

Differences between saproxylic beetles in nature reserves and production forest

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Aim

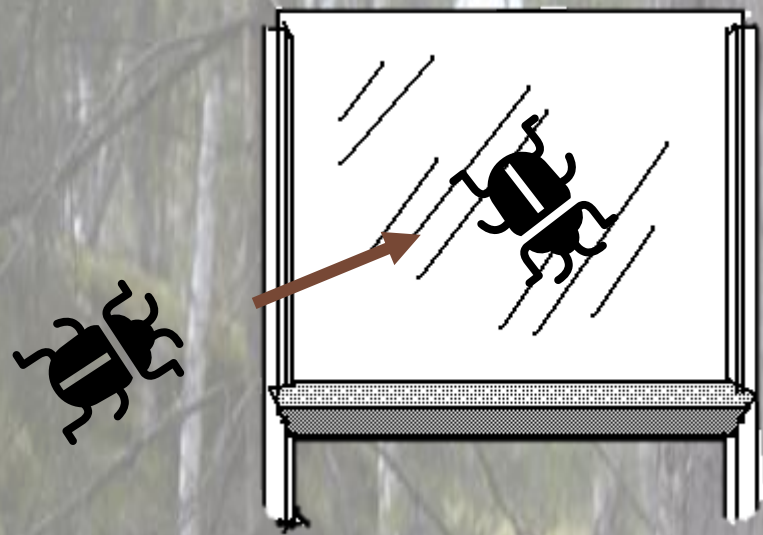
The aim of this study was to explore the effects of forest management and ecological factors on saproxylic beetles. This was done by comparing nature reserves with production forests in different stages.



Nature reserve



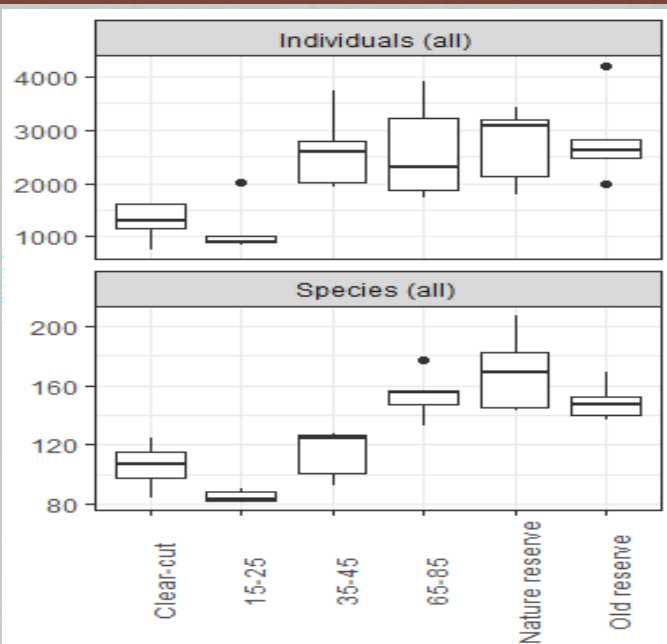
Production forest



Method

Sampling was done by mounting 175 window traps around county of Östergötland, in 35 locations divided into old/young nature reserve, and production forest 1-6, 15-25, 35-45, 65-85 years old. Beetles were sorted out and sent to specialists in species identification. Measurements on ecological factors were done around each trap.

Results

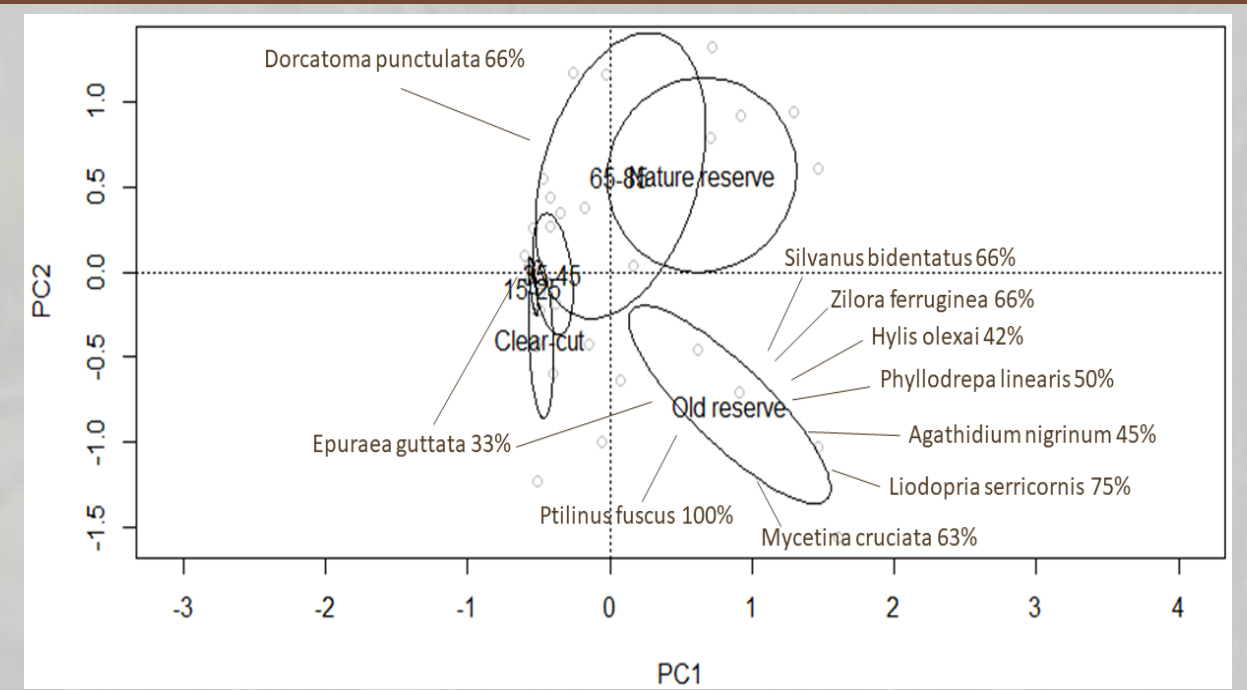


Quantity and quality of dead wood, and canopy openness had a positive correlation with number of beetle individuals



Vegetation cover, basal area, and type of dead wood had a positive correlation with beetle species richness

Nature reserves had the highest number of saproxylic beetle species and individuals, production forest 15-25 years old had the lowest number of both.



Production forests 65-85 years old had some similarities with nature reserves in species composition.

Discussion

Similarities between production forests 65-85 years old and nature reserves might be due to their similar historical background. Therefore, an interesting question is: How will today's 35-45 production forest be when felling mature?

Conclusion

- ❖ Nature reserves provide habitat for a higher number of species and individuals, as well as threatened species, than production forests.
- ❖ An increase in total amount of dead wood and diversity of dead wood must be improved in production forests, to generate a high species richness of saproxylic beetle species in production forests.

