

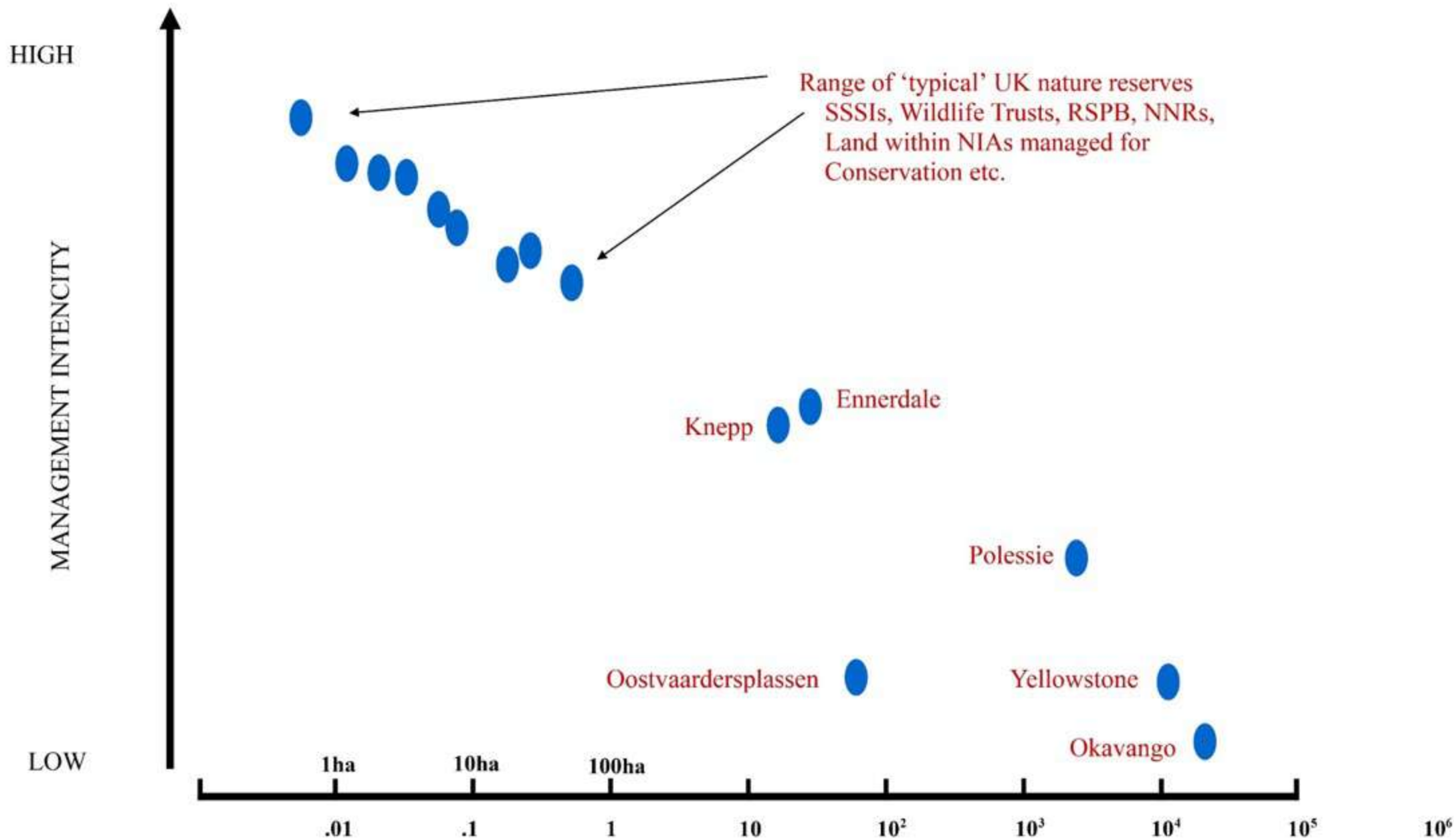


# Rewilding Knepp

Rediscovering nature



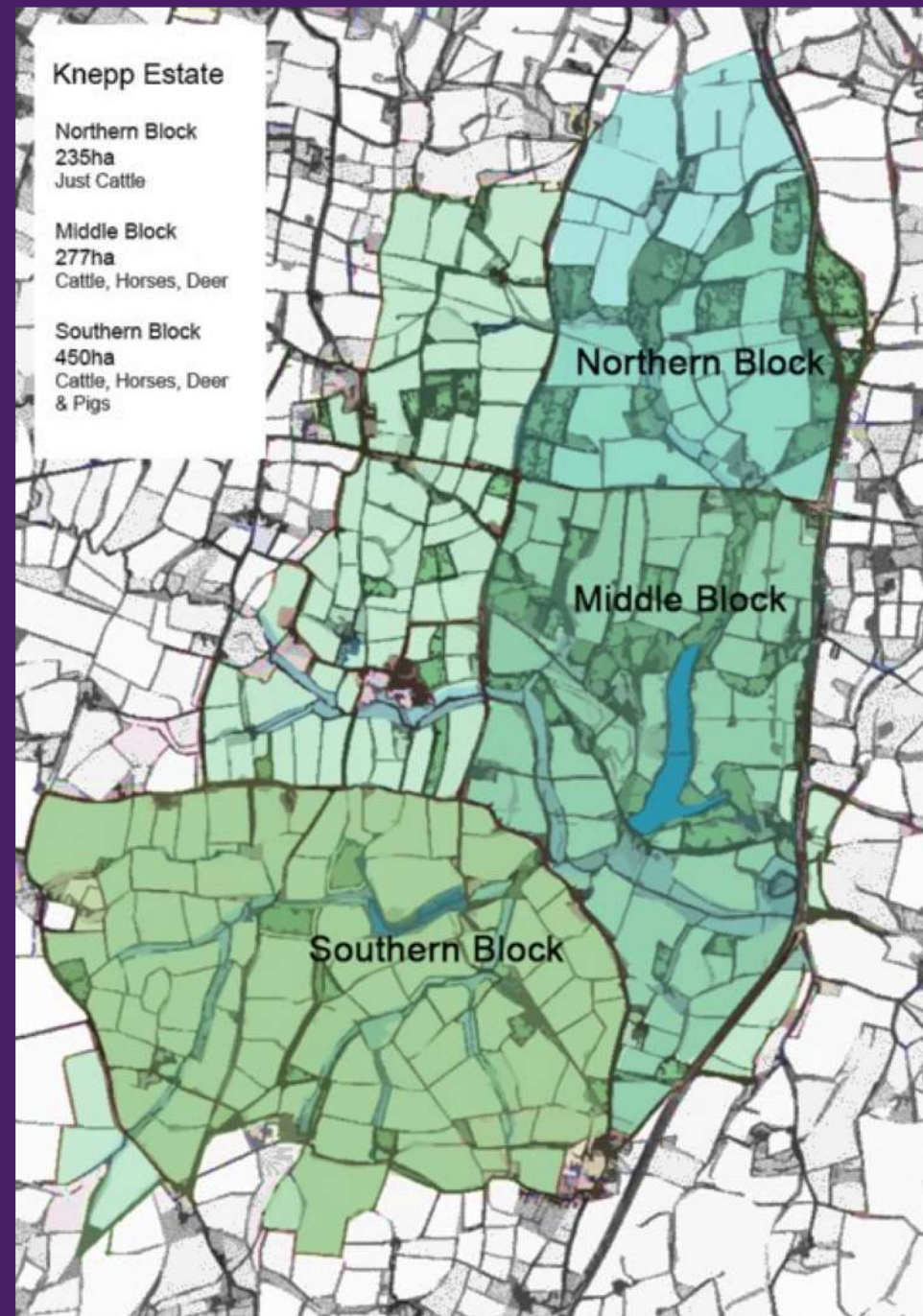
# “Cartoon” spectrum of protected areas scaled by size and by qualitative indication of management intensity

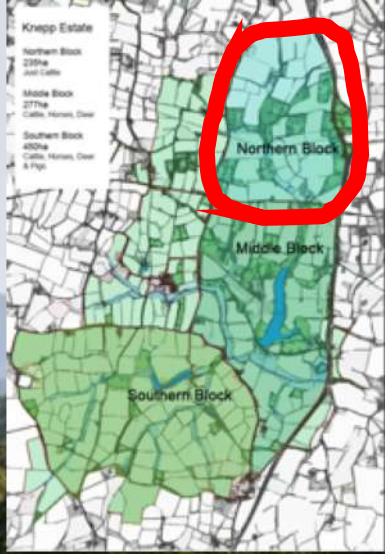


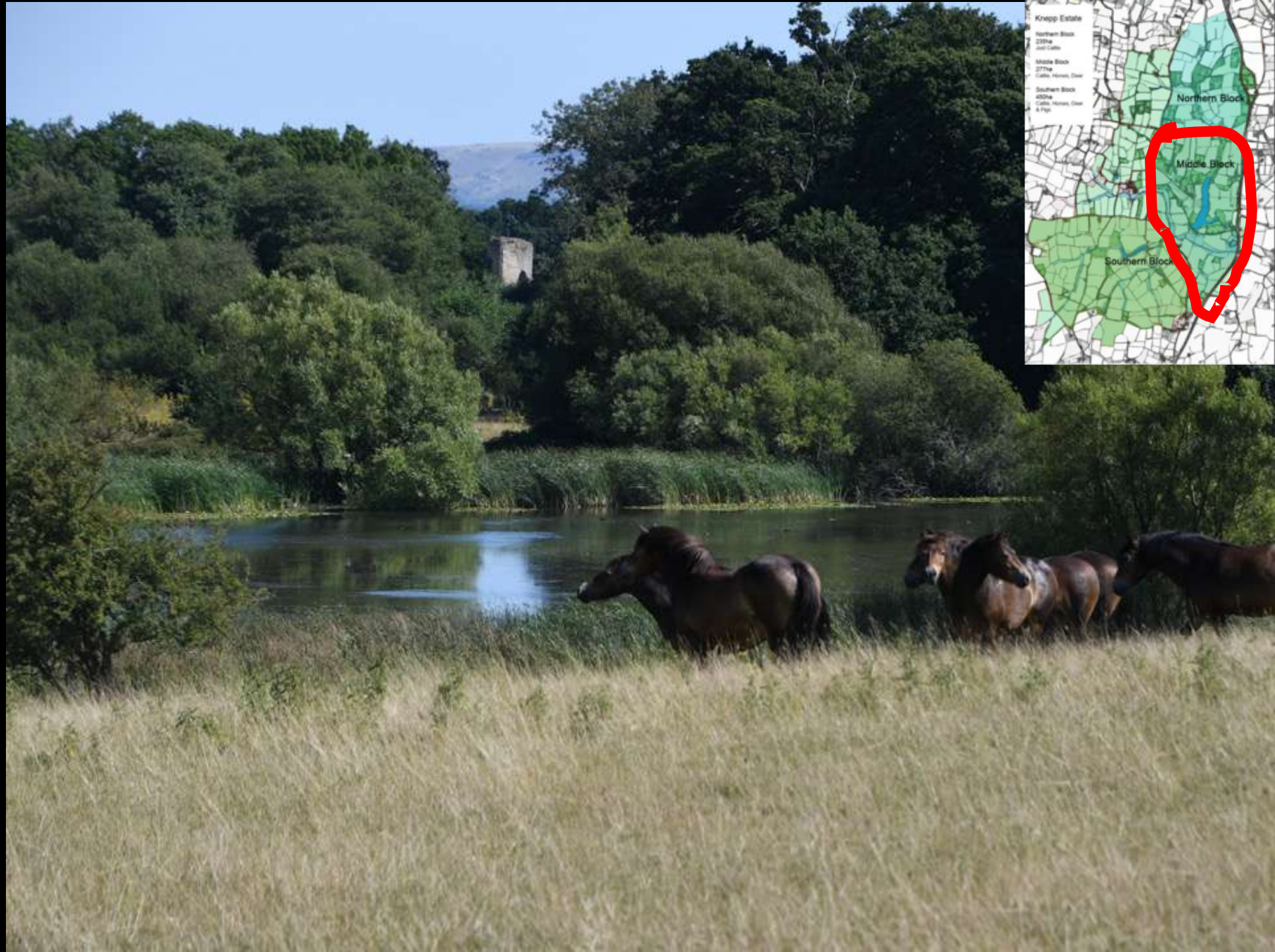


# KNEPP ESTATE

1400 ha











**DIG FOR VICTORY: 1941, when these pictures were taken, Knepp's land had mostly reverted to scrub**





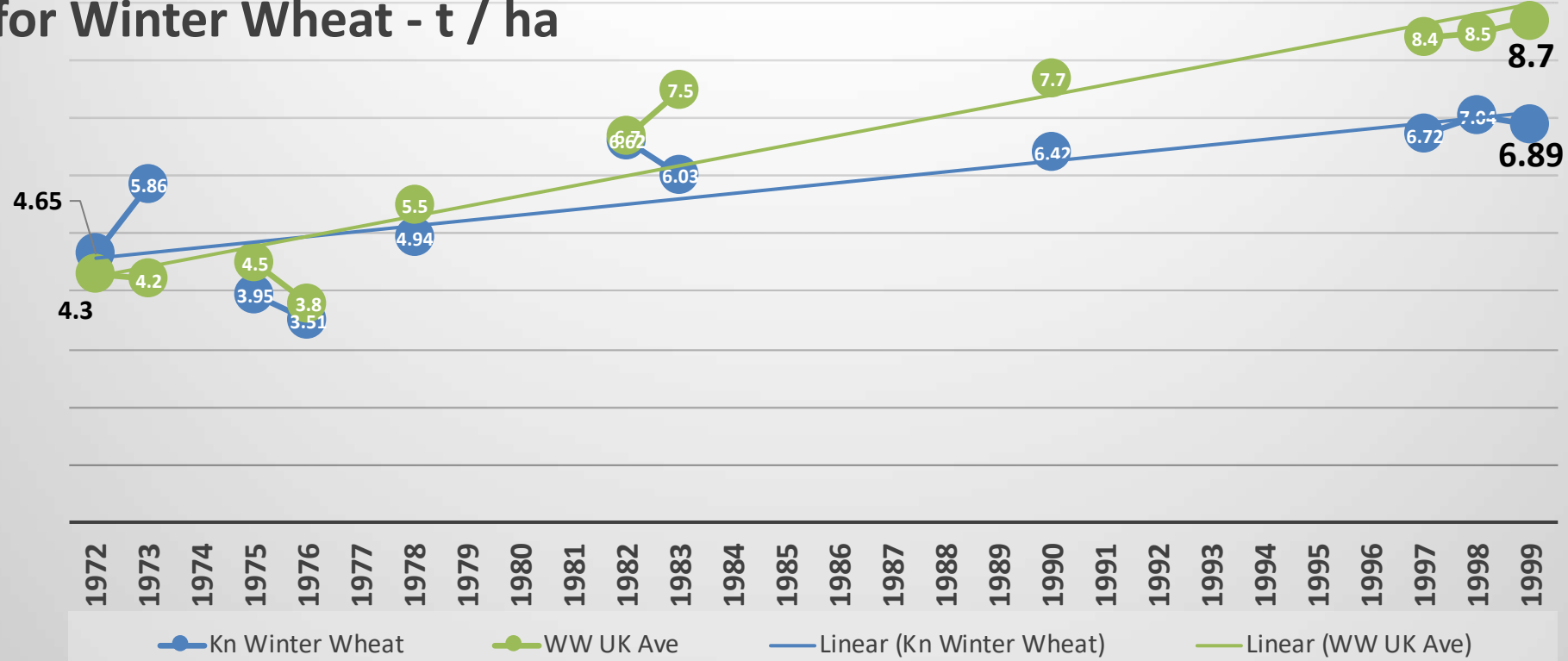
Fine Wheat Crop. Duke of Gloucester reviews Canadian 3<sup>rd</sup> Div. 1943





# Knepp Historic Yields Compared to UK Average Yields for Winter Wheat - t / ha

2016 World record WW  
16.52 t/ha Northumberland



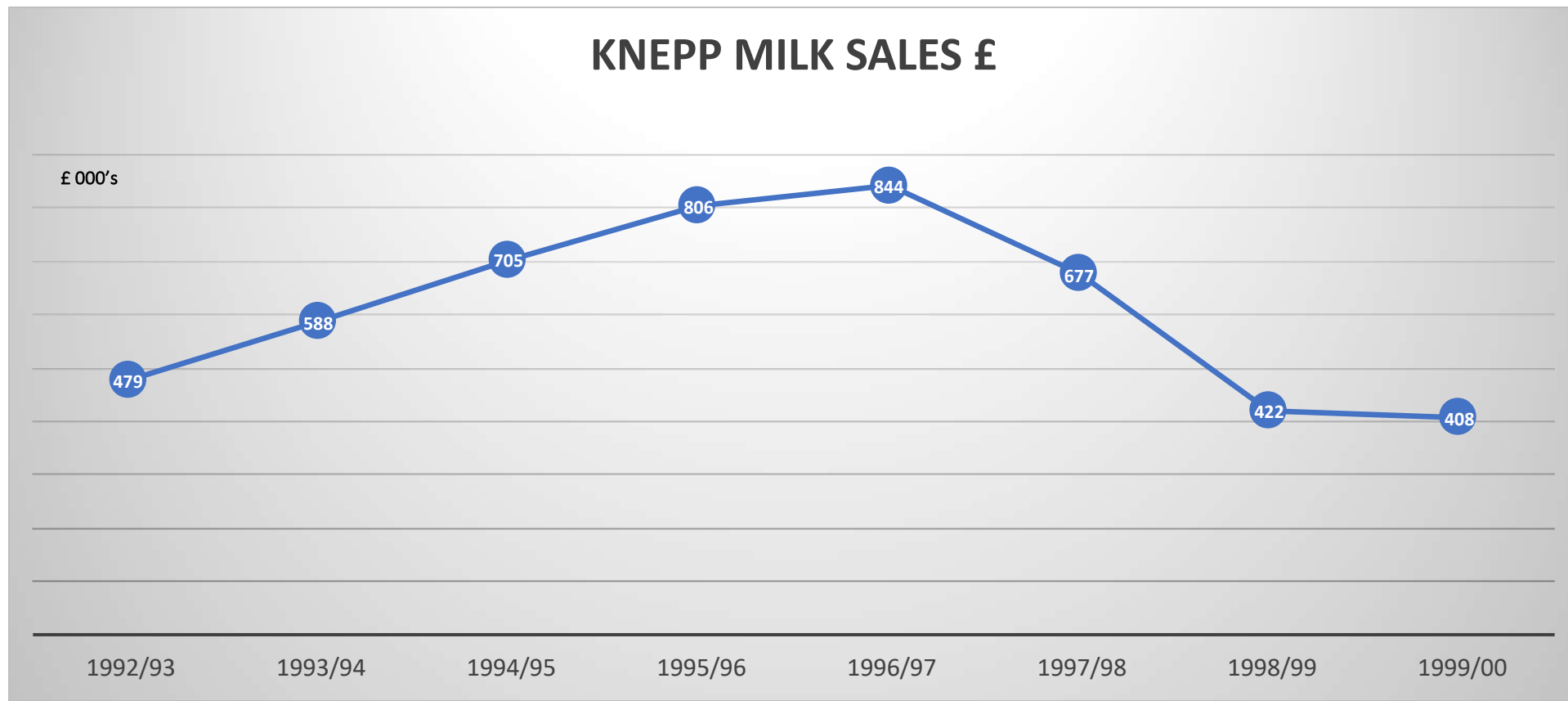
Arable: Knepp's yield for winter wheat by the late 1990s

We were **1.8** tonnes/hectare

Light of the UK average

# Dairy at the end of the 1990s

- Milk quota looked likely to be abandoned
- Dairy industry looked like it was heading for some pretty big rocks
- Knepp dairies needed further huge investment to keep us competitive
- We were good at producing milk at a low cost but....





Rewilding



# Advisory Board



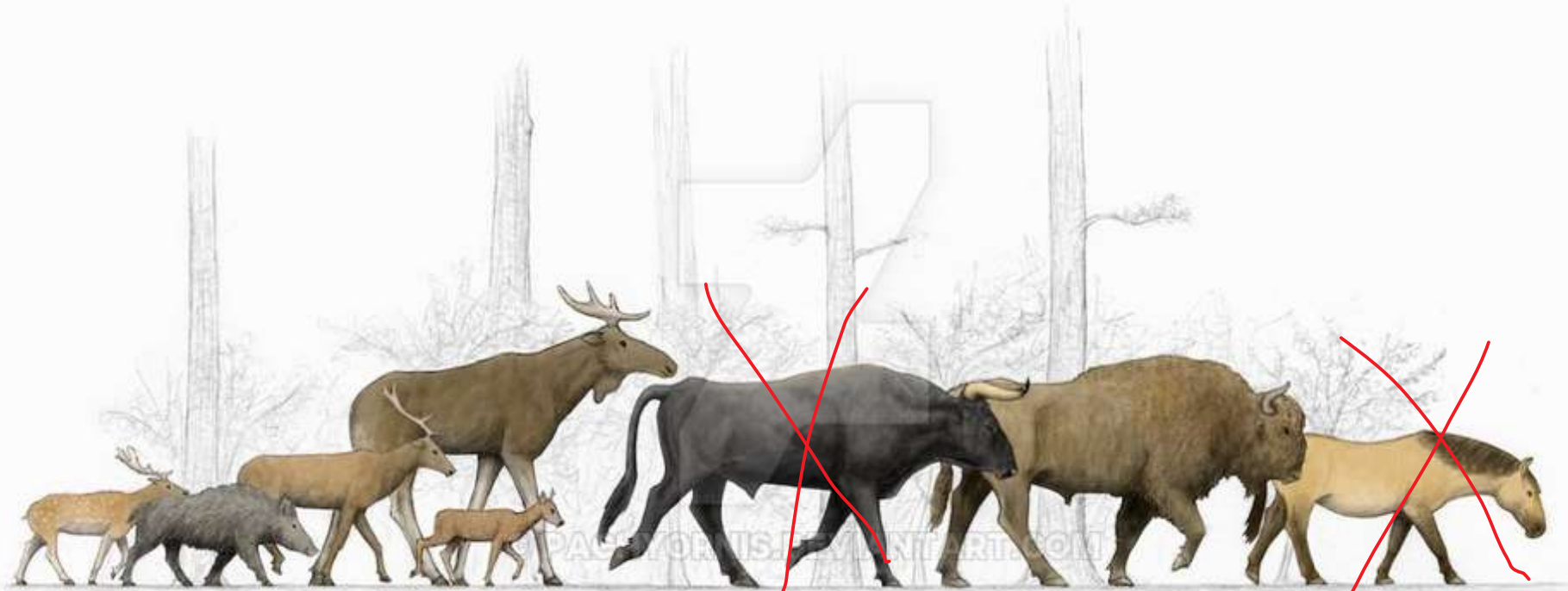
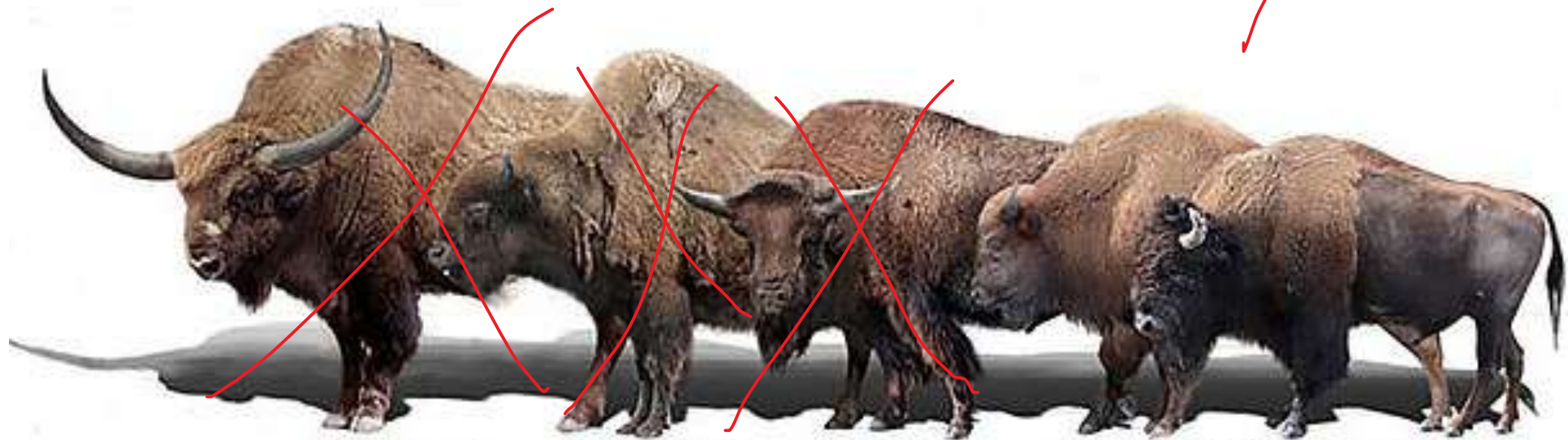


Illustration by Roman Uchytel.



*Bison latifrons*

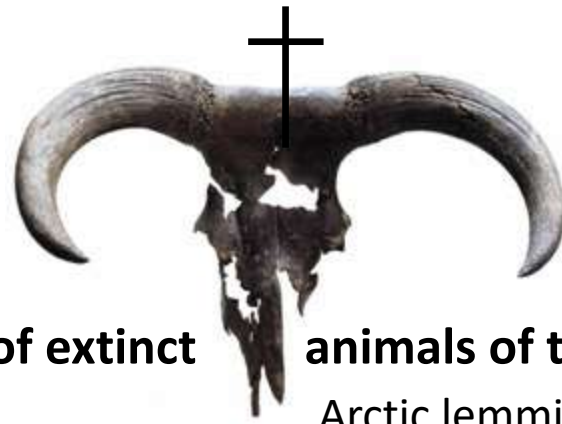
*Bison antiquus*

*Bison priscus*

*Bison occidentalis*

*Bison bison*

# What Proxies



## List of extinct

- Root vole – c. 1500 B.C.
- Saiga antelope – c. 10,000 B.C.
- Steppe lemming – c. 8000 B.C.
- †Tarpan – c. 7000 B.C.
- Walrus – c. 1000 B.C. (occasional visitor)
- Wild boar – c. 1400 (reintroduced)
- Wisent – c. 3000 B.C.
- Wolverine – c. 6000 B.C.
- †Woolly mammoth – c. 10,000 B.C.
- †Woolly rhinoceros – c. 10,000 B.C.
- †Cave lion – c. 10,000 B.C.
- †Scimitar-toothed cat - c. 30,000 B.C.
- †Cave hyena - c. 11,000 B.C.
- †European jaguar - c. (unknown)
- †European Ice Age leopard - c. 24,000 B.C.
- †European gazelle - c. (unknown)

## animals of the British Isles

- Arctic lemming – c. 8000 B.C.
- Arctic fox - c. (unknown)
- †Eurasian aurochs – c. 1000 B.C.
- Barbary macaque - c. 30,000 B.C.
- †Cave bear – c. 15,000 B.C.
- Eurasian elk - Bronze Age
- Eurasian beaver – 1526
- Eurasian brown bear – c. A.D. 1000
- Eurasian lynx – c. A.D. 400
- Grey whale – c. 598 B.C.
- Eurasian wolf – A.D. 1680 in Great Britain
- †Irish elk – c. 6000 B.C.
- Narrow-headed vole – c. 8000 B.C.
- Steppe pika – c. 8000 B.C.



# KNEPP'S DRIVERS















# Animal HIGHLIGHTS







Tony Davis has been Ringing birds for 30 years – in the last month and a half (Aug/Sep 2018), he has ringed more lesser whitethroat *Sylvia curruca* and black cap *Sylvia atricapilla* in two fields on Knepp than he has ringed in his entire career



## Does Rewilding restore soil biodiversity and function

Laura Koester genannt Kurwald (MSc Environmental Engineering thesis)  
Dr Mark Pawlett (Supervisor)  
Prof Jim Harris (Supervisor)



## Conclusions

• Some headlines:

- Doubling in soil organic carbon in rewilded areas in comparison to arable control
- A similar trend for soil microbial biomass
- An increase in the general fungal biomarker in rewilded areas
- Rewilding could become an essential part of how we manage the landscape



MONEY



# Rewilding Knepp

## a **partial budget** on the Home farm

£191 / ha  
Environmental  
Stewardship  
£200k

£205 / ha  
Basic Payment  
£190k

120,000 sq ft  
Office, Workshop  
Warehouse  
200 full time jobs  
£500k

7 houses  
released  
from Ag  
£120k

75 tonnes LW  
organic  
free range  
Pasture fed  
£120k

Tourism  
Camping and  
glamping  
1600 campers – 2000 safari  
£320k

# Savills: Rural Estate Benchmarking Survey

Agricultural Income - Excluding rents and Tourism  
2017/18

<b>In Hand Farm Income</b>	<b>Knepp Estate</b> <b>£169 per acre</b>	<b>England</b> <b>£130 per acre</b>
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# Rural Estate Benchmarking Survey

## Agricultural Income - Turnover

Knepp Estate	2011	2012	2013	2014	2015	2016	2017	2018	Annualised growth	
									3yrs	1yr
In Hand: Farming (£/Ac)*	£94.43	£127.93	£132.21	£140.75	£137.42	£133.20	£136.23	£169.17	7.7%	24.2%

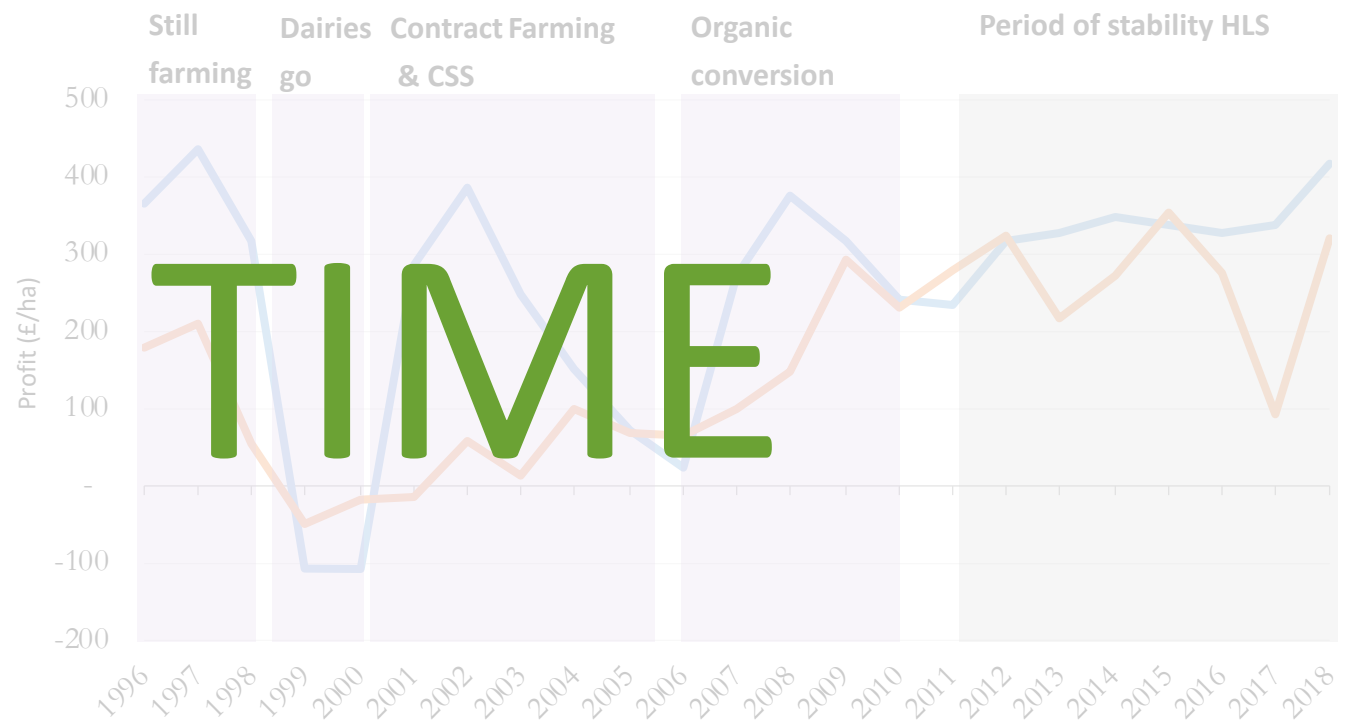
Benchmark - All Estates (England)	2011	2012	2013	2014	2015	2016	2017	2018	Annualised growth	
									3yrs	1yr
In Hand: Farming (£/Ac) *	£113	£132	£88	£111	£143	£112	£37	£130	-3.2%	250.8%

Knepp's agricultural Income  
has been better  
5 years out 8  
Compared to the benchmark

# Profit compared to Savills Estate Benchmarks - last 22 years

Knepp v In-hand

- Knepp in-hand farming
- In-hand farming (EBS)



Year ending 31 March

# Time

Things that I'm now involved with

Ingleby Farms & Forests  
Environmental Committee

White Stork Taking Flight:  
Reconnecting with a wilder Britain

The Bronze Oak Project

Rewilding Britain

Investing in non-estate assets

**FUNDATIA CONSERVATION CARPATHIA**

Arcadia Board

Wildlife Estates England

Endangered Landscapes Programme

Knepp Rewilding

The River Otter

Beaver Steering committee

Remarkable Trees of Romania

Chernobyl: find out what we know

Beaver Advisory Committee for England

# Thank you



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