



# The Ferns & Lycophytes of North Wales

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David G. Hill

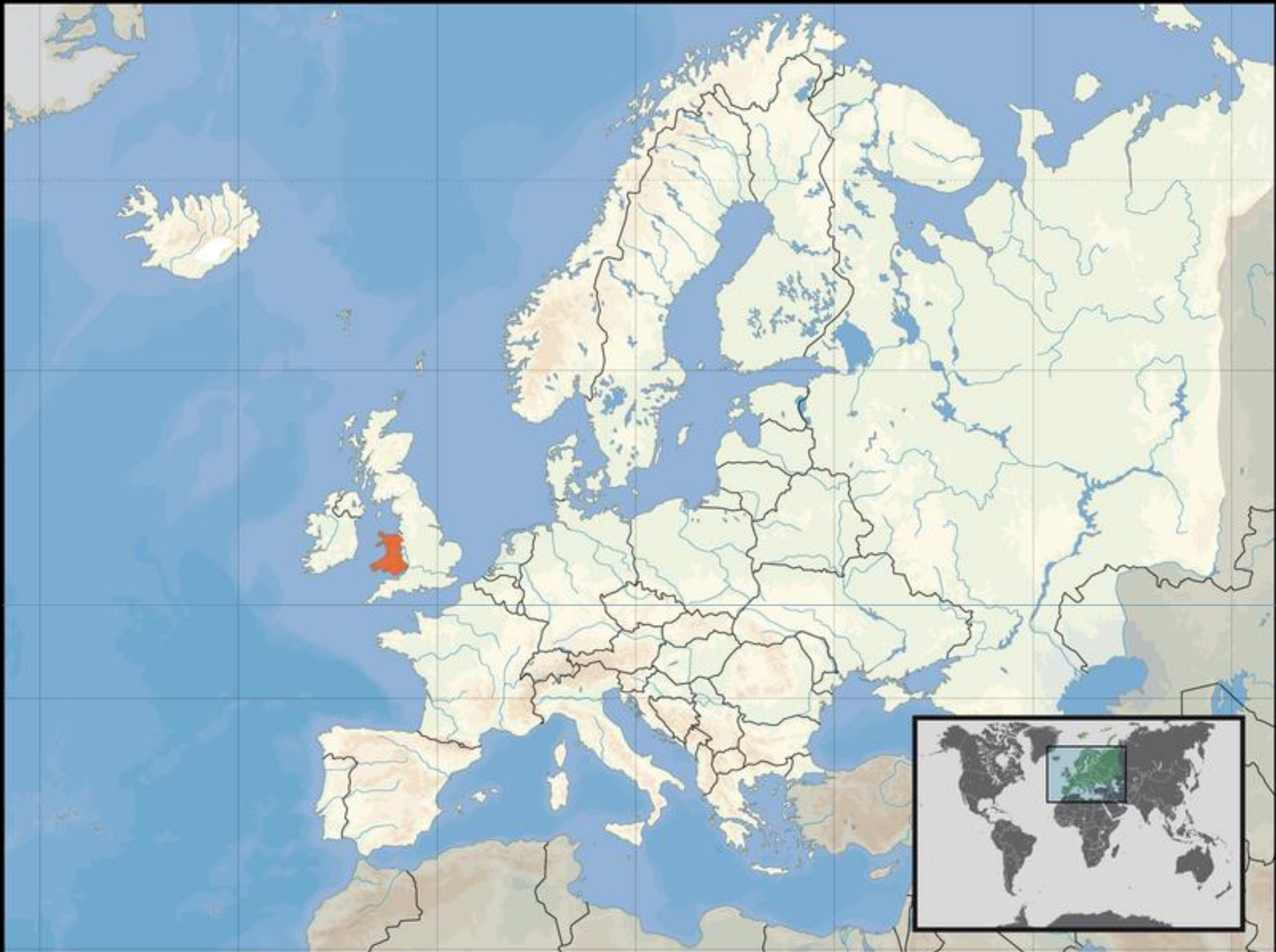
British Pteridological Society

[duckinwales@gmail.com](mailto:duckinwales@gmail.com)



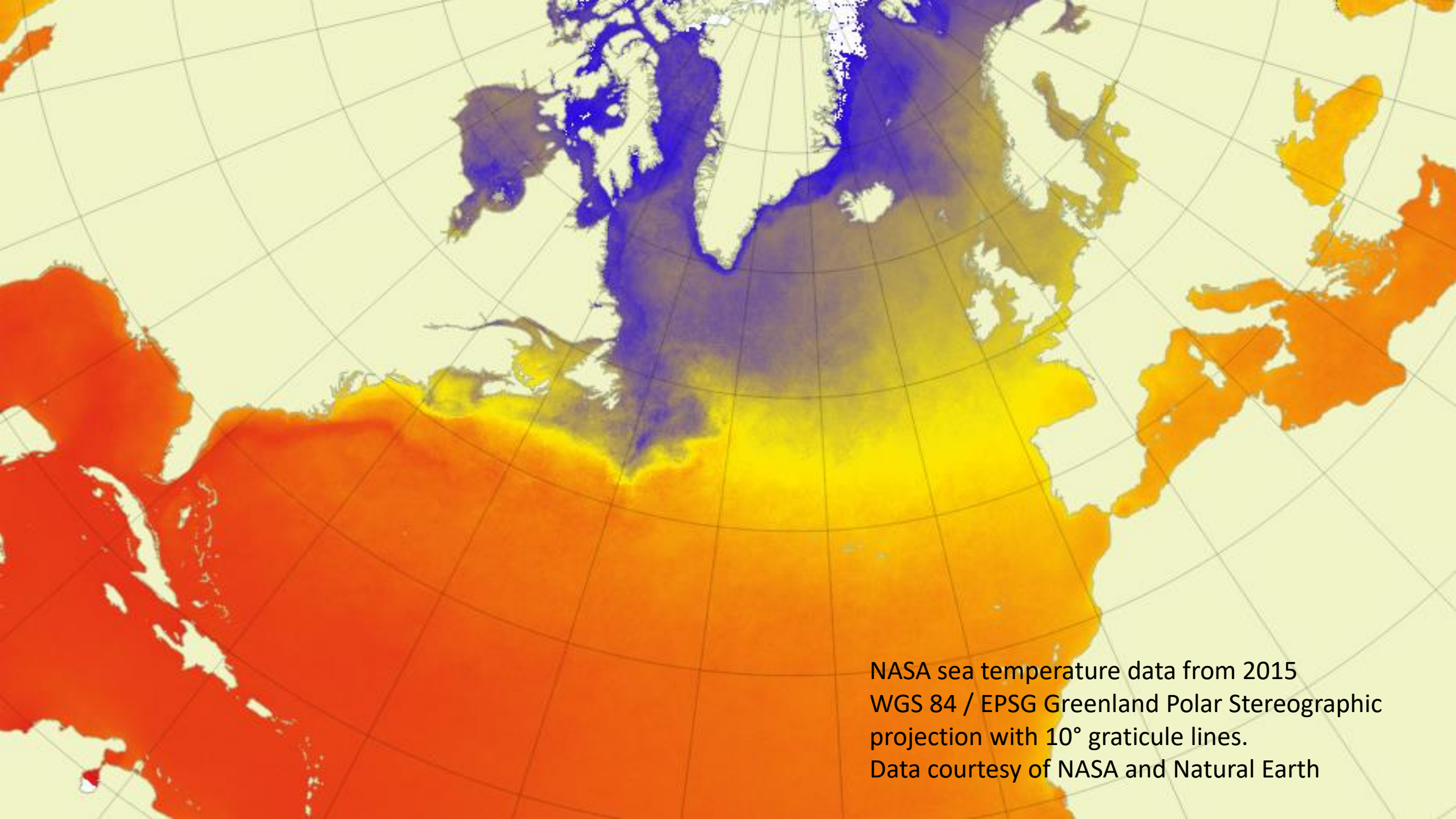
[@duckinwales](https://twitter.com/duckinwales)

# Lle/Where?

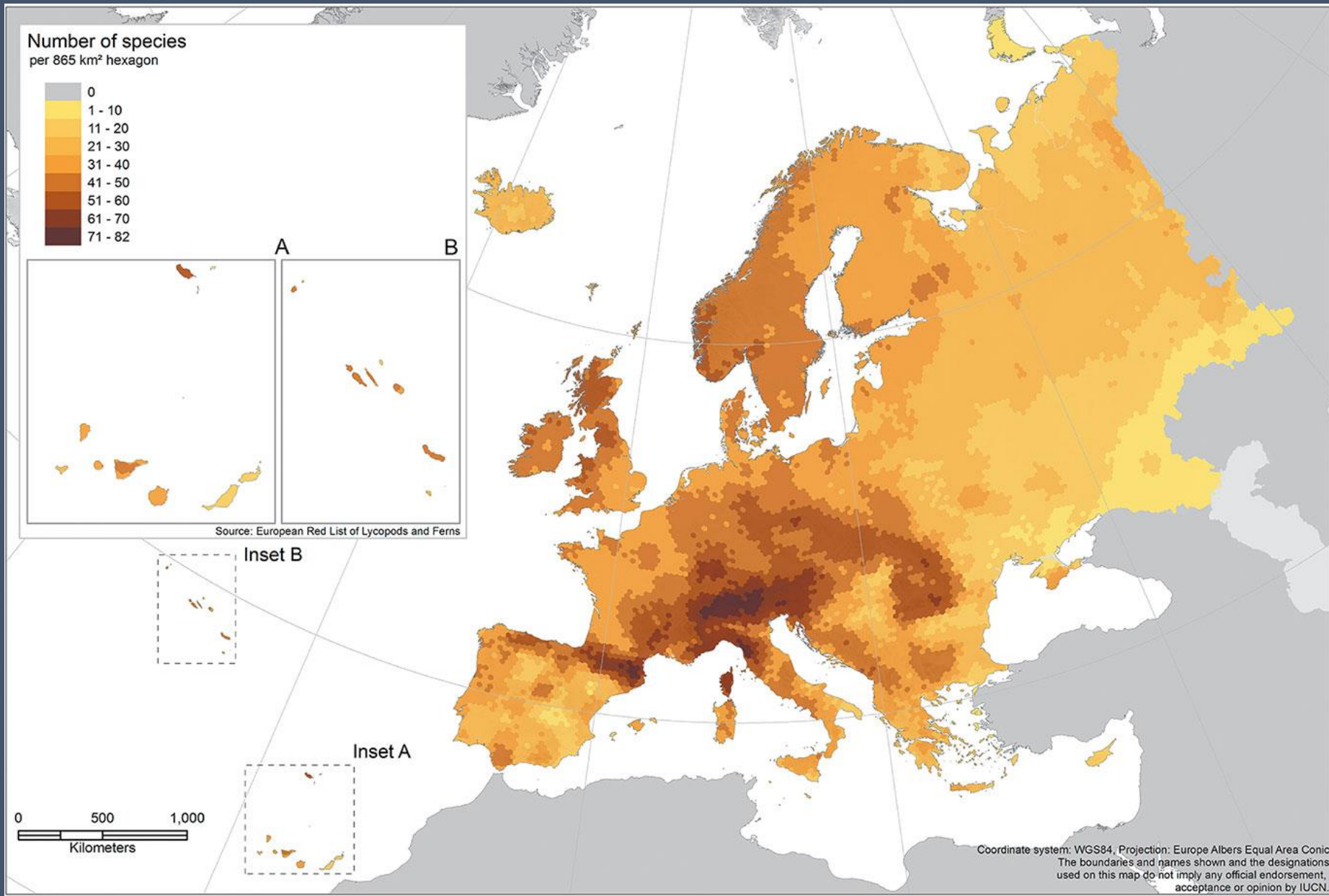


Location of Wales in Europe  
Reproduced under CC  
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David Liuzzo

[https://commons.wikimedia.org/wiki/File:Wales\\_Map\\_Europe.PNG](https://commons.wikimedia.org/wiki/File:Wales_Map_Europe.PNG)



NASA sea temperature data from 2015  
WGS 84 / EPSG Greenland Polar Stereographic  
projection with 10° graticule lines.  
Data courtesy of NASA and Natural Earth

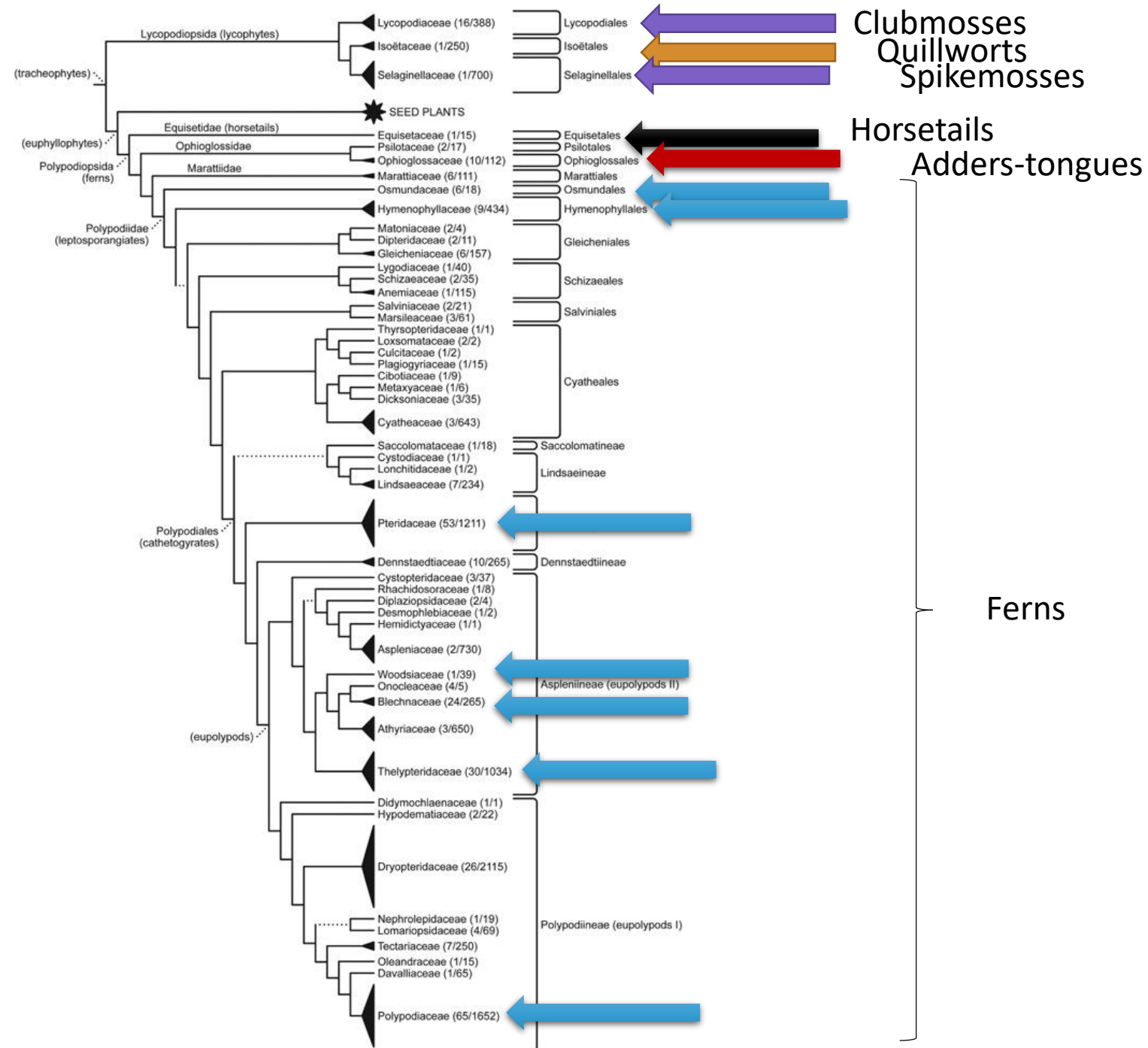


Species richness of European ferns and lycopods.

(Source: European Commission  
[https://ec.europa.eu/environment/nature/conservation/species/redlist/lycopods\\_and\\_ferns/geographic\\_patterns.htm](https://ec.europa.eu/environment/nature/conservation/species/redlist/lycopods_and_ferns/geographic_patterns.htm))

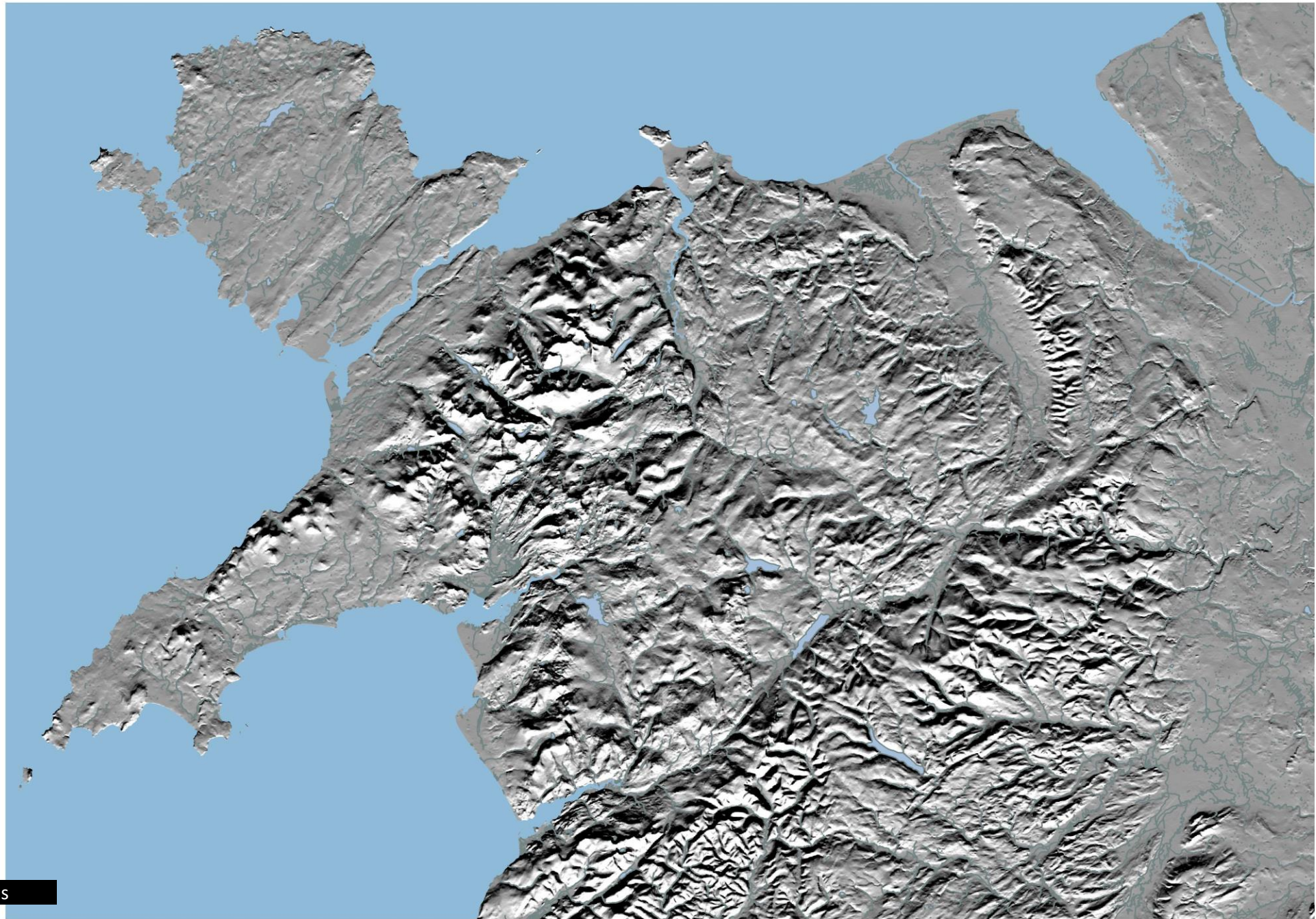
# Main (UK) groups

Using the 2016 Pteridophyte Phylogeny Group classification



Schuettpelz et al. (2016), A community-derived classification for extant lycophytes and ferns.

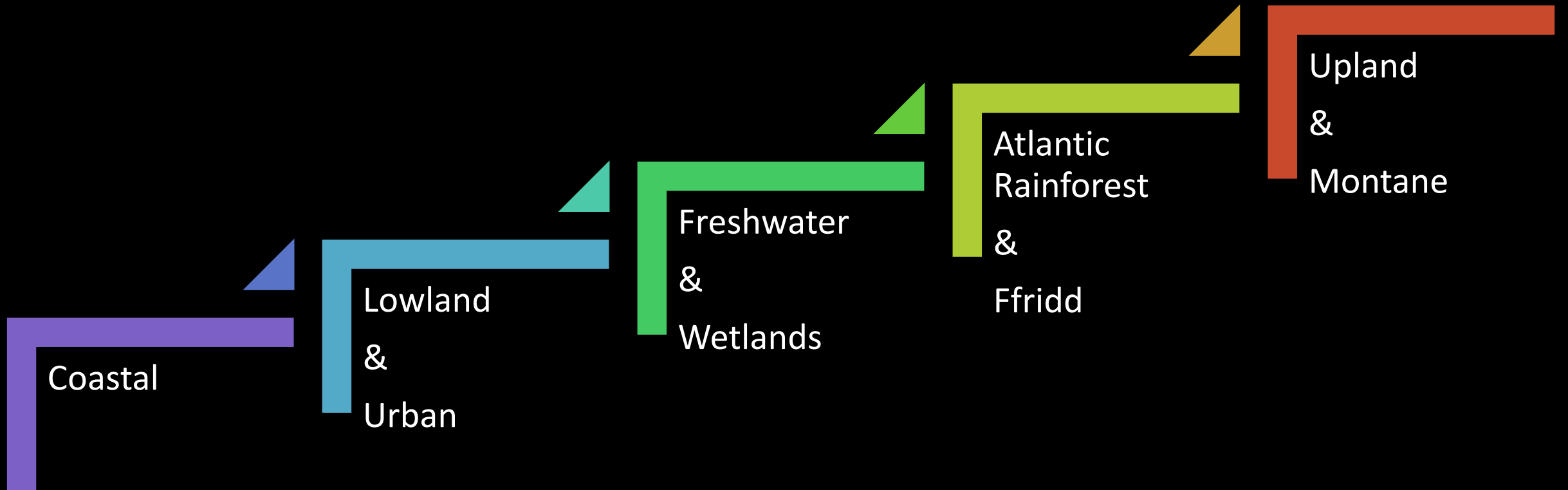
Jnl of Sytematics Evolution, 54: 563-603. <https://doi.org/10.1111/jse.12229>



Data courtesy of  
Ordnance Survey Open  
Data

10 miles

# From Sea to Sky




Coastal





Sea  
Spleenwort  
*Asplenium  
marinum*



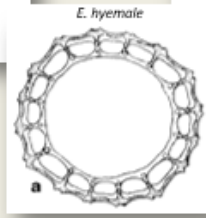
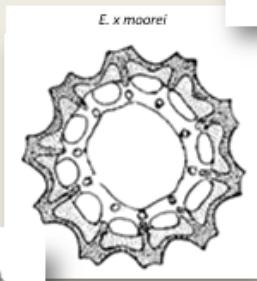
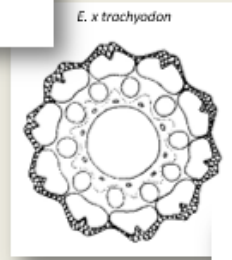
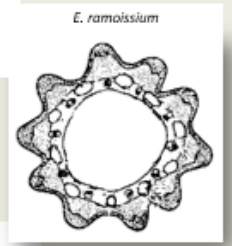
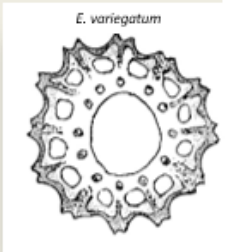
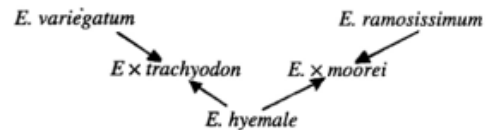
A photograph showing a red notebook with a red ribbon bookmark lying on a mossy ground. The notebook is positioned in the lower-left quadrant of the frame. To its right and slightly behind it is a cluster of vibrant green ferns with feathery fronds. The background consists of a large, dark brown rock with patches of white lichen or mineral deposits. The overall scene is a natural, outdoor setting, likely a forest floor or a rocky outcrop.

*Asplenium  
obovatum  
subsp.  
lanceolatum*

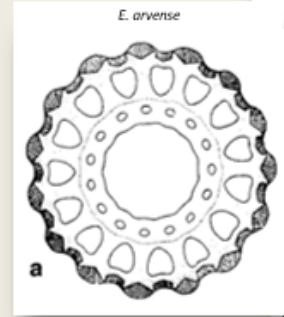
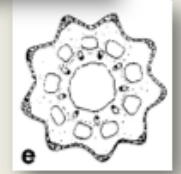
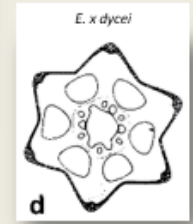
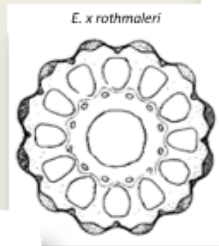
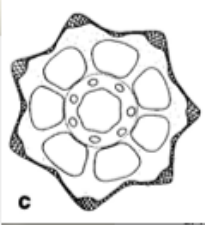
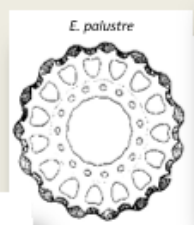
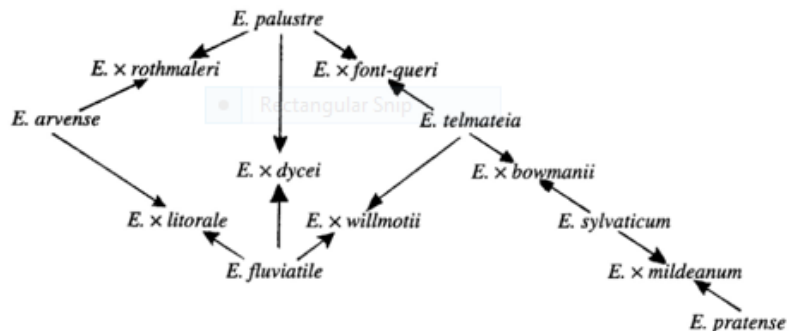


*Equisetum  
arvense  
(strobili)*

**Subgenus Hippochaete**



**Subgenus Equisetum**



Compiled using the Equisetum crib (1998) Jermy, Page & Acock



*Ophioglossum  
azoricum*






*Ophioglossum  
azoricum*


Lowlands &  
Urban





*Dryopteris  
affinis subsp.  
paleaceolobata*



A photograph of a forest floor covered in moss and ferns. The scene is dominated by vibrant green mosses and several ferns. In the foreground, there are large, feathery ferns with intricate, lacy patterns. To the right, there are broader, more solid-looking fern leaves. The ground is a dense carpet of various mosses, some appearing as small tufts and others as larger, more continuous patches. The overall atmosphere is lush and damp, typical of a forest understory.


*Dryopteris dilatata* &  
*Asplenium scolopendrium*



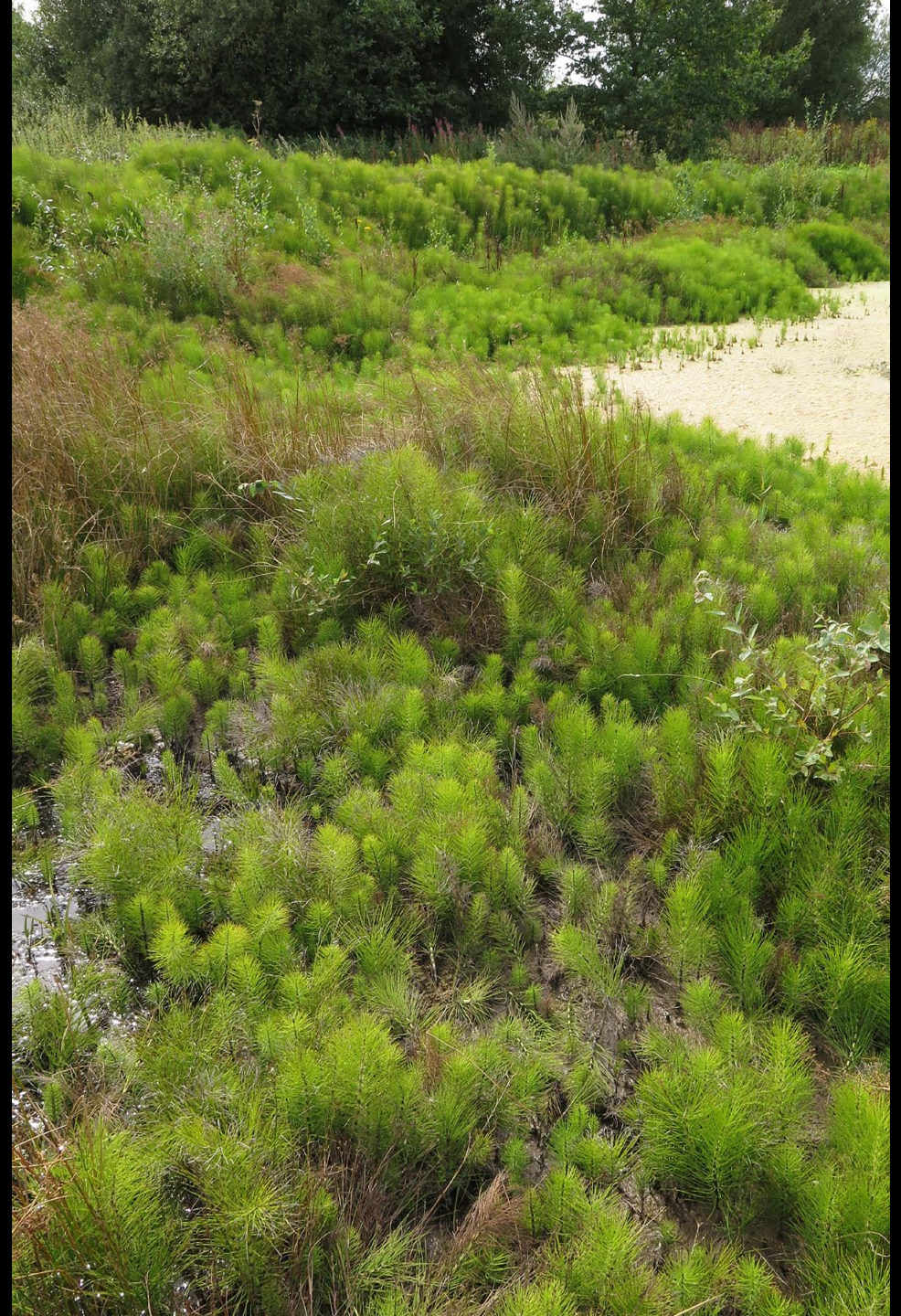
*Asplenium  
scolopendrium*

A photograph of several bright green fern fronds of Polystichum aculeatum growing from a crevice in a dark, textured rock. The fronds are pinnate and have a serrated appearance. The background is dark and rocky, with some dry grass and moss visible at the base of the ferns.

*Polystichum  
aculeatum*

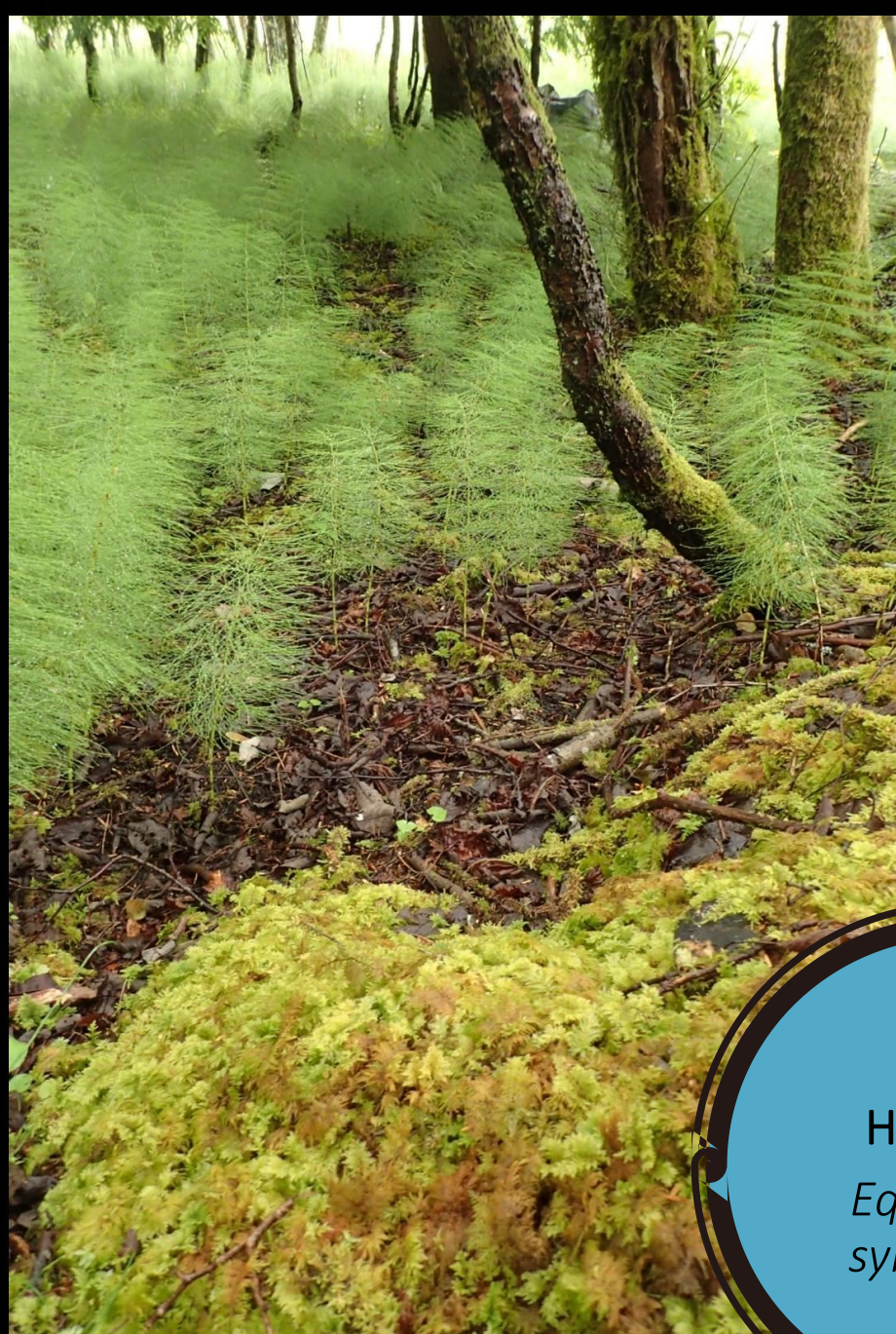
A close-up photograph of a Great Horsetail plant. The central feature is a thick, green, segmented stem with small, dark, diamond-shaped nodes. From these nodes, numerous thin, needle-like leaves radiate outwards, creating a dense, brush-like appearance. The plant is growing in a natural setting, with other green foliage and reddish-brown stems visible in the background.

Great Horsetail  
*Equisetum telmateia*






Dutch Rush  
*Equisetum  
hyemale*




Wood  
Horsetail  
*Equisetum  
sylvaticum*



*Asplenium  
ruta-muraria*



*Asplenium  
ceterach*



*Asplenium  
trichomanes  
& A.  
scolopendrium*





*Asplenium  
scolopendrium*



Male fern  
*Dryopteris*  
*filix-mas*

*Polypodium  
vulgare*



**Menai Suspension Bridge  
(above)**

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© [Ian Capper -  
geograph.org.uk/p/3689932](https://www.geograph.org.uk/p/3689932).

*Selaginella  
kraussiana*





Freshwater &  
Wetland

Image courtesy of  
Tristan Hatton-Ellis, NRW

*Isöetes*  
lawn





Quillwort

*Isöetes  
lacustris*



*Isöetes  
lacustris*  
megaspores





Water  
Horsetail  
*Equisetum  
fluviatile*



Pillwort  
*Pilularia  
globulifera*



Pillwort  
*Pilularia  
globulifera*



*Azolla  
filiculoides*  
(inns)



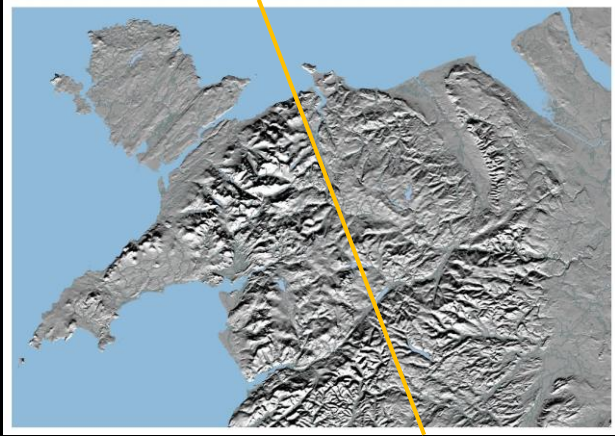
Marsh  
clubmoss  
*Lycopodiella  
inundata*



Marsh fern  
*Thelypteris  
palustris*



Royal Fern  
*Osmunda regalis*



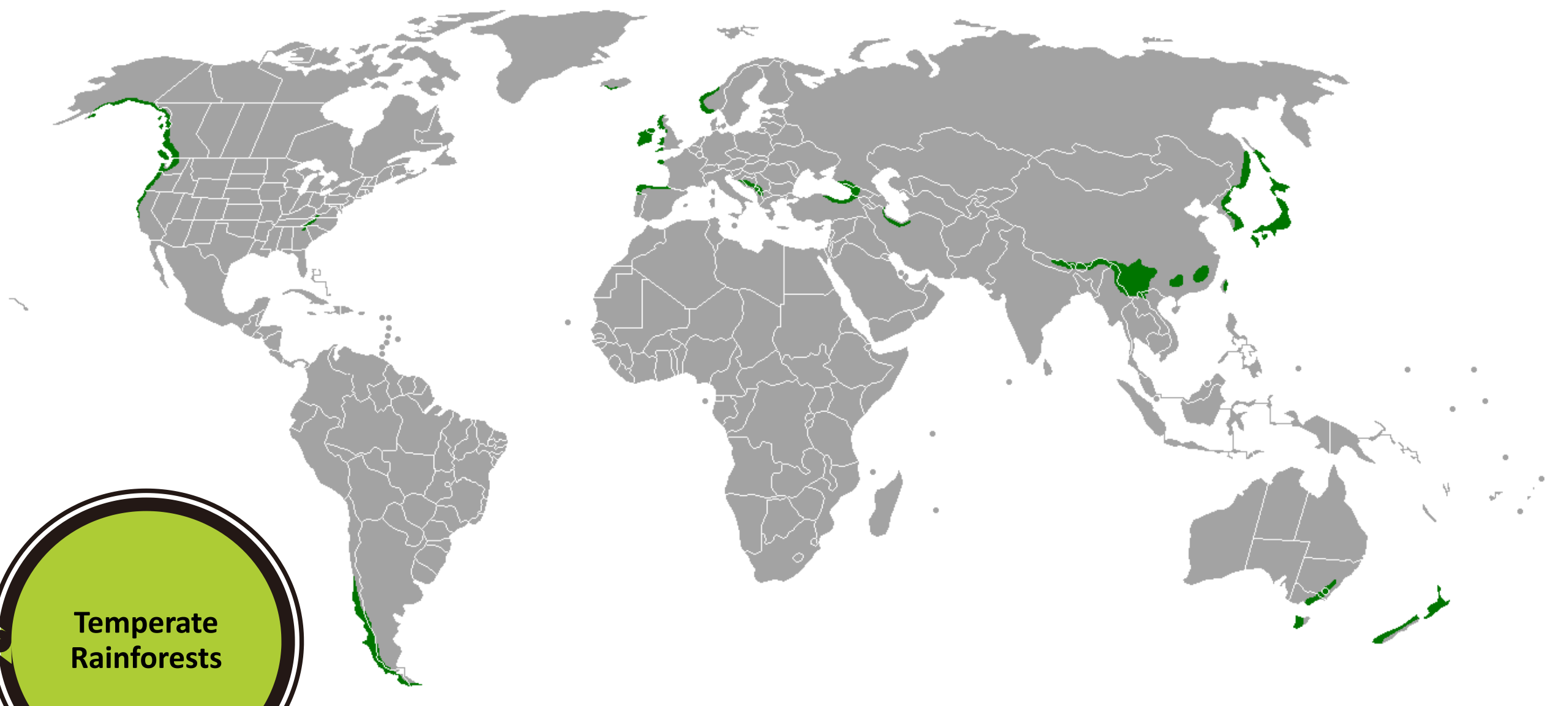
Royal Fern  
*Osmunda  
regalis*

Picture courtesy:  
Geraint Hughes, NT



A lush forest scene with moss-covered rocks and trees. The foreground is dominated by large, rounded rocks covered in vibrant green moss. A fallen tree trunk, also covered in moss, arches across the middle ground. The background is filled with tall, thin trees with sparse green leaves. In the distance, a person wearing a hat and dark clothing is visible, standing near a large rock. The overall atmosphere is damp and verdant.

Atlantic rainforest  
& Ffridd



**Temperate  
Rainforests**



**Common  
Polypody**  
*Polypodium  
vulgare*




**Wilson's  
Filmy Fern**

*Hymenophyllum  
wilsonii*



**Wilson's  
Filmy Fern**


*Hymenophyllum  
wilsonii*




Rhedynen  
Cilarene /  
Killarney fern

*Vandenboschia  
speciosa*

Photo courtesy:  
Fred Rumsey



Rhedynen  
Cilarene /  
Killarney fern  
(Gametophyte)  
*Vandenboschia  
speciosa*



*Dryopteris  
aemula*





**Common  
Polypody**  
*Polypodium  
vulgare*





**Rhedyn /  
Bracken**

*Pteridium  
aquilinum*



**Rhedyn /  
Bracken**

*Pteridium  
aquilinum*

A photograph showing a vast field of ferns in autumn. The ferns are a mix of golden-brown and dark brown, indicating they have turned. The field stretches towards a line of trees in the background. The lighting is soft, suggesting an overcast day or late afternoon. The ferns are the dominant feature, filling most of the frame.

Rhedyn /  
Bracken

*Pteridium  
aquilinum*

**Rhedyn /  
Bracken**

*Pteridium  
aquilinum*





**Rhedyn /  
Bracken**

*Pteridium  
aquilinum*



**Bracken Map  
fungus**

*Rhopoglyphus  
filicinus*





**Oak Fern**

*Gymnocapium  
dryopteris*

Upland &  
Montane





**Limestone  
Oak Fern**

*Gymnocapium  
robertianum*



**Marchredynen  
y Calchfaen  
Rigid Buckler  
Fern**

*Dryopteris  
submontana*



**Marchredynen  
y Calchfaen  
Rigid Buckler  
Fern**

*Dryopteris  
submontana*





Moonwort  
*Botrychium  
lunaria*

A photograph of a Black Spleenwort fern (Asplenium adiantum-nigrum) growing on a mossy rock. The fern has several bright green, deeply lobed fronds. The rock is covered in a thick carpet of vibrant green moss. To the left of the rock, there is a pile of brown, dried leaves. The background is a dark, shadowed rock face.

Black  
Spleenwort  
*Asplenium  
adiantum-  
nigrum*

A close-up photograph of a Forked spleenwort fern (Asplenium septentrionale) growing on a bed of white, lichen-like moss. The fern has several upright, green, lanceolate leaves with dark, elongated sori (spore-bearing structures) along their edges. The background is a blurred natural setting with various green plants and brown twigs.

Forked  
spleenwort  
*Asplenium  
septentrionale*





Hard fern

*Struthiopteris  
spicant*



*Struthiopteris  
spicant*  
&  
*Asplenium  
adiantum-  
nigrum*

*Rhedynen*  
*Fair / Lady*  
*Fern*

*Athyrium*  
*filix-femina*





*Golden-scale  
Male Fern  
Dryopteris  
affinis s.s.*



*Golden-scale  
Male Fern  
Dryopteris  
affinis s.s.*





- YN DIOGELU GEOAMR



**Lesser Clubmoss**  
*Selaginella selaginoides*





**Lesser  
Clubmoss**

*Selaginella  
selaginoides*



**Fir Clubmoss**

*Huperzia selago*

? *H. appressa*



Stag's-horn  
clubmoss

*Lycopodium  
clavatum*

**Interrupted  
clubmoss**

*Lycopodium  
annotinum /  
Spinulum  
annotinum*





*Adiantum cf.  
pedatum*



**Beech Fern**

*Phegopteris  
connectilis*



**Green  
Spleenwort**  
*Asplenium  
viride*

A photograph showing two clumps of Parsley Fern (Cryptogramma crispera) growing on a bed of grey and tan rocks. The ferns have a dense, feathery appearance with a vibrant green color. The rocks are irregularly shaped and vary in size, creating a textured background for the plants.

Parsley Fern  
*Cryptogramma  
crispa*





**Rhedynen  
Gelyn**

**Holly Fern**

*Polystichum  
lonchitis*



Rhedynen  
Woodsia  
Alpine  
Woodsia  
*Woodsia  
alpina*



**Rhedynen  
Woodsia higuil**

**Oblong  
Woodsia**

*Woodsia  
ilvensis*



# British Pteridological Society



## BPS Recording Form

When completed please return to relevant BSBI VC recorder (see [http://www.bsbi.org.uk](#)) and copy to **Fred Rumsey**, Angela Marmont Centre for UK Biodiversity, Natural History Museum, Cromwell Road, London, SW7 5BD, UK.  
E-mail: [F.Rumsey@nhm.ac.uk](mailto:F.Rumsey@nhm.ac.uk)

Site/Location	Vice-county
Grid Ref.	Date
Recorders	

Adiantum capillus-veneris	0017	Equisetum fluviatile	0713
Anogramma leptophylla	0115	E. hyemale	0714
A. -nigrum†	0185.1	E. palustre	0717
	0191	E. pratense	0718
	0473	<b>E. ramosissimum</b>	0719
-latum	0189	E. sylvaticum	0720



**cofnod**

Gwasanaeth Gwybodaeth Amgylcheddol Gogledd Cymru  
North Wales Environmental Information Service



Askog Hall fernery 1879 & now

Picture used under CC licence

from Peter Zehrer

<https://www.flickr.com/photos/mzehrer/207117586>

zehrer/207117586



*Adiantum (var.) acritum*  
at Coacou, Trinidad

89

175



UNKNOWN









# British Pteridological Society

Local / National & International field visits

Spore & plant exchange

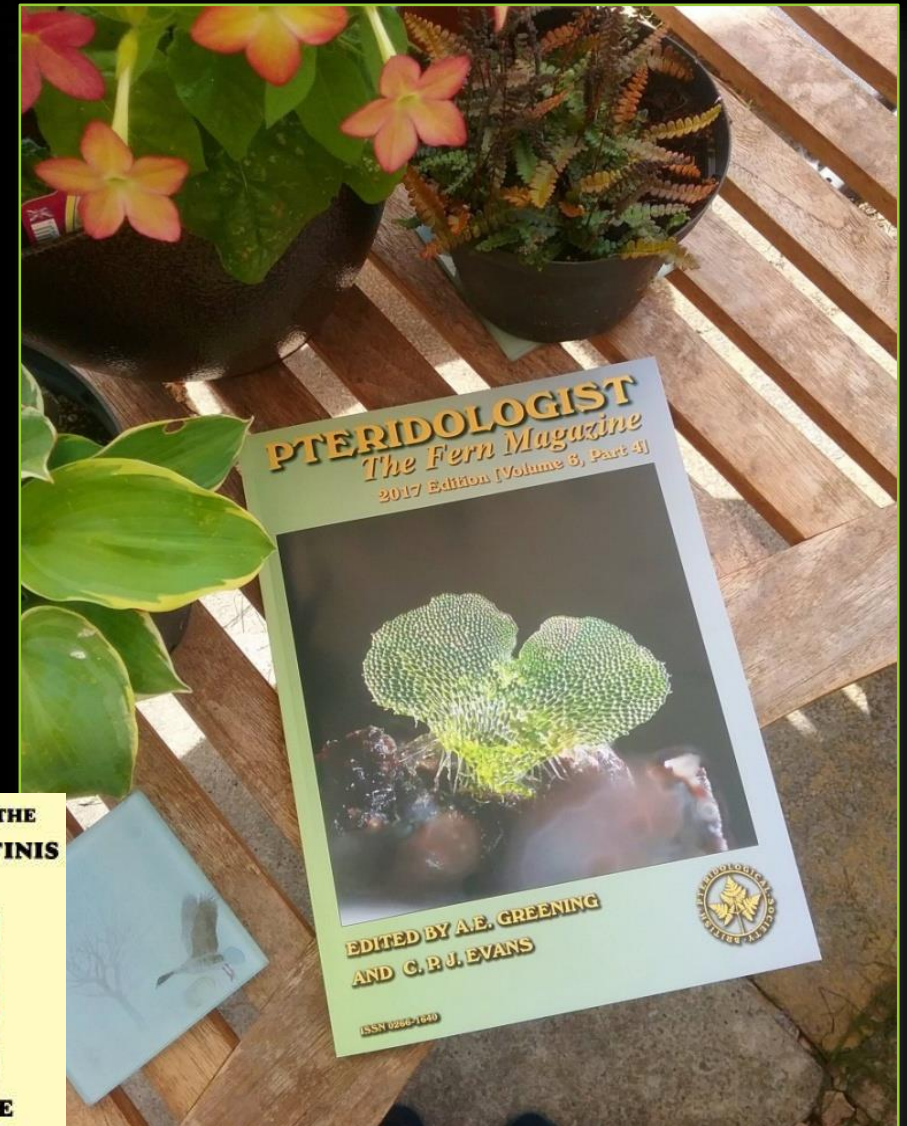
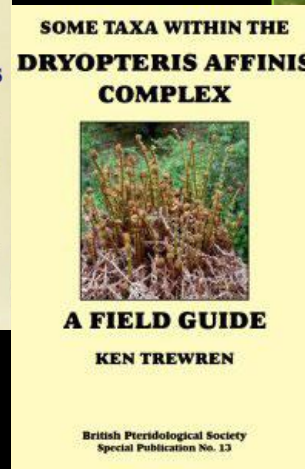
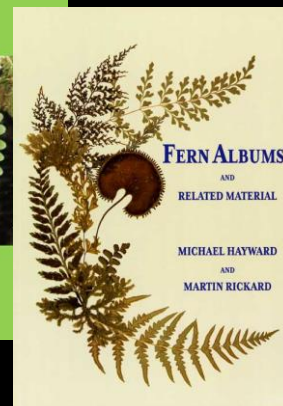
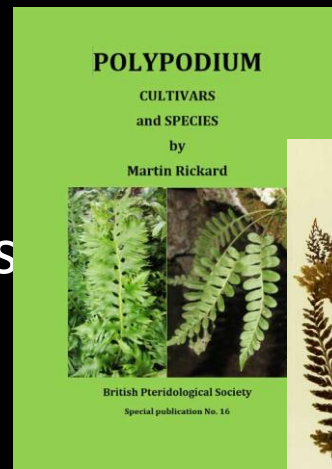
Horticultural shows

Grants

3 magazines

+Special publications

[www.ebps.org.uk](http://www.ebps.org.uk)





Diolch yn fawr /  
Thank you  
Any Questions?

David G. Hill

British Pteridological Society

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