



BSBI Atlas 2020

AN ATLAS 2020 PROGRESS REPORT IN 10 SLIDES

BSBI / BSS Scottish Annual Meeting 2017

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BSBI Scottish Officer

Atlas 2020: Overall Aim

Like previous atlases it aims to:

- Produce comprehensive maps for all native and introduced taxa occurring in the wild Britain and Ireland, and
- Analyse and report on the many changes that have occurred since the last Atlas 20 years ago...



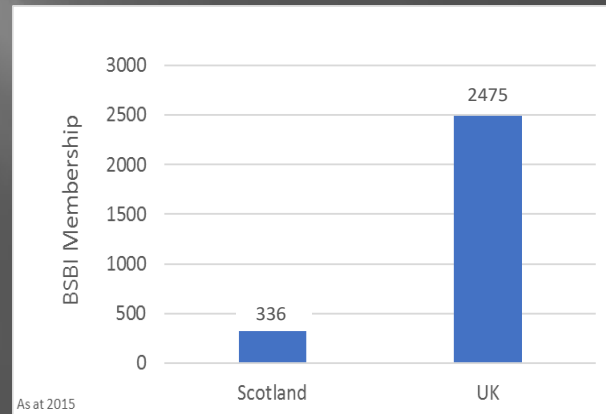
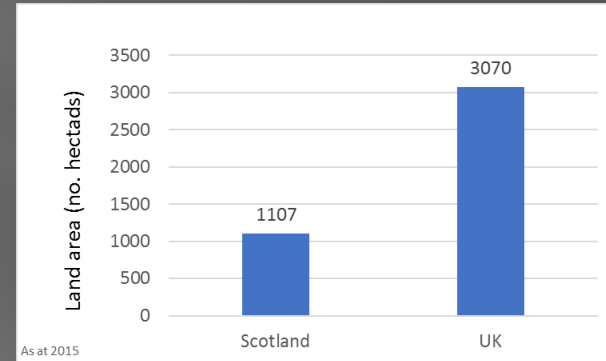
Atlas 2020: Recording Aim

Unlike previous atlases we are recording a sample of tetrads 2x2km squares (or better) in every hectad throughout the BI

- We suggest a minimum of 5 tetrads per hectad (10x10)!
- Surveying each twice
- Just two field seasons to go

A BIG challenge in Scotland

- where we have one third of the total land area of the UK
- half of which is very remote and / or mountainous
- But just 12% of the BSBI membership!



Given the size of the challenge, we need to support and encourage all BSBI Recorders & members and non-members to participate fully!

Atlas 2020: Outputs

1. A book

- 300-400 page hardback similar to books in NN or BW series
- Colour photographs and figures throughout
- Perhaps entitled “The State of plants in Britain & Ireland”
- It would interleave the results of Atlas 2020 with more general information of interest to a broad range of readers.
- Maps will be included
- Topics might include:
 - Why study our wild flora?
 - Who studies our wild flora?
 - What shapes our wild flora?
 - How many species do we have?
 - Where do they occur?
 - How and why has our flora changed?
 - Our future flora

Atlas 2020: Outputs

2. Online Atlas & Smartphone App

- With maps of all taxa covered by Atlas 2020
- Can produce more than one map for many taxa e.g. Relative abundance & fine resolution maps
- The current text will be updated to reflect changes in taxonomy, distribution, status, and the results of the analysis

3. Possibly a Print-on-demand book - for those who prefer the printed page

4. Summary for policy-makers

Online Atlas of the British and Irish Flora

HOME / *ADOXA MOSCHATELLINA* (MOSCHATEL)

Adoxa moschatellina (Moschatel)

Summary | Photos | Maps | Habitats | Life Form | Distribution | Conservation Status | References

Ecology

A perennial rhizomatous herb of mesic brown earth soils on the shaded banks of rivers and streams, in deciduous woodlands and shaded hedge banks; also occasionally in shaded base-rich sites in mountains. This is a vernal species which disappears by May or June in the lowlands. It is self-fertile, reproducing by seed and vegetatively. 0-1065 m (Ben Lawers, Mid Perth).

Status



Native

Trends

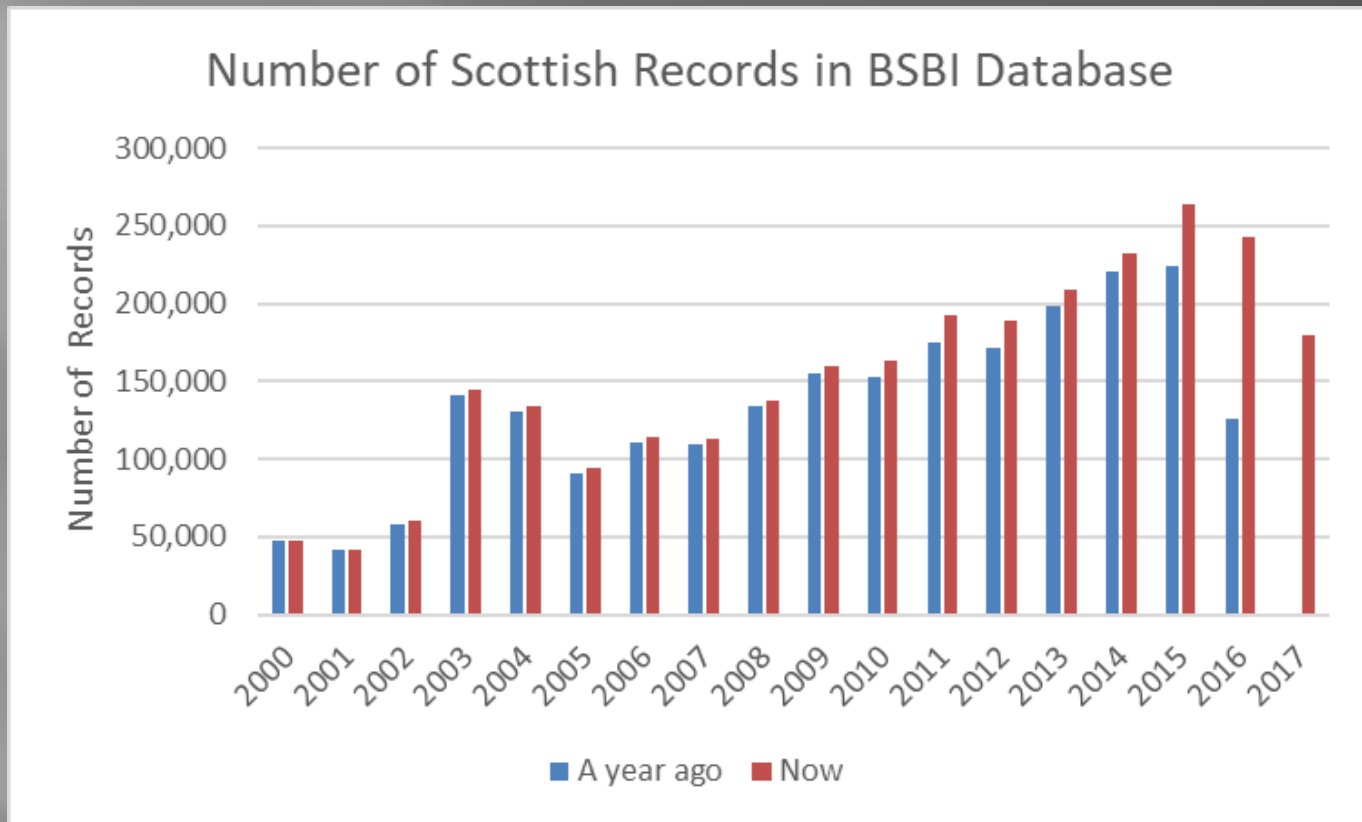
Populations of *A. moschatellina* within old woodlands have remained stable. In some areas *A. moschatellina* is possibly under-recorded due to its early season. Its native status in Ireland has been questioned (Hackney, 1992).

World Distribution

Circumpolar Boreo-temperate element, with a disjunct distribution.

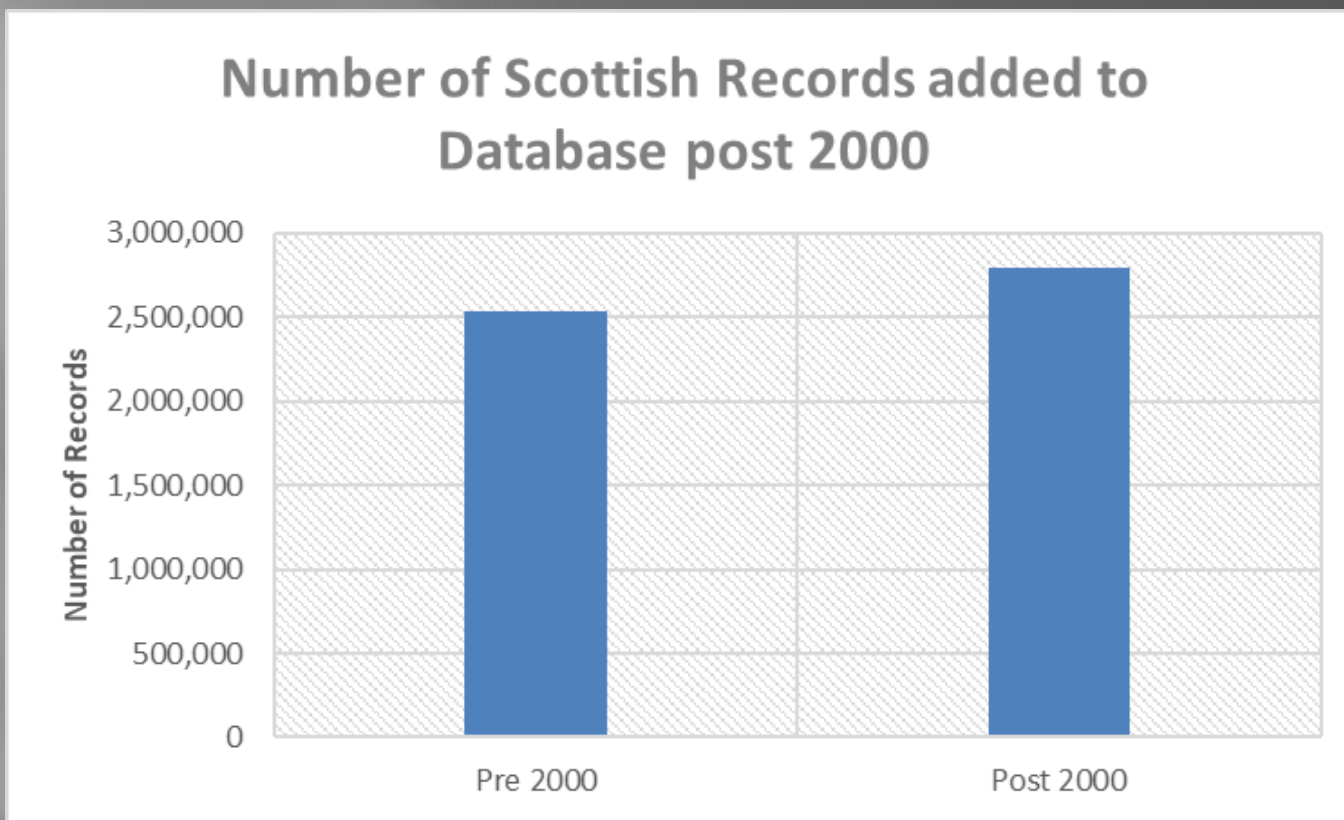


1.



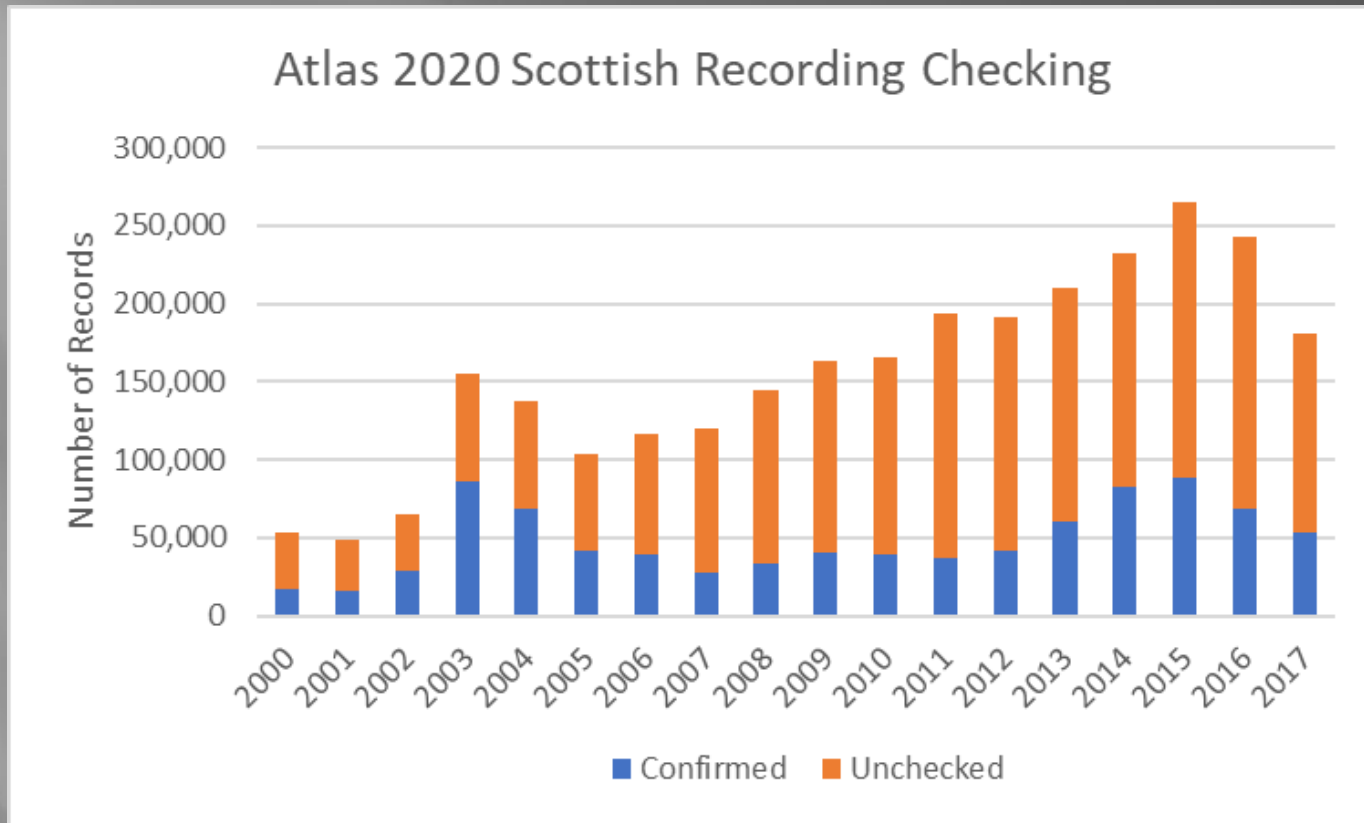
- Amazing amount of recording & digitising going on in Scotland
- Digitisation and uploading to the Database (DDb) is quicker
- Total number of records has increased rapidly over the years
- Number of records has increased for individual years

2.



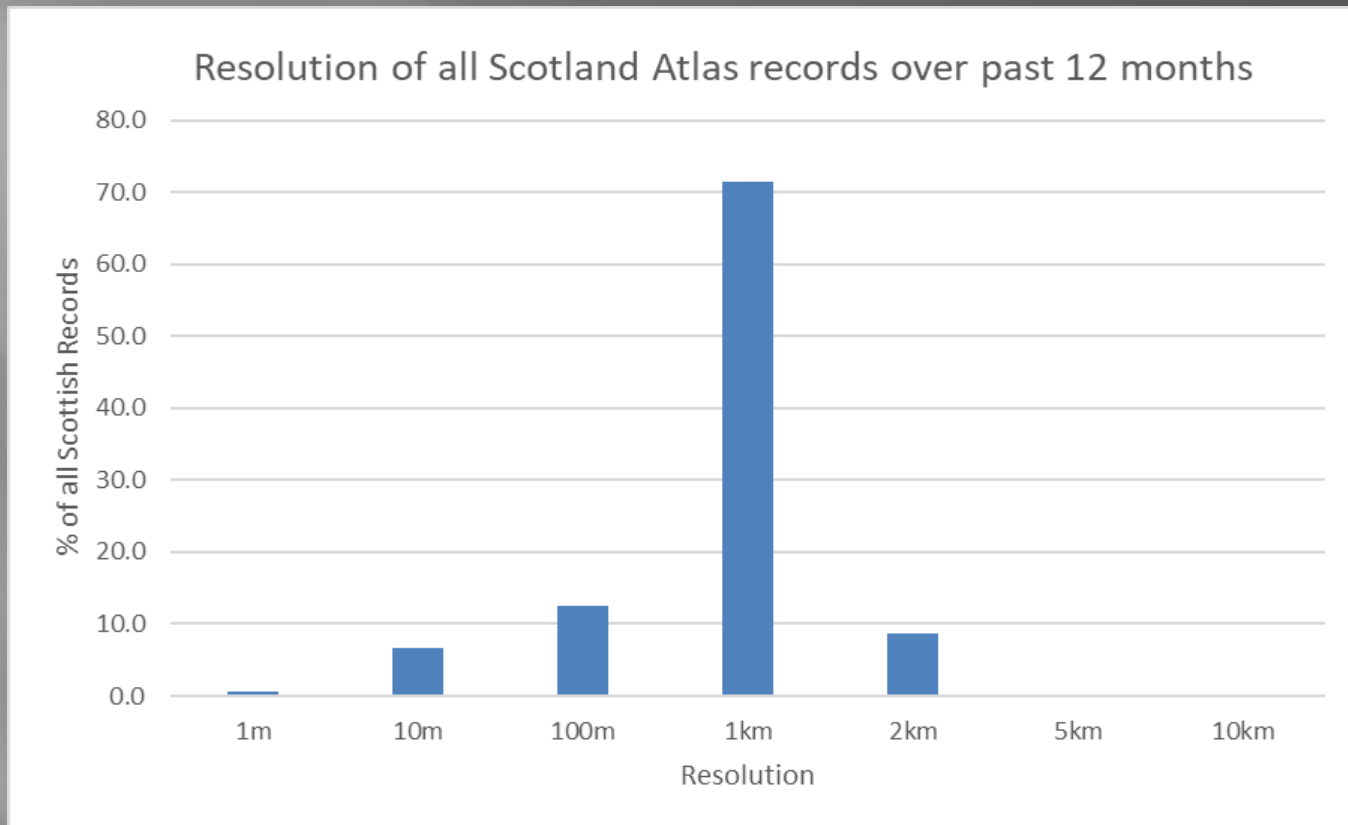
- Amazing number of pre 2000 records have been digitised and uploaded this century.
- Almost as many pre 2000 records have been digitised since the turn of the century, as post 2000 records.

3.



- Only a small proportion of records are being checked
- It is increasing
- Like digitisation it is best done little and often
- Ideally we'd like all records checked for Atlas 2020 – at least all records of notable or less common species

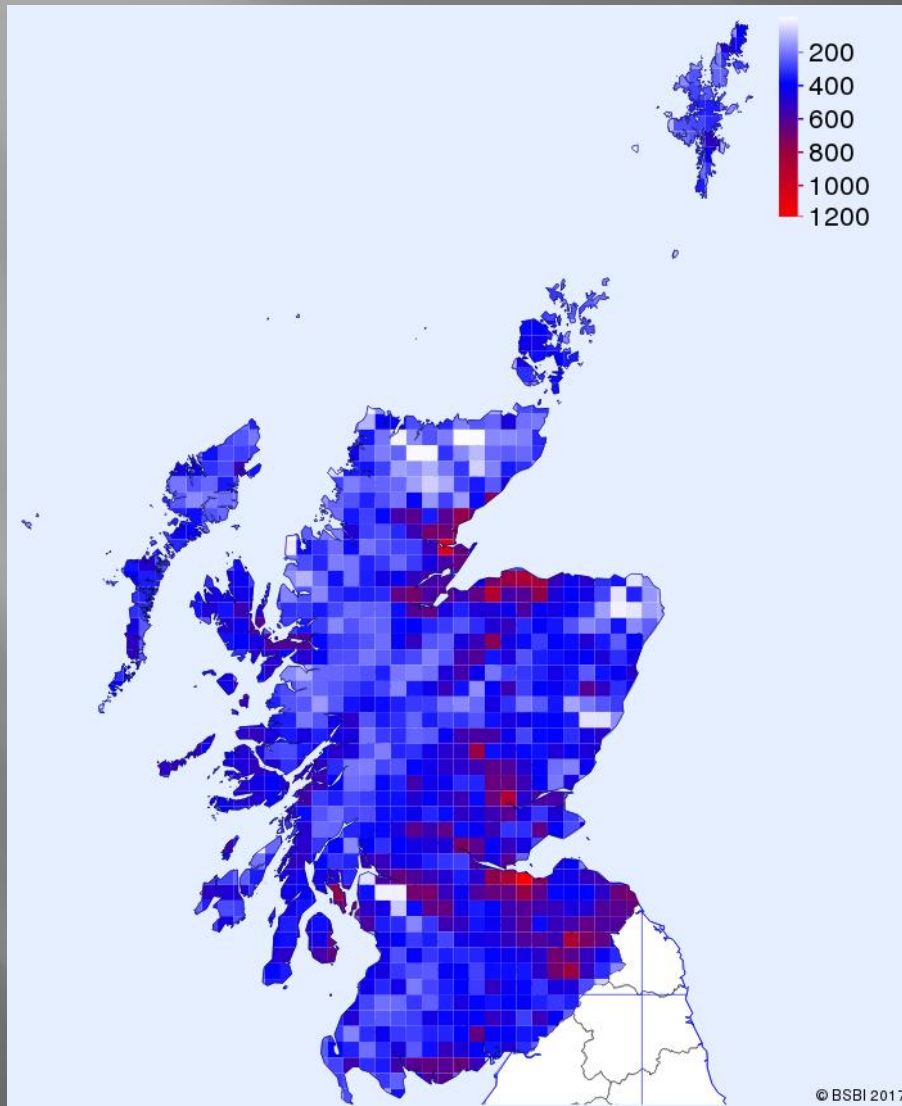
4.



- Chart show resolution (or precision) of recording in Scotland
- Increasingly recorders are recording in monads
- More 100m (6 figure) resolution records than tetrad records
- No 5km or 10km resolution records
- Very few 1m resolution records

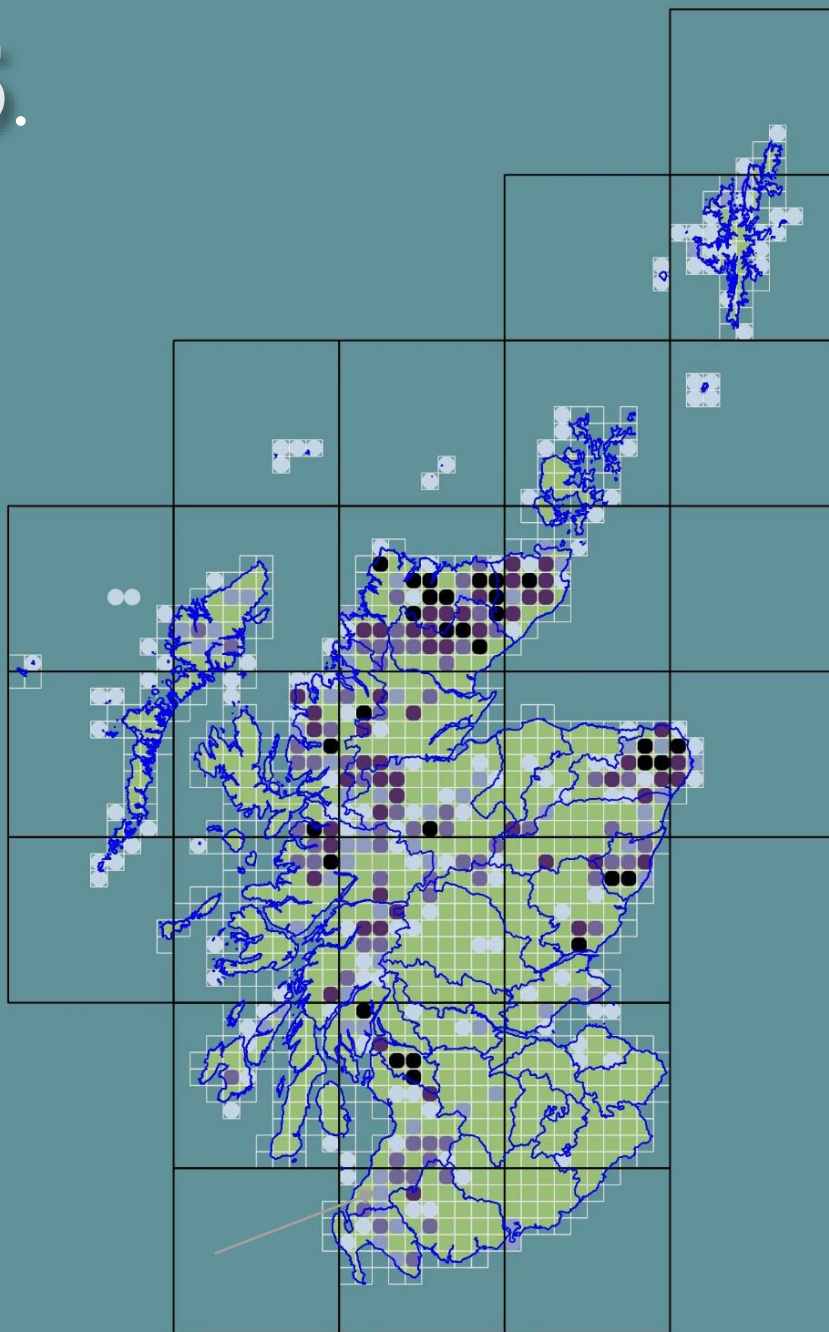
5.

Number of taxa recorded in each 10x10km square for Atlas 2020



- Map shows more taxa per hectad in central Scotland, the borders, around Inverness, in Speyside and fewer in the north & west highlands
- Some of the islands are very well recorded.
- Less well recorded areas in the south west and north east.

6.



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

From DDb 2nd November 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

7.

Atlas 2020 – some early findings – Scotland: The 45 species that have seen the biggest increases in the number of hectads they occupy.

<i>Abies grandis</i>	<i>Juncus tenuis</i>
<i>Abies procera</i>	<i>Lamium galeobdolon</i>
<i>Acer platanoides</i>	<i>Larix decidua</i> x <i>kaempferi</i> = <i>L. x marschlinsii</i>
<i>Alchemilla mollis</i>	<i>Ligustrum ovalifolium</i>
<i>Berberis darwinii</i>	<i>Lonicera nitida</i>
<i>Berberis thunbergii</i>	<i>Lysichiton americanus</i>
<i>Buddleja davidii</i>	<i>Lysimachia punctata</i>
<i>Carex pendula</i>	<i>Muscari armeniacum</i>
<i>Centaurea montana</i>	<i>Paeonia officinalis</i>
<i>Chamaecyparis lawsoniana</i>	<i>Phacelia tanacetifolia</i>
<i>Cortaderia richardii</i>	<i>Picea sitchensis</i>
<i>Crassula tillaea</i>	<i>Pinus contorta</i>
<i>Crocodymia aurea</i> x <i>pottsii</i> = <i>C. x crocosmiiflora</i>	<i>Polygonatum multiflorum</i> x <i>odoratum</i> = <i>P. x hybridum</i>
<i>Crocodymia paniculata</i>	<i>Pseudotsuga menziesii</i>
<i>Epilobium ciliatum</i>	<i>Rhododendron luteum</i>
<i>Escallonia rubra</i>	<i>Rosa rugosa</i>
<i>Fuchsia magellanica</i>	<i>Salix euxina</i>
<i>Geranium endressii</i> x <i>versicolor</i> = <i>G. x oxonianum</i>	<i>Sedum spectabile</i>
<i>Geranium macrorrhizum</i>	<i>Tellima grandiflora</i>
<i>Gunnera tinctoria</i>	<i>Tsuga heterophylla</i>
<i>Hyacinthoides hispanica</i>	<i>Tulipa gesneriana</i>
<i>Hyacinthoides non-scripta</i> x <i>hispanica</i> = <i>H. x massartiana</i>	<i>Viola altaica</i> x <i>lutea</i> x <i>tricolor</i> = <i>V. x wittrockiana</i>
<i>Hypericum androsaemum</i>	

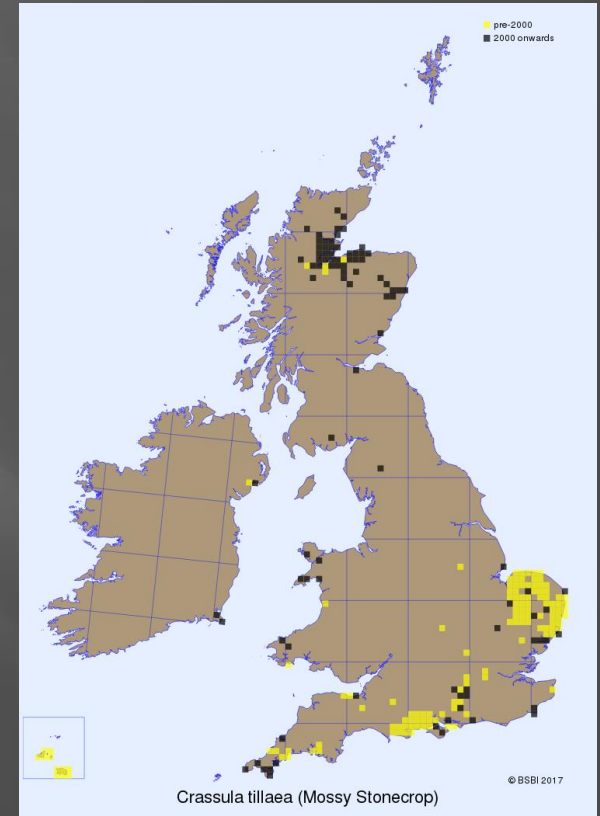
8.

Crassula tillaea (Mossy Stonecrop)

Only recorded in 4 hectads in Scotland pre 2000. Now found in 65!



Pre 2000 hectads in yellow on top



Crassula tillaea (Mossy Stonecrop) – Fort George (E. of) (NH768566) vc96. Masses on old track. A native species (assumed alien in Scotland) with an expanding distribution.

Thanks to Andy Amphlett as at March 2017

9.

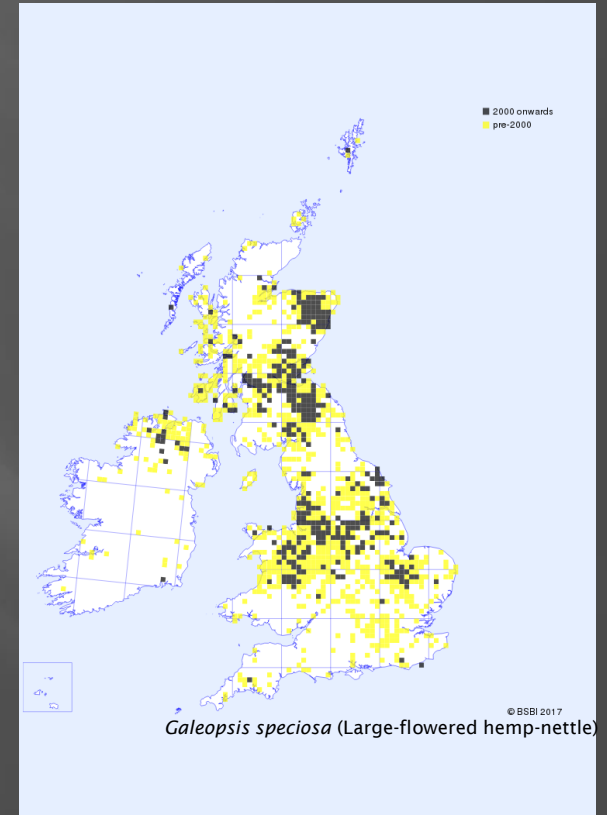
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<i>Arabis hirsuta</i>	<i>Lolium multiflorum</i>
<i>Arctium nemorosum</i>	<i>Mentha arvensis</i>
<i>Arenaria serpyllifolia</i>	<i>Phleum bertolonii</i>
<i>Botrychium lunaria</i>	<i>Potamogeton alpinus</i>
<i>Callitriche brutia</i>	<i>Potamogeton berchtoldii</i>
<i>Callitriche hermaphroditica</i>	<i>Potamogeton gramineus</i>
<i>Coeloglossum viride</i>	<i>Potamogeton perfoliatus</i>
<i>Euphrasia arctica</i>	<i>Pseudorchis albida</i>
<i>Euphrasia confusa</i>	<i>Raphanus raphanistrum</i>
<i>Euphrasia micrantha</i>	<i>Sagina filicaulis</i>
<i>Euphrasia nemorosa</i>	<i>Schedonorus pratensis</i>
<i>Euphrasia scottica</i>	<i>Sinapis arvensis</i>
<i>Fallopia convolvulus</i>	<i>Sorbus aria</i>
<i>Festuca filiformis</i>	<i>Sparganium emersum</i>
<i>Galeopsis speciosa</i>	<i>Sparganium natans</i>
<i>Glebionis segetum</i>	<i>Subularia aquatica</i>
<i>Gnaphalium sylvaticum</i>	<i>Trifolium hybridum</i>
<i>Hieracium vulgatum</i>	<i>Urtica urens</i>
<i>Hypericum humifusum</i>	<i>Veronica agrestis</i>
<i>Isoetes lacustris</i>	<i>Viola canina</i>
<i>Lamium amplexicaule</i>	<i>Viola tricolor</i>
<i>Lamium confertum</i>	<i>Vulpia bromoides</i>
<i>Ligustrum vulgare</i>	

10. *Galeopsis speciosa* (Large-flowered hemp-nettle)

Used to be found in 406 hectads in Scotland pre 2000. Now only in 166!

Pre 2000 hectads in yellow on top



Found on BSBI Selkirk field meeting, July 2017

Thank you!

...to everyone who has contributed to Atlas 2020 over past year. A splendid effort!

If you would like to help – get in touch with the VCR and ask how and where.

I am planning a workshop in Spring for intermediate botanists to help them become confident recorders.



BSBI Atlas 2020