

Boxing for biodiversity

A long term follow up of an artificial dead wood environment

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Introduction

Studies have shown that wooden boxes can act as habitats for hollow dependant beetles. Although the short-term success have been documented (four years) the knowledge of the succession of saproxylic species over a longer time span remained unknown.

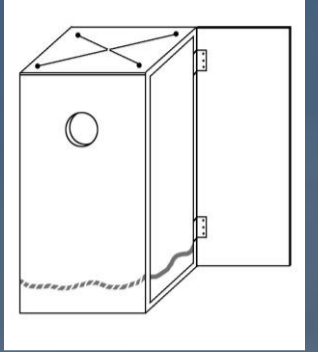
Aims

Investigate the succession of saproxylic beetle species from year four to year ten.

- Species compositions
- Dispersal distance effect

Method

In total, 43 boxes were placed in Different distances (0 – 1800 m) from oak hollow hot spots.



Results

In total, 2170 specimens of 91 saproxylic beetle species were sampled. In year ten the boxes had more specimens of tree-hollow/wood rot/nest species than year four, an increase with 38%.

Boxes closer to the oaks had more similar species composition then boxes further away.

	Year four (SD)	Year ten (SD)
* Hollow, wood rot and nest species		
Total number of saproxylic beetle species	75	42
Total number of saproxylic beetle specimens	1089	1081
Total number of HWN* species	47	29
Total number of HWN* specimens	669	922
Mean number of HWN* species per box	4.1 (3.3)	3.5 (2.2)
Mean number of HWN* specimens per box	15.5 (18.7)	21.4 (31.3)



Conclusions

- Categories that are well associated to hollows had an increase in abundance. This leads us to believe that the artificial habitats, after time, mimics the natural environment well.
- The artificial habitat developes into a more specific hollow like environment
- In conservation management the boxes should not be placed to far away from a dispersal source