

# Species-rich Grassland and National Vegetation Classification Virtual Practical

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**This virtual species-richness assessment and NVC practical uses real images that were taken through June, July and August. These are a record of species' presence in 1x1m quadrats, but not percentage cover. Your task is to identify the species to determine if this is species-rich grassland and to classify the NVC community.**

**You need to:**

- Identify the species in each image using the list below and on the next page and identification guides, for example The Wild Flower Key by Francis Rose or New Flora of the British Isles (fourth edition) by Clive Stace.
- Play the video presentation and pause to examine every picture in each quadrat. Images are taken to emphasise one species, but sometimes they contain more than one. You can record all the species that you can identify from each image.
- Use the data collection form to show species presence in each quadrat by putting a tick or a 'P' for presence in each quadrat where a species was present.
- To determine whether the grassland classifies as 'species-rich), add up the species richness of each quadrat (excluding negative indicator species as listed in the recording form) and find the mean.
- To find the NVC classification, use British Plant Communities Volume 3 Grasslands and Montane Communities (Ed. J Rodwell) and the keys to the vegetation of calcicolous and mesotrophic grasslands. Assess which community this sample fits into. Do you agree with this assessment and why?
- Use the MAVIS software to classify the habitat type. Do you agree with this assessment and why?
- Write a description of the habitat on the form looking at frequency of species (how often they occurred) and composition of community. You can read community descriptions for the 'standard' communities in Volume 3 of the NVC guides.

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Yarrow ( <i>Achillea millefolium</i> )	Rough Hawkbit ( <i>Leontodon hispidus</i> )
Common Agrimony ( <i>Agrimonia eupatoria</i> )	Fairy flax ( <i>Linum catharticum</i> )
Common Bent Grass ( <i>Agrostis capilaris</i> )	Bird's-foot Trefoil ( <i>Lotus corniculatus</i> )
Pyramindal Orchid ( <i>Anacamptis pyramidalis</i> )	Common Mallow ( <i>Malva sylvestris</i> )
Sweet Vernal-grass ( <i>Anthoxanthum odoratum</i> )	Black Medick ( <i>Medicago lupulina</i> )
False-oat Grass ( <i>Arrhenatherum elatius</i> )	Restharrow ( <i>Ononis repens</i> )
Tor Grass ( <i>Brachypodium pinnatum</i> )	Wild Marjoram ( <i>Origanum vulgare</i> )
Quaking Grass ( <i>Briza media</i> )	Ribwort Plantain ( <i>Plantago lanceolata</i> )
Upright Brome Grass ( <i>Bromopsis erecta</i> )	Hoary Plantain ( <i>Plantago media</i> )
Clustered Bellflower ( <i>Campanula glomerata</i> )	Milkwort ( <i>Polygala</i> sp.)
Harebell ( <i>Campanula rotundifolia</i> )	Creeping Cinquefoil ( <i>Potentilla reptans</i> )
Sedge ( <i>Carex</i> sp.)	Cowslip ( <i>Primula veris</i> )
Lesser Knapweed ( <i>Centaurea nigra</i> )	Selfheal ( <i>Prunella vulgaris</i> )
Greater Knapweed ( <i>Centaurea scabiosa</i> )	Meadow Buttercup ( <i>Ranunculus acris</i> )
Common Centaury ( <i>Centaurium erythraea</i> )	Yellow Rattle ( <i>Rhinanthus minor</i> )
Dwarf Thistle ( <i>Cirsium acaule</i> )	Bramble ( <i>Rubus fruticosus</i> agg.)
Woolly Thistle ( <i>Cirsium eriophorum</i> )	Common Sorrel ( <i>Rumex acetosa</i> )
Wild Basil ( <i>Clinopodium vulgare</i> )	Salad Burnet ( <i>Sanguisorba minor</i> )
Field Bindweed ( <i>Convolvulus arvensis</i> )	Dandelion ( <i>Taraxacum</i> agg.)
Crested Dog's-tail ( <i>Cynosurus cristatus</i> )	Wood Sage ( <i>Teucrium scorodonia</i> )
Common-spotted Orchid ( <i>Dactylorhiza fuchsia</i> )	Wild Thyme ( <i>Thymus drucei</i> )
Cocksfoot Grass ( <i>Dactylis glomerata</i> )	Red Clover ( <i>Trifolium pratense</i> )
White Bedstraw ( <i>Galium album</i> )	White Clover ( <i>Trifolium repens</i> )
Lady's Bedstraw ( <i>Galium verum</i> )	Valerian ( <i>Valeriana officinalis</i> )
Rock Rose ( <i>Helianthemum nummularium</i> )	Germander Speedwell ( <i>Veronica chamaedrys</i> )
Yorkshire Fog Grass ( <i>Holcus lanatus</i> )	Common vetch ( <i>Vicia sativa</i> )
St John's Wort ( <i>Hypericum</i> sp.)	Hairy violet ( <i>Viola hirta</i> )
Field Scabious ( <i>Knautia arvensis</i> )	

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Name changes:

*Arrhenatherum elatius* previously *Arrhenatheretum elatioris* – False-oat Grass

*Bromopsis erecta* previously *Bromus erectus* – Upright Brome

*Galium album* previously *Galium mollugo* – White Bedstraw

*Thymus drucei* previously *Thymus polytrichus*, *Thymus praecox* – Wild Thyme

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**Resources:**

Magnificent Meadows (2020) Grassland Plant Identification: *plants of wildflower meadows*. Retrieved from: [www.magnificentmeadows.org](http://www.magnificentmeadows.org)

National Biodiversity Network (2019). *Record, share and explore data*. Retrieved from: <https://nbn.org.uk/record-share-explore-data/>

Rodwell, J. S. (1991). *British plant communities: Volume 3, Grasslands and Montane Communities* (Vol. 3). Cambridge University Press.

Rodwell (2006). National Vegetation Classification survey handbook. Retrieved from: [http://jncc.defra.gov.uk/pdf/pub06\\_NVCusershandbook2006.pdf](http://jncc.defra.gov.uk/pdf/pub06_NVCusershandbook2006.pdf)

Rose and O'Reilly (2006). *The Wildflower Key*, pages 83-92. Warne.

Smart, S. M. (2016). *MAVIS: Software for Allocation of Vegetation Samples to CVS and NVC Classifications*. CEH. Wallingford

Sterry, P. (2008) *British Wildflowers Identification Guide*. Collins