

33. TARAXACUM F.H. Wigg. - *Dandelions*

Perennials with tap-roots; stems usually leafless, with 1 capitulum; phyllaries in 2 often very different rows; receptacular scales 0; pappus of several rows of white, simple hairs; ligules yellow, usually with coloured stripe(s) on lowerside; achenes not flattened, finely ribbed, usually spinulose near apex, beaked.

A very critical genus in which apomixis is the rule; 232 microsp. are currently recognised in BI, of which >40 are probably endemic but <1/2 of the rest native. Triploids (2n=24), tetraploids (2n=32), pentaploids (2n=40) (rare) and hexaploids (2n=48) (rare) occur, of which the latter 3 are probably all obligately apomictic. In BI almost all triploids are also obligately apomictic, but in a few sexuality occurs very rarely, producing non-persistent sexual diploids that can hybridise with each other and with pollen from apomictic plants to produce diploid to triploid hybrids.

In this work the microsp. are not treated in full but are aggregated into 9 rather ill-defined sections, determination of which is often not easy even after much experience.

In most spp. the achene is spinulose near its apex, but between that region and the beak there is a short, usually pyramidal region known as the *cone*. Descriptions apply only to fully ripe achenes; *achene length* excludes cone and beak. Leaves produced in summer do not maintain all diagnostic characters, so determination should be attempted only with specimens collected during the first main flush of flowering (usually Apr to early May in the lowlands). Plants from shaded, heavily trodden or grazed, or mown areas should be avoided. This account follows the sectional and microsp. delimitation recognised by A.J. Richards, C.C. Haworth and A.A. Dudman. For a full account see the monograph of Dudman & Richards (1997).

- 1 Plants delicate, usually with strongly dissected (often nearly pinnate) leaves; outer row of phyllaries mostly <8mm, with small outgrowth near apex on lowerside; capitula rarely >3cm across 2
- 1 Plants usually medium to robust, rarely with nearly pinnate leaves; outer row of phyllaries mostly >8mm, without subapical outgrowth; capitulum usually >3cm across 3
 - 2 Achenes greyish-brown, with pyramidal cone c.0.4mm; leaves often with ≥6 pairs of lateral lobes 2. **T. sect. Obliqua**
 - 2 Achenes usually purplish-violet, reddish or yellowish-brown, with cylindrical cone mostly 0.6-1mm; leaves rarely with >6 pairs of lateral lobes 1. **T. sect. Erythrosperma**
- 3 Outer row of phyllaries appressed, ovate, with broad scarious border; leaves very narrow, usually scarcely lobed 3. **T. sect. Palustria**
- 3 Outer row of phyllaries appressed to recurved, linear to narrowly ovate, with no or with narrow to very narrow scarious border; leaves broader, usually distinctly lobed 4
 - 4 Leaves and petioles green; rare plants of a few mountain cliffs in Sc 6. **T. sect. Taraxacum**
 - 4 Lowland plants, or if on mountain cliffs then leaves usually dark or blotched with purple and petiole usually purple 5
- 5 Achenes (excl. cone and beak) ≥4mm, nearly cylindrical; outer row of phyllaries erect to appressed; ligules usually with dark red stripes on lowerside; pollen usually 0 4. **T. sect. Spectabilia**
- 5 Achenes very rarely >4mm, narrowly top-shaped; outer row of phyllaries rarely appressed; ligule stripes rarely dark red; pollen present or 0 6
 - 6 Leaves with large dark spots covering >10% of surface 5. **T. sect. Naevosa**

- 6 Leaves unspotted or with spots covering <10% of blade (beware leaves damaged or attacked by pathogens) 7
- 7 Petiole and midrib uppersides green or solid red or purple; outer row of phyllaries mostly 9-16mm, usually recurved, not dark on lowerside; leaves often complexly lobed and folded in 3 dimensions 9. **T. sect. Ruderalia**
- 7 Petiole and midrib uppersides usually minutely (lens) striped red or purple; outer row of phyllaries mostly 7-12mm, often (often not) patent to erect and dark on lowerside; leaves \pm flat, relatively simply lobed 8
- 8 Lateral leaf-lobes broad-based, with convex front and concave rear edge, commonly 4 pairs; outer row of phyllaries usually arched to varying degrees, often subobtuse 8. **T. sect. Hamata**
- 8 Lateral leaf-lobes rarely as above, often 5-6 pairs; outer row of phyllaries erect to recurved all \pm to same degree, often acute 7. **T. sect. Celtica**

1. T. sect. Erythrosperma (H. Lindb.) Dahlst. (*T. laevigatum* (Willd.) DC. group, *T. simile* Raunk. group, *T. fulvum* Raunk. group). Plants small (to medium), delicate; leaves very deeply dissected, very rarely spotted, usually with purplish petiole and midrib; ligules pale to deep yellow, usually striped red to purplish on lowerside; outer phyllaries mostly 5-9mm, appressed to recurved; achenes 2.5-3.5mm, variously coloured red or purple to brown or straw-coloured but seldom greyish-brown, with cone mostly 0.6-1mm. 31 microsp. currently placed here; triploids or tetraploids. Mostly native; dry exposed places, usually on well-drained soils, short grassland, heathland, dunes; throughout BI, commonest lowland section after *Hamata* and *Ruderalia*, mostly maritime in N; 8 endemics. 714

2. T. sect. Obliqua (Dahlst.) Dahlst. (*T. obliquum* (Fr.) Dahlst. group). Plants small, delicate; leaves very deeply dissected, not spotted, with green petiole and midrib; ligules deep to orange-yellow, striped red on lowerside; outer phyllaries 6-7mm, appressed to erect; achenes c.3mm, greyish-brown, with cone c.0.4mm. 2 microsp. currently placed here; triploids. Native; open sandy turf by sea; local on coasts of BI, commonest in Sc, but S to CI. **T. platyglossum** Raunk. is more widespread than **T. obliquum**. RR 715

3. T. sect. Palustria (H. Lindb.) Dahlst. (*T. palustre* (Lyons) Symons group). Plants medium-sized; leaves narrow, scarcely or very shallowly lobed, not spotted, with purple petiole and midrib; ligules yellow to deep yellow, striped purplish or greyish on lowerside; outer phyllaries (3)6-7mm, appressed; achenes mostly 3.5-4.3mm, brown to straw-coloured, with cone 0.5-1mm. 5 microsp. currently placed here; tetraploids and pentaploids. Native; wet usually base-rich meadows and fen grassland; local, scattered in BI; 2 endemics. **T. palustre** is the best-known sp. with its distinctive \pm unlobed linear leaves. RR 716

4. T. sect. Spectabilia (Dahlst.) Dahlst. (*T. spectabile* Dahlst. group). Plants mostly medium-sized; leaves medium to scarcely lobed, usually spotted, with purplish petiole and midrib; ligules bright to deep yellow, striped purplish on lowerside; outer phyllaries 7-8mm, appressed (to erect); achenes 4-5mm, straw-coloured, with cone 0.3-0.4mm. 3 microsp. currently placed here; pentaploids. Native; damp or wet acidic grassy places, often in upland areas, also roadsides etc.; throughout BI; 2 Shetland endemics and **T. faeroense** (Dahlst.) Dahlst., which is possibly the commonest *Taraxacum* in native habitats in N Br. 714

5. T. sect. Naevosa M.P. Christ. (*T. naevosum* Dahlst. group, *T. praestans* H. Lindb. group *pro parte*). Plants medium-sized to robust; leaves medium to deeply lobed, usually spotted, usually with purplish petiole and midrib; ligules mid to deep yellow, striped purplish or greyish on lowerside; outer phyllaries (6)9-14mm, patent (to erect); achenes 3-4mm, reddish-brown to straw-coloured, with cone 0.5-1mm. 12 microsp. currently placed here; tetraploids. Mostly native; habitat and 715

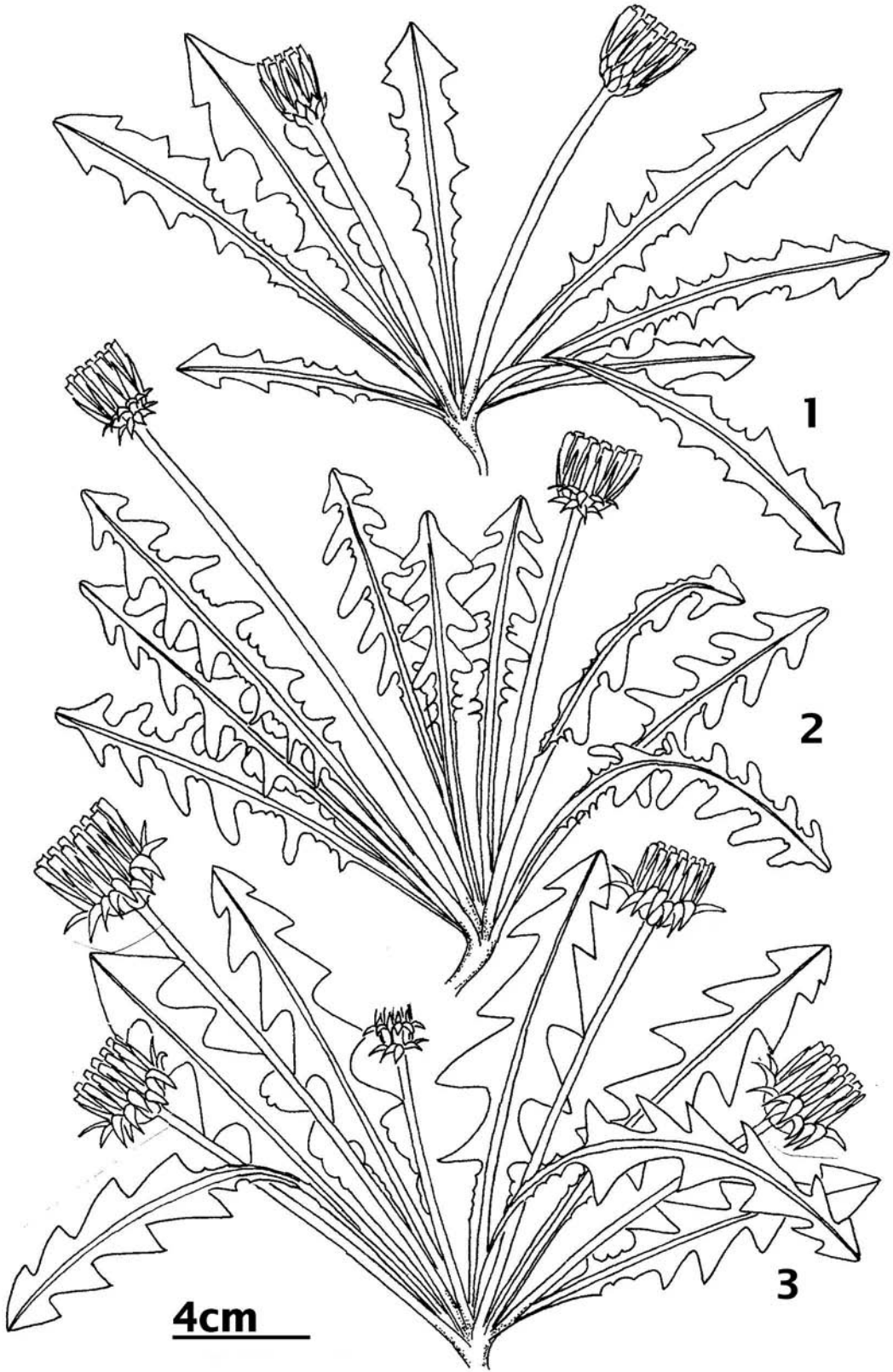


FIG 714 - *Taraxacum*. 1, *T. faeroense* (sect. *Spectabilia*).
2, *T. lacistophyllum* (sect. *Erythrosperma*). 3, *T. hamatum* (sect. *Hamata*).

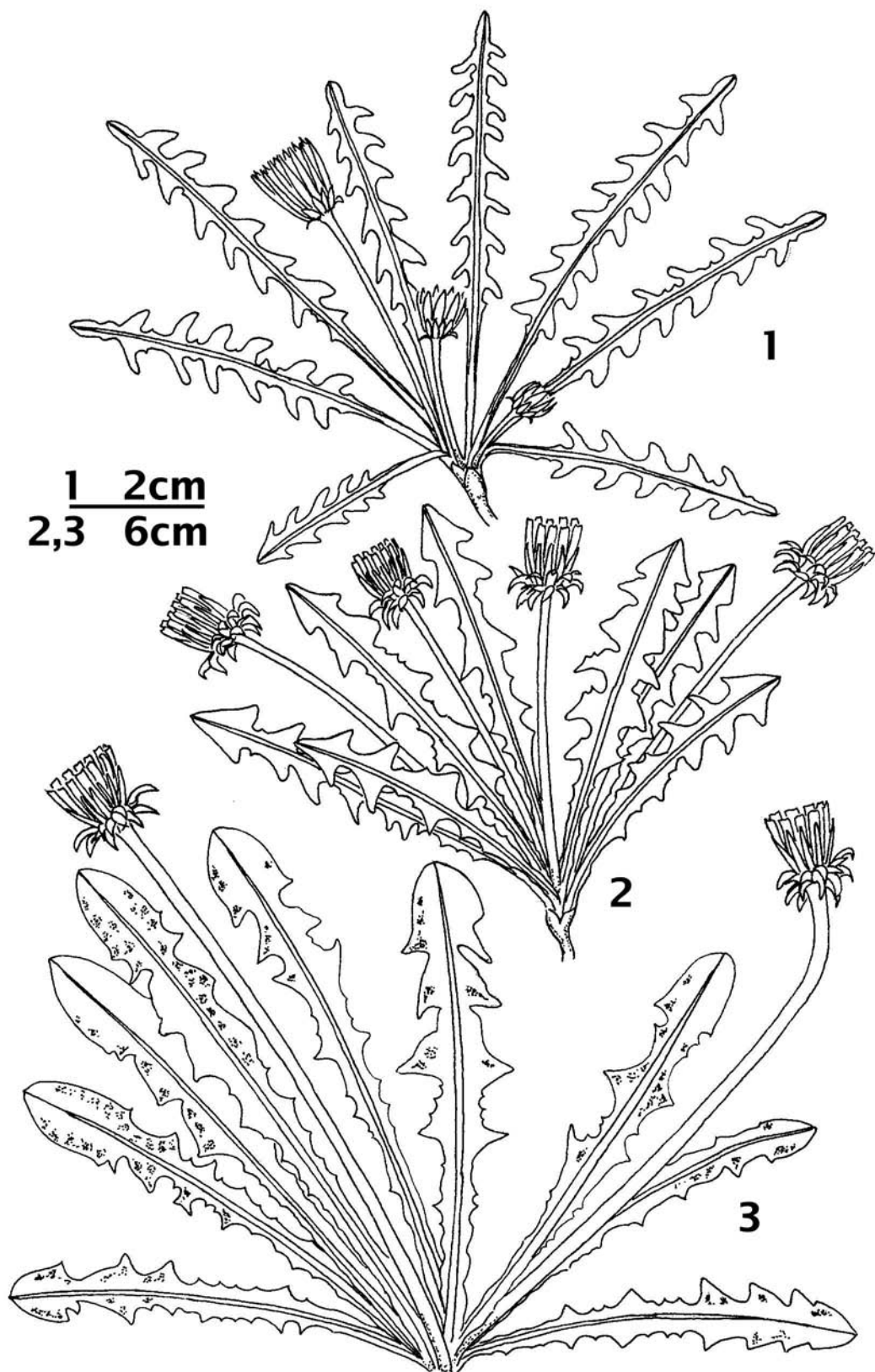


FIG 715 - *Taraxacum*. 1, *T. obliquum* (sect. *Obliqua*).
2, *T. croceiflorum* (sect. *Ruderalia*). 3, *T. euryphyllum* (sect. *Naevosa*).

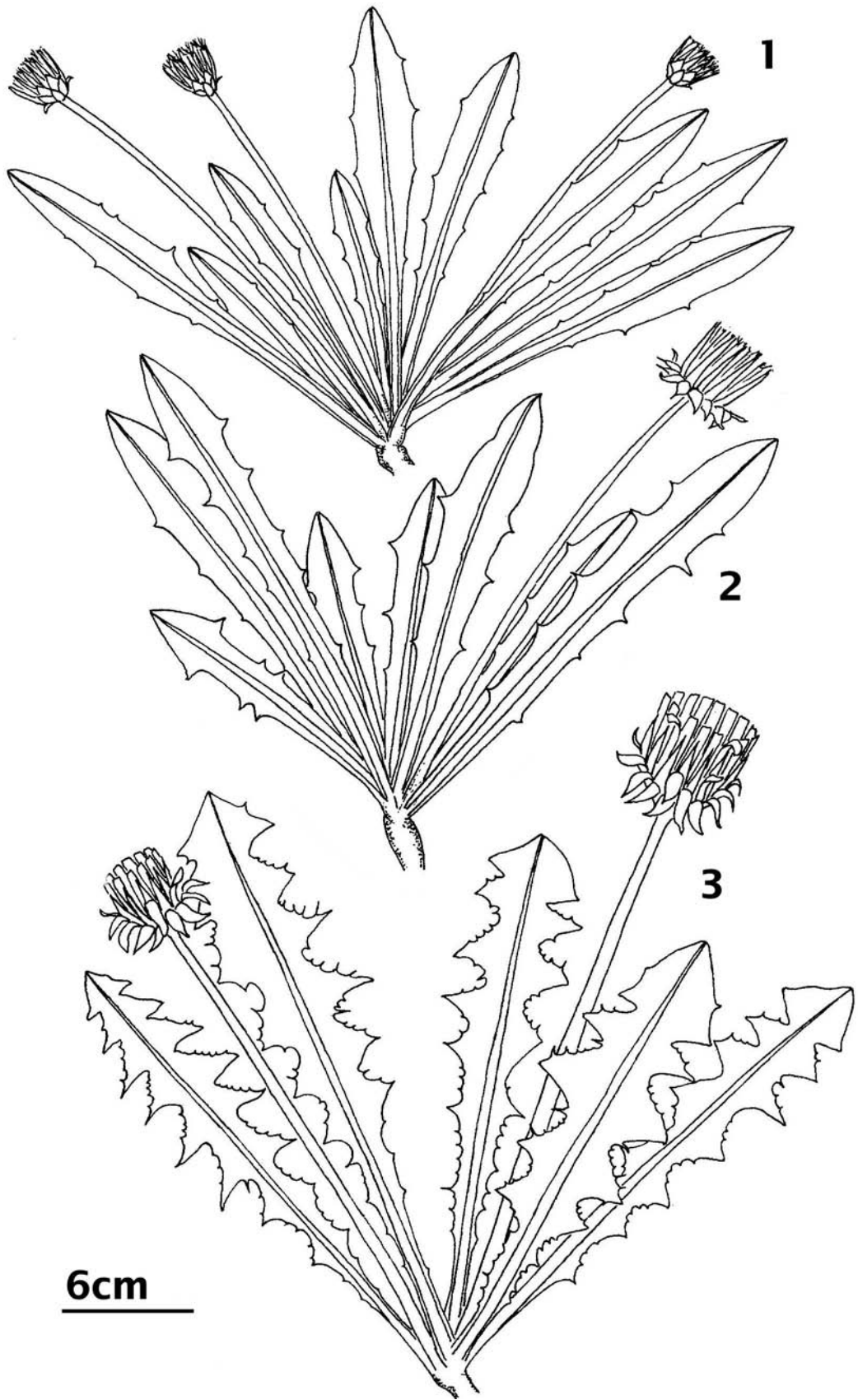


FIG 716 - *Taraxacum*. 1, *T. palustre* (sect. *Palustria*).
2, *T. ceratolobum* (sect. *Taraxacum*). 3, *T. duplidentifrons* (sect. *Celtica*).

distribution as for sect. *Spectabilia* but uncommon in SE En; 4 endemics.

6. T. sect. Taraxacum (sect. *Crocea* M.P. Christ., *T. croceum* Dahlst. group). Plants mostly medium-sized; leaves mostly medium-lobed, very rarely spotted, with green petiole and midrib; ligules deep to orange-yellow, striped purplish to violet on lowerside; outer phyllaries mostly 7-9mm, patent to erect; achenes mostly 3.5-5.3mm, brown to straw-coloured, with cone mostly 0.7-1mm. 6 microspp. currently placed here; tetraploids. Native; mostly base-rich mountain rock-ledges and flushes; very local in highlands of Sc; 1 endemic.

**RR
716**

7. T. sect. Celtica A.J. Richards (*T. celticum* A.J. Richards group, *T. unguilobum* Dahlst. group, *T. adamii* Claire group, *T. nordstedtii* Dahlst. group, *T. praestans* group *pro parte*). Plants mostly medium-sized; leaves deeply lobed, usually not spotted, with usually purplish petiole and midrib; ligules pale to deep yellow, usually striped purplish or greyish-violet on lowerside; outer phyllaries mostly 7-12mm, (patent to) erect; achenes mostly 2.8-4mm, brown to straw-coloured or reddish, with cone mostly 0.3-0.8mm. 35 microspp. currently placed here; triploids, tetraploids and hexaploids. Mostly native; mostly wet places in lowland grassland and in upland flushes and on rock-ledges; throughout BI, but few microspp. in lowlands; 18 endemics.

716

8. T. sect. Hamata H. Øllg. (*T. hamatum* Raunk. group). Plants mostly robust; leaves medium to deeply lobed with distinctive lobe-shape (see key, couplet 8), usually not spotted, with purplish petiole and midrib; ligules mostly deep yellow, striped greyish-violet on lowerside; outer phyllaries mostly 8-13mm, patent (to recurved or erect); achenes mostly 3-4mm, brown to straw-coloured, with cone mostly 0.3-0.7mm. 18 microspp. currently placed here; triploids. Native (c.7 microspp.) and intrd-natd; damp and dry grassland, roadsides and rough ground; throughout BI, usually weedy; 1 endemic.

714

9. T. sect. Ruderalia Kirschner, H. Øllg. & Stepánek (sect. *Vulgaria* Dahlst. nom. illeg., *T. officinale* Wigg. group). Plants mostly robust; leaves mostly medium to deeply lobed, rarely spotted, with green, purplish or sometimes whitish petiole and midrib; ligules mid to deep yellow, usually striped greyish-violet on lowerside; outer phyllaries mostly 9-16mm, recurved, patent or erect; achenes mostly 2.5-4mm, brown to straw-coloured, with cone 0.3-0.8(1)mm (rarely less). 120 microspp. currently placed here; triploids, occasionally diploids. Native (c.26 microspp.) and intrd-natd and -casual; habitat and distribution as for sect. *Hamata*. By far the commonest section, especially as weeds in lowland areas. c.50 of the microspp. are sporadic non-persistent casuals; 5 endemics.

715

34. CREPIS L. - Hawk's-beards

Annuals to perennials, sometimes shortly rhizomatous; stems branched, leafy or (*C. praemorsa*) all basal; phyllaries in 2 rows; receptacular scales 0 but receptacle often hairy, sometimes each achene-pit with membranous fringe; pappus of several rows of white or (*C. paludosa*) yellowish-white, simple hairs; ligules yellow; achenes not flattened, ribbed, beaked or not (if not, usually slightly tapered distally).

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|--|-------------------------|---|
| 1 Flowering stems leafless | 10. C. praemorsa | 2 |
| 1 Flowering stems bearing leaves | | 2 |
| 2 Outer achenes with short or 0 beak, distinctly different from inner slender-beaked ones | | 3 |
| 2 Achenes all the same, or inner and outer slightly different but grading into one another | | 4 |
| 3 Capitula pendent in bud; inner achenes 10-17mm incl. beak | 9. C. foetida | |
| 3 Capitula erect in bud; inner achenes 5-9mm incl. beak | 7. C. vesicaria | |
| 4 Achenes distinctly beaked, the beak usually $\geq 1/2$ as long as body of achene | | 5 |