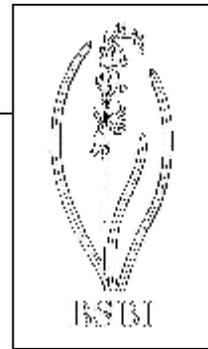


Plant Crib



POA

1. Alien species

Alien grasses of the British Isles (Ryves, Clement & Foster 1996) contains a key to all alien taxa recorded in the British Isles, including some which also occur as natives.

2. *Poa infirma* / *P. annua*

The recent discoveries of *Poa infirma* in many sites in south and west Britain (e.g. Takagi-Arigho 1994) suggests that it could be widespread but over-looked. It has been found to flower and senesce much earlier (January-April) than has previously been thought, and some populations may have disappeared before most botanists are recording.

In the field *P. infirma* is a little more slender than *P. annua*, but the real character that picks out plants to look at in more detail is its light green colour. *Poa annua* is usually flushed with purple and is darker, so that when the two grow side by side there is a distinct difference. (*Poa annua* in waterlogged or shaded conditions may be yellowish). Anthers provide the best diagnostic characters.

Length, habit and number of culms is variable. *Poa infirma* plants in short dense turf (and pure stands on shallow impoverished soils) are 1-4 cm tall with 1-2(-3) erect culms that are commonly over-topped by the surrounding vegetation and difficult to see. Plants scattered on shallow impoverished soils, blown-sand and dunes are 3-6(-10) cm tall with 2-6(-9) erect to procumbent culms. When growing on nutrient-rich soil (e.g. gardens/arable), plants are more robust, 10-15(-18) cm tall with 12-20 erect to spreading culms. In these richer soils, *P. infirma* retains its pale yellow-green colour whilst *P. annua* becomes a dark, sometimes sub-glaucous green. The erect, lanceolate to ovate panicles are often slightly to markedly one-sided, and plants with these not fully-exserted from the flag-leaf sheath could be overlooked as *Catapodium marinum* or *C. rigidum*.

The majority of the records are from cliff paths, track sides, bare ground, dunes and open grassland (including lawns), and it also occurs as a casual in imported soil.

	<i>Poa infirma</i> Kunth	<i>Poa annua</i> L.
Anthers	0.2-0.4(-0.5) mm, less than or equal to 1.5 times as long as wide, barely discernible without a $\times 10$ lens	0.6-0.8(-1.3) mm, usually twice as long as wide, obvious without a lens
Jizz	Yellowish-green, slender, erect panicles	Dark-green to purple-flushed, sometimes yellowish-green, stout, panicles open and triangular

Reference Takagi-Arigho, R. (1994). *BSBI News* **65**: 14-18.

Plant Crib

3. *Poa humilis* / *P. pratense* / *P. angustifolia*

This complex group of taxa are perhaps best recorded as *P. pratense* agg. The three segregates seem to be treated differently by different botanists using different characters. It is suggested that the account in Stace's *New Flora* is followed for the time being. The following notes may or may not help. Two, or rarely three, taxa can be found together.

Poa angustifolia L. is the most distinct. There may be considerable variation within populations, sometimes with a small population of related forms not satisfactorily included within it (Barling 1959). It tends to be a tallish 40-50 cm, densely to loosely tufted plant with very long linear leaves on sterile tillers which are usually less than 2 mm wide, marginally wider than those of *Festuca rubra* (*F. rubra* leaves are rolled, not folded flat along the midrib). The upper surfaces of leaves on sterile tillers are hairy. Leaves on the fertile tillers are broader. The upper glumes usually have 3 nerves, the lower glumes one nerve, though this can vary within a panicle. It grows on roadside banks, railway banks (there is suspicion that some of the records in Sargeant *et al.* 1986 are errors but it is certainly widespread on railways), permanent often calcareous grassland, mole hills, unploughed headlands, etc., usually in ungrazed, dry situations. It starts to flower before the other taxa, which may help to pick it out.

Poa humilis Ehrh. ex Hoffm. (*P. subcaerulea* Sm.) seems to be very widely under-recorded due to uncertainty but is probably common. There is considerable variation within populations, but all are characterised by having small panicles with few spikelets, a tendency to 2 branches at the lowest node (though it varies from 1-5), and both glumes acuminate and 3-nerved. The rhizomes spread extensively resulting in scattered culms (rarely several together), the leaves are broad (usually more than 2 mm) and may or may not be hairy on the surfaces, and all are hairy at the collar of the leaf blade. Transplants show that short culms, small spikelets and small panicles are environmental effects. It occurs in a wide range of habitats, typically moist, grazed or not, especially coastal and hill and montane grasslands.

Poa pratense L. is believed to be common throughout Britain but is probably over-recorded. It is highly polymorphic. Strains cultivated in grasslands differ from those in more natural situations, and from other strains sown on roadsides (e.g. Barling 1967). It is rhizomatous but often several tillers will grow together in small tufts (sometimes singly), and the leaves are more than 2 mm wide. The leaf blades are normally glabrous, but are sometimes hairy, sometimes (?) with hairs at the collar of the leaf blade. There are usually 3-5 branches at the lowest node of the inflorescence. The glumes are usually distinctly unequal and the lower usually has the lateral veins weakly developed so they appear 1-veined, but some strains can have 3 veins (upper glume 3-veined in all).

References Barling, D. M. (1959). *Watsonia* **4**: 147-168.
Barling, D. M. (1962). *Watsonia* **5**: 163-173.
Barling, D. M. (1965). *Watsonia* **6**: 109-113.
Barling, D. M. (1967). *Proceedings of the BSBI* **6**: 363-364.
Sargent, C., Mountford, O. & Greene, D. (1986). *Watsonia* **16**: 31-36.

4. *Poa compressa* / *P. humilis* (*P. subcaerulea*)

Poa compressa tends to form yellow-green patches in sandy or stony habitats (e.g. quarries), especially on calcareous soils and beside paths and railways and may be under-recorded. Most *Poa* with flattened stems growing on walls is *P. humilis*. *Poa compressa* may also be confused with *P. pratensis*.

Plant Crib

The best means of distinguishing non-flowering material lies in the number of nodes of the culms. When flowering, *P. compressa* can be separated from *P. humilis* by the presence on the panicle branches and pedicels of many more silicaceous teeth ($\times 20$ lens), as well as by the panicle shape.

P. compressa L.: Culms normally with 5-9 nodes; panicles stiff, narrow and cylindrical, but sometimes more open to ovate; panicle branches 1 or more; spikelets small, blunt, not 'heavy' in appearance; leaf-blade without hairs by ligule; glumes 2-3 mm; lemmas 2.5-3 mm, blunt in side view.

P. humilis Ehrh. ex Hoffm.: Culms normally with 2-4 nodes; panicles pyramidal, loose and open, often triangular in outline; panicle branches at lowest node usually 2, sometimes 1 or 3+; spikelets fairly large, pointed, and 'heavy' in appearance; leaf blade with a fringe of hairs by ligule; glumes 3-5 mm; lemmas 3-5 mm, pointed in side view.

Author J. M. Mullin, February 1988, updated 1997.