



ELYTRIGIA AND ELYMUS (AGROPYRON)

1. General

There are number of problems which can cause confusion in these genera, though the species are themselves usually quite distinct.

i) Changes in nomenclature. The current names and recent synonymy are as follows:

Elymus caninus (L.) L. (*Agropyron caninum*)

Elytrigia atherica (Link) Kerguélen ex Carreras Mart. (*Elymus pycnanthus*; *Agropyron pungens*)

Elytrigia juncea (L.) Nevski (*Elymus farctus*; *Agropyron junciforme*)

Elytrigia repens (L.) Desv. ex Nevski (*Elymus repens*; *Agropyron repens*)

Leymus arenarius (L.) Hochst. (*Elymus arenarius*)

ii) Plants with awns. Plants of *Elytrigia repens* with awns are quite common and tend to be recorded as *Elymus caninus* by the unwary (when the florets of the latter drop or are pulled off, the two glumes stay attached to the stem, but come off with the floret in *Elytrigia repens*). *Elytrigia atherica* may also have awns.

iii) Both *Elytrigia repens* and *E. atherica* may grow on saltmarshes and adjacent banks, especially in the north, and are frequently confused by the unwary if it is assumed only the latter occurs on saltmarshes.

iv) Hybrids may be locally frequent near the coast (e.g. *E.* × *drucei* seems to be much more common in Cumbria than *E. atherica*, which may not occur at all; Halliday 1997). When the jizz of the parents is known, hybrids can be picked out as intermediate from a few metres away.

v) The hairs on the margins of the leaf sheaths may rub off late in the season.

In the following rather unsatisfactory key (updated from Wigginton & Graham 1981) an attempt has been made to key out the hybrids, which as a rule have empty anthers. Stace's *New Flora* provides helpful key identification features (see also Melderis 1975, Melderis & McClintock 1983).

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|---|--|---|
| 1 | Anthers narrow, indehiscent, pollen angular or shrivelled, translucent, inviable; seed not set | 2 |
| 1 | Anthers fertile, pollen fully formed, yellowish; plants usually setting seed | 4 |
| 2 | Inflorescence axis tough, with rigid scabrules on the angles; glumes acute | |
| | <i>Elytrigia</i> × <i>drucei</i> Stace (<i>E. atherica</i> × <i>E. repens</i>) | |
| 2 | Inflorescence axis weak, glabrous on the angles; glumes obtuse | 3 |
| 3 | Leaf-blades minutely rough on the closely and prominently ribbed upper surface; free margin of leaf sheath with minute hairs | |
| | <i>Elytrigia</i> × <i>acuta</i> (DC.) Tzvelev (<i>E. atherica</i> × <i>E. juncea</i>) | |
| 3 | Leaf-blades with shorter haired, less ribbed, upper surface; free margin of leaf sheath glabrous | |
| | <i>Elytrigia</i> × <i>laxa</i> (Fr.) Kerguélen (<i>E. juncea</i> × <i>E. repens</i>) | |
| 4 | Rachis fragile, disarticulating at maturity, glabrous on main angles; lemmas 11-20mm long; leaf-sheaths without auricles. Maritime sands | |
| | <i>Elytrigia juncea</i> | |
| 4 | Rachis tough, not disarticulating at maturity, spinose-ciliate on the main angles; lemma 8-15 mm long; leaf sheaths with auricles (sometimes very small) | 5 |

Plant Crib

- 5 Leaves usually flat, with fine or prominent, not closely crowded, rounded, often sparsely hairy veins on upper surface; lower sheaths usually not ciliate; rachis sometimes shortly hairy; anthers fertile
Elytrigia repens
- 5 Leaves flat or tightly convolute, with prominent, closely crowded, flattened veins, usually spinose-ciliate on main angles; lemma 8-15 mm long
Elytrigia atherica

2. *Elytrigia repens* / *E. campestris*

The subspecies of *E. repens* (L.) Desv. ex Nevski (Trist 1995) are now treated as species in Stace's *New Flora*. *Elytrigia campestris* (Godr. & Gren.) Kerguelen differs from *E. repens* in being a glaucous-green, much smaller, decumbent plant with shorter, ribbed, stem leaves many of which are inrolled at collection or very shortly after, and shorter panicles and spikes. It occurs on maritime sands, sandy immature saltings, dunes and sandy shingle around the southern coasts of Britain.

	<i>E. repens</i>	<i>E. campestris</i>
Culms	30-120 cm long, sometimes geniculate at or near the base; nodes light to dark brown	(16-)28-65 cm long, rarely geniculate; nodes light to dark pink
Leaves	Generally flat and flaccid, veins narrow; usually with dispersed hairs on adaxial surface; basal leaves 8-30 cm × 3-10 mm; upper leaves 8-16(-25) cm × 2-15 mm	Thick, rigid; margins involute, veins broad, rounded or flat, 0.15-0.2 mm wide; usually glabrous; basal leaves (4-) 7-14 (-20) cm × 2-4 mm; upper leaves 1.5-6 (-9.5) cm × 1-2(-3.4) mm
Spikes	5-20(-30) cm long, erect to nodding with up to c. 25 spikelets	(2.5-)4-9 cm long, short and strict, often with less than 10 spikelets
Spikelets	10-20 mm long with 3-8 florets	(7-)9-14 mm long, with 2-6 florets
Glumes	7-12 mm long, 3-7 veined, sometimes mucronate and rarely awned in British specimens	(4.4-)6-9(-10) mm long, 3(-7) veined, awns (0.2-)1.0-2.3 mm
Lemmas	8-13 mm long; awns usually absent in British material but in var. <i>aristatum</i> are thin and weak up to 15 mm long	(5.5-)7-10(-12) mm long; awns thick, straight and rigid, (0.3-)1.8-2.8(-4.6) mm long; where the lemma is mucronate, the tip is corneous and often scabrous

- References** Halliday, G. (1997). *A flora of Cumbria*. University of Lancaster, Lancaster.
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