

# **SEAD - STRATEGIC ENVIRONMENTAL ARCHAEOLOGY DATABASE**

**Visualizing and exploring the data on  
past landscapes**

**Philip I. Buckland & Mattias Sjölander**

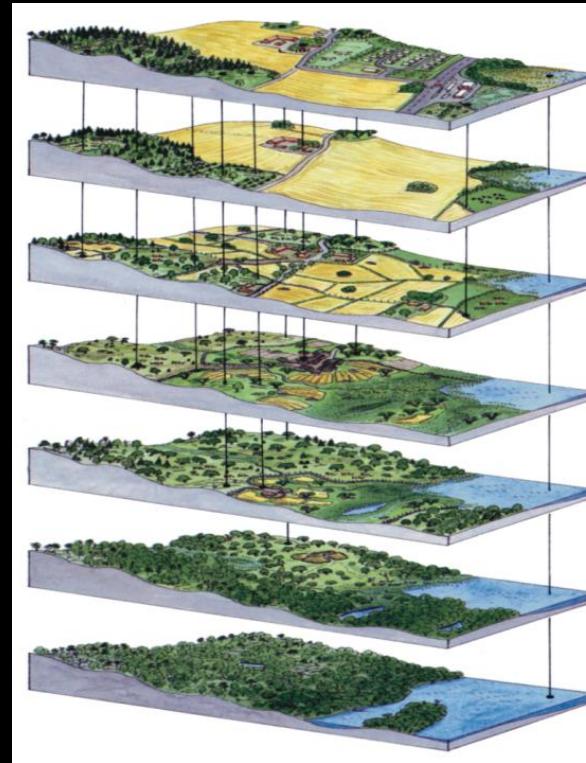


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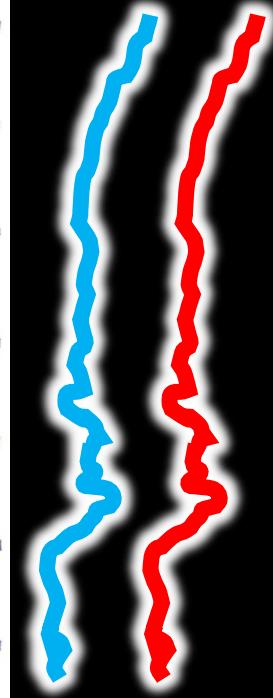
# ENVIRONMENTAL ARCHAEOLOGY



Empirical evidence  
→



Climate  
change



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# PAST LANDSCAPES

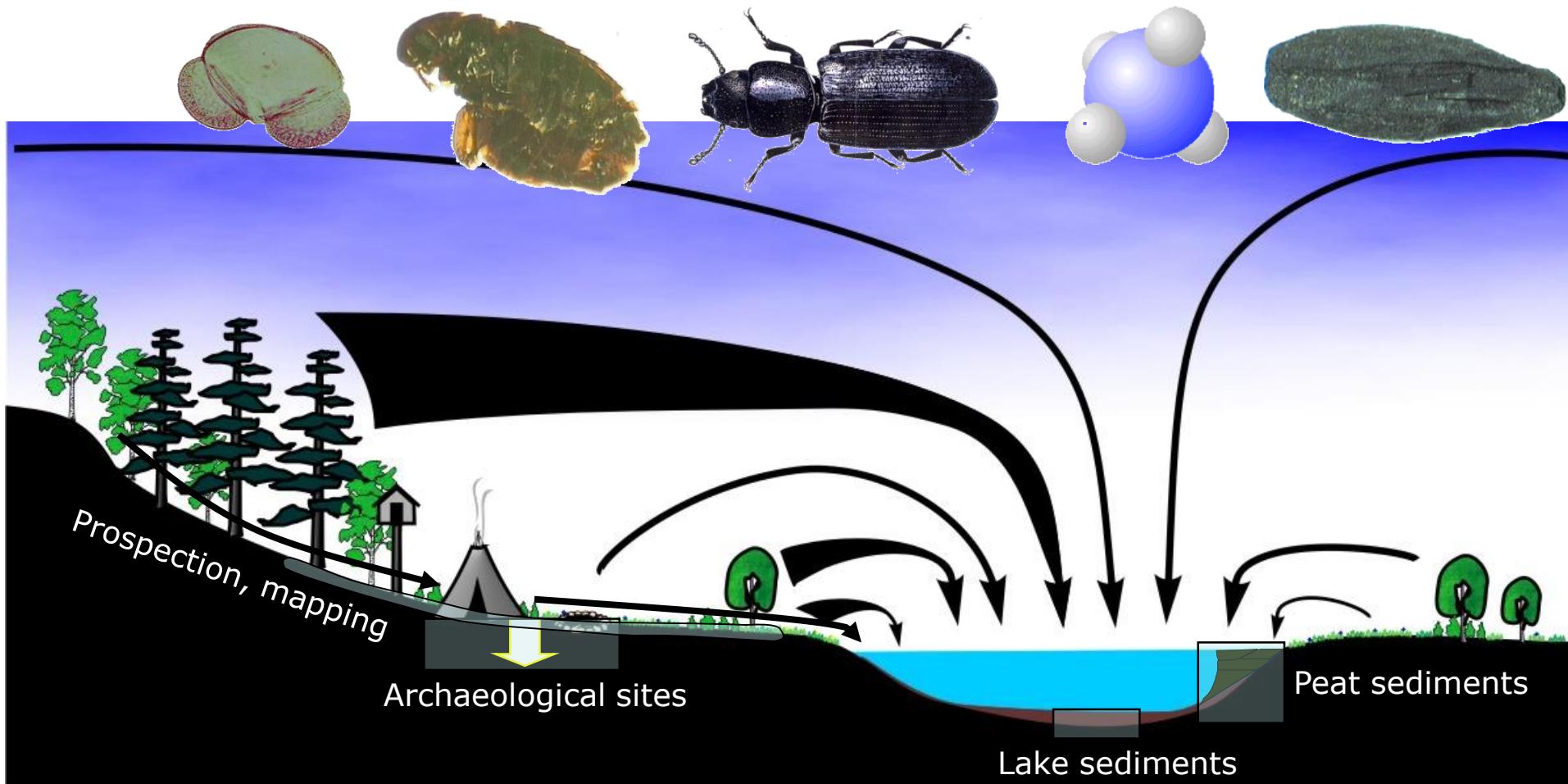


Past natural and cultural landscapes



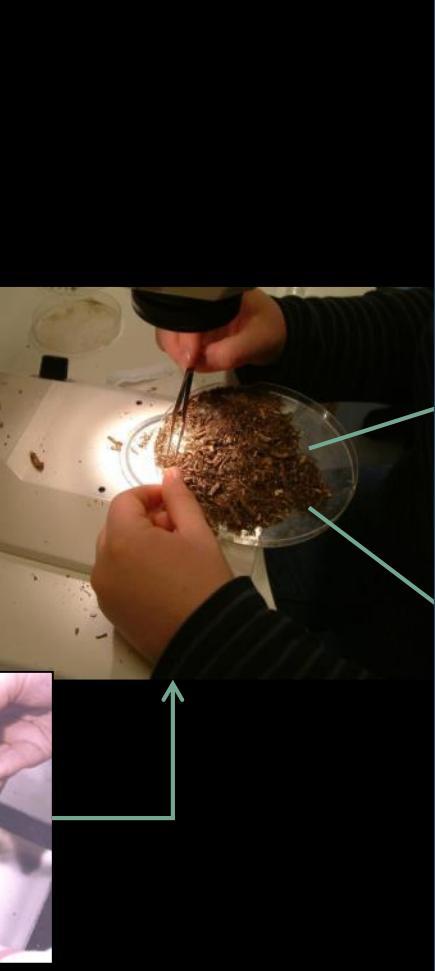
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# PROXY DATA SOURCES



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# PROXY DATA



Hazel:

food, warm climate



Empirical data  
or evidence

Interpretations  
or implications



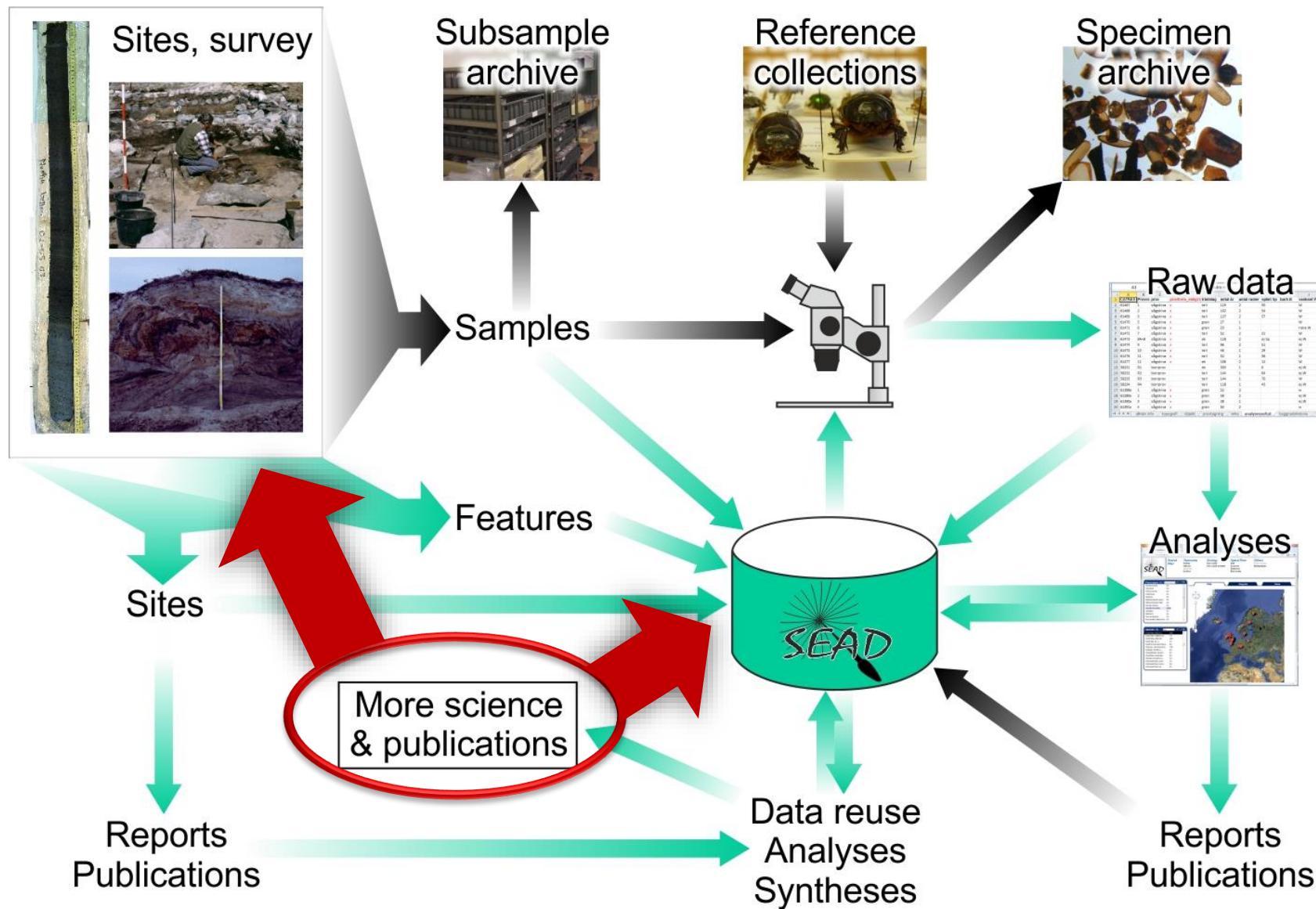
Dung beetle:

animals present



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# ENVIRONMENTAL ARCHAEOLOGY DATABASE



# ENVIRONMENTAL ARCHAEOLOGY DATABASE

SEAD - The Strategic Environmental Archaeology Database

[Save view](#) [Load view](#) [About SEAD](#) [Help](#)

**Others**  
Proxy types  
Feature type  
Bibliography modern  
Bibliography sites/Sampleg...

**Space/Time**  
Sample group  
Site  
Country

**Time**  
Geochronology  
Time periods  
Seasons

**Eco code system**  
Eco code  
Eco code system  
abundance classification  
Abundances

**Measured values**  
MS  
MS Heating 550  
LOI  
P°

**Taxonomy**  
Family  
Genus  
Taxa  
Author

[www.sead.se](http://www.sead.se)  
[qsead.sead.se](http://qsead.sead.se)

**Eco code system** %

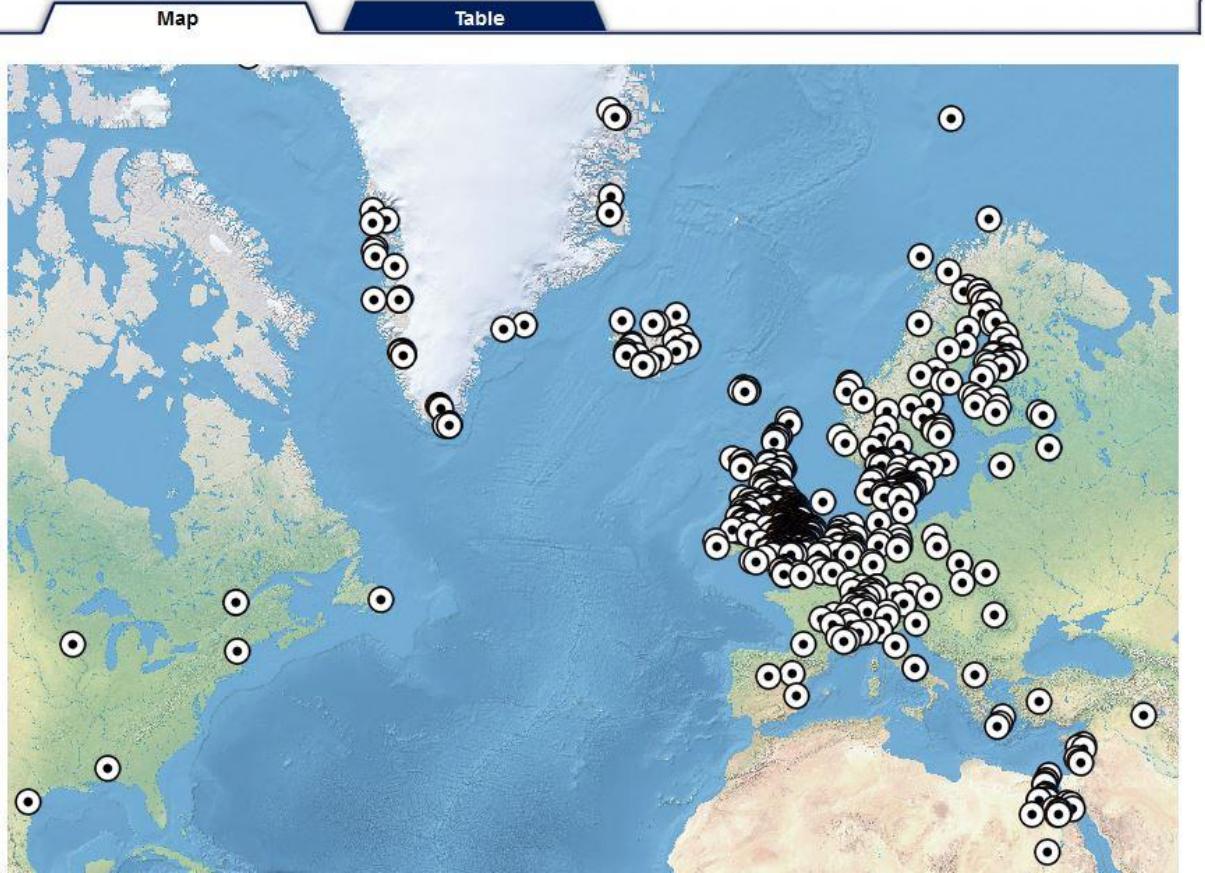
[Show current selections](#)

**Eco code** %

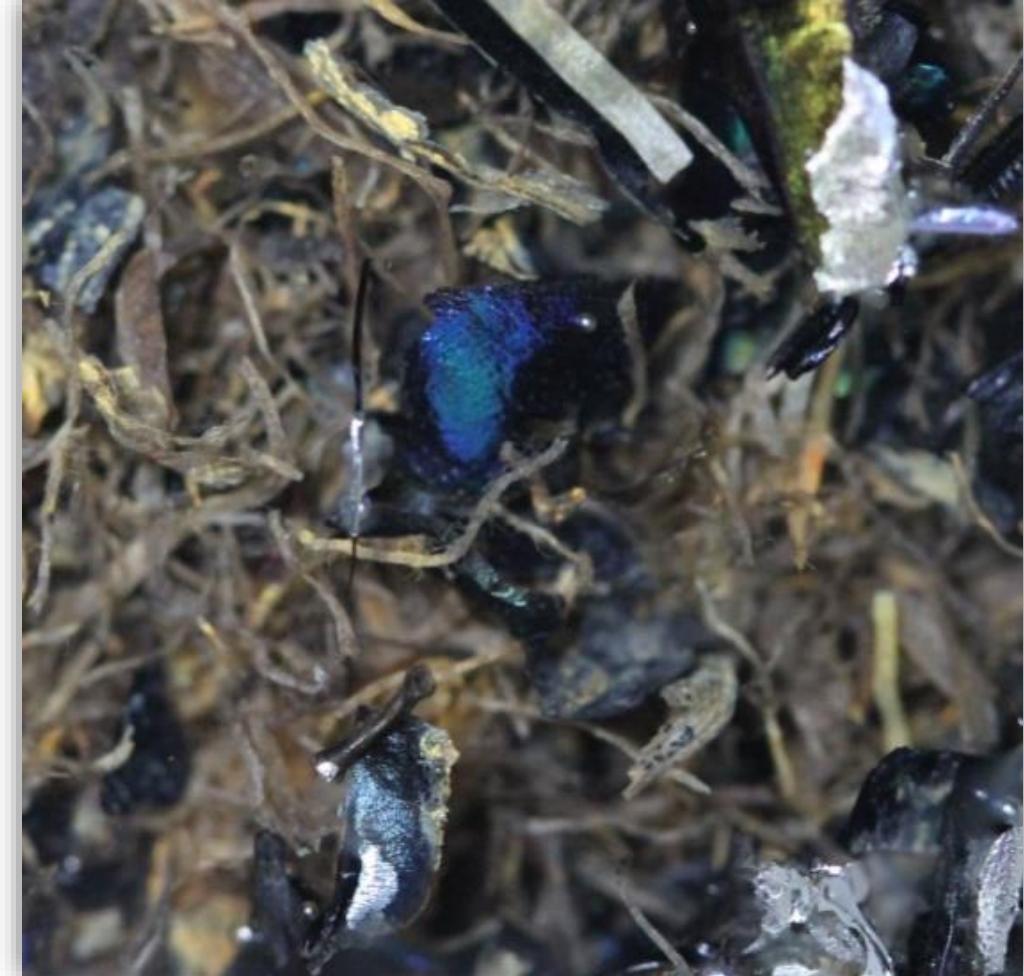
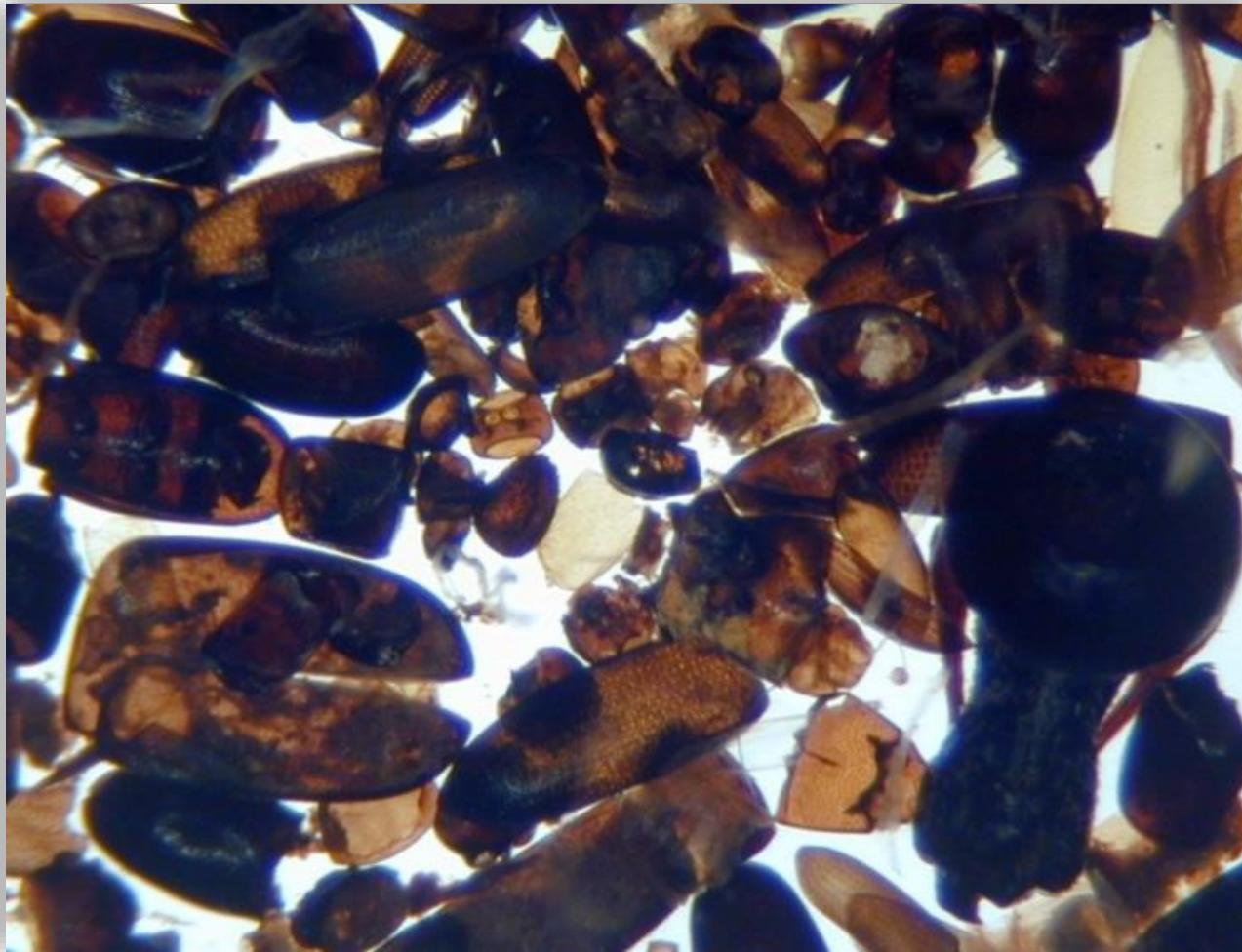
Aquatics (4545)  
Carrión (3973)  
Disturbed/arable (4452)  
Dry dead wood (1071)  
Dung/foul habitats (4685)  
Ectoparasite (532)  
General synanthropic (4521)  
Halotolerant (4416)  
Heathland & moorland (4991)  
Indicators: Coniferous (226)  
Indicators: Deciduous (1028)  
Indicators: Dung (1088)  
Indicators: Running water (776)

**Site** %

Aachen (1)  
Aachen Burtscheid (1)  
Abbots Way (58)  
Abercynafon (8)  
Aberdeen (15)  
Aberford: South Dyke (2)  
Abingdon (19)  
Abisko 2004-5 (2)  
Abydos mummies (1)  
Agerod V (1)  
Agtelek Cave (1)  
Aghnadaragh (2)  
Akrotiri (17)



# INTERPRETATION & VISUALIZATION



# INTERPRETATION & VISUALIZATION

How do you *empirically* describe a past landscape?

With statistics...

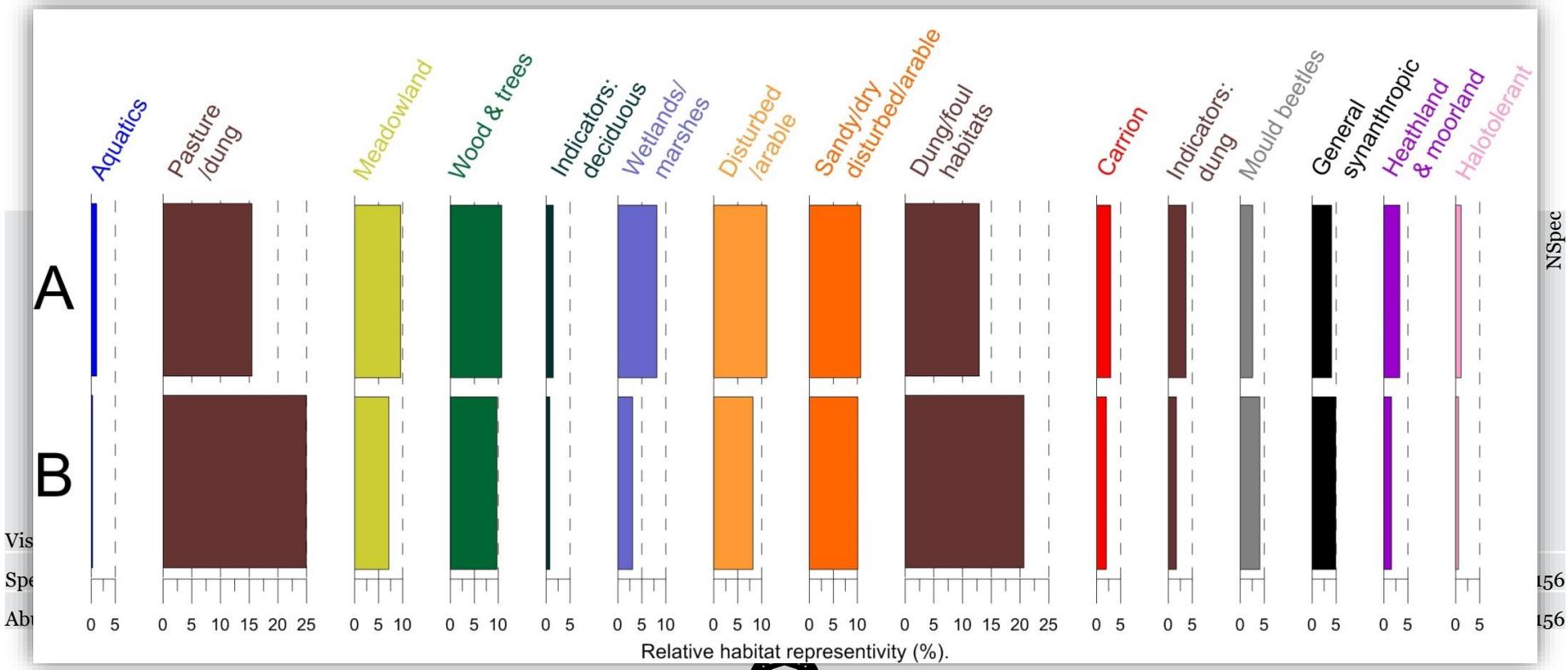
Habitats/landscape elements

Visualization	Aquatics	Indicators: Standing water	Pasture/Dung	Meadowland	Wood and trees	Indicators: Deciduous	Wetlands/ marshes	Open wet habitats	Disturbed/ arable	Sandy/dry disturbed/ arable	Dung/foul habitats	Carrión	Indicators: Dung	Mould beetles	General synanthropic	Dry dead wood	Heathland & moorland	Halotolerant	SumRep	Abundance	NSpec
Species richness, sum.rep., to species id's only	1.11	0.37	15.50	9.59	10.70	1.48	8.12	0.37	11.07	10.70	12.92	2.95	3.69	2.58	4.06	0.37	3.32	1.11	271	606	156
Abundance, sum.rep., to species id's only	0.28	0.09	24.95	7.14	9.74	0.74	3.06	0.09	8.16	10.11	20.69	2.04	1.67	4.08	4.92	0.09	1.58	0.56	1078	606	156

# INTERPRETATION & VISUALIZATION

How do you *empirically* describe a past landscape?

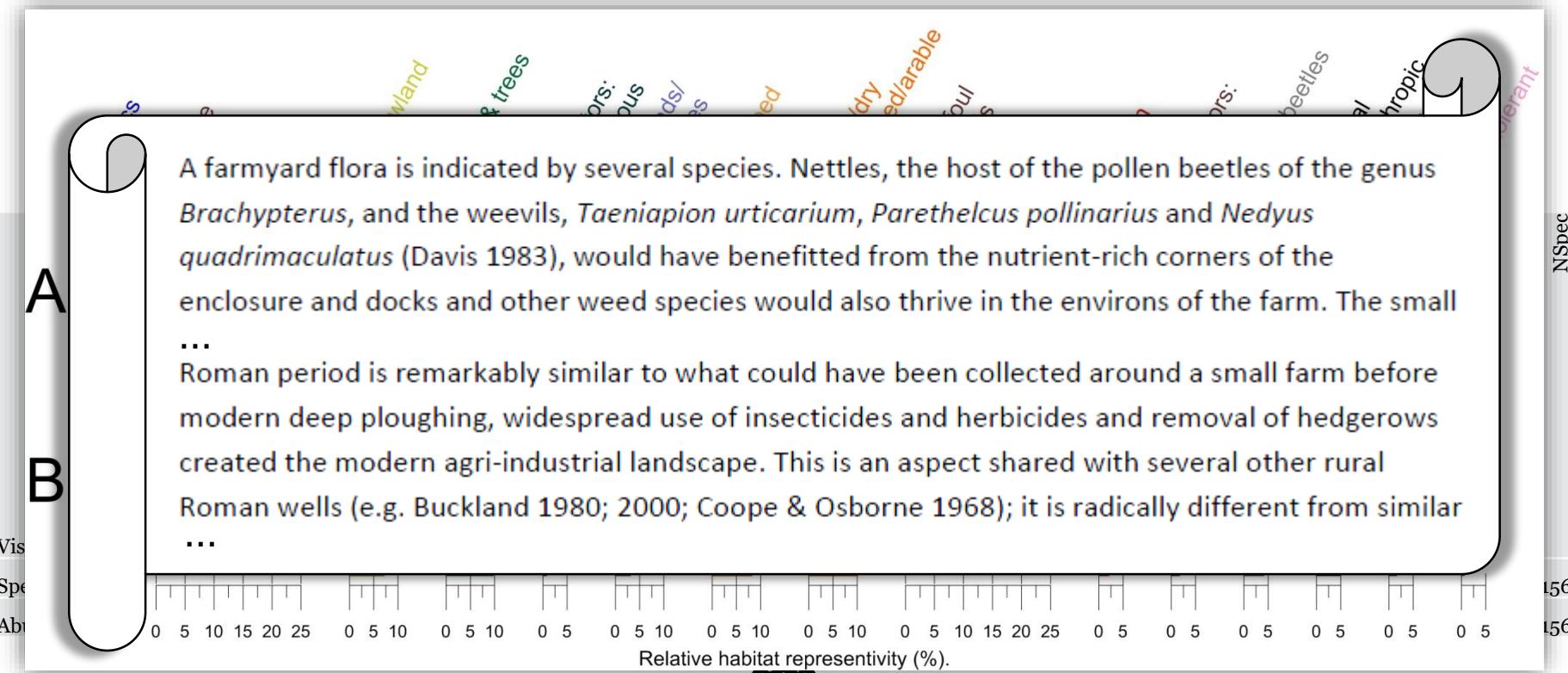
With statistics...

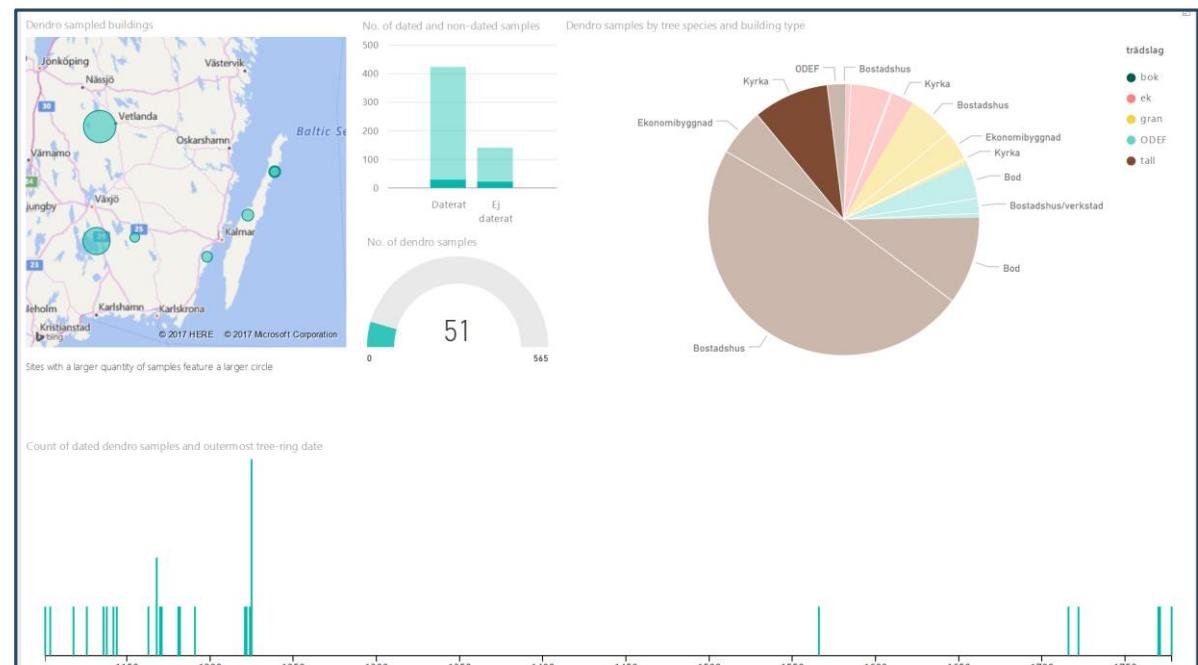


# INTERPRETATION & VISUALIZATION

How do you *empirically* describe a past landscape?

With statistics...& narrative





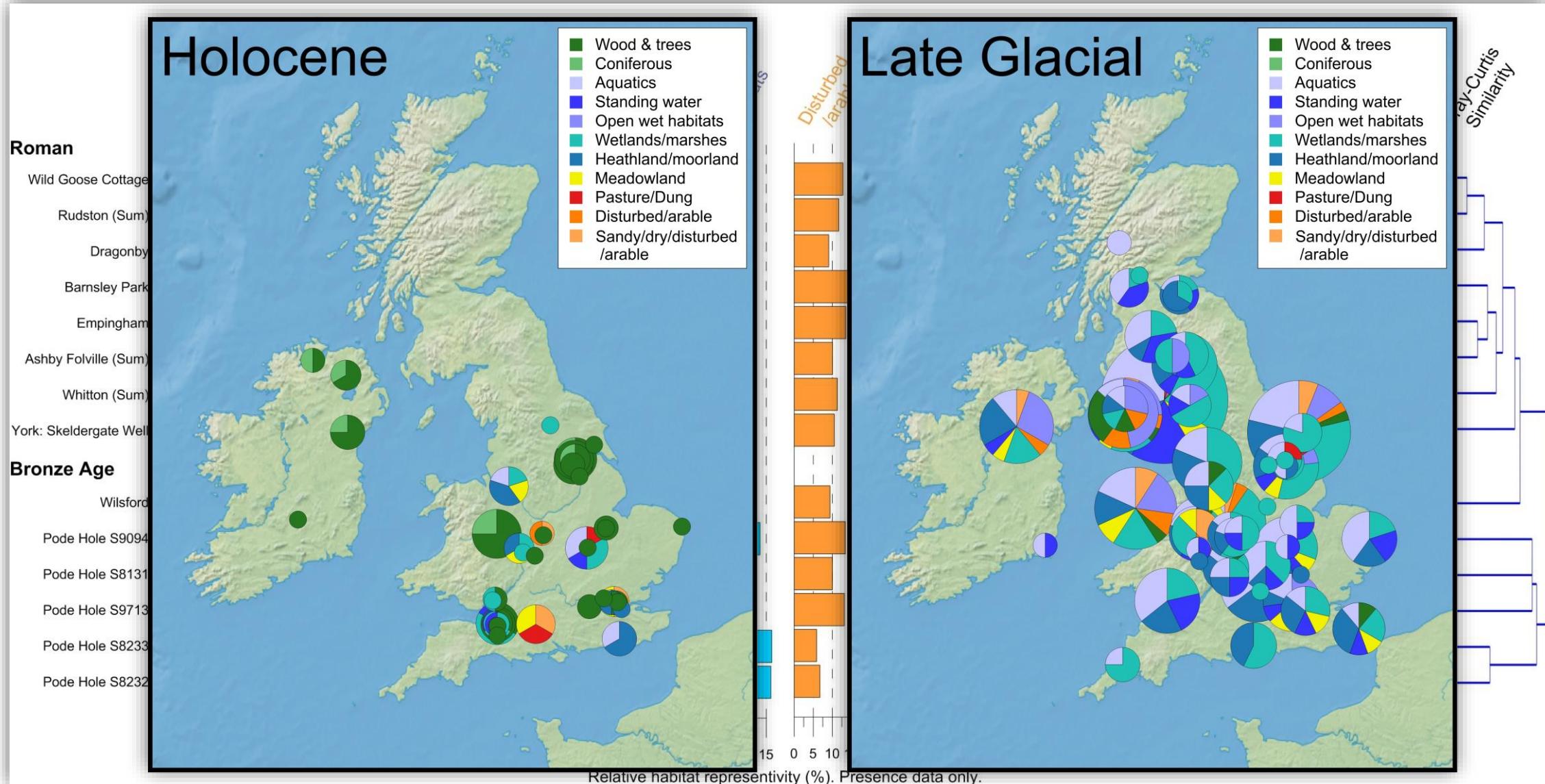
Uploaded report accessible through URL

<https://app.powerbi.com/view?r=eyJrIjoiYTU3YmQxZmMtMWFIMi00ZmE3LTgyZjAtYjY0OTUwZWFMYmVIiwidCI6IjVhNGJhNmY5LWY1MzEtNGYzMj05NDY3LTM5OGYxOWU2OWRINCIsImMiOjh9>

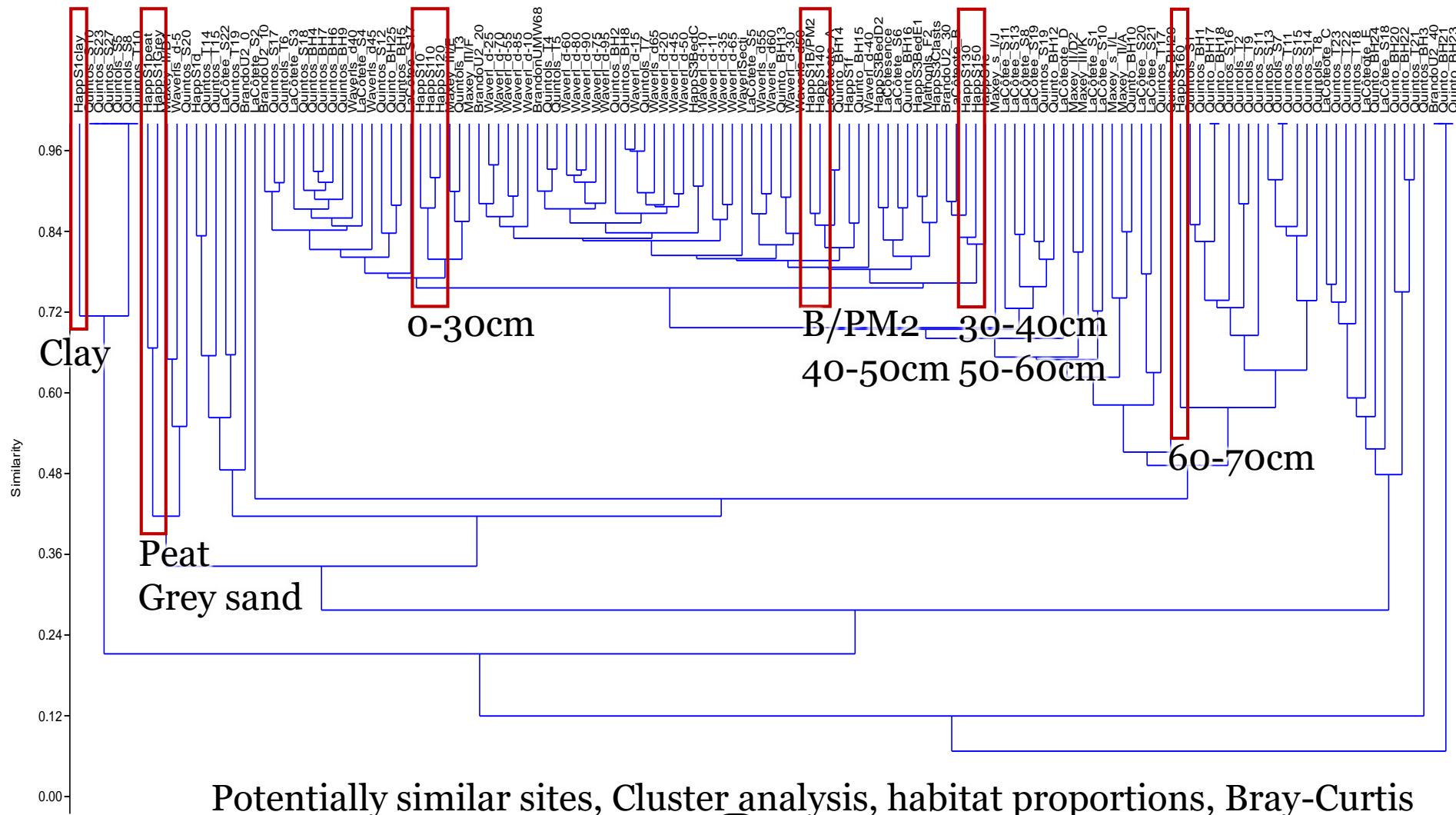


# INTERPRETATION & VISUALIZATION

Systematically to enable comparisons over multiple sites



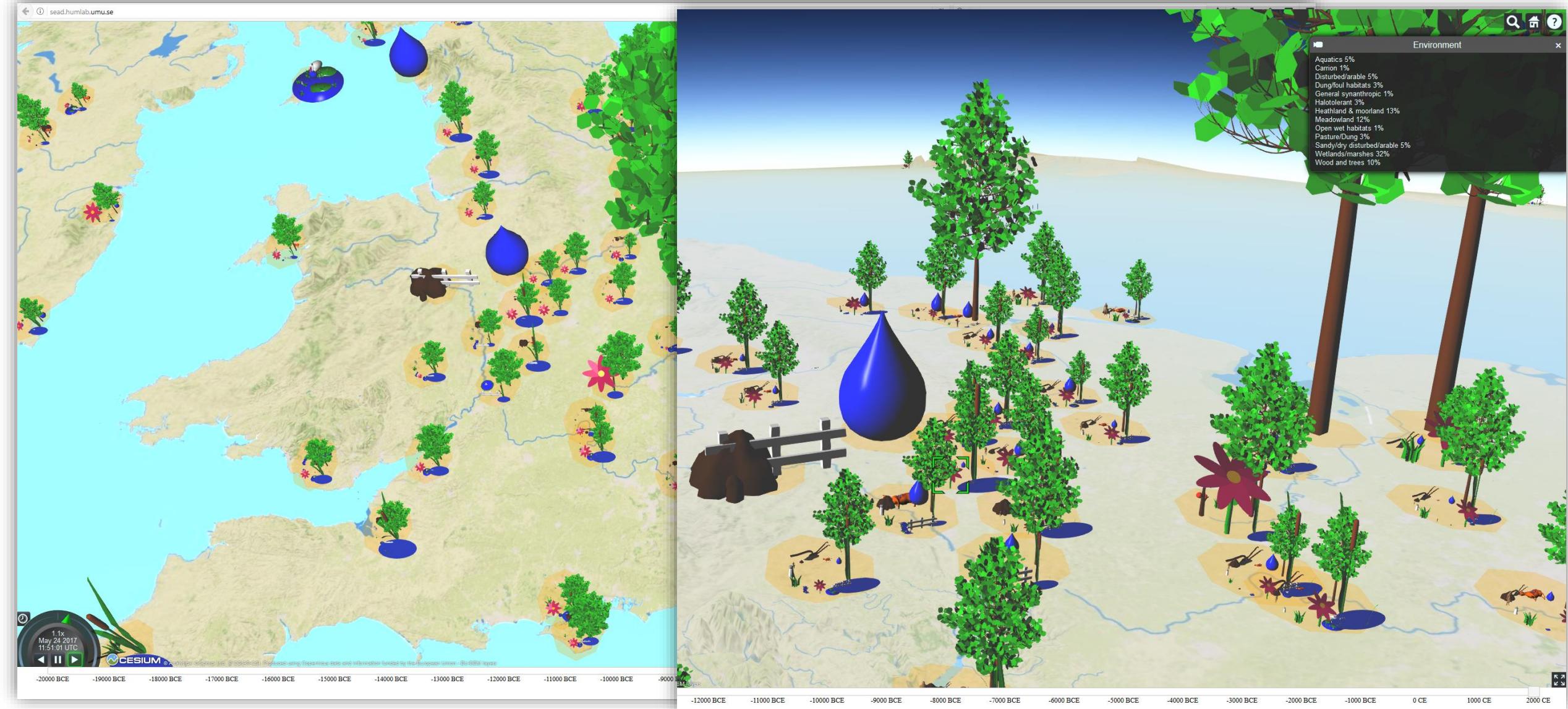
# ONE SITE, DIFFERENT HABITATS



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# EXPLORATORY VISUALISATION

<http://www.sead.humlab.umu.se>





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VISEAD

# THANK YOU FOR LISTENING!

**dataARC**

