

ASSESSING YOUR ATLAS 2020 COVERAGE

And plugging the gaps!



PLANNING THE FINAL THREE YEARS

1. You now need to take stock and plan how you will achieve full Atlas 2020 coverage across your vice-county in the remaining three years
2. If starting afresh, a typical plan would involve listing the hectads in the VC and deciding how many tetrads or monads to aim to survey in each.¹
3. Then assess how many squares have already been well recorded and work out how many remain *to be* recorded.
4. Originally, we specified a minimum sample of five selected tetrads per full hectad or *pro rata*.
5. But we'd much prefer it if people recorded in monads. To achieve the equivalent re-recording rate statistically you need to survey 16 selected monads.
6. Which is a lot and you need to be realistic about much can be done in the time available to you and your regular contributors.
7. Remember - it is supposed to be fun!

1. With an adjustment for partial hectads.



PLANNING THE FINAL THREE YEARS

If your numbers don't stack up, you must ask for help:-

1. Ask local members (or non-members) who are not already contributing
2. Ask neighbouring recorders if they might help
3. Advertise for help in BSBI News or the Scottish Newsletter
4. Assign squares to your volunteers
5. Organise recording field meetings
6. Or ask me for other ideas (like holding Recording Weeks)



HOW BEST TO ASSESS ATLAS COVERAGE?

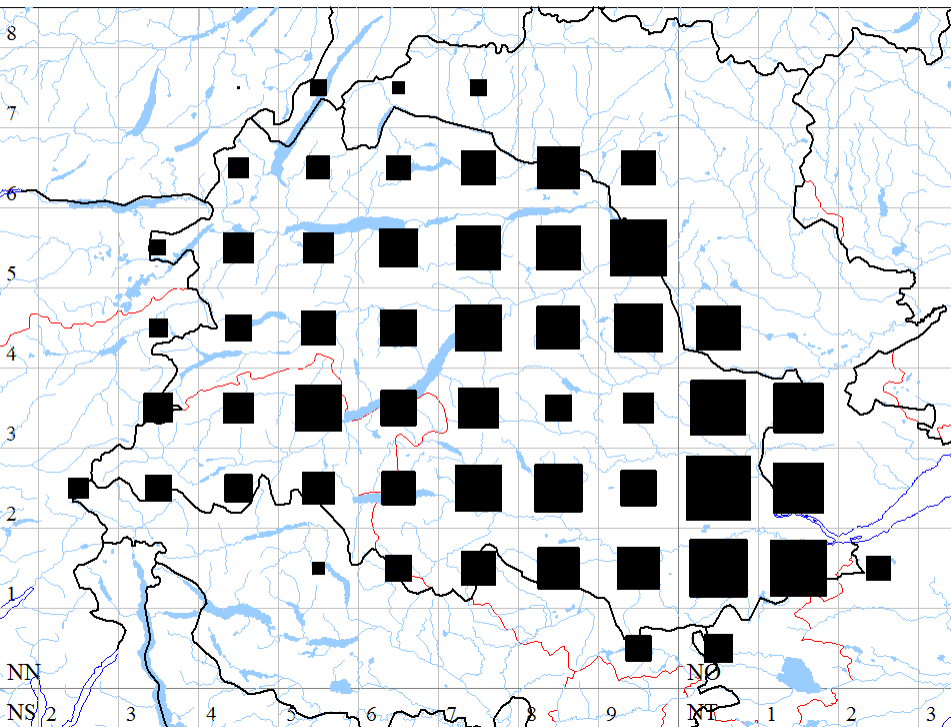
Here are eight different ways...

- Probably no single way is best – all have pros and cons
- And some are definitely simpler than others...
- All depend on all your records being digitised and on the BSBI DDb!

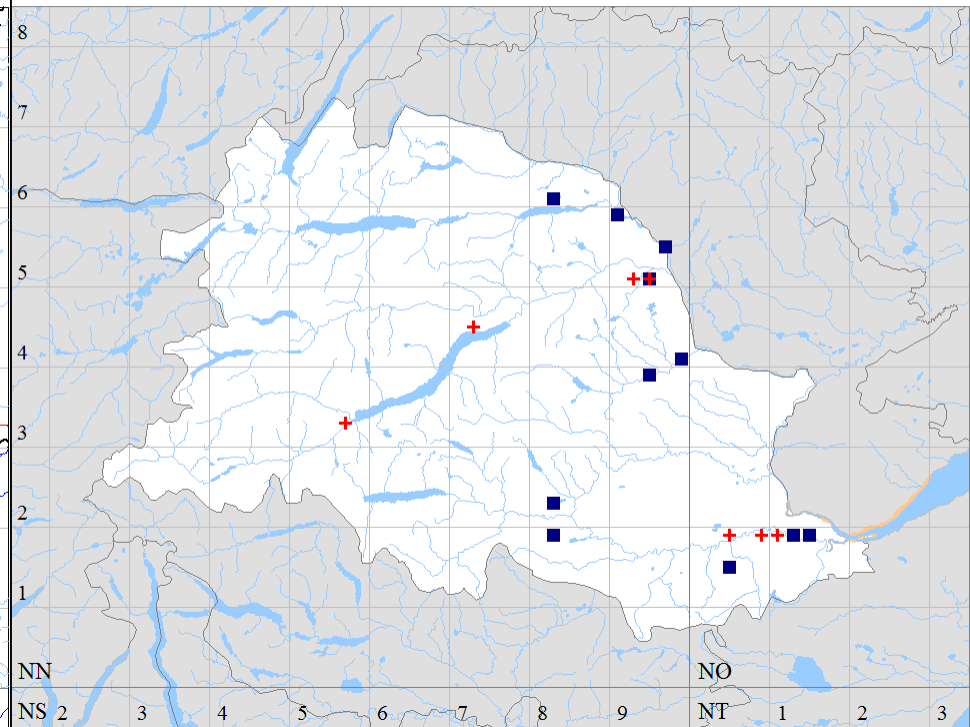


1. USING MAPS IN MAPMATE

VC88 Vascular Plants Species Density 10km



Agrimonia eupatoria



1. USING MAPS IN MAPMATE

Advantages

- Simple
- Easy to look up species by species.

Disadvantages

- MM may not have all the records that the DDb has (e.g. pre-2000, or third-party records)
- Tricky to set up to view species or record density maps for monads or tetrads



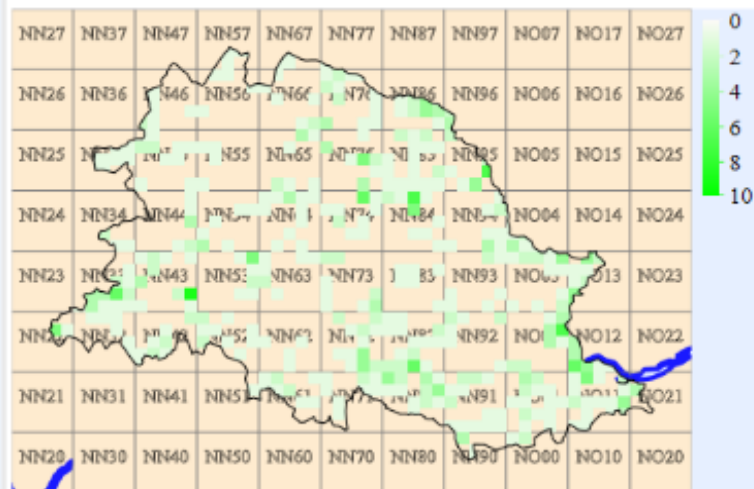
2. USING MY COUNTY MAPS IN THE DDB

County report for VC88 Mid Perthshire

[Summary](#) [Data validation](#) [Atlas 2020 survey coverage](#)

Number of intensive tetrad surveys

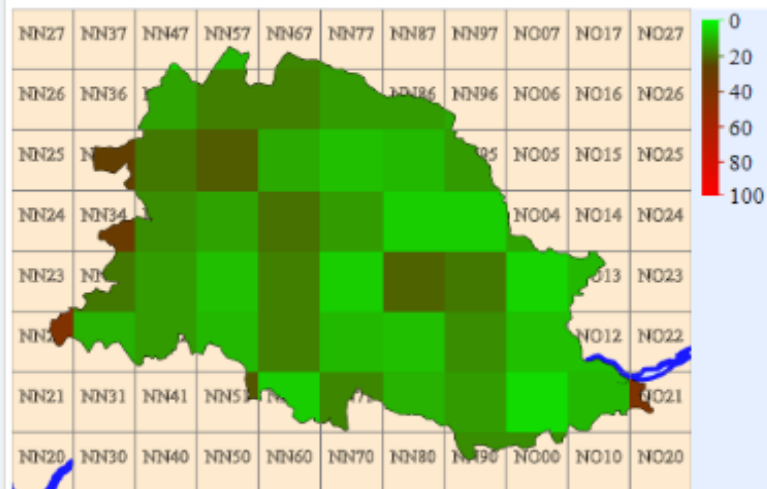
Number of surveys where > 40 taxa have been recorded in a tetrad square on a single day, since 2000.



[\(view data\)](#)

Taxa not refound since 2000 (at hectad scale)

Comparing taxa found between 1987 and 2000, with the period since 2000. Map shows the % of taxa not refound in the recent period - which may indicate loss of diversity; recent surveying deficits or earlier misrecording.



[\(view data\)](#)

Generally, the more intensive surveys per hectad the better and any full hectads with few tetrad surveys probably need a closer look.

2. USING MY COUNTY MAPS IN THE DDB

Advantages

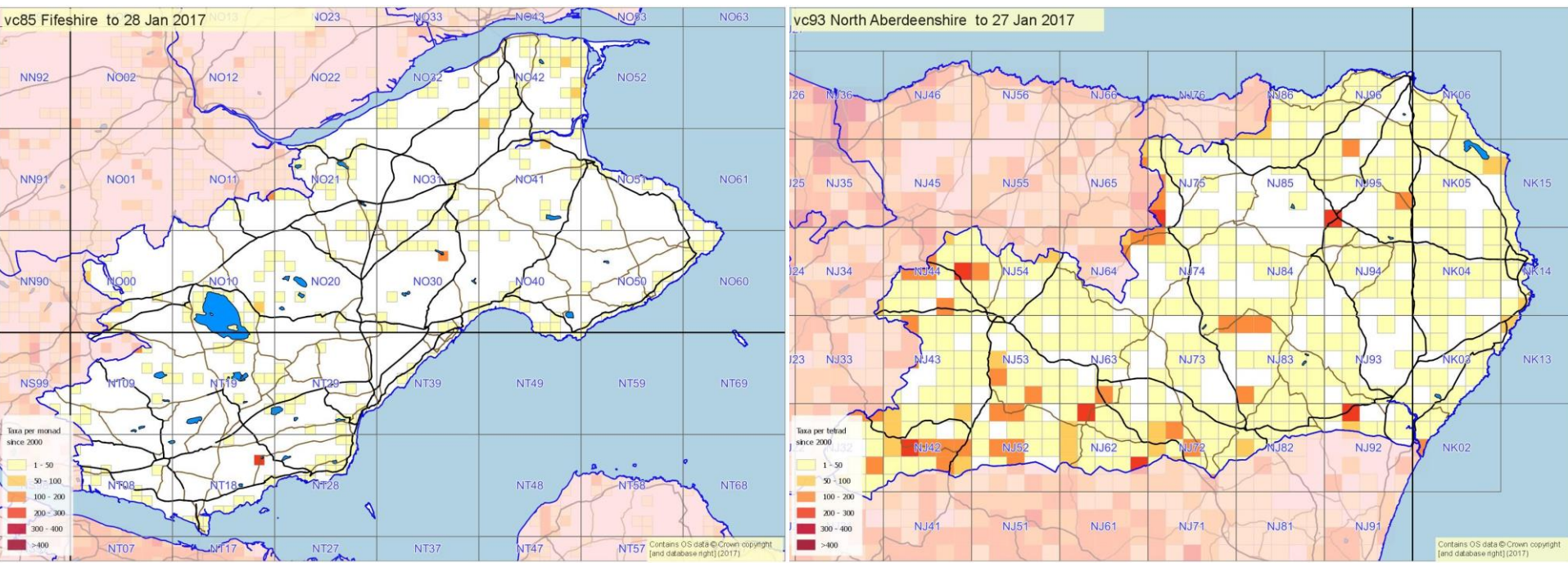
- The *Taxa not refound since 2000* map can give a good overall indication of progress in each hectad
- Easy to spot the hectads with few tetrad surveys on the *Number of Intensive tetrad surveys* map. Any full hectads with few tetrad surveys probably need a closer look.

Disadvantages

- You do need to have all the VC data in the DDb (and not stuck in MM or on paper!)
- The *Taxa not refound since 2000* map may falsely indicate post 1999 under-recording if hectads were well recorded 1987-1999.
- Or, conversely, it may falsely indicate that hectads are well recorded post 1999, if they had been poorly recorded 1987-1999.



3. USING ANDY'S GIS MAPS



One set of these maps shows the number of taxa recorded in each monad and the other shows the number of taxa recorded in each tetrad – for each county against a simple very clear backdrop showing rivers, lochs and roads.



3. USING ANDY'S GIS MAPS

Advantages

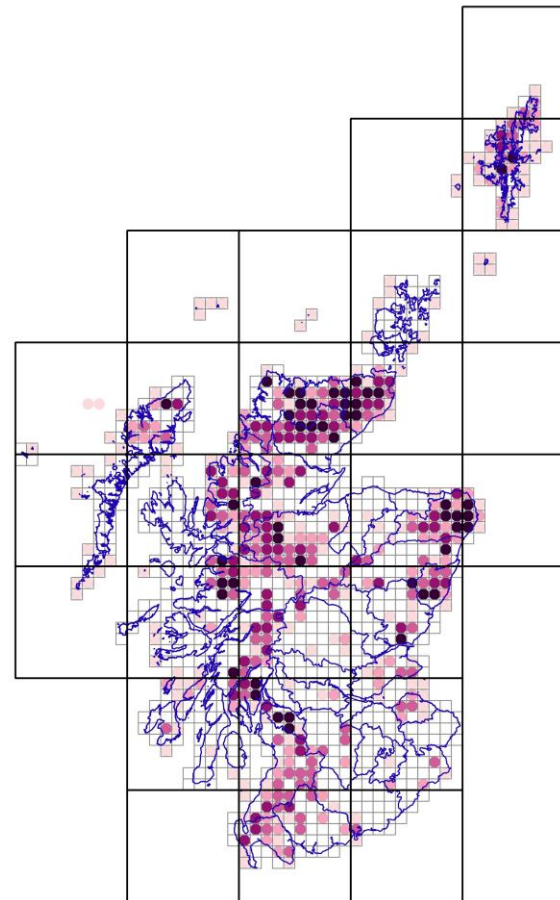
- Simple, very clear
- Gives an absolute impression with no reference to previous recording or records

Disadvantages

- Any map with number ranges needs careful interpretation
- The tetrad maps can give impression of better coverage
- Gives an absolute impression with no reference to previous recording or records



4. USING ANDY'S TARGET MAPS



Number of recorded tetrads
less than target
(5 tetrads with 100+ taxa
per whole hectad since 2000,
pro rata for part hectads)

From DDb 16th Jan 2017

- Target met or exceeded
- 1 tetrad below target
- 2 tetrads below target
- 3 tetrads below target
- 4 tetrads below target
- 5 tetrads below target
- Scotland vcs
- 100km grid
- Hectad grid



4. USING ANDY'S TARGET MAPS

Advantages

- Simple, very clear
- Require little interpretation

Disadvantages

- Same criteria used across Scotland
- (But there is a version with 200+ taxa per tetrad)



5. USING THE DDB ANALYSIS

Hectad and tetrad recording coverage

Summary of recording-coverage based on pre/post-2000 re-recording rate and number of visits to a tetrad.
The report is closely based on a [spreadsheet developed by Andy Amphlett](#).

The form uses a concept of a 'well-surveyed tetrad' based on threshold values of re-recording and absolute minimum species per tetrad.
The default thresholds are ≥ 100 spp in all years and $\geq 75\%$ of species recorded since 2000). These values are not be universally applicable and you may need to modify the thresholds to match local conditions.

Minimum species per tetrad
Percentage re-find threshold %
Target number of tetrads per hectad to survey
Also count partial (< 1km² in county) tetrads when assessing survey coverage ☒
Include count of 'new' (post-2000) species finds when assessing survey coverage ☐

survey coverage

| Hectad | Tetrad | % land or freshwater in vice-county | % sea | % land in another vice-county | Majority of land area in vc? | At least 1km ² land in vc? | Species recorded (all years) | % of total species recorded, that have been recorded since 2000 | Well recorded? | Species not refound since 2000 | Species refound since 2000 | Newly found species since 2000 | Recording days since 2000 |
|--------|--------|-------------------------------------|-------|-------------------------------|------------------------------|---------------------------------------|------------------------------|---|---------------------|--------------------------------|----------------------------|--------------------------------|---------------------------|
| NN22 | | | | | | | 322 | 68 | 1 / 1 (65% refound) | 103 | 195 | 24 | 8 |
| NN22 | NN22S | 38 | 0 | 62 | no | yes | 0 | | no | | | | 0 |
| NN22 | NN22T | 78 | 0 | 22 | yes | yes | 269 | 79 | yes | 56 | 168 | 45 | 6 |
| NN22 | NN22U | 26 | 0 | 74 | no | yes | 0 | | no | | | | 0 |
| NN22 | NN22X | 29 | 0 | 71 | no | yes | 18 | 67 | no | 6 | 1 | 11 | 2 |
| NN22 | NN22Y | 100 | 0 | 0 | yes | yes | 153 | 52 | no | 73 | 62 | 19 | 3 |
| NN22 | NN22Z | 91 | 0 | 9 | yes | yes | 1 | 0 | no | 1 | 0 | 0 | 0 |
| NN23 | | | | | | | 0 | 0 | 0 / 0 | | | | 0 |
| NN23 | NN23V | 7 | 0 | 93 | no | no | 0 | | no | | | | 0 |
| NN32 | | | | | | | 457 | 70 | 7 / 4 (61% refound) | 139 | 223 | 95 | 17 |
| NN32 | NN32C | 41 | 0 | 59 | no | yes | 54 | 91 | no | 5 | 1 | 48 | 6 |
| NN32 | NN32D | 100 | 0 | 0 | yes | yes | 42 | 90 | no | 4 | 0 | 38 | 2 |
| NN32 | NN32E | 100 | 0 | 0 | yes | yes | 5 | 0 | no | 5 | 0 | 0 | 0 |
| NN32 | NN32G | 9 | 0 | 91 | no | no | 0 | | no | | | | 0 |
| NN32 | NN32H | 79 | 0 | 21 | yes | yes | 0 | | no | | | | 0 |
| NN32 | NN32I | 100 | 0 | 0 | yes | yes | 4 | 25 | no | 3 | 0 | 1 | 1 |
| NN32 | NN32J | 100 | 0 | 0 | yes | yes | 103 | 97 | yes | 3 | 1 | 99 | 1 |
| NN32 | NN32L | 1 | 0 | 99 | no | no | 0 | | no | | | | 0 |
| NN32 | NN32M | 66 | 0 | 34 | yes | yes | 57 | 0 | no | 57 | 0 | 0 | 0 |
| NN32 | NN32N | 100 | 0 | 0 | yes | yes | 119 | 97 | yes | 3 | 9 | 107 | 0 |
| NN32 | NN32P | 100 | 0 | 0 | yes | yes | 115 | 97 | yes | 4 | 7 | 104 | 1 |
| NN32 | NN32S | 55 | 0 | 45 | yes | yes | 1 | 0 | no | 1 | 0 | 0 | 0 |
| NN32 | NN32T | 100 | 0 | 0 | yes | yes | 156 | 99 | yes | 1 | 0 | 155 | 2 |
| NN32 | NN32U | 100 | 0 | 0 | yes | yes | 130 | 100 | yes | 0 | 0 | 130 | 2 |
| NN32 | NN32V | 3 | 0 | 97 | no | no | 5 | 0 | no | 5 | 0 | 0 | 0 |
| NN32 | NN32W | 54 | 0 | 46 | yes | yes | 130 | 93 | yes | 9 | 1 | 120 | 2 |
| NN32 | NN32X | 99 | 0 | 1 | yes | yes | 199 | 97 | yes | 5 | 1 | 193 | 3 |
| NN32 | NN32Y | 100 | 0 | 0 | yes | yes | 0 | | no | | | | 0 |
| NN32 | NN32Z | 100 | 0 | 0 | yes | yes | 2 | 0 | no | 2 | 0 | 0 | 0 |
| NN33 | | | | | | | 419 | 78 | 5 / 4 (72% refound) | 92 | 243 | 84 | 21 |

The analysis below the VC maps on the My County Atlas 2020 Survey Coverage tab.

5. USING THE DDB ANALYSIS

Advantages


- Great if you want to drill down and see how your Atlas 2020 recording is going
- Helpfully works out how many tetrads in each partial hectad you should survey
- Can (and should) adjust defaults to suit your VC.

Disadvantages

- Complicated
- May falsely indicate post 1999 under-recording if squares were previously well recorded.
- May falsely indicate well recorded squares post 1999 if previously poorly recorded.
- Default settings may not be suitable for all squares in your VC.
- Only gives details for hectads and tetrads (not monads)



6. ATLAS 2020 COVERAGE IN A HECTAD

 [Distribution Database](#) > Map of NN65

[Tools](#) [New](#) [maps](#) [search](#) [search history](#)


Grid-square map, vice-county and summary taxon list tool

grid reference [look-up grid reference](#)

NN65
Mid Perthshire (VC88)
Grid square elevation estimates (m): mean height 512, min: 197, max: 1027
[view detailed taxon list for NN65](#)

[map \(Google\)](#) [map \(OS\)](#) [taxon list](#)

Map of NN65



© Crown copyright and database rights 2017 Ordnance Survey. Terms of Use

A very simple check which anyone can do (even without a login): Just type the hectad or tetrad grid reference in the [Grid Reference Lookup](#) tool. Then click the *View Taxon list for hectad...*



6. ATLAS 2020 COVERAGE IN A HECTAD

Botanical Society of Britain & Ireland

Distribution Database > taxon list

Tools ▾ New ▾ maps search search history

grid reference

exclude taxa with fewer than records.

earliest year

recent record boundary year

☐ include taxon list from the whole county

☒ sort recent records separately

☐ include infra-specific taxa

Taxon list for **NN65**.

| | | | | |
|---|---|---|---|--|
| <i>Agrostis canina</i> (1998) 7 0 | <i>Athyrium filix-femina</i> (2010) 3 5 | <i>Epilobium obscurum</i> (2009) 0 1 | <i>Luzula campestris</i> (2009) 3 1 | <i>Salix caprea</i> (2009) 1 1 |
| <i>Athyrium distentifolium</i> (1991) 1 0 | <i>Avenula pratensis</i> (2010) 3 5 | <i>Epilobium palustre</i> (2009) 3 3 | <i>Luzula multiflora</i> (2010) 5 10 | <i>Salix × reichardtii</i> (2009) 0 1 |
| <i>Atriplex patula</i> (1989) 1 0 | <i>Avenula pubescens</i> (2010) 0 2 | <i>Equisetum arvense</i> (2010) 3 4 | <i>Luzula pilosa</i> (2010) 2 4 | <i>Salix cinerea</i> (2010) 3 4 |
| <i>Callitriche stagnalis</i> (1987) 1 0 | <i>Barbarea intermedia</i> (2010) 0 1 | <i>Equisetum × litorale</i> (2009) 0 1 | <i>Luzula spicata</i> (2009) 4 4 | <i>Salix herbacea</i> (2012) 2 4 |
| <i>Carex canescens</i> (1987) 4 0 | <i>Barbarea vulgaris</i> (2009) 1 1 | <i>Equisetum fluviatile</i> (2010) 2 3 | <i>Luzula sylvatica</i> (2010) 6 6 | <i>Salix lapponum</i> (2009) 0 2 |
| <i>Carex leporina</i> (1989) 2 0 | <i>Bellis perennis</i> (2010) 7 5 | <i>Equisetum hyemale</i> (2009) 2 1 | <i>Lycopodium annotinum</i> (2012) 2 5 | <i>Salix × tetrapla</i> (2009) 0 1 |
| <i>Cochlearia pyrenaica</i> (1991) 1 0 | <i>Betula nana</i> (2003) 0 1 | <i>Equisetum palustre</i> (2010) 3 4 | <i>Lycopodium clavatum</i> (2010) 2 3 | <i>Salix myrsinites</i> (2003) 2 7 |
| <i>Crataegus monogyna</i> (1989) 2 0 | <i>Betula pendula</i> (2009) 11 2 | <i>Equisetum pratense</i> (2009) 5 1 | <i>Lysimachia nemorum</i> (2010) 2 6 | <i>Salix repens</i> (2007) 2 1 |
| <i>Cryptogramma crissa</i> (1991) 2 0 | <i>Betula pubescens</i> (2010) 4 5 | <i>Equisetum sylvaticum</i> (2009) 4 4 | <i>Matricaria discoidea</i> (2010) 2 3 | <i>Salix reticulata</i> (2007) 3 4 |
| <i>Dactylorhiza fuchsii</i> (1989) 2 0 | <i>Blechnum spicatum</i> (2010) 5 9 | <i>Equisetum variegatum</i> (2009) 3 4 | <i>Meconopsis cambrica</i> (2010) 3 4 | <i>Salix viminalis</i> (2009) 0 1 |
| <i>Draba incana</i> (1991) 3 0 | <i>Botrychium lunaria</i> (2010) 3 4 | <i>Erica cinerea</i> (2010) 5 6 | <i>Melampyrum pratense</i> (2007) 3 1 | <i>Sambucus nigra</i> (2010) 0 1 |
| <i>Dryas octopetala</i> (1991) 2 0 | <i>Brachypodium sylvaticum</i> (2009) 2 2 | <i>Erica tetralix</i> (2010) 5 6 | <i>Melampyrum sylvaticum</i> (2005) 0 1 | <i>Saussurea alpina</i> (2007) 2 2 |
| <i>Dryopteris expansa</i> (1991) 2 0 | <i>Briza media</i> (2010) 2 9 | <i>Erigeron borealis</i> (2003) 5 2 | <i>Melica nutans</i> (2010) 2 1 | <i>Saxifraga aizoides</i> (2010) 6 28 |
| <i>Epilobium ciliatum</i> (1987) 1 0 | <i>Bromus hordeaceus</i> (2010) 0 2 | <i>Eriophorum angustifolium</i> (2010) 6 10 | <i>Menyanthes trifoliata</i> (2009) 2 3 | <i>Saxifraga hypnoides</i> (2010) 3 5 |
| <i>Epilobium × vicinum</i> (1994) 2 0 | <i>Buddleja davidii</i> (2009) 0 2 | <i>Eriophorum latifolium</i> (2010) 0 5 | <i>Mercurialis perennis</i> (2010) 4 6 | <i>Saxifraga nivalis</i> (2009) 5 8 |
| <i>Ficaria verna</i> (1998) 2 0 | <i>Calluna vulgaris</i> (2010) 7 10 | <i>Eriophorum vaginatum</i> (2010) 3 7 | <i>Molinia caerulea</i> (2010) 9 4 | <i>Saxifraga oppositifolia</i> (2012) 3 24 |
| <i>Fumaria capreolata</i> (1994) 2 0 | <i>Caltha palustris</i> (2009) 6 5 | <i>Erophila verna</i> (2010) 0 2 | <i>Montia fontana</i> (2009) 1 4 | <i>Saxifraga stellaris</i> (2009) 5 5 |
| <i>Galium odoratum</i> (1998) 2 0 | <i>Calystegia sepium</i> (2009) 0 2 | <i>Euphorbia peplus</i> (2009) 0 1 | <i>Mycelis muralis</i> (2009) 0 1 | <i>Scorzoneroideis autumnalis</i> (2010) 6 7 |
| <i>Gentianella campestris</i> (1987) 1 0 | <i>Campanula rotundifolia</i> (2012) 8 13 | <i>Euphrasia arctica</i> (2009) 2 1 | <i>Myosotis arvensis</i> (2010) 1 3 | <i>Scrophularia nodosa</i> (2010) 2 3 |
| <i>Geranium pratense</i> (1987) 1 0 | <i>Capsella bursa-pastoris</i> (2010) 2 3 | <i>Euphrasia micrantha</i> (2009) 2 1 | <i>Myosotis discolor</i> (2010) 0 3 | <i>Scutellaria galericulata</i> (2000) 1 1 |
| <i>Gymnadenia conopsea</i> (1991) 2 0 | <i>Cardamine flexuosa</i> (2010) 3 3 | <i>Euphrasia officinalis</i> (2003) 2 10 | <i>Myrica gale</i> (2010) 4 6 | <i>Sedum acre</i> (2009) 0 1 |
| <i>Humulus lupulus</i> (1989) 3 0 | <i>Cardamine hirsuta</i> (2009) 2 1 | <i>Fagus sylvatica</i> (2010) 2 3 | <i>Nardus stricta</i> (2012) 6 16 | <i>Sedum rosea</i> (2007) 3 3 |
| <i>Hyacinthoides non-scripta</i> (1998) 4 0 | <i>Cardamine pratensis</i> (2010) 4 6 | <i>Festuca ovina</i> (2010) 6 4 | <i>Narthecium ossifragum</i> (2010) 4 9 | <i>Selaginella selaginoides</i> (2012) 6 14 |
| <i>Hypericum maculatum</i> (1989) 3 0 | <i>Carex atrata</i> (2007) 4 5 | <i>Festuca rubra</i> (2012) 5 8 | <i>Oreopteris limbosperma</i> (2010) 6 7 | <i>Senecio aquaticus</i> (2009) 1 1 |
| <i>Juncus alpinoarticulatus</i> (1993) 4 0 | <i>Carex atrofusca</i> (2009) 7 3 | <i>Festuca vivipara</i> (2010) 2 12 | <i>Oxalis acetosella</i> (2010) 10 8 | <i>Senecio jacobaea</i> (2010) 3 6 |
| <i>Kalmia procumbens</i> (1991) 2 0 | <i>Carex bigelowii</i> (2009) 3 4 | <i>Filago minima</i> (2010) 0 3 | <i>Oxyria digyna</i> (2009) 2 8 | <i>Senecio sylvaticus</i> (2009) 0 1 |
| <i>Linaria vulgaris</i> (1996) 4 0 | <i>Carex binervis</i> (2010) 5 7 | <i>Filipendula ulmaria</i> (2010) 7 6 | <i>Parnassia palustris</i> (2010) 2 4 | <i>Senecio vulgaris</i> (2010) 0 4 |
| <i>Littorella uniflora</i> (1989) 2 0 | <i>Carex capillaris</i> (2012) 9 16 | <i>Fragaria vesca</i> (2010) 2 2 | <i>Pedicularis sylvatica</i> (2009) 2 2 | <i>Sibbaldia procumbens</i> (2012) 5 12 |
| <i>Mentha aquatica</i> (1995) 2 0 | <i>Carex caryophyllaea</i> (2010) 2 5 | <i>Fraxinus excelsior</i> (2010) 8 7 | <i>Persicaria maculosa</i> (2009) 0 1 | <i>Silene acaulis</i> (2012) 2 12 |
| <i>Mentha arvensis</i> (1989) 2 0 | <i>Carex demissa</i> (2010) 4 13 | <i>Galeopsis tetrahit</i> (2009) 0 1 | <i>Persicaria vivipara</i> (2012) 5 9 | <i>Silene dioica</i> (2010) 2 3 |
| <i>Myosotis laxa</i> (1987) 1 0 | <i>Carex dioica</i> (2010) 5 8 | <i>Galium aparine</i> (2010) 2 5 | <i>Phalaris arundinacea</i> (2009) 2 3 | <i>Silene latifolia</i> (2009) 2 1 |
| <i>Myosotis scorpioides</i> (1987) 1 0 | <i>Carex echinata</i> (2010) 6 9 | <i>Galium boreale</i> (2010) 3 6 | <i>Phegopteris connectilis</i> (2010) 7 6 | <i>Silene viscaria</i> (2010) 9 6 |
| <i>Nasturtium × sterile</i> (1987) 3 0 | <i>Carex flacca</i> (2010) 3 6 | <i>Galium palustre</i> (2010) 3 5 | <i>Phragmites australis</i> (2002) 0 2 | <i>Solidago virgaurea</i> (2010) 3 6 |
| <i>Neottia cordata</i> (1993) 2 0 | <i>Carex hirta</i> (2010) 0 1 | <i>Galium saxatile</i> (2010) 7 9 | <i>Picea abies</i> (2009) 0 1 | <i>Sonchus asper</i> (2010) 0 4 |
| <i>Pedicularis palustris</i> (1995) 1 0 | <i>Carex hostiana</i> (2010) 4 6 | <i>Galium sternerii</i> (2012) 2 2 | <i>Picea sitchensis</i> (2010) 1 2 | <i>Sonchus oleraceus</i> (2009) 0 1 |

Tick *sort recent records separately* and click *show taxon list*. Et voilà! All the taxa that haven't been re-recorded since 2000 are in **feint** at the top of the list. And all the taxa that have been recorded post 1999 are in **bold** further down.



6. ATLAS 2020 COVERAGE IN A HECTAD

Advantages

- Simple
- Anyone can do it (even without a login)¹
- Useful to pick-up accidentally over-looked common species
- Useful to identify notable species that have not been recorded post 1999

Disadvantages

Does rely on reasonably well-recorded squares pre 2000

1. With a login it can also be done for monads.



7. PRE/POST 2000 SPECIES BY SPECIES ANALYSIS

Botanical Society of Britain & Ireland

Distribution Database > search

[Tools](#) | [New](#) | [maps](#) | [search](#) | [search history](#)

[my mapmate records](#) | [my county](#) | [user manual](#) | [message board](#) | [my details](#) | [logout Jim\(jimmcintosh\)](#) | [public mode](#)

Search form | Search templates

search for

taxon

grid reference

county/region

date recorded from from for vague record date ranges use start date

recorder broad match

checklist/attributes

bounded area include this area

place name broad match

group by

distinct

subdivide by

[more options](#)

Current search-form filter
records where grouped by species (excluding higher ranks) and counting distinct hectads and recorded since 1987 and subdivided by dates (1987 - 1999, 2000 -) and vice-county: VC88

[display results](#) [email results](#) [download results](#) [save query](#) [reset search form](#)

[help...](#)

Enter your VC, return; date recorded 1987, from, More Options Group by...species excluding higher ranks, More Options... Distinct hectads, More Options... subdivide by dateclass custom, Dates 1987, 2000. Then click display results. Or click here and just amend the VC and click display results.



7. PRE/POST 2000 SPECIES BY SPECIES ANALYSIS

| | | |
|---------------|----------|------|
| results table | download | help |
|---------------|----------|------|

1499 groups matched your query.

<< first < prev 1 2 3 4 5 6 7 8 9 10 next > last >>

| species (exclusive) | qualifier | 1987 - 1999 | 2000 - | Number of hectads |
|---|-----------|-------------|--------|-------------------|
| Abies alba | | 5 | 17 | 18 |
| Abies grandis | | 4 | 13 | 14 |
| Abies procera | | 2 | 16 | 18 |
| Acaena anserinifolia | | 1 | 2 | 2 |
| Acaena inermis | | 0 | 1 | 1 |
| Acaena ovalifolia | | 0 | 1 | 1 |
| Acer campestre | | 5 | 3 | 7 |
| Acer japonicum | | 0 | 1 | 1 |
| Acer macrophyllum | | 0 | 1 | 1 |
| Acer palmatum | | 0 | 2 | 2 |
| Acer platanoides | | 12 | 22 | 23 |
| Acer pseudoplatanus | | 38 | 41 | 41 |
| Achillea distans | | 1 | 0 | 1 |
| Achillea millefolium | | 51 | 53 | 53 |
| Achillea ptarmica | | 46 | 51 | 52 |
| Aconitum lycoctonum | | 0 | 1 | 1 |
| Aconitum napellus | | 9 | 9 | 14 |
| Aconitum napellus | s.l. | 0 | 4 | 4 |
| Aconitum napellus x variegatum = A. x stoerkianum | | 1 | 4 | 4 |
| Acorus calamus | | 1 | 0 | 1 |
| Adoxa moschatellina | | 19 | 20 | 25 |
| Aegopodium podagraria | | 31 | 39 | 40 |
| Aesculus carnea | | 0 | 1 | 1 |
| Aesculus hippocastanum | | 16 | 26 | 29 |



7. PRE/POST 2000 SPECIES BY SPECIES ANALYSIS

results table

download

help

1499 groups matched your query.

<< first

< prev

1

2

3

4

5

6

7

8

9

10

next >

last >>

| species (exclusive) | qualifier | 1987 - 1999 | 2000 - ▲ | Number of hectads |
|---|-----------|-------------|----------|-------------------|
| Achillea distans | | 1 | 0 | 1 |
| Acorus calamus | | 1 | 0 | 1 |
| Alchemilla glomerulans | | 1 | 0 | 1 |
| Amsinckia lycopsoides | | 1 | 0 | 1 |
| Armoracia rusticana | | 1 | 0 | 1 |
| Atriplex littoralis | | 1 | 0 | 1 |
| Aubrieta deltoidea | | 1 | 0 | 1 |
| Berula erecta | | 1 | 0 | 1 |
| Brachypodium pinnatum | s.l. | 3 | 0 | 3 |
| Bromus hordeaceus x lepidus = B. x pseudothominei | | 1 | 0 | 1 |
| Campanula medium | | 1 | 0 | 1 |
| Campanula patula | | 1 | 0 | 1 |
| Campanula rapunculoides | | 1 | 0 | 1 |
| Campanula trachelium | | 1 | 0 | 1 |
| Cardamine impatiens | | 1 | 0 | 1 |
| Carex bigelowii x nigra = C. x decolorans | | 1 | 0 | 1 |
| Carex flava | agg. | 1 | 0 | 1 |
| Carex rariflora | | 1 | 0 | 1 |
| Cerastium nigrescens | | 3 | 0 | 3 |
| Chamaecyparis pisifera | | 1 | 0 | 1 |
| Chenopodium album | agg. | 3 | 0 | 3 |
| Clematis vitalba | | 1 | 0 | 1 |
| Conium maculatum | | 1 | 0 | 1 |
| Corydalis solida | | 1 | 0 | 1 |

Interesting to sort by clicking the 2000 column to show species that have been recorded pre 2000 but not post 1999.



7. PRE/POST 2000 SPECIES BY SPECIES ANALYSIS

results table

download

help

1499 groups matched your query.

<< first < prev 1 2 3 4 5 6 7 8 9 10 next > last >>

| species (exclusive) | qualifier | 1987 - 1999 ▲ | 2000 - | Number of hectads |
|---|-----------|---------------|--------|-------------------|
| Acaena inermis | | 0 | 1 | 1 |
| Acaena ovalifolia | | 0 | 1 | 1 |
| Acer japonicum | | 0 | 1 | 1 |
| Acer macrophyllum | | 0 | 1 | 1 |
| Acer palmatum | | 0 | 2 | 2 |
| Aconitum lycoctonum | | 0 | 1 | 1 |
| Aconitum napellus | s.l. | 0 | 4 | 4 |
| Aesculus carnea | | 0 | 1 | 1 |
| Aethusa cynapium | | 0 | 1 | 1 |
| Agrostis gigantea | | 0 | 2 | 2 |
| Alchemilla conjuncta | | 0 | 2 | 2 |
| Alnus cordata | | 0 | 3 | 3 |
| Anemone apennina | | 0 | 1 | 1 |
| Anemone hupehensis x vitifolia = A. x hybrida | | 0 | 1 | 1 |
| Anthemis tinctoria | | 0 | 1 | 1 |
| Antirrhinum majus | | 0 | 1 | 1 |
| Araucaria araucana | | 0 | 2 | 2 |
| Arctium nemorosum | | 0 | 3 | 3 |
| Arctostaphylos alpinus | | 0 | 1 | 1 |
| Arenaria leptoclados | | 0 | 2 | 2 |
| Arum italicum | | 0 | 1 | 1 |
| Asperula taurina | | 0 | 1 | 1 |
| Aster lanceolatus x novi-belgii = A. x salignus | | 0 | 1 | 1 |
| Aster tripolium | | 0 | 1 | 1 |

Or by the 1987-1999 column to show species that have been recorded post 1999 but not pre 2000.



7. PRE/POST 2000 SPECIES BY SPECIES ANALYSIS

Advantages

- Fairly simple
- Good for looking at species level

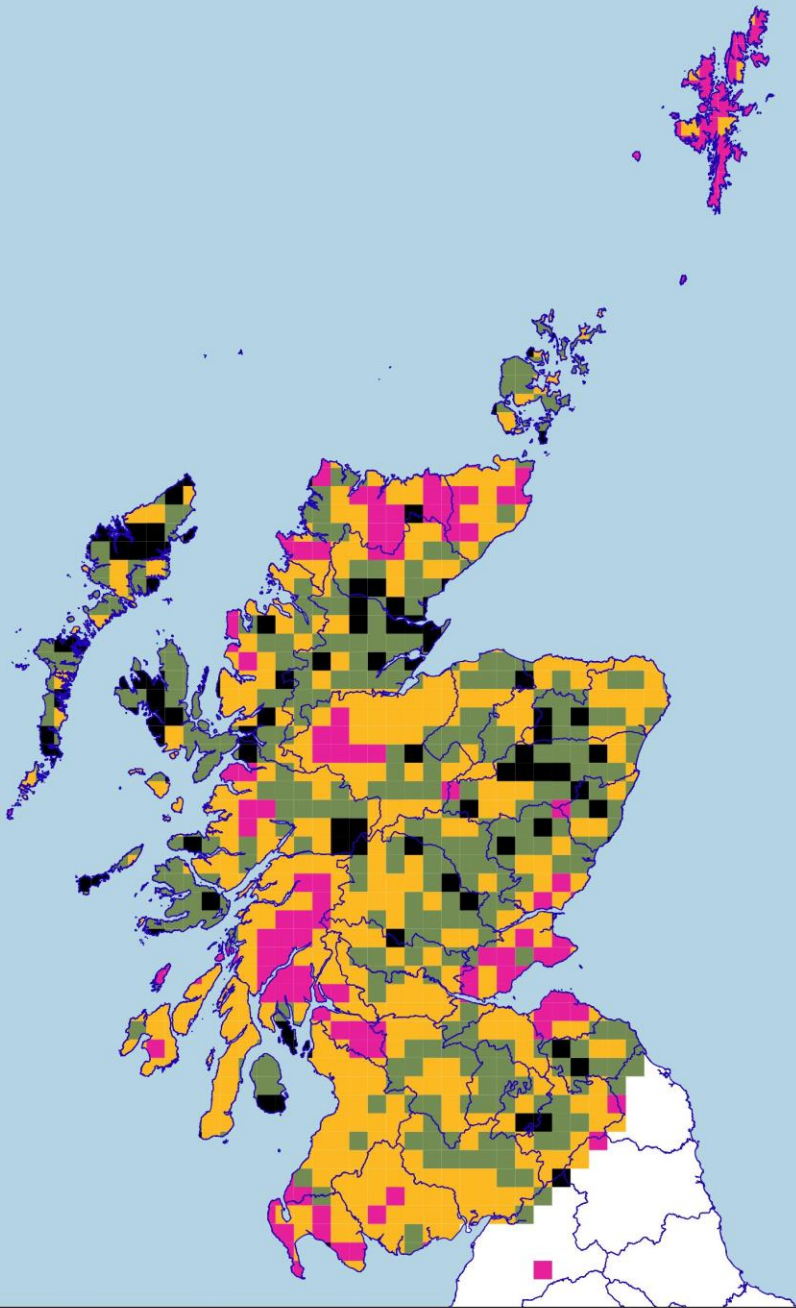
Disadvantages

- Any pre/post 2000 comparison depends on how well recorded squares were pre 1999
- Less good for getting a square by square overview



Scotland - % species & hybrids (all dates)
recorded per hectad since 2000

From DDb 10th March 2017



Finally another interesting map from Andy....

