

# Sphagnum: summary of field identification features of British & Irish species

Table prepared by Ben Averis (2010), incorporating information by: AJE Smith, 2004, The Moss Flora of Britain & Ireland (2nd edition), Cambridge Univ. Press, and Atherton, I., Bosanquet, S. & Lawley, M (2010), Mosses & liverworts of Britain & Ireland - a field guide, British Bryological Society.

One species omitted: *S. obtusum* (like robust *S. fallax/flex./angust.* with blunt stem lvs + microscopic differences; Lancs 1898-1911; prob. extinct in Brit.).

	<b>Growth form</b>	<b>Shoot width</b>	<b>General colour</b>	<b>Stem colour</b>	<b>Stem leaf orientation</b>	<b>Stem leaf length (mm)</b>	<b>Stem leaf shape</b>	<b>Branch thickness and shape</b>	<b>No. of branches per fascicle</b>	<b>Spreading &amp; hanging branches differentiated ?</b>	<b>Branch leaf length (mm)</b>	<b>Branch leaf shape</b> <i>(P indicates microscopic examination of pores is useful)</i>	<b>Habitat</b>
<b><i>S. palustre</i></b>	patches, carpets or tussocks	broad	green to orange-pink	green or brown	erect or hanging	1.2-2.0	rectangular or oval; blunt tip	thick; ± straight; tapering	4-6	Yes	1.7-2.8	broad oval; blunt tip; concave	common in various acid-neutral mires and wet woods
<b><i>S. papillosum</i></b>	patches, carpets or tussocks	broad	greenish to yellow-brown	green or brown	erect or hanging	1.1-1.8	rectangular or oval; blunt tip	thick; ± straight; blunt-tipped	3-4	Yes	1.5-2.5	broad oval; blunt tip; concave	common in acidic bogs
<b><i>S. magellanicum</i></b>	patches, carpets or tussocks	broad	dark reddish	red	erect or hanging	1.4-1.8	mostly rectangular; blunt tip	thick; ± straight; blunt-tipped	3-5	Yes	1.7-2.7	broad oval; blunt tip; concave	rather uncommon in acidic bogs
<b><i>S. austinii</i></b>	dense tussocks	broad	brown or ochre	dark brown	erect or hanging	1.1-1.8	rectangular; blunt tip	thick; ± str; tapering	3	Yes	1.1-2.2	broad oval; blunt tip; concave	scarce in bogs in N and W
<b><i>S. affine</i></b>	loose tufts or carpets	broad	green to brown	green or brown	erect or hanging	1.1-1.8	rectangular; blunt tip	thick; ± straight; tapering	4	Yes	1.1-2.2	broad oval; blunt tip; concave	scarce in neutral to slightly basic mires in N and W
<b><i>S. squarrosum</i></b>	patches or carpets	broad	green	green or brown	erect, spreading or hanging	1.7-2.0	rectangular; blunt tip	thick; ± straight	4-6	Yes	1.7-3.1	oval; pointed tip; squarrose (upper part bent outwards)	common in neutral-basic mires + woods
<b><i>S. teres</i></b>	patches or low tussocks	medium	green, brown or yellowish	brown	erect, spreading or hanging	1.2-2.0	rectangular; blunt tip	medium-thickness; ± straight	4-5	Yes	1.0-2.3	oval; pointed; slightly squarrose (upper part slightly bent outwards)	rather uncommon in neutral-basic mires
<b><i>S. fimbriatum</i></b>	patches or carpets	medium	green	green	erect; appressed	0.8-1.3	broad; widest well above base; v. wide tattered tip	slender; ± straight	3-4	Yes	0.8-2.0	narrow oval; pointed tip	fairly common in acidic bogs and wet woods
<b><i>S. girgensohnii</i></b>	patches or tussocks	medium	green	green	erect; appressed	0.8-1.3	broad; widest at base; blunt tattered tip	slender; ± straight	3-4	Yes	1.1-1.6	oval; pointed tip	rather uncommon in acidic bogs and wet woods
<b><i>S. quinquefarium</i></b>	patches or tussocks	slender	green or green + pink	green	erect; usually appressed	0.9-1.4	rectangular or triangular; pointed or blunt	slender; ± straight	4-5	Yes	0.8-1.6	narrow oval; pointed tip; 5-ranked	quite common on acidic ground in western woods; scarcer in heaths
<b><i>S. fuscum</i></b>	tussocks	slender	orange-brown	dark brown	erect; appressed	0.8-1.3	triangular; blunt	slender; ± straight	3-4	Yes	0.9-1.3	narrow oval; pointed	uncommon: mainly in bogs in NE Britain
<b><i>S. capillifolium</i></b>	patches or tussocks	slender	red or mixed green and red	red or green	erect; usually appressed	0.9-1.4	rectangular; pointed or blunt tip	slender; ± straight	3-4	Yes	0.8-1.4	narrow oval; pointed tip; can be 5-ranked	common in acidic bogs, mires, heaths and wet woods
<b><i>S. warnstorffii</i></b>	patches or tussocks	slender	red or mixed green and red	red or green	erect; appressed	0.9-1.3	rectangular or triangular; blunt	slender; ± straight	3-4	Yes	0.6-1.4	oval; pointed tip; 5-ranked (P)	uncommon in basic mires/flushes
<b><i>S. russowii</i></b>	patches or tussocks	medium	red or mixed green and red	red or green	erect; appressed	1.1-1.4	rectangular; blunt tip	slender to med.; ± straight	3-4	Yes	1.1-1.8	oval; pointed tip; can be 5-ranked (P)	uncommon in mires/flushes
<b><i>S. subnitens</i></b>	patches or tussocks	medium	green, brown or pink; rather glossy when dry	usually brown	erect to spreading	1.1-1.7	triangular; pointed tip	medium-thickness; ± straight	3	Yes	1.2-2.7	narrow oval; pointed tip	common in acidic bogs, mires, heaths and wet woods
<b><i>S. skyense</i></b>	patches or tussocks	medium	pink-red	pink-red	erect to spreading	1.4-1.8	triangular; bluntish	medium-thickness; ± straight	4-5	Yes	1.5-1.8	narrow oval; pointed tip	scarce in wet heaths in west
<b><i>S. molle</i></b>	low compact patches or tussocks	medium	whitish or pink	green or pale brown	erect to spreading	1.5-2.8	rectangular; pointed tip	medium-thickness; ± straight	2-3	No	1.4-2.3	oval; pointed tip	uncommon in wet heaths, bogs and by streams

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<b><i>S. compactum</i></b>	low compact patches or tussocks	medium	pale green or yellowish	dark brown or black	hanging	0.3-0.7	oval; blunt tip; broadest around middle	medium to thick; ± straight	2-7	Yes (not obvious; branches densely crowded)	1.8-3.0	broad oval; blunt or narrow tip; leaf appressed or squarrose (upper half bent outwards)	common in acid bogs and heaths
<b><i>S. strictum</i></b>	low compact patches or tussocks	medium	green or brownish	green or pale brown	hanging	0.5-0.7	triangular; rather blunt tip	medium to thick; ± straight	3-6	Yes (not obvious; branches densely crowded)	1.7-2.7	oval; narrow tip; squarrose (upper half of leaf bent outwards)	uncommon in heaths & bogs; mainly in W Highlands
<b><i>S. denticulatum</i></b>	patches, carpets or low tussocks	medium to robust	green, yellow, orange, brown or reddish	usually dark brown or black	erect, spreading or hanging	1.3-2.0	rectangular to triangular; pointed tip	medium to thick; often curved	3-5	No	1.3-2.5	oval; pointed tip; leaves mostly appressed (not spreading)	common in acidic mires and wet heaths, peaty fens and flushes, and bog pools
<b><i>S. inundatum</i></b>	patches or carpets	medium	mostly greenish to yellowish	usually dark brown or black	erect, spreading or hanging	0.9-1.3	rectangular to triangular; pointed tip	medium-thickn.; can be curved	4-6	Yes	1.3-2.2	oval; pointed tip; leaves mostly spreading outwards (not appressed)	common in acidic mires and peaty fens and flushes
<b><i>S. subsecundum</i></b>	patches or carpets	slender	mostly greenish to yellowish	usually dark brown	mostly hanging; can be spreading	0.4-0.9	rectangular to triangular; blunt tip	slender; often curved	4-6	Yes	0.7-1.5	oval; pointed tip; curved; v. small	common in acidic mires and more enriched fens and flushes
<b><i>S. contortum</i></b>	patches or carpets	medium	green, yellowish, or brownish	pale brown or green	spreading or hanging	0.7-1.3	triangular; blunt tip	med.-thickn.; usually curved	4-6	Yes	1.0-1.9	oval; pointed tip; curved	uncommon in basic mires
<b><i>S. platyphyllum</i></b>	untidy carpets	medium	green or yellow	green or brown	erect to spreading	1.2-2.3	rect.; blunt tip; concave	med.-thickn.	1-3	No	0.9-2.0	oval; pointed tip; concave	rare in base-rich mires
<b><i>S. cuspidatum</i></b>	patches or carpets	medium	green	green	spreading or hanging	0.9-1.3	oval or triangular; pointed tip	slender to med.-thickn.; straight or curved	3-5	No	1.5-3.5	long; narrow oval; pointed tip	common in acidic mires, bogs and bog-pools; can be mostly submerged
<b><i>S. majus</i></b>	loose patches	medium	dull brown-green	green	hanging or spreading	0.9-1.4	triangular; pointed tip	slender-medium	4-5	No	1.7-3.0	long; narrow oval; pointed tip (P)	v. rare in wet acid bogs in N
<b><i>S. tenellum</i></b>	patches	slender	green, yellow-green or brown-green	green	spreading	0.9-1.4	rel. large; rectangular; blunt tip	slender; ± straight	3	No	0.8-1.5	oval; relatively broad; blunt or pointed; concave	common in mainly acidic bogs and wet heaths
<b><i>S. fallax</i></b>	patches or carpets	medium	green to orange	usually green; can be orange or pinkish	hanging; usually appressed	0.7-1.2	triangular; pointed tip	slender; str-aightish; as long as spreading br.	5	Yes	1.2-2.1	narrow oval; pointed; bent outwards when dry; can be 5-ranked	common in acidic bogs, mires and wet woods; can be mostly submerged
<b><i>S. flexuosum</i></b>	patches or carpets	medium	green	green	hanging; usually appressed	0.7-1.2	rectangular; blunt, fringed tip	slender; str-aightish; shorter than spreading br.	5	Yes	1.2-2.1	narrow oval; pointed; concave when dry; can be 5-ranked	uncommon in acidic bogs, mires and wet woods
<b><i>S. angustifolium</i></b>	patches or carpets	slender to medium	green to orange	green + usually some red pigment	hanging; usually appressed	0.7-1.2	triangular; blunt, unfringed tip	slender; str-aightish; longer than spreading br.	5	Yes	1.2-2.1	narrow oval; pointed; bent outwards when dry; can be 5-ranked	uncommon in soligenous mires
<b><i>S. balticum</i></b>	loose patches	medium	orange-brown	pale yellowish	spreading	0.9-1.2	triang.; pointed tip	slender; ± straight	3	Yes	0.9-1.7	narrow oval; pointed tip	v. rare in wet acid bogs
<b><i>S. pulchrum</i></b>	patches or carpets	medium	bright orange	mid to dark brown	hanging or spreading	0.9-1.2	triang.; pointed tip	slender-med.	4	Yes	1.2-1.8	narrow oval; pointed; 5-ranked	scarce in acid bogs
<b><i>S. riparium</i></b>	patches or carpets	medium	green to brownish	green	hanging	1.3-1.6	triang-rect; cleft tip	med.-thickness	4-5	Yes	1.3-3.0	oval; pointed tip	rare in neutral-basic mires
<b><i>S. lindbergii</i></b>	patches or carpets	medium	bright orange-brown	dark brown	hanging	1.3-1.6	rectang.; wide tattered tip	med.-thickness	4-5	Yes or No	1.3-2.5	narrow oval; pointed tip	rare in montane acid mires