

Table S1 The mapping family and three other families used to score genotypes of autosomal genes, putative PAR genes and sex-linked genes, and to estimate recombination fractions. One *S. vulgaris* family was used for comparative mapping.

Family	Parental plants			
	Identity of ♀ parent	Population of origin	Identity of pollen donor	Population of origin
H2005-1 (F2 family) (the “mapping family”) ¹	H2005-1/9 ²	F1	H2005-1/4	F1
G2008-3	K2005-12/2	Germany	K2005-4/2	Heiligenstadt, Austria
D2009-2			G2005-5/1	Loanninon, Greece
G2008-9	K2005-4/3	Heiligenstadt, Austria	K2005-5B/1	Oland, Grasingard Sweden
J2010-1 (F2 family)	Family F2009-1 female plant	F1 ³	Family F2009-1 male plant	F1 (as for female parent)
<i>S. vulgaris</i> SV2	E2000-5/9 (female)	Dijon, France	99K-10/4 (hermaphrodite)	Sussex, England

¹ The mapping family is an F2 generated by crossing sibling plants descended from an F1 cross (family H2005-1) made by pollinating plant E2004-11/1 from Canche (Northern France) with E2004-17/1 (from River Waal, Netherlands). The other families from this study were obtained by crossing adult plants obtained from field-collected seeds.

² Identity of plants within families are indicated by the family name followed by the individual number (e.g. H2005-1/9 is individual 9 from family H2005-1).

³ Female from the mapping family H2005-1 x male 11/5 from Madrid.