SM28

Elymus repens salt-marsh community

Elymetum repentis maritimum Nordhagen 1940

Synonymy

Elymetum repentis maritimum, *Elymus repens*, *Potentilla anserina-Elymus repens-Vicia* and *Elymus repens-Potentilla anserina* soziations ? Nordhagen 1940.

Constant species

Agrostis stolonifera, *Atriplex prostrata*, *Elymus repens*, *Festuca rubra*.

Rare species

Allium scorodoprasum, *Hordeum marinum*.

Physiognomy

The *Elymetum repentis* has a closed grassy sward up to about 1 m tall, generally dominated by *Elymus repens* with usually smaller amounts of *Festuca rubra* and *Agrostis stolonifera* and, beneath, scattered plants of *Atriplex prostrata* and an open ground cover of *Potentilla anserina*. *Oenanthe lachenalii*, *Sonchus arvensis*, *Rumex crispus* and *Cirsium arvense* are occasional and often give a scruffy appearance to the vegetation and tussocks of *Juncus gerardii* or *Festuca arundinacea* may be locally prominent. The community is generally richer and more varied than the *Atriplici-Elymetum* with a wide range of occasionals of low frequency, some characteristic of other disturbed upper-marsh vegetation of strand-lines and reclamation banks, others more typical of rank inland grasslands. *Allium scorodoprasum* has been recorded in vegetation of this kind on the north Solway coast and *Hordeum marinum* from Somerset. Bryophytes occur occasionally with *Eurhynchium praelongum*, *Amblystegium riparium*, *Funaria hygrometrica*, *Pottia heimii* and *Bryum* spp.

Habitat

The community is characteristic of similar situations to those occupied by the *Atriplici-Elymetum*: upper-marsh areas where there is often a combination of disturbance, drift-litter deposition and some freshwater influence. It is, however, less consistently confined to well-drained sites, occasionally growing on heavy waterlogged clays. At Cefni salt-marsh in Anglesey, it occupies the areas marked as 'drift' on the map of Packham & Liddle (1970). The community also occurs on the recently-excavated material thrown on to the banks of drainage channels while, on some brackish marshes, such as those at the tidal limit in estuaries (as in the Lune in Lancashire), it may form extensive stands.

Zonation and succession

Like the *Atriplici-Elymetum*, this community is often part of the vegetation which terminates the salt-marsh vegetation at its upper limit and in such situations it may occur in clear zonations or confused mosaics with such communities as the *Juncetum gerardi*, the *Juncus maritimus* salt-marsh, the *Potentillo-Festucetum arundinaceae*, the *Festuca rubra-Agrostis stolonifera-Potentilla anserina* grassland and various of the vegetation types in which Cyperaceae or tall swamp helophytes predominate in brackish pools and ditches.

Distribution

The community can be seen as the north-western equivalent of the *Atriplici-Elymetum*, being especially frequent around the Irish Sea coast. It is probably more widespread in eastern Scotland than the map suggests.

Affinities

Although there are clear floristic similarities between this community and *Elymus repens* vegetation of foredunes and shingle strand-lines, salt-marsh *Elymetum repentis* is sufficiently distinct to be considered as a separate vegetation type. *Elymus repens* growing on salt-marshes is morphologically distinct and may represent a separate ecotype.

As defined here, the community is synonymous with the vegetation described by Nordhagen (1940) which is frequent in Scandinavia and northern Germany (see also Störmer 1938, Tüxen 1950, Gillner 1960, Tyler 1969*b*). Authors differ as to whether the community is best placed in a narrowly-defined Elymo-Rumicion crispi (Nordhagen 1940), in that alliance as expanded by Tüxen (1950) or alongside the *Atriplici-Elymetum* in the Elymion pungentis (Géhu & Géhu 1969).

Floristic table SM28

Elymus repens	V (4–10)
Festuca rubra	V (3–8)
Agrostis stolonifera	IV (3–8)
Atriplex prostrata	IV (2–6)
Potentilla anserina	III (2–8)
Oenanthe lachenalii	II (1–4)
Sonchus arvensis	II (2–6)
Rumex crispus	II (1–5)
Festuca arundinacea	II (1–9)
Cirsium arvense	II (1–4)
Juncus gerardii	II (2–6)
Vicia cracca	I (2–5)
Matricaria maritima	I (1–4)
Carex otrubae	I (1–6)
Cochlearia officinalis	I (2–4)
Glaux maritima	I (2–4)
Atriplex littoralis	I (2–5)
Galium aparine	I (1–4)
Aster tripolium (rayed)	I (2–4)
Oenanthe crocata	I (1–5)
Triglochin maritima	I (2)
Cochlearia anglica	I (2–4)
Eurhynchium praelongum	I (2–5)
Lotus corniculatus	I (3–4)
Poa pratensis	I (3–4)
Melilotus altissima	I (2–5)
Deschampsia cespitosa	I (3–5)
Leontodon autumnalis	I (1–2)
Urtica dioica	I (3–5)
Lolium perenne	I (2–3)
Plantago maritima	I (2)
Arrhenatherum elatius	I (2–7)
Stellaria media	I (2–6)
Cirsium vulgare	I (1–2)
Scirpus maritimus	I (4)
Puccinellia maritima	I (3)
Beta vulgaris ssp. *maritima*	I (2–5)
Holcus lanatus	I (2–4)
Taraxacum sp.	I (2–3)
Trifolium repens	I (2–4)
Plantago lanceolata	I (1–2)
Algal mat	I (4–6)
Anthriscus sylvestris	I (1–4)
Aster tripolium	I (2–3)
Torilis japonica	I (2)
Odontites verna	I (2–3)
Alopecurus geniculatus	I (2–6)
Eleocharis uniglumis	I (4)
Rumex conglomeratus	I (2–3)
Dactylis glomerata	I (3)
Medicago lupulina	I (2–3)
Silene vulgaris ssp. *maritima*	I (1–4)
Centaurea nigra	I (2–3)
Heracleum sphondylium	I (1–2)
Apium graveolens	I (2)
Calystegia sepium	I (4–6)
Number of samples	62
Number of species/sample	9 (2–27)
Vegetation height (cm)	66 (30–120)
Total cover (%)	99 (70–100)

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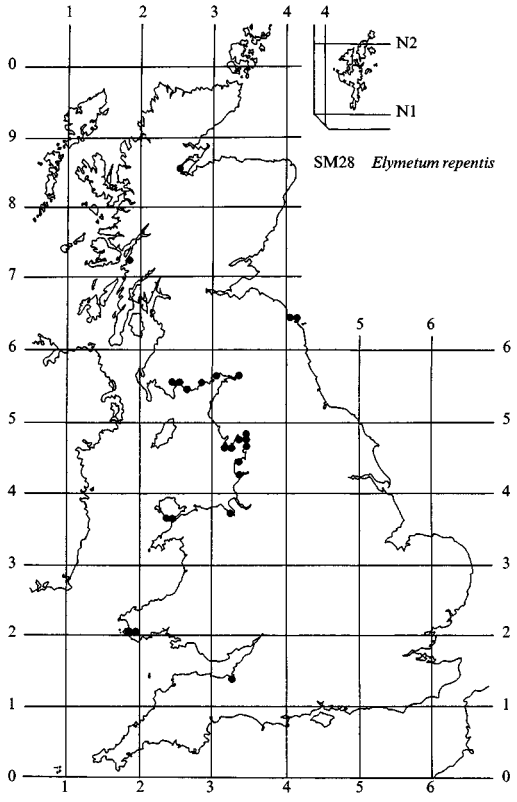

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