

QUERCUS

1. *Quercus petraea* / *Q. robur* / *Q. × rosacea*

Not only are *Q. petraea* and *Q. robur* variable in themselves, but they have also widely introgressed producing variable, fertile hybrids. This results in inconsistent identification of both the parents and their hybrid *Q. × rosacea* by different botanists as the limits of the species are a matter of opinion.

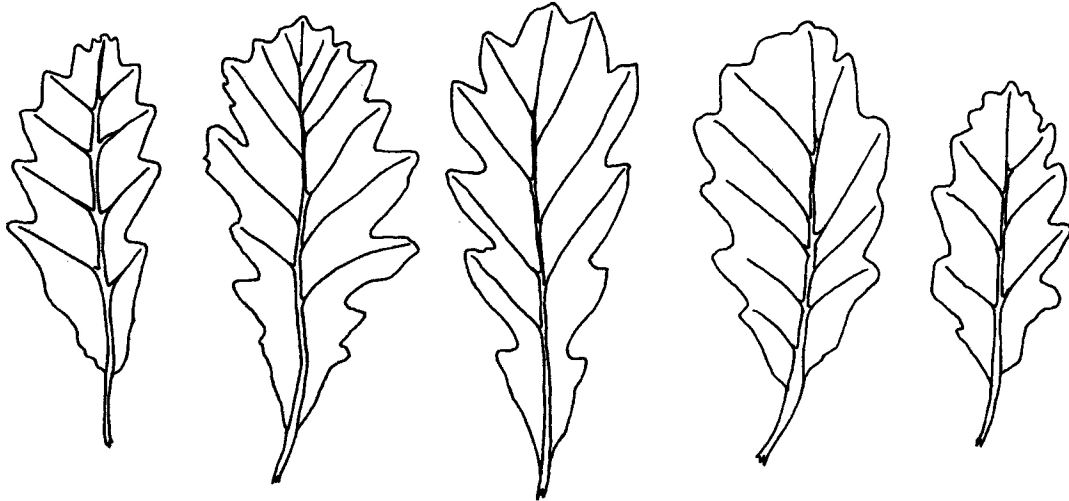
Identification must be made on a COMBINATION of characters. Ideally, mature leaves from the middle of a shoot in the sunny well-lit part of the canopy should be examined. As these leaves are often out of reach, the Table on page 76 summarises the characters for all leaves (and leaf litter). However it is important to note that leaf litter may contain lammas leaves and these generally are atypical. Similarly leaves of seedlings and young plants may not conform to those of the mature tree. Mature peduncle characters may also help from the end of June onwards but length can be very variable even on the same shoot.

The Table on page 76 has been compiled from Jones (1959), Cousens (1963), Wigston (1975) and Kelly (1995), and examination of material in **CGE** and **NMW**. The illustrations show some of the variation present in *Q. petraea*, *Q. robur* and *Q. × rosacea* drawn from specimens in **CGE** determined by P. D. Sell. Intercalary veins are comparatively large veins from the midrib to the sinus between two lobes.

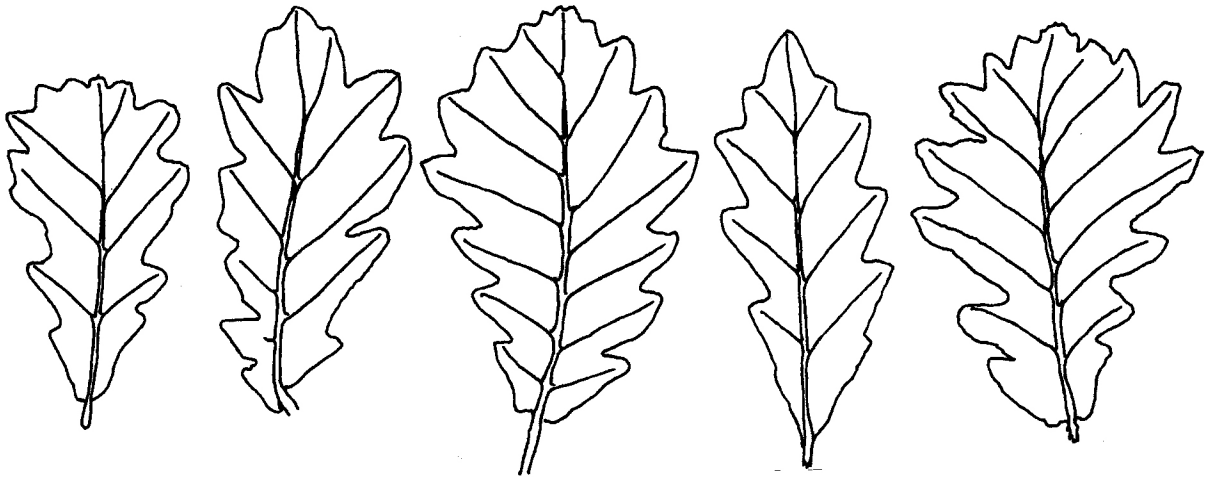
References Carlisle, A. & Brown, A. H. F. (1965). *Watsonia* **6**:120-127.
Cousens, J. E. (1963). *Watsonia* **5**: 273-286.
Jones, E. W. (1959). *Journal of Ecology* **47**: 169-222.
Rushton, B. S. (1978). *Watsonia* **12**: 81-101.
Wigston, D. L. (1975). *Watsonia* **10**: 345-369.

Author B. S. Rushton, October 1997.

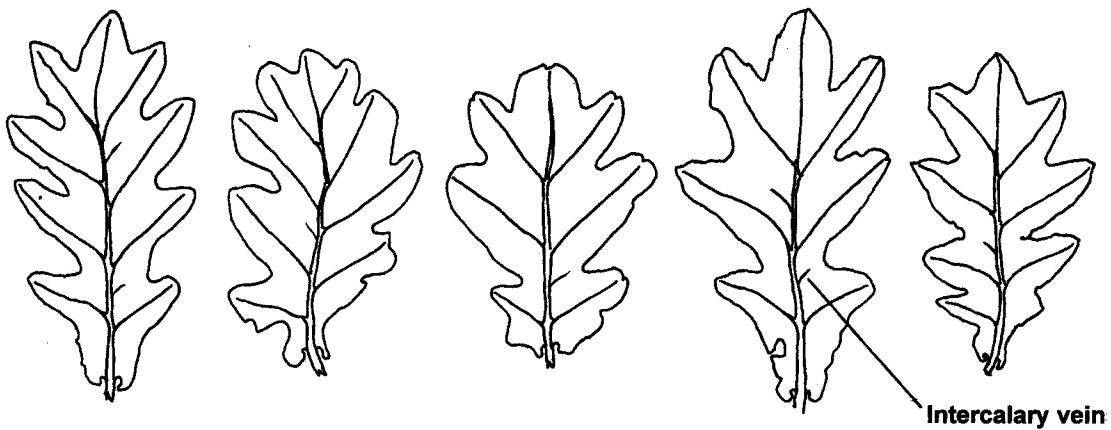
Plant Crib



Quercus petraea



Quercus x rosacea



Illustrations of *Quercus* leaves (del. M. D. B. Rich)

Plant Crib

	<i>Quercus robur</i> L.	<i>Quercus</i> × <i>rosacea</i> Bechst.	<i>Quercus petraea</i> (Mattuschka) Liebl.
Leaf lobing	Deep, irregular, finger-like, often with smaller sub-lobes	Shallow irregular to deep, regular	Shallow, regular, lobes more “triangular”
Mean no. pairs lobes (note 1)	Up to 5 (total range 2-6)	4-6 (total range 3-7)	5 or more (total range 4-8)
Intercalary veins	Generally present	Variable in number	Absent
Auricles at leaf base	Usually strong	Intermediate	Absent or weak
Hairs under leaf	Stellate hairs absent (simple hairs present)	A few stellate hairs may be present among the simple hairs	Large and small stellate hairs present among the simple hairs, particularly along the midrib and the angles between the midrib and main veins
Petiole	(0-)2-7(-9) mm, <i>c.</i> up to 8% of leaf length	Variable	(7.5-)10-25(-32) mm, <i>c.</i> (7-)10-21% of leaf length
Leaf shape	Oblanceolate with cordate base	Variable	Elliptic or nearly so, with cuneate rarely cordate base to lamina
Mean mature peduncle length (to first flower)	0-3(-4) cm	Variable	2-9 cm
Mature peduncle pubescence	Glabrous at maturity (hairy when young)	Variable	Pubescent throughout

Note

1. Count lobes on both sides, divide by two and discount any halves.

Plant Crib

2. *Quercus cerris*

Quercus cerris L. is now widely established across much of southern Britain. The variable nature of its leaves (cf. illustrations) mean that detecting hybrids with *Q. robur* is not straight forward, if they occur at all (A. Coombes, pers. comm. 1998). The few potential examples examined by TCGR have sparsely pubescent underside to the leaf, more lobes often with small teeth and cups with small scales, but this may be part of the variation in *Q. cerris*. Potential hybrid specimens, preferably with acorns, to A. Coombes please.

