Carbon storage in arable landscapes in the United Kingdom

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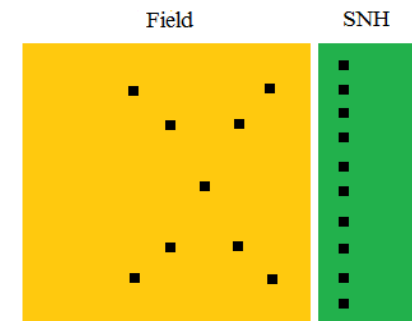
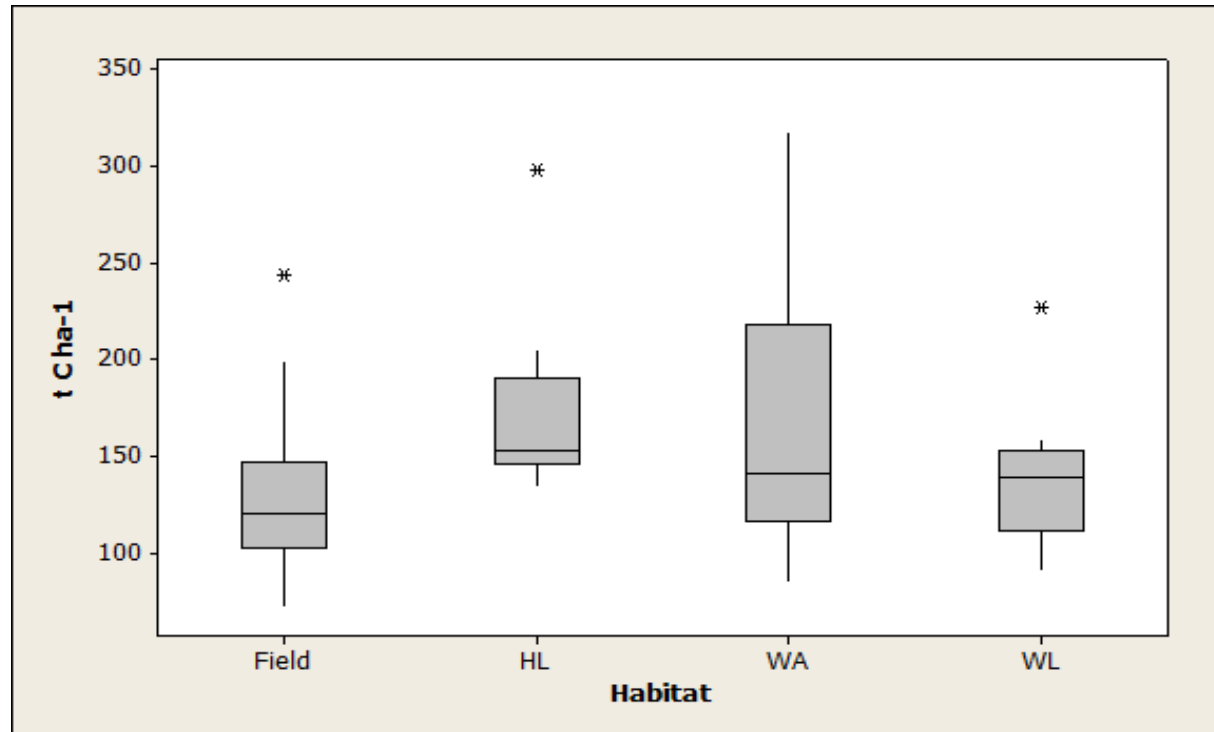# Method

- Sampled 18 Landscape sectors – 2 fields in each following winter wheat and ca. 2 SNH/LS

- SNH – 12 HL (grass margins), 11 WL (hedgerows), 11 WA

- 10 Soil cores/habitat

- Loss on Ignition to determine Soil Organic Matter

- Assume 50% of SOM was Carbon (Pribyl, 2010)

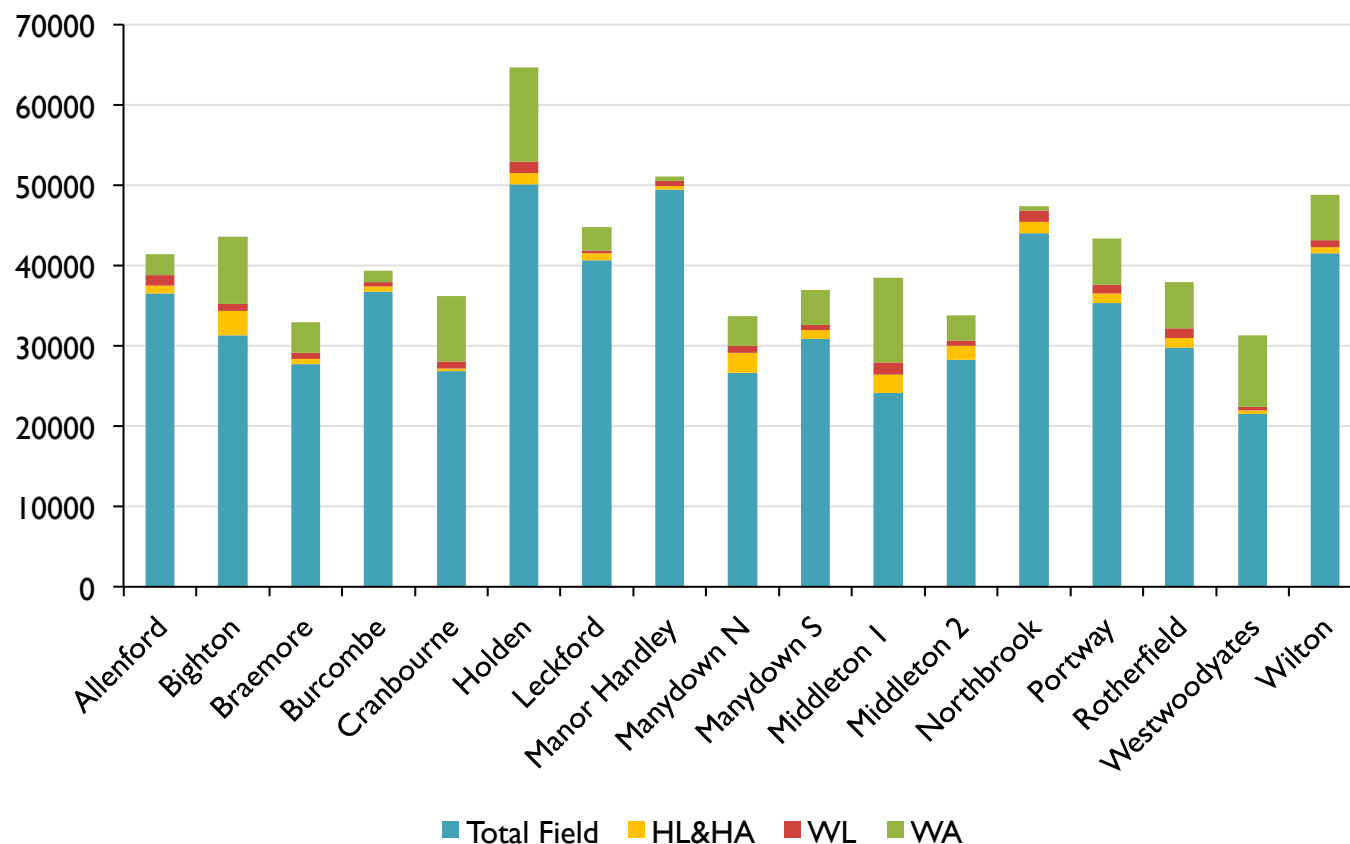- SNH & field areas calculated from GIS

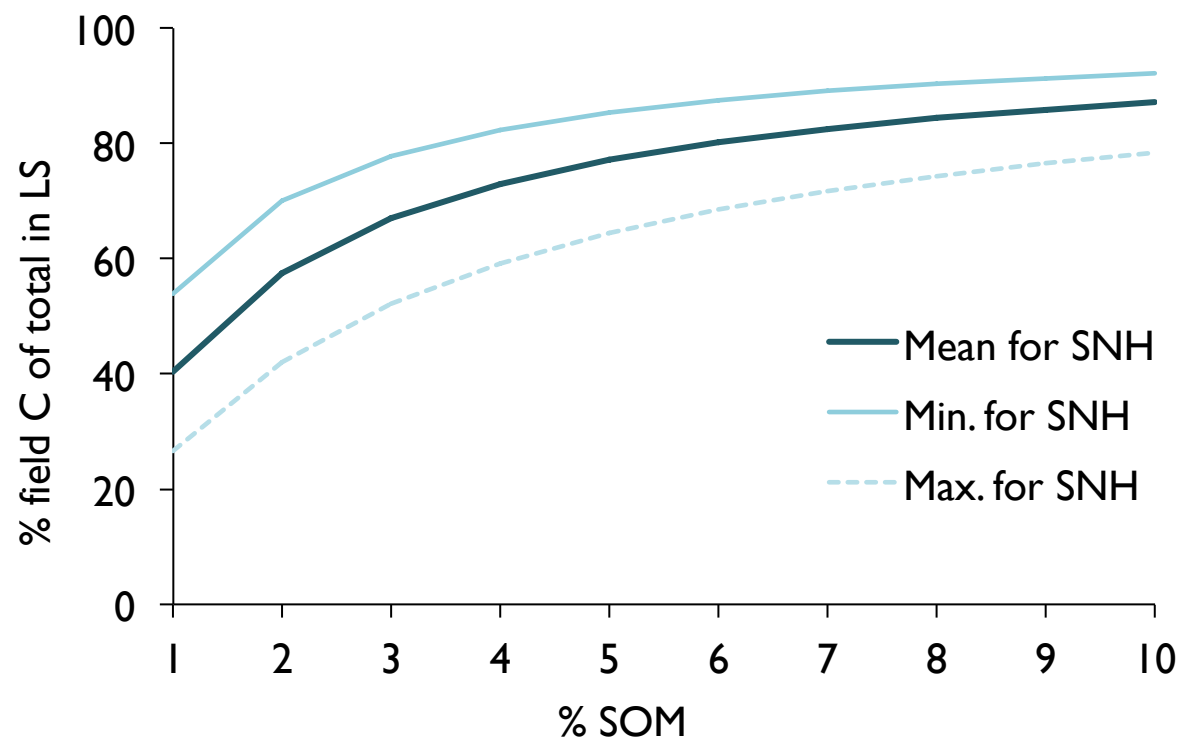# Mean t Carbon per ha for each habitat. (*=outliers).

Significant difference between habitats ($p < 0.01$). Post-hoc HL>Field

Mean weighted t Carbon per LS

	Fields	HL & HA	WL	WA
Mean % of Carbon	81.9	3.0	2.2	12.8
se	2.2	0.5	0.2	1.9

Relationship between % C in fields of total in LS with % Soil Organic Matter

Field stored C is more important when low in Semi Natural Habitats, aim for 6% SOM with average SOM in SNH

Conclusions

- Improving SOM in fields is most effective way to increase carbon sequestration.
- Of the Semi-Natural Habitats, herbaceous habitats offer best opportunity for rapid carbon sequestration.
- Large variation between farms suggests further opportunities to improve.