

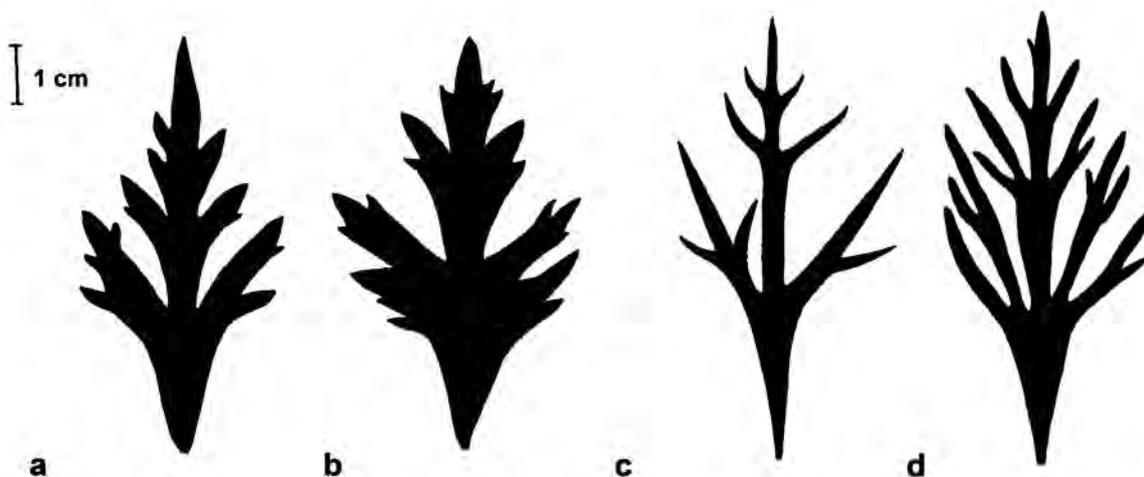
ACONITUM, BLUE-FLOWERED TAXA

Blue-flowered *Aconitum* taxa are widespread as garden-escapes and are most commonly recorded as '*A. anglicum*' or '*A. napellus*', but often incorrectly. The endemic native plant of shady riversides in SW England and S Wales is *A. napellus* L. subsp. *napellus* (*A. anglicum* Stapf), which has purplish-blue flowers in early summer (map in *Scarce Plants*). Although colonies of garden origin are sometimes the same, escapes are more often later flowering taxa with a different leaf-shape and deeper blue flowers. They are commonly *A. napellus* × *A. variegatum* L. (= *A. × cammarum* L.). The *A. napellus* parent is usually subsp. *napellus*, but *A. napellus* subsp. *vulgare* × *A. variegatum* has also occurred as an escape.

Important characters in the identification of these plants are:

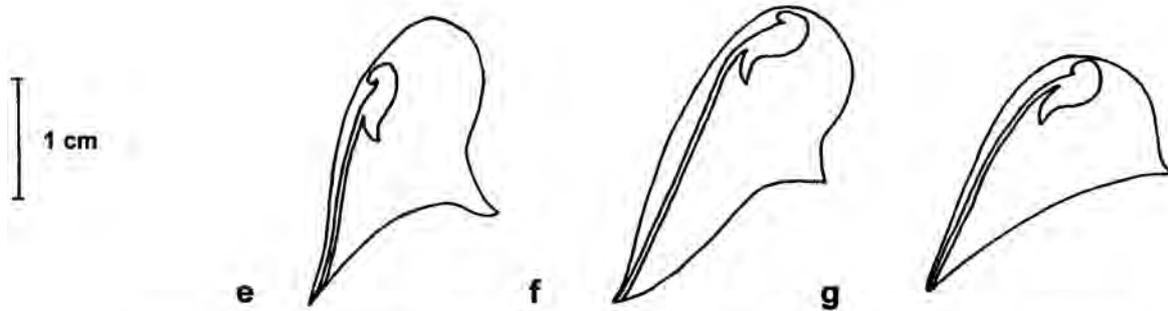
- The shape of the uppermost 'petal' (actually a petaloid sepal) which forms a hood-like structure, the 'helmet' (Figs. e-g). Note that the use of the helmet dimensions in the key refers simply to this hooded part, not to the whole 'petal'.
- The orientation of the posterior nectaries or honey-leaves, which form narrow petaloid structures, either extending vertically up into the rear of the helmet or else curving forwards to become horizontal (Figs. e-g).
- Pollen fertility, well formed pollen being more or less globose, inconspicuously furrowed and readily taking up acetocarmine stain. Presumed inviable grains remain ovoid, conspicuously furrowed, take up little or no stain, or are at least conspicuously small. Note, however, that these plants seem prone to fungal attack of the anthers, reducing the percentage of viable pollen, and also that they are self incompatible and so will not set seed if present as a single clone.

The crowding of the leaves below the inflorescence, though used by some authors, seems to be a character of very little significance.



Major leaf divisions (a) *A. variegatum*, (b) *A. × cammarum*, (c) *A. napellus* subsp. *napellus*, (d) *A. napellus* subsp. *vulgare*.

Plant Crib



Helmets and posterior nectaries (e) *A. variegatum*, (f) *A. × cammarum*, (g) *A. napellus*.

- 1 Inflorescence a straight, stiffly erect, many-flowered spike; leaves much subdivided, ultimate leaf-lobes usually less than 6mm wide; flowering commencing late spring or summer 2
- 1 Inflorescence flexuose to noticeably 'zigzagged' at the nodes, with 3-10 flowers; leaves leathery, not always deeply subdivided, ultimate leaf-lobes more than 6mm across; flowering commencing early autumn (escape, Kirkcudbrightshire and probably elsewhere) *A. japonicum* Thunb.
- 2 Helmet hemispherical, i.e. about as broad as high (Fig. g); posterior nectaries curving forward horizontally; pedicels densely pubescent; flowers usually dark blue; pollen fertility above 80% in healthy anthers 3
- 2 Helmet usually 1.5-2 times as tall as broad (Figs. e, f); posterior nectaries vertical or curving forward horizontally; pedicels pubescent or glabrous; flowers dark blue or blue/white bi-coloured; pollen fertility likely to be low 4
- 3 Ultimate leaf-lobes linear to very narrowly linear-lanceolate, tips obtuse to acute but not extending into a fine point (Fig. d); inflorescence a compact spike, with pedicels short and appressed to inflorescence axis (at most a rare escape, but all records need confirmation)
A. napellus L. subsp. *vulgare* (DC.) Rouy & Foucaud (*A. compactum* Rchb.)
- 3 Ultimate leaf-lobes narrow, tapering from base into a finely-pointed apex (Fig. c); inflorescence a compact spike or rather lax (native and rare escape) *A. napellus* L. subsp. *napellus*
- 4 Posterior nectaries vertical (Fig. e); pedicels (always?) glabrous; pollen fertility above 80% (all records require confirmation) *A. variegatum* L.
- 4 Posterior nectaries ascending, tips curving forward horizontally (Fig. f); pedicels minutely pubescent; pollen fertility below 20% (much the most frequent escape in N England and Scotland) *A. × cammarum* L.

References Gotz, E. (1967). *Feddes Repertorium* **76**: 1-62.
Seitz, W. (1969). *Feddes Repertorium* **80**: 1-76.

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