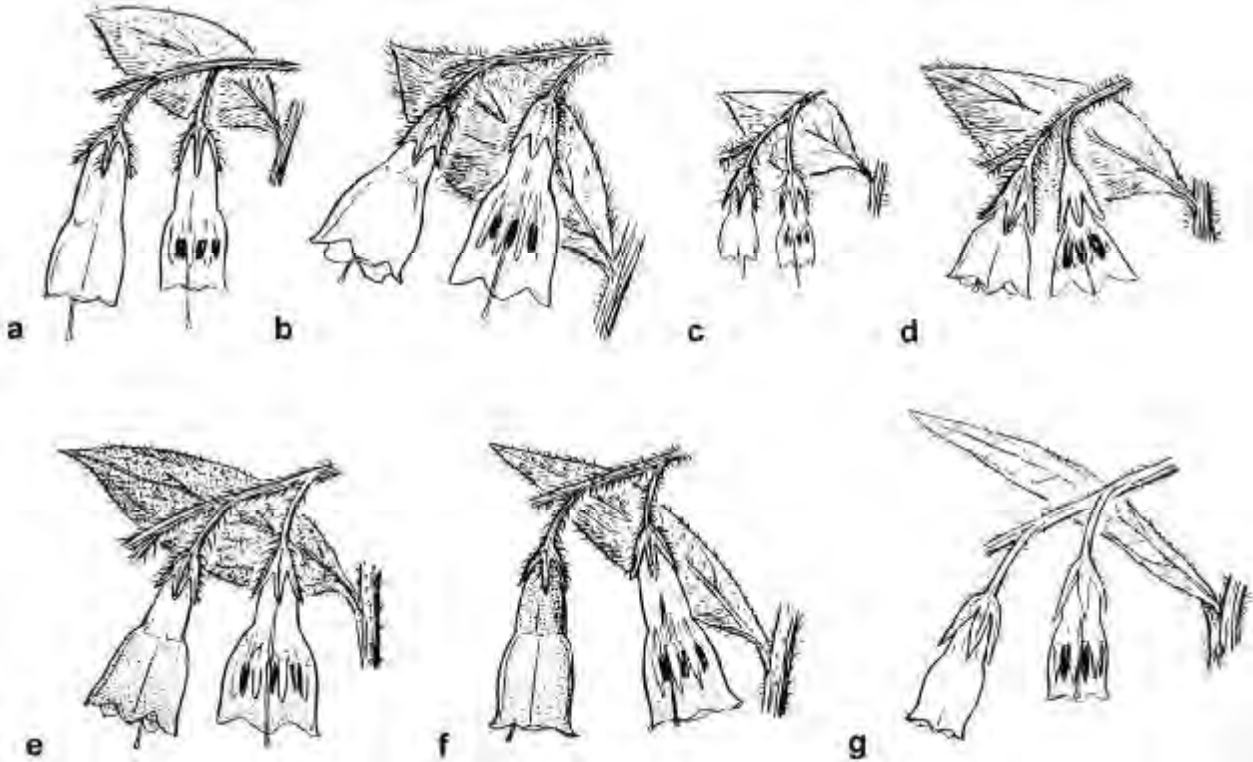


## SYMPHYTUM

The detailed illustrations of six species can be used in conjunction with the key in Stace's *New Flora*.



*Symphytum* (a) *S. grandiflorum*, (b) *S. orientale*, (c) *S. tauricum*, (d) *S. caucasicum*, (e) *S. asperum* x *officinale*, (f) *S. x uplandicum*, (g) *S. officinale* (del. G. M. S. Easy).

### 1. *Symphytum asperum* / *S. officinale* complex

The identification of plants in this complex (Perring 1994) is made difficult by the wide range of hybrids between these two species which have either arisen here or been introduced as forage plants and have subsequently introgressed with native populations. For the purpose of recording, the following seven taxa or forms may usefully be recognised but some specimens will be difficult to place.

#### *S. asperum* Lepech.

Tall, up to 1.8 m. Stems and midrib of the undersides of the leaves covered in short, stout, hooked bristles. At least the lower and middle cauline leaves cordate and with long unwinged petioles. Calyx tiny, 3-5 mm long in bud, with obtuse segments only 1/5 as long as the corolla but enlarging rapidly in fruit up to 8 mm long. Corolla 11-17 mm, red in bud, becoming sky blue on opening, the limb widening gradually towards the apex. A very rare introduction, probably over-recorded in the past in error for the  $2n=36$  form of *S. x uplandicum* (see below).

#### *S. officinale* L. (Fig. g)

# Plant Crib

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Variable in height, up to 1.5 m. Stems and leaves covered in rather soft, long, deflexed, conical hairs. Leaves strongly and broadly decurrent, the 'wings' exceeding one internode so that the stems show two pairs of 'wings' in any cross-section. Calyx 8-13 mm, about 1/2 as long as the corolla with lanceolate, acute teeth 2-3 × as long as tube, enlarging only slightly in fruit. Limb of the corolla urceolate. Stamens with anthers longer than filaments.

**Subsp. *bohemicum*** (F. W. Schmidt) Celak: Short, usually less than 1 m tall. Corolla with greenish-yellow buds becoming creamy-white on opening. This form seems to be almost confined to relict fenland in V.c. 29 & 31. It is reproductively isolated from other cytotypes and never occurs in mixed colour populations in Britain.  $2n=24$ , diploid.

**Subsp. *officinale***: Taller, up to 1.5 m. Corolla variable in colour from creamy-white (var. *ochroleucum* DC.) to carmine (var. *purpureum* Pers.). Populations including pure cream, pure carmine and mixed colours, often with alternating vertical dark and light bands ('peppermint stripe') are frequent, especially in ditches and on stream and river banks in V.c. 9, 11-13, 22-24 & 33-37.  $2n=48$ , tetraploid. Three forms may be recorded: cream, carmine and 'peppermint stripe'.

***S. uplandicum* Nyman** (Figs. e, f)

Hybrids form a range of intermediates between the parents in characters of the leaves and flowers. The leaves generally lack the broadly decurrent leaf bases of *S. officinale* but they are never cordate and petiolate as in *S. asperum*. The calyx, in bud, is 5-7 mm long with acute segments, not 3-5 mm with obtuse segments expanding rapidly in fruit as in *S. asperum*. The flower-colour varies from reddish-purple to violet, but is never sky blue as in *S. asperum*. The following two forms may be recognised but are only part of the range which occurs:-

- a)  $2n=36$ . Tall, up to 1.3 m, rough and prickly. The leaves are not, or only very slightly and very shortly, decurrent. The flower-buds are dark purple, changing as they open to purple or violet. The calyx may become swollen and hispid in fruit. Less variable than the following; often forming large populations on roadsides and spreading vegetatively.
- b)  $2n=40$ . Tall, up to 1.4 m, usually less rough and prickly than  $2n=36$  form. The leaves are sometimes decurrent up to half the distance to the next leaf below. The flower-buds are pink or red-pink, changing on opening to a range of shades from pink to pinkish-blue. Probably the commonest *Symphytum* in this complex: widely naturalised and very variable, back-crossing with the various colour forms of *S. officinale* with  $2n=48$  (see above).

**Reference** Perring, F. H. (1994). Pp 64-70 in *The common ground of wild and cultivated plants*. National Museum of Wales, Cardiff.

**Author** F. H. Perring, July 1997.

## 2. *Symphytum tuberosum* / *S. grandiflorum*

These two yellowish-flowered, patch-forming species may be confused when the above ground leafy stolons in *S. grandiflorum* DC. are mistaken for the underground rhizomes in *S. tuberosum* L. (cf. Stace's *New Flora*; this can be quite difficult in practice). In flower, *S. grandiflorum* has the calyx divided nearly to the base with obtuse teeth (Fig. a above), whilst *S. tuberosum* has acute teeth cut to c.  $\frac{3}{4}$  way.