Human tree selection behaviour in CCF woodlands

Continuous Cover Forestry (CCF) has recently received renewed attention in Sweden for its potential to mitigate climate change, for its suitability as a toolbox for conservation and for its popularity in the general public. CCF is forest management based on ecological and environmental principles with a continuity of woodland microclimate and soil processes. As a consequence of this definition large-scale patch harvesting is replaced by continuous thinnings where the selection of suitable trees for maintenance and removal is crucial. To ensure this, training seminars have been established in many countries. As part of these socalled marteloscope ("provyta", see also Fakta Skog #9) are often set up. These are rectangular sites in the forest marked with tree numbers. Seminar participants are asked to select trees according to a general prescription or according to their experience and the results are analysed and reviewed in the context of the seminar to provide constructive, individual feedback. The results of all participants can also be analysed to provide a better understanding of the behaviour of the persons involved, to learn how they responded to instructions and training or to different tree sizes and shapes. Such information is crucial to understanding how much CCF management knowledge is out there in the country and how the training provision can be improved. Marteloscope experiments and associated analyses are still new to Sweden, whilst they have received much attention in other European countries and in North America. There is a particular need to carry out such research in mixed-species woodlands in Sweden. A thesis in this field could involve setting up your own marteloscope and carrying out an experiment with a number of test persons. Another option is to analyse existing citizenscience data from Britain and Ireland.

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References

Pommerening, A. and Murphy, S. T., 2004. A review of the history, definitions and methods of continuous cover forestry with special attention to afforestation and restocking. *Forestry* 77, 27-44.

Pommerening, A., Vítková, L., Zhao, X. and Pallarés Ramos, C., 2016. Towards understanding human tree selection behaviour. *Forest Facts* **9**, 6p.

Pommerening, A., Pallarés Ramos, C., Kędziora, W., Haufe, J. and Stoyan, D., 2018. Rating experiments in forestry: How much agreement is there in tree marking? *PLOS ONE* **13**, e0194747.

Pommerening, A., Brill, M., Schmidt-Kraepelin, U. and Haufe, J., 2020. Democratising forest management: Applying multiwinner approval voting to tree selection. *Forest Ecology and Management* **478**, 118509.