
OV19

Poa annua-*Matricaria perforata* community

Constant species

Elymus repens, *Matricaria perforata*, *Poa annua*.

Physiognomy

The *Poa annua*-*Matricaria perforata* community includes coarse weedy vegetation with a variety of more ephemeral herbs, some small, others more bulky, and some perennial grasses. *Poa annua* is the commonest grass but *Elymus repens* and *Agrostis stolonifera* are frequent in many of the sub-communities and *Lolium perenne* is also often prominent. *Matricaria perforata* and, somewhat less commonly, *Chamomilla suaveolens*, are characteristic, too, with *Polygonum aviculare*. No other associates of the community as a whole are frequent throughout but *Capsella bursa-pastoris*, *Holcus lanatus*, *Chenopodium album*, *Rumex obtusifolius* and *R. crispus* occur commonly in several sub-communities. *Plantago lanceolata*, *Taraxacum officinale* agg., *Stellaria media*, *Sinapis arvensis* and *Anagallis arvensis* are scarce throughout. Bryophytes are sparse but *Pottia truncata*, *Funaria hygrometrica*, *Bryum argenteum*, *B. caespitium* and *B. microerythrocarpon* can occasionally be seen, sometimes in great abundance.

Sub-communities

***Senecio squalidus*-*Epilobium angustifolium* sub-community.** Perennial grasses are very sparse here and mixtures of *Poa annua* and *Matricaria perforata* with *Chamomilla suaveolens* and *Polygonum aviculare* form the bulk of the cover with *Senecio squalidus* and *Epilobium angustifolium* frequent preferentials. Scattered plants of *Tussilago farfara* and *Reseda lutea* can sometimes be seen and carpets of *Funaria hygrometrica* and *Bryum* spp. are occasionally very extensive.

***Lolium perenne*-*Capsella bursa-pastoris* sub-community.** *Lolium perenne*, *Holcus lanatus* and *Poa trivialis* are all frequent in this sub-community along with *Capsella*

bursa-pastoris and *Polygonum persicaria*. *Papaver rhoeas*, *Lapsana communis*, *Chenopodium album*, *Plantago major*, *Atriplex prostrata*, *Rumex obtusifolius* and *Cirsium arvense* occur occasionally.

***Atriplex prostrata*-*Chenopodium album* sub-community.** *C. bursa-pastoris* and the grasses of the above sub-community all remain quite frequent here, but *Atriplex prostrata*, *A. patula*, *C. album*, *Plantago major*, *Sonchus oleraceus* and *Medicago lupulina* are all additionally preferential. *Rumex crispus*, *R. obtusifolius*, *Cirsium arvense*, *C. vulgare*, *Polygonum arenastrum*, *Senecio vulgaris* and *Artemisia vulgaris* are occasional. *Vulpia myuros* and *Lactuca serriola* are scarcer plants sometimes recorded in this vegetation.

***Chamomilla suaveolens*-*Plantago major* sub-community.** Of the characteristic species of the previous sub-community, only *P. major* remains at all frequent here but coarser herbs like *Rumex obtusifolius*, *R. crispus*, *Cirsium arvense* and *Sonchus asper* are frequent.

***Elymus repens* sub-community.** *E. repens* attains its peak of frequency in this sub-community but there are few other distinguishing features.

Habitat

The *Poa*-*Matricaria* community is an ephemeral vegetation type characteristic of disturbed verge edges along roads, on farm tracks and around gateways where there is only moderate trampling.

Matricaria perforata is most often found as a weed of arable land, farmyards, hen-runs and pig fields (Kay 1994) in assemblages like the *Stellaria*-*Polygonum* community, but it can persist in the distinctive *Poa*-*Matricaria* vegetation where disturbance by traffic and spray-wash from vehicles helps prevent establishment of closed perennial weedy vegetation or grassland. Kay (1994) noted that *M. perforata* seemed to be increasing in frequency in such situations along heavily-used

roads. There, smaller ephemerals like *Anagallis arvensis*, *Myosotis arvensis*, *Veronica persica* and *V. arvensis*, characteristic of arable crops, are less able to get a hold. Similar conditions can be found in the disturbed gateways of arable fields.

The particular habitat preferences of each of the sub-communities are imperfectly known, but the *Senecio-Epilobium* type is often found on verges and waste ground that have been burned. *E. angustifolium* is a native plant but, like *S. squalidus*, which is a Sicilian species that appears to have escaped from the Botanic Garden in Oxford in the late eighteenth century, it first came to prominent notice on wartime bomb sites which provided an especially congenial habitat. In fact, both species had become widely distributed before this time: they disperse very efficiently by wind-borne fruits that are produced in prodigious quantities and which readily germinate on open ground in autumn (Salisbury 1964, Myerscough 1980). Although these plants can produce bulky herbage by the following season, the vegetation remains sufficiently open for *M. perforata* to make some consistent contribution at low cover and for carpets of mosses to be conspicuous.

Of the other sub-communities, the *Lolium-Capsella* type is typical of transitions to sown swards on verges and the *Elymus* type of arable crops.

Zonation and succession

Most commonly, the *Poa-Matricaria* community occurs as a fringe to sown verges, with *Lolium-Dactylis* vegetation or the *Lolio-Plantaginietum*. With increased trampling as around gateways, it is replaced by the *Polygonum-Chamomilla* community, then by the *Poa-Plantago* community. In arable fields, it gives way to *Stellaria-Polygonum* and related weed assemblages with the shift from the gateway to the crop.

Where disturbance ceases, the *Poa-Matricaria* community is succeeded by grassy *Lolio-Plantaginion* swards.

Distribution

The community occurs widely in suitable habitats through lowland Britain, particularly in the south and east.

Affinities

Matricaria perforata figures in various weed assemblages of this general type recognised in previous descriptions of Continental vegetation (e.g. Oberdorfer 1983), although no exact equivalent appears to have been described. As elsewhere in Europe, this species is more usually encountered in arable weed communities of the *Polygono-Chenopodietalia*.

Floristic table OV19

| | a | b | c | d | e | 19 |
|--------------------------------|-----------|-----------|-----------|-----------|----------|-----------|
| <i>Matricaria perforata</i> | V (2–4) | IV (1–7) | V (1–8) | IV (2–8) | V (1–4) | V (1–8) |
| <i>Poa annua</i> | IV (2–8) | III (2–5) | V (2–5) | IV (1–5) | V (1–10) | V (1–10) |
| <i>Elymus repens</i> | | III (1–5) | IV (1–7) | III (1–4) | V (1–10) | IV (1–10) |
| <i>Senecio squalidus</i> | III (1–5) | I (3–4) | II (1–3) | I (2) | | II (1–5) |
| <i>Epilobium angustifolium</i> | III (2–5) | I (1–2) | I (1) | | | I (1–5) |
| <i>Tussilago farfara</i> | II (2–3) | | I (1–2) | I (1) | | I (1–3) |
| <i>Funaria hygrometrica</i> | II (7–9) | | I (1) | | | I (1–9) |
| <i>Bryum argenteum</i> | II (3–10) | | I (3–5) | | | I (3–10) |
| <i>Reseda lutea</i> | II (2–5) | | | | | I (2–5) |
| <i>Diplotaxis tenuifolia</i> | I (5–7) | | | | | I (5–7) |
| <i>Lolium perenne</i> | | IV (3–6) | IV (1–5) | III (2–5) | I (1–2) | III (1–6) |
| <i>Capsella bursa-pastoris</i> | I (2) | III (1–5) | III (1–3) | II (1–2) | I (1–3) | III (1–5) |
| <i>Holcus lanatus</i> | I (3) | III (2–5) | II (1–2) | III (2–5) | I (2) | III (1–5) |
| <i>Polygonum persicaria</i> | | III (1–6) | II (2–3) | | I (1–7) | II (1–7) |
| <i>Papaver rhoeas</i> | I (2) | II (1–4) | II (1–2) | | I (5) | I (1–5) |
| <i>Lapsana communis</i> | | II (1–2) | I (2) | | I (3) | I (1–3) |
| <i>Rumex acetosa</i> | | I (2–3) | | | | I (2–3) |
| <i>Potentilla reptans</i> | | I (2–3) | | | | I (2–3) |
| <i>Brassica rapa</i> | | I (1–4) | | | | I (1–4) |
| <i>Plantago major</i> | I (2) | II (1–5) | V (2–3) | IV (1–6) | I (1) | II (1–6) |
| <i>Chenopodium album</i> | II (2–3) | II (1–8) | IV (2–5) | II (1–2) | II (1–3) | II (1–8) |
| <i>Atriplex prostrata</i> | II (2–8) | II (1–6) | IV (1–5) | | | II (1–8) |
| <i>Poa trivialis</i> | | III (2–6) | IV (1–5) | I (2) | I (2) | II (1–6) |
| <i>Sonchus oleraceus</i> | I (3–5) | I (1–3) | IV (1–3) | II (1–2) | I (1) | II (1–5) |
| <i>Atriplex patula</i> | | I (1–4) | IV (1–3) | I (1–3) | I (1–2) | II (1–4) |
| <i>Medicago lupulina</i> | | I (3–6) | IV (1–7) | II (2–3) | | II (1–7) |
| <i>Rumex crispus</i> | | I (1–3) | III (1–3) | II (1–2) | I (1) | II (1–3) |
| <i>Polygonum arenastrum</i> | | I (1–4) | III (2–5) | II (4–7) | | II (1–7) |
| <i>Trifolium repens</i> | | I (3) | III (1–5) | II (2–5) | II (1–3) | II (1–5) |
| <i>Senecio vulgaris</i> | I (2) | II (1–5) | III (1–3) | I (1) | | II (1–5) |
| <i>Artemisia vulgaris</i> | I (5–8) | I (3) | II (1–2) | I (1–2) | I (1–2) | I (1–8) |

Floristic table OV19 (cont.)

| | a | b | c | d | e | 19 |
|----------------------------------|-----------|-----------|-----------|-----------|-----------|------------|
| <i>Cirsium vulgare</i> | I (2) | I (1–7) | II (1–2) | I (1) | | I (1–7) |
| <i>Picris echioides</i> | | I (3–4) | II (1–3) | I (3) | | I (1–4) |
| <i>Urtica dioica</i> | | I (2) | II (2) | I (2) | I (1) | I (1–2) |
| <i>Sisymbrium officinale</i> | | I (1–8) | II (2–4) | | I (1) | I (1–8) |
| <i>Ranunculus repens</i> | | I (2–3) | II (1–2) | I (2) | I (2) | I (1–3) |
| <i>Epilobium adenocaulon</i> | | I (1) | II (1–2) | I (2) | | I (1–2) |
| <i>Conyza canadensis</i> | | | II (1–2) | I (2–3) | | I (1–3) |
| <i>Vulpia myuros</i> | | | II (1–2) | I (3) | | I (1–3) |
| <i>Lactuca serriola</i> | | | II (1–7) | I (1) | | I (1–7) |
| <i>Geranium molle</i> | | | I (1–5) | | | I (1–5) |
| <i>Rumex obtusifolius</i> | | II (1–5) | II (1–4) | III (1–2) | I (3) | II (1–5) |
| <i>Cirsium arvense</i> | I (2) | II (1–3) | II (1) | III (1–5) | | II (1–5) |
| <i>Sonchus asper</i> | | I (1–6) | I (2) | II (1–4) | | I (1–6) |
| <i>Veronica persica</i> | I (3) | I (1–4) | I (2) | I (3) | II (1–5) | I (1–5) |
| <i>Bilderdyckia convolvulus</i> | | I (3–4) | I (1–2) | | II (1–3) | I (1–4) |
| <i>Bryum rubens</i> | | | | | II (1–3) | I (1–3) |
| <i>Polygonum aviculare</i> | III (1–8) | III (1–8) | V (2–10) | III (1–3) | III (1–9) | III (1–10) |
| <i>Agrostis stolonifera</i> | I (5–7) | II (2–7) | IV (1–3) | V (2–10) | III (2–5) | III (1–10) |
| <i>Chamomilla suaveolens</i> | II (3–5) | III (1–4) | III (2–3) | V (1–6) | V (1–6) | III (1–6) |
| <i>Plantago lanceolata</i> | I (2) | I (2–3) | I (2–3) | I (1) | I (1) | I (1–3) |
| <i>Taraxacum officinale</i> agg. | I (2) | I (2–4) | I (2) | I (3) | I (1) | I (1–4) |
| <i>Geranium dissectum</i> | | I (1–4) | I (1) | I (2) | I (1) | I (1–4) |
| <i>Spergula arvensis</i> | I (4) | I (3–5) | | I (3) | I (1) | I (1–5) |
| <i>Pottia truncata</i> | | I (3) | I (2) | I (1–2) | I (1–3) | I (1–3) |
| <i>Bromus sterilis</i> | | I (2) | I (1) | I (1) | I (3) | I (1–3) |
| <i>Urtica urens</i> | I (2–3) | I (3) | I (5) | | I (1) | I (1–5) |
| <i>Stellaria media</i> | | I (3–5) | I (1–4) | I (1) | | I (1–4) |
| <i>Dactylis glomerata</i> | | I (2–3) | I (2) | | I (1) | I (1–3) |
| <i>Sinapis arvensis</i> | | I (1) | I (1–2) | I (2) | | I (1–2) |
| <i>Anagallis arvensis</i> | I (1–3) | I (1) | I (2) | | I (1–2) | I (1–3) |
| <i>Raphanus raphanistrum</i> | I (4) | I (2) | I (2) | | | I (2–4) |

| | | | | | | |
|---------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| <i>Heracleum sphondylium</i> | | I (1) | I (1) | | I (1) | I (1) |
| <i>Crepis capillaris</i> | | I (2) | I (2) | I (3) | | I (2–3) |
| <i>Myosotis arvensis</i> | | I (1–3) | | I (3) | I (1) | I (1–3) |
| <i>Filaginella uliginosa</i> | | I (3) | I (3) | | I (2) | I (2–3) |
| <i>Sonchus arvensis</i> | I (3) | I (1–4) | I (1) | | I (2) | I (1–4) |
| <i>Anthemis cotula</i> | I (2) | I (3) | | | I (1) | I (1–3) |
| <i>Senecio jacobaea</i> | I (2) | I (1) | I (1) | | | I (1–2) |
| <i>Solanum nigrum</i> | I (3–4) | I (1) | I (2) | | | I (1–4) |
| <i>Achillea millefolium</i> | | I (1–5) | | I (2–3) | I (1) | I (1–5) |
| <i>Veronica polita</i> | I (2) | I (6) | | | I (2–5) | I (2–6) |
| <i>Coronopus squamatus</i> | | I (3) | I (2) | | I (1) | I (1–3) |
| <i>Silene alba</i> | | | I (2) | I (5) | I (1) | I (1–5) |
| <i>Triticum aestivum</i> | | I (3) | I (2) | | | I (2–3) |
| <i>Agrostis capillaris</i> | | I (2–3) | I (3) | | | I (2–3) |
| <i>Coronopus didymus</i> | | I (1–2) | | I (2–5) | | I (1–5) |
| <i>Cerastium fontanum</i> | | I (1–2) | | I (2) | | I (1–2) |
| <i>Chamomilla recutita</i> | I (3–6) | I (5–9) | I (3) | | | I (3–9) |
| <i>Convolvulus arvensis</i> | | I (2–3) | | I (1–3) | | I (1–3) |
| <i>Euphorbia helioscopia</i> | | I (3–5) | | | I (1) | I (1–5) |
| <i>Descurania sophia</i> | I (2) | | | | I (1–3) | I (1–3) |
| <i>Juncus bufonius</i> | | I (1) | | I (2–5) | | I (1–5) |
| <i>Ballota nigra</i> | | I (4) | I (2–3) | | I (3) | I (2–4) |
| <i>Vicia sativa nigra</i> | | | I (2) | I (1–3) | | I (1–3) |
| <i>Picris hieracioides</i> | | I (8) | | I (1–2) | | I (1–8) |
| <i>Bryum caespitium</i> | I (2–7) | | | I (3–8) | | I (2–8) |
| <i>Bryum microerythrocarpon</i> | | | | I (3–5) | I (1–2) | I (1–5) |
| Number of samples | 22 | 10 | 24 | 12 | 15 | 83 |
| Number of species/sample | 16 (9–27) | 11 (7–19) | 21 (9–46) | 16 (5–32) | 13 (5–24) | 16 (5–46) |

a *Senecio squalidus*-*Epilobium angustifolium* sub-community

b *Lolium perenne*-*Capsella bursa-pastoris* sub-community

c *Atriplex prostrata*-*Chenopodium album* sub-community

d *Chamomilla suaveolens*-*Plantago major* sub-community

e *Elymus repens* sub-community

19 *Poa annua*-*Matricaria perforata* community (total)