

## Supplementary Information

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20

### **Conditionally rare taxa contribute but do not account for prokaryotic community changes in soils**

#### **Contents:**

**Figure S1:** Workflow for identifying CRT

**Figures S2-3:** Rank abundance curves for individual sites and whole community

**Figure S4-5:** ANOSIM test for correlations between time and Bray-Curtis distances

**Figure S6:** ANOSIM tests for correlations between spatial factors and Bray-Curtis distances

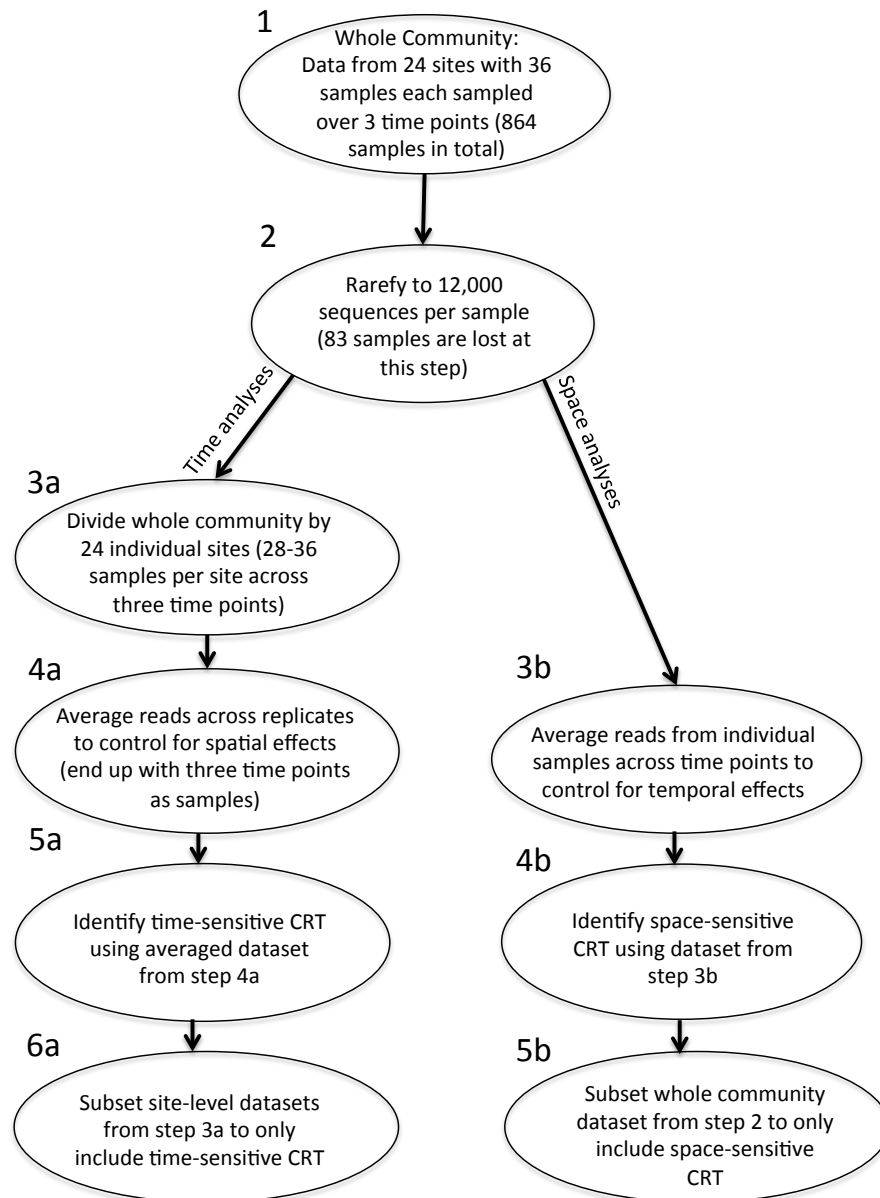
**Table S1:** Sampling scheme (separate file).

**Table S2:** Full list of physicochemical factors for all sites (separate file).

**Table S3:** Mantel correlations between site-level whole communities and site-level whole communities excluding CRT (separate file).

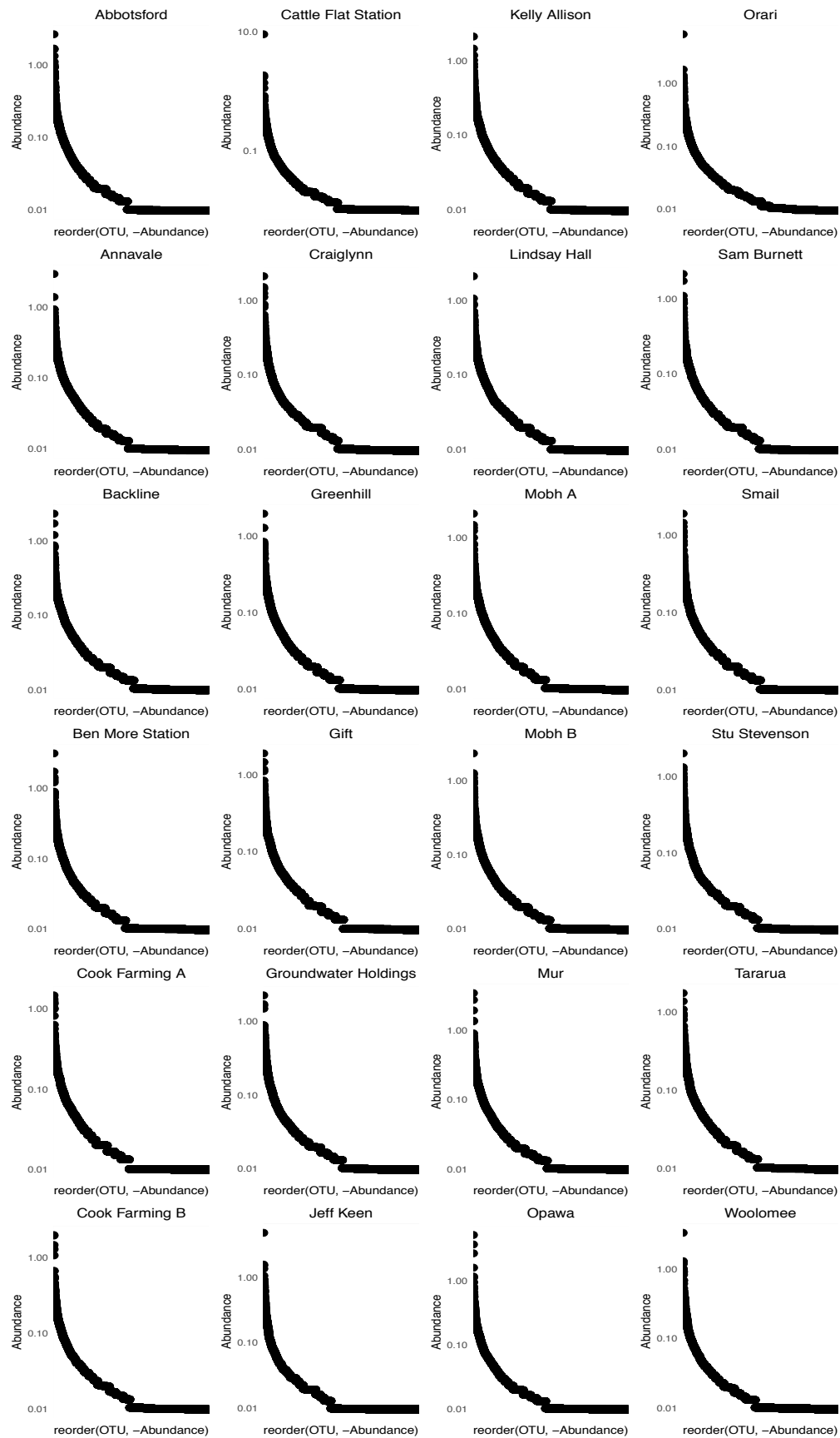
**Table S4:** Mantel and ANOSIM correlations between whole community/CRT and spatial factors (separate file).

**Table S5:** Full list of conditionally rare OTUs that are correlated with time (separate file).



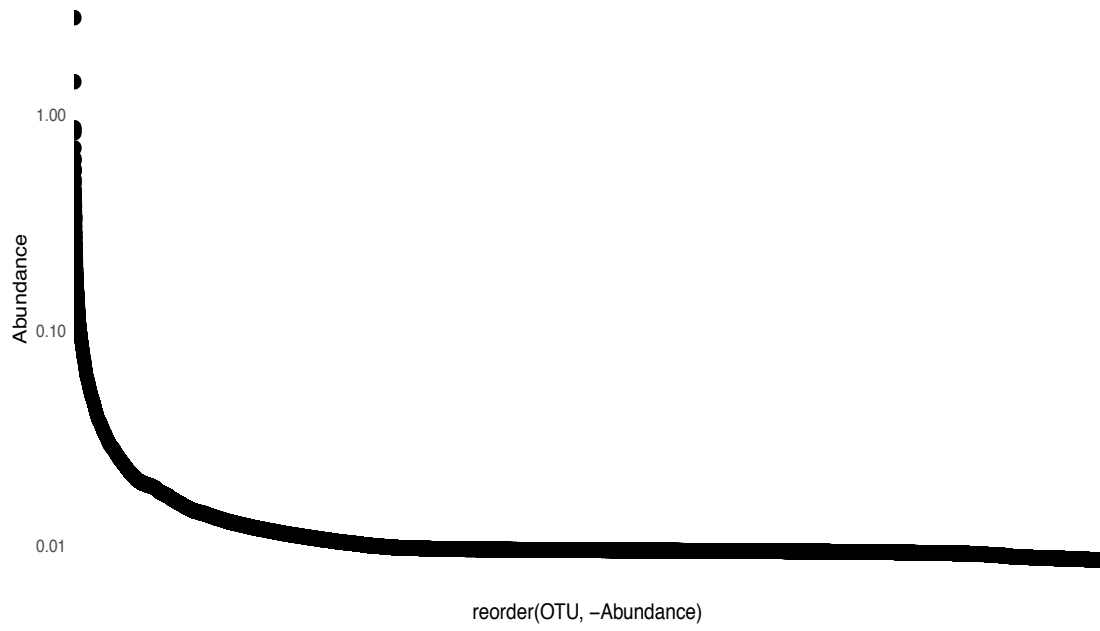
21

22 **Figure S1:** Workflow showing the method for identifying time and space sensitive  
23 CRT.



24

25 **Figure S2:** Rank abundance curves for individual sites. Abundance is presented as a  
 26 percentage.

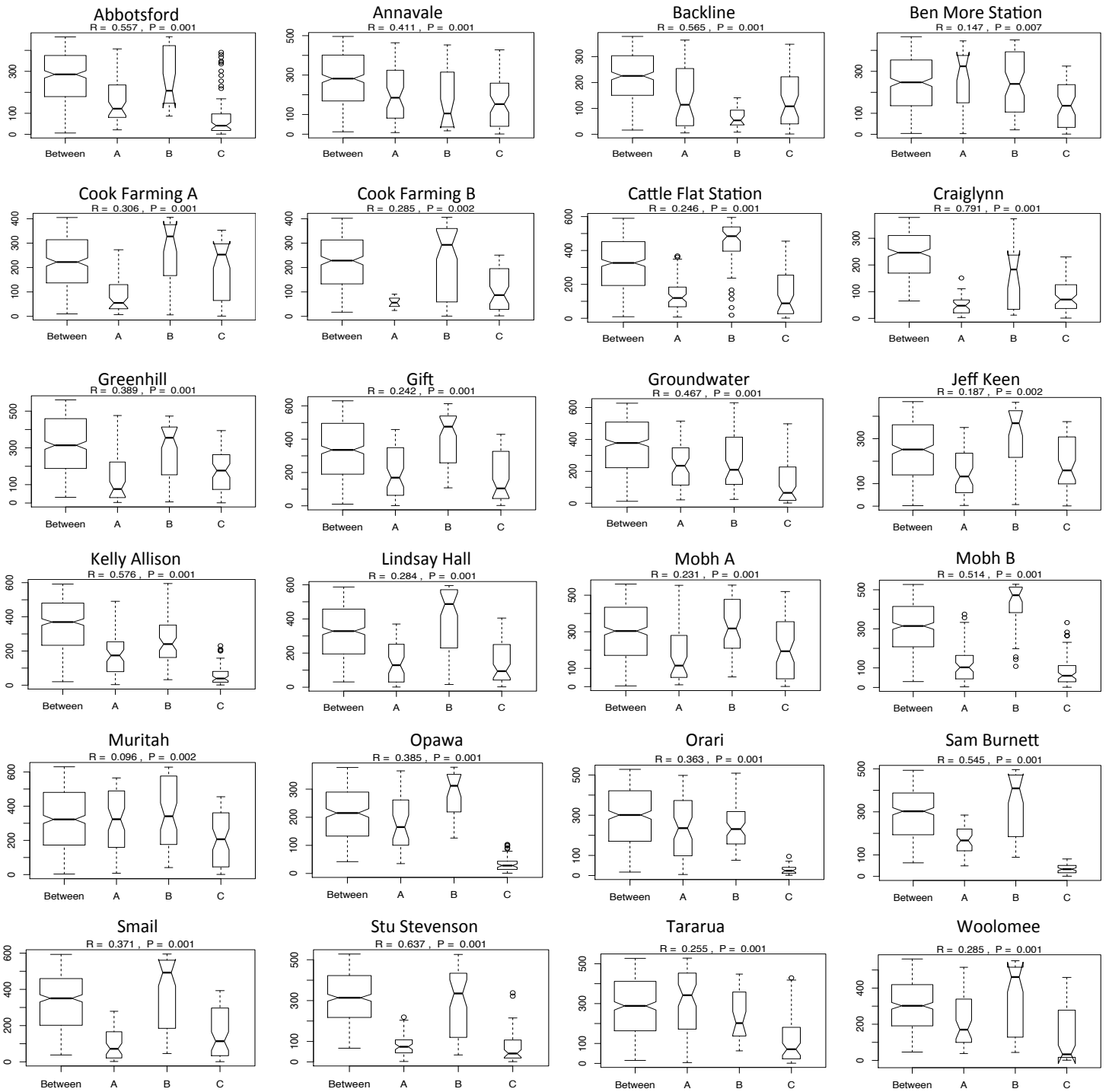


27

28 **Figure S3:** Rank abundance curve for whole community. Abundance is presented as a  
29 percentage.



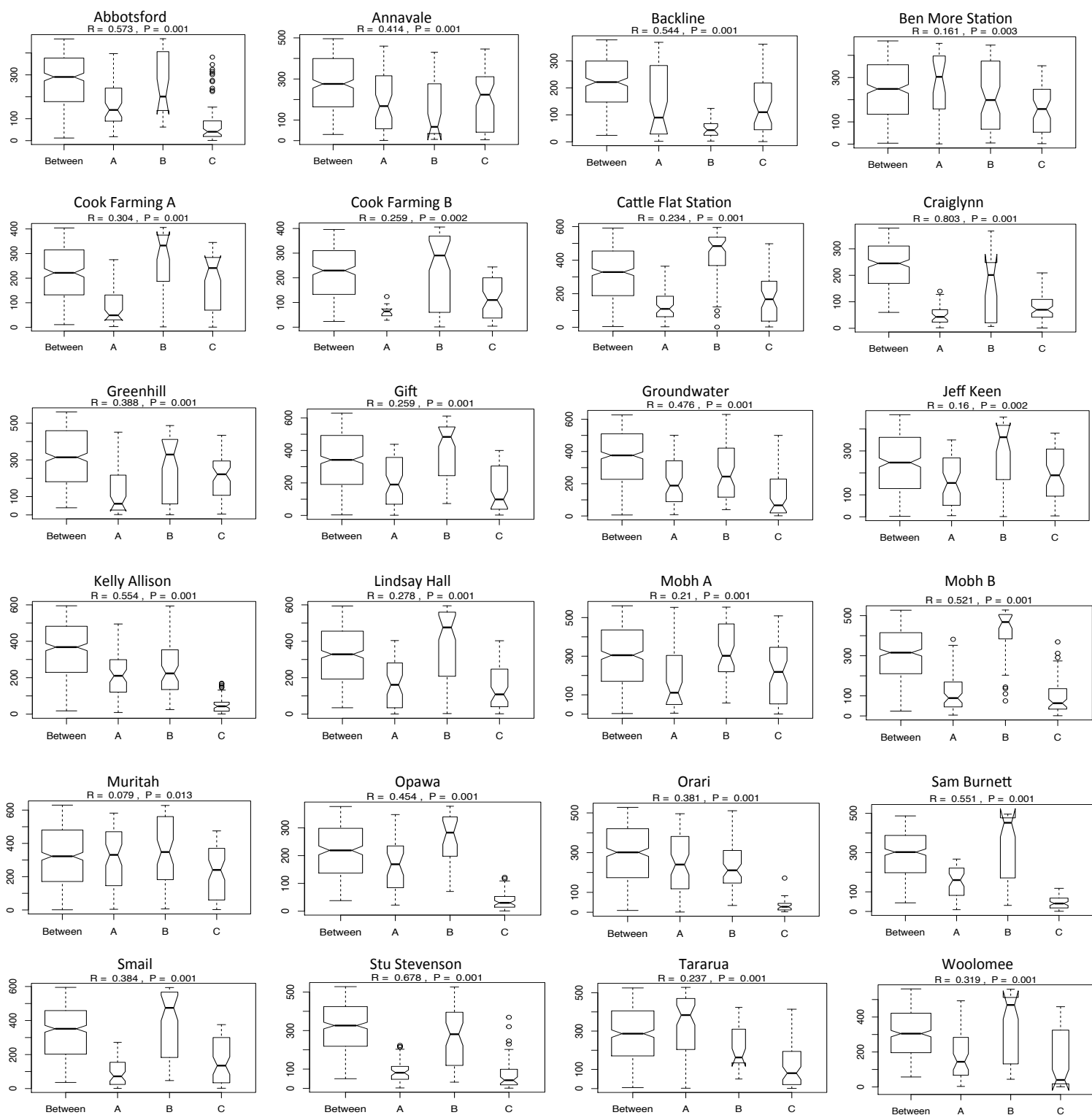
### Whole Community



31

32 **Figure S4:** ANOSIM tests for correlations between time point and Bray-Curtis  
 33 distances for the whole community from each site. Ranked dissimilarities plotted  
 34 against the three time points: A = May 2014, B = November 2014, C = May 2015.  
 35 Boxplots are drawn with widths proportional to the square roots of the number of  
 36 observations in each time points and with 95% confidence intervals.

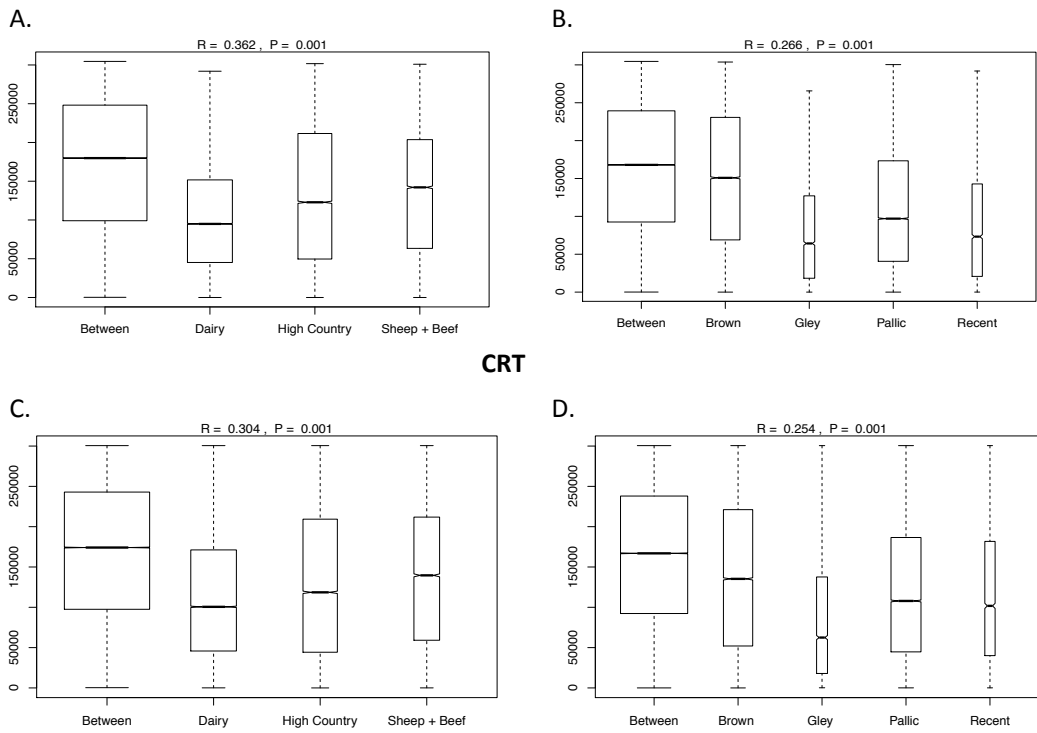
## Conditionally Rare Taxa



38 **Figure S5:** ANOSIM tests for correlations between time point and Bray-Curtis  
 39 distances for CRT from each site. Ranked dissimilarities plotted against the three time  
 40 points: A = May 2014, B = November 2014, C = May 2015. Boxplots are drawn with  
 41 widths proportional to the square roots of the number of observations in each time  
 42 points and with 95% confidence intervals.



### Whole Community



44

45 **Figure S6:** ANOSIM tests for correlations between spatial factors and Bray-Curtis  
46 distances for the whole community (A, B) and CRT (C, D). Ranked dissimilarities  
47 plotted against the land use and soil order. Boxplots are drawn with widths  
48 proportional to the square roots of the number of observations in each time points and  
49 with 95% confidence intervals.

50