S11
Carex vesicaria swamp
Caricetum vesicariae Br.-Bl. & Denis 1926

Synonymy
Caricetum Pearsall 1920 *p.p.*; *Carex vesicaria-Veronica scutellata* sociation Spence 1964

Constant species
Carex vesicaria, *Equisetum fluviatile*, *Galium palustre*.

Rare species
Carex aquatilis.

Physiognomy
The *Caricetum vesicariae* is almost always dominated by *Carex vesicaria*, the tufted shoots of which form an open or closed cover in which there is usually a little emergent *Equisetum fluviatile*, some scrambling *Galium palustre* and sometimes abundant *Juncus effusus*. Indeed, although few other species are frequent throughout, the general appearance of the vegetation is often more like a fen than a swamp.

Sub-communities

***Carex vesicaria* sub-community.** Here are included those rare stands in which *C. vesicaria* forms a virtually pure and sometimes extensive cover.

***Mentha aquatica* sub-community.** In this sub-community, the *C. vesicaria* has an understorey of small or scrambling herbs such as *Mentha aquatica*, *Myosotis scorpioides*, *Galium palustre* and, particularly distinctive, *Veronica scutellata*. There is also usually some *Equisetum fluviatile* and *Juncus effusus* and scattered tall herbs such as *Filipendula ulmaria*, *Lythrum salicaria* and, sometimes abundantly, *Phalaris arundinacea*. A variety of other poor-fen and swamp species occur occasionally or rarely, including *Carex aquatilis*.

***Carex rostrata* sub-community.** The vegetation here is somewhat similar to that of the *Mentha* sub-community except that *Carex rostrata*, *Potentilla palustris* and *Menyanthes trifoliata* are frequent and sometimes abundant components. *Carex aquatilis* has also been recorded from this sub-community.

Habitat
The community occurs in open-water transitions on mesotrophic inorganic or peaty substrates of pH 6.0–6.8 around lakes and in slow-moving or standing waters of streams and dykes. The *Carex vesicaria* and *Carex rostrata* sub-communities are characteristic of deeper standing waters, up to about 40 cm, whereas the *Mentha* sub-community typically occurs in drier situations where the water-table varies between 10 cm below and 20 cm above ground. The vegetation is sometimes cattle-grazed.

Zonation and succession
Although stands of the *Carex vesicaria* sub-community can occur in standing open water, the usual position of the community in marginal zonations is for it to occur inshore of the *Caricetum rostratae* to which it may grade through the *Carex rostrata* sub-community. Around such higher reaches and along the banks of dykes, the *Mentha* sub-community may occur alongside or pass to the *Phragmitetum australis* or to the *Phalaridetum arundinaceae*.

Distribution
Although *C. vesicaria* has a fairly widespread distribution throughout the ill-drained lowlands of Britain the *Caricetum vesicariae* swamp is an uncommon community which has been recorded mainly from Scotland. Here, south of the Great Glen, it occurs in scattered localities, being particularly distinctive of lake shores in Speyside and Galloway (see Spence 1964, Birse 1980).

Affinities
The *Caricetum vesicariae* is a distinctive community which shows affinities with both the more oligotrophic swamps in which *C. rostrata* plays a prominent role and

more mesotrophic fen and tall-herb communities. In the latter respect, it is akin to the *P. australis-Galium palustre* community which is the major fen type in the region where the *Caricetum vesicariae* seems best developed.

Floristic table S11

	a	b	c	11
Carex vesicaria	2 (9)	V (5–10)	4 (1–4)	V (1–10)
Galium palustre		V (2–6)	3 (3–4)	IV (2–6)
Equisetum fluviatile		IV (1–4)	4 (1–3)	IV (1–4)
Mentha aquatica		IV (1–4)	1 (2)	III (1–4)
Juncus effusus		III (2–4)	3 (2–7)	III (2–7)
Myosotis scorpioides	1 (4)	III (2–6)	2 (3)	III (2–6)
Filipendula ulmaria		III (2)	1 (2)	II (2)
Phalaris arundinacea		III (1–9)		II (1–9)
Veronica scutellata		III (1)		II (1)
Rumex acetosa		II (1–2)		I (1–2)
Lythrum salicaria		II (1–5)		I (1–5)
Eurhynchium praelongum		II (1)		I (1)
Deschampsia cespitosa		I (1–6)		I (1–6)
Angelica sylvestris		I (1)		I (1)
Hydrocotyle vulgaris		I (1)		I (1)
Ranunculus acris		I (1)		I (1)
Carex rostrata			4 (1–4)	II (1–4)
Potentilla palustris	1 (1)	II (1)	3 (3–7)	II (1–7)
Menyanthes trifoliata			2 (1–3)	I (1–3)
Carex nigra		II (1–5)	2 (2–5)	II (1–5)
Carex aquatilis		I (1)	2 (1)	I (1)
Caltha palustris		I (3–4)	1 (2)	I (2–4)
Glyceria fluitans		I (1)	1 (2)	I (1–2)
Polygonum amphibium	1 (4)	I (1–3)	1 (3)	I (1–4)
Scutellaria galericulata		I (1)	1 (4)	I (1–4)
Calliergon cordifolium		I (9)	1 (7)	I (7–9)
Ranunculus flammula		I (2)	1 (4)	I (2–4)
Agrostis canina canina		I (1)	1 (5)	I (1–5)
Valeriana officinalis		I (1)	1 (1)	I (1)
Number of samples	2	12	4	18
Number of species/sample	2 (1–4)	10 (7–18)	13 (11–14)	10 (1–18)
Vegetation height (cm)	70	90 (70–100)	53 (70–75)	80 (70–100)
Vegetation cover (%)	90	82 (40–100)	96 (90–100)	85 (40–100)

a *Carex vesicaria* sub-community
b *Veronica scutellata* sub-community
c *Carex rostrata* sub-community
11 *Caricetum vesicariae* (total)

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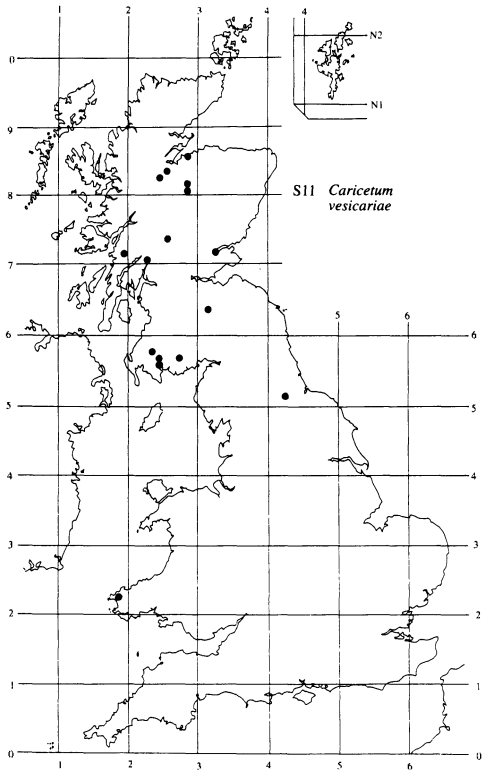

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