



Fig. 1. Leaf shape of *S. ruralis* var. *epilosa* (Marlow, Buckinghamshire). Scale bar 0.25mm. S.V. O'Leary.

Syntrichia ruralis var. *epilosa* new to the British Isles

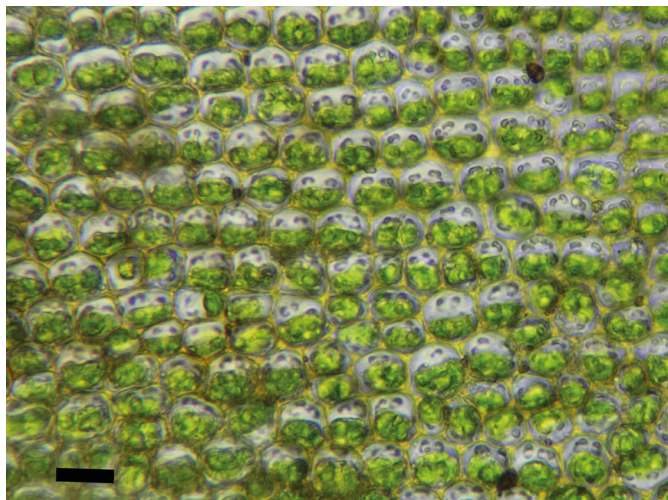
Seán O'Leary and **Richard Fisk** describe a neglected variety of a familiar moss

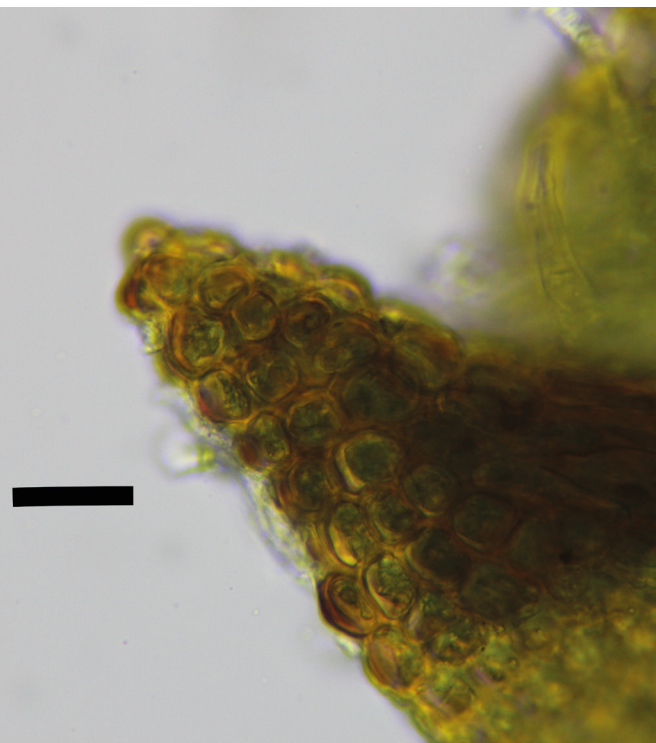
In June 2011, while recording the bryophytes on a footpath by the River Thames near Marlow in Buckinghamshire, one of us (SVOL) collected a puzzling moss from the side of the path, near Marlow Bridge (grid reference SU850861). It resembled a member of the genus *Syntrichia* both in leaf shape (Fig. 1) and cell dimensions and papillosity (Fig. 2), but the leaves clearly had no trace of a whitish hair point (Fig. 3). An initial inspection suggested it might be *Syntrichia montana* var. *calva*, discovered new to Britain by Peter Martin (2011). However, the Recorder for Mosses, T. L. Blockeel, was not convinced, unable to observe the constricted leaf profile characteristic of the *Syntrichia montana* aggregate, pointing out that the moss was more likely to be a variety of *Syntrichia ruralis*. Consequently, the material was filed in SVOL's herbarium as a puzzling but undetermined specimen.

Recently, an account was published by

Gallego *et al.* (2018) in *Journal of Bryology*, resurrecting an awnless variety of *Syntrichia ruralis* and comparing it with other awnless taxa in the genus. According to the article, this variety was first described in the late nineteenth century, receiving its current name in the early twentieth century (Amann *et al.*, 1912). The variety then seems to have been neglected by

▽ Fig. 2. Mid-leaf cells of *S. ruralis* var. *epilosa* (Marlow, Buckinghamshire). Scale bar 17.5µm. S.V. O'Leary.





△Fig. 3. Leaf apex of *S. ruralis* var. *epilosa* (Marlow, Buckinghamshire). Scale bar 25µm. S.V. O'Leary.

bryologists, both in the literature and in the field, until the publication of Gallego's paper. From this published description, it was clear that the mystery moss strongly resembled *Syntrichia ruralis* var. *epilosa* (Venturi) J.J. Amann. Material was sent to Prof. Gallego, who confirmed the identification. This is the first confirmed record of the taxon from the British Isles.

In December 2016 RJF found a puzzling moss growing on the concrete surface of a grave in a small burial ground adjacent to a chapel in Aldringham, East Suffolk (grid reference TM456609). He was unable to identify it and again a specimen was sent to Tom Blockeel. He identified it as an epilose form of *Syntrichis ruralis* but at that time, as mentioned, this was not widely recognized as a distinct variety. Following the publication of the paper by Gallego *et al.*, RJF returned to the site in September 2018

and found that the moss was still present (Fig. 4), having indeed increased slightly in quantity. The only other moss present in association was *Bryum capillare*. The epilose *Syntrichia* could not be found on any other grave though normal *S. ruralis* was present on one, and is abundant on nearby heathland. A specimen sent to Prof. Gallego was confirmed as *Syntrichia ruralis* var. *epilosa*.

A further site for the variety was found soon after this note was submitted for publication. On 8 November 2018 RJF found a tuft of *S. ruralis* var. *epilosa* about 15 mm in diameter on the trunk of an elder tree adjacent to a footpath on farmland near Framlingham, East Suffolk TM2765. The associated species included *S. montana* and *Orthotrichum diaphanum*.

A full account of the awnless varieties of European *Syntrichia* taxa is given in Gallego's article, but in Britain and Ireland confusion is only likely with *S. montana* var. *calva* and

▽Fig 4. *S. ruralis* var. *epilosa* (Aldringham, Suffolk). R.J. Fisk.



possibly *S. latifolia*. The former differs in the shape of the leaf, which is constricted near the middle. In addition, the leaf section of *S. montana* var. *calva* shows a group of thin-walled cells (hydroids) near the centre of the nerve section, which is absent in *S. ruralis* var. *epilosa* (Fig. 5). *Syntrichia latifolia* has a plane or weakly recurved leaf margin and, usually, abundant gemmae on the ventral surface of the leaves. For completeness, it should be noted that the very rare *Tortula amplexa* could be mistaken by the unwary for an epilose *Syntrichia*, although the differentiated marginal cells distinguish this species (Smith 2004).

It is likely that this resurrected taxon will be recorded more frequently now that bryologists are aware of its status and distinguishing features. For example, P. Erzberger has recently found the variety in Hungary (Erzberger, *pers. comm.*). Prof. Gallego is working on a molecular analysis in order to clarify the distinctions between the various taxa in this group (Gallego, *pers. comm.*).



△Fig. 5. Transverse section of mid-leaf of *S. ruralis* var. *epilosa* (Marlow, Buckinghamshire). Scale bar 12.5µm. S.V. O’Leary.

Acknowledgements

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