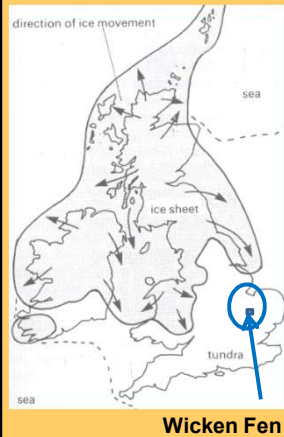


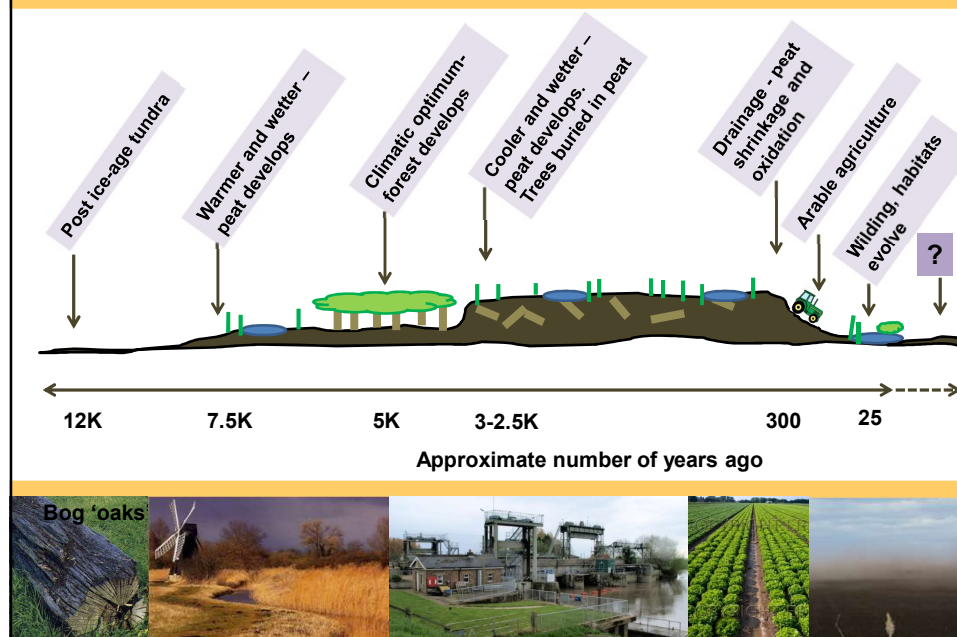
**The planning, management, monitoring and evaluation of re-wilding former arable land at Wicken in Cambridgeshire: a range of perspectives from the first 20 years.**

Francine Hughes (Anglia Ruskin Univ)  
 Carol Laidlaw (National Trust)  
 Martin Lester (National Trust)  
 Sarah Smith (National Trust)  
 Stuart Warrington (National Trust)  
 Owen Mountford (CEH)  
 Pete Stroh (BSBI),  
 Pete Carey (Bodsey Ecology)

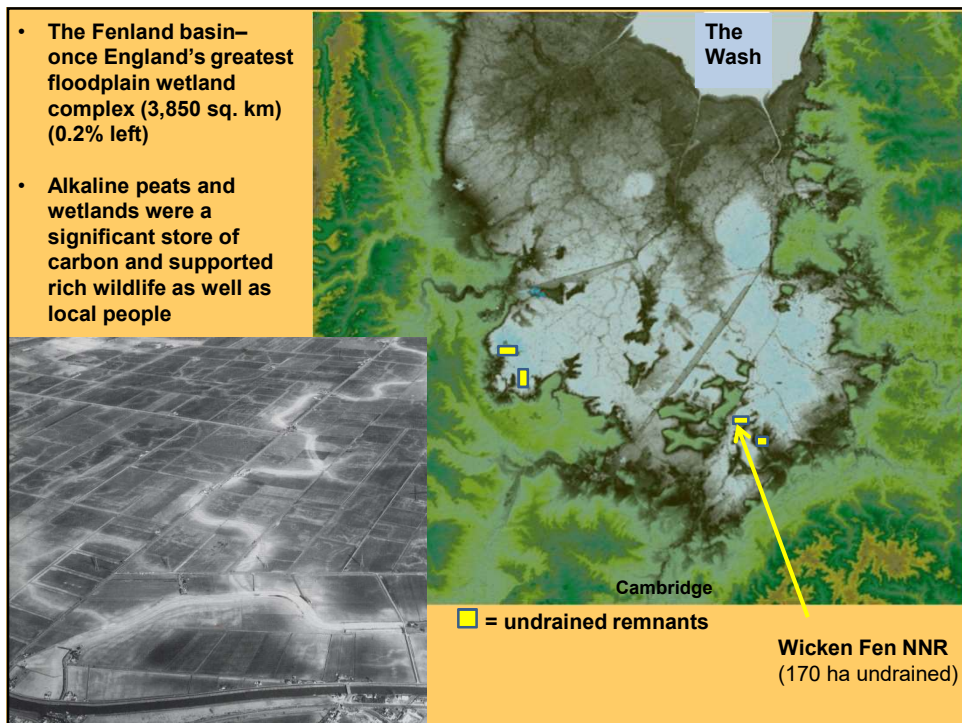


1

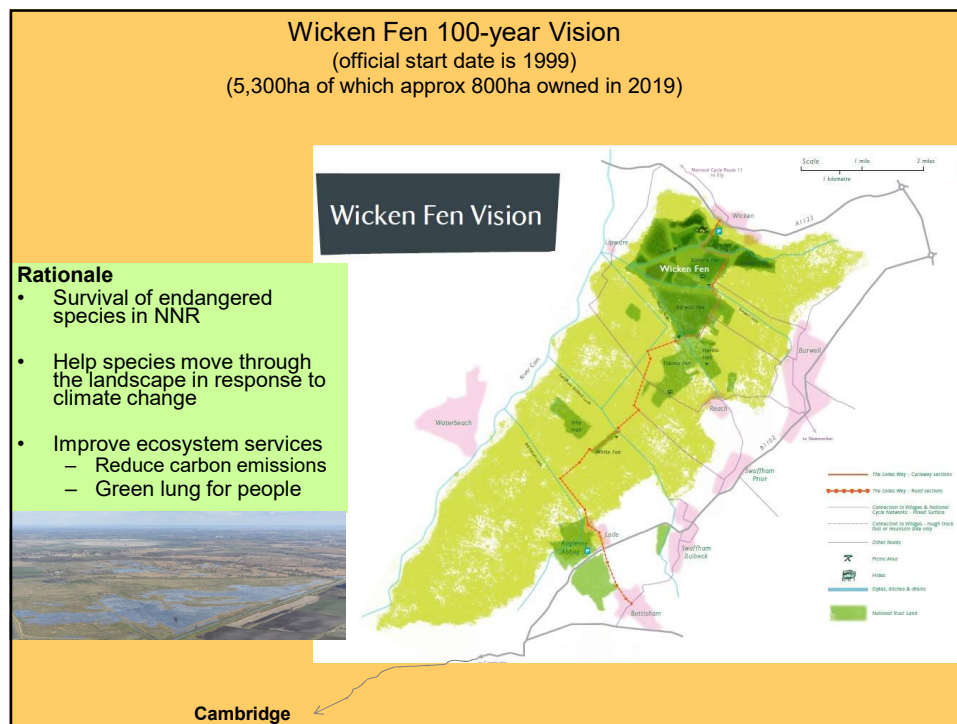
**Development of the fen landscape since the last ice-age (Holocene)**



2



3



4

## Making the project happen

- Find a champion with a team that 'gets it'!
- Facilitate landscape processes/disturbance
- Allow novel ecosystems – alien species?
- Acknowledge changing environmental context
  - there is no 'correct state' for the system and accept what comes ('no analogue' future)
- Use limited management
- Accept uncertainty -open-ended
- Embed within a social-ecological system – restoration is triggered by human need (Brinck, Nilsson & Svedin (1988) *Ambio*)

➔ An ecological journey rather than a species/habitat destination.

Adrian Colston (NT)



Martin Lester (NT) with Frans Vera



Stuart Warrington (NT)



Carol Laidlaw (NT)



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## Wicken Fen 100-year Vision Project

### Expected outcomes

- A dynamic wetland/dryland habitat mosaic
- More but changing biodiversity
- More diverse ecosystem services
- A mixed social-ecological landscape

### Approach

- Natural ecosystem processes
  - Vegetation regeneration from seeds in the soil
  - Naturally arriving grazing and browsing animals
- Introduced ecosystem dynamics/disturbances
  - Introduction of herds of large herbivores run in socially expressive breeding groups
  - Manipulation of water-table levels but variable/uncertain between years



Roe deer are now resident  
Photo: Richard Nicoll

6



### The socially expressive herds are integral to shaping the evolving landscape at Wicken



- Species, sex, age, breeding status and social status all affect habitat use in subtle ways as a result of the differing physiological needs of each category
- Wicken currently has 104 Koniks and 48 Highland cattle grazing in mixed groups over 368ha. The majority of the individuals are sexually active breeding animals.
- Males remain with females in family groups year round and young are not removed from parental groups; sex ratios for both the Koniks and cattle are approximately 50/50
- Ages range from newborn to 25 years old
- Animals are removed from the herds if found to be physically or temperamentally unsuitable for our grazing system, otherwise population control is kept to a minimum where practicable. Currently the herds are not harvested for meat.

7



As well as affecting land use patterns, social behaviours, especially those of entire males, shape the landscape on different levels. The creation of stud piles, bull pits and dust baths all add to habitat dynamism and variability.

8

## But...

Within current legislative requirements and increasing public awareness of animal welfare, the creation and maintenance of socially expressive 'as wild' herds can be challenging.

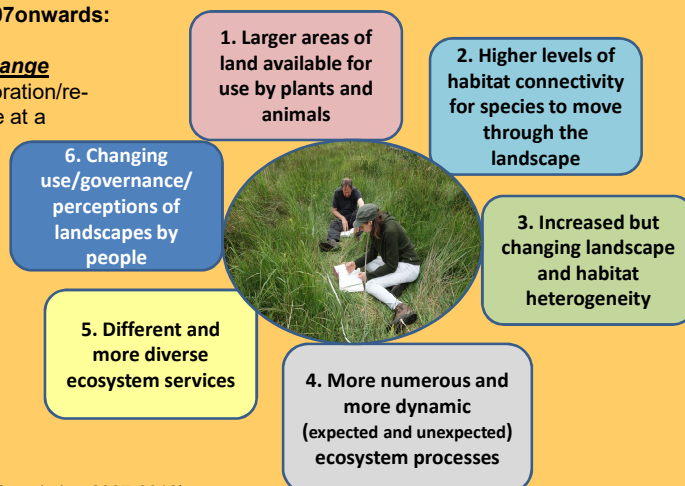
In order to build resilient herds for the future while maintaining moral and legal obligations, pragmatic decisions between wildness and more interventionist philosophies have to be carefully balanced.



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### Monitoring at the Wicken Vision Project 2007 onwards:

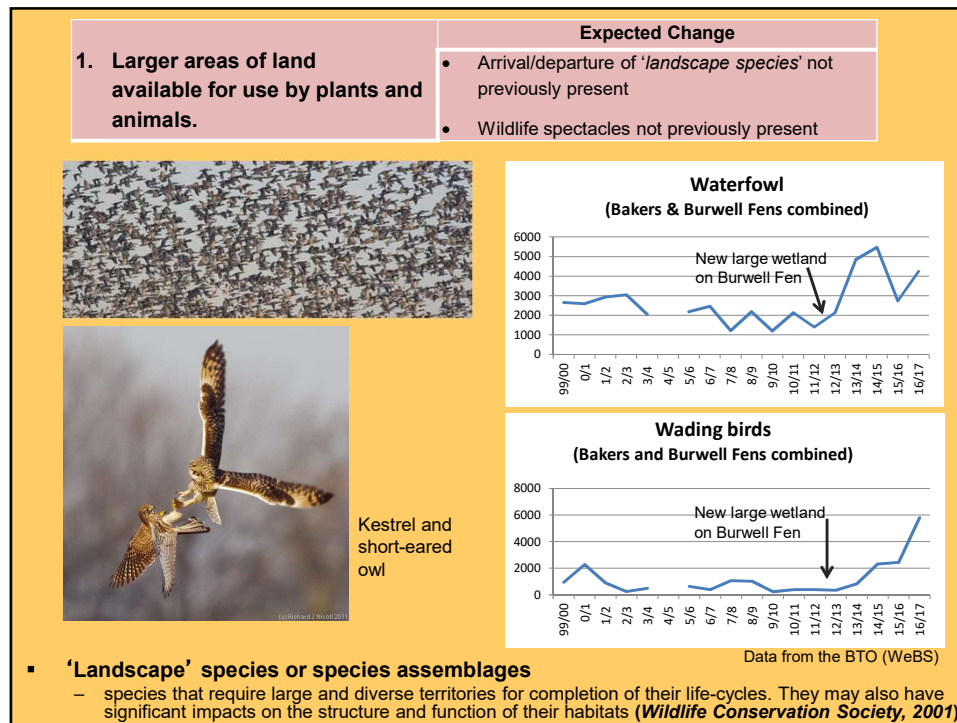
Aims to capture change resulting from restoration/re-wilding taking place at a landscape scale



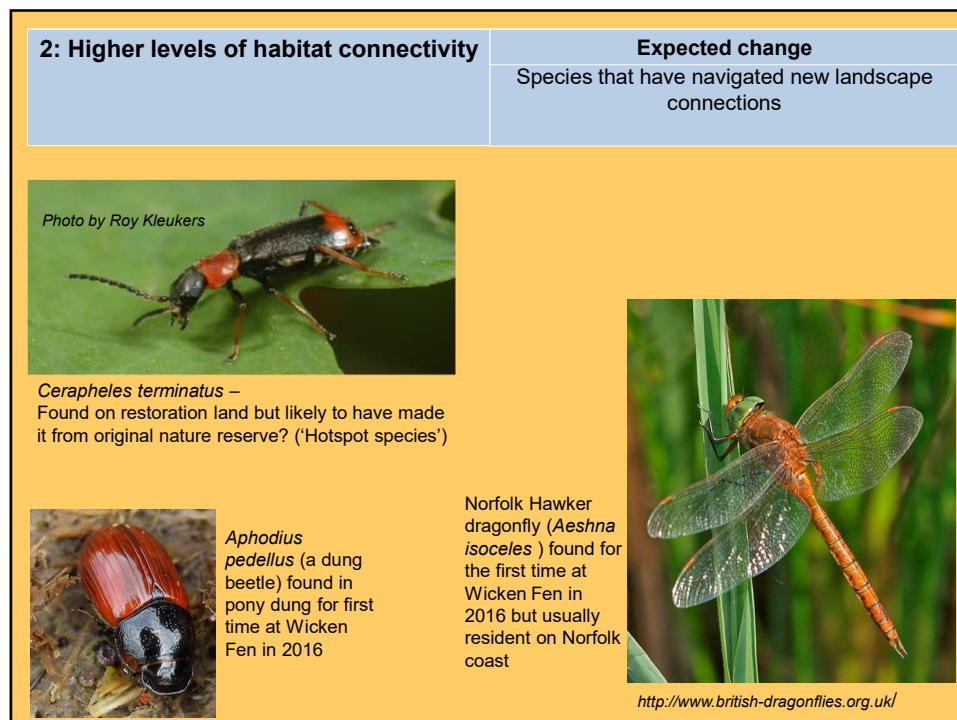
(Funding: The Esmee Fairbairn Foundation 2007-2012)



10



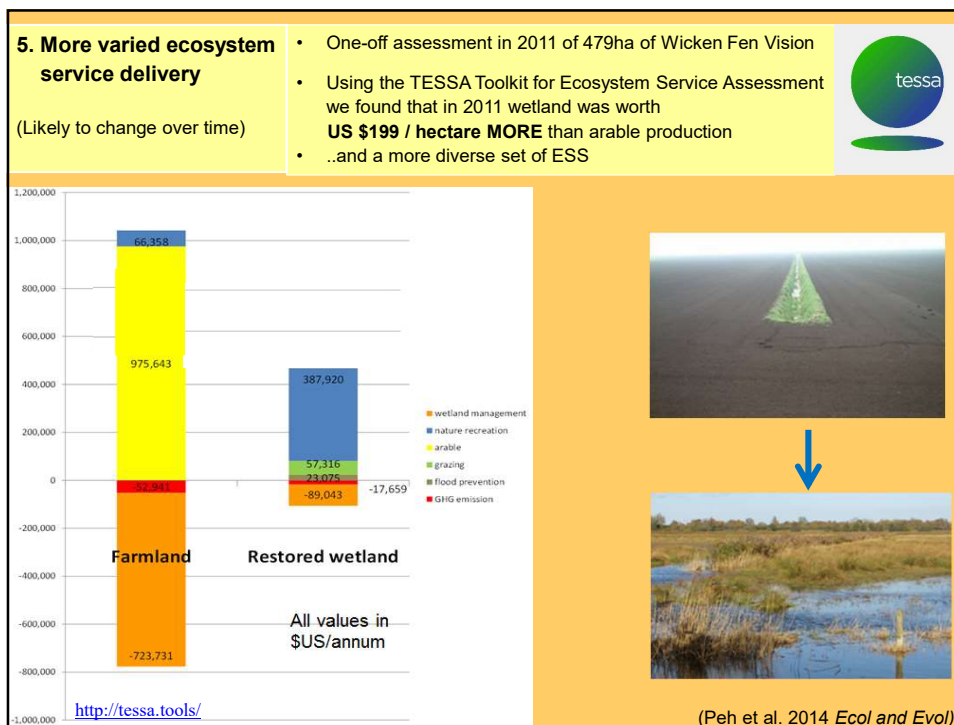
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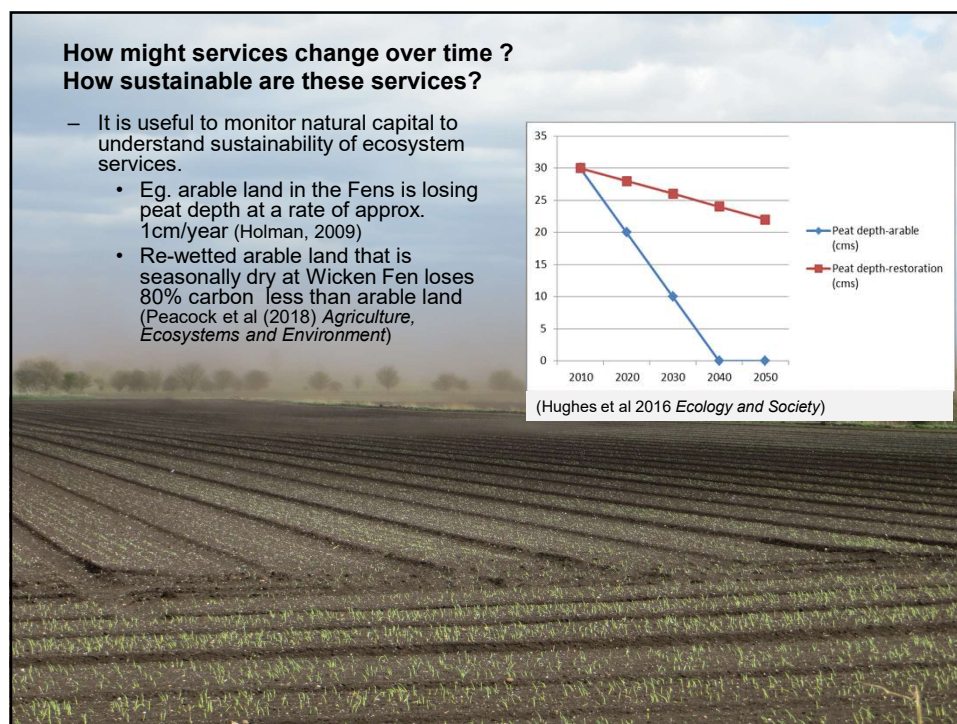
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15



16



### The delights and fears of re-wilding Wicken Fen (Its all a matter of human values and choices)

- Sense of wilderness
- Seasonable variability of water tables and landscape
- New wildlife using the area
- Reduced carbon emissions
- Flood holding
- Grazing animals in the landscape
- Lack of obvious management of the area
- Flooding
- The National Trust is out of control
- Loss of arable production and lower food security
- Counter-cultural to farming and drainage history
- Counter cultural to conservation traditions
- Alien species will take over



17

### Constraints on re-wilding and large scale restoration in the Fens

- Shared water resources with farming
- Uncertain, long-term water availability and temperature increases
- Polluted water in drainage system, soils containing many agricultural chemicals
- Artificial structures- the embanked rivers cannot yet be re-mobilised
- Diverse stakeholder views
- Legislative requirements
  - Noxious weeds
  - Animal welfare



(From: Hughes et al (2005) *Ecology and Society*)



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