

Sussex Botanical Recording Society made the Steyning Downland Scheme the subject of one of their field trips in July 2014. They thoroughly investigated the Rifle Range areas and Steyning Coombe. This is Chairman Nick Sturt's summary of what they found:

Steyning Downland Scheme
A Note on some of the Species Recorded
12 July 2014

1. Sedges

Carex flacca Carnation Sedge: a very common sedge of chalk grassland.

Carex spicata Spiked Sedge: not uncommon at the foot of chalk scarp, usually on heavier soils; one plant found Rifle Range North.

[*Carex caryophylla* Spring Sedge: not found but could appear on the finest chalk turf – to be looked for in May.]

2. Grasses

Brachypodium pinnatum Tor-grass: the rough grass that destroys fine chalk turf. Still common but the grazing regime is definitely making progress. It is joined here by another tall and coarse grass species *Schedonorus (Festuca) arundinaceus* Reed Fescue which is similarly invasive.

Schedonorus (Festuca) pratensis Meadow Fescue: small patches of this were found on both N and S Rifle Range. It is a finer version of the previous species and one which seems to have declined drastically in Sussex since the 1970s and thus very good to see it here.

Grass species present not especially associated with the chalk are: *Agrostis stolonifera* Creeping Bent, *Arrhenathrum elatius* False Oat-grass, *Brachypodium sylvaticum* False Brome, *Cynosurus cristatus* Crested Dog's-tail, *Dactylis glomerata* Cock's-foot), *Festuca rubra* Red Fescue, *Holcus lanatus* Yorkshire Fog, *Phleum bertolonii* Smaller Cat's-tail (Smaller Timothy), *Trisetum flavescens* Yellow Oat-grass. Of these *Cynosurus* and *Trisetum* are the finest; along with the *Phleum* it would be good to see them increasing at the expense of the other species.

Grasses particularly typical of finer chalk grassland are *Avenula (Helictotrichon) pubescens* Downy Oat-grass, *Bromopsis erecta* Upright Brome, *Briza media* Quaking Grass, *Festuca ovina* Sheep's Fescue. These are all present in places and indicative of the best quality chalk turf.

3. Herbs of the Chalk

There is a good selection of typical chalk grassland herbs such as *Carlina vulgaris* Carlina Thistle, *Centaurea scabiosa* Greater Knapweed, *Cirsium acaule* Stemless Thistle, *Euphrasia nemorosa* Common Eyebright, *Filipendula vulgaris* Dropwort, *Galium verum* Lady's Bedstraw, *Leontodon hispidus* Rough Hawkbit, *Linum catharticum* Fairy (Purging) Flax, *Lotus corniculatus* Bird's-foot Trefoil, *Ononis repens* Common Restharrow, *Poterium sanguisorba* Salad Burnet, *Scabiosa columbaria* Small Scabious, *Thymus polytrichus* Common Thyme,

Viola hirta Hairy Violet. The presence of several orchid species is also encouraging – *Anacamptis pyramidalis* Pyramidal Orchid and *Dactylorhiza fuchsii* Common Spotted Orchid were frequent and one fruiting spike of *Ophrys apifera* Bee Orchid was seen. Not every species was recorded in all three compartments.

Since the first SBRS visit (2009) grazing has certainly improved the North and South slopes of the Rifle Range and the areas of finer species should expand as this continues year by year. Regarding the Combe, this has scrubbed up since the original clearing to create a variety of habitats: future management should aim to maintain open areas as well as scrub of varying densities for the maximum bio-diversity. One example of the typical chalk shrub *Rhamnus catharticus* was noted here. In the open parts there was a good range of chalk loving grasses and herbs with some evidence of a gradient in pH – so that at the top of the section there was almost a turf of *Succisa pratensis* Devil's-bit Scabious and a few plants of *Rumex acetosella* (Sheep's Sorrel) suggesting leached soil (and thus further bio-diversity). Two other species deserve special mention: *Centaureum pulchella* Lesser Centaury, a not too common little gem scattered by the path up the Combe and what could be an unusual *Euphrasia confusa*, an uncommon small, much-branched Eyebright: Eyebrights are notoriously difficult (the specific name *confusa* would be appropriate for most of them!) but this one, again scattered by the path in the Combe (and possibly on top of Rifle Range South) looked distinct from the frequent *E. nemorosa* encountered elsewhere.

The survey by members of the Sussex Botanical Recording Society was inevitably a sample of the three compartments rather than an exhaustive list of the plants present. In particular it would be worthwhile to arrange a visit earlier in the summer to record those species which disappear with little or no trace later on.

Nick Sturt, Chairman SBRS