OV11
Poa annua-Stachys arvensis community

Synonymy
Stachys arvensis community Silverside 1977.

Constant species
Anagallis arvensis, *Poa annua*, *Polygonum aviculare*, *Stachys arvensis*.

Rare species
Fumaria bastardii.

Physiognomy
The constancy of *Stachys arvensis* is the most striking feature of the *Poa annua-Stachys* community, along with *P. annua*, *Polygonum aviculare* and *Anagallis arvensis*. Also very common throughout the assemblage are *Spergula arvensis*, *Stellaria media*, *Plantago major*, *Matricaria perforata*, *Chamomilla suaveolens*, *Ranunculus repens*, *Elymus repens* and *Agrostis stolonifera*. Occasionals include *Capsella bursa-pastoris*, *Bilderdykia convolvulus*, *Fumaria muralis* ssp. *boraei*, *Senecio vulgaris*, *Taraxacum officinale* agg., *Trifolium repens*, *Holcus lanatus* and *Lolium perenne*. The total cover of vascular plants is usually high and some stands have a distinctly grassy appearance. In one sub-community, acrocarpous mosses can be varied and quite abundant.

Sub-communities

***Chenopodium album-Euphorbia helioscopa* sub-community.** *Chamomilla suaveolens*, *Sonchus asper* and *Veronica persica* show somewhat higher frequency than usual here but more striking preferentials are *Chenopodium album* and *Euphorbia helioscopa*. Knotweeds are quite often prominent with *Polygonum lapathifolium*, *P. nodosum* and *P. persicaria* occasionally joining *P. aviculare*, and *Viola arvensis*, *Atriplex patula*, *Sinapis arvensis*, *Sonchus arvensis*, *Sherardia arvensis* and *Agrostis capillaris* are all preferential at low frequency. Among nationally-scarce plants, this sub-community occasionally provides a locus for *Kickxia elatine* and *Misopates orontium*.

***Cerastium fontanum-Bryum rubens* sub-community.** *Polygonum persicaria* increases in frequency in his sub-community but more exclusive preferentials are *Cerastium fontanum* and a variety of acrocarpous mosses of which *Bryum rubens*, *Pottia truncata* and *Dicranella staphylina* are the most common with *B. klinggraeffii* and *B. violaceum* less frequent. *Brachythecium rutabulum* and *Eurhynchium praelongum* also occasionally form sparse wefts. Other vascular associates here are *Poa trivialis*, *Lamium purpureum*, *Trifolium dubium*, *Leontodon autumnalis* and *Rumex crispus*.

Habitat
The *Poa-Stachys* community is mostly associated with cereal crops on less limey loam and clay-loam soils in the western parts of England and Wales.

S. arvensis is a plant with a somewhat western distribution in Britain (Perring & Walters 1962) and characteristic of soils that are not so dry and acidic as those favoured by the *Spergulo-Chrysanthemetum*. This assemblage occurs typically on loamy or clayey soils such as those derived from the Old Red Sandstone or boulder clay. It is found largely west of a line from Dorset to Cheshire, being commonest in Pembrokeshire and Anglesey (Silverside 1977). It has been encountered mostly in oats and barley, occasionally in vegetable crops. The *Cerastium-Bryum* sub-community is characteristic of damper ground that has been undisturbed for some time, as among stubble that has not been burned or ploughed in.

Zonation and succession
On sandier and more acidic soils, the *Poa-Stachys* community tends to be replaced by the *Spergulo-Chrysanthemetum* and, on more fertilised areas within crops, by the *Stellaria-Capsella* or *Matricaria-Stellaria* communities. Continuing cultivation for growing arable crops creates suitable conditions for re-establishment of the community each year and sets back any tendency for succession.

Distribution
The community is largely confined to south-west England and Wales.

Affinities
This assemblage was first characterised by Silverside (1977) as distinct from the *Spergulo-Chrysanthemetum* on the basis of a shift in the balance of constants: *Spergula arvensis* and especially *C. segetum* are less common here, *Stachys arvensis* much more frequent. He recognised analogus trends in the Dutch data of Westhoff & den Held (1969) and among the communities described by Oberdorfer (1957, 1983) who separated off a *Setario-Stachyetum* from the *Lycopsietum*.

Floristic table OV11

	a	b	11
Stachys arvensis	V (1–6)	V (1–6)	V (1–6)
Poa annua	V (1–6)	V (1–8)	V (1–8)
Anagallis arvensis	IV (1–8)	IV (1–4)	IV (1–8)
Polygonum aviculare	IV (1–8)	IV (1–4)	IV (1–8)
Chamomilla suaveolens	IV (1–6)	III (1–4)	III (1–6)
Sonchus asper	IV (1–4)	III (1–6)	III (1–6)
Chenopodium album	IV (1–8)	II (1–3)	III (1–8)
Veronica persica	III (1–8)	II (1–3)	II (1–8)
Euphorbia helioscopa	III (1–3)	I (1–4)	II (1–4)
Agrostis capillaris	II (1–4)	I (1–3)	I (1–4)
Kickxia elatine	II (1–4)	I (1)	I (1–4)
Polygonum lapathifolium	II (1–6)		I (1–6)
Polygonum nodosum	II (1–4)		I (1–4)
Viola arvensis	II (1–3)		I (1–3)
Atriplex patula	II (1–3)		I (1–3)
Sinapis arvensis	II (1–6)		I (1–6)
Sonchus arvensis	II (1–3)		I (1–3)
Sherardia arvensis	II (1–4)		I (1–4)
Misopates orontium	II (1–3)		I (1–3)
Euphorbia exigua	I (1–3)		I (1–3)
Polygonum persicaria	II (1–8)	IV (1–4)	III (1–8)
Cerastium fontanum		III (1–4)	II (1–4)
Bryum rubens		III (1–3)	II (1–3)
Pottia truncata		III (1–4)	I (1–4)
Dicranella staphylina		III (1–3)	I (1–3)
Poa trivialis	I (1)	II (1–4)	I (1–4)
Lamium pupureum	I (1–3)	II (1–3)	I (1–3)
Brachythecium rutabulum		II (1–3)	I (1–3)
Trifolium dubium		II (1–3)	I (1–3)
Leontodon autumnalis		II (1–3)	I (1–3)
Rumex crispus		II (1–3)	I (1–3)
Eurhynchium praelongum		I (1–3)	I (1–3)
Pleuridium subulatum		I (1–3)	I (1–3)
Aphanes arvensis		I (1–3)	I (1–3)
Bryum klinggraeffii		I (1–4)	I (1–4)
Bryum violaceum		I (1–4)	I (1–4)

Plantago major	III (1–3)	III (1–4)	III (1–4)
Spergula arvensis	III (1–6)	III (1–4)	III (1–6)
Stellaria media	III (1–8)	III (1–6)	III (1–8)
Matricaria perforata	III (1–8)	III (1–3)	III (1–8)
Ranunculus repens	III (1–3)	III (1–3)	III (1–3)
Agrostis stolonifera	III (1–8)	III (1–3)	III (1–8)
Elymus repens	III (1–6)	III (1–4)	III (1–6)
Capsella bursa-pastoris	II (1–3)	III (1–3)	II (1–3)
Bilderdykia convolvulus	II (1–3)	III (1–3)	II (1–3)
Holcus lanatus	II (1–3)	III (1–3)	II (1–3)
Fumaria muralis ssp. *boraei*	II (1–6)	II (1–3)	II (1–6)
Senecio vulgaris	II (1–8)	II (1–3)	II (1–8)
Trifolium repens	II (1–3)	II (1–3)	II (1–3)
Taraxacum officinale agg.	II (1–3)	II (1–3)	II (1–3)
Lolium perenne	II (1–3)	II (1–3)	II (1–3)
Plantago lanceolata	II (1–3)	II (1–4)	II (1–4)
Rumex obtusifolius	II (1–3)	II (1–3)	II (1–3)
Geranium dissectum	II (1–3)	II (1–3)	II (1–3)
Potentilla anserina	II (1–3)	II (1–3)	II (1–3)
Fumaria bastardii	I (1–3)	I (1–3)	I (1–3)
Veronica arvensis	I (1)	I (1–3)	I (1–3)
Chrysanthemum segetum	I (1–3)	I (1–3)	I (1–3)
Daucus carota	I (1)	I (1–2)	I (1–2)
Aphanes microcarpa	I (1)	I (1)	I (1)
Coronopus didymus	I (1)	I (1)	I (1)
Cerastium glomeratum	I (1)	I (1)	I (1)
Senecio sylvaticus	I (1)	I (1)	I (1)
Solanum nigrum	I (1)	I (1)	I (1)
Number of samples	23	16	39
Number of species/sample	22 (14–33)	26 (12–48)	23 (14–48)
Herb cover (%)	75 (25–100)	80 (55–100)	77 (25–100)
Bryophyte cover (%)		6 (1–30)	1 (0–30)

a *Chenopodium album-Euphorbia helioscopa* sub-community
b *Cerastium fontanum-Bryum rubens* sub-community
11 *Poa annua-Stachys arvensis* community (total)

https://doi.org/10.1017/CBO9780511541834.080 Published online by Cambridge University Press