S22
Glyceria fluitans water-margin vegetation
Glycerietum fluitantis Wilczek 1935

Constant species
Glyceria fluitans.

Physiognomy
The *Glycerietum fluitantis* is dominated by a low mat or floating carpet of *Glyceria fluitans*, sometimes continuous and very species-poor, in other cases as a more open cover with a variety of associates, some of which may attain local prominence. No other species reaches even occasional frequency throughout but the most usual associates are plants of shallow water margins such as *Alisma plantago-aquatica*, *Myosotis scorpioides*, *Apium nodiflorum* and *Eleocharis palustris*.

Sub-communities

***Glyceria fluitans* sub-community.** This sub-community includes pure or very species-poor stands in which *G. fluitans* forms an often thick and lush mat. *Lemna minor* is the only frequent associate.

***Sparganium erectum-Mentha aquatica* sub-community.** *Sparganio-Glycerietum fluitantis* Br.Bl. 1925. Here, there is a usually more open cover of the dominant among clumps of *Typha latifolia*, *Sparganium erectum*, *Nasturtium officinale* and *Carex otrubae* with scattered plants of *Mentha aquatica*, *Myosotis scorpioides*, *Alisma plantago-aquatica* and *Rumex crispus*.

***Alopecurus geniculatus* sub-community:** Washlands and wet alluvial meadows Ratcliffe 1977 *p.p.*. *Alopecurus geniculatus* is often abundant and sometimes co-dominant in this sub-community and there is occasionally a little *Poa trivialis*. *Rumex crispus* is preferentially frequent here.

Habitat
The community is characteristic of shallow, standing or sluggish, mesotrophic waters and fine mineral substrates, and is commonly found around ponds and wet depressions in fens and pastures and on the margins of dykes and small streams. The *Glyceria* sub-community includes stands where a quaking mass of *G. fluitans* extends out into small areas of sometimes deeper open water in fens or in other undisturbed situations where the dominant can pre-empt a niche and spread. The *Alopecurus* sub-community is more restricted to shallower waters and occurs around the gently sloping silty margins of ponds and pasture hollows. The *Sparganium-Mentha* sub-community is an often narrow and fragmentary community where *G. fluitans* gains a hold among more robust swamp species on stream sides and around pond edges.

G. fluitans is a succulent and palatable grass which is avidly eaten by stock and herbivorous wildfowl. On the Fen washlands, this community formed part of the swamp/grassland mosaics traditionally maintained by winter flooding and summer grazing and now surviving largely on the Ouse Washes where they provide valuable grazing for a variety of bird populations. Poaching by stock can break up the cover of the community and perhaps aid its spread by the trampling in of broken stems which readily re-root in moist ground.

Zonation and succession
Sometimes, the three sub-communities occur as a zonation around the edges of deeper ponds. Often, however, small stands of the *Glycerietum* form a mosaic among other swamp communities on the more open margins of pools and streams. In wet pasture hollows, the *Alopecurus* sub-community may give way on drier ground to the *Lolio-Cynosuretum* and on coarser inundated sediments on river banks to Elymo-Rumicion vegetation.

On the Ouse Washes the community occurs in mosaics with the *Agrostis stolonifera-Alopecurus geniculatus* inundation grassland in areas which are sheep-grazed in summer and subject to shallow winter flooding.

Distribution
The *Glycerietum* is widespread and common in the agricultural lowlands.

Affinities
The community shows most similarities with those swamps where, along shallow and sometimes disturbed water margins, the integrity of the synusial element becomes fragmented and a variety of different species may attain local dominance, e.g. the *Caricetum otrubae* and *Carex pseudocyperus* swamps and vegetation with *Apium nodiflorum* and *Nasturtium officinale*. Such vegetation has sometimes been placed in the Glycerio-Sparganion, in other cases in the Elymo-Rumicion.

Floristic table S22

	a	b	c	22
Glyceria fluitans	V (6–10)	V (6–8)	V (6–10)	V (6–10)
Lemna minor	III (2–7)			II (2–7)
Elodea canadensis	I (1–6)			I (1–6)
Typha latifolia	I (1–4)	III (2–4)	I (3)	II (1–4)
Nasturtium officinale	I (1–2)	III (1–4)		I (1–4)
Sparganium erectum		III (1–5)		I (1–5)
Mentha aquatica		III (4–5)		I (4–5)
Alisma plantago-aquatica	I (2–3)	II (2–3)	I (2)	I (2–5)
Myosotis scorpioides	I (1–4)	II (3)	I (1)	I (1–4)
Juncus articulatus		II (3)	I (3)	I (3)
Carex otrubae		II (3–4)		I (3–4)
Ranunculus lingua		I (4)		I (4)
Solanum dulcamara		I (3)		I (3)
Alopecurus geniculatus	I (4)		V (3–8)	II (3–8)
Poa trivialis		I (4)	II (2–3)	I (2–4)
Rumex crispus	I (3)	II (1–3)	III (2–3)	I (1–3)
Galium palustre	I (2)	I (3)	I (2)	I (2–3)
Agrostis stolonifera	I (1–5)	I (4)		I (1–5)
Apium nodiflorum	I (4)		I (4)	I (4)
Eleocharis palustris	I (3)		I (3)	I (3)
Number of samples	27	7	7	41
Number of species/sample	3 (1–8)	10 (5–22)	6 (4–10)	5 (1–22)

a *Glyceria fluitans* sub-community
b *Sparganium erectum-Mentha aquatica* sub-community
c *Alopecurus geniculatus* sub-community
22 *Glycerietum fluitantis* (total)

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