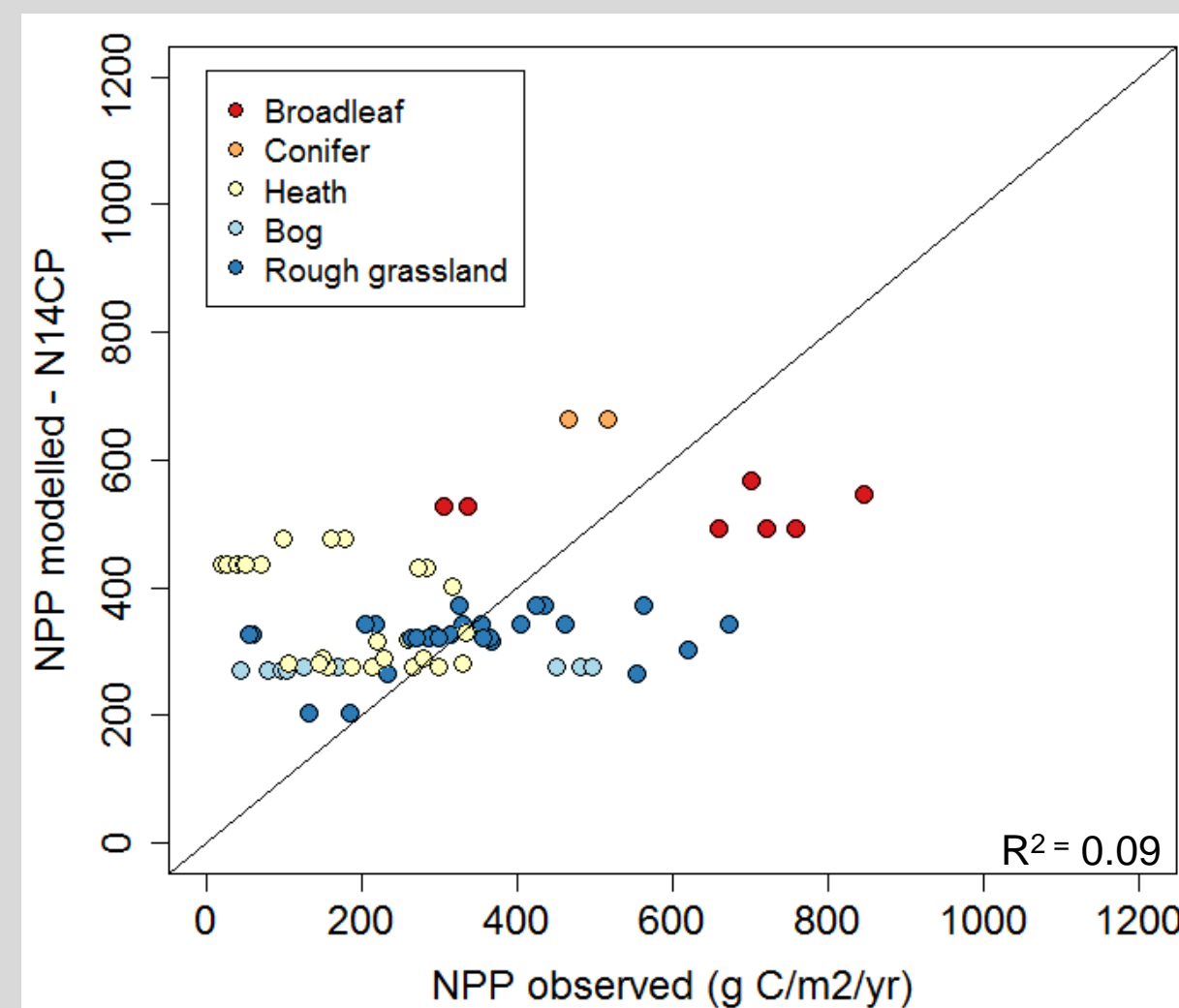
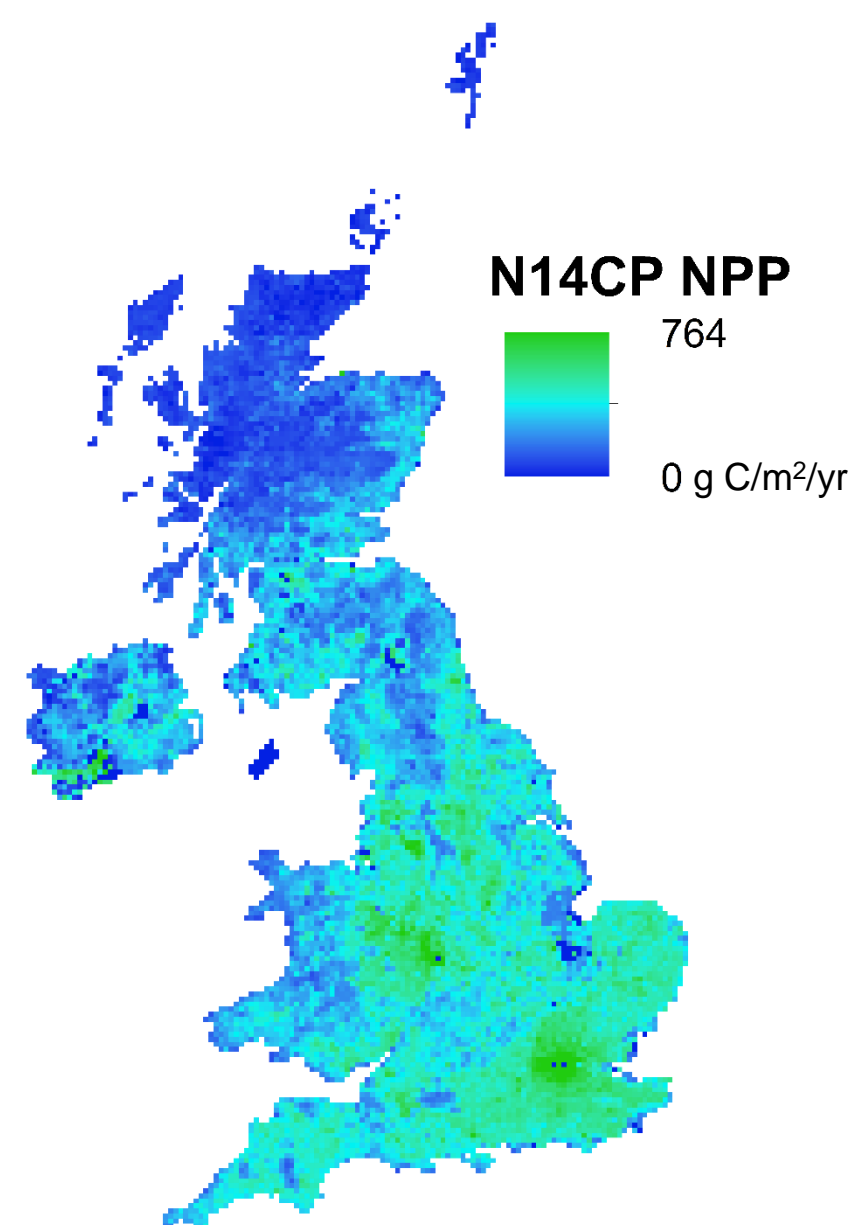
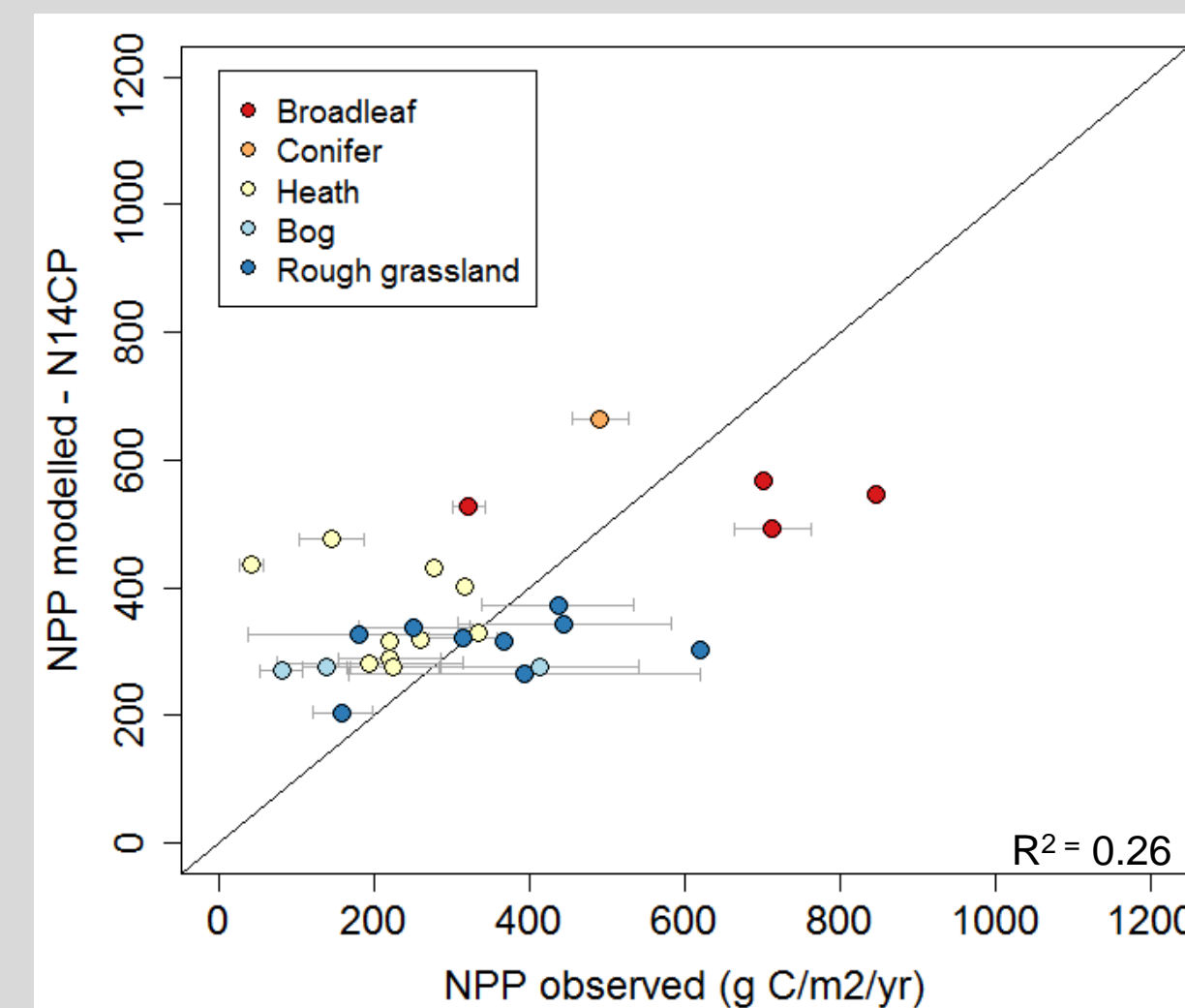


Overview:

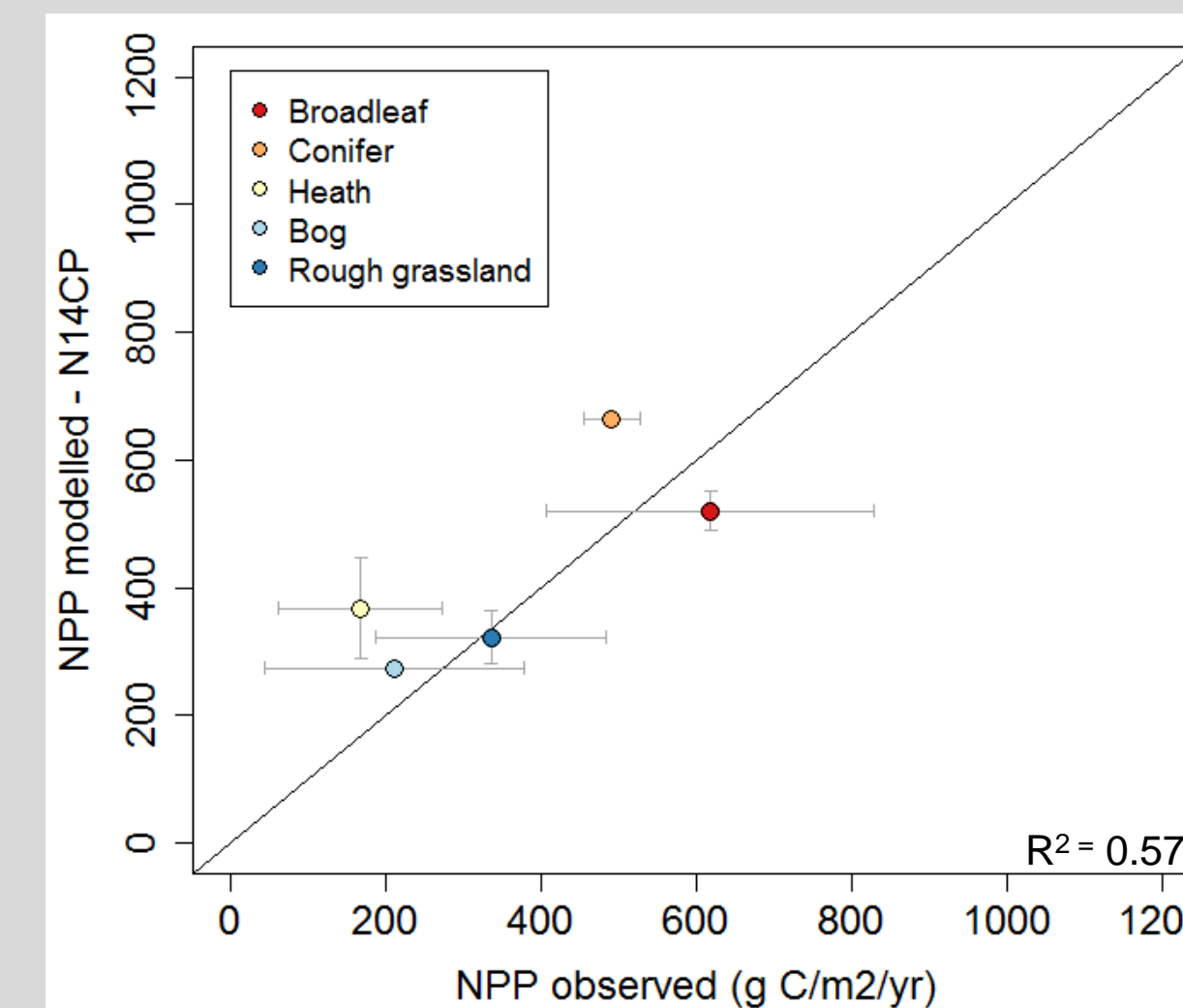
- N14CP is the terrestrial semi-natural component of the LTLS integrated model
- N14CP produces estimates of net primary production (NPP) which are used for biodiversity modelling
- How does NPP estimated by the N14CP model compare to observed NPP?



Individual observations of NPP



Observed NPP averaged within 5 km² grid cells



Observed NPP averaged by habitat across all sites

NPP data collated for validation:

- We are creating a UK database of NPP observations to compare with N14CP outputs
- Observed NPP data vary over time (1960s – present) and space (whole UK)
- Database includes NPP observed in the Turf to Surf Macronutrients project
- Collation ongoing, please contact susjar@ceh.ac.uk if you have data!

Results:

- We used the NPP observation database to compare modelled and observed NPP at different aggregations (none, by 5 km² grid cell or by habitat)
- Model validation shows the best fit when observations are averaged at larger scales
- Indicates N14CP can reproduce NPP differences between habitats and some geographical variation, but not differences between plots
- Low resolution of the model is an obvious explanation – NPP is estimated on a 5 km² grid, measurements are at a much smaller scale (e.g. plots of 1-2 m²)
- Additional variation in observed productivity might be due to variables not present in model (micronutrients, biotic interactions etc)