

### Spike-rushes *Eleocharis* ~ field key

The UK has seven species:

Two *robust* species:

- *Eleocharis palustris* Common Spike-rush
- *Eleocharis mamillata* subsp. *austriaca* Northern Spike-rush

Two *medium-sized* species:

- *Eleocharis uniglumis* Slender Spike-rush
- *Eleocharis multicaulis* Many-stalked Spike-rush

One *smaller* species:

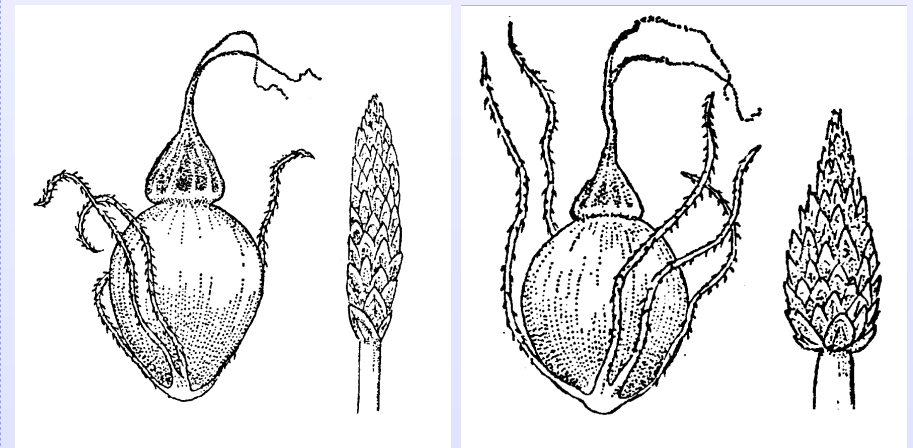
- *Eleocharis quinqueflora* Few-flowered Spike-rush

Two *small* species:

- *Eleocharis acicularis* Needle Spike-rush
- *Eleocharis parvula* Dwarf Spike-rush

The **key** overleaf requires flowering/fruiting stems. For vegetative material there is advice on each species-page [on the website](#).

Note that for simplicity the drawings below show the *bristles*, but not the *anther-filaments* (see the description overleaf, and the annotated diagram in the 'Nuts' section of the [palustris page](#)).



nuts, style-bases, bristles and spikelets of  
*E. palustris*

*E. mamillata* subsp. *austriaca*

## Key to fertile spike-rushes

- 1a** two basal glumes sterile (i.e. not enclosing flowers/fruit), each enclosing half of base of spikelet or little more; stigmas 2 only; stems typically more than 1 mm diameter, often to 40 cm tall ..... **2**
- 1b** single sterile basal glume, enclosing most, or all, of base of spikelet; stigmas 2 or 3; stems often less than 1 mm diameter, usually less (often much less) than 40 cm tall ..... **3**
- 2a** spikelets various shapes, rarely strongly conical in outline; style-base greatly swollen; bristles mostly 4; stem-base often red-flushed (common) ..*palustris*
- 2b** spikelets often conical in outline; style-base not greatly swollen; bristles mostly 5(-6); stem-base not red-flushed (rare) ..... *mamillata* ssp. *austriaca*
- 3a** stigmas 2; nuts 2-sided or oval in section ..... *uniglumis*
- 3b** stigmas 3; nuts bluntly 3-sided ..... **4**
- 4a** more robust plants: mature stems often more than 10 cm and more than 0.5 mm diameter ..... **5**
- 4b** small and slender plants: mature stems rarely more than 10 cm and up to 0.5 mm diameter ..... **6**
- 5a** uppermost sheath obliquely truncate, with ± acute point; lowest glume ca. ¼ length of elongated spikelet (which has 10+ glumes or nuts); style-base with a 'neck' at junction with nut..... *multicaulis*
- 5b** uppermost sheath ± transversely truncate; lowest glume ½ length or more of shorter spikelet (which has up to 7 glumes or nuts); style-base narrow and confluent with nut ..... *quinqueflora*
- 6a** rhizomes not ending in a tuber; stems very slender (to 0.3 mm); spikelets with up to 15 glumes; lowest glume up to ½ length of spikelet; not on estuarial mud ..... *acicularis*
- 6b** rhizomes whitish and ending in a small tuber; stems up to 0.5 mm diameter; spikelets with up to 9 glumes; lowest glume ½ or more length of spikelet; only on estuarial mud (very rare) ..... *parvula*

## Notes

When counting the number of *bristles* be careful not to include the *three anther-filaments* arising from the base of the nut. They may persist as thin hair-like structures, often whitish, and can be difficult to distinguish from the usually brown bristles without a x20 lens and good light, or a microscope.

**Filaments lack the minute rearward-curved hooks characterising bristles.**

Bristles arise from a narrow collar at the base of the nut, whilst the filaments arise from between this collar and the nut.

## Range and habitat

*Eleocharis palustris* Common Spike-rush: frequent and widespread; all sorts of marshy places

*Eleocharis mamillata* subspecies *austriaca* Northern Spike-rush: very local in S Scotland and N England; oxbow pools, ditches, etc., by upland rivers; sometimes in calmer sections of the river itself

*Eleocharis uniglumis* Slender Spike-rush: locally frequent; saltmarshes, sheltered estuary mud, and other coastal habitats; rarer inland in mineral-rich mires and seepages, open marshes, etc.

*Eleocharis multicaulis* Many-stalked Spike-rush: locally frequent in the west; shallow pools and ditches in basin mires, both flowing and stagnant; seepage areas on valley-sides, etc.

*Eleocharis quinqueflora* Few-flowered Spike-rush: frequent in the west and north; mainly upland, in mineral-rich seepages, etc.

*Eleocharis acicularis* Needle Spike-rush: local, mainly in the south; various open wet places - can grow submerged in rivers, etc.

*Eleocharis parvula* Dwarf Spike-rush: very local indeed: south coast England; Cardigan Bay; Dornoch Firth; Co. Londonderry; estuarial mud, shallow tidal pans in saltmarshes

For much more information on identification, etc., visit

[www.edencroft2.co.uk](http://www.edencroft2.co.uk)

© F.J. Roberts

Version C, February 2020

[There is a contact page on the website]