
S12

Typha latifolia swamp *Typhetum latifoliae* Soó 1927

Synonymy

Esthwaite reedswamp Pearsall 1918 *p.p.*; *Typhetum latifoliae* and *Typha latifolia* consociates Tansley 1939; *Typhetum angustifolio-latifoliae* (Eggler 1933) Schmale 1939 *p.p.*; *Scirpeto-Phragmitetum medioeuropaeum* (Koch 1926) R.Tx. 1941 *p.p.*; *Glycerio-Typhetum latifoliae* Neuhäusl 1959 *p.p.*; *Scirpetum lacustris* Chouard 1924 *sensu* Passarge 1964 *p.p.*; *Typha latifolia-Lemna minor* sociation Spence 1964.

Constant species

Typha latifolia.

Rare species

Cicuta virosa.

Physiognomy

Typha latifolia is always dominant in the *Typhetum latifoliae* forming an open or closed cover of stout shoots usually 1–2 m tall. No other species is frequent throughout and pure stands are common.

Sub-communities

***Typha latifolia* sub-community:** includes *Typha latifolia-Lemna minor* sociation Spence 1964 and *Typha latifolia* nodum Adam 1981. Here are included pure or very species-poor stands overwhelmingly dominated by a usually very tall and dense cover of *T. latifolia*. Associates are generally of low cover but particularly distinctive stands may be encountered with abundant floating *Lemna minor* or sprawling *Solanum dulcamara*, a low carpet of *Agrostis stolonifera* or scattered *Aster tripolium*.

***Mentha aquatica* sub-community.** The cover of *T. latifolia* is usually shorter and less dense in this sub-community and beneath there is an understorey of *Mentha aquatica*, *Galium palustre* and *Juncus effusus*. Emergent *Equisetum fluviatile* and floating *L. minor*

occur occasionally and there is sometimes a little *Epilobium hirsutum*. Rare records for a wide variety of water-margin species make this the richest of the sub-communities.

***Alisma plantago-aquatica* sub-community:** *Typha latifolia* stands Meres Survey 1980. Here, shorter and less dense *T. latifolia* is usually intermixed with some *Spartanium erectum* and/or *Eleocharis palustris* and, beneath, scattered plants of *Alisma plantago-aquatica* with occasional *Ranunculus sceleratus* and sprawls of *Glyceria fluitans*. *L. minor* is sometimes abundant on the water surface or over damp bare patches of substrate.

***Carex rostrata* sub-community.** This sub-community comprises species-poor vegetation dominated by mixtures of *T. latifolia* and *Carex rostrata*. Many of the associates of the *Mentha* and *Alisma* sub-communities are absent but there is very occasional *Menyanthes trifoliata* and *Potentilla palustris*.

Habitat

The *Typhetum latifoliae* is most characteristic of standing or slow-moving, mesotrophic to eutrophic, circum-neutral to basic waters with silty substrates. It is frequent around lowland lakes, ponds and reservoirs, along canals and dykes and in sluggish streams and also occurs very rarely on salt-marshes.

The community seems tolerant of a wide range of water levels. It will survive in depths of up to 60 cm and stands of the *Typha* and *Carex rostrata* sub-communities are commonly encountered in open waters which stand high all the year round. The *Typha* sub-community, however, also includes stands which are flooded only in winter (and where there is sometimes a dense summer growth of *Agrostis stolonifera* or *Solanum dulcamara*) as well as rarely inundated inter-tidal stands (with scattered *Aster tripolium*). The *Mentha* and *Alisma* sub-communities seem to be more characteristic of shallow waters which show no wide annual fluctuations such as

occur around lake and pond margins and along stream sides.

Zonation and succession

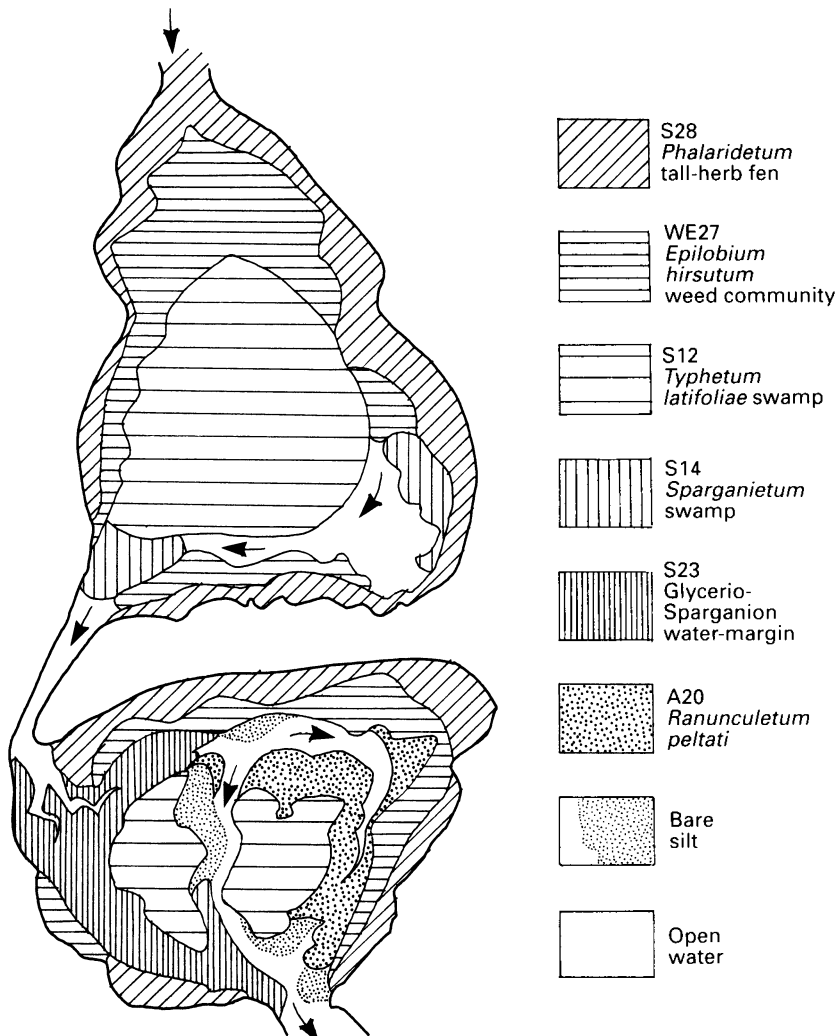
In open-water transitions around larger water bodies, the community may form the distal limit of emergent zonations, although its occurrence is often patchy (e.g. Meres Report 1980). In less eutrophic waters and/or where the substrate is more organic, there may be a transition through the *Carex rostrata* sub-community to the *Caricetum rostratae* in deeper water. Towards drier ground, the *Typhetum* may give way, sometimes through the *Mentha* sub-community, to fairly rich fen

vegetation such as that of the *Phragmites-Eupatorium* community or the *Caricetum paniculatae* and this may in turn pass to carr woodland.

Often, however, the community is part of more truncated zonations, especially in smaller ponds and dykes, and here, too, the vegetation is sometimes influenced by eutrophication from agricultural or industrial run-off. Dense stands of the *Typha* sub-community often choke such water bodies, passing on the banks to *Phragmites-Urtica* fen or tall-herb vegetation such as the *Phalaridetum arundinaceae* or the *Epilobietum hirsutae* (Figure 14).

On the margins of sluggish streams, canals and wider dykes, patches of the *Typha* sub-community may occur in deeper water and give way, through the *Alisma* sub-community, to the *Sparganietum erecti*; in other cases, fragments of the *Alisma* sub-community and the *Sparganietum* may occur side by side in the shallows. Above,

Figure 14. Typical pattern of aquatic, swamp and fen vegetation around silting lowland pools in West Yorkshire.



there may be a zone of the *Glycerietum maximae* or an abrupt transition to tall-herb vegetation.

On the salt-marshes at Bridgwater and Berrow in Somerset, the *Typha* sub-community occurs in association with the *Scirpetum maritimi*.

Although the association between the *Typhetum* and sites with active silt accretion is commonplace, there is very little systematic information available about its role in succession. At North Fen, Esthwaite, in Cumbria, the community has spread over 70 years from its confines on the rapidly accumulating material around the mouth of the Black Beck to form a belt between the *Phragmitetum australis* swamp and the *Potentillo-Caricetum* (Pearsall 1918, Tansley 1939, Pigott & Wilson 1978).

Distribution

The community is widespread through the agricultural lowlands of England, being less common in Wales and Scotland.

Affinities

T. latifolia is an infrequent component of swamps other than the one in which it is dominant and the affinities of the *Typhetum* are unclear. In Britain, *T. latifolia* and *T. angustifolia* seem rarely to occur together and the combined community *Typhetum angustifolio-latifoliae* (Eggler 1933) Schmale 1939 is inadequate to describe the stands included here.

Floristic table S12

	a	b
<i>Typha latifolia</i>	V (5–10)	V (6–10)
<i>Scirpus lacustris tabernaemontani</i>	I (4)	
<i>Cicuta virosa</i>	I (1)	
<i>Aster tripolium</i>	I (1–4)	
<i>Urtica dioica</i>	I (1)	
<i>Mentha aquatica</i>		V (2–7)
<i>Galium palustre</i>	I (4)	III (2–5)
<i>Juncus effusus</i>	I (2–5)	III (1–5)
<i>Myosotis laxa caespitosa</i>		I (3–4)
<i>Rumex hydrolapathum</i>		I (3–4)
<i>Berula erecta</i>		I (3–4)
<i>Juncus acutiflorus</i>		I (3–6)
<i>Lycopus europaeus</i>		I (3)
<i>Rumex crispus</i>		I (3)
<i>Acorus calamus</i>		I (3)
<i>Scirpus lacustris lacustris</i>		I (4)
<i>Alisma plantago-aquatica</i>	I (1–4)	I (3)
<i>Sparganium erectum</i>		
<i>Eleocharis palustris</i>		I (4)
<i>Glyceria fluitans</i>		
<i>Ranunculus sceleratus</i>		
<i>Callitriche stagnalis</i>		
<i>Lythrum salicaria</i>		
<i>Apium nodiflorum</i>		
<i>Callitriche obtusangula</i>		
<i>Carex rostrata</i>		I (1–5)
<i>Menyanthes trifoliata</i>		
<i>Potentilla palustris</i>		
<i>Lemna minor</i>	I (3–10)	II (3–8)
<i>Hydrocotyle vulgaris</i>	I (3)	I (4–7)

c	d	l2
V (7–10)	V (5–9)	V (5–10)
		I (4)
		I (1)
		I (1–4)
		I (1)
II (2)	II (2–4)	II (2–7)
	I (5)	II (2–5)
		II (1–5)
		I (3–4)
		I (3–4)
		I (3–4)
		I (3–6)
		I (3)
		I (3)
		I (3)
		I (4)
IV (1–4)	I (1)	I (1–4)
III (3–4)		I (3–4)
II (4–6)		I (4–6)
II (1–2)		I (1–2)
II (2–3)		I (2–3)
I (4)		I (4)
I (3)		I (3)
I (5)		I (5)
I (2)		I (2)
	V (3–9)	I (1–9)
	I (4)	I (4)
	I (5)	I (5)
II (5–7)	II (1)	II (1–10)
	I (3)	I (3–7)

<i>Agrostis stolonifera</i>	I (4–7)	I (4–5)
<i>Phalaris arundinacea</i>	I (3)	I (4)
<i>Equisetum fluviatile</i>		II (3–8)
<i>Epilobium angustifolium</i>	I (1)	I (2)
<i>Caltha palustris</i>	I (2)	I (3)
<i>Calliergon cordifolium</i>	I (8)	I (3)
<i>Polygonum amphibium</i>	I (4)	I (1)
<i>Solanum dulcamara</i>	I (1–7)	I (4)
<i>Ranunculus repens</i>	I (2)	I (2–3)
<i>Chenopodium album</i>	I (3)	
<i>Lemna trisulca</i>	I (5)	
<i>Epilobium hirsutum</i>		II (3–4)
<i>Juncus articulatus</i>		I (4)
<i>Myosotis scorpioides</i>		I (3)
<i>Polygonum persicaria</i>		I (3)
<i>Nasturtium officinale</i>		I (4)
<i>Epilobium palustre</i>		I (1–3)
<i>Potamogeton polygonifolius</i>		I (3)
<i>Agrostis canina canina</i>		I (2)
<i>Ranunculus flammula</i>		I (3)
<i>Calliergon cuspidatum</i>		I (3)
Number of samples	56	13
Number of species/sample	3 (1–8)	9 (5–14)
Vegetation height (cm)	175 (90–250)	153 (30–200)
Vegetation cover (%)	92 (50–100)	85 (60–100)

- a *Typha latifolia* sub-community
- b *Mentha aquatica* sub-community
- c *Alisma plantago-aquatica* sub-community
- d *Carex rostrata* sub-community
- 12 *Typhetum latifoliae* (total)

	I (4)	I (4–7)
	I (1)	I (1–4)
I (1)	I (3)	I (1–8)
		I (1–2)
		I (2–3)
		I (3–8)
		I (1–4)
		I (1–7)
I (1)		I (1–3)
I (3)		I (3)
II (4)		I (4–5)
II (1–4)		I (1–4)
I (2)		I (2–4)
I (3)		I (3)
I (4)		I (3–4)
I (4)		I (4)
	I (2)	I (1–3)
	I (3)	I (3)
	I (5)	I (2–5)
	I (1)	I (1–3)
	I (4)	I (3–4)
<hr/>		
5	5	79
6 (2–15)	5 (3–8)	4 (1–15)
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130 (30–200)	118 (90–200)	165 (30–250)
79 (40–100)	82 (70–100)	89 (40–100)
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