

## TARAXACUM SECTION *CELTICA*

Section *Celtica* species are mostly found in the western and northern districts of the British Isles, though largely restricted to wet meadows in southern England. Elsewhere, they occur in a range of habitats from mountain cliffs to lane banks, grasslands and even somewhat saline habitats, but like the *Naevosa* they are rarely found in waste places as ruderals or weeds. 34 species are known from the British Isles, and all (except perhaps *T. nietoi*) are native here. The British Isles forms the centre of the distribution of the section, with much more diversity here than in other countries, and no less than 19 species (56%) are endemic to these islands. The present account includes two new species from Orkney and three new Irish species which have not yet been published (Dudman & Richards 1997; Richards & Ferguson-Smyth in press, Richards in prep.) and one new European species from Ireland (L. Tucker pers. comm.)

- *Celtica* species are never gross like some *Ruderalia* and usually have rather flat simply lobed leaves.
- Like *Hamata* species, involucre are often pruinose and bluish-green and exterior bracts do not exceed 12 mm in length.
- Unlike the *Hamata*, innermost exterior bracts are usually patent to erect, not arcuate.
- Also unlike any *Hamata*, many *Celtica* species lack pollen and have stigmas which dry yellow. These characters are also rare in section *Ruderalia*.

Taken together, these features are closely allied to those in section *Naevosa*, from which *Celtica* differ chiefly by an absence of spotting on the upper leaf surface. In the *Celtica*, only *T. olgae* and *T. berthae* regularly have spots on the leaves. These species are rare and localised in the north-west, and are related to *T. nordstedtii*. Because they are spotted, they are not treated here, but in Section *Naevosa*. Occasionally *T. nordstedtii* itself also shows spotting, usually in extreme-Atlantic conditions.

Like *Naevosa*, most *Celtica* are tetraploid ( $2n = 32$ ) or hexaploid ( $2n = 48$ ). *Hamata* and *Ruderalia* species are invariably triploid ( $2n=24$ ).

**1a.** Species lacking pollen (check stigmas with a lens) (2a-2b)

(for lead 1b see page 7)

**2a.** Stigmas yellow, concolorous with the ligules in the fresh and dry condition (3a-3c)



*T. ostenfeldii*

# Plant Crib 3

A. J. Richards 2016, minor updates 2019.

**3a.** Exterior bracts spreading to recurved (see above), ligule stripes solid, brown (4a-4b)

**4a.** Terminal leaf-lobes narrower than mid-leaf, usually subdivided. S. Wales

**T. breconense**



**4b.** Terminal leaf-lobes short, broad and rounded (see also 2a)

**T. ostenfeldii**



**3b.** Exterior bracts erect; ligule stripes narrower than whole width of ligule streaky, red **T. unguilobum**

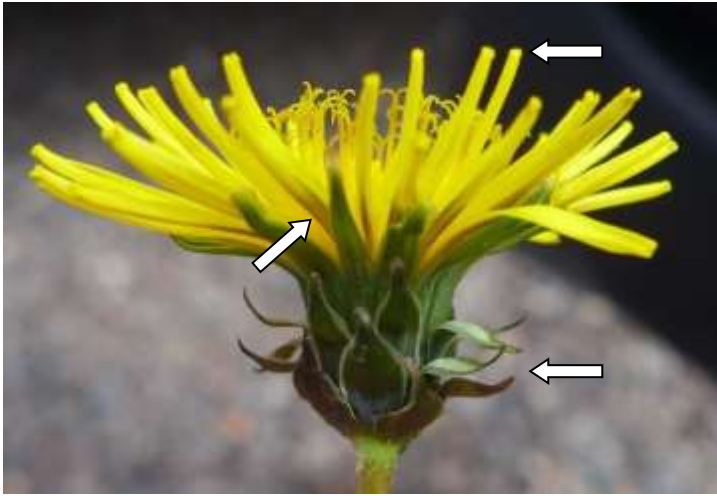


# Plant Crib 3

A. J. Richards 2016, minor updates 2019.

**3c.** Exterior bracts erect; ligules tubular, yellow distally, brownish proximally. Orkney

**T. claudiae**



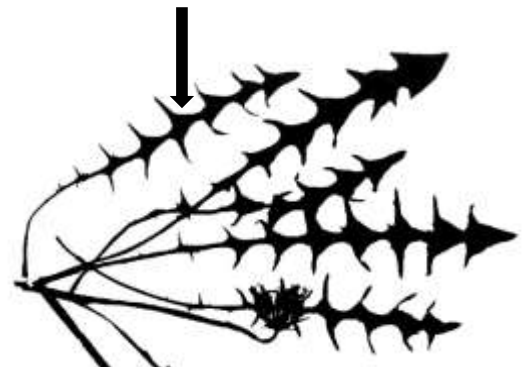
**2b.** Stigmas discoloured when dry; darker than ligules when fresh (5a-5c)

**5a.** Ligules about twice the length of inner bracts, striped purple; exterior bracts appressed; leaves linear-spathulate, scarcely lobed, rounded at apex. Rare

**T. palustrisquameum**



**5b.** Ligules usually short, scarcely exceeding inner bracts, with a solid purple-brown stripe below; exterior bracts erect, pruinose, lacking a border; distal margin of lateral leaf-lobes usually concave-angled, usually acute to lingulate at apex (6a-6c)



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**6a.** Exterior bracts erect-patent; lateral leaf-lobes linear distally; achene body <3.4 mm. Scarce.

**T. landmarkii**



**6b.** Exterior bracts erect (-appressed); leaves ± flat, lateral leaf lobes variable, triangular, obtuse, rather simple and not toothed; achene body >3.3 mm. Widespread.

**T. nordstedtii**



**6c.** Exterior bracts appressed; lateral lobes narrow, patent to forward projecting; interlobes plicate, with unique large tooth proximally; achene body >4.6mm. Recently found in Ireland, could be elsewhere

**T. pietii-oosterveldii**



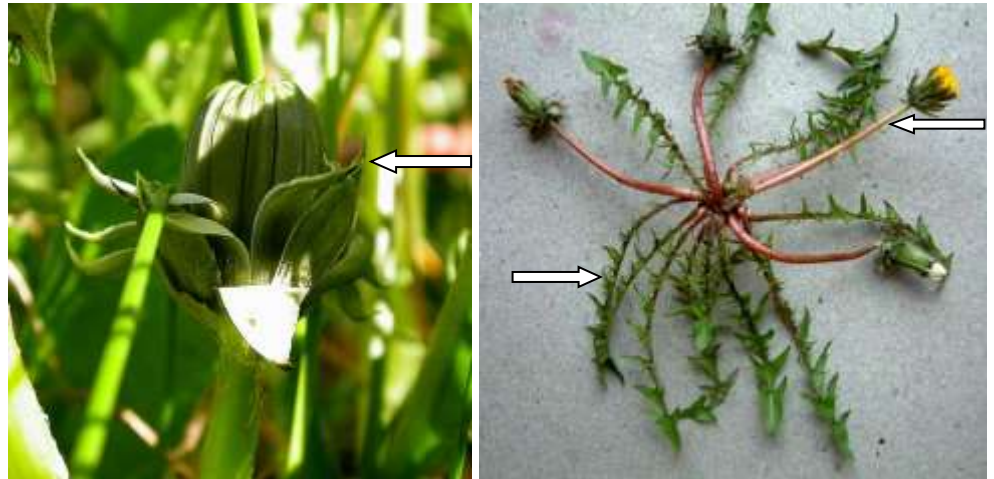
# Plant Crib 3

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**5c.** Ligules striped grey, grey-pink to violet, not purple-brown (7a-7b)

**7a.** Exterior bracts  $\pm$ equalling interior bracts in bud; leaves  $\pm$ lacerate, leaf-lobes linear, dentate

**T. fulvicarpum**



**7b.** Exterior bracts much shorter than interior bracts in late bud; leaf-lobes not lacerate-dentate (8a-8d)

**8a.** Exterior bracts erect-appressed, > 3.6 mm wide, clearly white-bordered

**T. lancastricense**



**8b.** Exterior bracts erect-appressed, <3.5 mm wide; leaves narrow, dark and leaf lobes recurved. Scottish Highlands

**T. caledonicum**



# Plant Crib 3

A. J. Richards 2016, minor updates 2019.

**8c.** Exterior bracts erect, <3.5 mm wide; ligules with red teeth; leaf side-lobes patent. Ireland

***T. gaelorum***



**8d.** Exterior bracts spreading-recurved, <3.5 mm wide, unbordered or scarcely so (9a-9b)

**9a.** Terminal leaf-lobes trilobate; some leaf-lobes usually forward-pointing

***T. celticum***



**9b.** Terminal leaf-lobes hastate to helmet-shaped; lateral leaf-lobes recurved

***T. inane***



# Plant Crib 3

A. J. Richards 2016, minor updates 2019.

**1b.** Species bearing pollen (check stigmas with a lens) (10a-10c)

**10a.** Ligules in-rolled, orange. Ireland

**T. aesculosum**



**10b.** Ligule stripe absent; ligules entirely yellow, flat

**T. luteum**



**10c.** Ligules yellow, striped below, flat (11a-11b)

**11a.** Interlobes heavily tar-blotched, at least below in the fresh and dry state



# Plant Crib 3

A. J. Richards 2016, minor updates 2019.

**12a.** Terminal leaf-lobes large, rounded; exterior bracts patent to erect

**T. fulgidum**



**12b.** Terminal leaf-lobes trilobate to obtuse-triangular; exterior bracts recurved to erect (13a-13c)

**13a.** Ligules striped purple, ligule teeth purple; robust plants of western Britain with 4-6 leaf side-lobes, interlobes cut to mid-rib, dentate and heavily blotched  
**T. hesperium**



**13b.** Ligules striped grey-violet, ligule teeth yellow; leaf side-lobes 5-6; interlobes short, acute **T. excellens**





# Plant Crib 3

A. J. Richards 2016, minor updates 2019.

**13c.** Ligules striped purple, ligule teeth yellow; exterior bracts purple, erect; small plants of southern water-meadows with 2-3 leaf side-lobes and long narrow purple petioles **T. tamesense**

(Similar water-meadow plants with whitish petioles and heterophyllous leaves with subdivided end-lobes have been equated with **T. akteum**).



**11b.** Interlobes with tar blotches absent, or only evident on dried material (14a-14b)

**14a.** Leaves narrowly oblong; leaf side-lobes mostly >5 per side (15a-15b)

**15a.** Mid-rib purple; side-lobes sometimes double, with sigmoid distal margins; exterior bracts spreading **T. subbracteatum**



# Plant Crib 3

A. J. Richards 2016, minor updates 2019.

**15b.** Mid-rib greenish distally, not strong purple; side lobes with convex distal margins, denticulate proximally; exterior bracts erect

**T. oellgaardii**



**14b.** Leaves lanceolate to oblong; lateral leaf-lobes 2-4 pairs (16a-16b)

**16a.** Terminal leaf-lobe longer than other lobes,  $\pm$ entire, obtuse to rounded (17a-17b)

**17a.** Leaf side lobes 3-5; mid-rib purple; ligule stripes purple. Common and widespread. **T. bracteatum**



# Plant Crib 3

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**17b.** Leaf side lobes 2 (-3); mid-rib greenish; ligule stripes grey-purple. Orkney. **T. orcadense**



**16b.** Terminal leaf-lobes no longer than other lobes, usually acute (18a-18b)

**18a.** Leaves oblong, hairy; leaf lobes acuminate; ligule teeth blackish; leaf lobes acuminate (19a-19b)

**19a.** Leaves fairly flat; stigmas dark, drying blackish. Common and widespread. **T. duplidentifrons**



**19b.** Leaves strongly three-dimensional, contorted; stigmas yellowish, drying grey-yellow. Orkney.

**T. calophyllum**



# Plant Crib 3

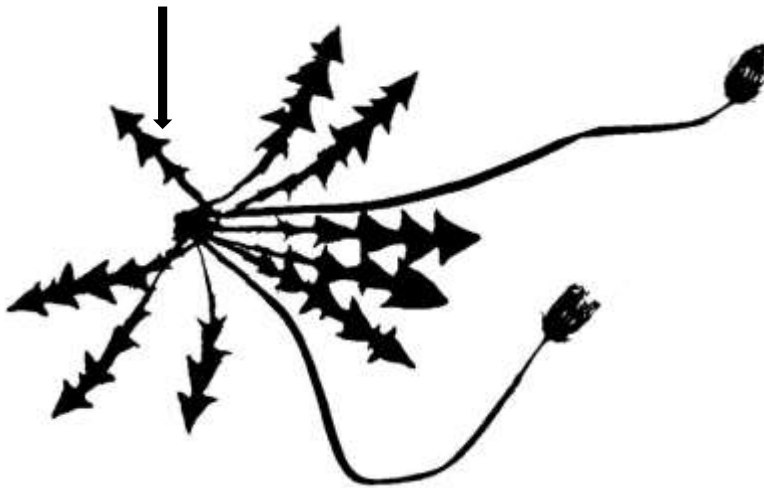
A. J. Richards 2016, minor updates 2019.

**18b.** Leaves lanceolate, glabrous or nearly so; ligule teeth not blackish, leaf side lobes not acuminate (20a-20b)

**20a.** Exterior bracts erect to appressed, pruinose, without a border; ligules <1.5 x inner bracts, striped brown-purple (21a-21b)

**21a.** Leaves green, prostrate to ascending, side-lobes concave-angled distally, patent to forward-pointing; common and widespread in wet meadows etc. **T. nordstedtii** (see lead 5b above, page 3)

**21b.** Leaves suffused purple, prostrate and genetically dwarf, side-lobes with convex distal margins, cut to midrib. A rare plants of calcareous flushes in N. Pennines **T. pseudonordstedtii**



**20b.** Ligules >1.5 x inner bracts, rarely striped brown-purple (22a-22b)

**22a.** Exterior bracts erect to appressed, blackish, scarcely bordered; ligules >1.5 x inner bracts; stigmas dark, terminal leaf-lobe obtuse, achenes smooth **T. britannicum**



**22b.** Exterior bracts spreading-erect, white-bordered, not blackish, often pruinose (23a-23b)

# Plant Crib 3

A. J. Richards 2016, minor updates 2019.

**23a** Petioles green; terminal leaf-lobes rounded to mucronate. Kent

**T. hygrophilum**



**23b.** Petioles purple (24a-24b)

**24a.** Terminal leaf-lobes extenuate, narrowly acute; exterior bracts spreading (25a-25b)

**25a.** Distal margin of lateral leaf-lobes angled-concave; petioles brilliant purple **T. haematicum**



**25b.** Distal margin of lateral leaf-lobes  $\pm$ straight; petioles dull greenish-purple **T. porteri**



**24b.** Terminal leaf-lobe rather broad, obtuse; exterior bracts suberect (26a-26c)

# Plant Crib 3

A. J. Richards 2016, minor updates 2019.

**26a.** Ligule stripes solid greyish-pink; exterior bracts bordered, pruinose; terminal lobe often with a 'high tooth'; proximal margins of lateral leaf-lobes concave. Common and widespread **T. gelertii**



**26b.** Ligule stripes solid brown; exterior bracts almost unbordered, not pruinose; terminal lobe lacking high tooth; proximal margins of lateral leaf-lobes concave. Western Britain, rare in Ireland **T. cambricum**



**26c.** Ligule stripes streaky red-brown; exterior bracts pruinose; proximal margin of lateral leaf-lobes convex. Central Ireland **T. hibernicola**



# Plant Crib 3

A. J. Richards 2016, minor updates 2019.

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## Notes

*Taraxacum beeftinkii* was recorded once as a casual on a saline verge at Mersea Island Essex in 1976; it has not been refound despite searches.

*Taraxacum texelense* is a very rare Section *Celtica* species, not included above; it will probably key out to lead 26 (see Dudman & Richards 1997).

**Pictures** C. Ferguson-Smyth, R. Pryce, T. Rich, A. J. Richards, P. Smith, L. Tucker

**References** Dudman, A. & Richards, A. J. (1997). *Dandelions of Great Britain and Ireland*. Botanical Society of the British Isles, London.

Richards, A. J. & Ferguson-Smyth, C. C. (2016). Notes on the *Taraxacum* (Asteraceae) flora of the Orkney Islands, British Isles (vc 111). *New Journal of Botany* **6**: 71-78.

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Richards, A. J. & Doogue, D. (2017). Notes on some *Taraxacum* (Asteraceae) from Ireland including description of four new species in section *Celtica*. *New Journal of Botany* **7**: 136-146.

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