

# Abstract

**SYDVÄST POLYTECHNIC  
SCHOOL OF NATURE ECONOMY  
Degree programme in forestry**

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**Title:** Methods for analyzing historical GIS-data  
Metoder för analys av historiska GIS-data

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## **Summary:**

This thesis deals with methods for extracting useful information from forestry management plans on how a patch of forest has developed. The extraction is done using a GIS program.

The project is a commissioned work for Ekenäs Skogspark at Aronia, the institution for research and development at Sydväst Polytechnic and Åbo Akademi University. It is intended that the results from this project will be used to implement a more locally adapted and more sustainable forestry.

The development of the methods were based on experiments and tested on forestry management plans and plans for diversified use over an area called Falkgölen in Tammisaari. The result is a description of what one can do to extract the history of a forest area in a mathematically useable format. Several pitfalls one should avoid are also dealt with in the thesis' results. Finally there are three proposed alternatives for how much data one can extract from the plans; the whole area, some selected parts of the area, and selected points within the area.

This bachelor's thesis has also generated a number of visions and proposals for continued studies. Among other things a proposal for how one could make historical GIS data an integrated part of a forestry management planning program.

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**Keywords:** historical, GIS, analysis, sustainable forestry, adaptive management, environment