

IDENTIFICATION OF INJURIOUS WEEDS

This leaflet has been produced to assist in the identification of Injurious Weeds as prescribed in the Weeds Act 1959



COMMON RAGWORT – *Senecio jacobaea*



Mature plant



Young plant

Maggy Milner



Senecio jacobaea

Common Ragwort

A, plant; B, a lower leaf; C, flowering branch D; disc flower; E, corolla of disc flower, partly cut away to show the stamens, and the style; F, mature achene from disc flower – some of the pappus cut off. *Not to scale.*

Young plant:

Young plants of common ragwort are evident from the autumn to early June as low rosettes in pasture and on bare ground. The leaves of these young plants are extremely variable, either undivided or simply divided into terminal oval and smaller lateral lobes. These are usually a deep bottle-green, tinged purple, and slightly glossy on the upper surface.

Adult plant:

In their second or subsequent years the rosettes mature and produce flowering stems from late June onwards. These are between 30-100cm tall, carrying dense flat topped clusters of bright yellow daisy-like flower heads each 1.5-2.5cm across. The leaves on mature plants are strongly divided into narrow lobes with the bases clasping the non-woody main stem. The flowering stems die back after producing seeds.

Other ragwort species not prescribed in the Weeds Act 1959:

Marsh ragwort – *Senecio aquaticus*: Mature plants have elliptical or oval basal leaves. Upper leaves are less divided than those of common ragwort with larger terminal lobes. The flower heads are also generally larger at 2.5-3cm diameter.

Oxford ragwort – *Senecio squalidus*: Mature plants, which may have woody lower stems, rarely exceed 50cm in height, and have more widely spaced lobes on the leaves than common ragwort.

Hoary ragwort – *Senecio erucifolius*: Much more hairy than common ragwort, particularly on the leaf undersurface which is greyish in appearance.

BROAD-LEAVED DOCK – *Rumex obtusifolius*



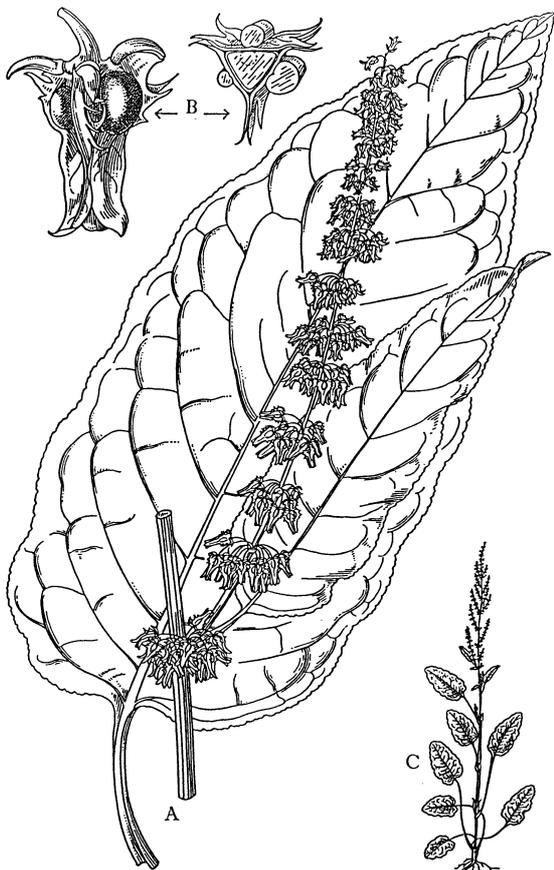
Mature plant

Maggy Milner



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Rumex obtusifolius

Broad-leaved Dock

A, upper part of stem with a leaf and a lateral branch, and a leaf from the middle part of the stem; B, fruiting-perianth enclosing the fruit and transverse section of same showing seeds; C, plant.
Not to scale.

Young plant:

Seedlings emerge from September through to summer with an opposite pair of narrow diamond-shaped or strap-like cotyledon leaves. The true leaves then emerge one at a time unrolling to form a roughly oval or elongated heart-shaped structure that is green but tinged with purple. Plantlets regenerated from root fragments more closely resemble the adult plant. Broad-leaved docks usually remain vegetative for their first year.

Adult plant:

This dock which has a perennial rootstock produces a basal rosette of large, broad, oval to oblong leaves up to 25cm long with a strong central vein and rounded, backward pointing lobes at the base. Flowering is from late June onwards with the stems typically up to 100cm tall but sometimes reaching 150cm. The flowering stem is loosely branched with numerous clusters of small reddish-brown flowers which have more the appearance of seeds. The flowering stems die back after producing seeds.

Broad-leaved dock is distinguished from curled dock by the broader leaves. The fruit is roughly triangular with one or two swollen seeds. The thin wing or membrane surrounding the seeds has an irregularly toothed edge.

The long tap root of this plant is more prone to be branched than that of curled dock. Both species are widespread and can hybridise so that intermediate plants occur.

CURLED DOCK – *Rumex crispus*



Mature plant



Young plant

Maggy Milner



Rumex crispus

Curled Dock

A, part of stem with a leaf and lateral branch, and a lower main-stem leaf; B, fruiting-perianth enclosing the fruit and transverse section of same showing seeds; C, plant and a rosette.

Not to scale.

Young plant:

The seedlings are very similar to those of broad-leaved dock but the true leaves may have a more pointed tip. As with broad-leaved dock the plants can be regenerated from root fragments caused by soil disturbance or heavy treading by animals or humans.

Adult plant:

The leaves of curled dock are narrower and more elongated than those of broad-leaved dock, usually tapering to a point and with wavy undulating margins. Flowering is from late June onwards each year, when the plants can extend to 100cm or even 200cm in height. The flower and seed clusters differ from broad-leaved dock in that they are much more closely and densely arranged. The flowering stems die back after producing seeds.

The fruit lacks teeth on the wing, is oval/triangular in shape, usually with all 3 seeds swollen, although with one often larger than the others.

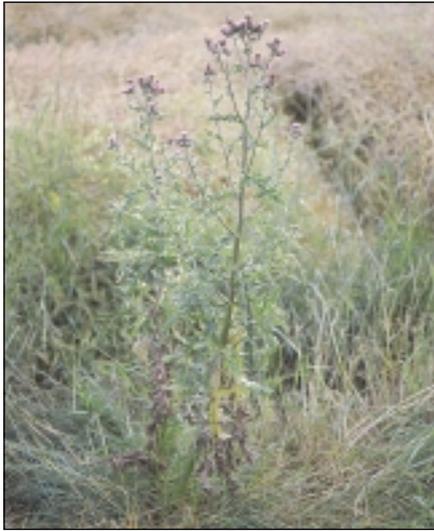
Other dock species not prescribed in the Weeds Act 1959:

Two other species commonly occur on waste land:

Wood dock – *Rumex sanguineus* – has elongated oval and pointed leaves. The lower spike has only small basal leaves.

Clustered dock – *Rumex conglomeratus* – the flower spike of this dock has a characteristic zig-zag structure and bears small leaves throughout.

CREEPING THISTLE – *Cirsium arvense*



Mature plant

Maggy Milner



Young plant



Cirsium arvense

Creeping Thistle

A, a lower stem leaf; B, upper part of a female plant; C, flowering heads from male plant; D, upper part of male flower, partly cut away to show the stamens; E, upper part of female flower, partly cut away to show the stamens. *Not to scale.*

Young plant:

Seedling plants form small rosettes with a pair of opposite simple and unstalked oval cotyledon leaves. Paired light green true leaves are arranged at right angles to the cotyledons. These have wavy edges, weak spines and the upper surface supports hairs or weak bristles. Plantlets regenerating from root fragments more closely resemble the adult plant.

Adult plant:

The adult plant forms an extensive root system which can be exposed on digging. The flowering stems extend 30-100cm or more in height from the shoots which emerge out of the rootstock each spring. These stems lack spines, wings, furrows or ridges.

The leaves are elongated and narrow with a wavy and strongly spined margin. The upper surfaces are quite glossy or waxy, whilst undersides are cottony or downy. There are separate male and female plants which can be distinguished by their different flower structures. Loose clusters of purple flower heads, each between 1.5 and 2.5cm long and around 1cm wide, are borne on the branched stems, from the end of June each year. The flowering stems die back after producing seeds.

SPEAR THISTLE – *Cirsium vulgare*

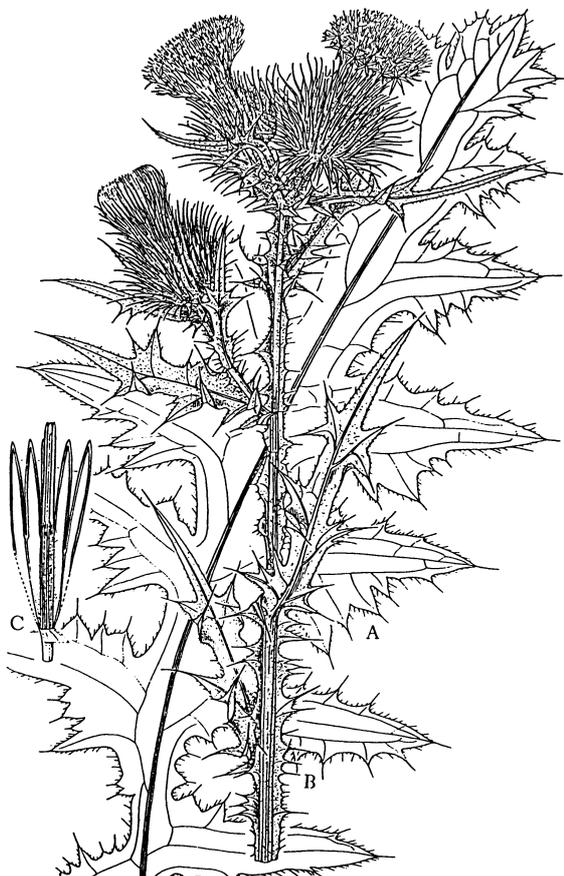
other common names: Scotch Thistle, Bell Thistle



Mature plant



Young plant



Cirsium vulgare

Spear Thistle

A, upper half of radical leaf, in outline, hairs omitted;
B, flowering branch; C, upper part of flower cut away to show
the stamens. *Not to scale.*

Young Plant:

Seedling plants appear from autumn until April in pasture and on bare ground. The cotyledons differ from those of creeping thistle in that they are borne on short stalks. The true leaves are also longer and more bristly with a downy appearance to the upper surfaces. The seedling plants quickly form rosettes which remain for at least one year before producing flowering stems.

Adult plant:

The flowering stems begin to emerge from the rosettes when the basal leaves reach 15-30cm in length. These stems typically reach 30-100cm in height, but taller specimens occur. Stems are cottony or minutely hairy, bearing discontinuous wings and leaves which are also spiny and deeply lobed.

From July onwards plants produce large purple flower heads 3-5cm long by 2-5cm across, in loose clusters forming the stereotype image of a thistle. The flowering stems die back after producing seeds.

Other thistle species not prescribed in the Weeds Act 1959:

Marsh thistle – *Cirsium palustre* – this more closely resembles spear thistle than creeping thistle, but has continuous, spiny wings along the stem.

The thistles listed overleaf are not readily confused with creeping or spear thistle but special care should be taken not to damage these uncommon species.

Tuberous thistle – *Cirsium tuberosum* – Very rare perennial species of calcareous grassland in Wiltshire, Gloucestershire and Cambridgeshire made extinct in 1974 but re-introduced since 1987.

Melancholy thistle – *Cirsium heterophyllum/helenoides* – An uncommon erect perennial plant of damp northern meadows, woodland edges and verges. Leaves unlobed, green above, whitish and cottony beneath, elliptical with a tapering point. The margins toothed or with soft spines. The stem is grooved, winged and cottony, bearing large usually solitary purple flowering heads.

Carline thistle – *Carlina vulgaris* – A biennial plant of short calcareous grassland with very spiny leaves, cottony beneath with a short unspined flowering stem, 10-20cm, rarely up to 60cm. The flowering head is ringed by horizontally extended straw coloured rays.

Musk thistle – *Carduus nutans* – An annual or biennial species of calcareous grassland with flowering stems 100cm in height, discontinuously winged. The large flowering heads are usually solitary and drooping.

Meadow thistle – *Cirsium dissectum* – A local perennial plant up to 80cm high resembling a slender melancholy thistle, distributed through the southern half of lowland England and Wales to north-east Yorkshire.

Dwarf thistle – *Cirsium acaule* – A stemless perennial thistle with a solitary flower head borne in the centre of the leaf rosette. Found on short and calcareous grassland in south and east England to Yorkshire.



This leaflet gives a broad description of injurious weeds and some similar species, more detailed information is provided in published reference books, for example:

'The Wild Flower Key (British Isles – N.W. Europe)' Rose, F. Publishers Frederick Warne/Penguin Group 1981. ISBN 0 7232 2419 6.

'The Wild Flowers of Britain and Northern Europe' Fifth Edition Fitter, A., Fitter, R. and Blamey, M. Publishers HarperCollins 1996. ISBN 000 2200627.

'New Flora of the British Isles' Second Edition Stace, C. Publishers Cambridge University Press 1997. ISBN 0521 589335.

'Drawings of British Plants' Ross-Craig, Stella. Publishers G Bell & Sons Ltd 1970. ISBN 0 7135 1710 7 (Out of print – available in major reference libraries only.)

'Docks & Knotweeds of the British Isles' Lousley, J. E. & Kent, D. H. Botanical Society of the British Isles 1981. ISBN 0 01158 05 4.

'Flora of the British Isles' Clapham, A. R. Tutin, T. G. and Moore, D. M. Cambridge University Press 1990. ISBN 0521 389 747.

ACKNOWLEDGEMENTS

We are grateful for the permission given by Stella Ross-Craig for the use of her line drawings in this leaflet.