

EUPHORBIA

1. *Euphorbia oblongata* / *E. dulcis* / *E. hyberna*

E. oblongata may be more widely locally naturalised than has been realised, and may be confused with *E. dulcis* or possibly *E. hyberna*. The following key should help to separate them (Barrett 1996; see also Stace's *New Flora* 2nd edition, 1997).

- 1 Capsule sparsely tuberculate with \pm hemispherical tubercules; flowering bracts yellowish green
E. oblongata Griseb.
- 1 Some of the tubercules on capsule at least twice as long as wide, often filiform 2
- 2 Stems persistently scaly at base; flowering bracts green to purplish
E. dulcis L.
- 2 Stems not persistently scaly at base; flowering bracts brightly yellow
E. hyberna L.

Reference Barrett, D. (1996). *BSBI News* 71: 46-48.

Author D. Barrett, January 1997.

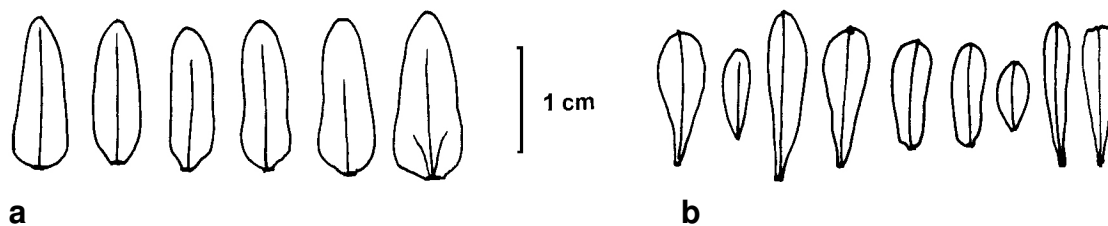
2. *Euphorbia paralias* / *E. portlandica*

These species can sometime be difficult to tell apart though the larger erect habit of *E. paralias* is usually distinctive (*E. portlandica* can be quite variable in habit). The prominence or otherwise of the midrib is often difficult to assess. Leaf shape is variable but can still be used to separate the species, but it is less clear on the lower stem leaves; the upper leaves of *E. paralias* are different to the lower ones which are smaller and may be obovate. Maps of both species are given in *Scarce Plants*.

***E. paralias* L.:** Leaves thick and succulent; upper leaves oblong, ovate or lanceolate, midrib obscure on lower side of leaf, with an acute to retuse apex (Fig. a); seeds smooth. Mostly on sand dunes.

***E. portlandica* L.:** Leaves thinner and not succulent, upper and lower leaves obovate to oblanceolate, midrib more prominent on lower side of leaf often ending in a small apiculate point on some leaves, especially the lower (sometimes with several teeth) (Fig. b); stems often reddish; seeds pitted. Common on cliffs and dunes.

Plant Crib



Euphorbia leaves (a) *E. paralias* (upper leaves), (b) *E. portlandica*.

3. *Euphorbia esula* / *E. × pseudovirgata* / *E. cyparissias*

There has been much dispute over the limits of the taxa in this group, but recent research into the *E. esula* aggregate has clarified the situation (Watson 1985; Crompton, Stahevitch & Wojtas 1990).

The commonest member of the aggregate in Britain and Ireland by far is *E. × pseudovirgata* (*E. esula* × *E. waldsteinii*). The original hybrid swarm appears to have arisen in the Danube basin where Austria, Czech Republic and Hungary meet. It has since spread through these countries as well as Poland, Rumania and Bulgaria.

E. waldsteinii (*E. virgata* Waldst. & Kit.) has now been confirmed from V.c. 69 and 77 and *E. × gayeri* (*E. cyparissias* × *E. waldsteinii*) has been confirmed from V.c. 42 and V.c. 70. *E. × pseudoesula* (*E. cyparissias* × *E. esula*) has been reported in Suffolk, Surrey and S Wales. These are included in Stace's *New Flora* 2nd edition (1997).

E. esula var. *pseudocyparissias* was a name formerly applied to a variety of taxa including *E. esula*, *E. cyparissias*, *E. × pseudovirgata* and possibly *E. × pseudoesula*; such records need to be reassessed.

The taxa may be identified as follows:

E. cyparissias L.: Stem leaves linear, up to 2 mm wide (Fig. a).

E. esula L.: Leaves linear-oblongate or linear-oblong, commonly 5-10 mm wide, broadest above the middle, tapering to the base, sessile (Fig. b).

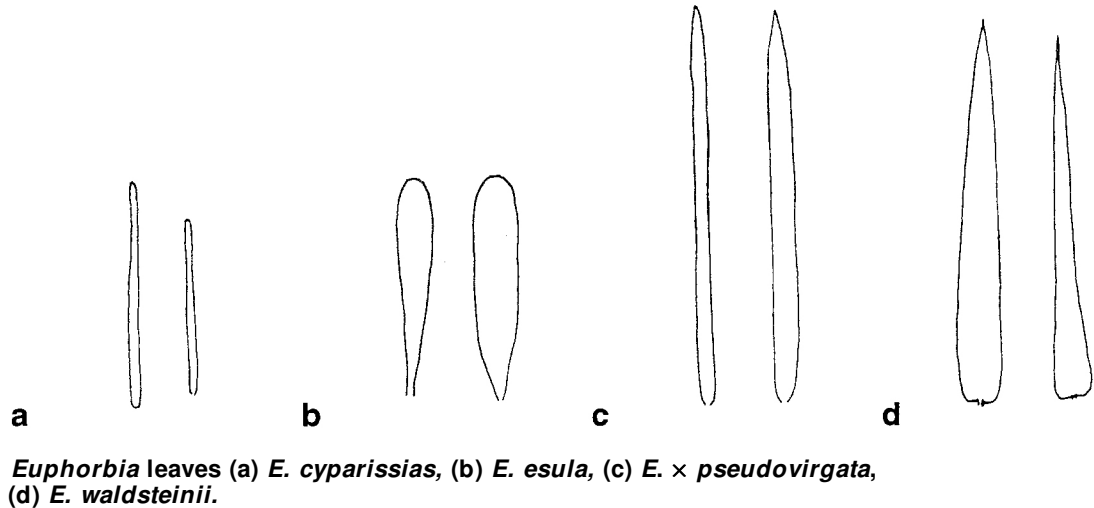
E. × gayeri Boros & Soó: Leaves intermediate between *E. cyparissias* and *E. waldsteinii*, c. 2-3 mm wide, widest below the middle (not illustrated).

E. × pseudoesula Schur: Leaves intermediate between *E. cyparissias* and *E. esula*, oblongate to oblong-lanceolate, widest above the middle (not illustrated).

E. × pseudovirgata (Schur) Soó - leaves linear to narrowly linear, parallel-sided, c. (3-)4-5 mm wide, rounded at base (Fig. c).

E. waldsteinii (Soják) Czerep.: Leaves lanceolate to ovate-lanceolate, 5-15 mm wide, broadest below the middle, some leaves widening slightly at the rounded to shallowly cordulate base, petiole very short (Fig. d).

Plant Crib



The following taxa are not currently known in Britain:

E. uralensis Fisch. ex Link is not (as *Flora Europaea* has it) conspecific with *E. waldsteinii*, but is a distinct species indigenous to Russia, central Asia and Siberia. It is not found in western Europe. *E. tommasiniana* Bertol. should not be considered a subspecies of *E. esula* as given in *Flora Europaea*, but it is better regarded as a microspecies or a variety of *E. waldsteinii* indigenous to the Italian-Yugoslav border. If reduced to varietal status it would have to be called *E. waldsteinii* var. *montana*. It does not occur in Britain or Ireland.

References Crompton, C. W., Stahevitch, A. E. & Wojtas, W. A. (1990). *Canadian Journal of Botany* **68**: 1978-1988.
Radcliffe-Smith, A. (1981). *Kew Bulletin* **36**: 216.
Watson, A. K. ed. (1985). *Leafy Spurge*. Weed Science Society of America Monograph series, No. 3. Champaign, Illinois.

Author A. Radcliffe-Smith, January 1988, updated T. C. G. Rich, 1998.

4. *Euphorbia amygdaloides*

Euphorbia amygdaloides L. subsp. *robbiae* (Turrill) Stace is treated as a separate species by some authors. In addition to the account in Stace's *New Flora* there is a very helpful account of how to distinguish it from subsp. *amygdaloides* in *BSBI News* **76**: 58-60 (1997).