Defence of a Doctoral Thesis

Old-growth forests in the High Coast Region in Sweden and active management in forest set-asides

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Doctoral Thesis in Biology
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Abstract

In today´s intensively managed landscape, very few forests with old-growth characteristics and little human impact exists. One of the exceptions is pine forests on rocky soils, which have escaped extensive human use mainly because of their low productivity. Our objective was to investigate the structure, dynamics, history as well as the abundance and richness of wood-inhabiting fungi in these type of forests. We found that rock pine forests in the High Coast region have a multi-sized and multi-aged structure and old pine trees are present. Fire has been common but they were likely of low intensity and small. A continuity of dead wood might be important for organisms dependent on dead wood as a substrate and even though we found that the species richness of wood-inhabiting fungi was rather low, we did find some rare species. The second part of this thesis report two systematic reviews on the effects of active management on forest biodiversity. The first identified the evidence base over a large number of management options. In the second we studied increasing dead wood and found that, although the amount of dead wood created was lower (50 %) with prescribed burning, the abundance and richness of saproxylic insects showed similar positive effects to those of other methods. In summary, active management generally has a positive effect on biodiversity but the choice of management type should always be made carefully, and consider the effect you want to achieve. Read the whole abstract on **miun.se/fscn**

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