

Natural Capital Asset Presentations

Species



Natural Capital Asset

Species

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Issues – part 1

1. Lots of species data – but can we use it?

Annex 1: Natural Assets Status and Trends Data

Results of data review on natural assets, with judgements about data quality. Current England Biodiversity Indicators which may provide some information on the state of the asset are listed.

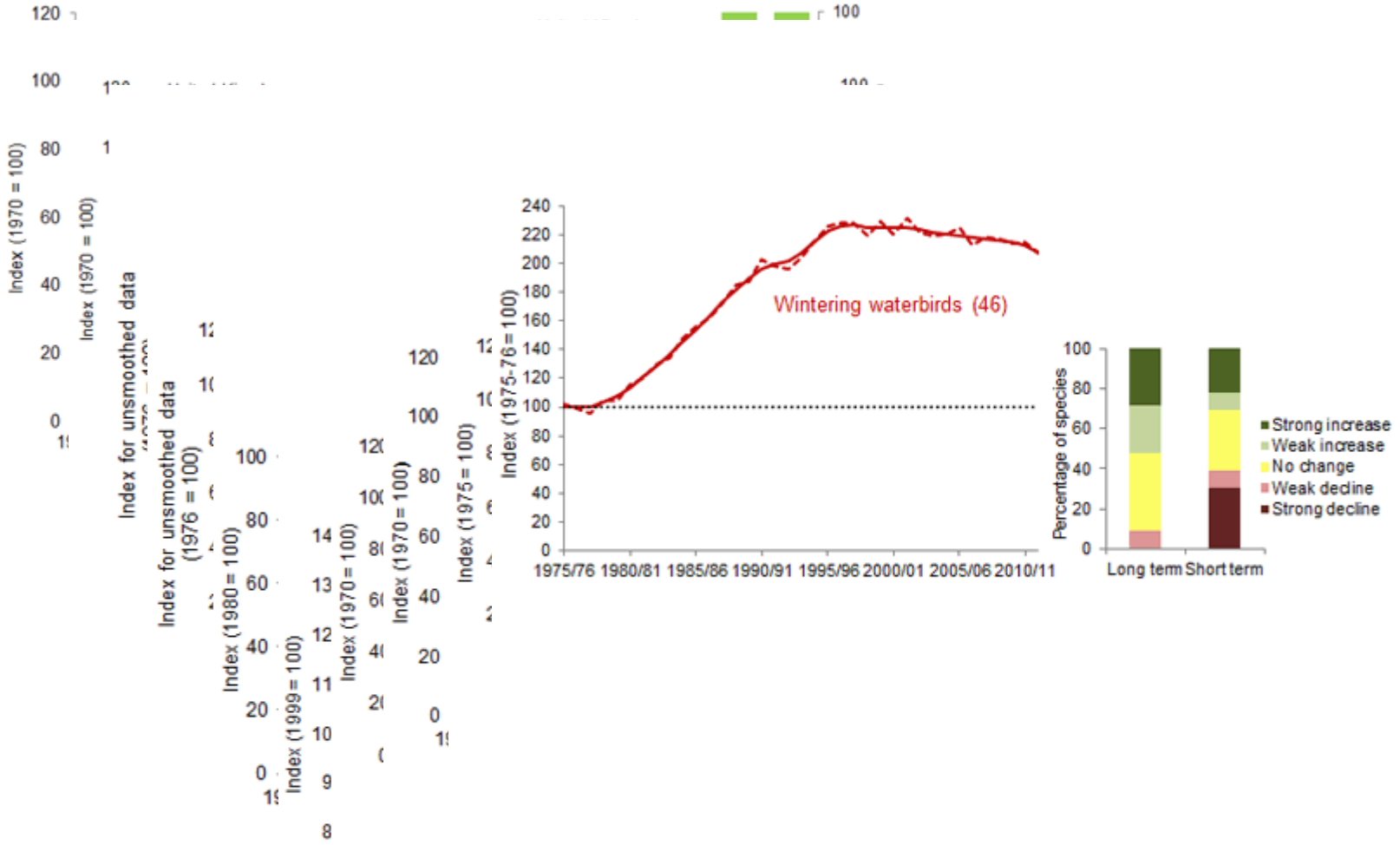
Key						
Composite Indicator: ✓ good data and composite indicator appropriate for purpose; (✓) some data appropriate for purpose and potential indicator available; ✗ no composite indicator and data insufficient to determine status and trends across all components Data quality: Indicative assessment of state of knowledge for natural asset: <u>Red</u> = limited suitable data, <u>Amber</u> = some data, inconsistently collected across components, time or space, <u>Green</u> = good data at appropriate spatial or temporal scales England Biodiversity Indicators: ↗ upward trend (improving); ↘ downward trend (deteriorating); ↔ no real change; multiple arrows indicate multiple indicators for the asset/pressure. Indicator reference number in brackets.						
Asset	Composite Indicator	Quantity Data	Condition/Quality Data	Components Measured	Data Quality	England Biodiversity Indicators – Trend ⁸⁹ (Indicator Reference No. in brackets)
Species	✗ BAP Priority Species Indicator (rare species only) State of Nature (3148 species) Biodiversity Indicators (combined)	✗ Mostly based on presence-absence distribution data Very little abundance data (bird counts, butterfly counts, some moth data)	✗ Very little data	Rare species Vertebrates Some invertebrates Higher plants (See Box 2.2)	A	↘ BAP Species (4a) ↗ EU Protected Species(4b) (↘↘↘) (↗) (↔) Farmland (5) (↘) (↗) (↔) Woodland (5) (↘) (↔) Wetlands (5) (↘) (↗) Marine (5) (↘↘↘) Invasives (20)

The Natural Capital Committee (2014) The State of Natural Capital – Restoring our Natural Assets. Second report to the Economic Affairs Committee

3. Individual species

- Data may be available for individual species – but can't monitor a large number
- May not be available across LNP area, however (e.g. barn owl numbers)

Examples of national trend data



Defra (2014) UK Biodiversity Indicators 2014 - <http://jncc.defra.gov.uk/pdf/UKBI2014.pdf>

Component definition

Component 1 - Terrestrial invertebrates (butterflies)

Composite trend (short-term) based on transect data in Nottinghamshire and Derbyshire – to be supplied by Butterfly Conservation (UKBMS) – currently in production.

Component 2 - Birds

*54 species – proportion increasing/declining/no change in the period 1995-2012 (based on East Midlands BBS data)
+ Subset – proportion of red & amber listed species increasing/declining/no change in the period 1995-2012*

Component 3 - Species richness

- i) Total number of species in selected taxa known to occur within LNP area*
- ii) Overall number of Section 41 species known to occur within LNP area*

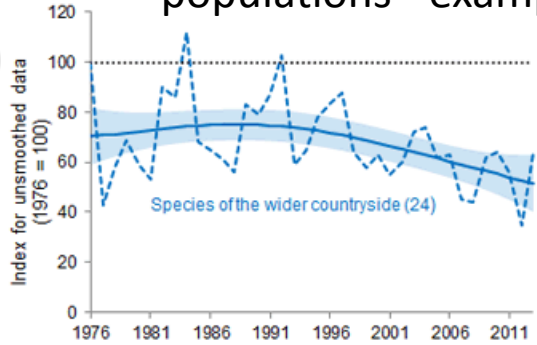
Component quantity

	Component	Measure	Unit of measure	Quantity in LNP
1	Terrestrial invertebrates (butterflies)	Trend	Index	n/a
2	Birds (all species) (red & amber species)	Number of selected bird species increasing/ decreasing/ no change in LNP area	Number of species as percentage	All species: 34 ↑, 19 ↓, 1 ↔ Red & amber species 11 ↑, 13 ↓, 1 ↔
3	Species richness (i)	Number of selected taxa occurring in LNP area (recorded since 2000)	Number of species	1528
4	Species richness (ii)	Number of S41 species occurring in LNP area (recorded since 2000)	Number of species	152

Metrics

1

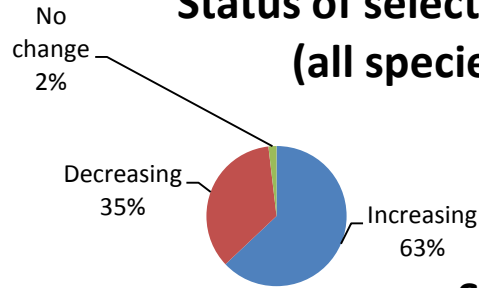
(Trends in butterfly populations - example)



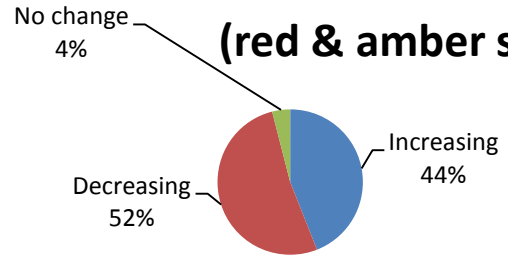
Defra (2014) UK Biodiversity Indicators 2014 - <http://jncc.defra.gov.uk/pdf/UKBI2014.pdf>

2

Status of selected birds (all species)

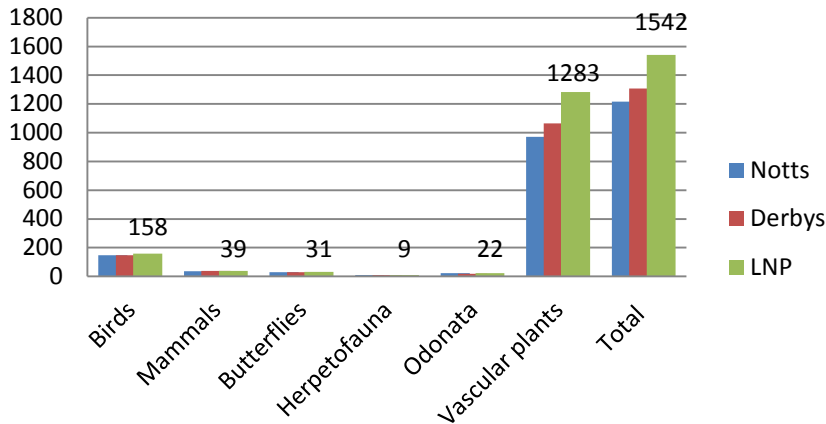


Status of selected birds (red & amber species)



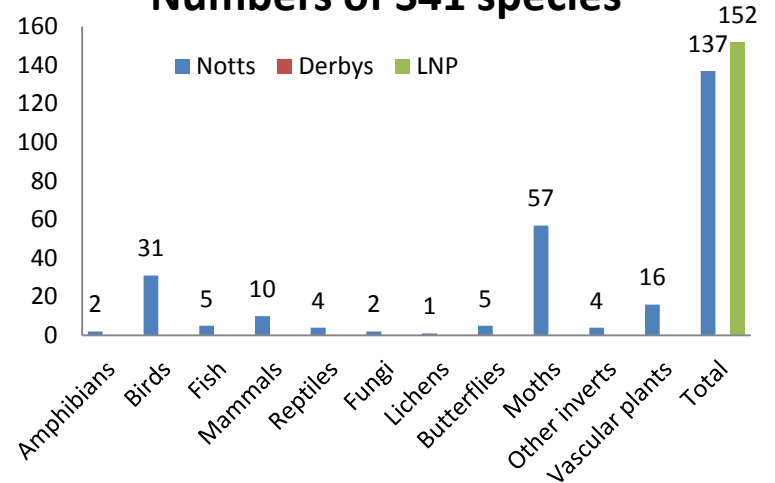
3

Numbers of selected taxa



4

Numbers of S41 species



Issues – part 2

1. Definitions

- Issues with defining ‘native species’, and ‘currently occurring’ (consistency required)
- Species-richness – doesn’t pick up underlying issues such as declines in population size of individual species

2. Variations across the LNP

- Some data may be available in one part of the LNP area, but not another (e.g. BO, WL, NJ).
- Need to standardise?

3. Can we develop any additional local indicators?

- E.g. based on UK Biodiversity Indicators, or develop/improve local monitoring programmes?
- Do we need funding to do this?
- Designing effective metrics is a research priority identified by NCC – should we influence this to ensure that data can be extracted and utilised locally?
- Invasive species?
- Species for which the LNP area is particularly important? Is there value in monitoring these?
- Other indicator species = indicator of habitat quality, or proxy for other species?