

SOMERSET RARE PLANTS GROUP

Recording all plants growing wild in Somerset, not just the rarities



Meeting Report



Saturday, 5th May 2024, A Dandelion Training Day, Avalon Marshes Centre and Canada Farm (VC6)

Leaders: Simon Leach

Report: Barbra Lakin

This meeting was limited to 8 people, so a small but keen group gathered to learn something about the fascinating world of dandelions.

The day started at the Avalon Marshes Centre where Simon had a selection of pressed specimens and 'bagged' freshly-collected samples, plus a few potted, labelled dandelions that he had been growing in his garden. Several members had brought additional samples for us to examine and have a go at identifying.

We began by taking a closer look at what features distinguish dandelions from other lookalike yellow composites.

A dandelion **flower-head** (*capitulum*) is actually quite a complex structure, consisting of an *involucre* of usually greenish outer and inner bracts (these are often called *phyllaries*) and many yellow *florets*; each floret is a flower. The flower-head sits at the top of a stem, with there always being just one flower-head per stem. The florets are more or less tubular and 'ligulate', the outer florets having ligules with often

distinctively-coloured stripes underneath. The presence or absence of pollen is a helpful feature when trying to distinguish between some species, while the colour of the stigmas – yellow, orange, greenish or even blackish – may also be diagnostic.

Unlike many other composites, the flowering **stem** (known as the *scape*) is entirely leafless, as well as being hollow and filled with white latex. The scape may be hairless in some species, while markedly hairy in others. Young scapes are often more obviously hairy than older ones. Unlike many other composites (such as the cat's-ears, hawkbits, hawkweeds) the **fruit** pappus hairs are not feathery. The **root**, as many gardeners will know to their cost, is a deep taproot, and the plant will happily regrow from discarded root fragments.

Simon explained that almost all British dandelions are **apomictic**, meaning that they produce seeds without the usual requirement for pollination and cross-fertilisation. Each dandelion species is essentially a **seed-clone**, with 'daughter' plants being genetically identical to their 'mothers'. For British dandelions, then, pollen is almost entirely redundant.

Putting names to dandelions is a tricky and painstaking business, a species often being defined by a bewildering range of flower and leaf characters. Recording forms exist so that we can document all the

details, such as the one devised by Jeanne Webb that is available to download from the SRPG website.

Many characters need to be recorded while the plant is still fresh. The diameter of the flower-head should be measured when fully open. Outermost ligules usually have a coloured ligule stripe: 'grey-violet' is the commonest colour, although in some species the stripe may be brown, orange, red, or even – as in *Taraxacum nordstedtii* – puce (a rich brownish purple). Inner ligules usually have yellow teeth, but other colours also feature on some species – e.g. *T. necessarium* has inner ligules with black teeth, while the teeth of *T. croceiflorum* are red! Outer involucre bracts should be measured and then checked with a hand lens to see whether they have white or purple borders, while the 'attitude' of these bracts – e.g. appressed, spreading, reflexed or recurved – is often important.

Leaf shape is also critical, and thankfully this is one feature that shows up well after pressing. Leaves may be homophyllous (all of more or less one shape) or heterophyllous (with inner and outer leaves differing quite markedly in their shape, particularly in the size and shape of the terminal lobe). The end-lobes should be described, carefully noting their shape and whether they are sub-divided into several (Often rounded) 'lobules'.

The pairs of lateral lobes need to be counted, although Simon pointed out that it is sometimes hard to decide with certainty whether the (usually smallest) bottom-most pair of lateral lobes are actually lobes or are part of the petiole which may itself be variously winged and toothed. The shape of the lateral lobes is often an important character, and lobes may be toothed (dentate) along their proximal and/or distal margins, while the 'interlobes' (the narrow section of leaf between pairs of lateral lobes) can also be toothed. Some species, such as *T. multicolorans* (photo below), can have dark blotches on the leaf interlobes.

The colour of the leaf midrib (on *upper* surface of leaf) and the petiole (on *underside* of leaf) should also be noted while the plant is fresh, since by the time it's been pressed and dried these colours may have become hard to discern. The value of describing the

plant in its fresh state (and taking pictures, too) extends to many of the features that rely on colour.

Pressing Dandelions. Simon showed some of his stunningly beautiful pressed dandelions and outlined the steps he takes to achieve this. The whole plant is pressed but some leaves can be judiciously removed if the basal rosette is excessively crowded or if some leaves are dead, damaged or diseased. Ideally, the plant is sliced off just below ground level, but the root collar can be whittled down if it is too thick. Small jewellery tags with collection code number, grid ref. and date can be attached to the plant, ensuring notes and photos made in the field can be linked to the correct specimen.

Once the plant is in the press and flattened, there is a 24-hour window in which leaves (and so on) can be rearranged so as to display their features to best advantage. The plant is pressed with plenty of corrugated cardboard and newspaper to wick away moisture.

It is important to dry dandelions as quickly as possible to stand the best chance of retaining their colour. Storing the press in an airing cupboard, or on a radiator, or in a car parked in a sunny spot, will help to speed up the drying process, along with frequent (twice daily) changes of newspaper. A specimen can take up to a week to dry, after which it can be removed from the press and placed loose in a folded sheet of newspaper for storage. Completed field notes and forms can be inserted with the specimen.



Pressed Dandelion – this one a specimen of *T. multicolorans* collected near Chew Magna (VC6) – with jewellery tags attached © Barbra Lakin

When to collect and when *not* to collect... Spring is the time when dandelion species tend to look their best: depending on the year's seasonal conditions, they are best collected between late February and the end of April. Any time after the middle of May, at least in southern England, is likely to be too late. If plants have been mown or otherwise damaged they can quickly become impossible to identify, and leaf plasticity often results in the development of 'summer leaves' quite unlike those found in spring. The leaves become 'over-enlarged' (gross) and 'wrinkled' and they lose some of their characteristic lobing and colouration. Summer leaves may be more deeply divided (or, perversely, *less* divided) than their counterparts in the spring.

For various reasons, it is unsafe to assume that a dandelion can always be identified. In fact, most dandelion plants – maybe as many as 90% - are not really good enough examples for purposes of identification. It is important, therefore, to learn what a 'good' dandelion looks like – but teaching the difference between 'good' and 'not so good' isn't straightforward!

It is vital that specimens, together with all their supporting documentation – notes, photographs, etc. – are examined by someone who knows what they're doing. As a rule, only specimens determined (or confirmed) by the national referee, John Richards, or by another expert such as Tim Rich, Jon Holt or Alex Prendergast, will be accepted as valid records and added to the national *Taraxacum* database. However, after a while, you may find John will allow you to make records without the need for vouchers for those species with which you are particularly familiar. Simon, for example, after eight years of recording, now has a list of about ten such species!

After a quick lunch break, we car-shared to Canada Farm where we looked at dandelions in the field. The first areas of grassland we visited were very wet and marshy, with several small dandelions amongst many species of sedge and patches of *Euphrasia*. These included putative *T. nordstedtii* (with lovely puce ligule stripes!) and (possibly) *T. chlorofrugale*, plus something with rather grubby, spotted leaves (and no

pollen) that we think could have been a 'Section *Naevosa*' species. Specimens were collected, and notes and photos taken, though at the time of writing (early November 2024) we have yet to learn what John Richards has made of them.

In Skinner's Wood we also collected a possible example of *T. atactum* (photo below), which would be a new hectad record. Elsewhere we found several further colonies of what we think was *T. chlorofrugale*. This is an under-recorded dandelion that was only described as a British and Irish species in 2019. Very similar to *T. nordstedtii*, the species was recorded for the first time in Britain in Somerset, on Exmoor, by Graham Lavender. In the last couple of years it has been seen elsewhere in VC5 in the Blackdown Hills and on the Quantocks. If confirmed, our records for Canada Farm would be the first for VC6.

On the verge of Station Road, on our way back to the cars, Simon showed us *T. pulchrifolium*, a new hectad record and possibly only the third or fourth record for VC6.



Deliberating over a possible *T. atactum* © Barbra Lakin

Many thanks to Simon for helping beginners like myself to become familiar with some of the complexities of dandelions; and discovering, in the process, that getting to grips with such a 'difficult' and challenging group can actually be good fun too.