## **SM22**

# Halimione portulacoides-Frankenia laevis salt-marsh community

Limonio vulgaris-Frankenietum laevis Géhu & Géhu-Franck 1975

#### Synonymy

Halimiono-Frankenietum laevis Adam 1976 p.p; Sussex Frankenia laevis stands Brightmore 1979.

#### Constant species

Armeria maritima, Frankenia laevis, Halimione portulacoides.

#### Rare species

Frankenia laevis, Inula crithmoides, Arthrocnemum perenne.

#### **Physiognomy**

This community has a short uneven open sward dominated by *Halimione portulacoides* and *Frankenia laevis* with scattered plants of *Armeria maritima* and *Puccinellia maritima*. *Festuca rubra*, *Limonium vulgare*, annual *Salicornia* spp. and *Spergularia media* are frequent at low cover values and at some sites *Inula crithmoides* is conspicuous.

#### Habitat

The community generally occurs on mixtures of silt, sand and shingle at salt-marsh/sand-dune interfaces. Similar vegetation but lacking *H. portulacoides* has been recorded from Chalk undercliffs and rubble (Brightmore 1979).

#### Distribution

The community is confined to the south coast of Sussex where the best stands are developed at East Head, Chichester Harbour. Frankenia laevis has recently been reported from Anglesey (Roberts 1975) where it has become well established (after original planting?) among Festuca rubra, Armeria maritima and Puccinellia maritima to produce vegetation rather similar to this community.

#### **Affinities**

The community is distinguished from the Suaeda vera-Limonium binervosum salt-marsh by the absence here of S. vera and the replacement of Limonium bellidifolium and L. binervosum by L. vulgare. Géhu & Géhu-Franck (1975) and Géhu & Delzenne (1975) regard the Sussex stands as representing a species-poor parallel to the Frankenio-Limonietum lychnidifolii of north-west France and have provisionally assigned them (and the Anglesey vegetation) to the Limonio vulgaris-Frankenietum laevis. This association and the Suaeda vera-Limonium binervosum community could be placed together in the Frankenio-Armerion.

### Floristic table SM22

Halimione portulacoides Puccinellia maritima IV (2-5)  Armeria maritima III (2-4) Spergularia media III (1-2) Festuca rubra II (3-5) Salicornia agg. II (1-3) Elymus farctus II (3-4) Limonium vulgare II (1-5) Parapholis strigosa II (1-4) Suaeda maritima I (1-2) Arthrocnemum perenne I (1-2) Plantago maritima I (1-2) Plantago coronopus IV (3-9) III (2-4) III (1-5) II (1-5) II (1-6) II (1-7)		
Puccinellia maritima         IV (2-5)           Armeria maritima         III (2-4)           Spergularia media         III (1-2)           Festuca rubra         II (3-5)           Salicornia agg.         II (1-3)           Elymus farctus         II (3-4)           Limonium vulgare         II (1-5)           Parapholis strigosa         II (1-4)           Suaeda maritima         I (1-2)           Arthrocnemum perenne         I (1-2)           Plantago maritima         I (1-2)           Plantago coronopus         I (1-5)           Number of samples         18           Mean number of species/sample         8 (6-13)           Mean vegetation height (cm)*         3 (2-5)	Frankenia laevis	V (3–8)
Armeria maritima         III (2-4)           Spergularia media         III (1-2)           Festuca rubra         II (3-5)           Salicornia agg.         II (1-3)           Elymus farctus         II (3-4)           Limonium vulgare         II (1-5)           Parapholis strigosa         II (1-4)           Suaeda maritima         I (1-2)           Arthrocnemum perenne         I (1-2)           Plantago maritima         I (1-2)           Plantago coronopus         I (1-5)           Number of samples         18           Mean number of species/sample         8 (6-13)           Mean vegetation height (cm)*         3 (2-5)	Halimione portulacoides	IV (3–9)
Spergularia media III (1-2) Festuca rubra II (3-5) Salicornia agg. II (1-3) Elymus farctus II (3-4) Limonium vulgare II (1-5) Parapholis strigosa II (1-4) Suaeda maritima I (1-2) Arthrocnemum perenne II (1-2) Plantago maritima II (1-2) Plantago coronopus II (1-5)  Number of samples 18 Mean number of species/sample 8 (6-13) Mean vegetation height (cm)* 3 (2-5)	Puccinellia maritima	IV (2–5)
Festuca rubra         II (3-5)           Salicornia agg.         II (1-3)           Elymus farctus         II (3-4)           Limonium vulgare         II (1-5)           Parapholis strigosa         II (1-4)           Suaeda maritima         I (1-2)           Arthrocnemum perenne         I (1-2)           Plantago maritima         I (1-2)           Plantago coronopus         I (1-5)           Number of samples         18           Mean number of species/sample         8 (6-13)           Mean vegetation height (cm)*         3 (2-5)	Armeria maritima	III (2–4)
Salicornia agg.  Elymus farctus  II (3-4)  Limonium vulgare  Parapholis strigosa  II (1-5)  Parapholis strigosa  II (1-4)  Suaeda maritima  I (1-2)  Arthrocnemum perenne  I (1-2)  Plantago maritima  I (1-2)  Plantago coronopus  I (1-5)  Number of samples  Mean number of species/sample  Mean vegetation height (cm)*  II (1-3)  II (1-5)  8 (6-13)	Spergularia media	III (1–2)
Elymus farctus II (3-4) Limonium vulgare II (1-5) Parapholis strigosa II (1-4) Suaeda maritima I (1-2) Arthrocnemum perenne I (1-2) Plantago maritima I (1-2) Plantago coronopus I (1-5)  Number of samples 18 Mean number of species/sample 8 (6-13) Mean vegetation height (cm)* 3 (2-5)	Festuca rubra	II (3-5)
Limonium vulgare Parapholis strigosa II (1-4) Suaeda maritima I (1-2) Arthrocnemum perenne I (1-2) Plantago maritima I (1-2) Plantago coronopus I (1-5)  Number of samples Mean number of species/sample Mean vegetation height (cm)*  II (1-5)  8 (6-13)	Salicornia agg.	II (1-3)
Parapholis strigosa Suaeda maritima I (1-2) Arthrocnemum perenne I (1-2) Plantago maritima I (1-2) Plantago coronopus I (1-5)  Number of samples Mean number of species/sample Mean vegetation height (cm)*  I (1-3)	Elymus farctus	II (3–4)
Suaeda maritima I (1-2) Arthrocnemum perenne I (1-2) Plantago maritima I (1-2) Plantago coronopus I (1-5)  Number of samples 18 Mean number of species/sample 8 (6-13) Mean vegetation height (cm)* 3 (2-5)	Limonium vulgare	II (1-5)
Arthrocnemum perenne I (1-2) Plantago maritima I (1-2) Plantago coronopus I (1-5)  Number of samples 18 Mean number of species/sample 8 (6-13) Mean vegetation height (cm)* 3 (2-5)	Parapholis strigosa	II (1 <del>-4</del> )
Plantago maritima I (1-2) Plantago coronopus I (1-5)  Number of samples 18  Mean number of species/sample 8 (6-13)  Mean vegetation height (cm)* 3 (2-5)	Suaeda maritima	I (1–2)
Plantago coronopus I (1-5)  Number of samples 18  Mean number of species/sample 8 (6-13)  Mean vegetation height (cm)* 3 (2-5)	Arthrocnemum perenne	I (1-2)
Number of samples 18  Mean number of species/sample 8 (6–13)  Mean vegetation height (cm)* 3 (2–5)	Plantago maritima	I (1-2)
Mean number of species/sample 8 (6–13) Mean vegetation height (cm)* 3 (2–5)	Plantago coronopus	I (1–5)
Mean vegetation height (cm)* 3 (2-5)	Number of samples	18
	Mean number of species/sample	8 (6–13)
		3 (2-5)
	• , ,	86 (80–100)

Data of four samples only.

