



BROMUS

1. *Bromus racemosus* / *B. commutatus* / *B. hordeaceus*

Typical *B. commutatus* can usually be readily separated from *B. racemosus* by its loose, one-sided drooping panicle, and larger spikelets. Typical *B. racemosus* has fairly spreading and upright panicles (at least in flower). Fertile hybrids frequently occur where both species grow together.

Both species differ from *B. hordeaceus* in having glabrous stems and lemmas, and with pedicels longer than spikelets (up to 40 mm). Although some forms of *B. hordeaceus* have glabrous lemmas (cf. below) they are usually dwarf and lack the long pedicels. Other forms of *B. hordeaceus* with lax panicles and long pedicels (up to 40 mm) usually have hairy lemmas. When growing in the same habitat *B. hordeaceus* begins flowering at least two weeks earlier than *B. commutatus* or *B. racemosus*.

The Table below gives general jizz; other characters are given in Smith (1973) and Stace's *New Flora*.

	<i>B. hordeaceus</i> L.	<i>B. commutatus</i> Schrad.	<i>B. racemosus</i> L.
Flowering start	Late April / early May	Mid May	Mid May
Panicle appearance	Compact (rarely lax), upright	Loose, one-sided and drooping	Spreading, upright
Pedicels	Usually short (2-10 mm), rarely long (to 40 mm)	Long (16-40 mm)	Long (16-40 mm)
Spikelet length	8-25 mm	15-25 mm	10-16 mm
Stem feel	Softly hairy	Smooth to slightly rough	Smooth

Reference Smith, P. M. (1973). *Watsonia* **9**: 319-332.

Author B. Phillips, January 1998.

Plant Crib

2. *Bromus hordeaceus* subspecies

Four subspecies are now recognised in Britain, with the recent inclusion of the alien subsp. *divaricatus*. Subsp. *hordeaceus* is the commonest and also the most variable. Subsp. *ferronii* (Mabille) P. M. Sm. is under-recorded, and when it is recorded small cliff top plants of subsp. *hordeaceus* are often confused with it; these lack the stout awn which is recurved in fruit and tend to have larger lemmas and spikelets. Subsp. *thominei* (Hardouin) Braun-Blanq. occurs mainly on coastal sands but does grow inland where it is under-recorded, and may be declining. Subsp. *divaricatus* (Bonnier & Layens) Kerguelen is a rare casual and can be separated from *B. hordeaceus* as follows:

Subsp. *divaricatus*: Panicle with many spikelets, stiffly erect, with many short branches and pedicels; awns curved at maturity

Subsp. *hordeaceus*: Panicle with few to many spikelets, drooping to one side, with short to long branches; awns \pm straight, erect.

The spikelet characters are the most important for separating the taxa. All taxa vary in size.

	Subsp. <i>hordeaceus</i> / subsp. <i>divaricatus</i> (see above)	Subsp. <i>ferronii</i>	Subsp. <i>thominei</i>
Spikelets	12-25 \times 4-6 mm, usually hairy	8-12 \times 2-3 mm, hairy or glabrous	8-18 \times 3-6 mm, densely hairy
Awns	4-11 mm, straight or divaricate	3-7 mm, weakly divaricate	2-5.5 mm, recurved in fruit
Lemmas	8-11 mm	6.5-7.5 mm	6.5-8.5 mm
Habit	3-80 cm tall, erect, rarely ascending	2-15(-20) cm, erect to ascending	1-8(-12) cm, prostrate to ascending
Habitat	Broad range including cliffs and dunes	Cliff tops	Sands inland and on coast

Reference Smith, P. M. (1968). *Watsonia* **6**: 327-344.

Plant Crib

3. *Bromus lepidus* / *B. × pseudothominei* / *B. hordeaceus*

Bromus lepidus appears to have been quite a frequent introduction to Britain in the 1950s but is now rarely seen (D. E. Coombe, pers. comm. 1995). The broad hyaline margin to the glume can make spikelets almost look variegated. Its hybrid with *B. hordeaceus* (*B. × pseudothominei*), once reasonably widespread, is now also quite rare. The hybrid forms a segregating complex with some variants close to *B. lepidus* and others close to *B. hordeaceus* (Smith 1968).

There is great variation in development of spikelet pubescence and in development of the inflorescence - all taxa can vary from plants with a single spikelet to large lax or dense panicle with many spikelets.

	<i>Bromus lepidus</i> Holmb.	<i>Bromus</i> × <i>pseudothominei</i> P. M. Sm.	<i>Bromus hordeaceus</i> L.
Spikelets	5-15 × 2-4 mm, usually glabrous and glossy	10-15 × 3-4 mm, hairy or glabrous	8-25 × 2-6 mm, often hairy, sometimes glabrous
Awns	2-5.5 mm long, weak, setaceous, erect	3-7 mm long, erect	2-11 mm long, erect to recurved
Lemmas	(4.5-)5.5-6.5 mm long, sharply angled with a broad hyaline margin	6.5-8 mm long, usually bluntly angled, with narrow hyaline margin	6.5-11 mm long, bluntly angled with a narrow hyaline margin
Grain	Exceeding palea, rarely exceeding lemma	Usually equalling palea	Shorter than palea

Reference Smith, P. M. (1968). *Watsonia* **6**: 327-344.