

Fig. S1. Respiration rate changes in the treatments of CK, exB300 and AeC300 during the incubation.

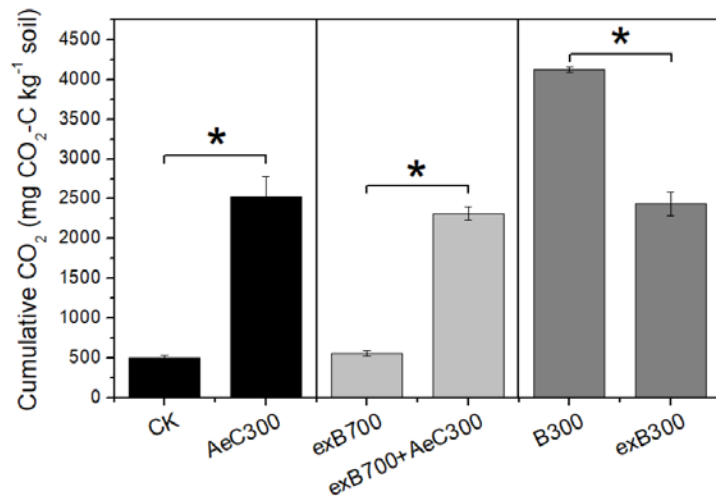


Fig. S2. Cumulative CO<sub>2</sub> emission from CK and AeC300, exB700 and exB700+AeC300, and B300 and exB300 at incubation day 150. The t-test was conducted to examine the significant differences ( $p < 0.05$ ) between two treatments. The letter “\*” represents significant differences in cumulative CO<sub>2</sub> emission between treatments, i.e. CK vs AeC300, exB700 vs exB700+AeC300 and B300 vs exB300. The C extracted by acetone from B300 (i.e. AeC300) is the microbially easily mineralizable fraction compared to the biochars without AeC300.

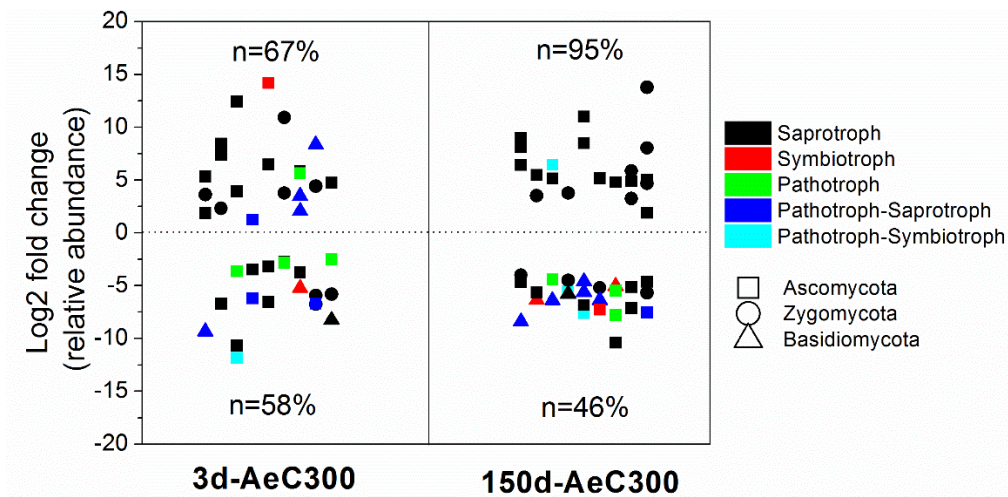


Fig. S3. Fungal responders at OTU level in the AeC amended soil as compared with control soil at day 3 and day 15. These responders were the OTUs whose relative abundance increase/decrease significantly ( $p < 0.05$ ) by more than doubling in response to AeC addition were presented. The symbols below the dashed line represented the negative responders, and those above the dashed line represented the positive responders.  $n$  is the percentage of saprotroph responders. The “Unknown” OTUs are not presented in this figure.