
S15

Acorus calamus swamp

Acoretum calami Schulz 1941

Synonymy

Scirpeto-Phragmitetum medioeuropeum (Koch 1926) R.Tx. 1941 *p.p.*; Gemeenschap van *Acorus calamus* en *Iris pseudacorus* Olivier & Segal 1963 *p.p.*

Constant species

Acorus calamus.

Rare species

Crassula helmsii.

Physiognomy

The *Acoretum calami* comprises stands dominated by *Acorus calamus* forming an open or closed cover of leafy shoots up to about 1 m tall.

Sub-communities

***Acorus calamus* sub-community.** Here are included pure or very species-poor stands of dense *Acorus*.

***Lemna minor* sub-community.** In this sub-community, a generally shorter and more open cover of the dominant emerges from open water with a sometimes abundant mat of floating *Lemna minor*. Other swamp dominants such as *Typha latifolia* and *Sparganium erectum* may attain local prominence and there are sometimes tussocks of *Juncus effusus* and sprawls of *Solanum dulcamara* and *Galium palustre*. Tall herbs like *Angelica sylvestris*, *Lycopus europaeus* and *Rumex hydrolapathum* occur occasionally and a wide variety of other water margin species are represented rarely. The introduced Australasian water-plant *Crassula helmsii* (e.g. Clement 1979) has been recorded here.

Habitat

The community occurs in standing or slow-moving waters, 20–80 cm deep, or more rarely on the water-logged margins, of ornamental pools, ponds, canals and dykes. The substrate is usually silt or clay and pH values of 5.4–7.2 have been recorded.

Zonation and succession

Acorus was introduced into Britain, probably before 1660 (Salisbury 1964) and for the medicinal value of its underground organs (Haslam 1978). It was planted thereafter as an ornamental and its sweet-smelling leaves have been used for strewing in churches (Salisbury 1964, Ellis 1965). Isolated stands in ornamental pools often represent deliberate plants but, although seed is not produced in Europe, *Acorus* spreads well by vegetative means and the *Lemna* sub-community perhaps includes stands of natural swamp and marginal vegetation which have been invaded.

Distribution

Acorus occurs in scattered localities throughout the English lowlands with concentrations in Lancashire, the central Midlands and the London Basin.

Affinities

Swamp dominated by *Acorus* has hardly been mentioned in accounts of British vegetation, although a similar community has been described from The Netherlands (Westhoff & den Held 1969). The ecological amplitude of the species in Europe places the *Acoretum* alongside shallow-water swamps of mesotrophic mineral substrates such as the *Sparganietum erecti* and *Typhetum latifoliae*.

Floristic table S15

	a	b	15
<i>Acorus calamus</i>	V (8–10)	V (6–9)	V (6–10)
<i>Lemna minor</i>		IV (1–7)	III (1–7)
<i>Sparganium erectum</i>		III (2–7)	II (2–7)
<i>Solanum dulcamara</i>		III (4–6)	II (4–6)
<i>Typha latifolia</i>		III (2–5)	II (2–5)
<i>Juncus effusus</i>	I (2)	II (4–6)	II (2–6)
<i>Lycopus europaeus</i>		II (1–4)	I (1–4)
<i>Angelica sylvestris</i>		II (3–4)	I (3–4)
<i>Galium palustre</i>		II (3)	I (3)
<i>Rumex hydrolapathum</i>		II (1–3)	I (1–3)
<i>Holcus lanatus</i>		II (1–3)	I (1–3)
<i>Apium nodiflorum</i>		I (7)	I (7)
<i>Alisma plantago-aquatica</i>		I (3)	I (3)
<i>Polygonum persicaria</i>		I (1)	I (1)
<i>Potamogeton natans</i>		I (3)	I (3)
<i>Riccia fluitans</i>		I (4)	I (4)
<i>Cirsium palustre</i>		I (3)	I (3)
<i>Polygonum amphibium</i>		(2)	I (2)
<i>Salix cinerea</i> sapling		I (2)	I (2)
<i>Urtica dioica</i>		I (2)	I (2)
<i>Holcus mollis</i>		I (4)	I (4)
<i>Brachythecium rutabulum</i>		I (4)	I (4)
<i>Eurhynchium praelongum</i>		I (4)	I (4)
<i>Mentha aquatica</i>		I (4)	I (4)
<i>Ranunculus repens</i>		I (2)	I (2)
<i>Eleocharis palustris</i>		I (3)	I (3)
<i>Mimulus guttatus</i>		I (3)	I (3)
<i>Epilobium adenocaulon</i>		I (3)	I (3)
<i>Myosotis laxa caespitosa</i>		I (3)	I (3)
<i>Myosotis scorpioides</i>		I (3)	I (3)
<i>Poa trivialis</i>		I (4)	I (4)
<i>Rumex acetosa</i>		I (1)	I (1)
<i>Stellaria alsine</i>		I (3)	I (3)
<i>Betula</i> sp. seedling		I (3)	I (3)
<i>Crassula helmsii</i>		I (3)	I (3)
<i>Salix cinerea</i> seedling		I (1)	I (1)
<i>Polygonum aviculare</i>		I (3)	I (3)
<i>Epilobium angustifolium</i>		I (3)	I (3)
<i>Gnaphalium uliginosum</i>		I (3)	I (3)
<i>Juncus bufonius</i>		I (4)	I (4)
<i>Lythrum salicaria</i>		I (3)	I (3)
<i>Marchantia polymorpha</i>		I (2)	I (2)
<i>Pohlia prolifera</i>		I (4)	I (4)

Floristic table S15 (*cont.*)

	a	b	15
Number of samples	5	7	12
Number of species/sample	1 (1–2)	9 (5–18)	6 (1–18)
Vegetation height (cm)	111 (100–160)	102 (20–150)	106 (20–160)
Vegetation cover (%)	91 (70–100)	82 (70–100)	86 (70–100)

a *Acorus calamus* sub-community

b *Lemna minor*-*Sparganium erectum* sub-community

15 *Acoretum calami* (total)