

U CROP WILD RELATIVE B
Project Partner – UK
Part A: Data Collation

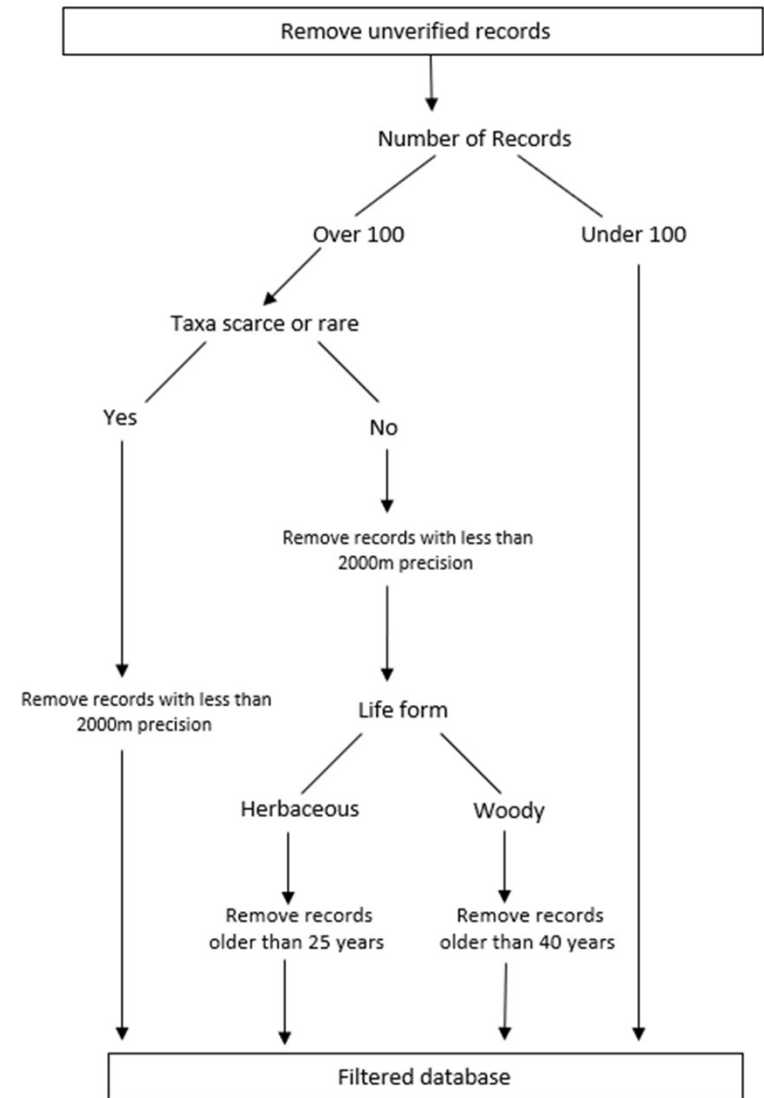
Tamsyn Dawson
(Nigel Maxted + Lin Huang + Hannah-Rose Lindley)

Material and Methods

- New Flora of the British Isles (Stace, 2024) has 4,800 taxa
- Using generic global checklist (Kell, 2005) there are is a checklist of 2,110 CWR taxa in UK
- Fielder (2015) prioritised checklist on basis of:
 1. **Use of related crop**, according to GRIN Taxonomy for Plants (USDA, ARS, National Genetic Resources Program, 2015).
 2. **Native Status** (exclusion of casuals).
 3. **Economic value of related crop**, based on European and UK production quantities (FAOSTAT, 2013), crop production value at producer prices (Eurostat, 2013), and crop production at market prices (DEFRA, 2010). Any crop assigned a value was considered economically valuable, and CWR within same genus or gene pool were prioritised.
 4. **Degree of relatedness to crop**: prioritisation of CWR within GP1b, GP2, or TG1b-TG3 of related crop according to Vincent *et al.*, 2013.
 5. **Threat assessment**: – prioritisation of any threatened (vulnerable, (VU); endangered, (EN); or critically endangered, (CR)), near threatened (NT), data deficient (DD) or extinct in the wild (EW) CWR in the IUCN Red List of Threatened Species (IUCN, 2012), European Red List of Vascular Plants (Bilz *et al.*, 2011) or the Vascular Plant Red Data List for Great Britain (Cheffings and Farrell, 2005).
 6. **Other conservation designations** according to the Conservation Designations for UK Taxa database (JNCC, 2011)
- Fielder (2015) prioritised CWR list (inventory) = **223 taxa (211 species)**

Data Acquisition

- National Biodiversity Network (NBN) (<https://nbnatlas.org/>), a collaborative project that aggregates biodiversity data from 1,036 datasets from 170 data partners
- Downloaded population data for the 223 UK priority CWR taxa
- CWR population data = 5,796,457 records for 223 CWR taxa
- Remove question records
 - > 2000m precision in location
 - Older than 25 years (herbs) and 40 years (trees)
- 648,575 records



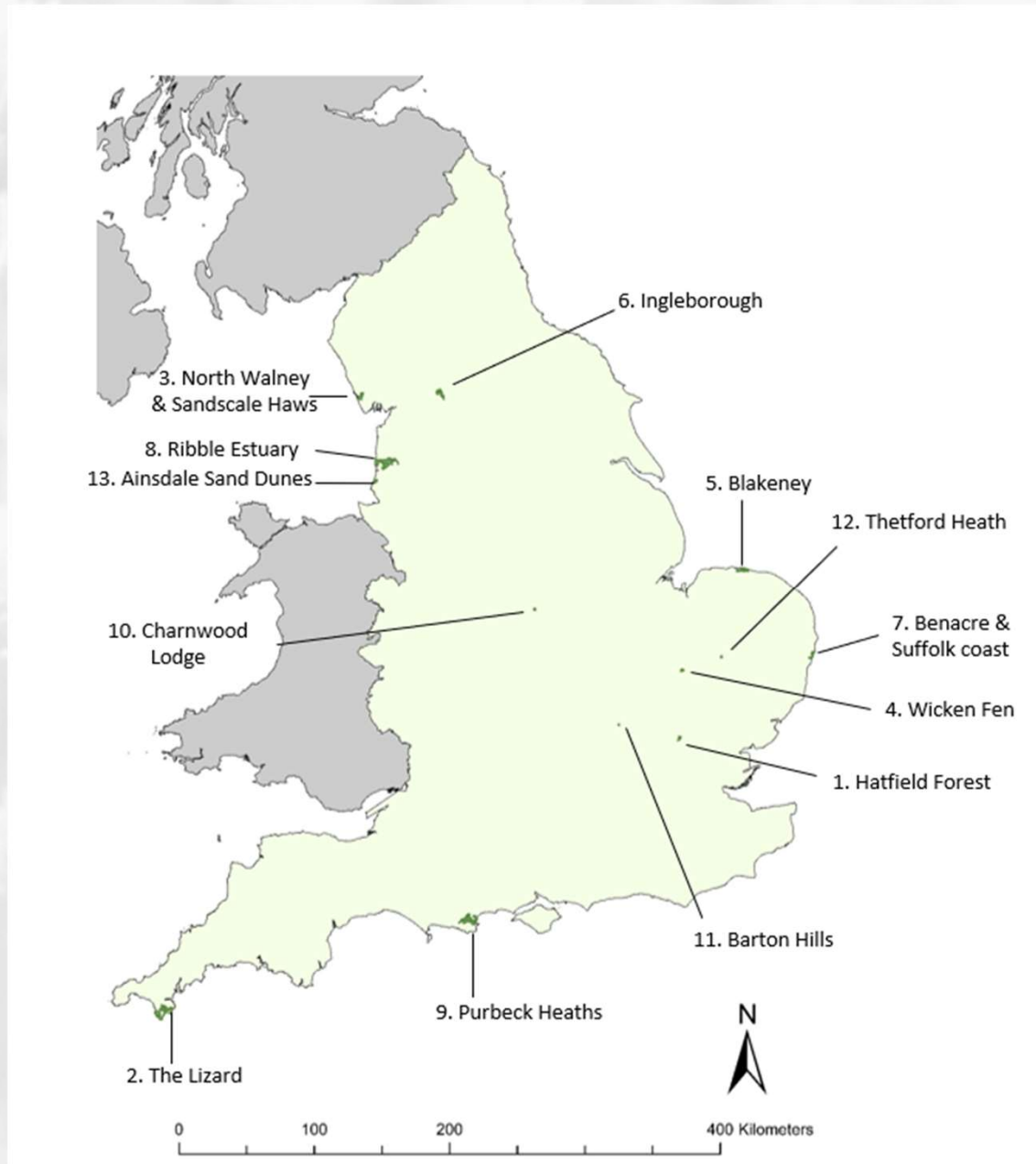
Data analysis

For 223 UK priority CWR taxa

Database	# species	# Taxa (including subspecies)	# Records
All UK Records	199	215	646,816
Records within Protected Areas	196	210	155,396
Top 15 NNRs in England	117	118	5,492
The Lizard	43	43	1,070

- 5,492 recorded sent to National *In Situ* focal point at IBERS?

Top 15 NNRs with CWR populations



UK *in situ* CWR passport data to EURISCO

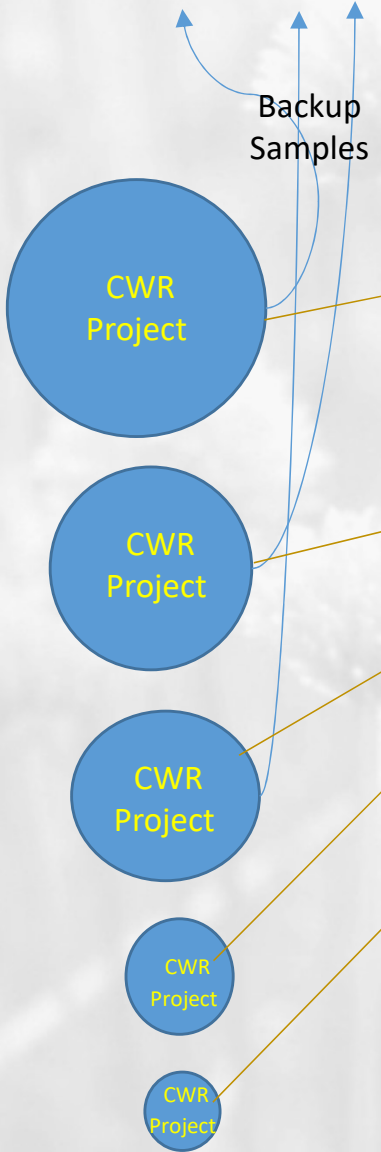
- Currently 6,890 records are designated to be submitted to EURISCO
- 15 NNRs populations
- 57 Genus
- 117 species
- 118 Taxa

Current Status

- Assign missing GENUS information to 1,164 records
- Check and fill in missing data points
- Assign unique PUID (population identifiers) to ACCENUMB for 6,890 records

UK National Plant Inventory

UK
Genebanks
Network



In situ

28 Descriptors
used by EURISCO
with link to
further
information

This block is a light orange rounded rectangle containing the text 'In situ' in italics and '28 Descriptors used by EURISCO with link to further information' in a standard font. It is part of a larger dashed blue rounded rectangle.

Ex situ

This block is a light blue rounded rectangle containing the text 'Ex situ' in italics. It is part of a larger dashed blue rounded rectangle.

EURISCO

Two blue arrows point from the bottom of the 'In situ' and 'Ex situ' blocks to a green rectangular box containing the text 'EURISCO' in large, bold, black capital letters.

Discussion

Ecogeographic prioritisation

1. Ensure data included for all **223 UK priority CWR taxa not 119** (= more than to 15 NNR) and **5 genetically dissimilar localities**
2. **Climate change analysis**, through CAPFITOGEN tools, in order to predict distribution based on projected climate models. Prioritise records OR protected areas that are likely to remain as present in the next 20-50 years.
3. **Number of habitats** where each taxon is recorded to show target number of habitats to conserve - should aim for records across habitat range – **LIFE + project application**

Data / results based prioritisation

1. **Tamsyn's dataset - 5,492 or 6.890? Did she submit EURISCO dataset to Bioversity?**
2. **Southerly bias** – prioritise PAs or records in the South of England where richness is highest.
3. Evaluate **ex situ UK CWR conservation gaps**.
4. **Tamsyn or Hannah-Rose's CWR in situ inventory dataset?**

Administrative prioritisation:

1. Aim for same PA type and align to management goals e.g. area of **NNR vs SSSI**. Consider which type of PA will have priorities that overlap with CWR conservation.
2. Consider investigating **OECM landowners** and prioritise protected area sites managed by the same organisation to streamline liaison activity.