OV28

Agrostis stolonifera-Ranunculus repens community

Agrostio-Ranunculetum repentis Oberdorfer *et al.* 1967

Constant species

Agrostis stolonifera, *Ranunculus repens.*

Physiognomy

The *Agrostio-Ranunculetum* comprises open or closed vegetation in which a mat of stolons and runners of *A. stolonifera* and *R. repens* is the characteristic consistent feature. Throughout the community as a whole, no other species is frequent but there is occasionally some *Poa trivialis* and *Trifolium repens* in the ground carpet and scattered shoots or small clumps of *Urtica dioica* and *Cirsium arvense. Senecio vulgaris*, *Atriplex prostrata* and *Taraxacum officinale* agg. are scarce companions.

Sub-communities

***Polygonum hydropiper-Rorippa sylvestris* sub-community.** The cover of the two community constants tends to be higher here and there are occasionally quite conspicuous shoots of *Phalaris arundinacea* and *Juncus effusus* with scattered plants or little patches of *Polygonum hydropiper* and *Rorippa sylvestris* springing up among the perennials. *Galium palustre*, *Mentha aquatica*, *Myosotis scorpioides* and *Alopecurus geniculatus* are occasionally seen.

***Poa annua-Polygonum aviculare* sub-community:** *Ranunculetum repentis* Knapp 1946 *sensu* Silverside 1990. *Poa annua* is a constant and sometimes abundant contributor to the ground carpet in this sub-community with frequent records too for *Plantago major*, *Stellaria media*, *Polygonum aviculare*, *P. persicaria* and *Chamomilla suaveolens. Lolium perenne*, *Elymus repens*, *Potentilla anserina* and *Anagallis arvensis* occur occasionally and there are quite often small patches of mosses on bare areas of damp soil: *Bryum rubens*, *Pottia truncata* and *Dicranella staphylina* are the most consistent contributors to this element of the vegetation.

Habitat

The *Agrostio-Ranunculetum* is characteristic of damp silts and clays on river islands and banks, in and around sluggish streams, drainage ditches and seasonally-inundated hollows in ill-drained pastures, arable fields and river flood-plains, around waterlogged places in made ground and among dumps of soil and along muddy tracks.

The two sub-communities are typical of rather different situations within this range of habitats. The *Polygonum-Rorippa* sub-community is usually found in wetter places, where water levels fall later in spring or even remain on the surface: for example, on river shoals, around drains and streams and in more or less permanently wet hollows in fields. The *Poa-Plantago* sub-community is more typical of depressions in pastures, among dumped soil and along trackways where the ground is wet in winter but dries somewhat in summer. Poaching by stock or trampling by humans is common.

Zonation and succession

Around wet areas in pastures, on flood-plains and away from river banks, the *Agrostio-Ranunculetum* can give way to the *Festuca-Agrostis-Potentilla* grassland or some kind of *Lolium* ley, with the *Poa-Plantago* community sometimes figuring as an intermediate or, where drier ground is trampled, the *Polygonum-Chamomilla* assemblage. In sluggish streams or watering places, the *Agrostis-Alopecurus* community can figure. In wet arable fields, the *Agrostio-Ranunculetum* can pass to the *Poa-Plantago* or *Matricaria-Stellaria* community.

On river shoals and silty margins of water-courses, the community can be found in mosaics and zonations with the *Ranunculo-Alopecuretum*, the *Polygono-Bidentetum*, the *Polygonum-Poa* community and the *Rorippa-Filaginella* community, sometimes also with patches of *Phalaridetum.*

Repeated inundation sets back any tendency to succession on river shoals, streamsides and pasture hollows and, on drier ground, grazing can play a part in checking

any seral change. Where areas are drained and grazed, a likely sequence is for the *Poa-Plantago* sub-community to develop into some kind of *Festuca-Agrostis-Potentilla* sward or with reseeding, which has been a common fate, for it to be replaced by a *Lolium* ley.

Distribution

The *Agrostio-Ranunculetum* occurs widely on suitable substrates throughout the lowlands.

Affinities

Various permutations of *Agrostis stolonifera*, *Alopecurus geniculatus* and *Ranunculus repens*, often with large *Rumex* spp. and *Rorippa* spp. have been characterised in a range of assemblages of this kind: a *Rumici-Agrostietum* Moor 1958 in Mucina *et al.* (1993) from Austria, a *Rorippo-Agrostietum* (Moor 1958) Oberdorfer & T. Müller in T. Müller 1961 from Germany (Pott 1992) and an *Agrostio-Ranunculetum* Oberdorfer *et al.* 1967, also from Germany (Oberdorfer 1983). Very commonly, too, these assemblages are reduced to very species-poor vegetation dominated by one or other of the species listed, as in the *Ranunculus repens*-Gesellschaft (Oberdorfer 1983, Mucina *et al.* 1993) or the *Agrostis stolonifera* community (Sykora 1983).

The affiliation of these syntaxa to alliances and higher units has been a much debated issue (see, for example, Westhoff & den Held 1969) and many authorities have now abandoned the alliance Elymo-Rumicion Nordhagen 1940 *emend.* R.Tx. 1950 in favour of the Lolio-Potentillion R.Tx. 1947 (Sykora 1983, Pott 1992) or the Potentillion anserinae R.Tx. 1947 (Mucina *et al.* 1993). In this treatment, we have retained the older name to avoid confounding affiliations discussed in earlier volumes. Whatever name is given to this alliance, this community, together with the *Ranunculo-Alopecuretum*, belongs with various mesotrophic grasslands, dune-slacks and upper salt-marsh swards, all of which experience somewhat unpredictable seasonal flooding with fresh or brackish waters.

Floristic table OV28

	a	b	28
Agrostis stolonifera	V (2–9)	V (1–8)	V (1–9)
Ranunculus repens	V (2–8)	V (1–4)	V (1–8)
Polygonum hydropiper	III (1–4)		II (1–4)
Phalaris arundinacea	II (1–6)		I (1–6)
Juncus effusus	II (2–7)		I (2–7)
Rorippa sylvestris	II (1–5)		I (1–5)
Galium palustre	II (1–4)		I (1–4)
Mentha aquatica	II (1–5)		I (1–5)
Myosotis scorpioides	II (1–5)		I (1–5)
Alopecurus geniculatus	II (1–6)		I (1–6)
Poa annua	I (1–4)	V (1–8)	II (1–8)
Polygonum aviculare	I (1–2)	V (1–3)	II (1–3)
Plantago major	II (1–5)	V (1–4)	II (1–5)
Stellaria media	I (1–3)	V (1–8)	I (1–8)
Polygonum persicaria	I (1–4)	III (1–3)	I (1–4)
Chamomilla suaveolens		III (1–2)	I (1–2)
Lolium perenne	I (1–4)	II (1–4)	I (1–4)
Potentilla anserina	I (1)	II (1–3)	I (1–3)
Bryum rubens	I (1)	II (1–4)	I (1–4)
Pottia truncata	I (1)	II (1–4)	I (1–4)
Dicranella staphylina		II (1–4)	I (1–4)
Chenopodium album		II (1–2)	I (1–2)
Elymus repens		II (1–8)	I (1–8)
Anagallis arvensis		II (1–3)	I (1–3)
Urtica dioica	II (1–3)	II (1–2)	II (1–3)
Cirsium arvense	II (1–4)	II (1–6)	II (1–6)
Poa trivialis	II (1–4)	II (1–5)	II (1–5)
Trifolium repens	II (1–4)	II (1–3)	II (1–4)
Senecio vulgaris	I (2–6)	I (1–2)	I (1–6)
Taraxacum officinale agg.	I (1)	I (1)	I (1)
Atriplex prostrata	I (2–3)	I (1–4)	I (1–4)
Cerastium fontanum	I (2–3)	I (1–3)	I (1–3)
Filaginella uliginosa	I (2)	I (1)	I (1–2)
Atriplex patula	I (1)	I (1–2)	I (1–2)
Number of samples	34	19	53
Number of species/sample	12 (8–18)	20 (13–29)	14 (8–29)

a *Polygonum hydropiper-Rorippa sylvestris* sub-community
b *Poa annua-Polygonum aviculare* sub-community
28 *Agrostio-Ranunculetum repentis* (total)

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