

LACTUCA

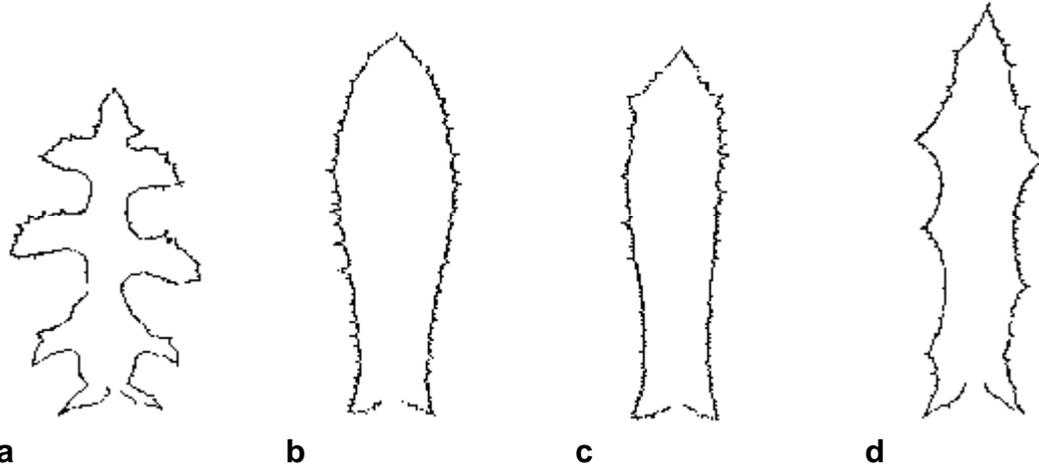
Four species of *Lactuca* occur in Britain, and plants may be distinguished by using the key below modified from Prince & Carter (1977). Note that there are two leaf forms of both *L. serriola* and *L. virosa*, which often cause confusion. Prince & Carter (1977) also give a helpful Table of comparative characters of *L. serriola*, *L. virosa* and *L. saligna*.

Lactuca sativa (garden lettuce) is an uncommon casual which obviously lacks spines on the leaves. *Lactuca saligna* is very rare near the coast in SE England; it is protected under the Wildlife and Countryside Act 1981. *Lactuca virosa* and *L. serriola* occur mainly south of the Humber-Severn line. *Lactuca serriola* is commoner than *L. virosa*, and *L. serriola* forma *integrifolia* is commoner than forma *serriola*. Historically, *L. virosa* has been rarer, but more widespread (and usually in more 'natural' habitats), but both seem to be increasing their range and *L. virosa* moving into habitats such as motorway verges previously more typical for *L. serriola*.

Before 1930 *L. serriola* forma *integrifolia* was often assigned to *L. virosa*. It was recorded in the revised edition of Gerarde's *Herball* (1633), and is certainly not a recent introduction. Pre-1930 determinations of herbarium material should not be accepted uncritically (Carter & Prince 1982).

In distinguishing *L. virosa* from *L. serriola*, fruit characters are by far the most reliable (the striking fresh purple achenes of *L. virosa* will leave no doubt - they go blackish in herbarium specimens). Another good character is the smell when the plant is broken or bruised; *L. virosa* smells like Opium poppy (*Papaver somniferum*) - hence the name *virosa* (noxious) - whereas *L. serriola* smells like Garden lettuce (*L. sativa*). The use of leaf characters has led to prevalent misidentification in the past; they may help to support a determination, but should never be treated as over-riding. The leaf-angle character cited in many Floras for distinguishing *L. virosa* from *L. serriola* is unreliable; *L. virosa* often has its leaves twisted vertically, though they do not align in one plane. *Lactuca virosa* begins to flower about a fortnight earlier than *L. serriola*, normally in June. In both species the flower heads close by late morning, but, when fully open, those of *L. virosa* are about twice as wide as those of *L. serriola*. (Secondary growth late in the season can produce smaller flower heads that remain open longer.) With practice, these two species can also be distinguished at some distance by the inflorescence shape. The panicle of *L. virosa* is characteristically rhombus-shaped with one corner arising from a long leafy stem, reminiscent of a kite with a beribboned tail; there is little obvious leafage within the panicle. The panicle of *L. serriola* is less regular, usually less pointed or even flat-topped, and sometimes 'lumpy' near the apex; the lower branches are leafy and the lowest may arise from well down the stem. *Lactuca virosa* is typically taller (often 2 m tall).

Plant Crib



Outlines of stem leaves of *Lactuca serriola* from Britain. (a) runcinate-pinnatifid leaf of forma *serriola*; (b, c) unlobed leaves of forma *integrifolia*, (d) shallowly lobed leaf of a lateral stem of forma *integrifolia*.

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| 1 | Stem leaves very variable in shape, usually entire, margins not spinose-ciliate; involucre bracts appressed to the ripe achenes | <i>L. sativa</i> L. |
| 1 | Stem leaves pinnatifid or, if not lobed, margins spinose-ciliate; involucre bracts patent or reflexed at maturity | 2 |
| 2 | Midrib on underside of stem leaves glabrous or sparsely hispid, without spines; inflorescence narrow with capitula tightly clustered on short branches; ripe achenes not bristly at apex | <i>L. saligna</i> L. |
| 2 | Midrib on underside of stem leaves spinose; inflorescence a broad panicle; ripe achenes ± bristly at apex | 3 |
| 3 | Ripe achenes (excluding beak) (4-)4.2-4.8(-5.2) × 1.3-1.6(-1.7) mm, purple/very dark maroon when fresh, blackish when dried, clearly winged, broadest at the middle with at least some dark, palmate bristles near apex; diameter of open heads (14-)17-20 mm; stems usually flushed maroon, especially towards base; brown at late-maturity; midribs of leaves also usually flushed maroon; stem leaves not flat; bracts amplexicaul, with appressed ± rounded auricles; latex smelling of opium poppy | 4 |
| 3 | Ripe achenes (excluding beak) (2.8-)3-4(-4.2) × 0.8-1.3 mm, olive-grey, scarcely winged, broadest above the middle with obvious colourless simple bristles near apex; diameter of open heads 8-10 mm; stems pale green, rarely wine-red towards base, whitish at late-maturity; midribs of leaves whitish; stem leaves flat; bracts sagittate, with spreading ± rounded auricles; latex smelling of garden lettuce | 5 |
| 4 | Stem leaves unlobed, sinuate-dentate | <i>L. virosa</i> L. var. <i>virosa</i> |
| 4 | Stem leaves pinnatisect with wide lobes | <i>L. virosa</i> var. <i>lactucarii</i> (Lamotte) Rouy |
| 5 | Stem leaves deeply runcinate-pinnatifid (Fig. a) | <i>L. serriola</i> L. forma <i>serriola</i> |
| 5 | Stem leaves undivided or shallowly lobed (Figs. b-d) | <i>L. serriola</i> forma <i>integrifolia</i> (Gray) S. D. Prince & R. N. Carter |

Notes

- It is best to examine the leaves on the main stem, not side branches.

- References** Carter, R. N. & Prince, S. D. (1982). *Watsonia* **14**: 59-62.
 Oswald (2000). *Watsonia* **23**:149-159
 Prince, S. D. & Carter, R. N. (1977). *Watsonia* **11**: 331-338.

Authors Based on pers. comms. with R. N. Carter, 1988, and P. H. Oswald, February 1998.