

Research on people, forest gardens and wildlife

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Overview

- Background
- History of Forest Gardens in the UK
- Aims and Objectives
- Key findings
- Conclusions



Background



Background



Pilgrim, E.S. *et al.* (2010) Interactions Among Agricultural Production and Other Ecosystem Services Delivered from European Temperate Grassland Systems. *Advances in Agronomy* **109**, 118-154

- Reduce reliance on annual crops
- Potential solutions
 - Agroforestry system
 - Switch from annual to perennial crop plants
 - Own-growers



Background



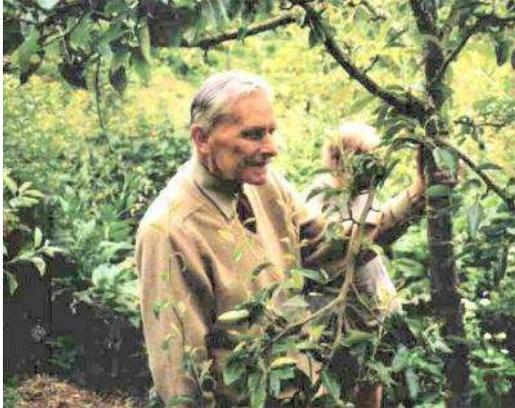
Globally, over 800 million urban own growers (2014)

Resurgence in own-growing in UK & USA

- Know food's origin
- Sustainable food systems

Surge of own-growing during Covid-19 pandemic





Images reproduced from Wikipedia

Robert Hart

- Influenced by Toyohiko Kagawa's 3-D Forest Farming integrate conservation, trees and livestock
- Sought additional inspiration from Tropical Home Gardens
 - Kerala (India)
 - Java
 - Chagga people of Tanzania
 - Kandyan people, Sri Lanka
 - Maya & Zapotecs Mexico & Central America

- In Britain approximately 2000 – 5000 forest gardens
- Globally forest gardens are gaining in popularity
 - Small-scale food system promote wildlife
 - Choose plants that suit site
 - Less maintenance



Ann Parkinson's FG: 2 years old



Young FG: 6 years old



Young FG: 5 years old



Mix FG: 4 years old



Mix FG: 6 years old



Mix FG: 9 years old



Young FG: 10 years old



Mature FG: 21 years old



Mature FG: 25 years old



Mature FG: 33 years old

Aims

Explore Forest Garden concept

- Alternative food resources
- Motivation behind their creation



8 year old Forest Gardens: L to R Totnes Devon, Axmouth Devon and Norfolk

We define a forest garden as a:

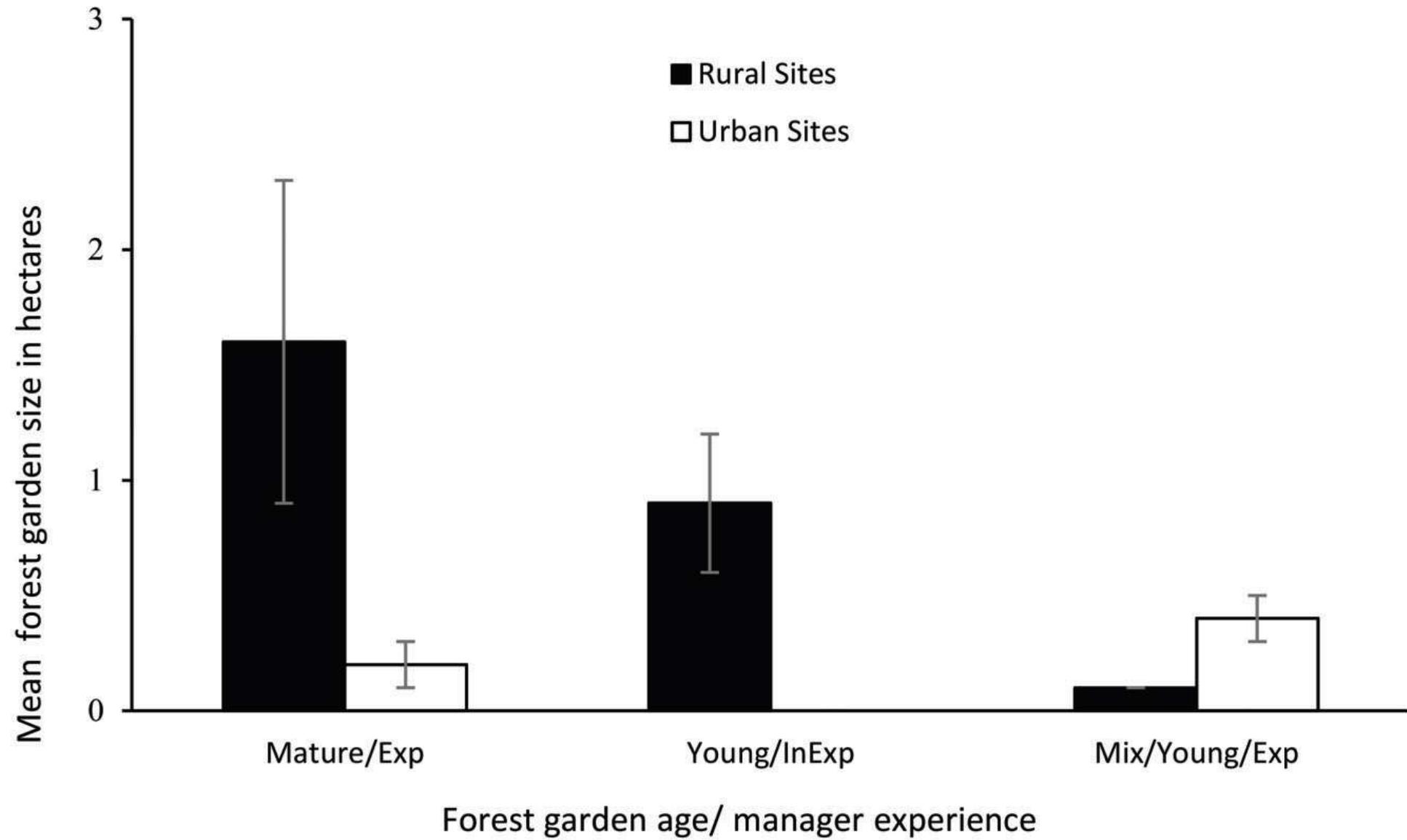
“multi-storey combination, comprising three or more layers
various trees and crops, sometimes with domestic animals,
around the homestead or close to dwellings .”



Telephone interviews

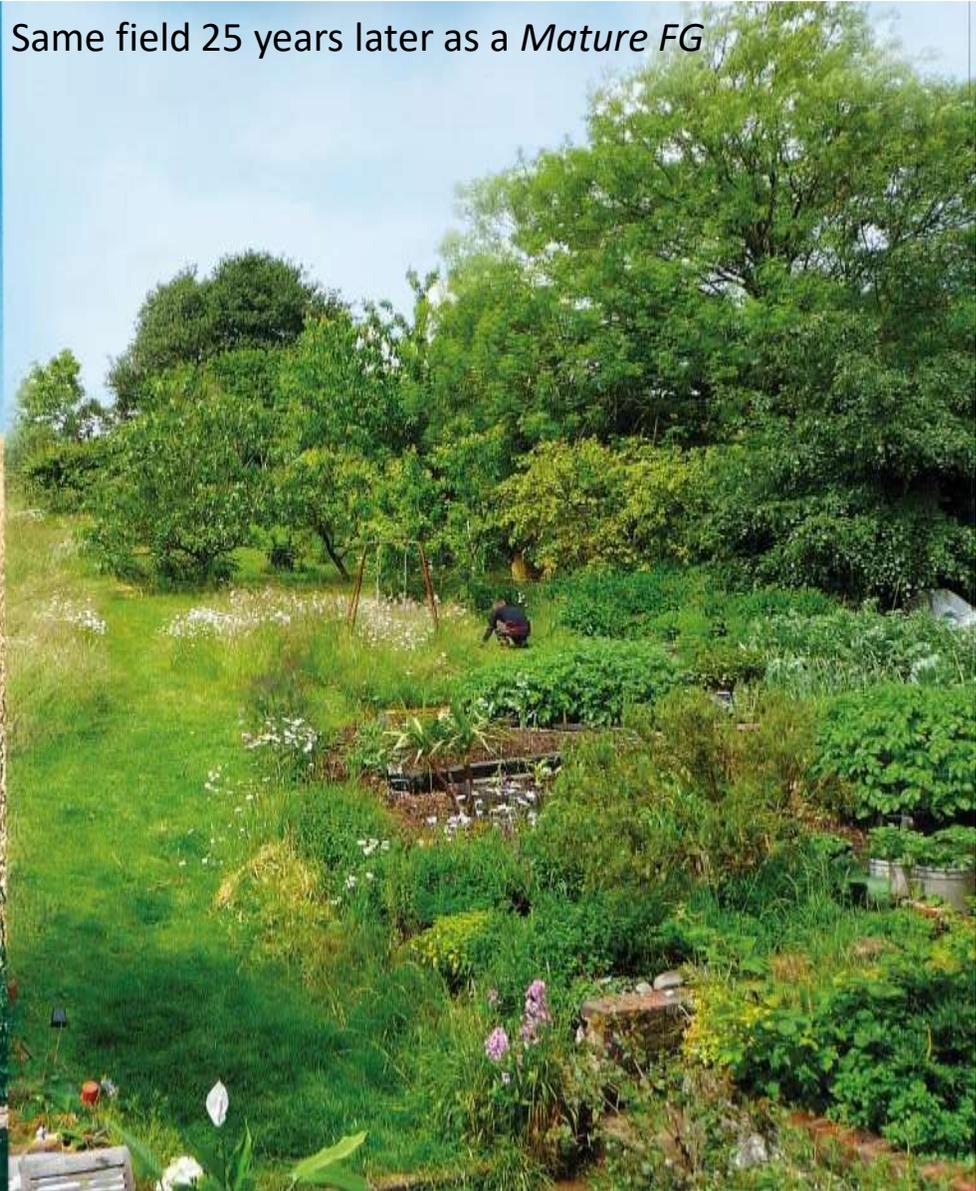
- 21 *Mature FG/experienced manager* FG were ≥ 15 years
- 20 *Young FG/inexperienced manager*: FG were ≤ 10 years old.
- 10 *Mixed/ Young FG/ experienced manager*: where respondents had set up a *Young* FG following their experience of managing or working on a *Mature* system.

Key findings



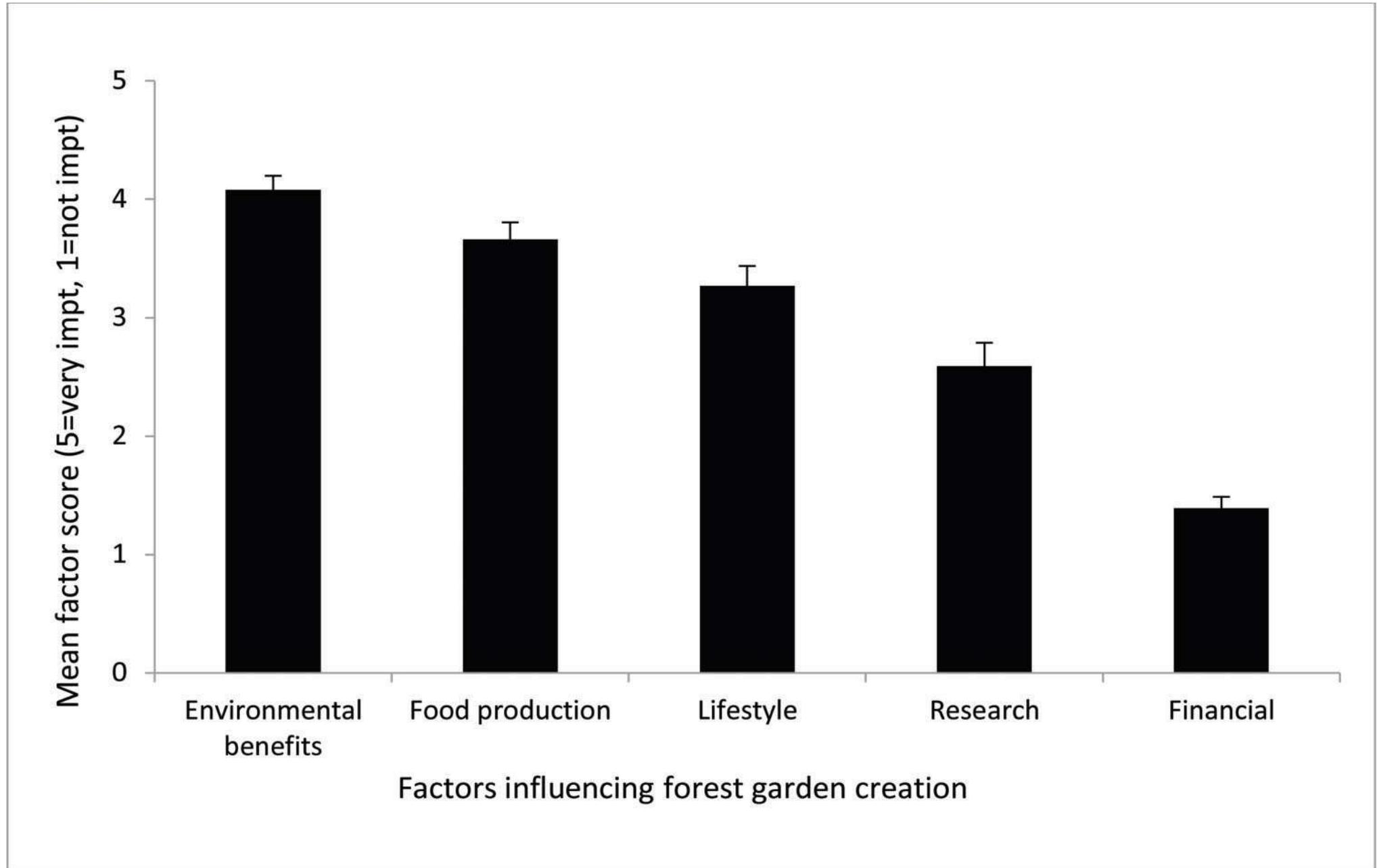


Arable field on underlying chalk soil



Same field 25 years later as a *Mature FG*

Key findings

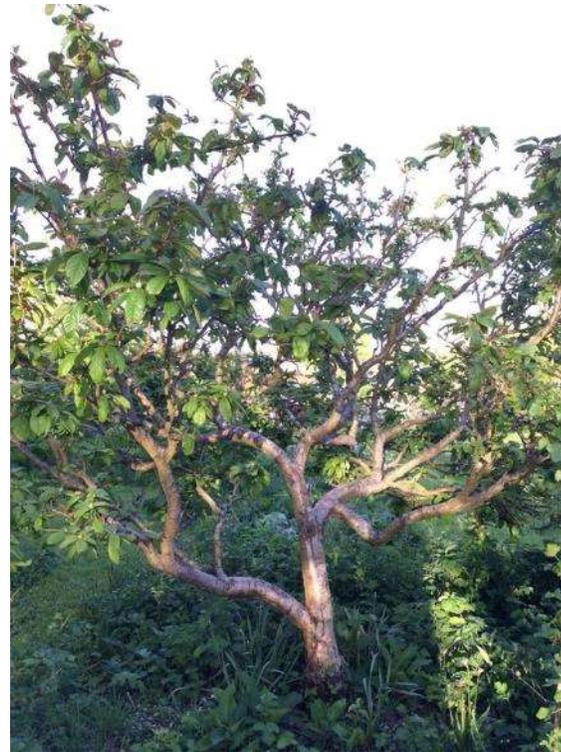


Key findings

76.5% specifically grow local varieties



Hambleton Deux ans: local apple tree variety and Medlar:
Harlands 25 year old Forest Garden South Downs



Quince: 5 year Old Forest
Garden Devon

Results

Most common plant in the Canopy layer: Apple tree in 96.1 % of forest gardens



23 year old Urban Forest Garden, Hatfield

Key findings

Most common plant in the :

- Fruit bush/Shrub layer:
- Perennial herb/vegetable Layer:
- Ground cover:
- Rhizosphere/root layer:
- Climber:

Plant

Blackcurrant
Comfrey
Strawberry
Horseradish
Blackberry

% of FG

96.1
92.1
80.4
45.1
84.3



Key findings: interested in cultural food experiences



25 year old FG, S Downs



26 year old FG Cornwall



26 year old FG Cornwall

Key findings: Foraging based diet

20 year old FG Cornwall



Three cornered leek
(*Allium triquetrum*)

This plant is common on Cornish lanes and in woodland. It is not truly native but widely naturalised. Plants have long linear leaves and white, bluebell shaped flowers.

It has a strong onion and garlic flavour and the leaves and flowers are delicious in salads or in cheese sandwiches. It can also be made into a tasty pesto sauce and its flowers make an attractive garnish.



Ground elder: image garden organic

5 year old FG Devon



5 year old FG Devon



Harland's 25 year old FG S Downs

Conclusion

Typically British forest gardens are

- Privately owned
- Motivated by environmental protection and wellbeing
- Small <0.6ha (roughly 1 football pitch)
- On sloping land of little agricultural value
- Highly diverse on av. 64 plant species spread over 4 layers

Pilgrim, E. S., Osborne, J., & Winter, M. (2018). Evaluating the multiple benefits of multi-layered agroforestry systems. *IJAM* 7 (2) 4-16 <https://doi.org/10.5836/ijam/2018-07-04>



CAT forest garden: 7 years old image Chloe Ward



Monkey Sanctuary 21 year old

Thank you for Listening

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