

# WILL PEST PROBLEMS OF FOREST REGENERATION DISAPPEAR WITH STUMP REMOVAL ?



JOENSUU FORESTRY NETWORKING WEEK



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PINE WEEVIL  
GNAWING ON SPRUCE



## Biota

Heli Viiri is a research scientist In Finnish Forest Research Institute, Joensuu Unit, working with pest insects in forestry and regeneration issues. Currently she studies the effect of stump extraction to the population biology of pine weevil, *Hylobius abietis*. Pine weevil is the major pest in all coniferous regeneration sites in Eurasia. Heli has a background in the authority of pesticide inspection and professor of forest protection.

I have compared the pine weevil densities, pine weevil production and levels of seedling damage and seedling survival at 10 pairs of neighbouring clear-felled (winter 2007/2008) forest sites where stumps were removed or are left intact.

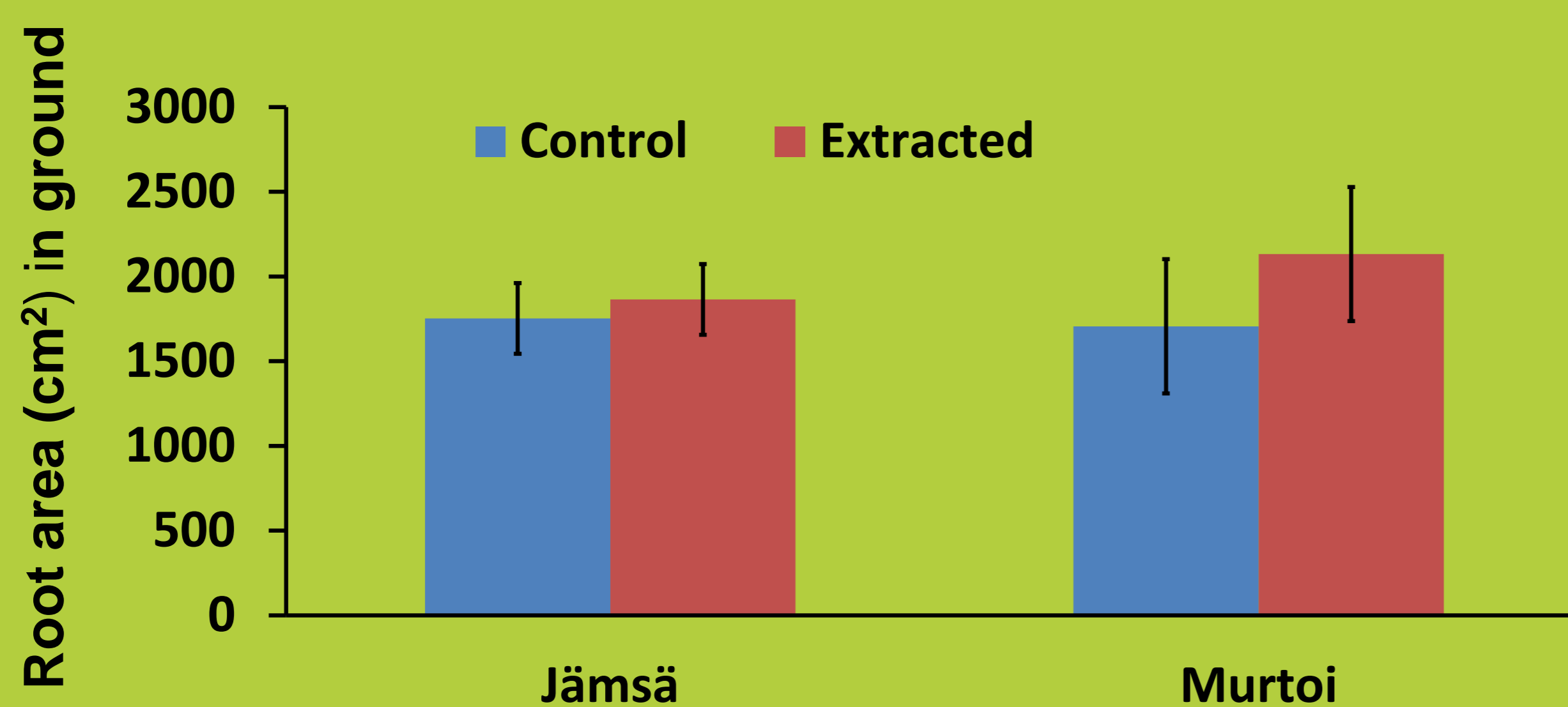


Fig. 1. Conifer root area (cm<sup>2</sup>), mean + SE, in ground samples. Ten samples per site, (0,5 m<sup>2</sup> ground surface per study site ).

## Preliminary results

The amount of pine weevils in trappings in stump extraction areas rather increases than decreases, which might be explained the better movement conditions and high attraction of traps when there is not so much available nutrition.

The amount of seedling damage of pine weevils have also remained at substantial high level after stump extraction. There is also no difference in the amount of remaining conifer root surface area (Fig.1.) which is the main nutrition of pine weevil larvae.

Thus, conventional measures, soil scarification and insecticides, are still important in protecting seedlings against pine weevils.



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