

SOMERSET RARE PLANTS GROUP

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



Meeting Report



SRPG members studiously identifying specimens using The Vegetative Key to the British Flora. Photo © Karen Andrews

Saturday 11th March 2023, Shapwick (VC6)

Leaders: John Poland and Helena Crouch

Report: Helena Crouch

For our March meeting, we were privileged to welcome John Poland, one of the authors of “The Vegetative Key to the British Flora”, to lead a Vegetative Key Workshop at Shapwick Pavilion. This popular event attracted 34 members and began with coffee and lashings of home-made cake, kindly supplied by several participants.

Once the large class was seated, and the first specimens were dished out, John began with a serious test of observation: which is the upper surface of a Montbretia (*Crocsmia x crocosmiiflora*) leaf? This was a trick question of course, as we all now know that *Crocsmia*, like *Iris*, has **equitant** leaves. They are folded down the middle and fused, so that both outer sides are actually the underside of the leaf, whilst the upper surface is hidden inside.

Specimens of Box (*Buxus sempervirens*) were handed out, and as these were keyed out, John explained many terms used in the book. **Pruinose** and **glaucous** both describe a blue tinge, but pruinose is used when the bluish-white tinge can be rubbed off. **Indistinct** veins are faint, but **obscure** veins cannot be seen at all. **Aromatic** is used for a pleasant scent, **fetid** for a horrid one, and **odorous** for a smell which is neither

nice nor horrid. The location of **stomata** is a useful feature (although it is in fact the guard cells around the stomata which are visible), so time was spent ensuring that everyone could recognise these. On Box they are distinctive white dots on the underside of the leaf, particularly evident near the midrib.



Box (*Buxus sempervirens*) with shiny dark green opposite leaves with indistinct veins, pruinose above when young, hairless, odorous, with stomata below only, visible near the midrib. Photo © Karen Andrews

Next, we puzzled over how to tell whether leaves in a rosette are **opposite** or **alternate**, studying specimens of Shining Crane’s-bill (*Geranium lucidum*). Some species, for example Devil’s-bit Scabious (*Succisa pratensis*) have obviously opposite basal leaves, each one of a pair identical, but John explained that if the rosette is “messy” or the leaves all have petioles of different lengths, or are different sizes, this indicates that the leaves are alternate.

A feature which is much used in the Vegetative Key is the presence and type of hairs. Most hairs are **simple** and composed of one cell; some are **septate**, or multi-cellular, the divisions between cells visible under a lens. **Stellate** hairs look like flat starfish. **Hispid** hairs are piercingly sharp. Portions of a Mullein (*Verbascum*) leaf were handed out so that everyone could marvel at the **dendritic** (multi-branched candelabra) hairs. The presence of **hooked** hairs is not always obvious, as John proceeded to demonstrate with a soft felty leaf of Soft Comfrey (*Symphytum orientale*) which astonishingly stuck to his jumper! It must therefore have hooked hairs.



John Poland demonstrating how hooked hairs can be detected if wearing a woollen jumper! Photo © Karen Andrews

Specimens of Hybrid Oleaster (*Eleagnus x submacrophylla*) were distributed so that everyone could examine the **peltate scales** on the underside of the leaves. These are an adaptation to prevent desiccation of the leaf.

More terminology was learned by keying out a sedge specimen. The ligules of sedges are **adnate** to the blades, a term used when two different organs are fused together. John explained how to measure the **ligule length**, a feature used in the Vegetative Key.



Measuring the ligule length of a sedge: Peel back the leaf and measure the vertical length along the leaf from where the ligule joins the leaf margin to the tip of the ligule. Photo © Karen Andrews

If the term **hairy** is used to describe a leaf, the leaf is hairy all over the surface, whereas **ciliate** means that there are hairs along the edges. Some sedges are characterised by having **false stems**, which are actually tightly rolled leaves and sheaths. These species have no leaves at ground level; in most sedges, all the leaves arise from ground level.

With fortification from more tea and cake, we learned the difference between **prickles** (sharp outgrowths of the epidermis), **spines** (modified stipules) and **thorns** (modified branches). We learned to recognise an **interpetiolar ridge**: a horizontal ridge on a twig which connects two opposite leaf bases. We looked at conifers, learning how to view resin glands, the shape of which is useful. We spent the whole day keying out specimens, learning terminology, and eating cake!



SRPG members engrossed in vegetative characters, watched over by our tutor John Poland (Right). Photo © Steve Parker

It was a brilliant day, later rated by members as “a great event”, “superb”, “really useful and enjoyable”, “absolutely brilliant”, “really good”, “a super training day”, with the ultimate success measure being a comment: “I feel much more confident using the Vegetative Key now”!