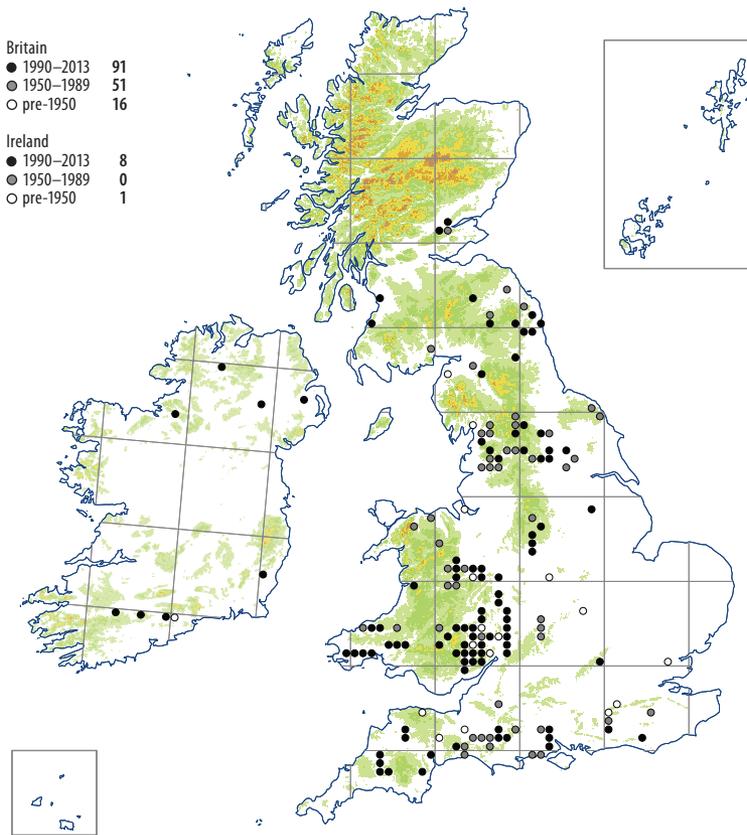


# Orthotrichum sprucei



Almost confined to the exposed roots, trunks and lower branches of trees and shrubs by streams and rivers, growing above the normal water level in a zone which is usually dry but liable to occasional flooding. The lower parts of the plant are often embedded in fine silt. The usual hosts are alder, ash, sycamore and willow, because these are the commonest riverside trees; it is also recorded from wooden palings. Characteristic associates include *Bryum capillare*, *Leskea polycarpa*, *Orthotrichum diaphanum* and *Syntrichia latifolia*. Its ecological requirements overlap with those of the related *O. rivulare*, with which it sometimes grows. However, *O. sprucei* only very rarely grows on rock; it tends to be a plant of more mature, siltier rivers and although a rarer plant nationally it can outnumber or replace *O. rivulare* in such habitats. There are a few records from non-riverine habitats, including a beech hanger in the Chilterns and a

maple in a hospital car-park in Abergavenny. Altitudinal range: 5–200 m.

Unlike other *Orthotrichum* species, *O. sprucei* (as well as *O. rivulare*) has been little affected by changes in air quality, being much more reliant on occasional flooding and the deposition of silt. Its distribution is fairly stable, and some gaps in the mapped distribution have been filled since 1990. There may have been some losses at the southern and eastern edge of its range, and flood control measures may reduce the extent of available habitat.

Autoicous; capsules are usually present, mature in summer. Gemmae are occasional on the leaves, and produced on the protonema in culture.

Oceanic Temperate. At one time thought to be endemic to W Europe. and known from Spain, France, Belgium, Germany, and the Netherlands. Recently there have been records from much further east in Eurasia, in Hungary, Turkey and Kazakhstan. The Hungarian record was from wood on a concrete sluice, and some of the populations in continental Europe are on trees remote from water; they are perhaps chance casual occurrences.

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