Atlas 2020 – Project update and progress report

BSBI Scottish Spring Conference 2019

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Atlas 2020: Overall Aim

Like previous atlases it aims to:

• Produce comprehensive maps for all native and introduced vascular plant & charophyte 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...
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

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. An eAtlas
   - Maps of all species covered by Atlas 2020
   - Interactive maps
   - Edited captions similar to those in the New Atlas
   - Hosted by CEH and would replace the Online Atlas

The list of taxa to map has been finalised – available on the DDb. Currently we are coordinating the authorship, writing and editing of species captions. The DDb is being used to edit the captions.
2. Analysis

• Of how the flora has change over the short and long term, broken down into upland and lowland.

• Carried out in collaboration with CEH using advanced statistical modelling techniques that account for variations in recording intensity and detectability of species.

• Results will be included in an overall report by CEH & BSBI and also in Country Reports.

• They will also be used in the captions in the eAtlas and in a more general account of change in the British and Irish flora...
Atlas 2020: Outputs

3. A book - the original plan was for a staff-led publication...

- A general and readable account of the British & Irish flora using the results of Atlas 2020
- Colour photographs and figures throughout
- Maps of selected species will be included
- Topics -:
  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?
Atlas 2020: Outputs

3. The book

- In November the BoT decided that it should be volunteer-led
- Which would leave staff more time to concentrate on the Online Atlas, validation and species captions.
Atlas 2020: Outputs

Smartphone app

We have been approached by Harper Collins who are keen to produce a smartphone app of the Collins Wildflower Guide (Streeter et al) which would incorporate the maps from Atlas 2020.
• Amazing amount of recording & digitising going on in Scotland
• Digitisation and uploading to the Database (DDb) is quicker
• Total number of records increasing year by year
- Not so many old records being digitising
- And folk are digitising records more quickly
- But 70,000 2017 records were digitised & added to Ddb in 2018
3. Number of taxa recorded in each 10x10km square in 2017

- 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 far north, north east and south west.
3. Number of taxa recorded in each 10x10km square in 2019

- Recording much improved in the far north – and in the north-east
- The Renfrew Gap is filled

- Rrichest square: with 1232 post 2000 taxa is NT27 Edinburgh
  - Rrichest square: with 1126 post 2000 taxa is NH78 Tain
Main gaps in the far north, Easternness, Argyll & Fife
Large-flowered hemp-nettle 
(*Galeopsis speciosa*)

All Scottish pre 2000 records

In 407 hectads

© Jim McIntosh, 2017
Large-flowered hemp-nettle (Galeopsis speciosa)
All Scottish post 2000 records
In 172 hectads

© Jim McIntosh, 2017
Western Hemlock
(*Tsuga heterophyllum*)
All Scottish pre 2000 records
In 154 hectads

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Western Hemlock
(*Tsuga heterophyllum*)
All Scottish post 2000 records
In 326 hectads
Long-stalked Pondweed (*Potamogeton praelongus*)

All Scottish pre 2000 records

In 162 hectads

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Long-stalked Pondweed (Potamogeton praelongus)
All Scottish post 2000 records
In 54 hectads
Stoneworts (Characeae)

All Scottish records to 2000 grouped by taxon – recorded in 576 hectads

© Least Stonewort (Nitella confervacea) by Claudia Ferguson-Smyth
Stoneworts (Characeae)

All Scottish post 2000 records grouped by taxan – recorded in 383 hectads

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Thank you!