OV₆

Cerastium glomeratum-Fumaria muralis ssp. boraei community

Svnonvmv

Spergulo-Chrysanthemetum (Br.-Bl. de Leeuw 1936) R.Tx. 1937 sensu Silverside 1977 p.p.; Medicagi-Ranunculetum parviflori Silverside 1977 p.p.

Constant species

Anagallis arvensis, Cerastium glomeratum, Fumaria muralis ssp. boraei, Juncus bufonius, Poa annua, Senecio vulgaris, Sonchus asper.

Rare species

Allium babingtonii, Briza minor, Fumaria bastardii, Silene gallica.

Physiognomy

The Cerastium glomeratum-Fumaria muralis ssp. boraei community is one of the British weed assemblages in which fumitories figure with some prominence. F. muralis ssp. boraei is the most common taxon here and it can be abundant. Less frequent in the community, though locally prominent, are F. officinalis (a plant with a wider distribution nationally than F. muralis ssp. boraei), and the nationally scarce F. bastardii and F. occidentalis.

Other distinctive constants of this kind of vegetation are Cerastium glomeratum and Juncus bufonius with Anagallis arvensis, Poa annua, Senecio vulgaris and Sonchus asper. P. trivialis and Coronopus didymus are among the frequent associates but more striking is the common occurrence of Chrysanthemum segetum and the nationally rare or scarce Ranunculus parviflorus, Briza minor and Silene gallica. Gladiolus byzantinus is a common escape from the bulb crops among which this assemblage is often found.

Occasionals include Veronica persica, Medicago arabica and Rumex acetosella with the South African introduction Oxalis pes-caprae naturalised here, though with varying frequency in the different sub-communities, and another introduced sorrel O. corniculata occurring much more rarely.

Sub-communities

Aphanes microcarpa-Ranunculus muricatus sub-community: Spergulo-Chrysanthemetum (Br.-Bl. & de Leeuw 1936) R.Tx. 1937, Briza minor variant Silverside 1977 p.p. Plantago lanceolata and Stellaria media are more frequent here than elsewhere in the community but more distinctive preferentials are Aphanes microcarpa and the Mediterranean introduction Ranunculus muricatus. Also frequent are Spergula arvensis, Cerastium fontanum, Myosotis discolor, Trifolium repens and Rumex crispus with occasionals Bellis perennis, Ranunculus repens, R. ficaria, Myosotis arvensis and Medicago polymorpha.

Valerianella locusta-Barbula convoluta sub-community: Medicagi-Ranunculetum parviflori Silverside 1977 p.p. Veronica arvensis, Sagina procumbens, Agrostis stolonifera and, among mosses of bare ground, Bryum rubens are all weakly preferential to this sub-community but among the vascular plants Valerianella locusta, Urtica urens, Polycarpon tetraphyllum and Fumaria officinalis are more striking, with Barbula convoluta and Riccia sorocarpa among the distinctive bryophytes. Other frequent plants are Capsella bursa-pastoris, Rumex obtusifolius, Heracleum sphondylium and Chenopodium album with Fumaria bastardii, Allium babingtonii and Arum italicum ssp. neglectum occasional.

Vicia hirsuta-Papaver dubium sub-community. Oxalis pes-caprae, Sonchus oleraceus and Galium aparine are somewhat preferential in this kind of Cerastium-Fumaria vegetation but better distinguishing features are high frequencies of Vicia hirsuta, Papaver dubium and Trifolium dubium with V. sativa ssp. nigra and Elymus repens also common, Erodium moschatum, Mercurialis annua, Anthriscus caucalis, Convolvulus arvensis and Ranunculus marginatus var. trachycarpus occasional.

Habitat

The Cerastium-Fumaria community is confined to fertile, light, non-calcareous soils in the extreme oceanic climate of the far south-west of Britain where bulb and vegetable cultivation provides the regular disturbance necessary for its development.

In some ways, this kind of weed vegetation can be seen as a replacement for the Spergulo-Chrysanthemetum in the more equable and moist oceanic climate of the South-West Peninsula. It is similarly characteristic of more acidic sandy and loamy soils, sometimes even extending on to peats, that are more free-draining and relatively fertile, either inherently so or because of modest manuring. C. segetum itself remains very common here, while S. arvensis is somewhat more restricted but the particular assemblage of constants, with species like Cerastium glomeratum, Anagallis arvensis and Fumaria muralis ssp. boraei occurring along with Juncus bufonius, indicates a distinctive combination of a light texture with moistness that is often met on the cultivated soils of The Scillies and parts of Cornwall.

Other species in this community reflect the more distinctively oceanic character of the climate in this part of Britain. Ranunculus parviflorus, for example, is a native plant typical of damper habitats in regions of southwest Europe and the Mediterranean with a moister climate. Like Medicago arabica and Erodium cicutarium, less common but still distinctive here, it is a winter annual but frost-sensitive, so limited to areas with mild temperatures in the cold season. Silene gallica and the

introduced *Briza minor*, for which this vegetation provides their second major locus in Britain, are also restricted to more equable climates.

Bulb and vegetable cultivation provides the necessary disturbance that encourage seed germination and establishment of this assemblage.

Zonation and succession

On the Scillies, the *Cerastium-Fumaria* community can be seen in close association with the *Briza-Silene* assemblage which tends to replace it on drier soils in bulb fields. More heavily fertilised areas may see a shift to the *Stellaria-Capsella* community. The annual cycle of bulb and cereal cultivation renews the conditions suitable for the community and effectively prevents any successional developments.

Distribution

The community occurs only on The Scillies and in south-west Cornwall around Gulval, Trenance and Gweek (Silverside 1977).

Affinities

The Cerastium-Fumaria community brings together the more oceanic samples which Silverside (1977) included in his Spergulo-Chrysanthemetum as the Briza minor variant and what he defined as a new syntaxon, the Medicagi-Ranunculetum, characteristic of even more Atlantic conditions. The difference between these associations is preserved here at sub-community level.

Floristic table OV6

	a	ь	c	6
Cerastium glomeratum	V (2-7)	V (2-5)	V (2-5)	V (2-7)
Anagallis arvensis	V (2-5)	V (2-7)	V (1-3)	V (1–7)
Fumaria muralis boraei	IV (2–8)	V (2–7)	V (3–7)	V (2–8)
Poa annua	V (2–8)	V (2–7)	V (2-5)	V (2–8)
Juncus bufonius	IV (2-7)	V (2-5)	IV (2-5)	IV (2-7)
Senecio vulgaris	IV (2-7)	V (2-7)	IV (2-3)	IV (2-7)
Sonchus asper	IV (2-3)	V (2-3)	III (2-3)	IV (2–3)
Plantago lanceolata	IV (2-5)	II (1-4)	II (2–3)	III (1-5)
Stellaria media	IV (2-5)		II (2-3)	II (2-5)
Aphanes microcarpa	IV (2-7)		I (3)	II (2-7)
Spergula arvensis	III (2–8)	I (2)		II (2–8)
Cerastium fontanum	III (2–5)			II (2-5)
Myosotis discolor	III (2–5)	I (3)	I (1)	II (1-5)
Trifolium repens	III (2–3)	II (2–5)		II (2-5)
Ranunculus muricatus	III (2–8)			II (2-8)

Rumex crispus	III (1–2)	I (2)	I (2)	II (1–2)
Bellis perennis	II (2)		I (2)	I (2)
Ranunculus repens	II (1-8)	I (1-3)	` ,	I (1–8)
Myosotis arvensis	II (2-3)	, ,		I (2-3)
Medicago polymorpha	II (2-5)		I (3)	I (2-5)
Ranunculus ficaria	II (2–3)	I (3)	` ,	I (2-3)
Veronica arvensis	III (1–4)	IV (2-5)	I (3)	III (1-5)
Sagina procumbens	II (2-3)	IV (2-3)	III (2–3)	III (2–3)
Bryum rubens	I (1–6)	IV (1-3)	III (2–5)	III (1-6)
Agrostis stolonifera	I (1-5)	IV (2-8)	III (2–7)	III (1–8)
Barbula convoluta	, ,	IV (2-3)	I (2)	III (2–3)
Valerianella locusta	I (2-5)	IV (2-5)	I (2-5)	III (2-5)
Urtica urens	,	IV (2-3)	I (2)	II (2–3)
Polycarpon tetraphyllum	I (5)	IV (2-5)	I (2)	II (2-5)
Capsella bursa-pastoris	I (2-3)	III (2)	II (2–3)	II (2–3)
Rumex obtusifolius	II (2–3)	III (2–5)	I (1)	II (1-5)
Riccia sorocarpa	I (2)	III (1–2)	II (2–3)	II (1-3)
Heracleum sphondylium	I (3)	III (2–5)	II (2)	II (2-5)
Dicranella staphylina	I (1–2)	III (2-3)	I (2)	II (1-3)
Pottia truncata	I (1)	III (1-2)	I (2)	II (1-2)
Phascum cuspidatum	I (2)	III (2–3)	I (2)	II (2–3)
Fumaria officinalis	1 (2)	III (2-7)	1 (2)	II (2-7)
Eurhynchium praelongum	I (2-3)	II (2)	I (3)	II (2–3)
Fumaria bastardii	I (3)	II (2–5)	I (2-3)	I (2-5)
Pleuridium subulatum	I (2-3)	II (1-2)	I (1-2)	I (1-3)
Veronica hederifolia	I (2)	II (2–3)	I (1-2)	I (2-3)
Chenopodium album	I (3)	II (2-3)	1 (2)	I (2-3)
Allium babingtonii	I (3)	II (2)		I (2-3)
Aphanes arvensis	I (2–3)	II (2)		I (2-3)
Ceratodon purpureus	I (1-3)	II (2) II (1–3)	I (2-3)	I (1-3)
Viola arvensis	1 (1-3)	II (2-5)	I (2=3) I (2)	I (1-5)
Arum italicum neglectum		II (2–3)	1 (2)	I (2-3)
	II (1 A)		III (2, 2)	
Galium aparine	II (1–4)	III (2-3)	IV (2-3)	III (1–4)
Sonchus oleraceus	II (1–5)	III (1–2)	IV (2)	III (1–5)
Oxalis pes-caprae	II (1–8)	III (2-7)	V (2–10)	III (1–10)
Vicia hirsuta	I (3)	T (2)	V (2–7)	II (2–7)
Papaver dubium	I (2)	I (3)	IV (2-3)	II (2–3)
Trifolium dubium	I (1–4)		IV (2–5)	II (1–5)
Elymus repens	I (5)	II (2)	III (3–7)	II (3–7)
Vicia sativa nigra	T (2, 2)	II (2)	III (2–3)	II (2–3)
Erodium moschatum	I (2–3)	I (3)	II (2–3)	I (2-3)
Mercurialis annua		I (2)	II (1–2)	I (1–2)
Anthriscus caucalis	T /8%		II (2)	I (2)
Fumaria occidentalis	I (7)		II (5–10)	I (5–10)
Convolvulus arvensis			II (2)	I (2)
Ranunculus marginatus trachycar	pus		I (5)	I (5)
Poa trivialis	III (2–8)	III (25)	III (2–5)	III (2–8)
Chrysanthemum segetum	III (1–10)	III (2–3)	III (2–7)	III (1–10)
Briza minor	III (1–4)	II (2–3)	III (2–3)	III (1-4)

Floristic table OV6 (cont.)

	a	ь	c	6
Ranunculus parviflorus	III (2–7)	III (2–3)	II (2-3)	III (2–7)
Gladiolus byzantinus	II (1-2)	III (2-5)	III (2–4)	III (1-5)
Coronopus didymus	III (2–5)	II (2-5)	II (2-3)	III (2-5)
Silene gallica	III (2-7)	II (2)	III (2–7)	III (2-7)
Veronica persica	II (1-5)	III (2-5)	II (3)	II (1-5)
Medicago arabica		III (2-8)	III (2-3)	II (2–8)
Montia perfoliata	II (2-5)	I (3)	II (3)	II (2-5)
Rumex acetosella	II (3–7)		II (2-5)	I (2-7)
Holcus lanatus	I (2–8)	I (3)	I (2-3)	I (2-8)
Allium triquetrum	I (2)	I (3)	I (2)	I (2-3)
Taraxacum officinale agg.	I (2)	I (2)	I (2)	I (2)
Bryum bicolor	I (1)	I (3)	I (2)	I (1-3)
Bromus diandrus	I (2)	I (1–2)	I (2-3)	I (1-3)
Sherardia arvensis	I (2)	I (2)	I (3)	I (2-3)
Lamium purpureum	I (2-3)	I (2)		I (2-3)
Oxalis corniculata	I (5)	I (2)		I (2-5)
Papaver rhoeas	I (2)	I (2)		I (2)
Dactylis glomerata	I (2-5)	I (2)		I (2-5)
Geranium dissectum	I (2-5)	I (2)		I (2-5)
Polygonum aviculare	I (1)	I (3)		I (1-3)
Phalaris minor	I (2-3)		I (2-5)	I (2-5)
Crepis capillaris	I (2)		I (2)	I (2)
Thlaspi arvensis		I (2)	I (2)	I (2)
Atriplex prostrata		I (2)	I (2)	I (2)
Allium roseum bulbiferum		I (2)	I (3)	I (2-3)
Ditrichum cylindricum		I (2)	I (2)	I (2)
Number of samples	24	27	11	62
Number of species/sample	28 (18–41)	29 (20–37)	29 (12–39)	29 (12–41)

a Aphanes microcarpa-Ranunculus muricatus sub-community

b Valerianella locusta-Barbula convoluta sub-community

c Vicia hirsuta-Papaver dubium sub-community

⁶ Cerastium glomeratum-Fumaria muralis ssp. boraei community (total)