

COST Action FP0603

Forest models for research and decision support in sustainable forest management

Final meeting

Bordeaux, France

1-2 March 2012

Local organizers:

Christophe Orazio (EFIATLANTIC) and Céline Meredieu (INRA)

Location of the venue

Site de Recherche Forêt-Bois, Cestas, France

Programme

Wednesday 29th February

18:00- 19:30 Ice breaker and registration (Hotel Mercure, 28-30 rue Tauzia, 33800 Bordeaux)

Thursday 1st March

8:45 – 9:15 Registration

9:15 – 9:30 Start of the workshop, welcome by the local organizers

9:30 – 10:00 Introduction to the meeting (Frits Mohren)

10:00 – 12:15 WG1 – Identification and description of forest growth models available in Europe

Moderator: Marc Palahí

10:00 – 10:15 Introduction: Trends in modelling to address forest management and environmental challenges in Europe (Harald Bugmann)

10:15 – 10:30 Models for supporting forest management in a changing environment (Luís Fontes)

10:30 – 10:45 Simulating wood quality in forest management models (Annikki Mäkelä)

10:45 – 11:15 Coffee break

11:15 – 11:30 Modelling non-wood forest products in Europe: a review (Rafael Calama)

11:30 – 11:45 Equilibrium and non-equilibrium concepts in forest genetic modelling: population- and individually-based approaches (Koen Kramer)

11:45 – 12:00 Recent approaches to model the risk of storm and fire to European forests (Marc Hanewinkel)

12:00 – 12:15 Simulation tools for decision support to adaptive forest management in Europe (Bart Muys)

12:15 – 14:45 WG2 – Biological scope to improve forest growth models towards multifunctional sustainable forest management

Moderator: Annikki Mäkelä

12:15 – 12:35 Biological scope to improve forest growth models (Frits Mohren)

12:35 – 12:55 Concepts and challenges in modelling natural disturbances in forest ecosystems (Rupert Seidl)

12:55-14:15 Lunch Break

14:15 – 14:30 Modelling silvicultural systems

14:30 – 14:45 Stem damage due to wind in forest plantation and how to integrate this information in growth and yield models (Jenny Grace)

14:45 – 16:40 WG3 – Data-model interactions

Moderator: Christophe Orazio

14:45 – 15:05 Using forest growth models for estimation of indicators of MSFM (Annikki Mäkelä)

15:05 – 15:25 Tales of 1001 forest simulations: country-specific vs. generic model calibration using data from Scots pine stands across Europe (Marcel van Oijen)

15:25 – 15:40 Estimating forest growth and carbon balance based on climate-sensitive forest growth model and remote sensing data (Sana Härkönen)

15:40 – 15:55 Bayesian calibration and Bayesian model comparison of two process-based model versions (Francesco Minunno)

15:55 – 16:25 Coffee break

16:25 – 16:40 Climate constraints on potential standing stock predict large scale shifts in tree species distributions in Europe under climate (Ernst van der Maaten)

16:40 – 17:55 WG4 – Use of forest models at different scales, from tree to landscape and to European level, scenario modelling

Moderator: Frits Mohren

16:40 – 17:00 Scaling issues within forest ecosystem modeling (Hubert Hasenauer)

17:00 – 17:20 Scaling in forest modelling (Heike Lischke)

17:20 – 17:40 Identification of end-user needs at different scales in forest modelling (Chris Eastaugh)

17:40 – 17:55 Adapting the Tree Growth Model MOSES for Sitka Spruce Stands in Scotland (Mario Klopff)

20:00 Dinner in Restaurant Le Café Opéra (Place de la Comédie, 33000 Bordeaux)

Friday 2nd March

8:45 – 10:15 Session I – Forest models and model platforms in Europe

Moderator: Marc Palahí

8:45 – 9:00 FORMODELS – Data base for forest models (Christophe Orazio)

9:00 – 10:30 Demonstration of forest models and model platforms

9:00 – 9:15 Computer aided forest modelling in Slovakia: state-of-the-art and future perspectives (Marek Fabrika)

9:15 – 9:30 Decision support tools based on MOTTI stand simulator designed for varying levels of decision making of multipurpose forest management (Jari Hynynen)

9:30 – 9:45 Overview of CAPSIS platform components (Céline Meredieu)

9:45 – 10:00 sIMfLOR - Platform for Portuguese forest simulators (Sónia Faias)

10:00 – 10:15 MosesFramework: a framework for forest simulation and management planning (Christopher Thurnher)

10:15 – 10:45 Coffee break

10:45 – 13:00 Session II – Biological scope to improve forest growth models**Moderator: Frits Mohren**

10:45 – 11:00 Modelling the dynamics of tropical rain forests: state of the art and perspectives (Andreas Huth)

11:00 – 11:15 Expanding the MoBiLE physiological-oriented cohort model by SILVA based single tree downscaling (Werner Poschenrieder)

11:15 – 11:30 Application of the wind risk model forestgales for improved management of Brazilian forests (Tommaso Locatelli)

11:30 – 11:45 Forest succession models as tools in forest management (Harald Bugmann)

11:45 – 12:00 A simple model to understand the dynamics of mixed forests (Mario Cammarano)

12:00 – 12:15 Water balances in mountainous catchments and the protection function of forests (Elisabeth Poetzelsberger)

12:15 – 12:30 Integrated management of trophic interactions: moose and forest in Sweden and Belarus (Vitalie Gulca)

12:30 – 13:00 Poster session – Biological scope to improve forest growth models

13:00 – 14:15 Lunch break**14:15 – 15:45 Session III – Data-model interactions****Moderator: Annikki Mäkela**

14:15 – 14:30 A thinning model describing individual tree selection by harvester operators (Andreas Brunner)

14:30 – 14:45 Harmonisation of European forest growing stocking data: the possibility of using a model-based conversion approach (Keith Rennolls)

14:45 – 15:00 Parameterization of a set of models predicting daily ecosystem gross primary production, evapotranspiration and soil water content: joint vs. separate parameter estimation of models (Miko Peltoniemi)

15:00 – 15:15 The Mixedwood Growth Model (MGM) and its application in management of western Canadian boreal forests (Phil Comeau)

15:15 – 15:45 Poster session – Data-model interactions

15:45 – 16:15 Coffee break**16:15 – 18:00 Session IV – Use of models at different scales****Moderator: Hubert Hasenauer**

16:15 – 16:30 The 3PGN model as a tool for multi-purpose site classification: identifying potential sites for maximizing timber production and carbon sequestration (Georgios Xenakis)

16:30 – 16:45 Integrating growth and yield models in decision support systems at different spatial levels (Jordi García-Gonzalo)

16:45 – 17:00 3D-CMCC Forest Model, a dynamic ecosystem growth model for forests at high structure complexity (Alessio Collalti)

17:00 – 17:15 Dynamic modelling of silvopastoral landscape structure: past reconstruction and scenarios for future climate and land use (François Gillet)

17:15 – 18:00 Poster session – Use of models at different scales

18:00 Closing the Conference