EPILOBIUM WORKSHOPS: BSBI RECORDERS' CONFERENCE APRIL 2015 (post conference re-issue).

E. tetragonum ssp. tetragonum	E. obscurum	E. tetragonum ssp. lamyi
Capsules (5.5-) 6.5 – 8.5 (-10) cm long. If there is at least one capsule 7 cm long, this should (almost always) be definitive.	Capsules (3-) 4 – 6 (6.5) cm long.	British material 5 – 5.5(7.5) cm long.
No glandular hairs on any part of the plant.	Normally glandular hairs on base of calyx only (frequently obvious; but sometimes very short and few, and then may require microscope). Rarely some on capsule, but this is usually a sign of hybridity (e.g. <i>E. obscurum</i> x <i>ciliatum</i>).	Ostensibly no glandular hairs (but - and this is not generally acknowledged - rarely the odd one may be seen around base of calyx only).
Leaves sessile, said to be decurrent onto stem-ridges, but may not always be clearly so.	Leaves varying from shortly petiolate to sessile and sometimes shortly decurrent.	Leaves not decurrent onto stem ridges. Leaves shortly petiolate (up to 2 mm).
Leaves narrowly lanceolate, somewhat parallel-sided, marginal teeth fairly prominent.	Leaves generally ovate-lanceolate, marginal teeth not very prominent.	Leaves narrowly lanceolate to oblong, margin remotely dentate.
Upper leaves glabrous above; glabrous or subglabrous beneath ('only a few' hairs on midrib).	Upper leaves subglabrous to sparsely hairy, with hairs concentrated on margins and underside veins.	Upper leaves with hairs at least on the margins and on the underside veins (densely hairy on midrib).
Leaves mostly mid green.	Leaves mostly dull mid green.	Leaves grey-green.
Flowers 6-10 mm in diameter (petals 5-7mm).	Flowers 6-10 mm in diameter (petals 5-7mm).	Flowers 10-12mm in diameter (petals 7-8mm).
Papiliae of seed surface prickly (supposedly, per Bomble*).	Papiliae of seed surface set in rows more distinctly than <i>Epilobium</i> <i>tetragonum</i> , but many papillae are deformed, and the rows may often seem narrow and wavy.	Papiliae of seed surface smooth-humped (supposedly, per Bomble*). *F. W. Bomble (2008). Ein wenig beachtetes Merkmal
Limited stales if your system (not make them 10,	B. Saxen (2011). Mermoranda Soc. Fauna Flora Fennica 87: 29-40	von Epilobium lamyi F.W. SCHULTZ. <i>Kochia</i> 3: 51-54
Limited stoioniferous growth (not more than 10cm spread) with rosettes at stem base.	from late summer, resulting in matted spread by spring.	As ssp. tetragonum.

What is 'Epilobium lamyi'? Early determinations by British botanists will have followed Carl Haussknecht's key (1884):

Pale green, with mid-stem leaves gradually narrowing from the wider base to an acute apex, sharply denticulate, flowers flesh-coloured, flower buds gradually tapered on both sides, ellipsoidal. *Epilobium adnatum* [=*E. tetragonum* ssp. tetragonum].

Glaucous-green, with leaves shortly petiolate to narrowly sessile, having very small remote teeth, with light rose-coloured flowers, flower buds obovoid with their base abruptly attenuate. *Epilobium lamyi* [*E. tetragonum ssp. lamyi*].

From 1952, CTW offered a key:

- Glandular hairs present on calyx tube; capsule 4-6cm; elongating epigeal stolons arising from the base of the stem in summer, *E. obscurum* Plant wholly without glandular hairs; capsule 7-10cm [N.B. this doesn't work for *lamyi*]; subsessile rosettes arising from the base of the stem in autumn, 11
- 11.
 Leaves strap-shaped to narrowly oblong-lanceolate, sessile; petals 5-7mm, *E. adnatum* [=*E. tetragonum* ssp. tetragonum]
 (cf. Stace, 2010, leaves slightly decurrent onto stem-ridges)

 Leaves lanceolate, at least the upper short-stalked; petals 8-12mm, *E. lamyi* [=*E. tetragonum* ssp. lamyi]
 (cf. Stace, 2010, leaves shortly petiolate)

Epilobium tetragonum ssp. lamyi is in many respects intermediate between E. obscurum and E. tetragonum ssp. tetragonum and may have a stabilised hybrid origin.





Epilobium lamyi, (possible) type specimen from Limoges with enlargement of an upper leaf (herb. Jardin botanique de Lyons). Note: **petiole** present, **remote marginal teeth** and **hairy midrib underside**.

White-flowered *Epilobium* in the British Isles.

Any *Epilobium* species may have white flowers by exception, but two have them as a matter of course: *E. roseum* and *E. lanceolatum* (white in bud and when opening, turning pink after fertilisation). It is worth using this character in the field in order to pick up *E. roseum* and *E. lanceolatum* records, these species being less common than most.

INFORMAL KEY: Plant has white flowers, at least in bud. Are there conspicuous impressed veins on the leaves?

Yes. Check for other relevant characters, e.g. long petioles, cuneate leaf base, entire stigma, hairs in upper parts rough and frequently glandular. If OK, then *E. roseum*.

No. Does it have long petioles, cuneate leaf bases, 4-lobed stigma, hairs in upper parts mostly short appressed without glands but often a few glandular ones mixed in (leaves may have red blotches)?

Yes E. lanceolatum

No Follow a standard key to identify. The most frequent species which have white flowers by exception are *E. ciliatum* (can comprise whole populations), *E. montanum, E. hirsutum*.