



FOOTPRINT
ECOLOGY

New Forest Biodiversity Audit

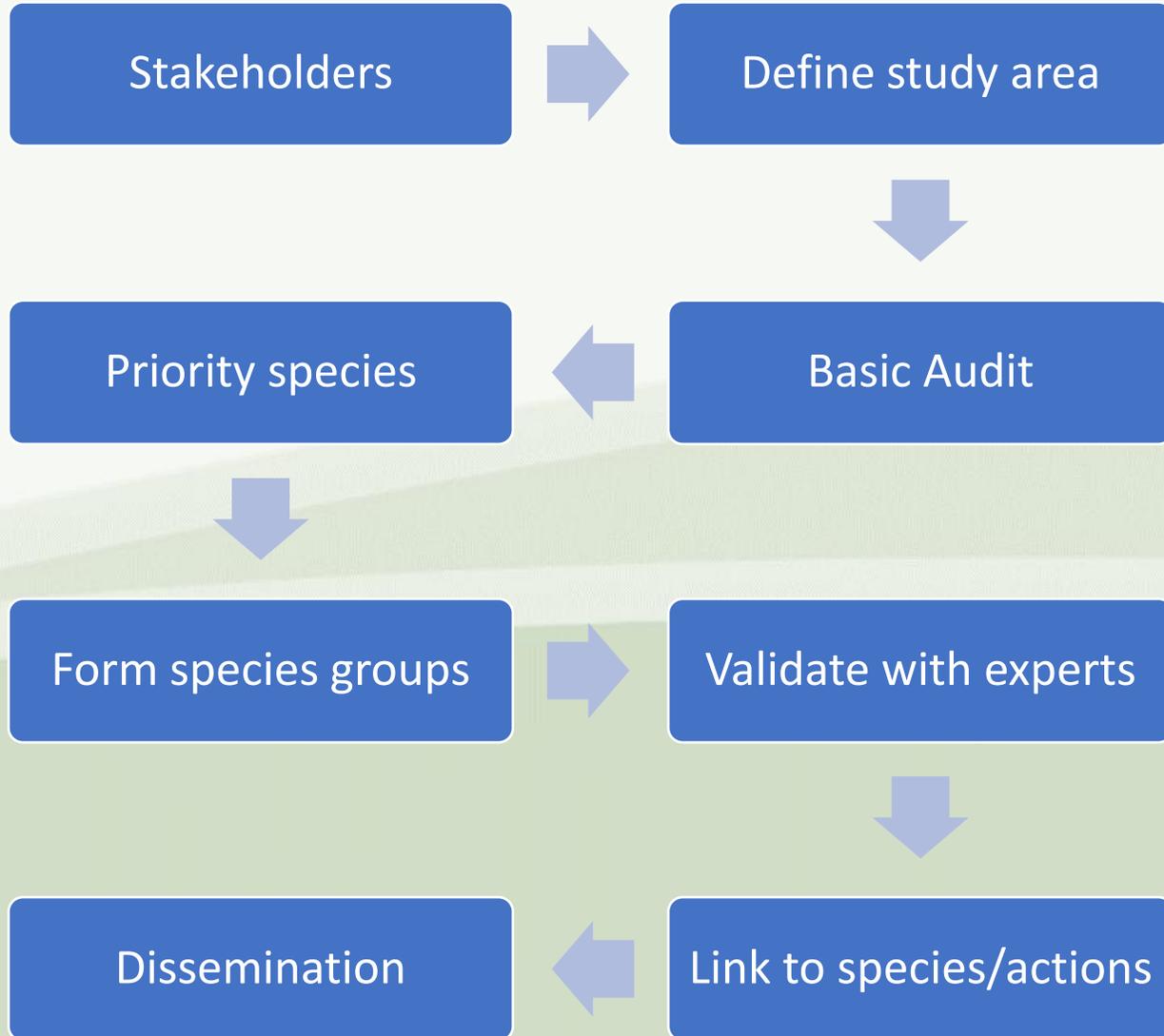


Audit related work to date

- UEA “Biodiversity Audit Approach”
 - Breckland 2010
 - Broads 2011
 - Camb/Linc Fens 2012
 - Management/Structure “Guilds”
 - Evidenced conservation actions e.g. FE Thetford Open Habitat Plan
- FE “Biodiversity Conservation Assessments”
 - 4 sites including Purbeck
 - Species groupings focused on structures and processes in “ecological space”



Current Approach

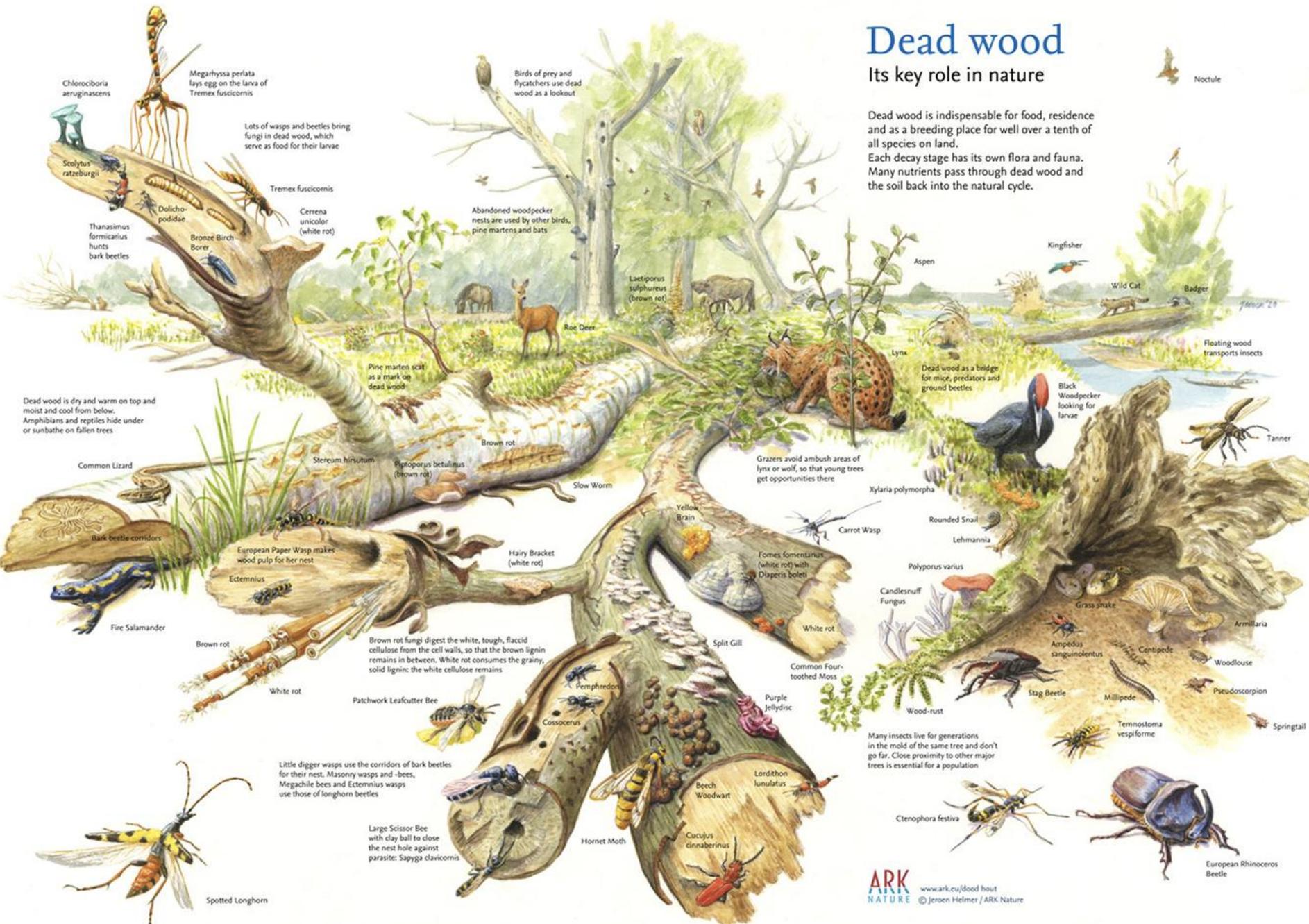


- Principles from previous work, Pantheon invertebrate database, LNRS process and other studies.
- Our approach workflow
- Key steps:
 - Involve stakeholders
 - Form groups of species
 - Validation by experts – national and local

Dead wood

Its key role in nature

Dead wood is indispensable for food, residence and as a breeding place for well over a tenth of all species on land. Each decay stage has its own flora and fauna. Many nutrients pass through dead wood and the soil back into the natural cycle.



Deadwood is important!

Examples bring this to life.

But

- How important?
- Relative importance to other conditions?
- What deadwood is most important
- Where should this deadwood be?

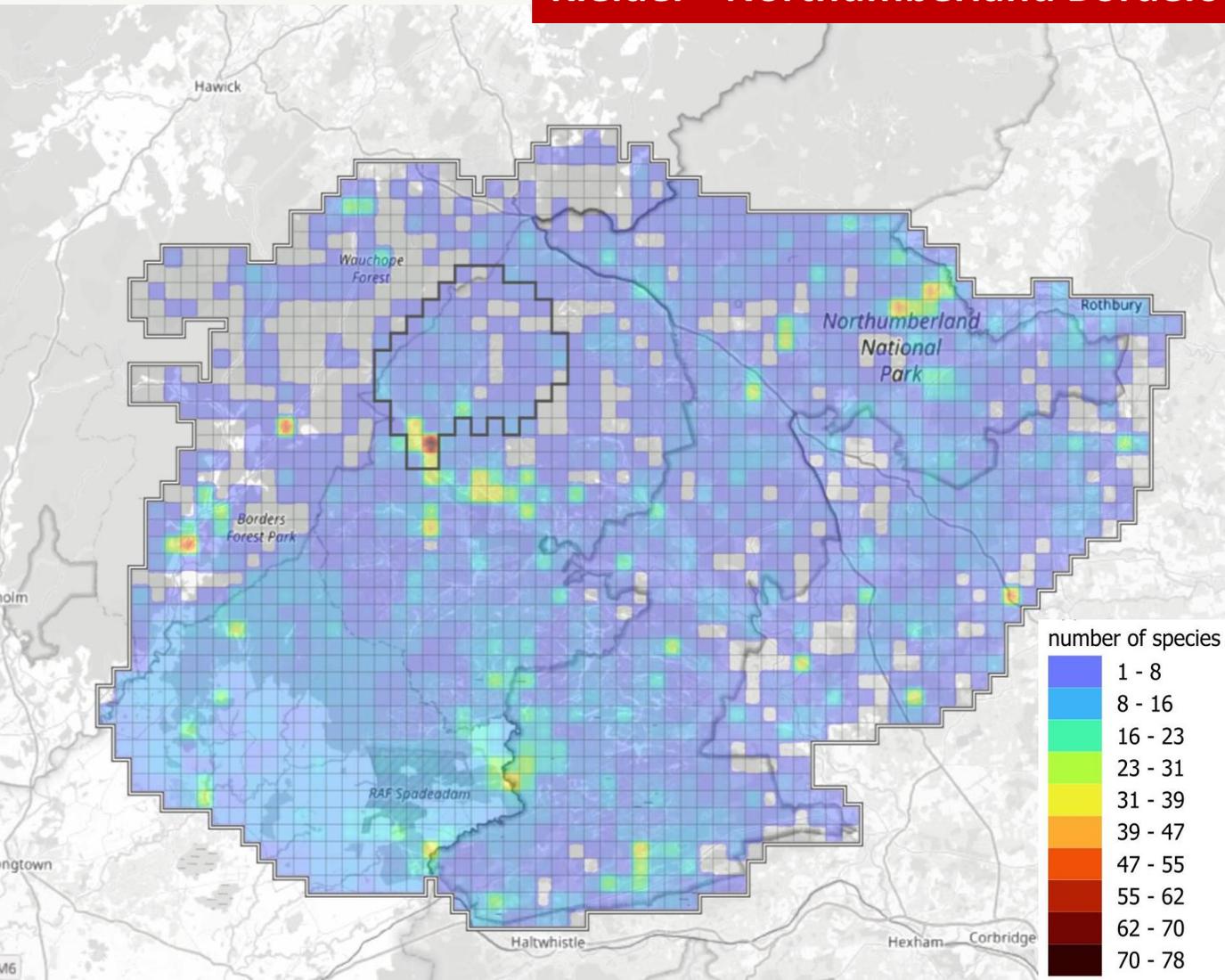
Recent Forestry England work

- Over the last 2 years FE audits
 - 4 large “study areas” - 488,000 ha (4% of UK)
 - 4.6 million records
 - 18,000 species
 - 2,400 non-vert priority species (26% of UK priority species)



Results

Kielder - Northumberland Borders



Outlining biodiversity importance and putting sites “on the map”!

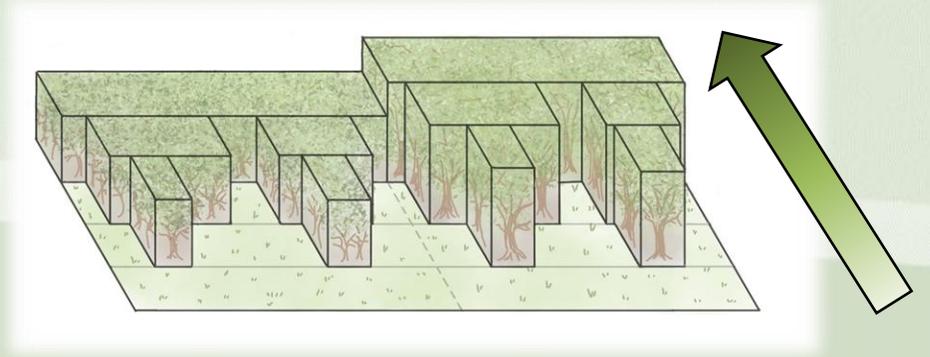
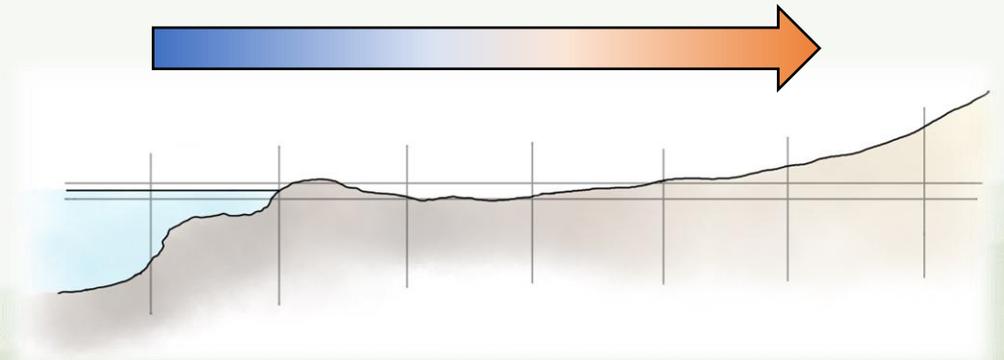
- 8,082 species
- 656 “priority species” (exc. vertebrates)

Highlighting regional contribution - in an area 0.7% of UK:

- 19% (24) of UK’s designated riverflies
- 14% (145) moths
- 12% (44) spiders

Cross-Taxa Environmental Requirements (CTER)

- Groupings which can be interrogated by 3 elements:
 - 14 Hydrology categories
 - 11 Tree cover categories
 - 45 Structure and process “tags”



**Complex sward
mosaics**

Tall swards

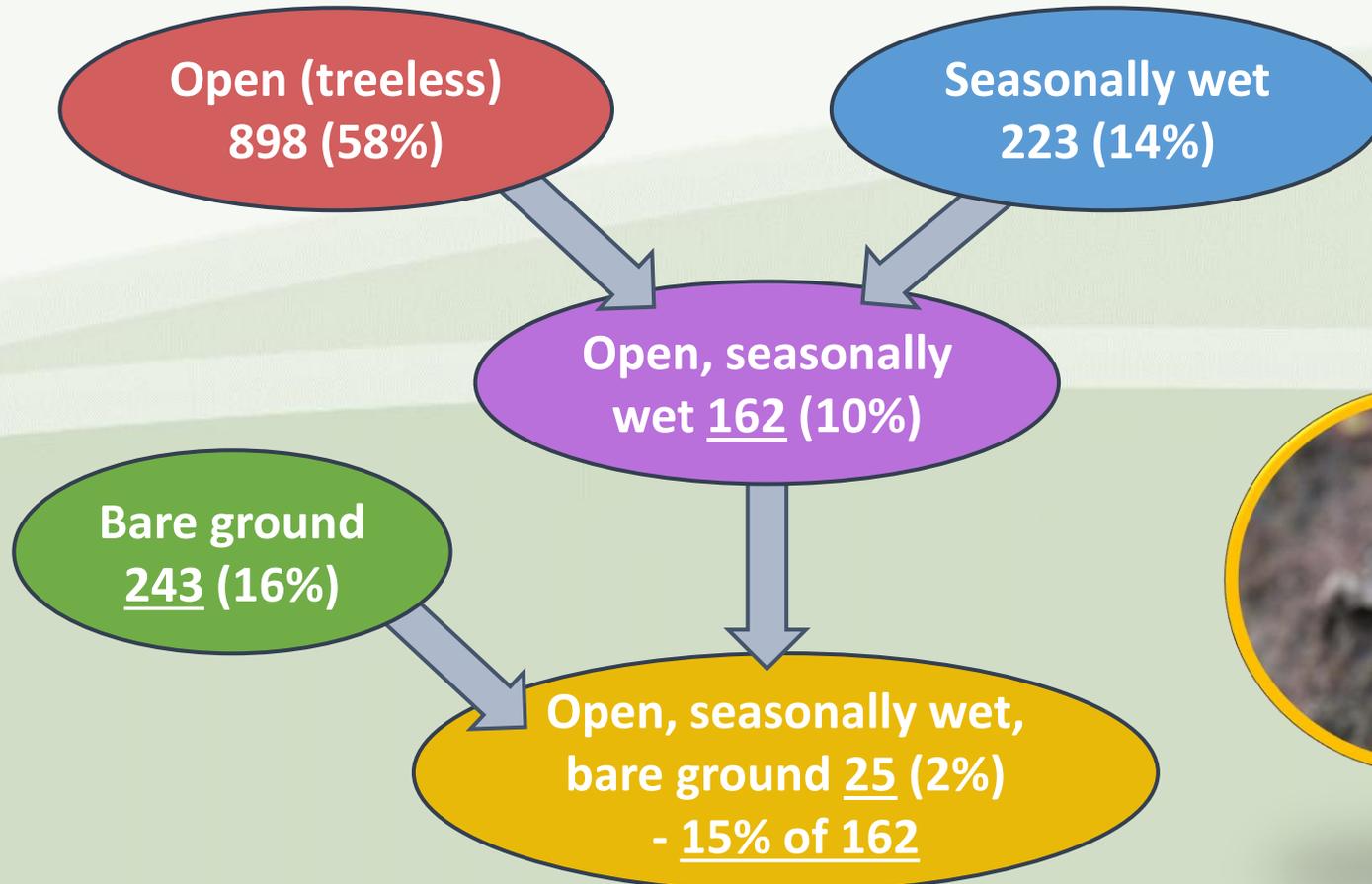
Deadwood

Light physical disturbance

Arboreal

Results

- Investigation of CTER groups



Wareham – Purbeck Heaths



Marsh Clubmoss
peaty/sandy with
fluctuating water



Coral Necklace on
sandy sites



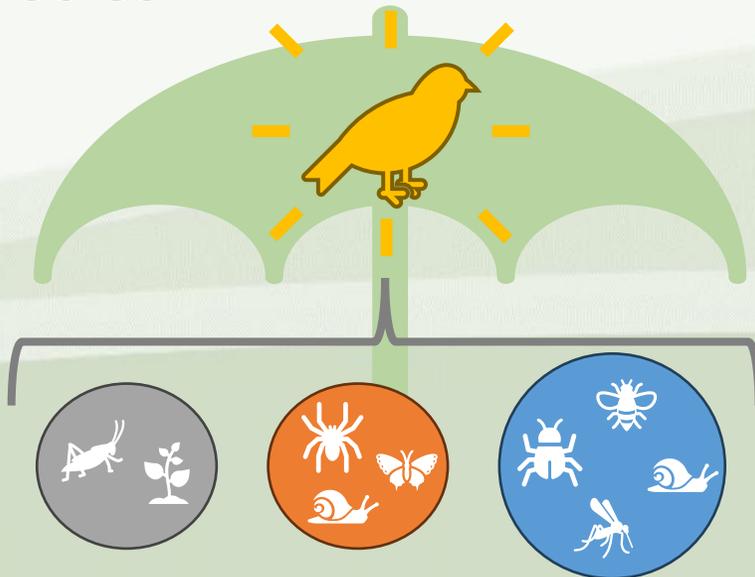
Cepero's Groundhopper
on range of sandy
/shingle bare ground



Ground beetle on peat

Results

- Linking to interventions/influential species



x% of rare plants/inverts/fungi

Wareham – Purbeck Heaths



Results

Red-backed Shrike -> 396 priority species (25%)

- Strong linked species of structurally complex habitats (e.g. young scrub, sward mosaics and juxtaposition)
- Weak links to early successional stage species with bare ground / disturbance.

Approx 80 other interventions/species:

- Stage 0 river restoration -> 279 (17%)
- Bison -> 829 (52%)
- Bison & ponies -> 994 (62%)

Wareham – Purbeck Heaths

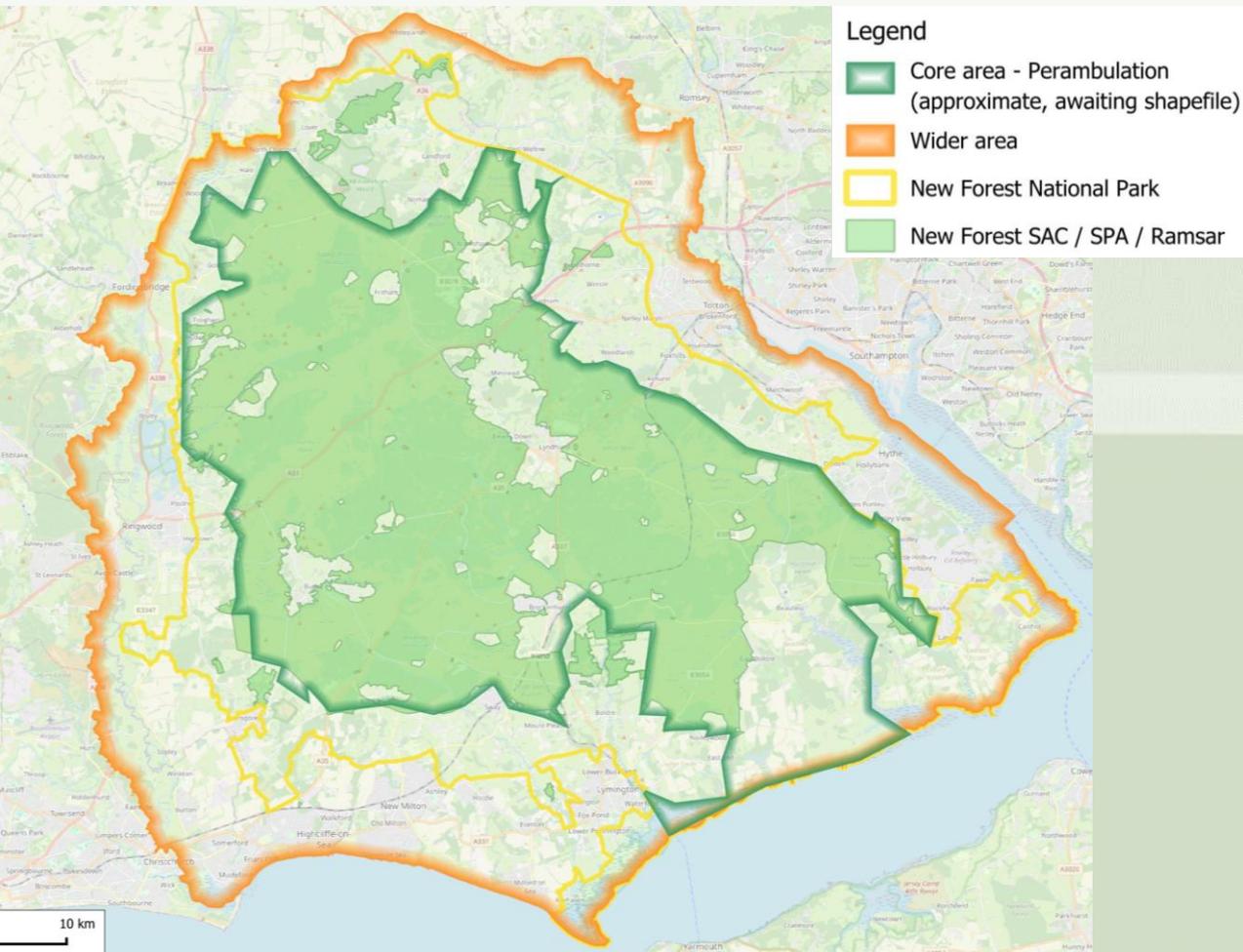




New Forest

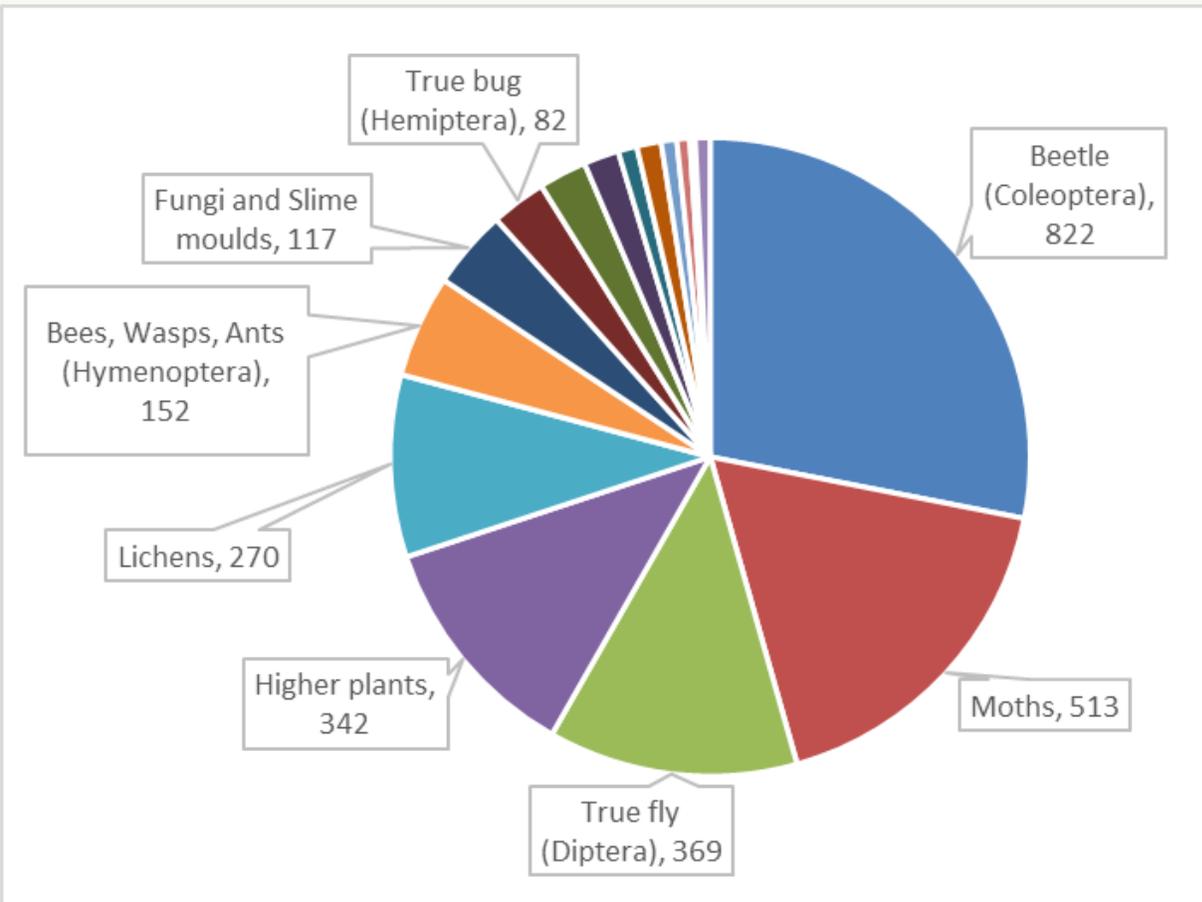
• Timeline:

- Study area – completed
- Data collation – in progress
 - We welcome any significant datasets!
- Initial CTER classification – in progress
- Expert validation – next few months
- Finalised datasets and coded species lists – June/July
- Analysis and Reporting – August
- Finalised - October



New Forest - data to date

- 6.6 million records
 - HBIC, NBN, BSBI, BAS, BLS, BWARS
 - DERC, WSBRC to add
- 22,700 species
- 2,926 priority species (...more to come!)





New elements

- Recognise “Specialist Species” geographically restricted to New Forest – Species occurring almost no where else in the UK!
 1. Entirely Restricted: Wild Gladiolus
 2. Largely Restricted: Small Fleabane
 3. Primary Stronghold: Hampshire Purslane
- Examination of different time periods
- Recording gap analysis to help targeting of new surveying