

Flora of Cumbria Recording Group

Newsletter no. 5, 17th March 2018

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### Spring Meeting: 10th March 2018, Plumgarths

We are yet again grateful to Peter Bullard for his kind offer of the use of facilities at CWT Plumgarths.

Mike Porter welcomed 38 recorders and invitees, to our annual indoor meeting. We welcomed Kelli Imms and Rob Dove to the group, and we do hope they enjoy taking an active part in our activities.

Apologies for absence were received from: Dr Geoffrey Halliday, Dr Rod Corner, Diane Dobson, Lynne Farrell.

A summary of some of the agenda items follows. As is obvious in what follows, our current focus is on the last two years of recording for the BSBI *Atlas 2020* project... with time for little else!

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Dates of field-meetings, 2018 (MP)

The venues will be forwarded to recorders when available. All meetings start at 10.00 am.

SD27 Dalton – Saturday 19th May (Leader Mike)

NY12 Lorton – Monday 4th June (Leader Phill)

SD29 etc, Broughton Mills and district – 22nd June to 30th June
(Leaders Jeremy, Phill, Mike)

NY53 Great Salkeld – Tuesday 17th July (Leader Phill)

NY62 Knock – Wednesday 15th August (Leader Jeremy)

NY30 White Moss Common – Thursday 6th September (Leader Mike)

The week-long late-June 'event' should allow many underworked tetrads to be tackled. Jeremy and Phill will be resident for the first four days and Mike for the remaining days. The actual venues will be chosen near the time, and will be dependent upon weather for some of the moorland and mountain areas. Lower level tetrads will also be available each day. Do attend as many days as you can to help us 'fill in the gaps' in that corner of the county.

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### Cumbria Biodiversity Data Centre Recording Days, 2018

We have often had a presence at these multi-discipline events, which are often organised to sites needing special permission, etc.

Tuesday 26th June

Thursday 5th July

Saturday 28th July

Saturday 25th August

Site information will be advised when available.

Contact Recording Officer Stuart Colgate by [email](#), or visit the [website](#) for more information.

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Progress with recording (PB)

Phill showed up-to-date maps, with various facets of progress with data-input of 2017 records, and from previous years, with coverage towards the BSBI's *Atlas 2020* project (for which 2019 is the last recording year).

Recording Effort, 2017

Total no. of records:	83 614	[2016 : 57 943]
... of which VC69 :	36 188	30 481
VC70 :	47 426	27 462]

Recorders

No. of recorders with at least one record :	112	[2016 : 111]
No. of recorders with more than 500 records :	25	29
No. of recorders with more than 1000 records :	20	13

22 recorders recorded on 10 or more days	[2016 : 20]
5 recorders recorded on 50 or more days	

Records from field-meetings, 2017

The meetings held in 2017 contributed the following totals:

NY00 Gosforth – May 20th	1108
SD39 Grizedale – June 19th	879
NY43 east side; Hutton-in-the-Forest – July 4th	794
NY50 High Borrowdale – July 19th	777
NY62 Bolton – August 3rd	1172
NY73 South Tyne to Moorhouse – August 25th	569
NY44 west side; Southwaite – September 9th	1009

Total number of records from FoC meetings in 2017 : 6308	[2016 : 5096]
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'Catching up'

In addition to the 2017 records, we continued to add post-2000 records.

No. of records from previous years : 56 257
... of which VC69 : 30 825
VC70 : 25 432

The total number of records added to the BSBI database in 2017 was **139 871**.

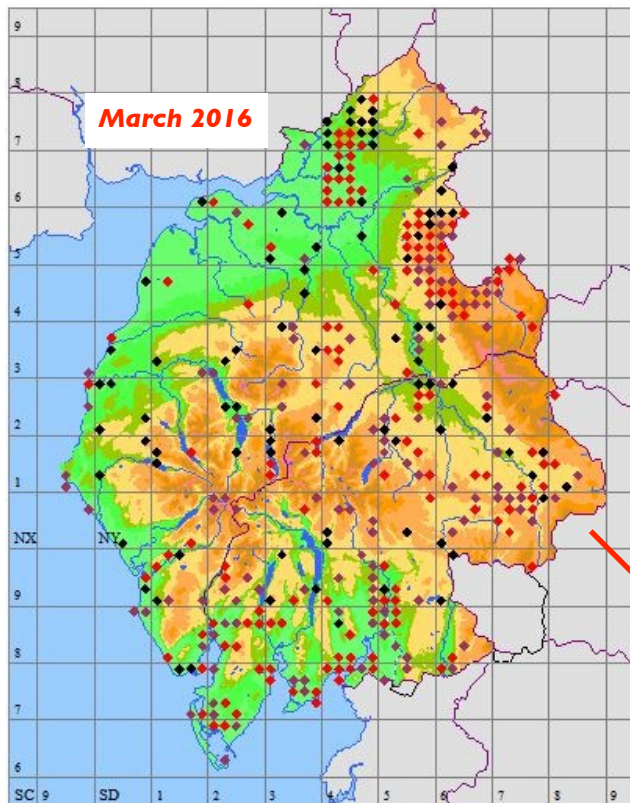
Tetrad coverage, post-1999 records (PB)

See maps below.

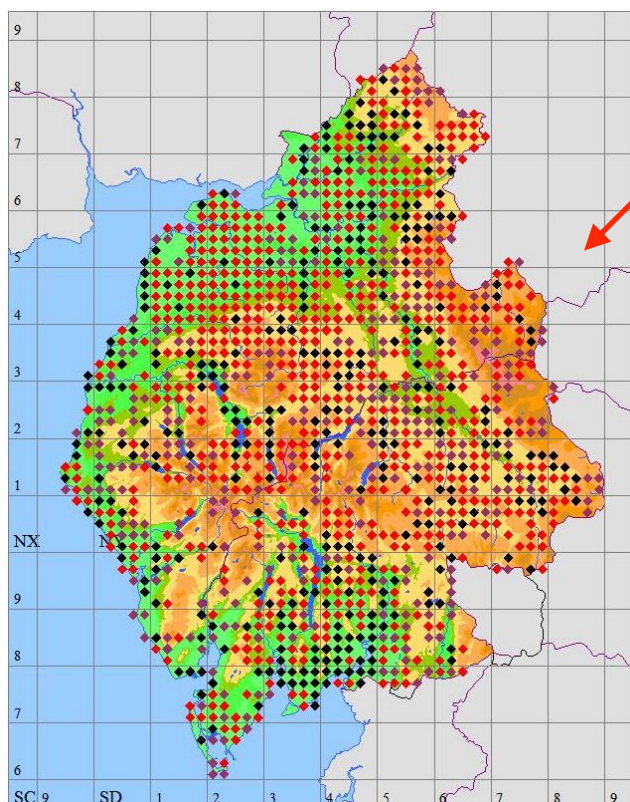
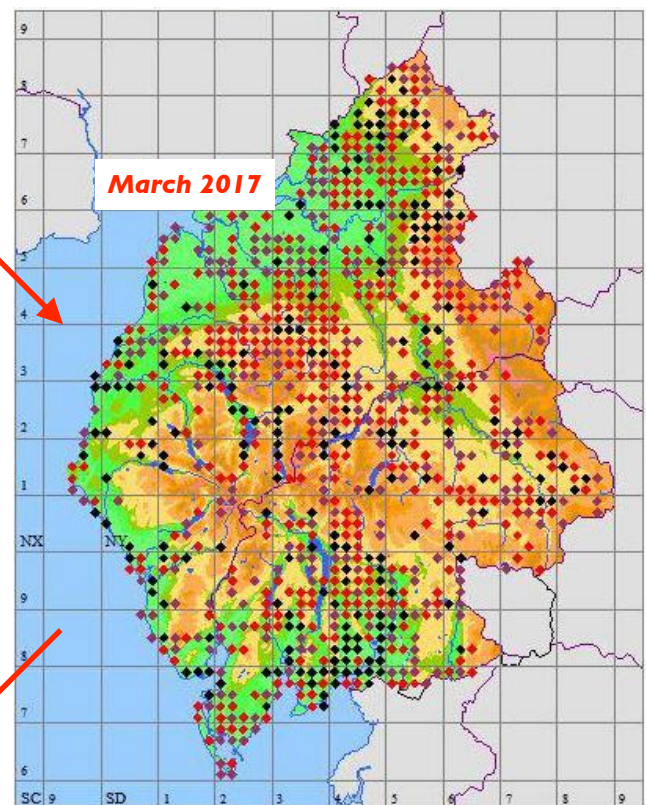
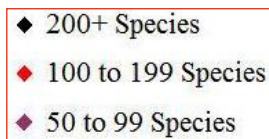
Note that only tetrads with **50+ records** are mapped.

The increasing incorporation of '2000→' records since the 2015/2016 winter is well-shown across the three maps.

However, the actual species-counts per tetrad remain in many cases well behind what was achieved for *A Flora of Cumbria*, with its longer time-scale.



(Note that many records – both current and from earlier years – are still being submitted and await adding to the database.)



From the final map (left), it is evident that as well as some obvious lowland gaps still to be attacked, there are large areas of high and difficult land in Lakeland (especially the southwest), and in the very remote Pennine moorlands.

It may be that informal groups of those fit to tackle the (inevitable) rough ground, and the (all-too-likely) inclement weather could take on some of the higher ground.

Offers and suggestions welcomed!

Target Tetrads, or Recording for the *Twenty-Twenty Atlas* (a recap) (PB)

Phill gave his (now traditional) update on the state of data inputting, etc., and proposed strategies for recording in 2018.

To be 'well-recorded' for *Atlas 2020* we need five 'well-recorded' tetrads per hectad (and *pro rata* for boundary/coastal part-hectads). To be considered 'well-recorded' a tetrad should have been visited two or more times. The tetrad should normally have at least 100 taxa recorded (in all time).

The percentage of taxa recorded within the 'Twenty-Twenty' period (*i.e.* from the start of 2000 to the end of 2019), versus the 'all-time' total, should meet a preset threshold. The BSBI-recommended threshold has been 75%.

This 75% target is a general recommendation and may be adjusted to fit local circumstances.

If any vice-county is poorly-recorded (e.g. it has many tetrads with **no** records from before 2000) then any records from those tetrads would be 100% of the taxa recorded in all time!

We have the opposite situation in vice-counties 69 and 70: recording for *A Flora of Cumbria* (1997) was very thorough, hence rendering the 75% threshold a difficult target to reach. (Furthermore, total numbers of taxa in some tetrads in *A Flora of Cumbria* include many micro-species, which – whilst welcome – are not actually required for *Atlas 2020*.)

Hence it is reasonable to reduce the threshold percentage for VC69/70... but by how much?

A Strategy

Before the 2017 recording season Andy Amphlett produced a spreadsheet which, when fed with data from the BSBI Distribution Database (DDb) and Biological Records Centre (for mapping information), analyses the state of recording in each tetrad for any VC. Crucially at that stage we had enough post-2000 tetrad records, both from entering past records and from a good recording season in 2016, to make use of the analysis.

It became clear that by targeting tetrads that were approaching 'well-recorded' status, we could just possibly achieve the goal of five well-recorded tetrads per hectad.

By adjusting the threshold down to 60% we found that we still needed to raise numbers in 171 tetrads to 60%. This gave us 57 tetrads per year for each of the final three recording years, 2017–2019 – possibly achievable.

Did we reach the target? In the event, we raised **104** tetrads to well-recorded status in 2017! That would leave only **67** to do in the remaining two years, 2018 and 2019.

Target Tetrads for 2018

It was always intended that after the first year (2017) we would re-analyse the recording levels per tetrad, and draw up a new list from first principles for 2018.

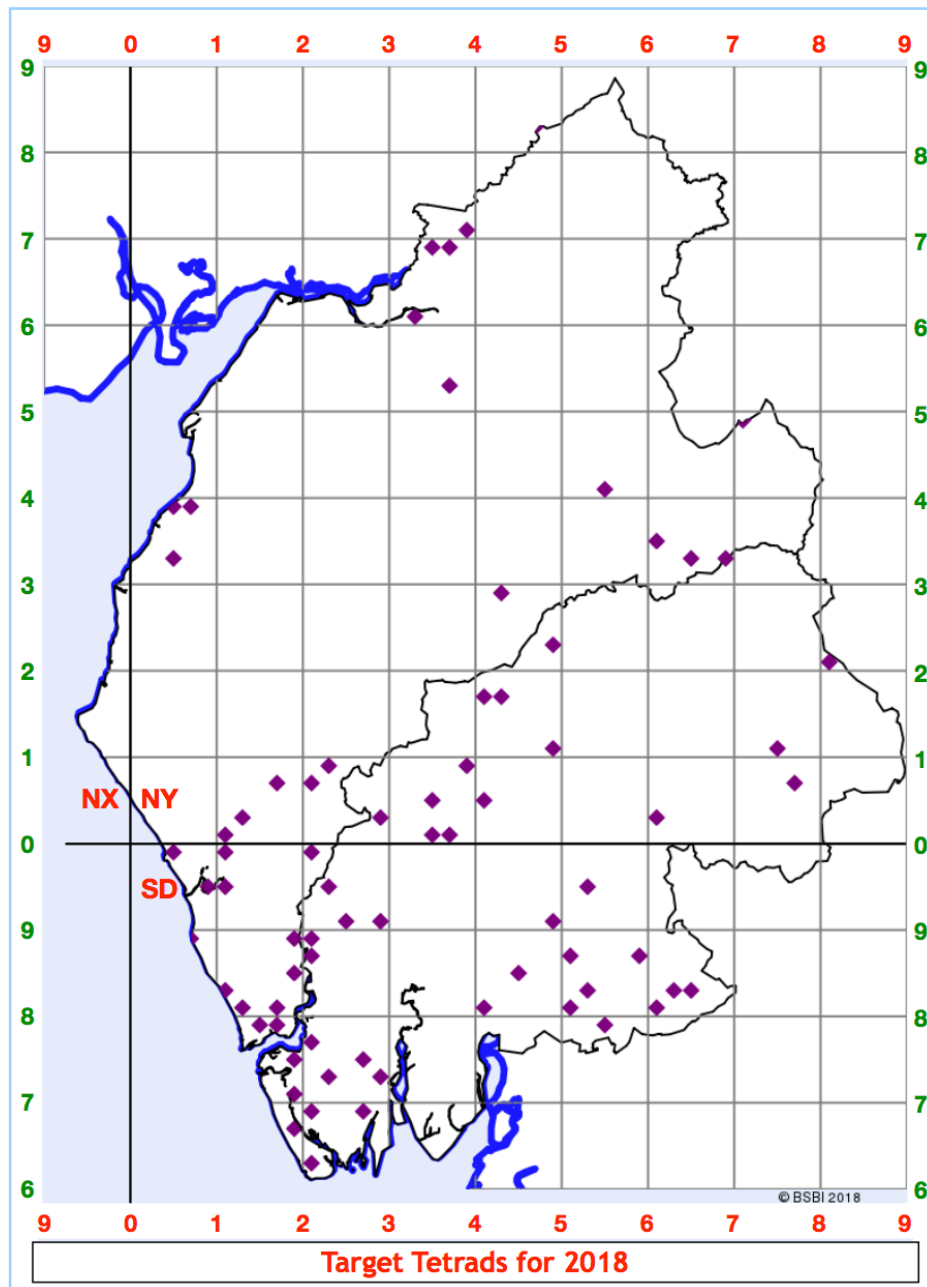
Records added from pre-2017, and from general recording away from the Target Tetrads, needed to be accounted for. It was found that at 60% only about **50** tetrads were now required.

If the target were to be increased from 60% to 65%, at this level **105** tetrads would need to be targeted (a figure remarkably close to the number we managed in 2017).

However so many of these tetrads are sufficiently close to 65% that it was decided to ignore for this year any of the 105 that were over 62.5%, and concentrate on the remainder.

The number of Target Tetrads for 2018 is therefore 74 (see map on the next page).

Map of Target Tetrads for 2018



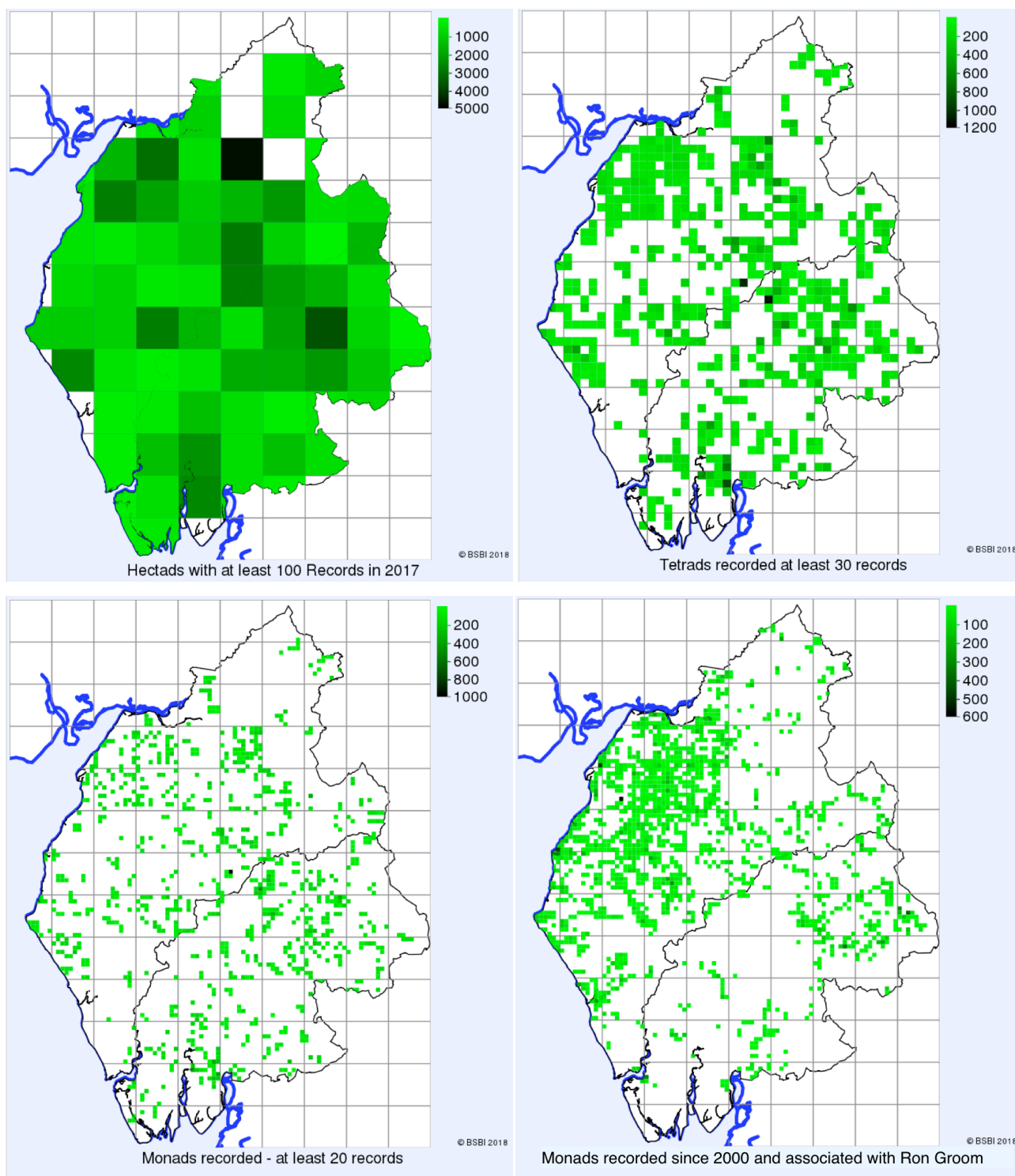
[NB. If recording tetrads which have vice-county boundaries crossing them: **keep separate lists** from each side of the boundary so that records can be entered with a particular VC, or remain on one side.]

The Target Tetrad list, and the map, along with desiderata for each tetrad, will be available on the website within the next few days.

It would be helpful if people would 'adopt' one of these tetrads: i.e. commit to at least one recording visit this year in that tetrad. Your tetrad does not have to be in your adopted hectad(s); many hectads have no targets now.

It helps if after recording a TT, you send the data in quickly. The list can then be updated and it will be apparent when a tetrad is 'over the threshold' so that effort is better placed elsewhere and duplication avoided.

It is hoped that we will complete these tetrads by the end of this year. That would leave the final recording year for tidying up; adding missing or under-recorded taxa; identifying and improving any 'poor' hectads... and, we hope and trust, having fun!



The maps above show 2017 recording at different scales:

- ❖ hectads recorded with at least 100 records (75)
- ❖ tetrads recorded with at least 30 records (574)
- ❖ monads recorded with at least 20 records (868)
- ❖ post-2000 monads recorded by Ron Groom (1453)

Special thanks! We have finally completed adding Ron's post-2000 records (map above), all at monad level or better. Grateful thanks go to Ron for transcribing his volumes of field notes into digestible lists, and to Mike for entering these lists into spreadsheets for importing to the database. A huge task: the total number of records added is 19,366 in 1453 monads! A very satisfying conclusion!

There is further explanation of 'Target Tetrads' on a website page, [here](#).

As several recorders have commented, it can be remarkably difficult to refind many of the species on tetrad 'desiderata' lists [which largely reflects the thoroughness of the *Flora of Cumbria* coverage!]. Has there been a widespread loss of scarcer species from the countryside in the intervening years?

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Mike detailed two recent recording events:

### New Year Plant Hunt 2018 (MP)

The FoC group and the Facebook Cumbria Botany Group were invited to take part in this annual event early in the year, to record any species in flower.

Nationally, around a thousand botanists took part; 616 lists of plants were sent in to the BSBI; 532 species were recorded in flower.

In Cumbria, 29 people took part (*right*);  
33 lists of plants were sent in to the BSBI;  
46 species were recorded in flower.

The five species most often recorded in flower here were Daisy, Groundsel, Dandelion, Annual Meadow-grass and Gorse.

By way of – somewhat unfavourable – comparison, a single visit to Phillack in Cornwall produced 114 species in flower!



### Snowdrops (MP)

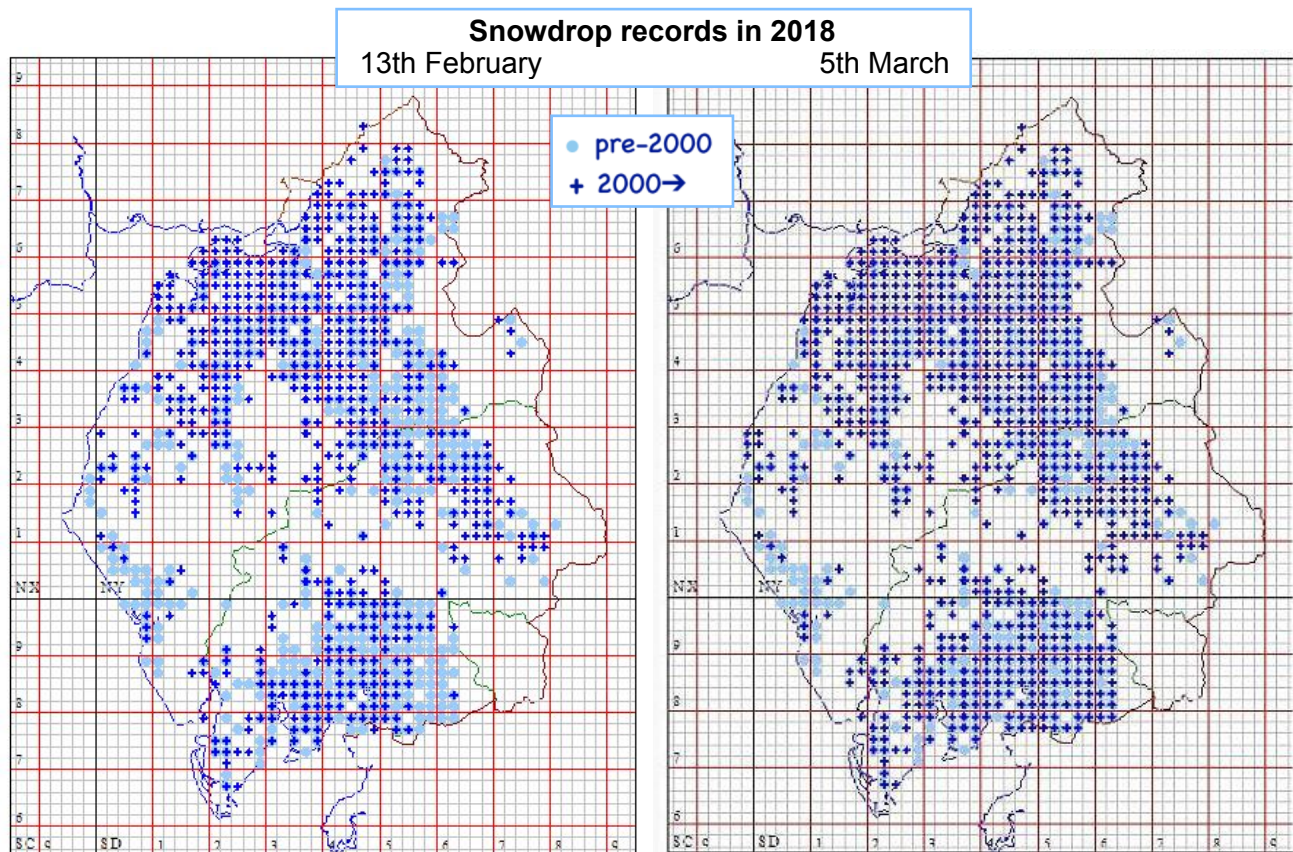
In another 'early-season' exercise, both the FoC group and the Facebook Cumbria Botany Group were invited to record snowdrops to update the records in many tetrads lacking post-2000 records, or indeed locate the plant in tetrads with no previous records on file.

|                                                                                            |     |
|--------------------------------------------------------------------------------------------|-----|
| Number of snowdrop records in 2018 .....                                                   | 491 |
| Number of tetrads in which snowdrop recorded, 2018 .....                                   | 262 |
| Number of recorders who submitted snowdrop records in 2018 .....                           | 31  |
| Number of tetrads in which snowdrop recorded, pre-2000 .....                               | 541 |
| Number of tetrads in which snowdrop recorded, post-2000 .....                              | 799 |
| Number of tetrads where snowdrop has been recorded, all time .....                         | 920 |
| Number of tetrads where snowdrop present pre-2000,<br>but not yet re-found post-2000 ..... | 121 |

The maps on the next page show the picture before and after the main season (though note that not all records have yet been submitted/input).

Several recorders thought that snowdrops had increased significantly over the twenty years. 'Double' forms proved to be as frequent as 'singles', and many colonies are mixed.

There are a few records of snowdrop species besides *Galanthus nivalis*: for 2000 onwards, *G. elwesii* (2), *G. gracilis* (1), *G. plicatus* (15), *G. nivalis* × *G. plicatus* (17), *G. woronowii* (10).



### Verification of 'unusual' plants (JR)

**BSBI advice** is that 'first records' of a taxon in a VC require material evidence: ideally a specimen, or perhaps confirmatory photographs that can be archived. (The recorder may not be aware of the significance of the record so may need advising.)

Consider collecting/pressing of specimens (obviously, appropriate to conservation status) and/or confirmatory photographs of any plant that is:

- ❖ a new VC record
- ❖ an 'RPR' species – a *Rare Plant Register* entry – in a new site
- ❖ a suspected new hectad record
- ❖ rarely seen, etc.

**Phill comments** that not infrequently in lists he receives to input there are scarce or rare species included. A putative record for an unusual plant quite often turns out on investigation to be a data-entry error – simply the wrong name entered in error! It would be a great help if recorders made some indication that an entry for an unusual species was intended, and its significance understood. Any record of an 'unusual' plant should have:

- ❖ a comment included in the record, to indicate the recorder is aware of the significance;
- ❖ a fine grid-ref, at least 6-figure, but 8-figure is highly desirable;
- ❖ status should be given [e.g. some programs suggest adding a status, where known: e.g. *Alien, Archaeophyte, Casual, Established, Native, Neophyte, Planted, Status, Surviving, Veteran/Notable Tree*, etc.];
- ❖ for 'critical taxa', usually a determiner name or confirmation will be mentioned.

**Giving details** on these lines would make clear that something unusual was intended!



## Problems with 'agg.' (JR)

A further problem with incoming records, taking our Cumbrian burdocks as an example. When sending in a burdock record in the form "*Arctium minus*" did the recorder intend to refer to a particular species or to the 'aggregate' (a cluster of similar species, often tricky to ID, and often 'lumped').

In *A Flora of Cumbria*, a single burdock species is mentioned, *Arctium minus*, with two subspecies: ssp. *minus* (southern, scarce in the county) and ssp. *nemorosum* (more northern, the familiar form here).

More recently, in Stace's *New Flora*, Ed. 3 (2010), those two **subspecies** are now raised to **full** species, as *Arctium minus* and *A. nemorosum*. Due to overlaps in all characters many plants are tricky to distinguish with confidence! Yet they appear to behave as 'good' species, with no evidence of hybridity in UK.

These two are often subsumed into an aggregate as '*Arctium minus* agg.' Or you may see:

~ for the aggregate, '*Arctium minus* s.l.' [*sensu lato*, 'in the broad sense'];

~ for the species (in its new, restricted sense), '*Arctium minus* s.s.' [*sensu stricto*, 'in the narrow sense'].

So a bald record of "*Arctium minus*" – without further explanation – is ambiguous.

Be aware of aggregates, and be clear whether you are referring to a species or an aggregate!

|      |           |      |             |      |             |
|------|-----------|------|-------------|------|-------------|
| 3    | Acer cam  | 244  | Blech spi   | 520  | pal         |
| 4    | pla       | 248  | Botry lun   | 522  | vul         |
| 5    | pse       | 250  | Brach syl   | 524  | Clayt sib   |
| 7    | Achil mil | 256  | Briza med   | 533  | Cochl dan   |
| 9    | pta       | 272  | Bromo ram   | 2547 | *off        |
| 19   | Adoxa mos | 269  | Bromu hor   | 1592 | Comar pal   |
| 20   | Aegop pod | 303  | Calli*ham   | 540  | Coniu mac   |
| 2241 | Aescu hip | 307  | *sta        | 541  | Conop maj   |
| 21   | Aethu cyn | 309  | Callu vul   | 544  | Convo arv   |
| 22   | Agrim eup | 310  | Calth pal   | 557  | Coryl ave   |
| 35.2 | Agros can | 2266 | Calys pul   | 563  | Coton sim   |
| 35   | *can      | 311  | sep         | 4526 | *agg        |
| 40   | cap       | 313  | sil         | 569  | Crata mon   |
| 39   | sto       | 316  | Campa lat   | 572  | Crepi cap   |
| 41   | Aira car  | 322  | rot         | 576  | pal         |
| 42   | pra       | 325  | Capse bur   | 580  | Croco x cro |
| 46   | Ajuga rep | 327  | Carda ama   | 875  | Cruci lae   |
| 48   | Alche alp | 328  | fle         | 586  | Crypt cri   |
| 4480 | fil       | 329  | hir         | 592  | Cyma mur    |
| 57   | fil ves   | 331  | pra         | 597  | Cynos cri   |
| 51   | glab      | 335  | Cardu cri   | 603  | Cysto fra   |
| 58   | *vul      | 341  | Carex acuti | 1822 | Cytis sco   |
| 60   | xan       | 344  | are         | 607  | Dacty glo   |

Aggregate species are often helpfully indicated by an asterisk, as ringed on this portion of a VC70 recording card.

Aggregates to be aware of, in no particular order:

**Apples:** *Malus sylvestris* agg. – the cultivated apple are now regarded as a different species, *M. pumila*, from Crab Apple, *M. sylvestris*. (There seem to be no hybrid records from UK!)

**Polypodies:** *Polypodium vulgare* agg. – three species, and all three hybrids, occur in the county.

**Bents:** *Agrostis canina* agg. – *A. canina* (Velvet Bent) and *A. vinealis* (Brown Bent), now full species.

**Hemp-nettles:** *Galeopsis tetrahit* agg. – *G. tetrahit* (Common Hemp-nettle), and *G. bifida* (Bifid Hemp-nettle), both common! They can grow in close proximity.

**Fragrant Orchids:** *Gymadenia conopsea* agg. – three difficult species and possible hybrids.

**Water-cresses:** *Rorippa nasturtium-aquaticum* (Water-cress), and *R. microphylla* (Narrow-fruited Water-cress), and their hybrid.

**Sheep's-fescues:** *Festuca ovina* agg. – at least two species, with *F. ovina* and *F. filiformis* (*F. tenuifolia*) in the county.

**Eyebrights:** '*Euphrasia officinalis* agg.' covers eleven species in the county – but there is also a species *Euphrasia officinalis* (*E. rostkoviana*).

**Deergrasses:** *Trichophorum cespitosum* agg. – two species and their locally abundant hybrid, *T. × foersteri*.

*Trichophorum germanicum* (Common Deergrass) is the familiar plant, on dry and wet heaths, but mostly on shallow peaty soils.

*T. cespitosum* s.s. (Northern Deergrass) is very local in the county (in a few seepages and on deep peat raised mires) so only record this if you know what you are doing! Where this occurs, the hybrid is invariably present nearby and far more common!

The aggregate name '*Trichophorum germanicum* agg.' is rapidly gaining currency in preference to the old, error-generating '*T. cespitosum* agg.'.

**Lady's-mantles:** luckily '*Alchemilla vulgaris*' is unambiguous as an aggregate name, since none of the UK microspecies is called '*A. vulgaris*'.

**Dog-roses:** the old species *Rosa canina* (with no less than four intraspecific 'Groups' in the BSBI handbook by Graham & Primavesi) is now split into three full species, viz:

*R. canina* s.s. (Dog-rose);

*R. corymbifera* (Hairy Dog-rose);

*R. squarrosa* (Glandular Dog-rose).

Hence, all earlier "*R. canina*" records must now be treated as '*Rosa canina* agg.', unless it was specified which traditional 'Group' it was referred to, or a specimen can be reassessed in line with the new taxonomy. See *BSBI News* Nos. 135 (including a full key to roses) & 137. The aggregate name "*Rosa canina* agg." is still available, of course, to cover these three for new 'non-split' records.

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'Phill's Forms'

Jeremy drew attention – as every year – to the user-friendly **spreadsheets** developed by Phill to expedite data-entry. These are available in Excel and OpenOffice formats. There are also **user-guides** to download, which greatly help the learning-curve! All these can be downloaded [here](#).

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### Workshops and ID days

We hope to plan some meetings looking at familiarisation with different groups. Details will be posted when available.

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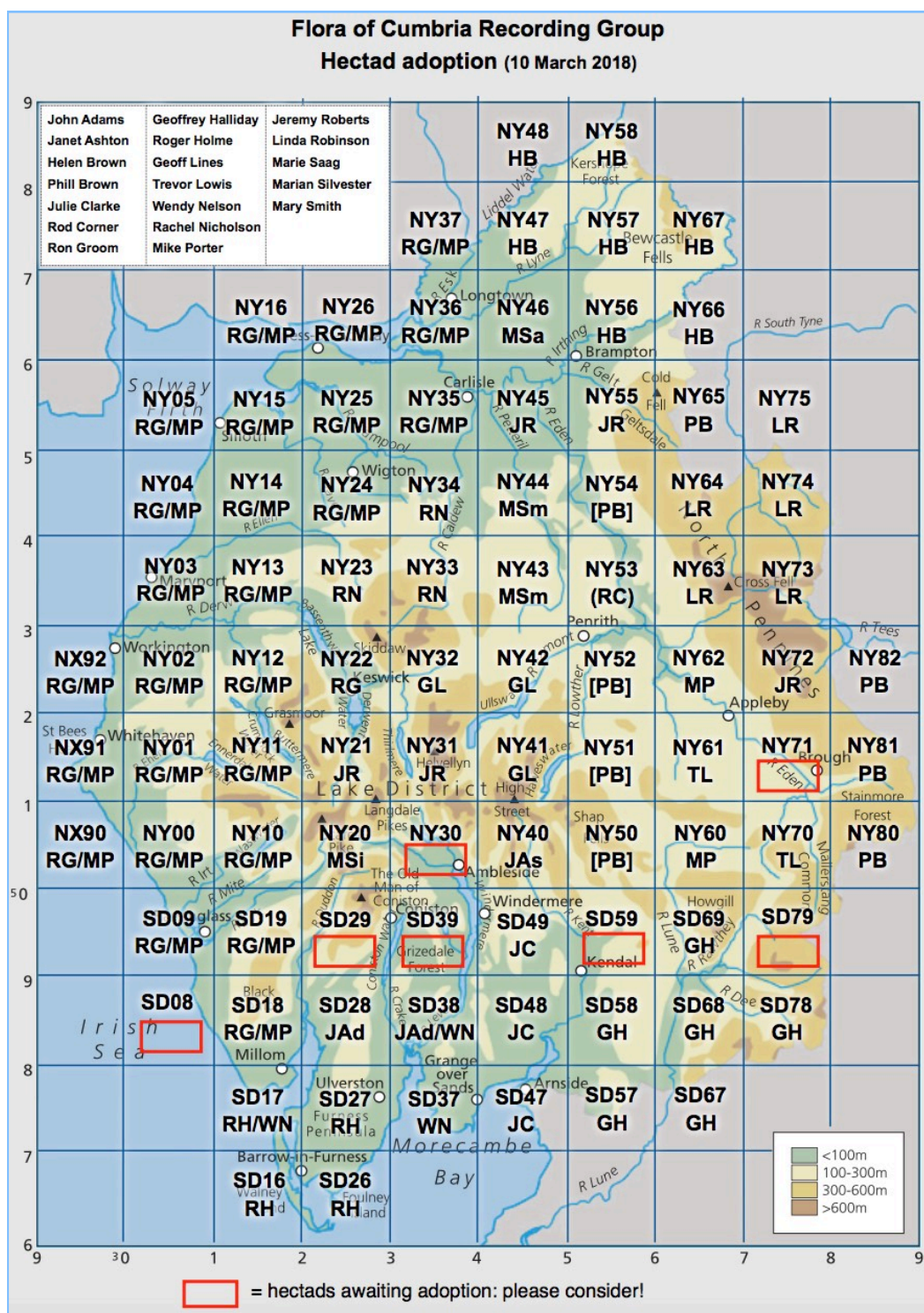
Other links:

Cumbria Botany website (after 21st March 2018):

www.cumbriabotany.co.uk

Facebook group (currently 258 members):

facebook.com/groups/CumbriaBotanyGroup/



Hectad adoption

... the current position.

Ann Boucher is stepping down from her rôle as ‘adopter’ of hectad SD59. We would like to offer our grateful thanks to Ann for all her work in that hectad, and we trust that she will continue to contribute many more of her interesting finds to our survey – as she says she hopes to!

In the post-2000 period, SD59 has amassed a list of 1038 taxa, the highest in the county. Ann has contributed much to this enviable total with taxa in ‘critical’ genera including *Taraxacum*, *Hieracium*, and *Rubus* – names confirmed by referees. (Within the period, only one other hectad has over 1000 (SD48, on 1010), and only three more have over 800: SD37, SD47, SD58.) (JR/PB)