

# Meadow-grasses (*Poa* spp.)



Photo: Fionnuala O'Neill

# Vegetative characteristics of *Poa* spp.

- Leaf tip is boat-shaped/hooded/keeled – leaves cannot be flattened without splitting the tip
- Shoot base and stems at least slightly flattened
- Young leaves folded in the shoot, not rolled
- Usually hairless (but see *Poa humilis*)
- “Tramlines” – 2 grooves running either side of midrib on upper leaf surface
- No cross-veins on leaves or sheaths (contrast *Glyceria*)
- Most are perennial, just one annual (*P. annua*)

# Floral characteristics of *Poa* spp.

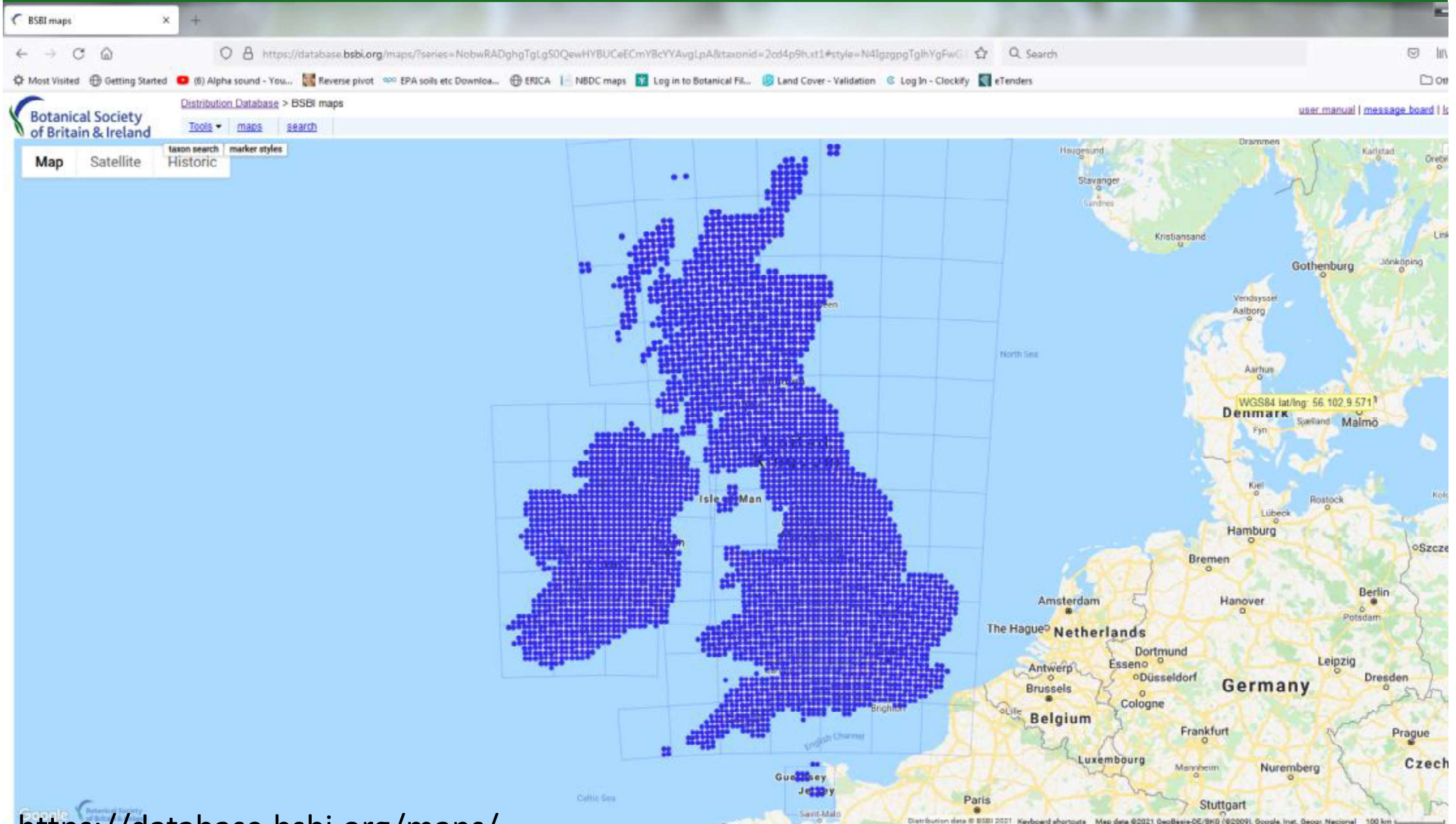
- Inflorescence is always a panicle
- Spikelets contain 2 or more florets

# Poa species in Ireland

Scientific Name	Common Name	No. of records in NBDC*
<i>Poa annua</i>	Annual Meadow-grass	6,536
<i>Poa trivialis</i>	Rough Meadow-grass	5,911
<i>Poa pratensis</i>	Smooth Meadow-grass	3,733
<i>Poa humilis</i>	Spreading Meadow-grass	919
<i>Poa nemoralis</i>	Wood Meadow-grass	169
<i>Poa palustris</i>	Swamp Meadow-grass	46
<i>Poa compressa</i>	Flattened Meadow-grass	32
<i>Poa alpina</i>	Alpine Meadow-grass	19
<i>Poa bulbosa</i>	Bulbous Meadow-grass	4
<i>Poa chaixii</i>	Broad-leaved Meadow-grass	3
<i>Poa infirma</i>	Early Meadow-grass	3

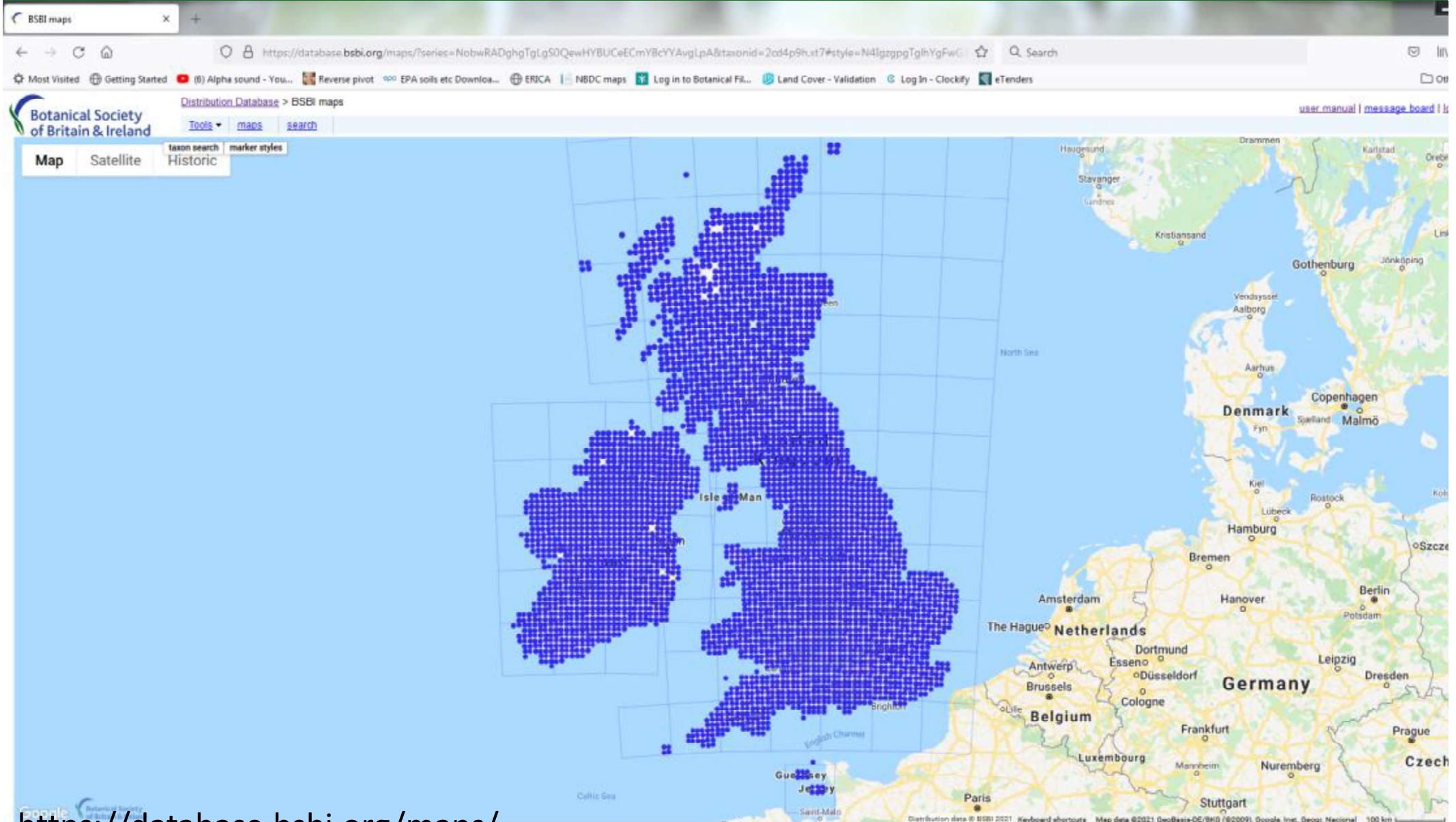
\* National Biodiversity Data Centre: <https://maps.biodiversityireland.ie>

# *Poa annua* – Annual Meadow-grass



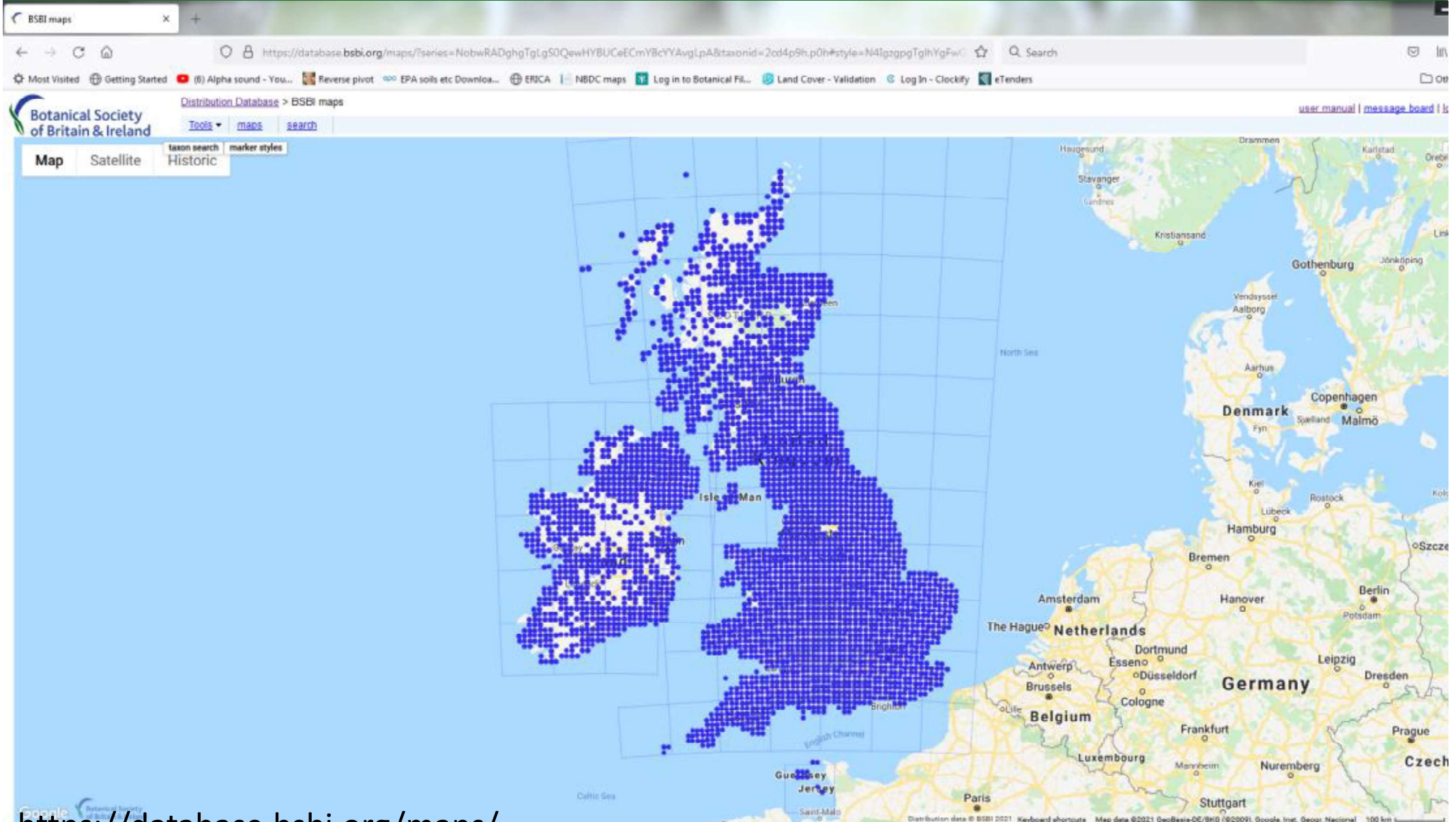
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# *Poa trivialis* – Rough Meadow-grass



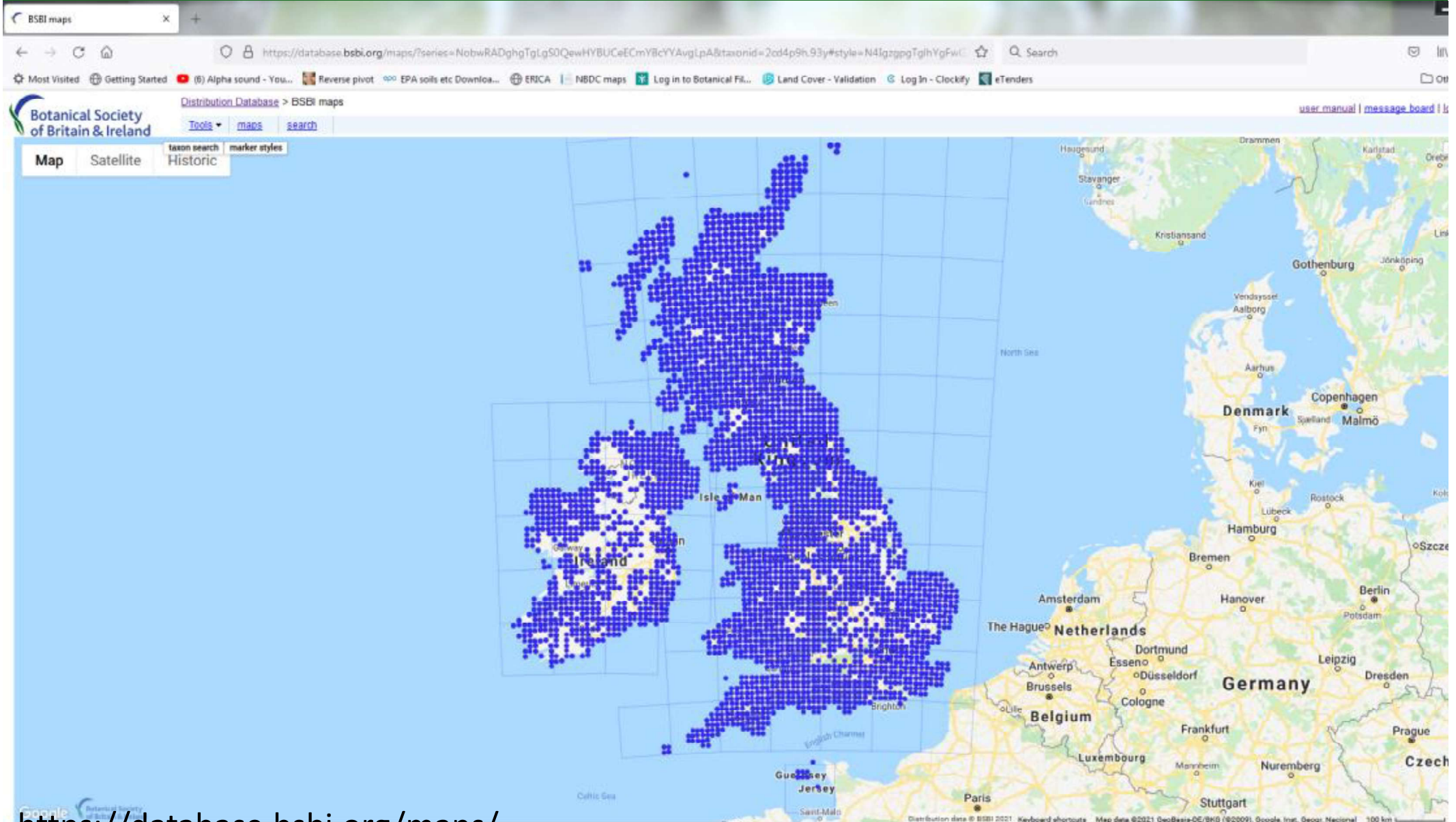
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# *Poa pratensis* – Smooth Meadow-grass



<https://database.bsbi.org/maps/>

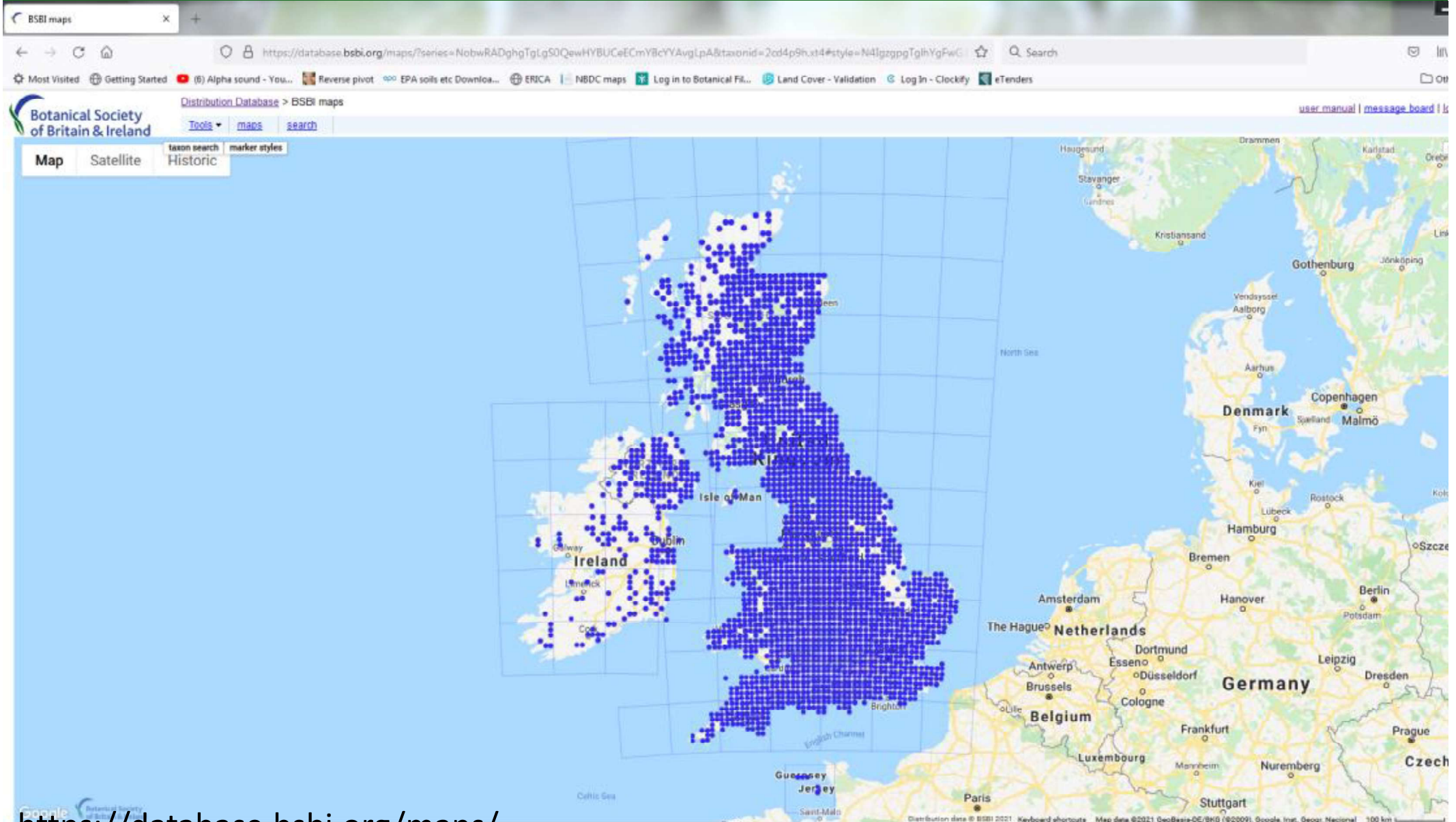
# *Poa humilis* – Spreading Meadow-grass



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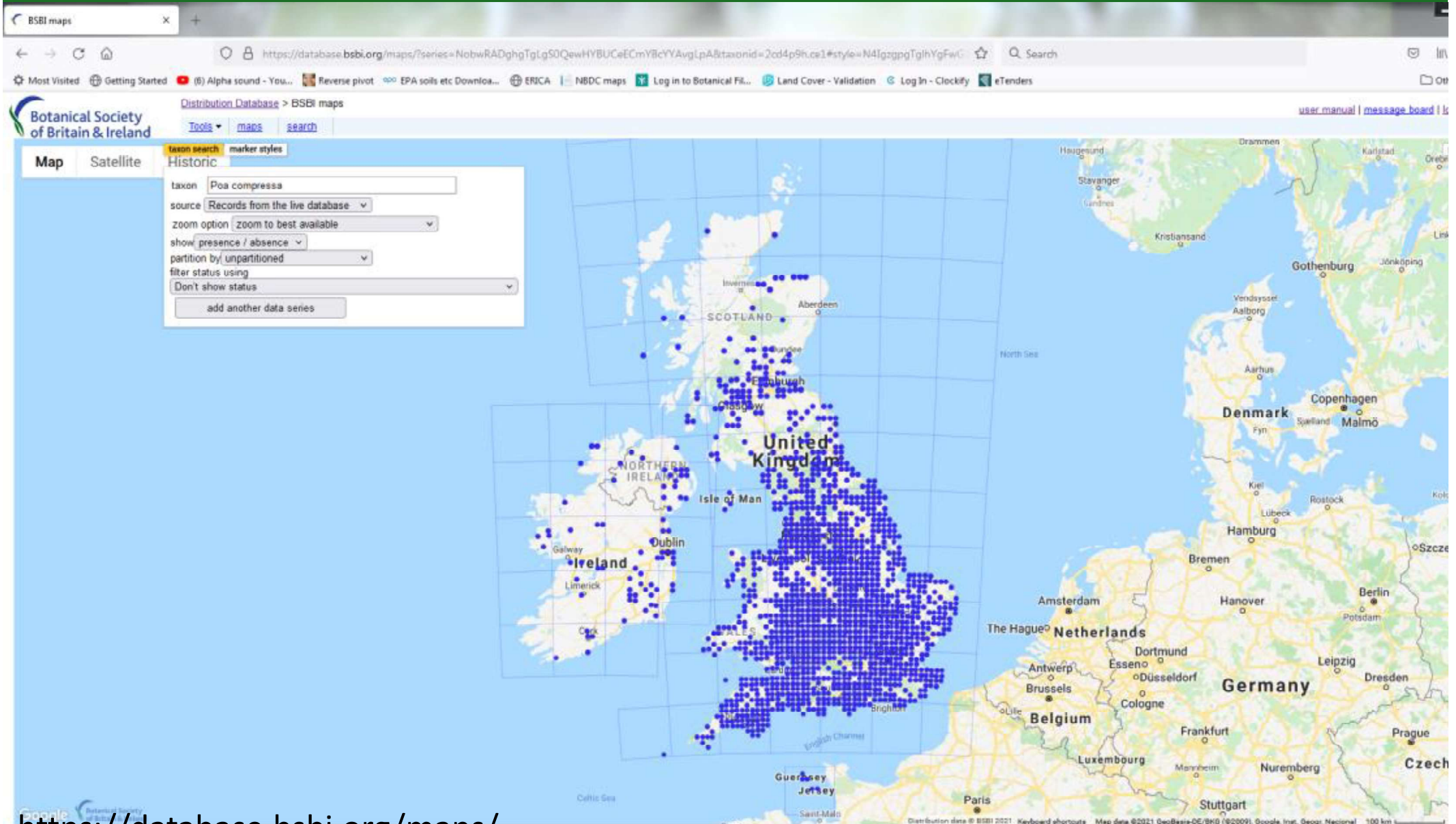


# *Poa nemoralis* – Wood Meadow-grass



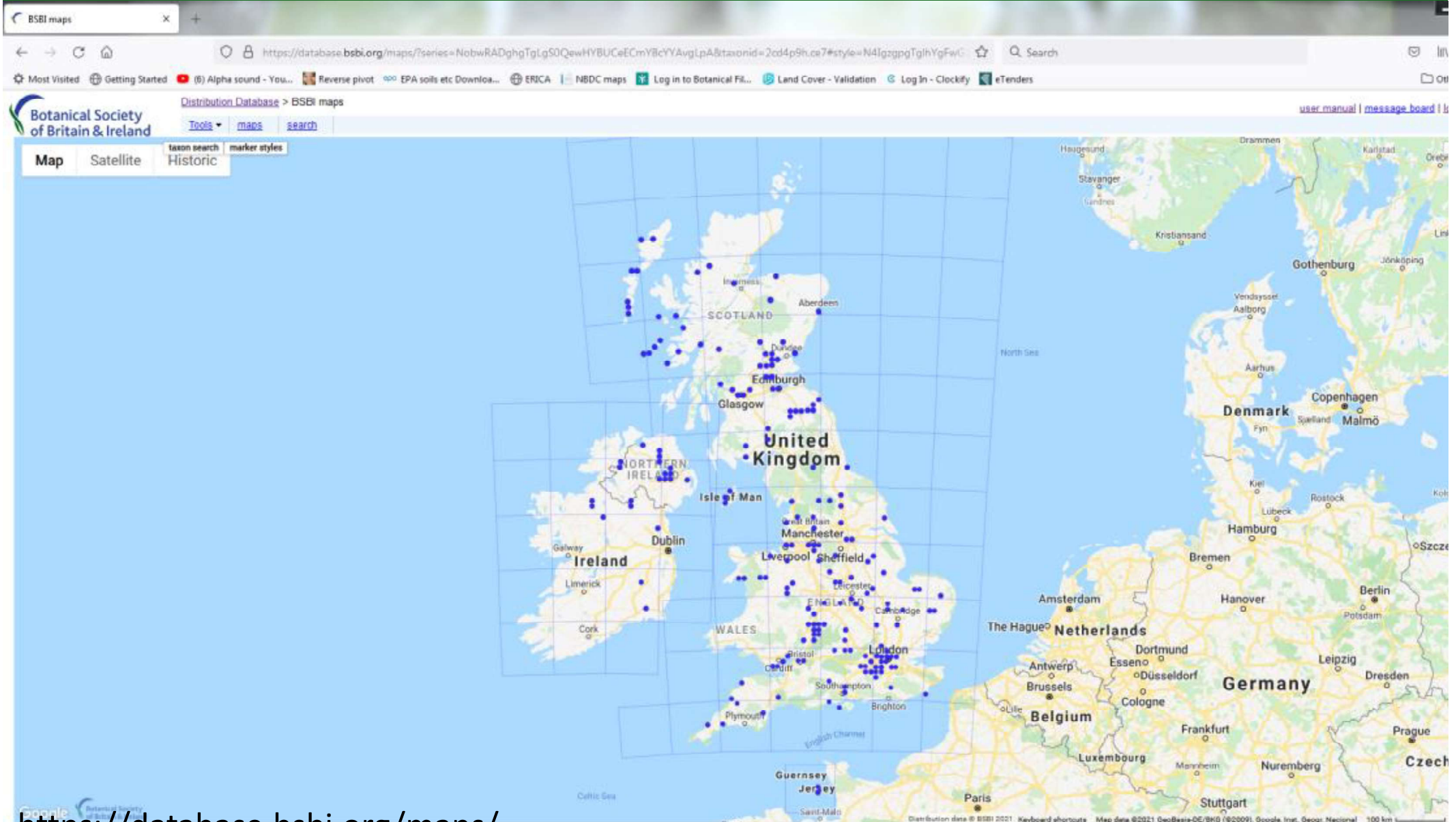
<https://database.bsbi.org/maps/>

# *Poa compressa* – Flattened Meadow-grass



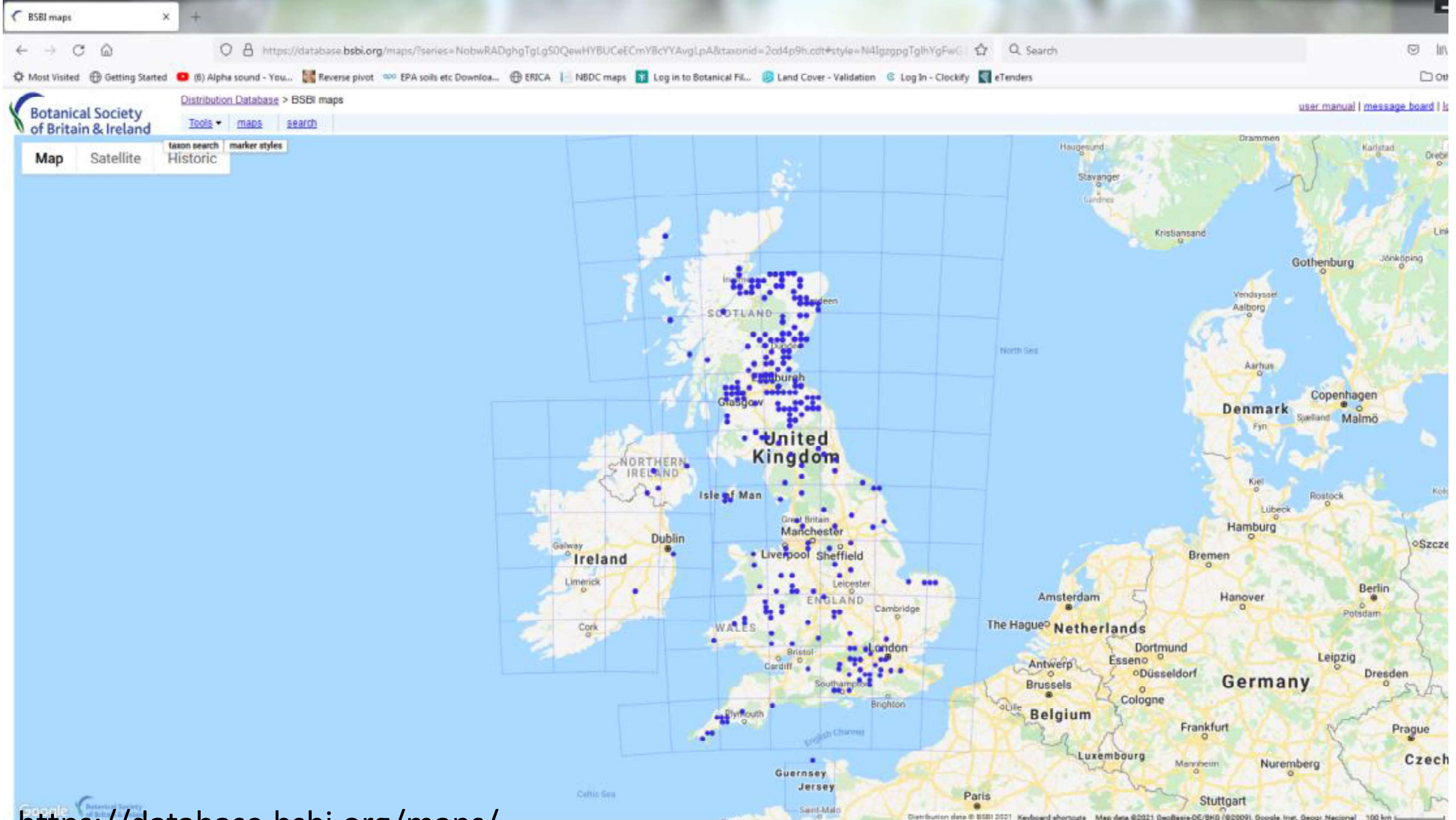
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# *Poa palustris* – Swamp Meadow-grass



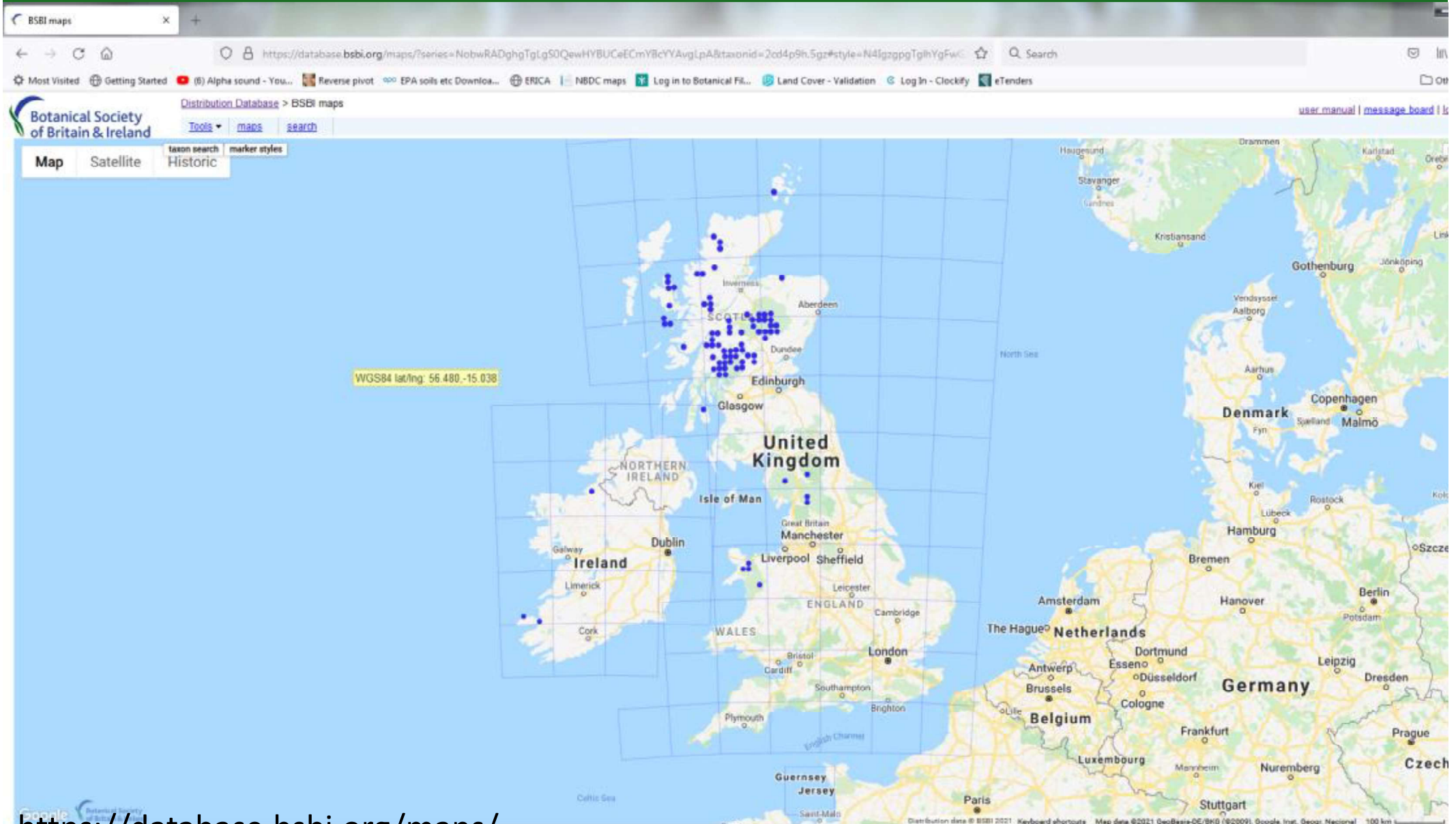
<https://database.bsbi.org/maps/>

# *Poa chaixii* – Broad-leaved Meadow-grass



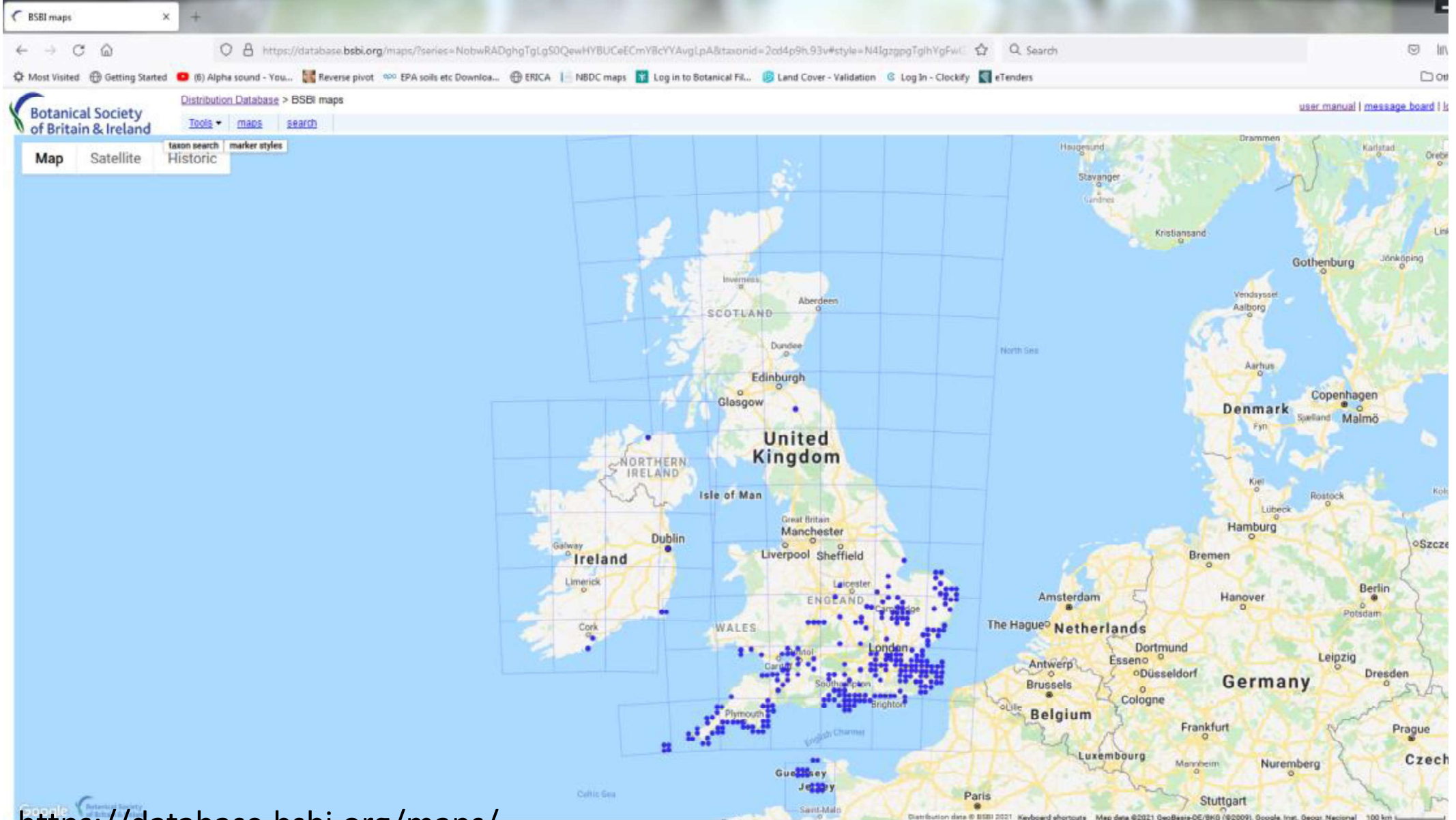
<https://database.bsbi.org/maps/>

# *Poa alpina* – Alpine Meadow-grass



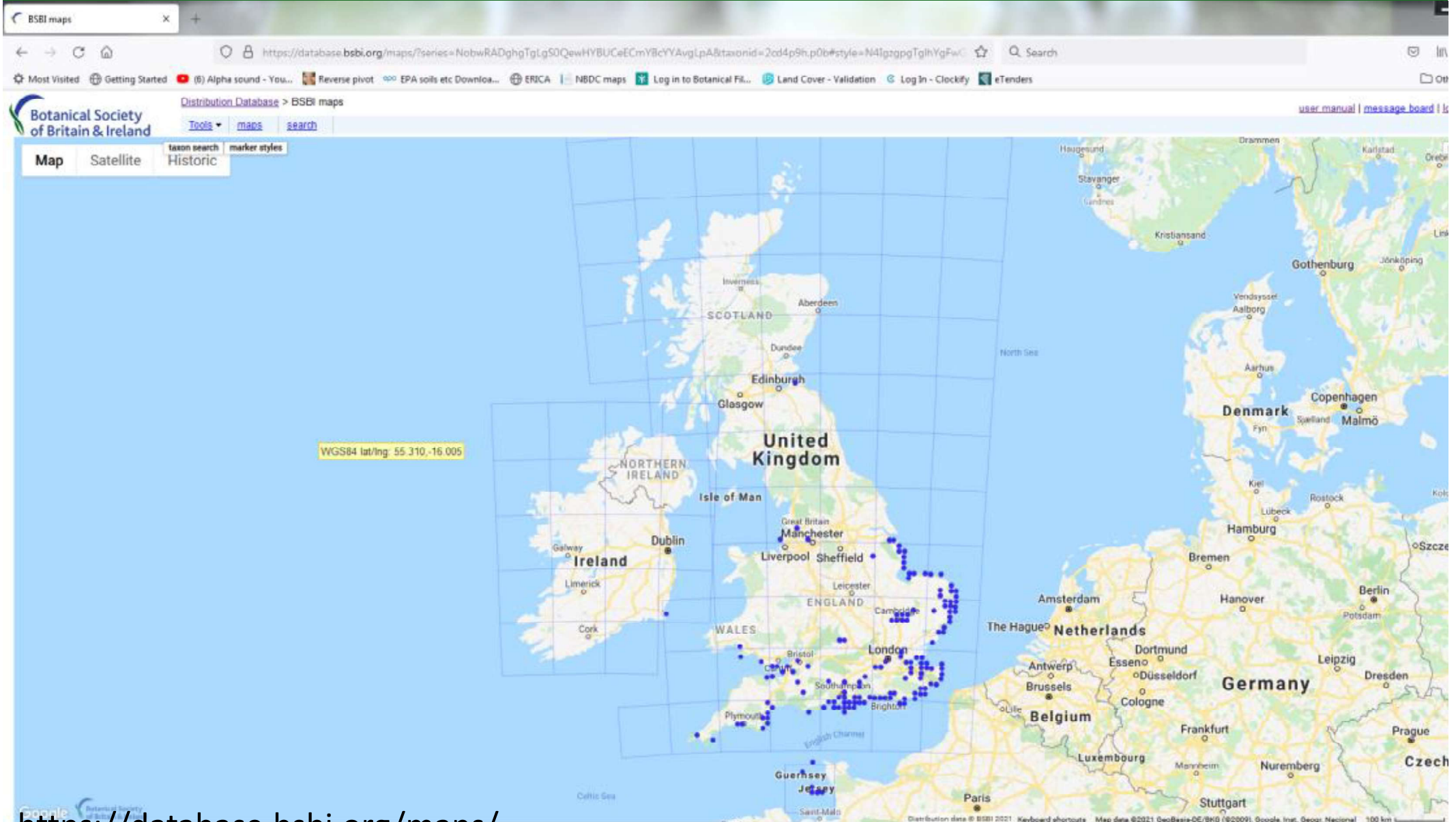
<https://database.bsbi.org/maps/>

# *Poa infirma* – Early Meadow-grass



<https://database.bsbi.org/maps/>

# *Poa bulbosa* – Bulbous Meadow-grass



<https://database.bsbi.org/maps/>

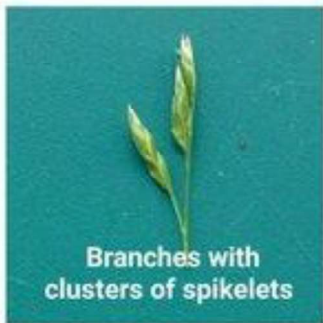
*Poa annua*  
Annual Meadow-grass



Image © Zoe Devlin,  
[irishwildflowers.ie](http://irishwildflowers.ie)

Small, annual grass – usually dies back after flowering  
Flowers more or less all year round  
Likes trampled areas, e.g. paths, amenity grassland

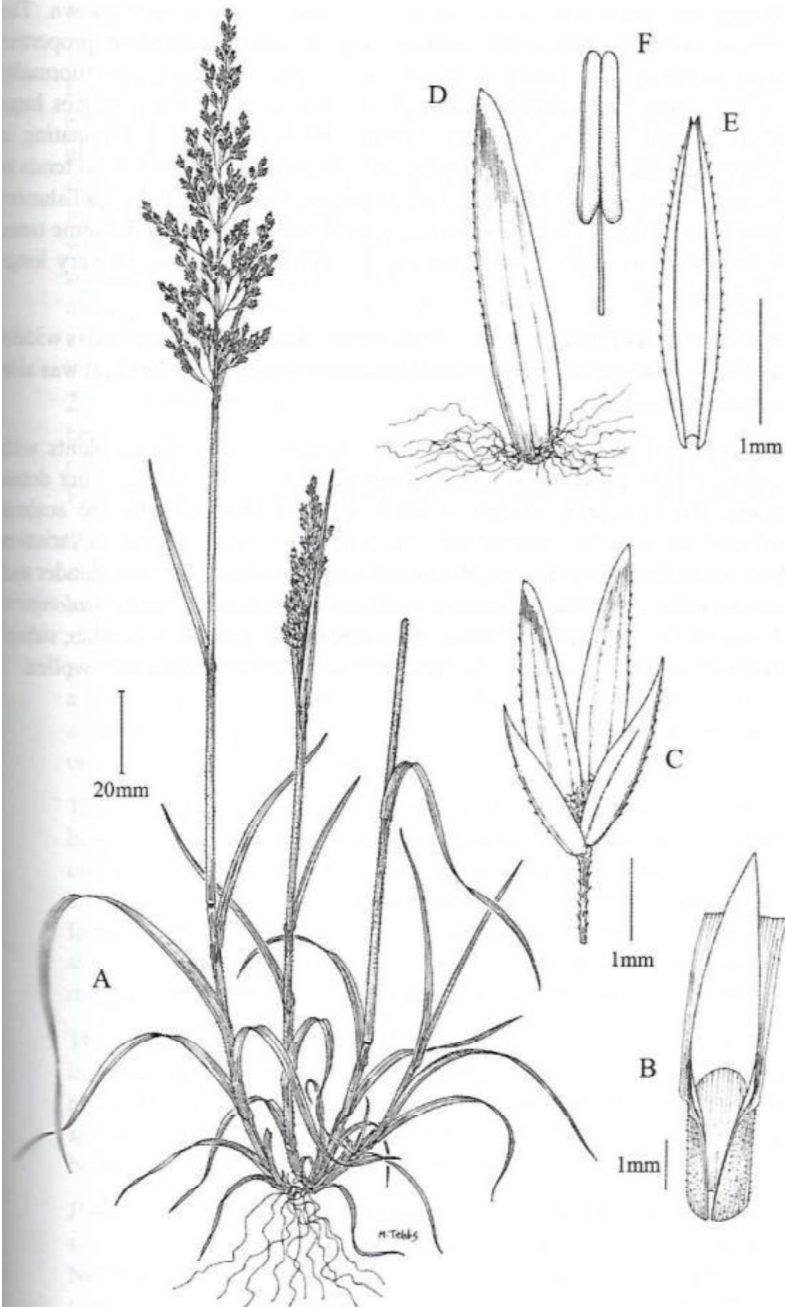




# *Poa trivialis* - Rough Meadow-grass



- Triangular flower head
- Triangular, pointed ligule
- Triangular leaf (tapering towards tip)
- Tufted (or shortly stoloniferous)
- Leaves bright green, glossy on the back



*Poa trivialis*: A, habit; B, ligule; C, spikelet; D, lemma in profile; E, palea; F, anther.

- Wide range of conditions tolerated
  - Damp or humid, e.g. wet grassland
  - Bare, waste ground, may be weedy in arable fields and cultivated grassland
  - Open woodland, hedgerows, etc.
  - Dislikes very acid, dry or infertile soils

# Leaf sheath colour



*Poa trivialis* sometimes develops purple colour on leaf sheaths, especially if recolonising bare ground

Not a very reliable character on its own – other species also have purple sheaths. DO NOT CONFUSE with *Glyceria fluitans* – always check to see if cross-walls are present. If so, it's *Glyceria*.

# *Poa pratensis* - Smooth Meadow-grass



ÄNGSGRÖE, POA PRATENSIS L.

# *Poa pratensis (sensu stricto)*

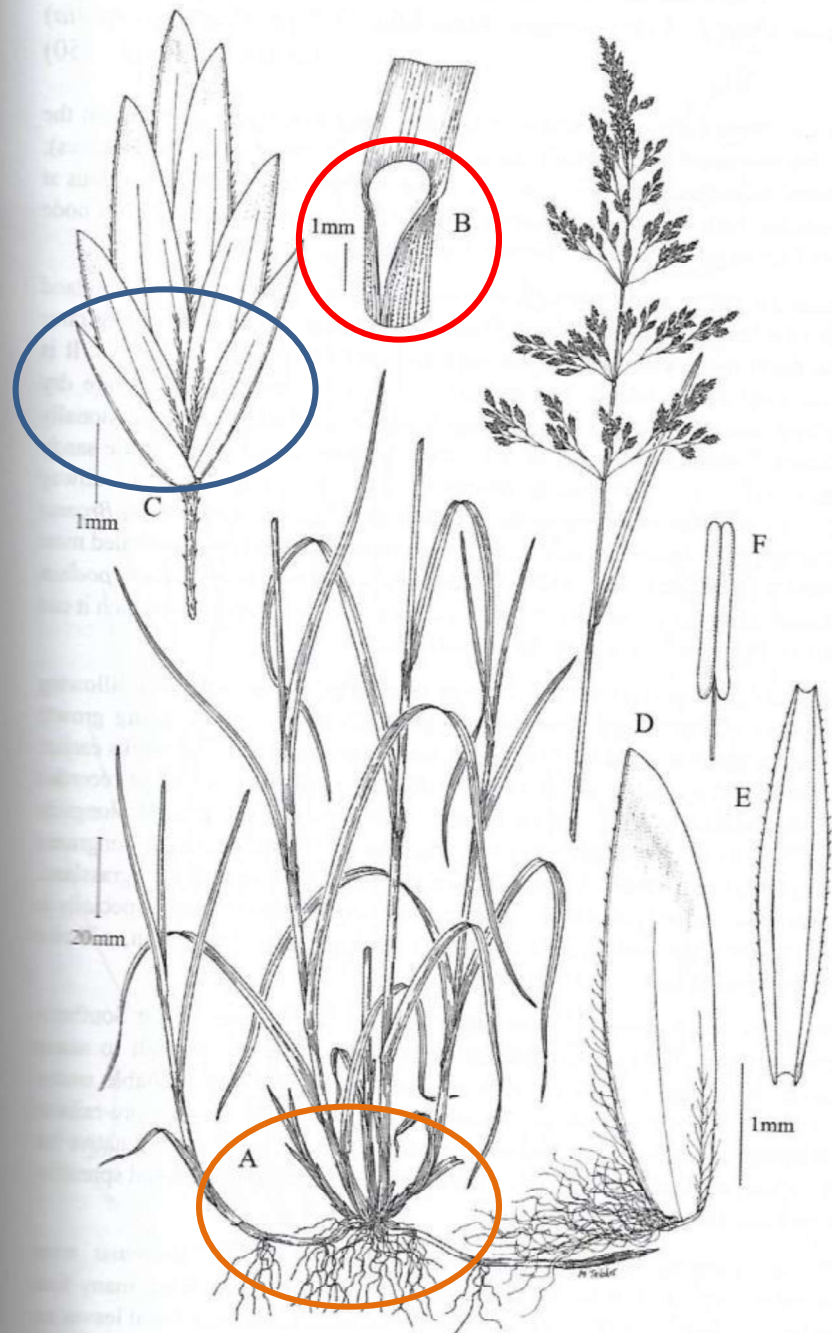
- Leaf is parallel-sided for most of its length, then narrows fairly abruptly to the tip
  - Fold leaf over in half (top to base) to see if upper third is same width as lower third
- Ligule is short (paltry)
- Spikelets of gone-over heads droop
- Colour is more blue-green than bright green
- Rhizomatous; culms usually in dense tufts at the nodes of the rhizome

# *Poa humilis* – Spreading Meadow-grass

- Taxonomically problematic: Has alternated between a *Poa pratensis* sub-species and a species in its own right
  - Old names include *Poa pratensis* ssp. *irrigata*, *Poa subcaerulea*
- Currently recognised as a separate species
- If it looks like *Poa pratensis* but is in a damp or coastal habitat, consider *Poa humilis* and look for distinguishing characteristics

# *Poa pratensis*

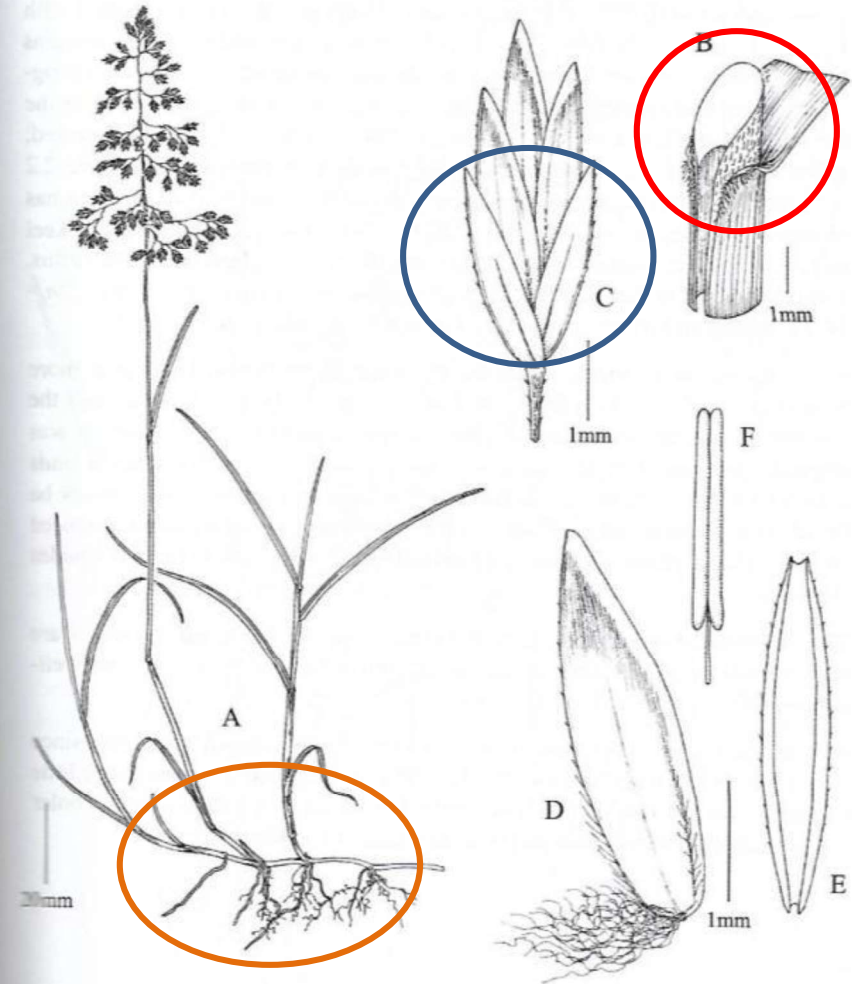
*Poa pratensis* subsp. *pratensis* 50a



*Poa pratensis* subsp. *pratensis*: A, habit; B, ligule; C, spikelet; D, lemma in profile; E, palea; F, anther.

# *Poa humilis*

*Poa pratensis* subsp. *irrigata* 50c



*Poa pratensis* subsp. *irrigata*: A, habit; B, ligule; C, spikelet; D, lemma in profile; E, palea; F, anther.



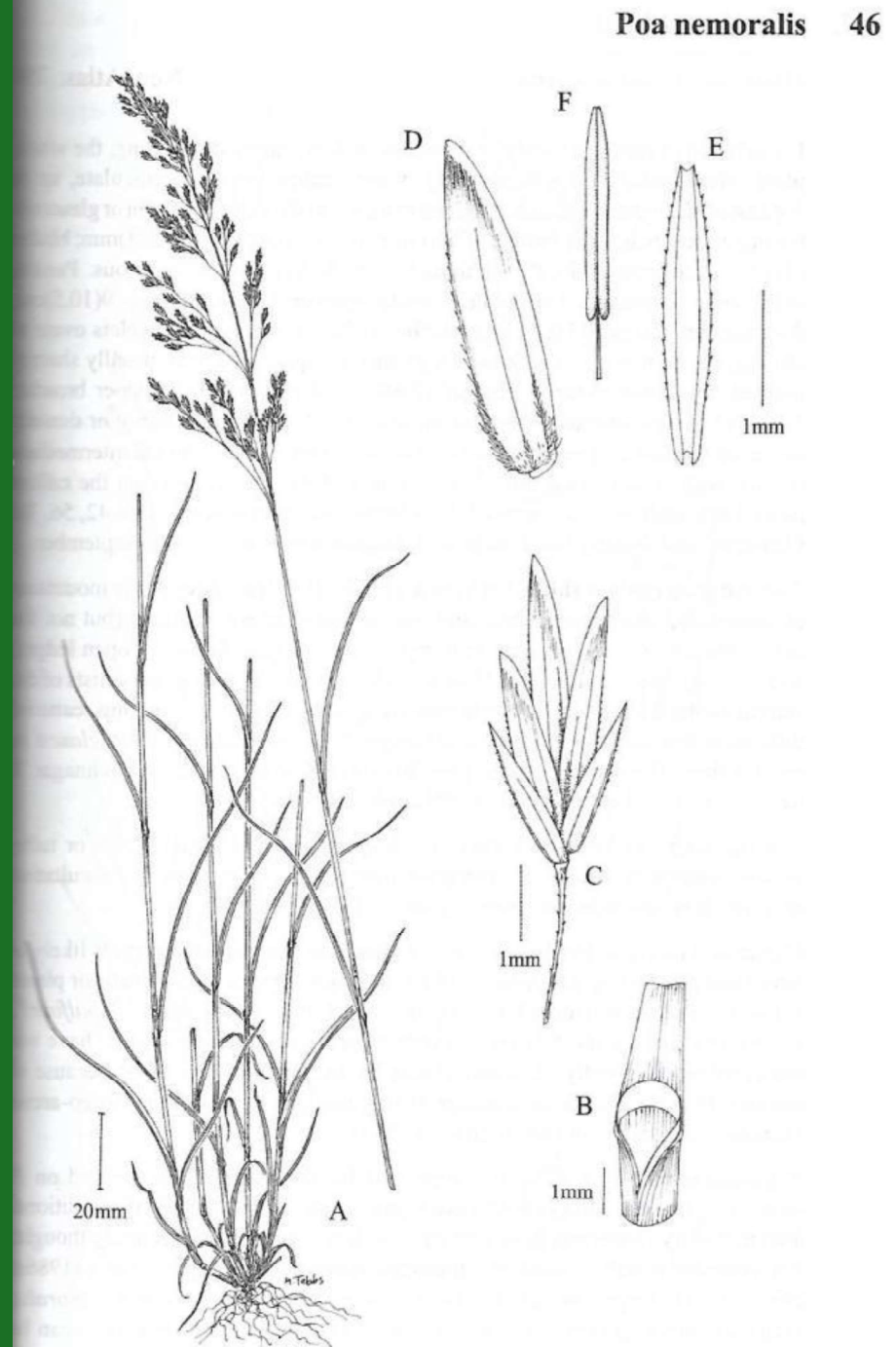
# *Poa pratensis* vs. *Poa humilis*

- Veins on glumes
  - *P. pratensis*: Lower glume usually has only 1 vein
  - *P. humilis*: Both glumes have 3 veins
- Size of glumes
  - *P. pratensis*: Lower glume of *P. pratensis* is slightly but noticeably smaller
  - *P. humilis*: Glumes are more or less the same size
- Shape of glumes
  - Glumes of *P. humilis* are more sharply pointed than those of *P. pratensis*
- Hairs on sheath on *P. humilis* – variable character

# *Poa nemoralis*

## Wood Meadow-grass

- Woods and shady places
- Delicate grass, leaves soft, not firm
- Tufted
- Leaves with tramlines visible only near apex
- Blackish nodes
- Very common in Britain, much less so in Ireland where it is not native (introduced, e.g. via sheep wool)



*Poa nemoralis*: A, habit; B, ligule; C, spikelet; D, lemma in profile; E, palea; F, anther.

# Image acknowledgements

Line drawings from BSBI Handbook no. 13 “Grasses of the British Isles” by T. Cope & A. Gray (2009)

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Go raibh míle maith agaibh!  
Thank you!



National Parks & Wildlife Service



An Roinn Tithíochta,  
Rialtais Áitiúil agus Oidhreachta  
Department of Housing,  
Local Government and Heritage

