

Research data of the article:

Elo et al. 2019 Species richness of polypores can be increased by supplementing dead wood resource into a boreal forest ecosystem. Journal of Applied Ecology.

Data description (see more detailed description in original article)

The experiment was established together in Leivonmäki National Park, Finland (61°N, 26°E). We selected 50 study plots, 0.25 ha (50×50 m) each, for the experiment from an area of 2×3 km. The plots were located in 80-120 year old Norway spruce (*Picea abies*) (23 plots) or Scots pine (*Pinus sylvestris*) (27 plots).

We established a two-factor experimental design supplemented with controls. We manipulated the amount of dead wood such that approximately 5 or 10 m³ (corresponding to 20 and 40 m³ha⁻¹) of the dominant tree species were felled with a chain saw. We also manipulated the spatial distribution of dead wood such that the added dead wood was either evenly distributed on the plot or aggregated at the center of the plot. There were ten replicates of each amount × distribution combination, and ten control plots with no manipulations. We randomized the treatments among the plots, and the fellings were conducted during winter 2003-2004.

We collected polypore data before the treatments and yearly after the treatments until the year 2012. We systematically inventoried all added and natural dead wood units in October - early November each year. We defined the abundance of polypores as the number of occurrences, and all fruit bodies of a given species on one dead wood unit were regarded as one occurrence. Most of the polypore species were identifiable in the field, although in some cases we collected specimens for microscopic identification. The voucher specimens are deposited in the Natural History Museum of the University of Jyväskylä (JYV).

We used the Nordic concept of polypores, i.e. all poroid Aphylophorales (Niemelä, 2005, Norrlinia). As only coniferous dead wood was manipulated, we excluded species that grow exclusively on deciduous wood and species that only occasionally utilize burned coniferous wood.

Data file

Each row represents one polypore occupancy

Year = sampling year (2003-2012)

Plot = sampling plot (1-50)

Species = scientific name of the polypore species

Tree = tree species added on the plot (1=spruce, 2=pine)

Amount = amount of added dead wood (0=control, 5=5m³, 10=10m³)

Distribution = distribution of added dead wood (0=control, 1=aggregated, 2=even)

Dead wood = dead wood type (1=added, 2=natural)