SM10

Transitional low-marsh vegetation with *Puccinellia maritima*, annual *Salicornia* species and *Suaeda maritima*

Adam (1976) recognised a number of vegetation types of the low marsh in which *Puccinellia maritima* was co-dominant with annual *Salicornia* species and/or *Suaeda maritima* during the growing season but which during the winter took on the appearance of very open *Puccinellia maritima* swards. Such transitional vegetation can be regarded as one extreme of variation within the *Puccinellietum maritimae* but, particularly in detailed studies of individual marshes, separate recognition might be appropriate. The description below refers to stands in which all three taxa are present.

Synonymy

Puccinellietum maritimae (Warming 1906), W. Christiansen 1927 *auct. p.p.*; *Puccinellia-Salicornia-Suaeda* nodum Adam 1976; *Suaedetum maritimae auct. p.p.*

Constant species

Puccinellia maritima, annual *Salicornia* spp., *Suaeda maritima*.

Rare species

Arthrocnemum perenne.

Physiognomy

Stands of the community are invariably species-poor and always dominated by complementary proportions of the three constants which during the growing season form a fairly low sward of rather variable total cover. Rayed *Aster tripolium* and *A. tripolium* var. *discoideus* are quite frequent though never abundant. There is sometimes an algal mat which can cover up to 50% of the substrate surface.

Habitat

At its lower limit the number of tides flooding the community is probably similar to that experienced by the lower part of the *Puccinellietum maritimae*. Soils vary from firm clays to coarse sands with a pH range of 7.0–8.0 and high levels of free calcium carbonate.

On sandy substrates, the community may occur as a pioneer. It is then rarely extensive, forming patches in a mosaic with the *Salicornietum europaeae*, the *Spartinetum townsendii* or the *Puccinellietum maritimae*. Where the lower marsh consists of a hummocky *Puccinellia maritima* community, a situation confined to sandy marshes which are normally heavily grazed, this transitional community may be found on the hummock tops (cf. Oliver 1907, Hill 1909, Tansley 1911).

On muddier marshes in south-east England, the community behaves in the contrary fashion, occurring in slight depressions within the *Puccinellietum maritimae*, *Spartinetum townsendii*, *Asteretum tripolii* and *Halimionetum portulacoidis*.

The community is also widespread on the sides of large creeks where it occupies a distinct zone above the *Salicornietum europaeae*. The majority of such occurrences are on ungrazed or cattle-grazed marshes; on sheep-grazed marshes, the community is confined to inaccessible creek sides.

Zonation and succession

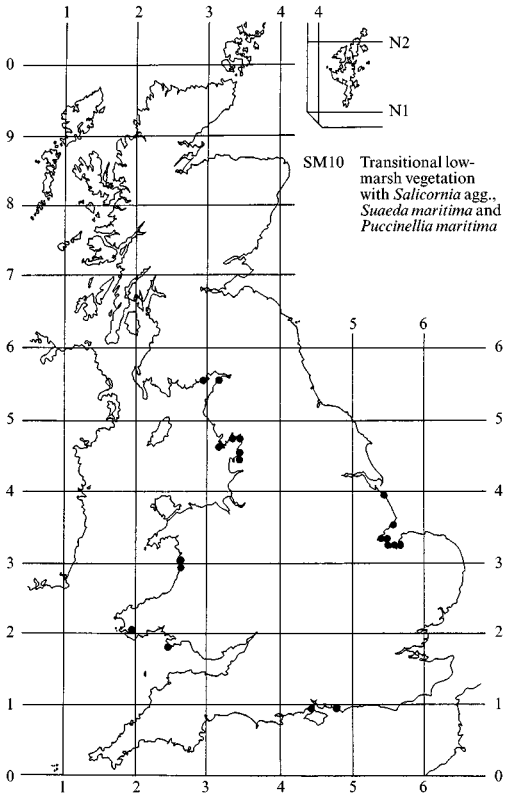
In the low marsh, the community will be replaced by others as accretion progresses: in the south-east most probably by the *Puccinellietum maritimae* or the *Halimionetum portulacoidis*, in the west by the former or, more rarely, by the *Juncetum gerardi*. Creekside occurrences are part of what is probably a static zonation rather than a successional sequence.

Distribution

Apart from along the western Scottish coast, where occurrences are relatively rare, the community is widespread, although stands are often small.

Floristic table SM10

Puccinellia maritima	V (2–9)
Salicornia agg.	V (2–8)
Suaeda maritima	V (2–8)
Aster tripolium var. *discoideus*	III (2–5)
Aster tripolium (rayed)	III (1–4)
Algal mat	II (4–7)
Spartina anglica	I (1–4)
Halimione portulacoides	I (1–2)
Triglochin maritima	I (3–4)
Spergularia media	I (2–3)
Limonium cf. *L. vulgare*	I (2)
Armeria maritima	I (1–4)
Number of samples	50
Mean number of species/sample	5 (3–8)
Mean vegetation height (cm)	15 (4–40)
Mean total cover (%)	88 (30–100)



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