OV21
Poa annua-Plantago major community

Constant species
Chamomilla suaveolens, *Plantago major*, *Poa annua*.

Physiognomy
The *Poa annua-Plantago major* community comprises open swards in which rosettes of *Plantago major* and scattered plants of *Poa annua* and *Chamomilla suaveolens* are the only consistent feature. In contrast to the *Polygonum-Chamomilla* community, *P. aviculare* and *Lolium perenne* are of very variable frequency in the different sub-communities and *Capsella bursa-pastoris* is never more than occasional. The scarcity of *Matricaria perforata* and *Elymus repens* provide a distinction from the *Poa-Matricaria* community. *Agrostis stolonifera* and *Taraxacum officinale* agg. are occasional through the community and there are scarce records for *Rumex crispus*, *R. obtusifolius*, *Bellis perennis*, *Filaginella uliginosa*, *Medicago lupulina*, *Alopecurus geniculatus*, *Anagalllis arvensis* and *Senecio vulgaris*.

Sub-communities

Typical sub-community. Few species other than the three community constants occur with any frequency here but occasionally there is some *Lolium perenne*, *Polygonum aviculare*, *Agrostis stolonifera* and *Taraxacum officinale*. More distinctive is the presence in some samples of *Sagina procumbens* and *Bryum argenteum*.

***Lolium perenne* sub-community.** *L. perenne* is a constant associate here with occasional *Capsella bursa-pastoris*, *Polygonum arenastrum*, *Trifolium repens*, *Ranunculus repens*, *Agrostis stolonifera* and *Taraxacum officinale* agg.

***Polygonum aviculare-Ranunculus repens* sub-community.** *L. perenne* remains quite frequent here, along with *Trifolium repens* but more distinctive is the common occurrence of *P. aviculare*, *R. repens*, *A. stolonifera* and *T. officinale* agg. with occasional *Potentilla anserina*, *Matricaria maritima*, *Cerastium fontanum*, *Stellaria media*, *Polygonum persicaria*, *P. lapathifolium*, *P. hydropiper*, *Holcus lanatus* and *Dactylis glomerata*.

Habitat
The *Poa-Plantago* community is characteristic of more heavily trampled tracks and gateways throughout the lowlands of Britain, and is a ubiquitous feature of urban recreation areas, wasteland, country paths, roadsides and farms.

This kind of vegetation generally requires more substrate than the *Sagino-Bryetum* though, in the Typical sub-community, it extends on to cobbles and paving where the crevices are a little larger and more robust vascular plants can gain ascendancy there over mosses and diminutive ephemerals. This kind of *Poa-Plantago* vegetation is also extremely common in the heavily-trampled centres of dirt paths and gateways where treading and disturbance are often combined with periodic wetting by rain, creating a congenial substrate for colonisation from spring right through to autumn.

The *Lolium* sub-community is also common in this habitat, particularly where paths run through resown recreational grasslands or along verges and where gateways open on to permanent pastures or leys, from which rye-grass can readily spread. The *Polygonum-Ranunculus* sub-community is more typical of wetter habitats, occurring in trampled and poached areas of ill-drained and periodically-flooded pastures and around watering places for stock by rivers and streams.

Zonation and succession
The *Poa-Plantago* community is very commonly found as part of zonations and mosaics with grasslands and other weed communities where the patterning is related to the degree of disturbance and trampling which the vegetation experiences.

A usual situation is for the *Poa-Plantago* community to occupy the most trampled zone of vegetated ground along paths and in gateways, giving way to the *Polygonum-Chamomilla* community where treading and

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disturbance are less severe. The *Lolium* sub-community represents an intermediate stage in such a zonation. The sequence may then continue to some kind of *Lolium* ley in enclosed pastures, to the *Lolio-Plantaginetum* in recreational swards of regularly mown verges or the *Lolium-Dactylis* community on infrequently mown or recently-neglected ground. The latter may pass in turn to the *Arrhenathetum* on verges which receive one or two annual cuts. More frequently trimmed verge margins may have the *Poa-Taraxacum* community. The *Poa-Plantago* community is also found as a more abrupt intrusion among calcicolous, calcifuge, dune and cliff-top grasslands, wherever heavy trampling along paths and around viewpoints disrupts and transforms the existing swards.

Wetter tracks, ill-drained or periodically-flooded pastures often have the *Polygonum-Ranunculus* sub-community in trampled and poached places, giving way to the *Festuca-Agrostis-Potentilla* grassland where treading and disturbance are less severe. This in turn can pass to the *Lolio-Cynosuretum* or a *Lolium* ley on better-drained ground.

Successional developments from the *Poa-Plantago* grassland depend on the intensity of trampling. Where tracks and gateways become disused, the community is probably replaced by the *Polygonum-Chamomilla* or *Lolium-Dactylis* community, or, where there is enrichment from dunging, by *Urtica-Galium* or *Urtica-Cirsium* vegetation. Increased flooding of watering places can lead to the appearance of Elymo-Rumicion vegetation like the *Agrostis-Ranunculus* community or Bidention assemblages such as the *Polygono-Bidentetum* or *Polygonum-Poa* community.

Distribution

The *Poa-Plantago* community is universally distributed through the lowlands and upland fringes.

Affinities

Vegetation of this type figures in accounts from The Netherlands (Westhoff & den Held 1969) and Germany (Oberdorfer 1983) and the nearest equivalent syntaxon seems to be the *Lolio-Polygonetum arenastri* Br.-Bl. 1930 *emend.* Lohmeyer 1975, where *L. perenne*, as here, is not always so frequent as the name of the association implies.

Floristic table OV21

	a	b	c	21
Poa annua	V (1–8)	V (2–8)	IV (2–8)	V (1–8)
Plantago major	IV (1–5)	V (1–7)	IV (1–5)	IV (1–7)
Chamomilla suaveolens	IV (1–6)	V (1–6)	IV (1–7)	IV (1–7)
Bryum argenteum	II (1–5)	I (1–2)	I (3)	I (1–5)
Sagina procumbens	II (1–4)	I (1–2)	I (2)	I (1–4)
Schistidium apocarpum	I (4)			I (4)
Puccinellia distans	I (2–5)			I (2–5)
Lolium perenne	II (1–8)	V (1–9)	III (2–5)	III (1–9)
Capsella bursa-pastoris	I (2–5)	II (1–7)	I (1–3)	I (1–7)
Polygonum arenastrum		II (3–7)	I (4)	I (3–7)
Cynosurus cristatus		I (1–5)		I (1–5)
Leontodon autumnalis		I (1–3)		I (1–3)
Polygonum aviculare	II (2–10)	I (1–5)	IV (1–5)	III (1–10)
Trifolium repens	I (1–3)	III (1–5)	IV (1–5)	III (1–5)
Ranunculus repens	I (2–3)	II (1–4)	IV (1–7)	III (1–7)
Agrostis stolonifera	II (2–10)	II (1–5)	III (1–7)	II (1–10)
Taraxacum officinale agg.	II (2–4)	II (1–5)	III (1–7)	II (1–7)
Matricaria maritima	I (2–3)	I (4)	II (1–8)	I (1–8)
Potentilla anserina		I (1–4)	II (1–5)	I (1–5)
Cerastium fontanum	I (2)	I (3)	II (1–5)	I (1–5)
Holcus lanatus	I (3)		II (2–5)	I (2–5)
Dactylis glomerata		I (1–4)	II (2–3)	I (1–4)
Stellaria media	I (1)	I (1)	II (1–5)	I (1–5)
Juncus bufonius	I (4)	I (1)	II (2–6)	I (1–6)
Polygonum persicaria		I (3)	II (1–7)	I (1–7)

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Sonchus asper	I (2)		II (1–3)	I (1–3)
Cirsium arvense	I (1–2)	I (1)	II (1–5)	I (1–5)
Polygonum lapathifolium			I (1–3)	I (1–3)
Urtica dioica			I (1–3)	I (1–3)
Phleum pratense			I (1–2)	I (1–2)
Polygonum hydropiper			I (4–5)	I (4–5)
Bromus sterilis			I (3–8)	I (3–8)
Rumex crispus	I (1–2)	I (1–2)	I (1–4)	I (1–4)
Rumex obtusifolius	I (3)	I (2)	I (3–5)	I (2–5)
Bellis perennis	I (1)	I (1–3)	I (1–3)	I (1–3)
Filaginella uliginosa	I (2–4)	I (1)	I (1–9)	I (1–9)
Medicago lupulina	I (1–3)	I (2)	I (4)	I (1–4)
Alopecurus geniculatus	I (3)	I (1)	I (2–6)	I (1–6)
Anagallis arvensis	I (1–3)	I (2)	I (2–7)	I (1–7)
Senecio vulgaris	I (5)	I (1)	I (3–4)	I (1–5)
Coronopus squamatus	I (1)	I (3–4)		I (1–4)
Aphanes arvensis	I (2)		I (1–2)	I (1–2)
Odonitites verna	I (3)		I (4)	I (3–4)
Cardamine hirsuta	I (1)		I (2–3)	I (1–3)
Kickxia elatine	I (3)		I (3)	I (3)
Papaver rhoeas	I (3)		I (1–2)	I (1–2)
Atriplex prostrata	I (2–4)		I (2)	I (2–4)
Myosotis arvensis	I (3)		I (1–2)	I (1–3)
Viola arvensis	I (2)		I (1–3)	I (1–3)
Senecio jacobaea	I (1–2)		I (1–3)	I (1–3)
Elymus repens	I (1)		I (7)	I (1–7)
Geranium molle	I (1)		I (4)	I (1–4)
Heracelum sphondylium	I (1)		I (1–4)	I (1–4)
Artemisia vulgaris	I (1–5)		I (1–4)	I (1–5)
Reseda lutea	I (3–5)		I (3)	I (3–5)
Veronica officinalis	I (3)		I (3)	I (3)
Prunella vulgaris	I (2–3)		I (2)	I (2–3)
Poa trivialis		I (5–6)	I (2–7)	I (2–7)
Phleum bertolonii		I (2–3)	I (4)	I (2–4)
Epilobium angustifolium		I (2)	I (1–3)	I (1–3)
Trifolium pratense		I (3)	I (2)	I (2–3)
Brachythecium rutabulum		I (1–3)	I (2)	I (1–3)
Plantago media		I (1–4)	I (3)	I (1–4)
Poa pratensis		I (4)	I (3–4)	I (3–4)
Plantago lanceolata		I (2–3)	I (2–4)	I (2–4)
Trifolium dubium		I (1–3)	I (2–3)	I (1–3)
Convolvulus arvensis		I (3)	I (2–3)	I (2–3)
Number of samples	29	32	33	94
Number of species/sample	9 (4–16)	8 (4–20)	18 (7–34)	10 (4–34)

a Typical sub-community
b *Lolium perenne* sub-community
c *Polygonum aviculare-Ranunculus repens* sub-community
21 *Poa annua-Plantago major* community (total)

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