arrive, settle into their accommodation and register before the Welcome events begin at 19:00pm.

Please register for the conference **on the day of your arrival** at the following time:

Monday 20<sup>th</sup> June: 17:00 – 20:00

Tuesday 21<sup>st</sup> June: 07:30 – 09:30

Wednesday 22<sup>nd</sup> June: 07:30 – 09:30

At registration you will receive a conference pack and delegate badge. Please wear your delegate badge at all times to gain access to Conference sessions.

The registration desk will be staffed as much as possible during lunch and tea breaks, to help deal with any queries that arise during the conference.

### Accommodation check in

**Depending on your arrival time and how you travel to the Campus** you may want to **go to your accommodation first** to check in and then head to the conference main venue for registration.

Accommodation is in Andrew Stewart Hall (see map pages 6-7). Please go to the reception at Andrew Stewart Hall to check in, and collect your room key.

The accommodation reception is staffed 24 hours a day to enable for late arrivals and any queries relating to your stay.

## Additional information for speakers and poster presenters

### Speakers

Please come to the Registration desk in the Atrium, Andrew Millar Building, and let us know you have arrived in time for your presentation. If you haven't already sent us your presentation, please make sure you bring it on a memory stick so we can upload it.

### Poster presenters

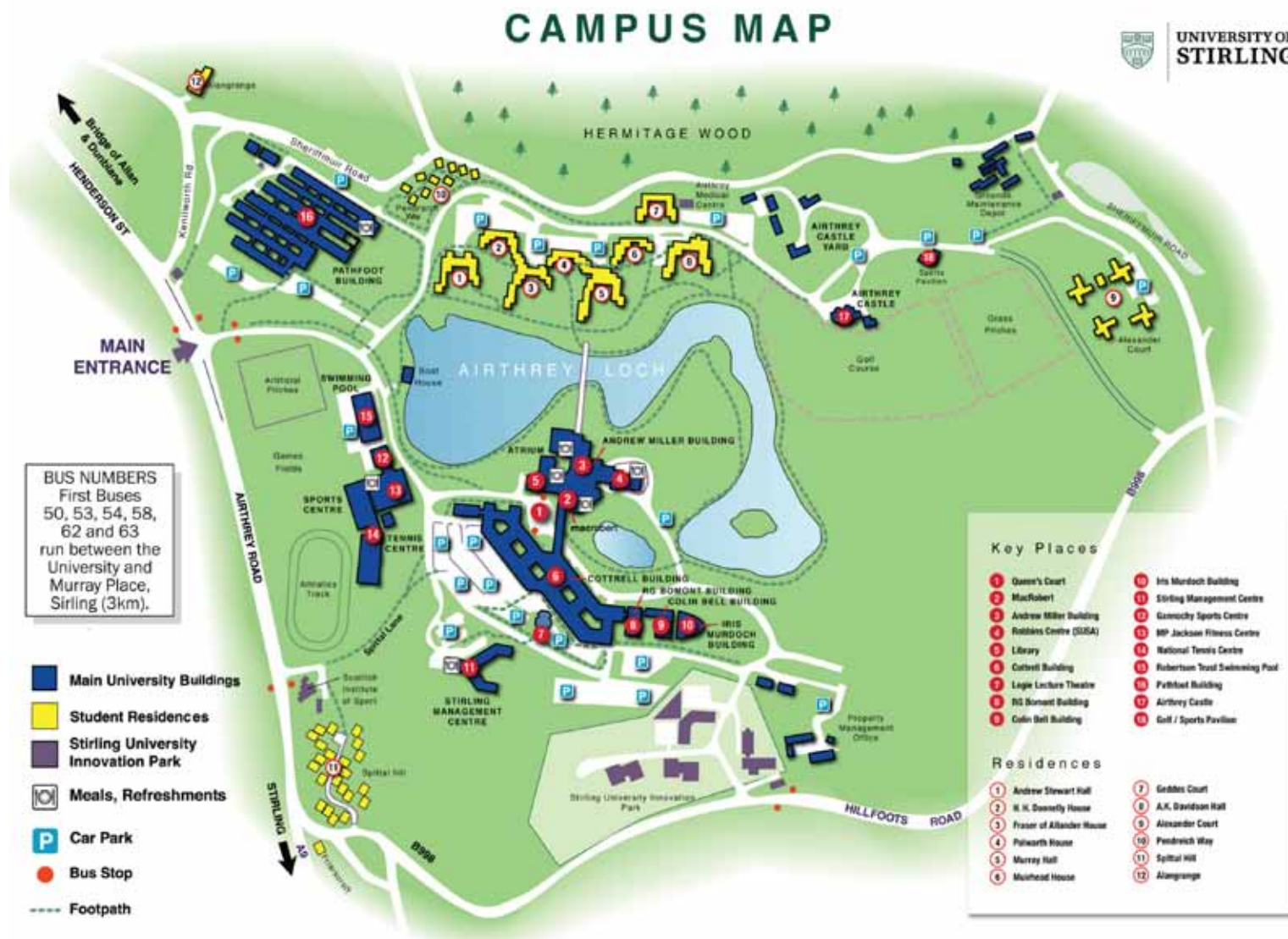
Please ensure you arrive in adequate time to put your poster up in the Atrium, Andrew Millar Building, before the Welcome programme begins at 19:00 on Monday 22<sup>nd</sup> June. The poster display is in the same room as registration, so register to let us know you have arrived, and we will show you where to put your poster. All posters must be in place by 19:00 on Monday 22<sup>nd</sup> June and removed by 14:00 on Wednesday 22<sup>nd</sup> June.

## 2. CONFERENCE LOCATION AND VENUES

Our conference is being held at the stunning University of Stirling Campus. All conference venues are within easy walking distance of each other and the accommodation (see Map), and will be clearly signposted.

- **All talks** are in Lecture Theatre CA3, Cottrell Building
- **Registration, exhibition, posters and teas & coffees breaks** are in the Atrium, Andrew Millar Building
- **Welcome mixer** is in the Atrium, Andrew Millar Building
- **Workshops** are in a number of different rooms in the Cottrell Building, please see programme for details
- **Breakfast and lunch** are in Haldane's Dining Room, Andrew Millar Building
- **Conference Dinner and Ceildh** are in the Pathfoot Dining Room & Oscars Bar, Pathfoot Building
- **Accommodation** is in Andrew Stewart Hall

**Please note:** the conference is at the University itself, not at the Stirling Management Centre which is also located on campus.



### 3. GETTING HERE

The University of Stirling Campus is located about 2 miles from Stirling city centre.

#### Public transport

The Campus is easily accessible by public transport. There are frequent rail and coach connections to Stirling from the south via Edinburgh and Glasgow, and a number of daily services from Inverness and Aberdeen. Visit [www.scotrail.co.uk](http://www.scotrail.co.uk) and [www.citylink.co.uk](http://www.citylink.co.uk) for more information.

From Stirling city centre there are excellent bus links to the Campus including a Unilink Shuttle service and First bus numbers 54; 54A; C54; 58; 358; C58 which leave frequently from Murray Place, a short walk from the bus and rail stations (see [www.stir.ac.uk/campus-life/getting-here/bus/stirling-city-centre](http://www.stir.ac.uk/campus-life/getting-here/bus/stirling-city-centre)). The journey takes approximately 15 minutes, and buses stop in Queen's Court, directly outside the Andrew Millar and Cottrell Buildings.

#### Walking and cycling

If you don't have too much to carry, and you have a bit of time, the Campus is within walking and cycling distance of Stirling city centre. Alternatively, you could catch a train which continues to nearby Bridge of Allan and walk or cycle from there. For more information about walking and cycling routes please visit: [www.stir.ac.uk/campus-life/getting-here](http://www.stir.ac.uk/campus-life/getting-here)

#### Car

If you are travelling from the East, South or West take the M9 to Junction 11. Once at the junction there is a roundabout which marks the end of the M9. From here you should take the exit for Bridge of Allan, follow the road through the town itself, and after about 200 metres you will find the University entrance on the left.

If you are travelling from the North take the A9 to the same roundabout and follow the same route through Bridge of Allan as above.

#### Parking

Parking is available at the accommodation. From the University entrance proceed through barrier control system using the left-hand lane. The barriers are not operational during Vacation therefore a parking permit is not required. Take first left and continue up hill.

For Andrew Stewart Hall take second right and follow road markings to right to enter car park.

#### Taxis

DR Taxi Service	01786 445 252
Albion Taxis	01786 811 111
Forth Taxis	01786 449 244

## 4. CAMPUS FACILITIES

The University of Stirling Campus has many onsite facilities including:

### Internet

Wifi is available in the MacRobert Centre (free with any purchase from the cafe) and in the Stirling Management Centre's hotel cafe/bar. Please note, there is no internet available in the accommodation.

### Cash machines

Atrium (free), Cottrell (free), Pathfoot (charges)

### Shops

There is a small supermarket, chemist, bank, newsagent and a bookshop in the Atrium, Andrew Millar Building.

### Cafes

There is a small coffee bar in the Cottrell building, the Atrium has a couple of cafes, the MacRobert centre has a cafe (with Wifi) as does the Stirling Management Centre hotel.

### Accommodation

Accommodation has a 24 hour reception. There are shared kitchens in each hallway with fridge and kettle, and tea and coffee to be available in kitchens.

### Sports/leisure

Delegates can make use of the gym and swimming centre facilities, badminton and tennis courts, and golf course. There are fishing permits for the loch, and a number of lovely walks in the area, including to the nearby Wallace Monument which takes approx 1 hour.

## 5. PROGRAMME

### Monday 20th June 2011

17.00 - 19.00	<b>Delegates &amp; speakers arrive</b> Register for conference Opportunity to put up posters for exhibition  Check in to accommodation	Atrium, Andrew Millar Building  Andrew Stewart Hall
19.00	<b>Welcome and Introduction</b> <i>Rob Stoneman, Chair, IUCN UK Peatland Programme</i>	Lecture theatre CA3, Cottrell Building
19.05	<b>Welcome Address</b> <i>Roddy Fairley, Biodiversity Action Programme Manager, Scottish Natural Heritage</i>	
19.10	<b>Welcome Lecture: How should we develop markets for ecosystem services from peatlands?</b> <i>Prof Nick Hanley, University of Stirling</i>	
20.00	<b>Welcome Mixer: Conference beer and hot buffet</b> <i>Bailie Tony Ffinch, Depute Provost, Stirling Council</i>	Atrium, Andrew Millar Building
21.00	<b>Bar and socialising</b>	Union, Andrew Millar Building

### Tuesday 21st June 2011

7.00 - 8.30	<b>Breakfast</b>	Haldane's, Andrew Millar Building
9.00	<b>Introduction</b> <i>Rob Stoneman, Chair, IUCN UK Peatland Programme</i>	Lecture theatre CA3, Cottrell Building
9.05	<b>Welcome Address - Scotland's Peatlands delivering multiple benefits</b> <i>Scottish Government</i>	
9.25	<b>Key Findings IUCN UK Commission of Inquiry Report: Patrons' Address</b> <i>Lord Jamie Lindsay, Professor Andrew Watkinson and Sir Graham Wynne</i>	
9.45	<b>Multiple benefits of peatlands and the state of peatlands – what's the challenge?</b> <i>Prof Des Thompson, Scottish Natural Heritage</i>	
10.05	<b>The National Ecosystem Assessment - looking ahead for peatlands</b> <i>Rene van der Wal, University of Aberdeen</i>	
10.20	<b>Discussion</b>	Atrium, Cottrell Building
10.30 - 11.00	<b>Tea &amp; coffee</b>	

### Carbon funding

11.00	<b>Peatlands and climate change: opportunities to incentivise good practice</b> <i>Prof Pete Smith, University of Aberdeen</i>	Lecture theatre CA3, Cottrell Building
11.20	<b>Peatlands and climate change adaptation</b> <i>Sir Graham Wynne, Climate Change Committee, UK</i>	
11.35	<b>Peatlands and the Verified Carbon Standard</b> <i>Ingino Emmer, Director, Silvestrum</i>	
11.50	<b>Discussion</b>	Haldane's, Andrew Millar Building
12.00	<b>Lunch</b>	
13.00	<b>Coffee Posters &amp; Exhibition</b>	Atrium, Andrew Millar Building

### Water funding

14.00	<b>Introduction</b> <i>Roddy Fairley, Biodiversity Action Programme Manager, Scottish Natural Heritage</i>	Lecture theatre CA3, Cottrell Building
14.05	<b>Peatland regulatory services for water quality and run-off retention</b> <i>Pippa Chapman, University of Leeds</i>	
14.20	<b>Peat catchment restoration founded on the multiple services that peatlands provide; a regulators view</b> <i>Johan Schutten, senior wetland ecologist, SEPA</i>	
14.35	<b>Funding of peatland restoration to improve water quality</b> <i>Andrew Walker, Environment and Catchment Manager, Yorkshire Water, on behalf of UK Water and Water Utilities</i>	
14:50	<b>Discussion Explanation of Interactive Session</b>	Atrium, Andrew Millar Building
15.10- 15.40	<b>Tea &amp; coffee</b>	
15.40 - 17.00	<b>Interactive Session</b> <i>See section 6 for information on the sessions</i>	Rooms: 2A9, 2A11, 2A13, 2X4, 2X6 Cottrell Building
17.00- 17.30	<b>Summary in plenary</b> <i>Rob Stoneman, Chair, IUCN UK Peatland Programme</i>	Lecture theatre CA3, Cottrell Building
18:30	<b>Bar</b>	Oscars Bar & Pathfoot Dining Room, Pathfoot Building
19:00	<b>Conference dinner</b> <i>Welcome by Keith Geddes, Chair, Central Scotland Green Network</i>	
21.00 - late	<b>Ceilidh &amp; Bar</b>	

## Wednesday 22nd June 2011

7.00 - 8.30	<b>Breakfast</b>	Haldane's, Andrew Millar Building
9.00	<b>Introduction and review of day 1</b> <i>Rob Stoneman, Chair, IUCN UK Peatland Programme</i>	Lecture theatre CA3, Cottrell Building
9.10	<b>The new EU biodiversity strategy and its relevance to the conservation of peatlands</b> <i>Micheal O'Briain, Deputy Head of Nature Unit, DG Environment, European Commission</i>	
Biodiversity funding		
9.30	<b>Getting environmental markets going in the UK</b> <i>Professor David Hill, Chair, Environment Bank</i>	Lecture theatre CA3, Cottrell Building
9.45	<b>Peatland restoration and sporting estates</b> <i>Lindsay Waddell, Chair, National Gamekeepers' Organisation</i>	
10.00	<b>Peatland restoration in Belarus: from grants to carbon trading</b> <i>Viktar Fenchuk, Director, APB (BirdLife Belarus)</i>	
10.15	<b>Discussion</b>	
10.30 - 11.00	<b>Tea &amp; coffee</b>	Atrium, Andrew Millar Building

## CAP Support for Peatlands

11.00	<b>Introduction</b> <i>Stuart Brooks, Chief Executive, John Muir Trust</i>	Lecture theatre CA3, Cottrell Building
11.05	<b>Payments for peatland ecosystem services</b> <i>Mark Reed, University of Aberdeen</i>	
11.20	<b>CAP funding for peatland restoration</b> <i>Andrew Moxey, Pareto Consulting</i>	
11.35	<b>A changing climate for peatland funding?</b> <i>Alison Connelly, Head of Marketing, RSPB Scotland</i>	
11.50	<b>Discussion</b>	
12.00	<b>Plenary Discussion</b> <b>Key points from sessions &amp; way forward</b>	Atrium, Andrew Millar Building
12.50	<b>Next steps and farewell</b> <i>Rob Stoneman, Chair, IUCN UK Peatland Programme</i>	
13:00	<b>Packed Lunch</b> <b>Depart</b>	
13.15	<b>Field trips to:</b> <b>Flanders Moss</b> (Scottish Natural Heritage) <b>Wester Moss</b> (Stirling Council and Butterfly Conservation Scotland)	Assemble at Queen's Court (roundabout) for coaches
16.30	<b>Coaches return to Stirling University after field trips</b>	Queen's Court

## 6. WORKSHOPS

All workshops are in the Cottrell Building, in rooms 2A9, 2A11, 2A13, 2X4, 2X6.

We will confirm workshop venues on Tuesday 22<sup>nd</sup> June when we have a better idea of the numbers attending each.

### Peatland Restoration Funding

*Paul Leadbitter, Project Manager, North Pennines AONB Partnership*

- Identify how to account for costs and areas for restoration measures
- Discuss how to raise peatland profile with key funding bodies
- Identify key peat messages relevant to funders

### Peatland Carbon Markets

*Stuart Brooks, Chief Executive, John Muir Trust*

- Discuss action to take forward a pilot carbon scheme
- Identify key players
- Identify evidence required to verify

### Peatland Water Services

*Chris Dean, Programme Manager, Moors for the Future Partnership*

- Prioritise water/restoration cost-benefits
- Identify priority water policy and water industry engagement activities
- Prioritise key actions for devolved countries

### CAP Reform/Payments for Ecosystem Services

*Pat Thompson, Uplands Policy Officer RSPB & Vicky Swales, Head of Land Use Policy, RSPB*

- Highlight key actions to take forward improvements to CAP
- Identify route map for informing CAP process re peat
- Address options for payments for peat ecosystem services

### UK Peatland Hub

*Mark Reed, University of Aberdeen, RELU/LWEC, Aletta Bonn, IUCN UK Peatland Programme*

- Prioritise key outcomes/outputs from the peatland hub
- Discuss structure and governance, following steer by IUCN UK PP advisory panel
- Identify funding options

## 7. SOCIAL PROGRAMME

The conference will be a meeting place to exchange ideas, form new partnerships and join a strong peatland community.

### Welcome mixer

#### 8pm 'til late, Monday 20th June

At the Welcome lecture and mixer on Monday evening, there will be networking opportunities over a hot fork buffet and specially brewed Conference Beer, with a chance to view the posters and exhibition.

There is a further opportunity to look at the posters and exhibition during the poster session on Tuesday.

### Dinner and Ceilidh

#### 7pm 'til late, Tuesday 21st June

The Conference dinner and Ceilidh on Tuesday will take place in the Pathfoot Building which has beautiful views towards the Wallace monument.

The University's award winning chef David Ward, of Sodexo Catering, has created a special conference menu using locally sourced food, to be washed down at the end of the night with a dram, courtesy of Highland Park.

Ceilidh music will be by the University's very own Prof Nick Hanley's Hoochie Coochie Ceilidh Band, so expect to dance the Summer Solstice away!

## 8. FIELD TRIP INFORMATION

If you have booked to attend one of the field trips please be ready to leave the Campus at 13:15 on Wednesday 22nd June. Coaches will depart from Queen's Court, outside the Andrew Millar and Cottrell Buildings, and return by 17:00.

Warm clothing, waterproofs and sturdy, waterproof footwear are required as delegates will be walking over parts of the moss.

Remember to collect your pack lunch before you get on the coach!

### Field trip A: Flanders Moss National Nature Reserve

#### Site Description

Formed on the Carse of Stirling over 8000 years ago, Flanders Moss is one of the last fragile remnants of the great bogs that once covered much of Scotland. It is now one of the largest lowland raised bogs in Britain and one of the most intact raised bogs in Europe. Flanders' sheer size has been key to its survival over the years.

Flanders Moss displays many of the classical raised bog features. Its distinctive domes, shaped by the water within, support a rich, colourful carpet of bog mosses with large areas of the bog still accumulating peat. A whole host of specialist plants and nationally rare invertebrates make their home on this floating habitat.

The underlying geology tells a fascinating story of ancient sea level changes and within the peat itself, pollen records changes that have taken place in the surrounding landscape over the years.

However, the natural history of Flanders Moss has been profoundly affected by human history. Improving landlords wanted to drain the bog in the 18th century for farmland. They recruited Perthshire Highlanders, who had lost their land after the Jacobite rebellion. These 'Moss Lairds' lived rent-free in return for digging drainage ditches and clearing peat, floating it down the river Forth. Over a third of Flanders Moss was turned into rich farmland: the remainder dried out losing some special bog wildlife. Now, by clearing scrub and damming drainage ditches, Scottish Natural Heritage is restoring Flanders Moss to its former wetness.

### Visit Details

National Nature Reserve staff from SNH will introduce Flanders Moss from the viewing tower erected there last year. We will then visit nearby parts of the Moss to discuss the management techniques we are using to restore the habitat and to increase the ability of the bog to contribute to floodwater retention and carbon storage. In recent years, we have made efforts to access funding from a range of sources for different aspects of our work at Flanders, including the use of volunteers to increase our capacity to deliver management.

### Timings

13.15	Depart Stirling University (Queen's Court)
13.45	Arrive at Flanders Moss, meeting at the NNR car park - introduction to the site from boardwalk and viewing tower. Depending on numbers, we may split the group in two for this.
14.45	Return to car park and walk to adjacent plantation area to look at management since the land was bought by SNH, current management and options for the future
15.45	Gather back at car park for questions and closing comments
16.00	Depart for University

### Field trip B: Wester Moss and Fallin Bing, Fallin

#### Site description

Wester Moss, near the village of Fallin, Stirling, is the largest and least disturbed example of a raised mire in the eastern part of the carse of Stirling, and was designated as a SSSI in 1985. The 30 hectare site is already designated as nationally important due to it being a Lowland Raised Bog, a very scarce and declining habitat, nearly 90% of its former area having been lost in Scotland.

The northern edge of the moss has been reduced by the dumping of coal mine waste (Fallin Bing area of 27 ha) up until the pit closure in 1987. The open grassland areas are in various states of succession from raw bing spoil to grassland and scrub. The established areas are species-rich reflecting the base-rich conditions within the spoil.

Wester Moss has recently been declared the first reserve in the UK for the rare Large Heath Butterfly. The Large Heath Butterfly is a bog specialist that

lives on peatlands that support its food plant, Hare's-tail Cottongrass. The butterfly is still widespread on the blanket bogs of north and west Scotland, but in the rest of the UK is confined to lowland raised bogs (or 'mosses'), which have been cut over in the past for fuel, but are now extracted for horticultural peat.

This reserve is a partnership project between Butterfly Conservation Scotland, Stirling Council and the local community. Wester Moss is suffering from past drainage and the encroachment of scrub, both of which act to dry out the site. The periphery is dominated by birch and pine woodland which grades into birch scrub over active raised bog in the centre. Several species of Sphagnum moss are present along with a number of locally uncommon plants including sundew and bog rosemary.

For several years the Stirling Council Countryside Ranger Service has been undertaking work on the Moss, but now that Butterfly Conservation is involved, extra funding opportunities are available.

#### Visit details

Guy Harewood (Stirling Council Ranger Service) and Suzanne Bairner (BTCV Natural Talent Brownfield Site Ecology Apprentice) will talk about the biodiversity and industrial heritage of Fallin Bing.

Paul Kirkland (Butterfly Conservation Scotland), Alex Hogg (BTCV Natural Community Participation Officer) and Daisy Shepperd (BTCV Natural Talent Lowland raised bog apprentice) will cover biodiversity and habitat management of Wester Moss.

The visit will look at the biodiversity of the site, its value locally and nationally and issues with current and future management. This will cover the current and future funding options for the management works. The delegates will hear about the mining heritage of the site and how these human activities have impacted, and are still impacting, on the area.

### Timings

13.15	Leave Stirling University
13.45	Arrive at Polmaise Colliery Museum and Intro to site. Split the group in two.
14.00	<b>Group 1</b> visit Fallin Bing / <b>Group 2</b> visit Wester Moss
14.45	<b>Group 1</b> visit Wester Moss / <b>Group 2</b> visit Fallin Bing
15.30	Gather back at Museum for questions and closing comments
16.00	Depart for University

## 9. BIOGRAPHIES AND TALK OUTLINES

### Conference chairs

#### Dr Rob Stoneman, Chief Executive, Yorkshire Wildlife Trust

Rob began his foray into peatlands studying Geography at University of Liverpool, reconstructing pollution histories through the soot deposited in layers of peat. He went onto study Holocene climate change using peat stratigraphy for a PhD at the University of Southampton. Upset by the destruction of lowland bogs, Rob then moved to the Scottish Wildlife Trust to set out a conservation strategy for the conservation of Scotland's lowland raised bogs and was deeply involved in the active peatland campaign consortium. Since then, Rob has maintained his interest in peatlands despite a day job running Wildlife Trusts. Rob has been Chief Executive of Sheffield and Hampshire & Isle of Wight Wildlife Trusts and now runs the Yorkshire Wildlife Trust. Currently, Rob chairs the Yorkshire Peat Partnership and the IUCN UK Peatland Programme.

#### Dr Roddy Fairley, Biodiversity Action Programme Manager, Scottish Natural Heritage

Roddy is a Programme Manager in Scottish Natural Heritage, where he manages SNH's programmes for both Biodiversity Action and The Sea. A key role at present is leading SNH's engagement in the Government's revision of the Scottish Biodiversity Strategy. As a Director of the Central Scotland Forest, the Cairnhead Community Forest, his long involvement in Reforesting Scotland (which he chaired from 1998 to 2008) and as a member of the South Scotland Regional Forestry Forum, Roddy is as well known in forestry circles as he is in those related to nature more generally.

#### Stuart Brooks, Chief Executive, John Muir Trust

Stuart was originally brought up in Stamford, Lincolnshire. After leaving school he initially trained as a fine artist in Manchester, before studying geography at Newcastle University where he was introduced to upland and peatland ecosystems. After graduation and a series of volunteering and short term contracts Stuart joined the Scottish Wildlife Trust in 1995 as a field officer supporting an EU peatland conservation project. It was there that Stuart co-authored a peatland management handbook and was involved in a large range of habitat and species conservation initiatives in many countries around the world, eventually leaving the Trust in 2009 as their Director of Conservation. Stuart joined the John Muir Trust as its Chief Executive in 2009. He has held various positions on conservation and

land management bodies and is currently treasurer of the UK Executive Committee of the International Union for Conservation of Nature.

### Patrons

**Lord Jamie Lindsay** is currently chairman of the Moorland Forum, SAC and UKAS. He is on the board of various private sector companies and is also president of the Royal Scottish Geographical Society and a vice-president of the RSPB. Former roles have included Ministerial responsibility in Scotland for agriculture, environmental protection and rural affairs.

**Sir Graham Wynne** is a former Chief Executive (1998 – 2010) and Director of Conservation of the RSPB. He is currently a member of the Climate Change Adaptation Committee, a Special Adviser to the Prince of Wales' International Sustainability Unit and Chair of the Harapan Rainforest Foundation in Indonesia. His early career was in urban planning and inner city regeneration.

**Prof Andrew Watkinson** is Director of Living With Environmental Change and former Director of The Tyndall Centre for Climate Change Research. Andrew trained as an ecologist and has published widely from corals to geese and from China to the Caribbean. In his current position he is keen to promote innovative research that will address the environmental challenges that we currently face, hence his support for the peatland programme.

### Speakers

**Prof Nick Hanley** is professor of environmental economics at the University of Stirling, and worked on the UK National Ecosystems Assessment exercise.

His talk will review the main economic issues regarding the general problem of developing markets for ecosystem services, and then consider how these apply to the case of peatlands.

**Prof Des Thompson** is a Principal Adviser in Scottish Natural Heritage, where he manages policy and advisory work on biodiversity, climate change and ecosystem services. He has special interests in upland and bird ecology, and has published 15 books (including monographs, international reviews and field guides). A Trustee of the Field Studies Council, a member

of the NERC Peer College, and Fellow of the Institute of Ecology and Environmental Management, Des has especially strong ties with Norwegian ecologists and conservation officials.

In the face of climate change and global biodiversity loss, there have never been greater opportunities to realise the benefits of peatland ecosystems. Put another way, the costs of damaging peatlands or failing to tap their potential are far higher than ever before. We provide an overview of the IUCN UK Commission of Inquiry on Peatlands, which has drawn on academic, government, land managers, and NGO expertise. We are developing approaches to underpin the management of peatland ecosystems for carbon, water, biodiversity and amenity in a living landscape, where forestry, agriculture, renewables and other land uses need to be integrated. These draw on economic, ecological, social and technical approaches which have arisen from new and exciting alliances between researchers and practitioners. *Research co-authors are Andrew Coupar, Scottish Natural Heritage; Aletta Bonn and Clifton Bain, IUCN UK Peatland Programme.*

**Prof Pete Smith** is the Royal Society-Wolfson Professor of Soils and Global Change at the Institute of Biological and Environmental Sciences, School of Biological Sciences at the University of Aberdeen, and the Science Director of the Scottish Climate Change Centre of Expertise. Since 1996, he has served as Convening Lead Author, Lead Author and Author for the Intergovernmental Panel on Climate Change (IPCC), which was awarded the Nobel Peace Prize in 2007. He is the Convening Lead Author of the Agricultural Mitigation chapter of the IPCC Fourth Assessment Report and for the Agriculture and Forestry Mitigation chapter of the IPCC Fifth Assessment. He is a Fellow of the Society of Biology, a Rothamsted Research Fellow, a Research Fellow of the Royal Society (London), and a Fellow of the Royal Society of Edinburgh

His talk will provide an overview of the role of peatlands in climate regulation in the UK and globally, and examine how good management practice of peatlands could be incentivised through existing international climate agreements under the United Nations Framework Convention on Climate Change, and other mechanisms currently under discussion. Under the UNFCCC process, draft rules have been agreed which could come into force from the start of the next phase of the Kyoto Protocol in 2013, specifically including peatlands and rewetting of drained areas. *Research Co-author is Prof Hans Joosten, University of Griefwald.*

**Sir Graham Wynne**, CBE is a former Chief Executive (1998 – 2010) and Director of Conservation of the RSPB. He is currently a member of the Climate Change Adaptation Committee, a Special Adviser to the Prince of Wales' International Sustainability Unit and Chair of the Harapan Rainforest Foundation in Indonesia. His early career was in urban planning and inner city regeneration.

Even with strong international action on mitigation, past and present emissions mean that the climate will continue to change and the UK will need to respond (adaptation). Recent studies have highlighted the vulnerability of peatlands to climate change and particularly those that have been damaged. This talk will consider the merits of restoring and protecting peatlands as an adaptation action. Increasing their resilience, in the face of both current and future pressures, will have benefits well beyond carbon sequestration and storage.

**Igino Emmer** is co-founder and director of Silvestrum, a advisory firm in the field of climate change and land use. Igino has been involved in the creation of international standards, methodologies and projects since the 1990s.

His talk will discuss how rewetting of drained peatlands and the conservation of peatlands help to reduce GHG emissions and to restore or preserve biodiversity. The VCS standard provides guidance to projects that aim at creating a carbon asset and use carbon finance for their development and implementation.

**Pippa Chapman** is a Reader in Biogeochemistry at the University of Leeds, working in the interdisciplinary field of land and water management. Her research focuses on the impacts of land use management, atmospheric deposition and climate change on the behaviour of carbon, nitrogen and phosphorus in soil and surface waters.

Peatlands, particularly blanket bogs, are significant water supply sources in the UK. Peat occurrence and condition impact on the quality of surface waters. In addition, water quality in peatland runoff is influenced by changes in atmospheric deposition which can lead to elevated runoff acidity and inorganic nitrogen concentrations which affects aquatic biodiversity and recreational fisheries. However, the impact of atmospheric deposition on water quality can be either mitigated or exacerbated by the condition of peat and in particular the position of the water table within the peatland. This talk will discuss how peatland restoration in upland blanket bogs and lowland raised bogs influence water quality.

**Johan Schutten** is SEPA's lead wetland ecologist. Johan holds a PhD from Amsterdam University, and has about 20 years experience in wetland work. His experience includes work in academic, conservation and regulation in UK and Netherlands.

Protecting and enhancing peatlands is supported by a range of legislative drivers and should be founded on the ecosystem services or multiple benefits that the peatlands provide. Peatlands occur throughout the catchment and comprise blanket bog, raised bog, fen, wet woodland and organo-mineral soils.

**Andrew C Walker** has been with Yorkshire Water for 20 years, and involved with land management and its impacts on water quality for the last 8. With a degree in Environmental Studies, and a Masters in Public Health Engineering, he is well placed to develop and implement the softer, catchment management based approach to improving water quality, whilst being able to quantify the more traditional engineering approach to deteriorating water quality. Whilst improving raw water quality is the focus of his work, doing it in a way which balances everybody's interests is equally important. We all need clean water, but we also have to eat.

His talk will look at Yorkshire Water's first peatland restoration scheme to improve water quality. Using innovative methods and developing technologies we have helped to stabilise the water table, and provide the best possible conditions for conserving and building peat in the future. This catchment also provided the basis for a Natural England economic assessment of the impacts of peatland restoration, and used the Eco-System Services approach to valuing a range of benefits, not just to water customers, but also the wider society and environment.

**Micheal O'Briain** is Deputy Head of the Nature Unit of DG Environment. He has worked on a range of nature and biodiversity policy issues since joining the European Commission in 1992. This includes responsibility for overseeing implementation of the Birds Directive, work on establishment of the NATURA 2000 network and co-ordinating implementation of the EU Biodiversity Action Plan. Prior to working in Brussels Micheal was national director of the Irish partner of BirdLife International. He is a graduate and former research associate of University College Dublin.

The new EU biodiversity strategy, which sets out a framework for action to halt and reverse the loss of biodiversity and degradation of ecosystem services in the EU by 2020, is highly relevant to the conservation of peatlands. It includes measures to step up the implementation of EU nature legislation, especially through effective management and restoration of sites in the Natura 2000 network. It strongly emphasises the need for maintenance

and enhancement of ecosystem services through establishment of a green infrastructure. Such actions are increasingly important, not only in providing space for nature in the context of climate change, but also in delivering effective climate mitigation and adaptation measures.

**Prof David Hill** is Chairman and co-founder of The Environment Bank Ltd, the first company to introduce the concept of habitat and conservation banking into the UK. David is an ecologist having worked initially in the NGO sector before establishing one of the first ecological consultancies in the UK which he subsequently merged with a PLC. He is also Deputy Chair of Natural England.

His talk will focus on biodiversity and other offsetting opportunities, review potential market size and describe Environment Banks model for ecocredits and trading platform development.

**Lindsay Waddell** is Head Gamekeeper on Raby Estate, Ex Council member of NCC-EN and Chairman of the National Gamekeepers Organisation.

His talk will focus on the history of the first large scale moorland drain blocking programme and the long term effect of that, including the funding of such schemes.

**Viktar Fenchuk** lives in Minsk, Belarus. He is a professional biologist, with a strong nature conservation background. He holds the position of the CEO of APB, the BirdLife International partner in Belarus and has been involved in development and implementation of a number of peatland conservation and restoration projects both in his current position, as well as during his previous work as International BirdLife/CMS Aquatic Warbler conservation officer.

Over 50% of Belarus' 3 million ha of peatlands have been drained for peat extraction, agriculture and forestry in the end of 20th century. Now, many of earlier drained areas are abundant and left for degradation. A number of peatland conservation and restoration projects have been implemented in Belarus, proving high biodiversity, social and climate impact of the work. A new international initiative is looking into development of a sustainable tool for financing peatland restoration and management using mechanisms of Compliance and Voluntary carbon markets.

**Mark Reed** is Acting Director of the Aberdeen Centre for Environmental Sustainability and a Senior Lecturer in the Centre for Planning and Environmental Management in the School of Geosciences at the University

of Aberdeen. He is an interdisciplinary environmental researcher, working with stakeholders to better anticipate and adapt to environmental change, especially in peatland and desert regions. Among other projects, he leads the RELU Sustainable Uplands project, the IUCN Peatland Commission policy review, and contributed to the UK National Ecosystem Assessment and the development of Scotland's Rural Land Use Strategy.

This presentation will consider the barriers and opportunities for Payments for Ecosystem Services in UK peatlands, identifying the potential buyers and sellers and reviewing specific mechanisms that could facilitate private investment in restoration. There are currently opportunities for water companies to pay for water quality regulation through peatland management, and it may soon be possible to overcome barriers to carbon payments. Markets for cultural ecosystems are at an early stage of development, and there are no foreseeable markets for wildfire regulation. However, by packaging these co-benefits of peatland restoration with carbon and/or water, it may be possible to indirectly obtain payments for these other services.

**Dr Andrew Moxey** is a freelance economist based in Edinburgh and specialising in agricultural and agri-environmental policy analysis. From 1990 to 2000 he was an academic at the University of Newcastle upon Tyne and from 2001 to 2005 he was a senior civil servant with the Scottish Executive. He has contributed to a number of recent projects related to land use policies, climate change and ecosystem services.

The Common Agricultural Policy (CAP) dominates public expenditure on rural land use, yet relatively little is devoted to peatland restoration. This presentation will review, briefly, the current balance between different elements of the CAP across the UK and the potential for future funding to be linked more explicitly to peatlands

**Alison Connelly** is a graduate of St Andrews University, and has spent over 20 years working in the charitable fundraising sector, both in the UK and abroad for organisations as diverse as The Sick Kids Foundation, Children First, and the Netherlands Hartstichting. Since 1996 she has worked for RSPB Scotland, initially as a consultant. She is now leads the RSPB team of fundraisers who work to secure funding for all activities north of the border.

NGO's working on Peatland restoration projects across the country have proved highly successful at attracting funding from a variety of sources. This presentation will highlight some of these successes and consider what elements were needed to secure financial support. Some thoughts will be then shared on where these funding streams are headed, what doors might be opening - and closing - and the what the future challenges might be to securing continued funding for vital peatlands work.

## Workshop chairs

**Paul Leadbitter, Project Manager of the North Pennines AONB Partnership's Peatscapes Project**

**Stuart Brooks, Chief Executive, John Muir Trust**

Stuart joined the Scottish Wildlife Trust in 1995 as a field officer supporting an EU peatland conservation project. It was there that he co-authored a peatland management handbook and was involved in a large range of habitat and species conservation initiatives in many countries around the world, eventually leaving the Trust in 2009 as their Director of Conservation. Stuart joined the John Muir Trust as its Chief Executive in 2009. He has held various positions on conservation and land management bodies and is currently treasurer of the UK Executive Committee of the International Union for Conservation of Nature.

**Chris Dean, Programme Manager, Moors for the Future Partnership**

Chris Dean has worked in countryside management since 1976. This has included work for the Yorkshire Dales National Park and the Green Belt around Leeds and Bradford. Ten years of upland management in the South Pennines before work on the mapping of open access land. Since December 2002 the Programme Manager for the Moors for the Future Partnership which has so far brought over £15m investment into the Moorland landscape of the Peak District.

**Pat Thompson, Senior Uplands Policy Officer, RSPB**

Pat Thompson has experience of working in research, nature conservation, public affairs and policy work. In 1995, he was appointed by the RSPB to manage a project (co-funded by EC Life Nature Programme) to conserve blanket bog in the flow country. In his current role as uplands policy officer, he works across a wide-range of policy areas that impact on the uplands and how we use them.

**Vicki Swales, Head of Land Use Policy, RSPB**

Vicki Swales is currently Head of Land Use Policy for RSPB Scotland. She has worked on agriculture and rural land use policy for a number of organisations over the past 20 years and has a particular interest in the Common Agricultural Policy and its impact on the natural environment.

### Mark Reed, University of Aberdeen, RELU/LWEC

Mark Reed is Acting Director of the Aberdeen Centre for Environmental Sustainability and a Senior Lecturer in the Centre for Planning and Environmental Management in the School of Geosciences at the University of Aberdeen. He is an interdisciplinary environmental researcher, working with stakeholders to better anticipate and adapt to environmental change, especially in peatland and desert regions. Among other projects, he leads the RELU Sustainable Uplands project, the IUCN Peatland Commission policy review, and contributed to the UK National Ecosystem Assessment and the development of Scotland's Rural Land Use Strategy.

### Aletta Bonn, IUCN UK Peatland Programme

Aletta Bonn is Research Manager for the IUCN UK Peatland Programme. With a background in conservation science and seven years experience in practical conservation, her key areas of work lie in facilitating conservation action through participatory approaches and active knowledge exchange. Recent activities include managing the IUCN UK Commission of Inquiry on Peatlands, contributions to the UK National Ecosystem Assessment and several projects on peat ecosystem services.

## ACKNOWLEDGEMENTS

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