OV18
Polygonum aviculare-Chamomilla suaveolens community

Constant species
Capsella bursa-pastoris, *Chamomilla suaveolens*, *Lolium perenne*, *Poa annua*, *Polygonum aviculare.*

Physiognomy
The *Polygonum aviculare-Chamomilla suaveolens* community comprises open swards characterised in late spring and summer by mixtures of *Polygonum aviculare*, *Chamomilla suaveolens*, *Capsella bursa-pastoris*, *Poa annua* and young, scattered plants of *Lolium perenne. Matricaria perforata* and *Chenopodium album* are occasional to frequent but they do not dominate and typically other associates are relatively few in number and not abundant. Smaller herbs, such as *Urtica urens*, *Veronica persica*, *Anagallis arvensis*, *Lamium purpureum*, *Plantago lanceolata* and *Medicago lupulina*, or grasses like *Elymus repens*, *Dactylis glomerata* and *Agrostis stolonifera* are commonest among these companions with just very occasional taller herbs such as *Rumex obtusifolius*, *R. crispus* and *Artemisia vulgaris*. Bryophytes are absent or very sparse.

Sub-communities

***Sisymbrium officinale-Polygonum arenastrum* sub-community.** *Polygonum arenastrum* is a frequent preferential here, forming denser prostrate mats among the more branched and somewhat ascending *P. aviculare*, and *Bilderdykia convolvulus* also occurs occasionally, its long flexuous stems trailing over the ground and other low herbs. *Sisymbrium officinale* is common, too, with *Sinapis arvensis*, *Stellaria media* and *Senecio vulgaris* occasional.

***Plantago major* sub-community.** Scattered plants of *Plantago major* and, more occasionally, *Coronopus squamatus* are characteristic here, their rosettes often flattened by trampling.

Habitat
The *Polygonum-Chamomilla* community is an ephemeral vegetation type of disturbed and moderately trampled loamy and sandy soils throughout the lowlands of Britain. It is a virtually ubiquitous feature of paths and gateways in agricultural landscapes, on waste ground and in recreation areas.

In such situations, some longer-lived plants tolerant of trampling, like *Lolium* and *P. major*, can find a place among more ephemeral species. The disturbed muddy conditions also provide a very congenial habitat for *Chamomilla*, an introduction to Britain, supposedly from Oregon in the US, though probably originally from north-east Asia, and first recorded here only in 1871 (Salisbury 1964). It is now found in almost every part of the country (Perring & Walters 1962), probably having benefited from the early era of road travel before surfaced roads were so universal: the fruits have no pappus and are dispersed in mud and rainwash (Salisbury 1964). Typically, *Matricaria perforata* has a subordinate role here to *Chamomilla*, a reflection of its lower tolerance of trampling (Kay 1994).

Of the two sub-communities, the *Sisymbrium-Polygonum* type is perhaps associated with more disturbed situations.

Zonation and succession
The *Polygonum-Chamomilla* community occurs with other weed assemblages and grasslands around tracks and gateways in sequences of vegetation related to the intensity of disturbance and trampling.

Often, the community occupies an intermediate position between the *Poa-Plantago* vegetation of the most heavily trampled situations and various pasture, ley or verge grasslands where treading is not so severe but where grazing or mowing maintain the sward. A widespread pattern is for this community to pass to the *Lolio-Plantaginetum* on recreational swards and frequently cut verges, or to some *Lolium* ley or the *Lolio-Cynosuretum* in agricultural enclosures. On less frequently mown path edges, the *Lolium-Dactylis* grassland can figure or, on disturbed verge margins, the *Poa-Taraxacum* community.

More disturbed tracksides and gateways can also have the *Poa-Senecio* or *Stellaria-Capsella* communities, where species such as *Senecio vulgaris*, *Stellaria media*, *Sinapis arvensis* and *Chenopodium album* join *Poa annua*, *Chamomilla suaveolens*, *Polygonum aviculare* and *Capsella bursa-pastoris* as prominent elements of the flora.

Some of these transitions also represent successional developments from the *Polygonum-Chamomilla* community with a reduction in trampling pressure. Such shifts can continue through the more grassy *Lolium-Dactylis* community or, with disturbance, through the weed communities of the Polygono-Chenopodion and Fumario-Euphorbion. Where disturbance ceases, progression to sub-scrub vegetation of the *Rubus-Holcus* type and then to Prunetalia scrub, is usual.

Distribution

The community is ubiquitous through the lowlands and upland fringes of Britain.

Affinities

Vegetation of this type has been widely recorded from various parts of Continental Europe, sometimes as the *Chamomillo-Polygonetum arenastri* T. Müller in Oberdorfer 1971 (originally the *Matricario-Polygonetum avicularis*), as in Austria (Mucina *et al.* 1993), the *Polygono-Matricarietum discoidea* Br.-Bl. 1930 *emend.* Lohmeyer 1975, as in Germany (Pott 1992), or the *Coronopo-Matricarietum* Sissingh (1966) 1969, as in The Netherlands (Westhoff & den Held 1969). Oberdorfer (1983) subsumed German examples into the *Lolio-Polygonetum* which, in this scheme, is more like the *Poa-Plantago* community. The assemblage was also recorded in Ireland by Braun-Blanquet & Tüxen (1952) and noted as widespread by White & Doyle (1982). Most authors place it in the Polygonion avicularis Br.-Bl. ex Aichinger 1933, or its replacement the Chamomillo-Polygonion arenasti Rivas-Martinez 1975 corr. Rivas-Martinez *et al.* 1991.

Floristic table OV18

	a	b	18
Chamomilla suaveolens	IV (2–6)	V (3–8)	V (2–8)
Lolium perenne	V (2–7)	V (1–6)	V (1–7)
Polygonum aviculare	III (2–4)	V (2–10)	V (2–10)
Capsella bursa-pastoris	IV (1–8)	IV (1–8)	IV (1–8)
Poa annua	III (2–4)	IV (1–7)	IV (1–7)
Sisymbrium officinale	III (2–4)	I (3)	II (2–4)
Polygonum arenastrum	III (2–6)		II (2–6)
Sinapis arvensis	II (2–5)	I (3)	I (2–5)
Stellaria media	II (2–3)	I (1–5)	I (1–5)
Senecio vulgaris	II (1–3)	I (2)	I (1–3)
Bilderdykia convolvulus	II (2–4)		I (2–4)
Agrostis capillaris	II (2–4)		I (2–4)
Crepis capillaris	I (3–4)		I (3–4)
Silene alba	I (2–4)		I (2–4)
Malva sylvestris	I (1–5)		I (1–5)
Reseda lutea	I (3–4)		I (3–4)
Agrimonia eupatoria	I (2–4)		I (2–4)
Heracleum sphondylium	I (2–3)		I (2–3)
Arrhenatherum elatius	I (2–4)		I (2–4)
Poa pratensis	I (3–4)		I (3–4)
Plantago major	I (3)	IV (1–5)	III (1–5)
Coronopus squamatus	I (2)	II (2–3)	II (2–3)
Matricaria perforata	III (2–6)	II (2–6)	II (2–6)
Chenopodium album	II (1–6)	II (2–3)	II (1–6)
Elymus repens	I (2–6)	I (1–4)	I (1–6)

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Floristic table OV18 (*cont.*)

	a	b	18
Urtica urens	I (3)	I (4)	I (3–4)
Veronica persica	I (1)	I (3–8)	I (1–8)
Anagallis arvensis	I (2)	I (3)	I (2–3)
Plantago lanceolata	I (4–5)	I (2–3)	I (2–5)
Dactylis glomerata	I (2–5)	I (3–4)	I (2–5)
Agrostis stolonifera	I (3–4)	I (3–4)	I (3–4)
Taraxacum officinale agg.	I (2–3)	I (1–3)	I (1–3)
Lamium purpureum	I (2–3)	I (2–3)	I (2–3)
Medicago lupulina	I (2–3)	I (2)	I (2–3)
Rumex obtusifolius	I (2)	I (1–2)	I (1–2)
Papaver rhoeas	I (2–4)	I (4)	I (2–4)
Convulvulus arvensis	I (3)	I (2–3)	I (2–3)
Trifolium pratense	I (1–9)	I (2)	I (1–9)
Artemisia vulgaris	I (2–3)	I (2)	I (2–3)
Hordeum murinum	I (6)	I (2)	I (2–6)
Rumex crispus	I (4)	I (1–3)	I (1–4)
Fumaria officinalis	I (3–4)	I (1)	I (1–4)
Coronopus didymus	I (2–5)	I (1–5)	I (1–5)
Sonchus asper	I (3–4)	I (2)	I (2–4)
Plantago media	I (2–3)	I (3)	I (2–3)
Veronica chamaedrys	I (2–3)	I (3)	I (2–3)
Thlaspi arvense	I (3)	I (2)	I (2–3)
Galium aparine	I (4)	I (2)	I (2–4)
Number of samples	16	45	61
Number of species/sample	15 (6–29)	9 (4–22)	10 (4–29)

a *Sisymbrium officinale-Polygonum arenastrum* sub-community
b *Plantago major* sub-community
18 *Polygonum aviculare-Chamomilla suaveolens* community (total)

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