

Vegetative Grass Identification

Webinar 2 – Developing your ID skills



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An Roinn Cultúir,
Oidhreacht agus Gaeltachta
Department of Culture,
Heritage and the Gaeltacht



National Parks & Wildlife Service



CEDaR
Centre for Environmental
Data and Recording

Plan for this Webinar

TODAY:

Quick reminder of grass features to be familiar with and what you need

Brief overview of vegetative grass ID keys

Group species based on their features

Know how to confidently identify a selected number of grass species vegetatively

3 main aspects to vegetative ID:

1. Recognising and examining a selection of vegetative (non-flowering) features
2. Measuring widths and lengths
3. Being familiar with ID key(s) and how they work

What you will need:

1. Hand lens:

x 10 magnification

(handy to get one with X10 and x20 lenses)

To use a handlens correctly – check out Youtube video

<https://www.youtube.com/watch?v=IFz004Wl28E>



2. Transparent 6 inch ruler

Many keys will have rulers along page margins or at the back but handy to use a little ruler



3. Key/ID guide: Follows recommended resources.....

Botanical Keys:

Hubbard C. E. 1992 Grasses: A Guide to Their Structure, Identification, Uses and Distribution. Penguin

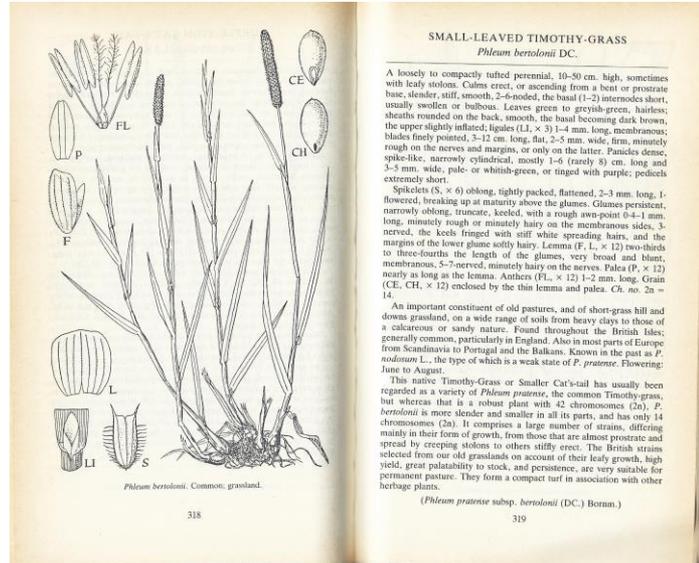
GRASSES

A guide to their Structure, Identification, Uses and Distribution in the British Isles



C. E. HUBBARD

Revised by J. C. E. Hubbard
New Edition



Floristic and vegetative keys

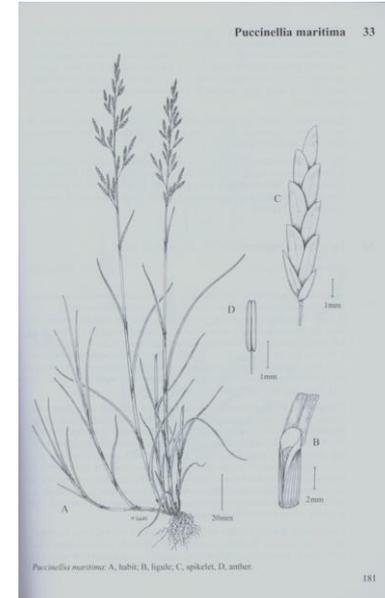
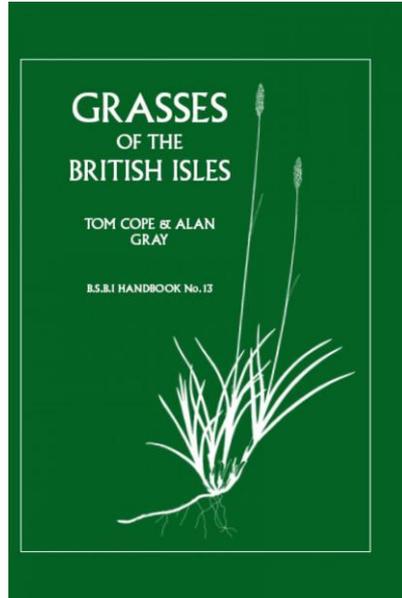
A bit out of date - Some botanical names changed since

Very good for diagrams

Keys when more experienced

Botanical keys:

Cope, T., Gray A. 2009 Grasses of the British Isles. BSBI Handbook No. 13



Floristic and vegetative keys

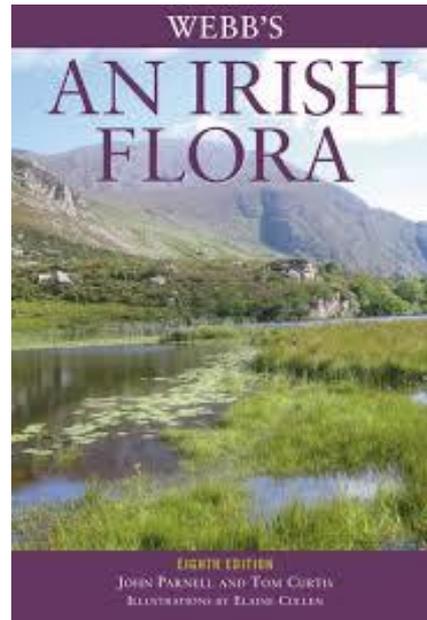
More up to date than Hubbard and more complex classification

Very good for diagrams

Keys when more experienced

Botanical keys:

Parnell, J., Curtis, T. 2012 Webb's An Irish Flora. Cork University Press



Floristic keys for all vascular plants including grasses – few diagrams

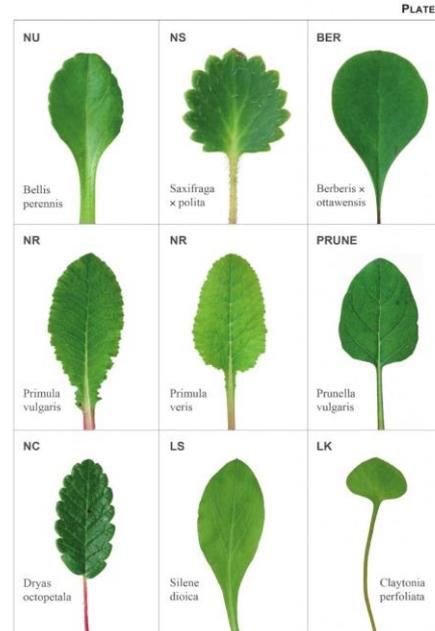
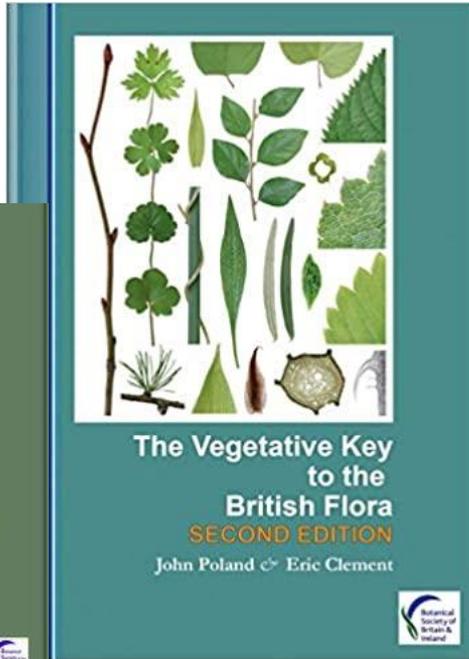
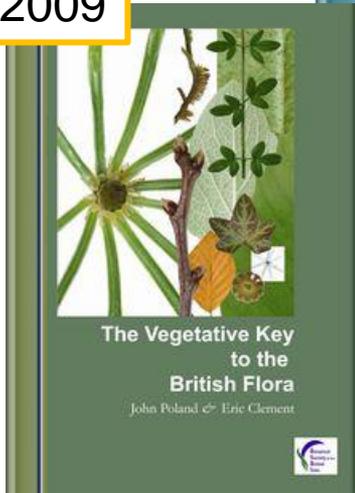
No grass vegetative key

Keys when more experienced

Botanical keys:

Poland, J. & Clement, E. J. 2019. The Vegetative Key to the British Flora. BSBI

2009



G

Key to Groups in Division G
(Cyperaceae. Ligule present, ± adnate to fl)

Lvs basal or on stem, 3-ranked, with margins scabrid at least nr apex, parallel-veined, with the number of veins equal to the number of stomatal bands (and number of hollows in TS). Ligule adnate to fl, exc for a narrow free margin, usu (minutely) reflex at apex (more visible on v obtuse ligules). Sheaths closed (exc Schoenus), usu obscurely parallel-veined (but pinnate-veined in ladder-fibrillose spp). Stems often trigonous, without nodes (exc where stated), ± without sap (exc Blymus). Hairs, when present, unicellular, smooth (but papillate in Carex hirta). All yr (unless otherwise stated). Plates 1-8 illustrate (in alphabetical order) the TS of Carex lvs, together with examples of Eleocharis and Eriophorum.

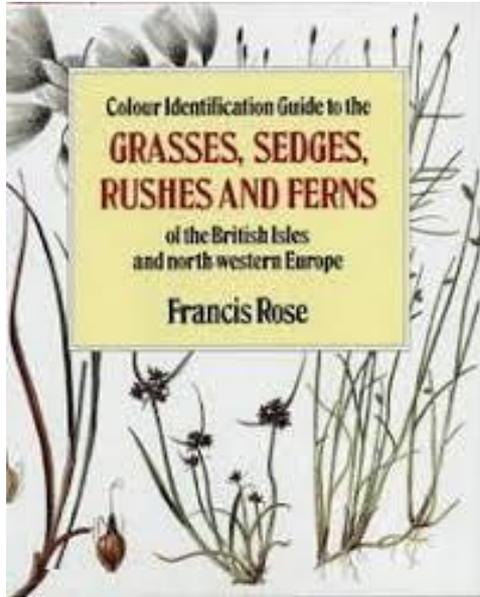
False stems consist of tightly rolled lvs and sheaths forming a stem-like structure in vegetative shoots, often with 1-3 short lvs (cataphylls) nr base. In species with false stems, they are present on all vegetative shoots, with no lvs at ground level. They may atypically occur in other spp when in long vegetation, or occ forming on a few vegetative shoots but with lvs at ground level. To check for trigonous tip, run finger and thumb along fl to feel for bump nr apex (usu where midrib channelled ends). To measure ligule, measure vertical distance along edge of fl from start of ligule where it joins fl margin to its apex.

- Lvs ≤1mm wide.....GA
- Lvs >1mm wide.....GB
- Lvs sparsely to densely hairy at least nr ligule when young (look carefully!).....GB
- Lvs hairless.....GC
- Lvs with stomata above (often dull above).....GC
- Lvs with stomata below only (rarely sparsely scattered above).....GC
- Lvs dull or glaucous below.....GD
- Lvs shiny green below.....GD
- Basal sheaths reddish/purple (occ pink) or reddish-veined (occ ladder-fibrillose) AND/OR ligule minutely fimbriate. Lvs <9mm wide.....GE
- Basal sheaths not reddish (may be dark brown or dark-veined). Ligule entire.....GE
- Ligule >4mm and/or lvs >8mm wide.....GF
- Ligule <4mm. Lvs <8mm wide.....GG
- Sheath convex at apex.....GG
- Sheath concave (to straight) at apex.....GH
- False stem (or true vegetative stem) present. Lvs usu U-V-shaped.....GH
- False stem absent. Lvs usu V-M-shaped to flat.....GI

Vegetative keys for all vascular plants including grasses some coloured and black and white diagrams
Keys when more experienced

ID guides:

Rose, F. T. 1989. **Colour Identification Guide to the Grasses, Sedges, Rushes and Ferns of the British Isles and North Western Europe.** Penguin.



Floristic key based on vegetative and floristic features and vegetative keys based initially on habitats

Easier keys to start with

Coloured diagrams

Due to 4 taxon groups covered, not as much detail on each grass

Good for beginner/intermediate

To answer question from Vegetative grass ID Webinar 1 - Additional information:

List of grasses per Habitat:

Vegetative key in Frances Rose (Grass, sedge, rush, fern book) is initially based on habitats:

Woodland

Calcareous grassland

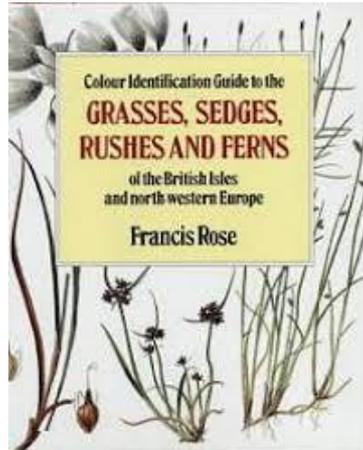
Healthland

Fen and marsh

Non-calcareous grassland

Salt marsh

Coastal



By checking what species are within each group, you have a species list per habitat

Grasses as indicators of environmental conditions – check out PLANTATT (inc all plant species as well as grasses, based on ellenberg values)

Download free at:

<https://www.brc.ac.uk/biblio/plantatt-attributes-british-and-irish-plants-spreadsheet>

ID guides:

Fitzpatrick, Ú., Weekes, L., Wright, M. 2014. Identification guide to Ireland's grasses. National Biodiversity Data Centre, Ireland



Floristic based on flower head types, vegetative keys based on features and habitats split in to accessible groups

Easier keys to start with

Combination of coloured photos and diagrams

Small compact, water resistant pages, easy to bring in to field

Good for beginner/intermediate

ID in this webinar based on this guide

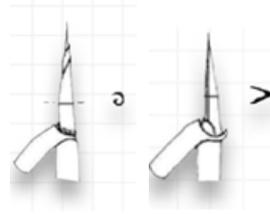
Reminder of features important for ID:

1. Leaves

Width, length, hairs, ribs, colour

2. Youngest leaf in bud

Is it rolled like a scroll, is it folded?



3. Sheaths

Colour, hairy, hairless, open or closed?

4. Ligules

Length, membranous or comb of hairs, shape

5. Auricles

Present, absent, shape

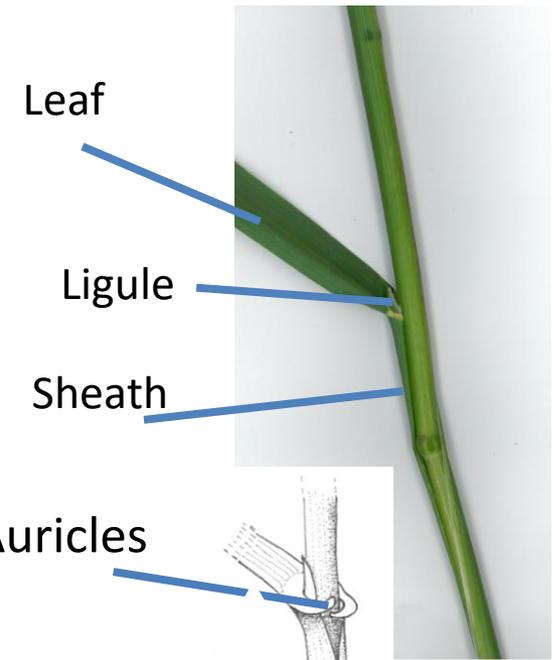
6. Stems (culms)

Flattened in cross section or rounded, colour at base, bulbous or not at base

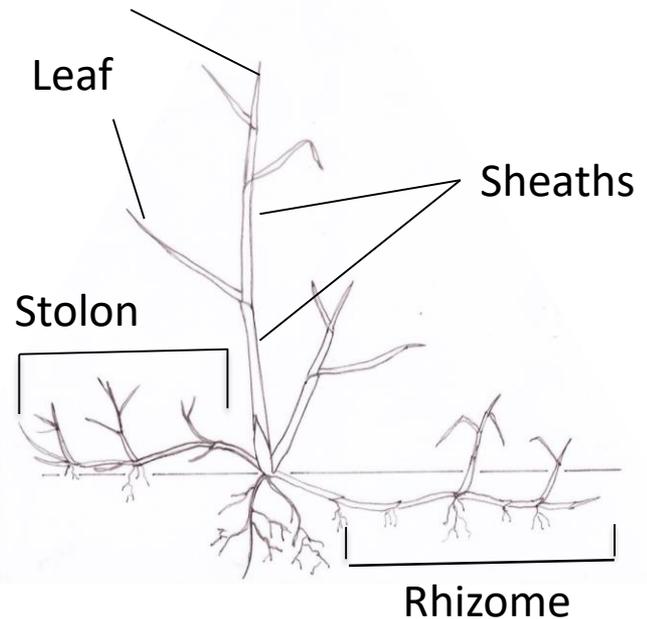
7. Annual or perennial?

8. Rhizomes & stolons

Present absent, one or other or both?



Youngest leaf



Agrostis canina (Velvet Bent)
Agrostis vinealis (Brown Bent)
Aira caryophylla (Silver-hair grass)
Aira praecox (Early hair-grass)
Ammophila arenaria (Marram)
Deschampsia flexuosa (Wavy Hair-grass)
Festuca filiformis (Fine-leaved Sheep's Fescue)
Festuca ovina agg. (Sheep's Fescue agg.)
Festuca rubra agg. (Red Fescue agg.)
Festuca vivipara (Viviparous Sheep's Fescue)
Koeleria macrantha (Crested Hair-grass)
Nardus stricta (Mat-grass)
Puccinellia maritima (Saltmarsh grass)
Vulpia species (Fescue)
Danthonia decumbens (Heath-grass)
Molinia caerulea (Purple moor-grass)
Phragmites australis (Common Reed)
Spartina anglica (Common Cord-grass)
Avenula pubescens (Downy Oat-grass)
Catabrosa aquatica (Whorl-grass)
Cynosurus cristatus (Crested Dog's-tail)
Dactylis glomerata (Cock's-foot)
Deschampsia caespitosa (Tufted Hair-grass)
Glyceria declinata (Small Sweet-grass)
Glyceria fluitans (Floating Sweet-grass)
Glyceria maxima (Reed Sweet-grass)
Glyceria notata (Plicate Sweet-grass)
Koeleria macrantha (Crested Hair-grass)
Lolium perenne (Perennial Rye-grass)
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Poa compressa (Flattened Meadow-grass)
Poa humilis (Spreading Meadow-grass)
Poa nemoralis (Wood Meadow-grass)
Poa pratensis (Smooth Meadow-grass)
Poa trivialis (Rough Meadow-grass)
Puccinellia maritima (Saltmarsh grass)
Sesleria caerulea (Blue Moor-grass)
X Schedolium loliaceum (Hybrid Fescue)

Bromopsis ramosa (Hairy Brome)
Elytrigia atherica (Sea Couch)
Elytrigia repens (Common Couch)
Hordeum distichon (Two-rowed Barley)
Hordeum murinum (Wall Barley)
Leymus arenarius (Lyme-grass)
Lolium multiflorum (Italian Rye-grass)
Schedonorus arundinaceus (Tall Fescue)
Schedonorus giganteus (Giant Fescue)
Schedonorus pratensis (Meadow Fescue)
Ammophila arenaria (Marram)
Anisantha sterilis (Barren Brome)
Anthoxanthum odoratum (Sweet vernal-grass)
Arrhenatherum elatius (False Oat-grass)
Avena species (Oats)
Brachypodium sylvaticum (False-brome)
Bromus hordeaceus (Soft Brome)
Bromus lepidus (Slender Soft Brome)
Bromus racemosus (Smooth Brome)
Cynosurus cristatus (Crested Dog's tail)
Elymus caninus (Bearded Couch)
Elytrigia juncea (Sand Couch)
Holcus lanatus (Yorkshire-fog)
Holcus mollis (Creeping Soft-grass)
Koeleria macrantha (Crested Hair-grass)
Melica uniflora (Wood Melick)
Trisetum flavescens (Yellow Oat-grass)

Agrostis canina (Velvet Bent)
Agrostis capillaris (Common Bent)
Agrostis gigantea (Black Bent)
Agrostis stolonifera (Creeping Bent)
Agrostis vinealis (Brown Bent)
Alopecurus geniculatus (Marsh Foxtail)
Alopecurus pratensis (Meadow Foxtail)
Anthoxanthum odoratum (Sweet vernal-grass)
Arrhenatherum elatius (False Oat-grass)
Briza media (Quaking-grass)
Catapodium marinum (Sea Fern-grass)
Catapodium rigidum (Fern-grass)
Cynosurus cristatus (Crested Dog's tail)
Deschampsia caespitosa (Tufted Hair-grass)
Elymus caninus (Bearded Couch)
Festuca altissima (Wood Fescue)
Holcus mollis (Creeping Soft-grass)
Milium effusum (Wood Millet)
Parapholis strigosa (Hard-grass)
Phalaris arundinacea (Reed Canary-grass)
Phleum arenarium (Sand Cat's-tail)
Phleum bertolonii (Smaller Cat's-tail)
Phleum pratense (Timothy)
Trisetum flavescens (Yellow Oat-grass)

80 Native Irish species – 75 are relatively easy to identify vegetatively (excluding very rare ones)

How do you identify these grasses?

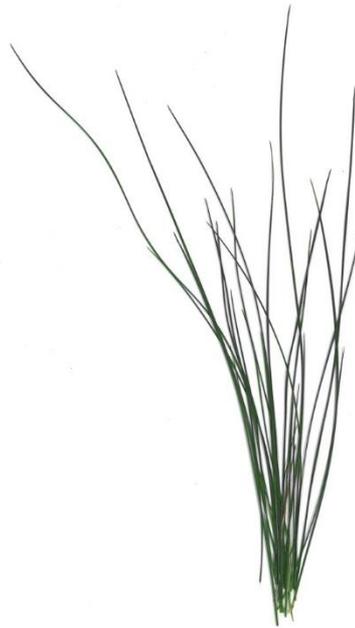
Lets group them according to their features



Agrostis canina (Velvet Bent)
Agrostis vinealis (Brown Bent)
Aira caryophylla (Silver-hair grass)
Aira praecox (Early hair-grass)
Ammophila arenaria (Marram)
Deschampsia flexuosa (Wavy Hair-grass)
Festuca filiformis (Fine-leaved Sheep's Fescue)
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Festuca vivipara (Viviparous Sheep's Fescue)
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Nardus stricta (Mat-grass)
Puccinellia maritima (Saltmarsh grass)
Vulpia species (Fescue)

Danthonia decumbens (Heath-grass)
Molinia caerulea (Purple moor-grass)
Phragmites australis (Common Reed)
Spartina anglica (Common Cord-grass)
Avenula pubescens (Downy Oat-grass)
Catabrosa aquatica (Whorl-grass)
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Dactylis glomerata (Cock's-foot)
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Sesleria caerulea (Blue Moor-grass)
X Schedolium loliaceum (Hybrid Fescue)

1. Leaves Bristle-like (14 species)



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Holcus mollis (Creeping Soft-grass)
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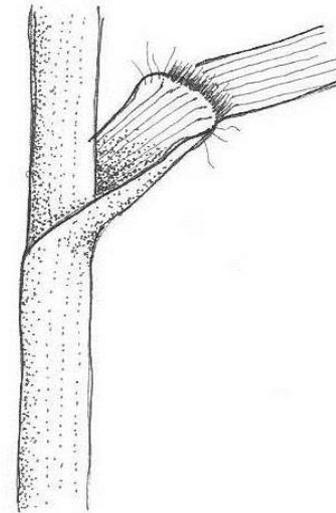
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Catapodium rigidum (Fern-grass)
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Deschampsia caespitosa (Tufted Hair-grass)

2. Leaves flat

Ligule ring of hairs (4 species)



(Bearded Couch)
a (Wood Fescue)
 creeping Soft-grass)
 (Wood Millet)
osa (Hard-grass)
nacea (Reed Canary-grass)
um (Sand Cat's-tail)
nii (Smaller Cat's-tail)
e (Timothy)
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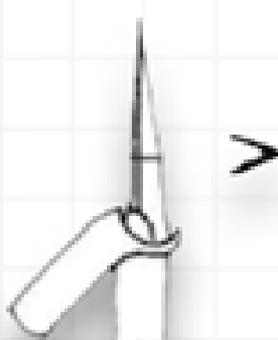
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3. Leaves flat Ligule membranous Leaf folded in shoot (20 species)



Agrostis canina (Velvet Bent)

Agrostis vinealis (Brown Bent)

Aira caryophylla (Silver-hair grass)

Aira praecox (Early hair-grass)

***Ammophila arenaria* (Marram)**

Deschampsia flexuosa (Wavy Hair-grass)

Festuca filiformis (Fine-leaved Sheep's Fescue)

Festuca ovina agg. (Sheep's Fescue agg.)

Festuca rubra agg. (Red Fescue agg.)

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***Koeleria macrantha* (Crested Hair-grass)**

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Phragmites australis (Common Reed)

Spartina anglica (Common Cord-grass)

Avenula pubescens (Downy Oat-grass)

Catabrosa aquatica (Whorl-grass)

***Cynosurus cristatus* (Crested Dog's-tail)**

Dactylis glomerata (Cock's-foot)

***Deschampsia caespitosa* (Tufted Hair-grass)**

Glyceria declinata (Small Sweet-grass)

Glyceria fluitans (Floating Sweet-grass)

Glyceria maxima (Reed Sweet-grass)

Glyceria notata (Plicate Sweet-grass)

***Koeleria macrantha* (Crested Hair-grass)**

Lolium perenne (Perennial Rye-grass)

Poa annua (Annual Meadow-grass)

Poa compressa (Flattened Meadow-grass)

Poa humilis (Spreading Meadow-grass)

Poa nemoralis (Wood Meadow-grass)

Poa pratensis (Smooth Meadow-grass)

Poa trivialis (Rough Meadow-grass)

***Puccinellia maritima* (Saltmarsh grass)**

Sesleria caerulea (Blue Moor-grass)

X *Schedolium loliaceum* (Hybrid Fescue)

Bromopsis ramosa (Hairy Brome)

Elytrigia atherica (Sea Couch)

Elytrigia repens (Common Couch)

Hordeum distichon (Two-rowed Barley)

Hordeum murinum (Wall Barley)

Leymus arenarius (Lyme-grass)

Lolium multiflorum (Italian Rye-grass)

Schedonorus arundinaceus (Tall Fescue)

Schedonorus giganteus (Giant Fescue)

Schedonorus pratensis (Meadow Fescue)

Ammophila arenaria (Marram)

Anisantha sterilis (Barren Brome)

Anthoxanthum odoratum (Sweet vernal-grass)

Arrhenatherum elatius (False Oat-grass)

Avena species (Oats)

Brachypodium sylvaticum (False-brome)

Bromus hordeaceus (Soft Brome)

Bromus lepidus (Slender Soft Brome)

Bromus racemosus (Smooth Brome)

Cynosurus cristatus (Crested Dog's tail)

Elymus caninus (Bearded Couch)

Elytrigia juncea (Sand Couch)

Holcus lanatus (Yorkshire-fog)

Holcus mollis (Creeping Soft-grass)

Koeleria macrantha (Crested Hair-grass)

Melica uniflora (Wood Melick)

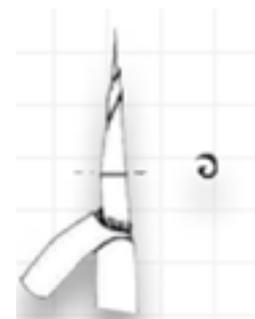
Trisetum flavescens (Yellow Oat-grass)

4. Leaves flat

Ligule membranous

Leaf rolled in shoot

Auricle present (10 species)



Agrostis canina (Velvet Bent)

Agrostis vinealis (Brown Bent)

Aira caryophylla (Silver-hair grass)

Aira praecox (Early hair-grass)

***Ammophila arenaria* (Marram)**

Deschampsia flexuosa (Wavy Hair-grass)

Festuca filiformis (Fine-leaved Sheep's Fescue)

Festuca ovina agg. (Sheep's Fescue agg.)

Festuca rubra agg. (Red Fescue agg.)

Festuca vivipara (Viviparous Sheep's Fescue)

***Koeleria macrantha* (Crested Hair-grass)**

Nardus stricta (Mat-grass)

***Puccinellia maritima* (Saltmarsh grass)**

Vulpia species (Fescue)

Danthonia decumbens (Heath-grass)

Molinia caerulea (Purple moor-grass)

Phragmites australis (Common Reed)

Spartina anglica (Common Cord-grass)

Avenula pubescens (Downy Oat-grass)

Catabrosa aquatica (Whorl-grass)

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Holcus lanatus (Yorkshire-fog)

Holcus mollis (Creeping Soft-grass)

Koeleria macrantha (Crested Hair-grass)

Melica uniflora (Wood Melick)

Trisetum flavescens (Yellow Oat-grass)

Agrostis canina (Velvet Bent)

Agrostis capillaris (Common Bent)

Agrostis gigantea (Black Bent)

Agrostis stolonifera (Creeping Bent)

Agrostis vinealis (Brown Bent)

Alopecurus geniculatus (Marsh Foxtail)

Alopecurus pratensis (Meadow Foxtail)

Anthoxanthum odoratum (Sweet vernal-grass)

Arrhenatherum elatius (False Oat-grass)

Briza media (Quaking-grass)

5. Leaves flat

Ligule membranous

Leaf rolled in shoot

No auricles (17 species)

Leaves hairy



Agrostis canina (Velvet Bent)

Agrostis vinealis (Brown Bent)

Aira caryophylla (Silver-hair grass)

Aira praecox (Early hair-grass)

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Anisantha sterilis (Barren Brome)

***Anthoxanthum odoratum* (Sweet vernal-grass)**

***Arrhenatherum elatius* (False Oat-grass)**

Avena species (Oats)

6. Leaves flat

Ligule membranous

Leaf rolled in shoot

No auricles

Leaves hairless (24 species)



Agrostis canina (Velvet Bent)

Agrostis capillaris (Common Bent)

Agrostis gigantea (Black Bent)

Agrostis stolonifera (Creeping Bent)

Agrostis vinealis (Brown Bent)

Alopecurus geniculatus (Marsh Foxtail)

Alopecurus pratensis (Meadow Foxtail)

Anthoxanthum odoratum (Sweet vernal-grass)

Arrhenatherum elatius (False Oat-grass)

Briza media (Quaking-grass)

Catapodium marinum (Sea Fern-grass)

Catapodium rigidum (Fern-grass)

Cynosurus cristatus (Crested Dog's tail)

Deschampsia caespitosa (Tufted Hair-grass)

Elymus caninus (Bearded Couch)

Festuca altissima (Wood Fescue)

Holcus mollis (Creeping Soft-grass)

Milium effusum (Wood Millet)

Parapholis strigosa (Hard-grass)

Phalaris arundinacea (Reed Canary-grass)

Phleum arenarium (Sand Cat's-tail)

Phleum bertolonii (Smaller Cat's-tail)

Phleum pratense (Timothy)

Trisetum flavescens (Yellow Oat-grass)

Note:

All these species add up to 89

That's because some species are variable and might fit in to two or more groups

Example grasses you can readily identify from each group.....

Order of features to check on your grass specimen:

1. Leaves **bristle** or **flat**
2. If flat - Ligule **hairy** or **membranous**
3. If membranous – leaf **folded** in shoot

OR

If membranous – leaf **rolled in shoot:**

4. If rolled in shoot – **auricles present**
5. If rolled in shoot – **auricles absent leaves hairy**
6. If rolled in shoot – **auricles absent leaves hairless**

Based on NBDC Grass ID guide

<https://www.biodiversityireland.ie/product/grass-identification-guide/>

Features today mostly photographed with
Plugable USB microscope



1. Bristle-like leaves:

Mat grass

Nardus stricta



You may notice dead tufts pulled out by sheep – don't like it, prickles their noses

Heathlands and upland acidic grasslands

Check leaves – bristle-like

Noticeably stiff and spiky compared to other bristle-like grasses

If you place your hand gently on top of grass leaves – it feels stiffish and almost prickly

Check basal sheaths – pinkish



Check habit – densely tufted, leaves

often angled outwards



1. Bristle-like leaves:

Sheep's fescue

Festuca ovina



Check leaves – bristle-like

If you place your hand gently on top of grass leaves – it feels softish

Leaves usually <10cm long (other fescues longer)

Check sheaths – open

(some other fescues closed)



Check ligules – so small

hardly seen



Mostly found in **heathlands, peaty uplands**

A note on Fescues.....

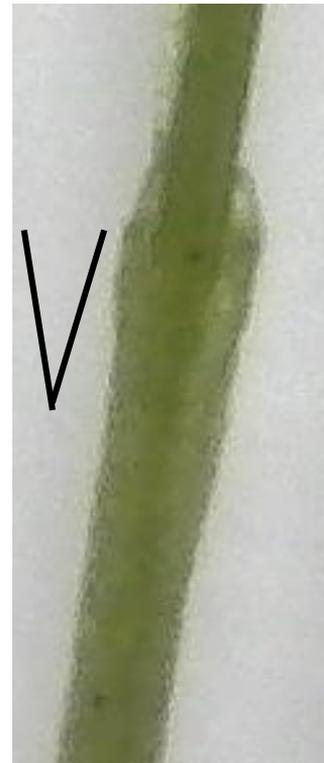
Fescues without auricles – *Festuca* spp.

Fescues with auricles – *Schedonorus* spp. (usually the larger grasses)

Another common fescue very similar to Sheep's fescue – **Red Fescue (*Festuca rubra*)**

- Sheath closed – V-necked jumper

- Both bristle like and flat leaves (Flat leaves higher up on plant)

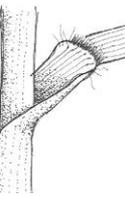


2. Leaves flat - Ligule comb of hairs

Common reed

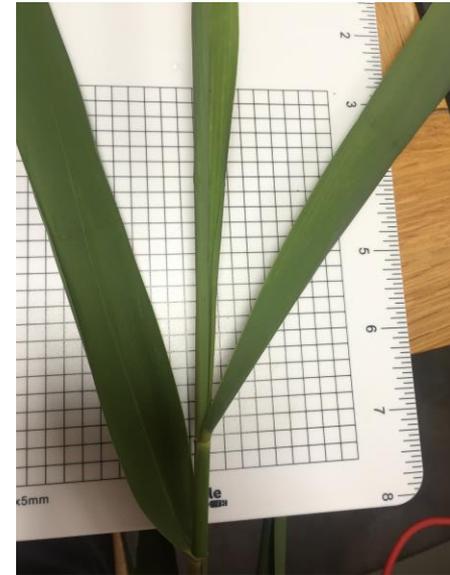
Phragmites australis

Check ligule – it is a comb of hairs



Check leaves - Leaves wide (10-45mm)

Check habit - Very tall reed-like grass when flowering 1-3m



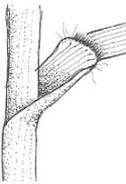
Found in **coastal brackish waters** and **inland freshwaters** (e.g. canals)

Note: Lookalike when not flowering – check *Phalaris* (later)

2. Leaves flat - Ligule comb of hairs

Purple moorgrass

Molinia caerulea



Check ligule – it is a comb of hairs (tiny)

Check leaves - width <12mm

Check habit – If older – large & tussocky
Hard to walk through if dominant in an area

In **winter** lots of **dead curled up leaves covering ground** where dominant

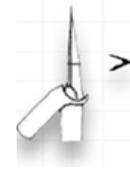


Heathlands and peatland

3. Leaves flat - Ligule membranous and Leaf folded in shoot

Perennial Rye-grass

Lolium perenne



Check ligule – membranous

Check youngest leaf - folded in shoot

Check for auricles - present

Check stem – rounded

Check Leaves – Glossy underside

Check sheaths - Wine coloured hairless

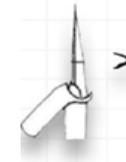


Lush green grass in agricultural fields

Planted for pasture



3. Leaves flat - Ligule membranous and Leaf folded in shoot



Annual Meadow-grass

Poa annua



Check ligule – membranous

Check youngest leaf - folded in shoot

Check Stem - Quite flattened

Check for auricles - absent

Check Leaves – Boat shaped tips (the tips like the bow of a boat)



Look for **transverse wrinkles** – then you are sure you have this species (Not always there – might be just one leaf)

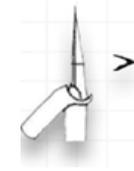


Small compact grass **on waste ground**

Annual

Flowers any time of year (including winter)

3. Leaves flat - Ligule membranous and leaf folded in shoot



Cocksfoot

Dactylus glomerata

Check ligule – membranous

Check youngest leaf - folded in shoot

Check for auricles - absent

Check stem – noticeably flattened and robust

Check sheaths: Peel back at the very base of stem
and they are **white**



Tussocky/tufted grass

Usually bigger than surrounding
grasses

Roadsides, wasteground, meadows



3. Leaves flat - Ligule membranous and leaf folded in shoot

Tufted hairgrass

Deschampsia cespitosa



Woodland, damp shady places and wetlands

Check ligule – membranous

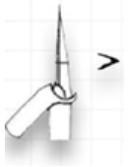
Check youngest leaf - folded in shoot

Check for auricles – absent

Check leaves – prominently ribbed on upper side

Check habit-

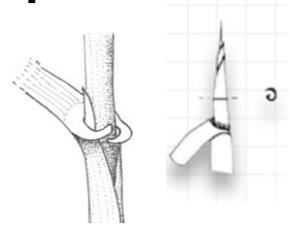
Tufted/tussock



4. Leaves flat - Ligule membranous and leaf rolled in shoot, auricles present

Common Couch grass (Scutch grass)

Elytrigia repens



Check ligule – membranous

Check youngest leaf - rolled in shoot

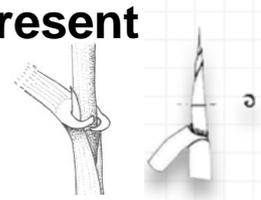
Check for auricles – present, small needle-like

Check for rhizomes – whitish brown, extensive



Grasslands, wastelands, hedgerows

4. Leaves flat - Ligule membranous and leaf rolled in shoot, auricles present



Tall fescue

Schedonorus arundinaceus



Damp shady places



Purple nodes if present



Check ligule – membranous

Check youngest leaf - rolled in shoot

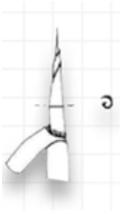
Check for auricles – present, broad lobes and often purple

Check sheaths – hairless

Check leaves – broad (6-18mm), glossy on underside

5. Leaves flat - Ligule membranous and leaf rolled in shoot, auricles absent, leaves hairy

Yorkshire Fog
Holcus lanatus



Check ligule – membranous

Check youngest leaf - rolled in shoot

Check for auricles – Absent

Check sheaths – Covered in soft velvety hairs and with pink stripes especially near base



Found in most grasslands - widespread

5. Leaves flat - Ligule membranous and leaf rolled in shoot, auricles absent, leaves hairy



Sweet vernal grass

Anthoxanthum odoratum



Check ligule – membranous

Check youngest leaf - rolled in shoot

Check for auricles – Absent

Check for whiskery hairs at side of ligule



Found in most grasslands – widespread

Got a lovely smell when crushed (coumarin)

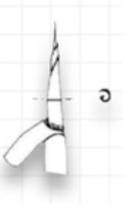
Makes lovely flavoured vodka

Note – can have hairless leaves but whiskery hairs a give-away

5. Leaves flat - Ligule membranous and leaf rolled in shoot, auricles absent, leaves hairy

False brome

Brachypodium sylvaticum



Check ligule – membranous

Check youngest leaf - rolled in shoot

Check for auricles – Absent

Check leaves – hairy and > 4mm wide

Check sheath – densely hairy, spreading hairs

Perennial



Found in shaded areas – Deciduous woodlands

6. Leaves flat - Ligule membranous and leaf rolled in shoot, auricles absent, leaves hairless



Reed canary grass

Phalaris arundinacea



Check ligule – membranous

Check youngest leaf - rolled in shoot

Check for auricles – Absent

Check leaves – hairless, 6-18mm wide

Large reed

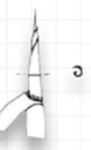
like grass



Found in wet areas – riversides, wet ditches

Note: Lookalike when not flowering – check *Phragmites*

6. Leaves flat - Ligule membranous and leaf rolled in shoot, auricles absent, leaves hairless



Common bent
Agrostis capillaris



Check ligule – membranous, 0.5-2mm long, flat topped, like a mans cap

Check youngest leaf - rolled in shoot

Check for auricles – Absent

Check leaves – Hairless, 2-2.5mm wide

Check habit - Has rhizomes and may have stolons so distribution in area looks smooth and carpet, no tufts or tussocks



Found in grasslands, often marginal grasslands and uplands

More help with Bent grasses, a request from previous webinar....

***Agrostis canina* sens. lat. (Velvet Bent):** 6-8; 15-75cm; bogs, fens, heaths, mountain grasslands; widespread & abundant. Panicle ovate in shape. Lemma with an awn. Leaves narrow. Ligule pointed, 2-4mm long. Spreads by stolons.

***Agrostis vinealis* (Brown Bent):** 6-8; 10-60cm; heaths, mountain grassland; occasional. Panicles ovate in shape. Lemma with fine bent awn or awnless. Leaves narrow, sometimes bristle-like. Ligule pointed, 1-5mm long & ragged at tip. Spreads by rhizomes.

***Agrostis capillaris* (Common Bent):** 6-8; 10-70cm; across habitats; widespread & abundant. Panicle diffuse and pyramidal in shape. Lemma with no awns. Leaves flat. Ligule very short (up to 1mm), rounded. Spreads by rhizomes, sometimes stolons.

***Agrostis stolonifera* (Creeping Bent):** 7-8; 8-40cm; across habitats; widespread & abundant. Panicles dense and linear in shape. Lemma with no awns or very short. Leaves flat. Ligule 1-6mm long, often ragged. Spreads by stolons.

***Agrostis gigantea* (Black Bent):** 6-8; 40-120cm; waste ground; occasional. Panicles large, loose and spreading; remains open and feathery after flowering. Lemma with no awns. Tall grass. Ligules 1.5-6mm long & toothed on top. Spreads by rhizomes.

Page Abstract from:

Identification guide to
Ireland's Grasses



National
Biodiversity
Data Centre
Documenting Ireland's Wildlife

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A. capillaris



A. stolonifera



A. gigantea

6. Leaves flat - Ligule membranous and leaf rolled in shoot, auricles absent, leaves hairless



False oatgrass or Onion couch

Arrhenathrum elatius var. *bulbosum*



Check ligule – membranous,

Check youngest leaf - rolled in shoot

Check for auricles – Absent

Check leaves – Hairless (sometimes hairy)

A variable grass

Broad – 4-10mm wide

Check base of grass - Base of stem is rusty-orange in colour

Check partially under soil is it bulbous?

Yes

Then it is var. **bulbosum**



Found in roadsides, wasteground and hedgerows

Grasses on Irish Red list, request from previous webinar...

Included in National Parks and Wildlife Service's Irish Vascular plant red list
Michael Wyse Jackson, Úna FitzPatrick, Edwina Cole, Matthew Jebb, Damian McFerran,
Micheline Sheehy Skeffington & Mark Wright 2016. Ireland Red List No.10: Vascular
Plants

Download for free at

<https://www.npws.ie/publications/red-lists>

Critically endangered

Hordelymus europaeus

Endangered:

Calamagrostis stricta

Lolium temulentum

Parapholis incurve

Poa alpina

Vulnerable:

Calamagrostis epigejos

Hordeum secalinum

Near threatened:

Alopecurus aequalis

Bromopsis erecta

Bromus commutatus

Bromus racemosus

Vascular plant taxa listed on the Flora (Protection) Order, 2015

Alopecurus aequalis

Calamagrostis epigejos

Deschampsia setacea

Hordeum secalinum

Puccinellia fasciculata

To finish:

DO try to look for these grasses and identify them

If you come across a grass that doesn't fit, it's not listed here and a different species

Do invest in a beginners guide with a simple key to start

Do get yourself a hand-lens

DO practice

Do record your species when you are confident you have identified species correctly (Species name, Location, grid reference, date, your name, habitat and any other useful information) and submit to data collection – BSBI and NBDC

DO get help and support – join BSBI, great and fun way of learning from experts

Don't give up, it's like a language, you need to keep using your new-found skills

BSBI - <https://bsbi.org/>

NBDC - <https://www.biodiversityireland.ie/>



An Roinn Cultúir,
Oidhreacht agus Gaeltachta
Department of Culture,
Heritage and the Gaeltacht



National Parks & Wildlife Service



CEDaR
Centre for Environmental
Data and Recording