

APPLIED PERIOD

(October & November, 2005)

At

Albert-Ludwigs-University Freiburg,
Institute of Forest Growth (IWW)

Freiburg, GERMANY



By
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University of Joensuu,
FINLAND



Objective

- To work as part of host institution
- To know the working discipline and management system of host institution
- To work and learn on desired field of study
- To get acquaintance with the working area of the host organization
- To strengthen the adaptive capability in the new, country, place and environment

Goal

- To participate in ongoing research project to get the knowledge and skills of research
- To get an idea of research project design in the area of carbon sequestration

University of Freiburg

- Founded in 1457 A. D; 11 faculties

Faculties

- ▶ 1. Faculty of Theology
- ▶ 2. Faculty of Law
- ▶ 3. Faculty of Economics and Behavioral Sciences
- ▶ 4. Faculty of Medicine
- ▶ 5. Faculty of Philology
- ▶ 6. Faculty of Humanities
- ▶ 7. Faculty of Mathematics and Physics
- ▶ 8. Faculty of Chemistry, Pharmacy, and Earth Sciences
- ▶ 9. Faculty of Biology
- ▶ 10. Faculty of Forest and Environmental Sciences
- ▶ 11. Faculty of Applied Sciences

Institute of Soil Science and Forest Nutrition

Institute of Forest Utilisation and Work Science

Institute of Forest Botany and Tree Physiology

Chair of Forest Botany

Chair of Tree Physiology

Institute of Forest Economics

Department of Forest Economics and Forest Management Planning

Department of Remote Sensing and Landscape Information Systems

Institute of Forest and Environmental Policy

Institute of Forest Zoology

Institute of Cultural Geography

Institute of Physical Geography

Institute of Hydrology

Institute of Landscape Management

Meteorological Institute

Institute of Silviculture

Institute of Forest Growth

Department of Forest Growth

Department of Forest Biometry

Co-operating institutions

Fire Ecology Working Group

Institute of Forest Growth

- Studies on forest growth
- Develops decision tools for forest growth and provides basic methods of tree growth
- Research linked on national and international level
- Scientific findings are enhanced and distributed through events, publications, and study programs

AP Supervisors

Chief Supervisor

Prof. Dr. Heinrich Spiecker

Director, IWW

Assistant Supervisors

Dr. Hans-Peter Kahle

Assistant researcher

Mr. Stuart Dedrick

Ph. Scholar

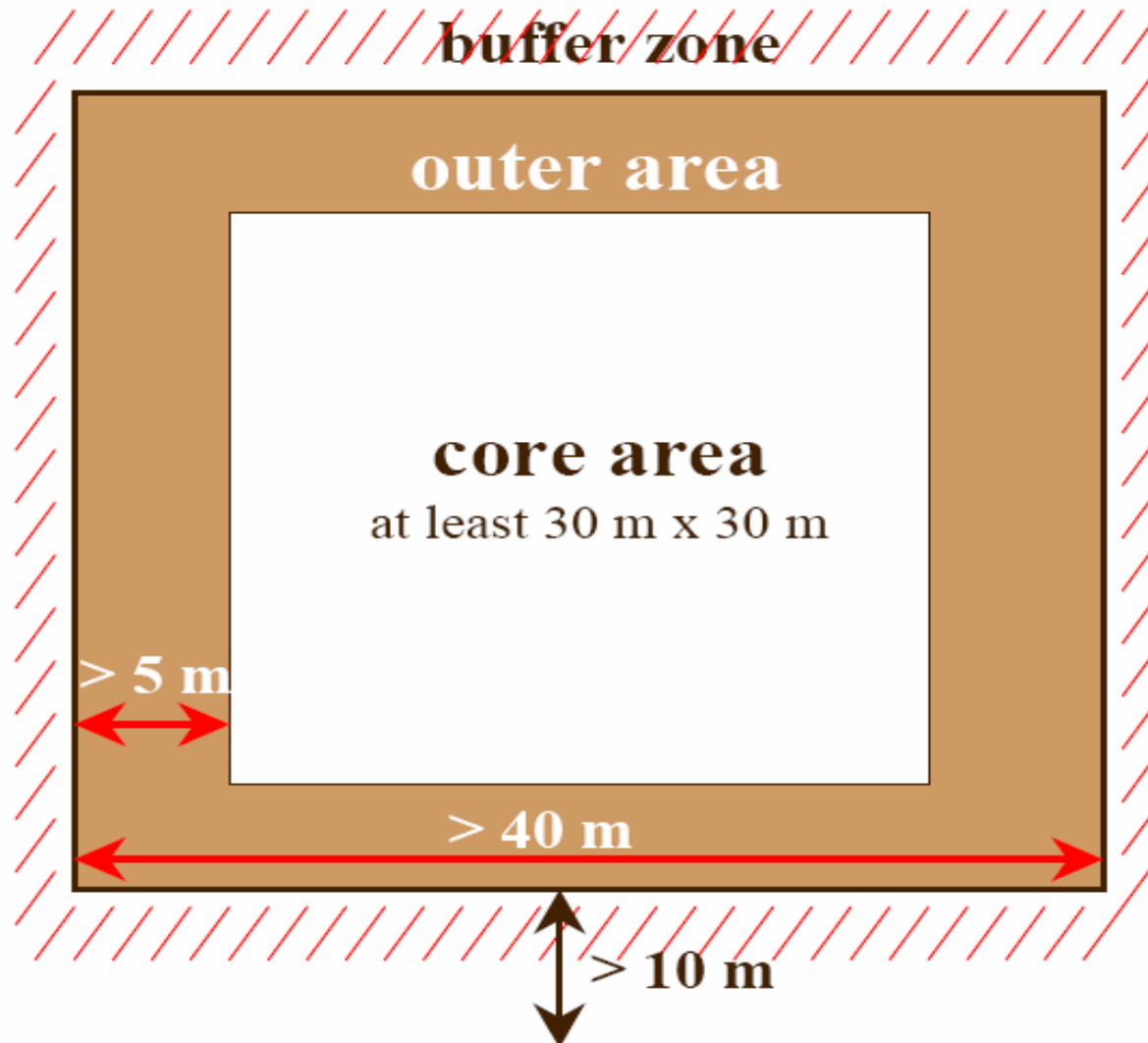
Methods and approaches

- Literature studies/Internet search/Library
- Field work
- Excursion
- Lecture/Seminar/visits
- Research proposal preparation

Topic

- Establishment of permanent sample plots in planted and semi-natural forests and techniques of data collection

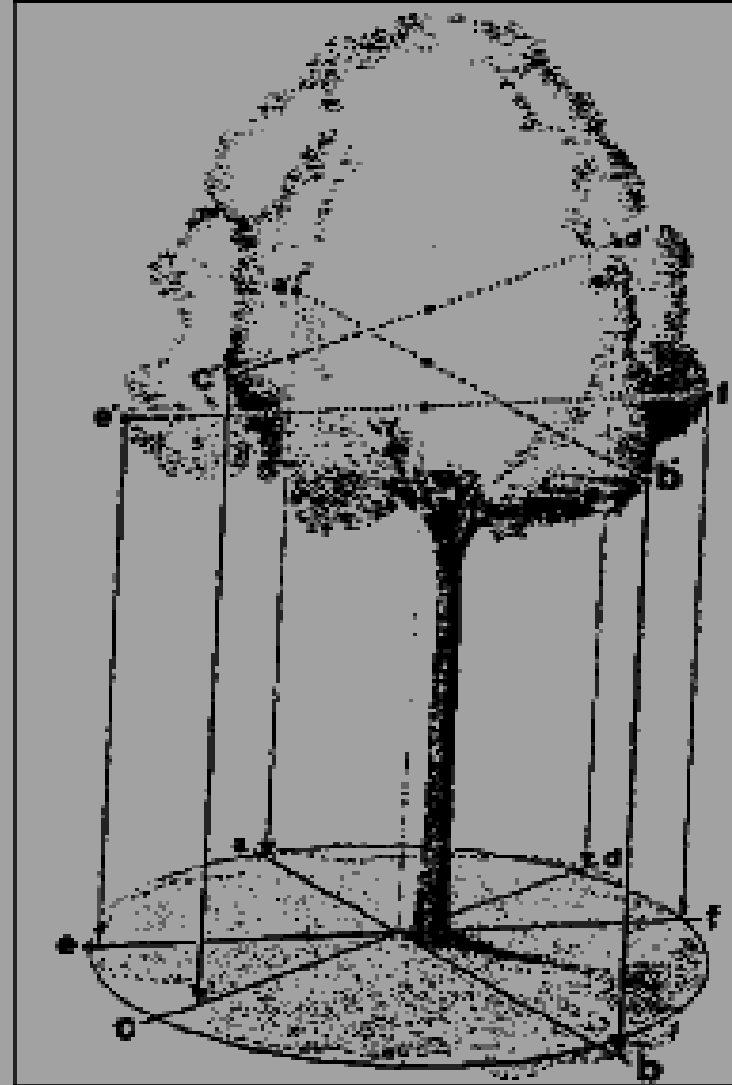
Permanent sample plot



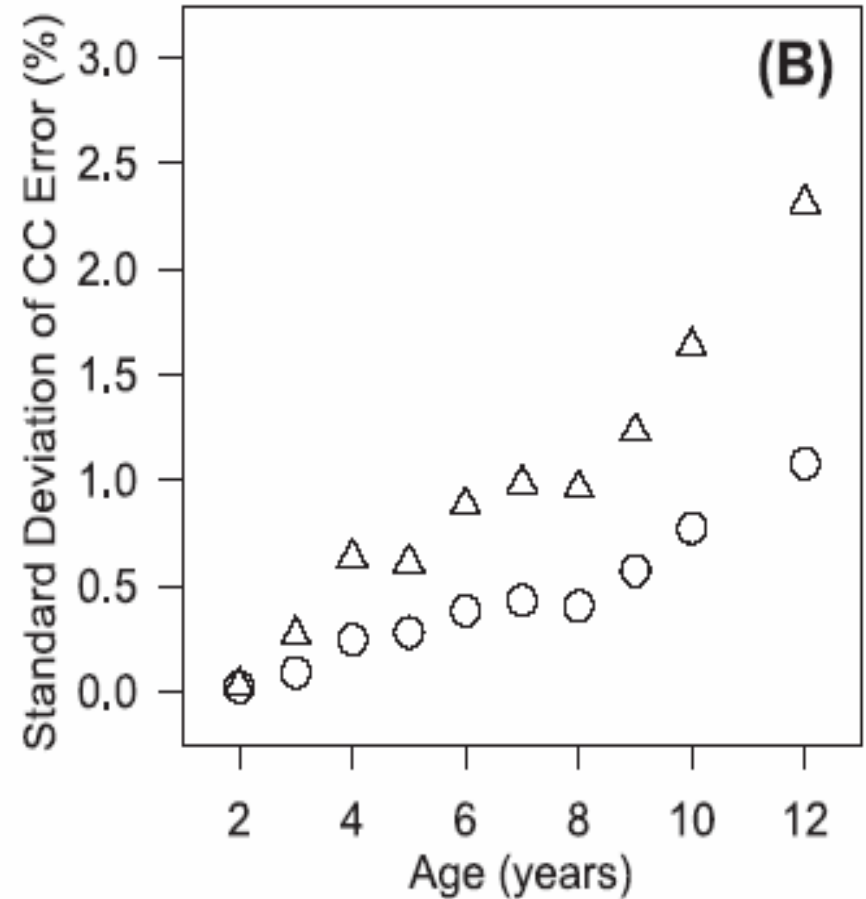
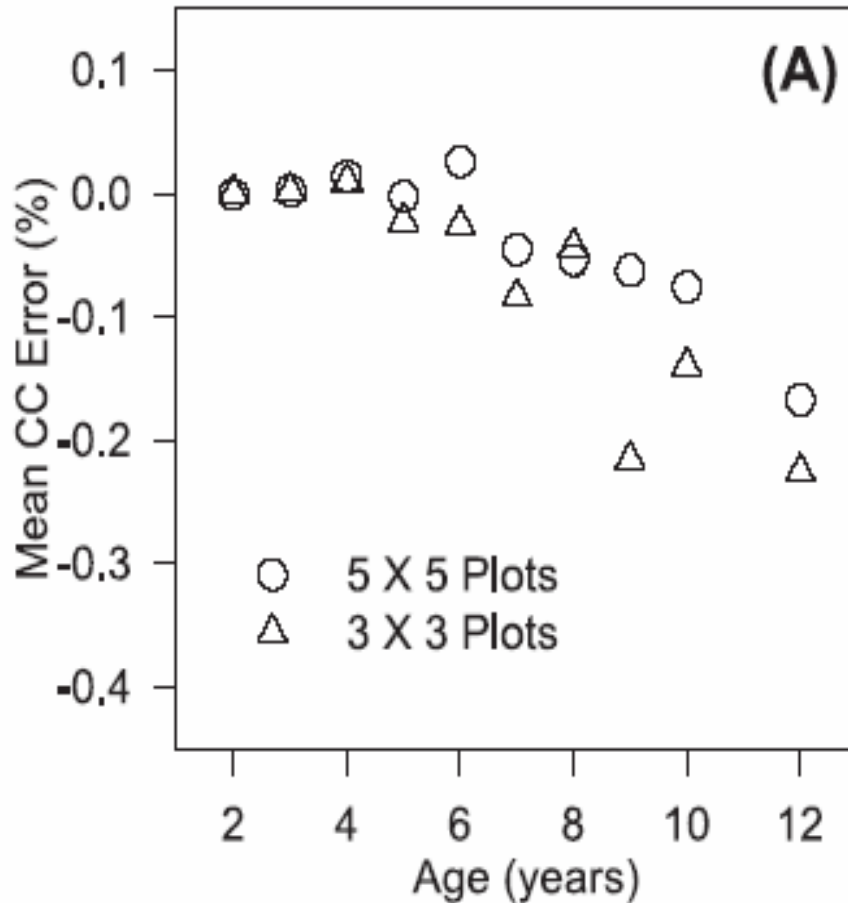
Facilitated by:
Mr. Stuart Dedrick, IWW

Carried activities

- **Orientation to establishment of permanent plots for the forest growth response studies**
- **Height Measurement**
- **Crown measurement (Estimation of crown radii)**



Data entry and analysis



Disappointing: I couldn't get opportunity to analyze these data bases

Literature studies

- IUFRO 2005 conference papers
- Carbon sequestration literatures
- Forest growth study literatures
- Multiple use management of forest resources studies

Excursion

- Excursion to Hohenzollenburg castle area



Excursion

- Excursion to Disk bank and Breisach (Research area of Cherry, Agroforestry)



Excursion

- Excursion to Beech stand, Schaunslund Mountain
- City excursion



Lecture, Seminar and Visit

- Air Pollution, Climate change, Forest growth and climate change
- Introductory seminar, seminar by Dr. Kahle (IUFRO World Congress, Plantation Forestry in New Zealand, Forestry in Komi, Russian Federation)
- Forest Research Institute of Baden Württemberg (FVI), International Forestry Students Association (IFSA),
- IWW laboratory, Tree Disk Bank

Office work: Proposal

- Evaluation of agroforestry systems for economic return and carbon sequestration

Objectives:

- To perform an economic analysis for both direct and indirect use of agroforestry systems
- To measure carbon in the agroforestry systems
- To draw conclusion about economic impacts

Learning

Technical:

- Permanent plot establishment and measurements for the tree growth study
- Microclimate and its effects on ecology of forest (both floral and faunal) diversity and depends on external disturbances
- Species selection, spacing design, input and output analysis and biodiversity conservation on multiple use of forestry
- Difference in yield in treated stand in comparison with untreated stand
- Effect of light condition in stem growth in trees (growth analysis of trees by Dendrometer)
- Concept of seed orchard

Learning

About AP:

- Good hospitality, and help in every steps
- Understanding of how international organizations work
- Getting into touch with experts and professionals
- Getting familiar with German society and culture
- Convinced that student should have clear idea of working area and supervisor before leaving for AP

Feedback

- It would be better for the student to have an opportunity to work with the AP institution instead of literature study

Advantage: Intercultural interaction and visits



Basel, Switzerland

Strasbourg, France



Acknowledgements

- Prof. Dr. Spiecker for arranging the applied period study and for supervision
- Dr. Hans-Peter Kahle for his role as assistant supervisor, field excursions
- Mr. Dedrick for his help during the field work and providing all the information about the crown growth response study
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- Ms. Stadler for her great support for the accommodation
- Mr. Tojic, Ms. Regina and other support staffs for their help during the office works

Our days during AP.....



Thank you !!!