

Filling evidence gaps to deliver sustainable management of Welsh peatlands

Jonathan Walker, Swansea University

Cindy Froyd, Swansea University

Alan Radbourne, Centre for Ecology and Hydrology

Marian Pye, Snowdonia National Park Authority

Pete Jones, Natural Resources Wales

Chris Evans, Centre for Ecology and Hydrology

Rachel Harvey, Snowdonia National Park Authority



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Sustainable Management of Welsh Peatlands

Cindy Froyd, Swansea University

A Welsh Peatland Observatory Network

Jon Walker, Swansea University

Standardised peatland monitoring protocols to monitor changes in the condition of Welsh peatlands

Alan Radbourne, CEH



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Welsh Peatlands Sustainable Management Scheme

Cindy Froyd

Swansea University



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SMS Mawndiroedd Cymru

Welsh Peatlands SMS

Cynllun Rheoli Cynaliadwy - Sustainable Management Scheme

- Sustainable management of Welsh peatlands
- Coordinated approaches to training, education, PES development, monitoring and research, external funding
- Welsh Peatlands Action Group



SMS Mawndiroedd Cymru

Welsh Peatlands SMS

Cynllun Rheoli Cynaliadwy - Sustainable Management Scheme

- Prioritisation tool – target restoration. 40 sites identified, 12+ site surveys completed
- Restoration projects - Restoration works on priority, ‘difficult to do’ areas. Budget: £340k
- Peatland Code projects: 4 submitted for validation



SMS Mawndiroedd Cymru

Welsh Peatlands SMS

Cynllun Rheoli Cynaliadwy - Sustainable Management Scheme

- Training programme & standards charter to ensure best practice in restoration
- Community engagement to raise awareness and understanding of peatlands and their cultural value



SMS Mawndiroedd Cymru

Welsh Peatlands SMS

Cynllun Rheoli Cynaliadwy - Sustainable Management Scheme

- **Monitoring & evaluation tools**

Development of a comprehensive monitoring and evaluation programme to enable coordinated national scale monitoring

CEH Bangor – Alan Radbourne

- **Research Hub**

Better coordination of research effort to ensure the sustainable management of Welsh peatlands is underpinned by a robust evidence base

- Welsh Peatland Observatory Network

- Swansea University – Jon Walker

Welsh Peatland Observatory Network

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Aims of the Network

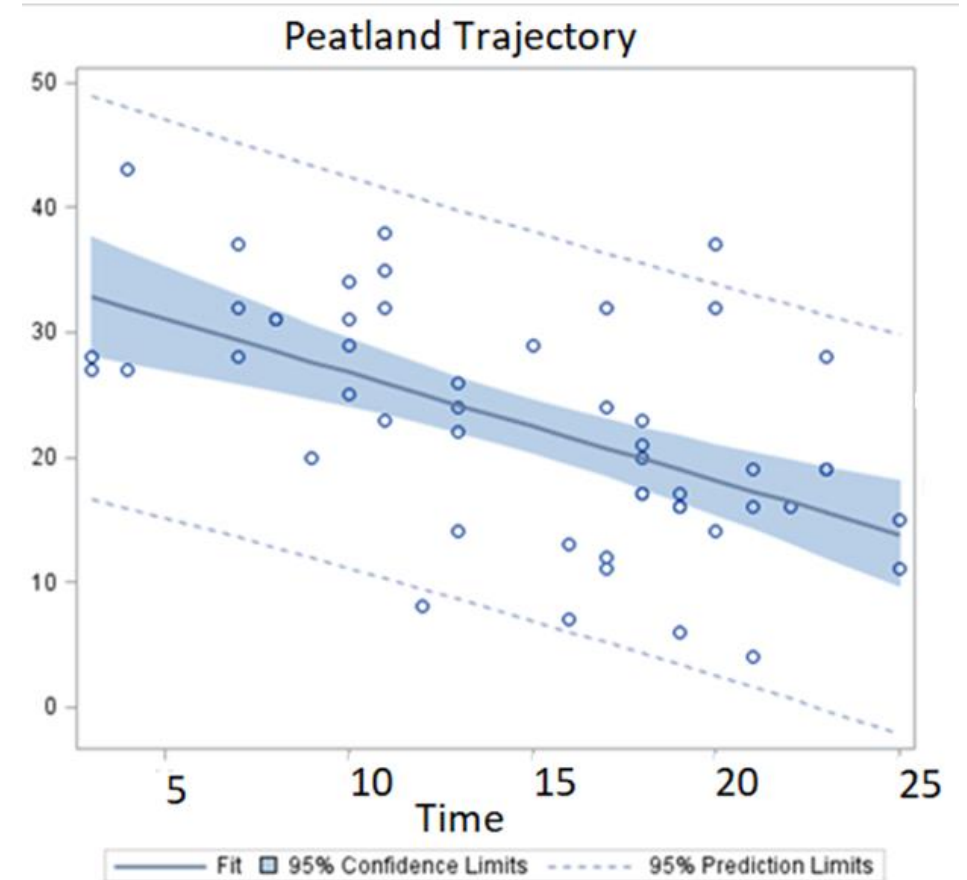
Broad aims for Welsh peatlands, to evidence:

- Sustainable peatland management
- Condition status and change
- Ecosystem resilience and adaptation
- Contribution of peatlands to well-being (of future generations)



Overview of the Network

- Network of research and monitoring observatories across Welsh peatlands; encompasses:
- Broad monitoring network using standardised monitoring methods across Welsh peatlands in collaboration with partners
- Subset of research observatories to focus research resources to more efficiently and effectively build the peatland evidence base
- Answer 'peatland' evidence gaps on Welsh peatlands
- Act as reference sites or condition types to UK / international scale studies
 - near natural reference sites; e.g. fens
 - near natural blanket bog at 'Welsh' latitudes



Scientific scope of the network

- Informed by evidence gap survey and prioritisation exercise
- Nothing ruled out.....
- Initial focus:
 - Carbon
 - Water
 - Biodiversity



Peatland typology

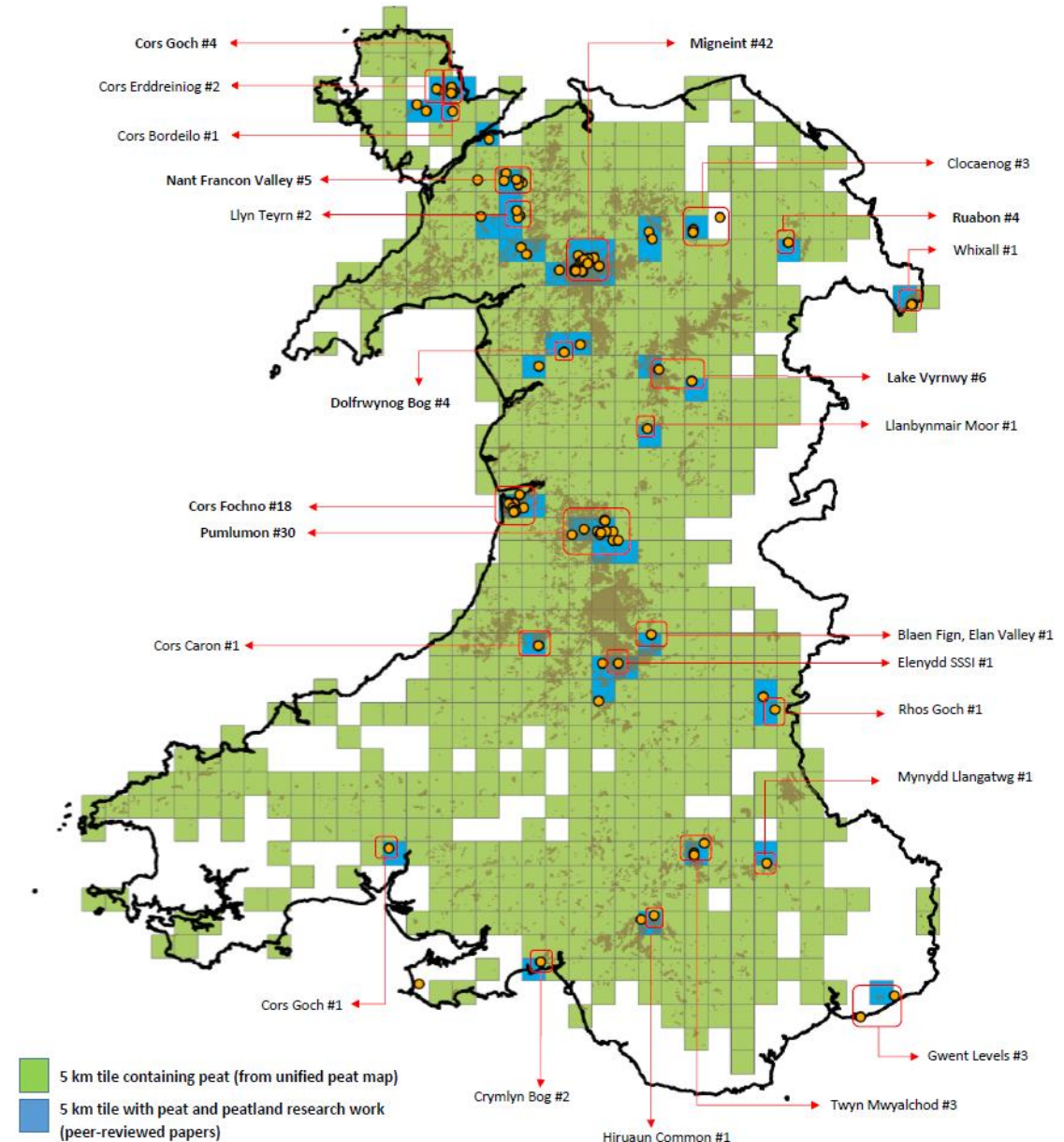
Peatland typologies to include:

- Lowland raised bog -
 - Near natural
 - Agricultural grassland
- Blanket bog
 - *Near natural*
 - *Modified (semi-natural)*
 - *Molinia caerulea* dominated
 - Commercial afforestation
- Transition mires and quaking bogs
- Alkaline fens
- Calcareous fens



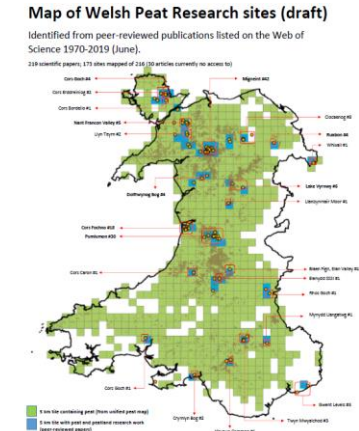
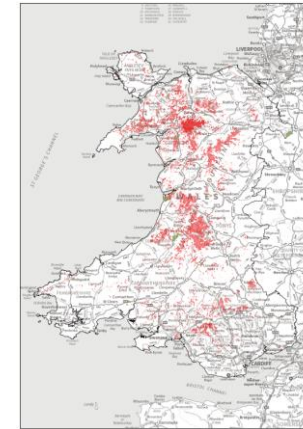
Identifying observatories

- Review of scientific literature to identify key research sites (who, what, where)
- ?PhDs and long-term monitoring
- Existing infrastructure (e.g. ECBN)
- represent drivers of change in peatland condition and environmental clines of significance



We'd like asking for your:

- Feedback on our proposals to establish a Welsh Peatland Observatory Network
- Contribution of information on research on Welsh peatlands
- Contribution of evidence gaps we could address in the network



Standardised peatland monitoring protocols to monitor changes in the condition of Welsh peatlands

Alan Radbourne

Centre for Ecology and Hydrology



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Genedlaethol
National Trust**



BRECON BEACONS
NATIONAL PARK



Montgomeryshire
Maldwyn



1 The ‘**Basic Peatland Assessment**’ has been developed as a rapid method for a simple condition assessment that feeds key driving data into national-scale satellite image analysis.

2 The assessment **provides the ground-truthed data** for developing a technique for **broad scale peatland assessment**.

3 We are **exploring how this simple assessment can add value to local-scale understanding** of site condition, while developing the database for national satellite image analysis.

4 We have been **working with a range of key stakeholders** to develop this method into a robust and valuable rapid assessment.



5 We would really appreciate your **constructive feedback**:

- Would you adopt this basic assessment?
- How could information be clearer?
- What do you think would really ‘add value’?

Please feel free to make comment on a copy of the assessment and drop it in the box.

6 This basic assessment goes hand in hand with the ‘**Advanced Peatland Assessment**’ that is currently in development. More information of the advanced assessment is available on the table or by getting in touch.

7 If you have any questions get in touch via email: **aradbourn@ceh.ac.uk**

1

The 'Advanced Peatland Assessment' will be a guide to a range of peatland monitoring and assessment methods.

2

The assessment is currently in development and will be publically available soon.

3

The aim is to provide a **decision making guide** for design implementation and reporting peatland condition assessments, including considerations for project scope and data quality

4

It will attempt to standardise both basic and advanced core methods ensuring data outputs are comparable across projects and creating a robust evidence base for peatlands.

5

If you have any questions get in touch via email: aradbourne@ceh.ac.uk

