

Treseder, K. K., Y. Marusenko, A. L. Romero-Olivares, and M. R. Maltz. 2016. Experimental warming alters potential function of the fungal community in boreal forest. *Global Change Biology*, DOI: 10.1111/gcb.13238

Supporting figures

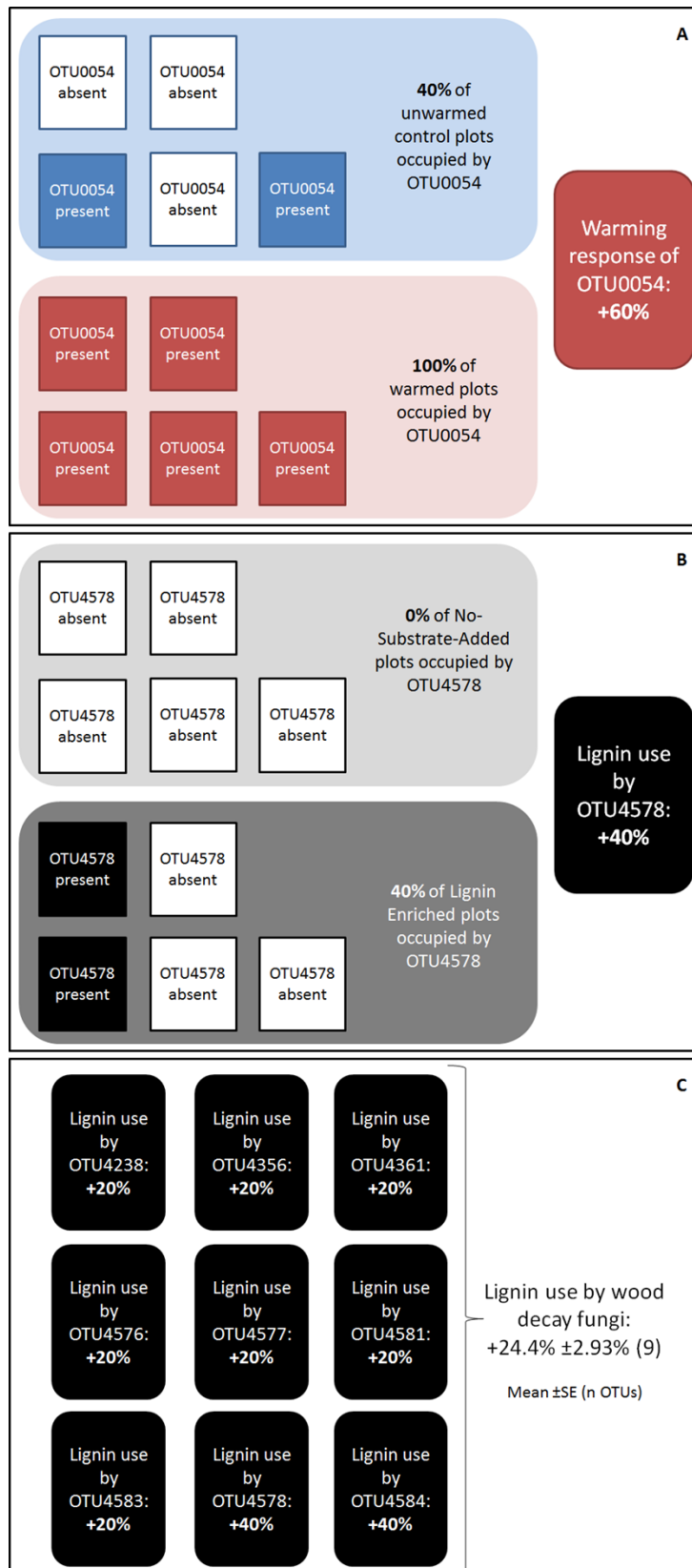


Figure S1. Sample calculations of warming response and lignin use for individual OTUs, and analysis of lignin use by wood decay fungi. **(A)** OTU0054 was identified as a *Friedmanniomyces* species and assigned to the “free-living filamentous fungi” functional group (Table S1). It was detected in two (40%) of the unwarmed plots and five (100%) of the warmed plots. Its warming response was calculated as the change in percentage of plots occupied in response to warming (+60%). **(B)** OTU4578 was classified as a species of *Trechispora*, which are known wood saprotrophs (Nguyen *et al.*, 2015). Its lignin use was calculated as +40%, which was the percentage of lignin enriched plots (40%) minus no-substrate-added plots (0%) occupied by the OTU. **(C)** We obtained lignin use values for eight additional OTUs that matched known wood decay fungi (Table S1). Their lignin use ranged from +20% to +40%. The mean lignin use of these nine OTUs was significantly greater than zero ($t = 8.315$, $df = 8$, $P < 0.001$), suggesting that this functional group can break down lignin.

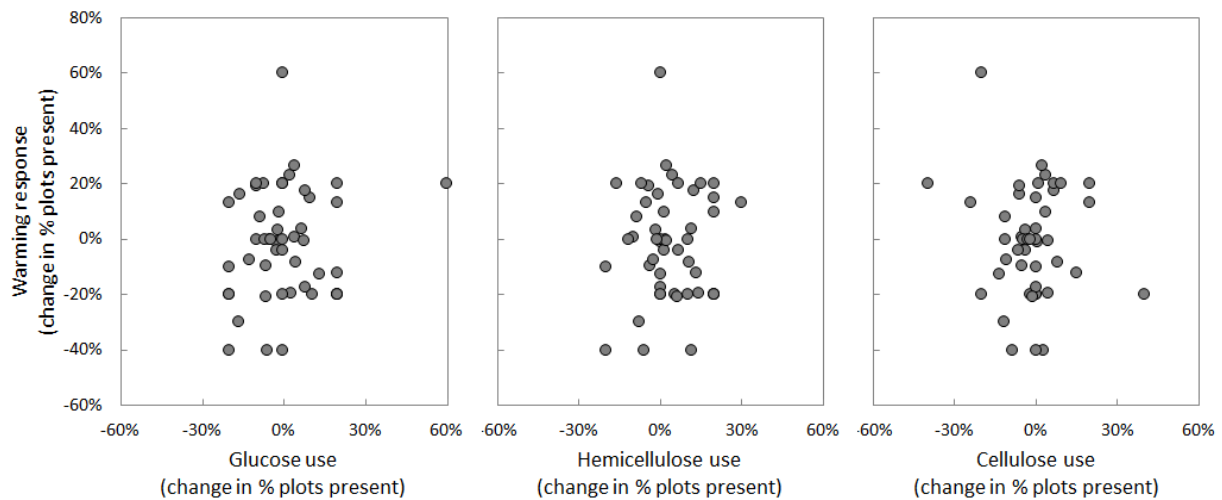


Figure S2. Relationships between warming response and substrate use across fungal taxa. Each symbol represents a fungal order. Positive values indicate an increase in prevalence in response to warming or substrate addition; negative values, a decrease. For each relationship, the analysis was restricted to fungal orders that were detected in both the warming experiment and that substrate's enrichment trial. Thus, $n = 46$ orders for cellulose use, $n = 49$ orders for glucose use, and $n = 49$ orders for hemicellulose use. None of these relationships were significant ($P > 0.05$). Order-level means for warming responses and substrate use are reported in Table S4.

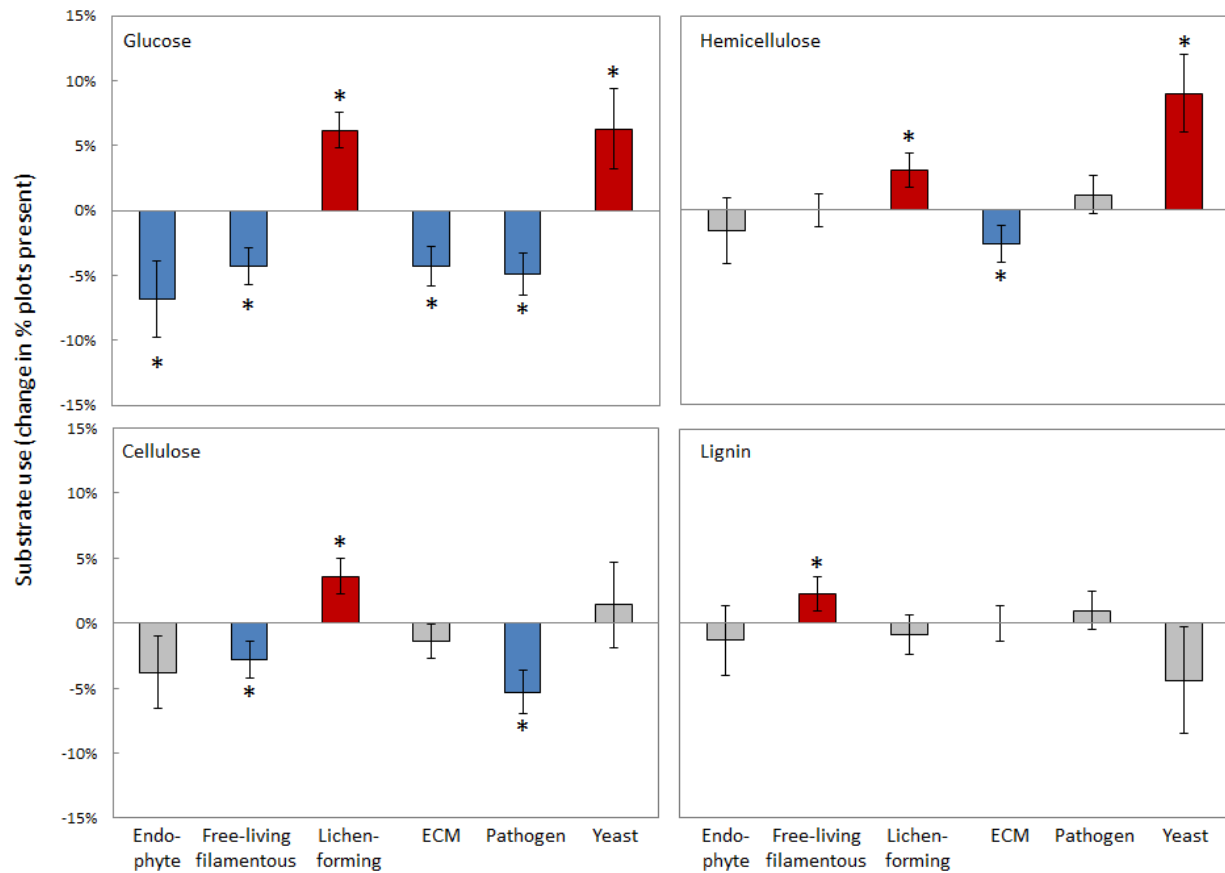


Figure S3. Substrate use profiles of fungal functional groups. Bars are means \pm 1SE of the change in prevalence in response to substrate additions for all OTUs within each functional group. Positive values indicate an increase in prevalence in response to substrate additions; negative values, a decrease. Colors represent significant increases (red) or decreases (blue) in prevalence (*P < 0.05).

Reference

Nguyen NH, Song Z, Bates ST *et al.* (2015) FUNGuild: An open annotation tool for parsing fungal community datasets by ecological guild. Fungal Ecology, doi:10.1016/j.funeco.2015.1006.1006.