

Discussion Presentation

By JP Skovsgaard

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Historical Timeline of Forestry Modelling

Unregulated modelling

Administrative stage modelling => Timber

Ecologically-based modelling => Natural processes

Social stage modelling => Society's needs

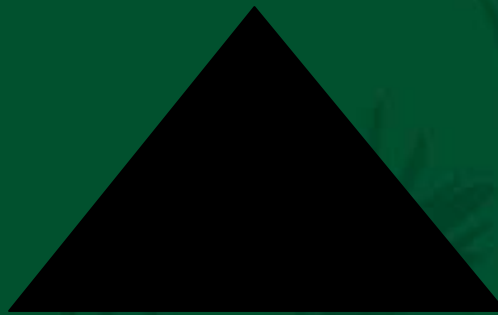
Model Objects

- Regeneration** => **Crucial to sustainable Forest Management**
- Early growth**
- Carbon** => **Will be very important**
- Below-ground modelling** => **Few experiments and Investigations**
- Changing management objectives** => **Natural forests
Uneven-aged mixed forest**
- Even-aged, single-species stands** => **Lends itself to modelling because it is simpler system**
- Society's needs**
- Environmental change**

Data

Case Studies

NFI



Experiments

For more complex modelling we will use case studies and National Forest Inventory (NFI) but this may lose the generality in our modelling.

- Destructive sampling needs to be dealt with
- New mensuration procedures are needed

“Rare Species Modelling”

Silviculturists - the people that we are modeling for

Ecologists- need to work more closely with them

Social modeller- working on landscape models does not mean working on social models

Human Interaction: Communication

Terminology: IUFRO is currently working on a terminology project

Data Sharing: IUFRO is working on organizing common data to use in models

Model Sharing: Forest Model Archive:
A place where models and software can be shared

A Definition of Models

Models are, for the most part, caricatures of reality, but if they are good, then, like good caricatures, they portray, though perhaps in a distorted manner, some of the features of the real world.

The main role of models is not so much to explain and predict - though ultimately these are the main functions of science - as to polarize thinking and to pose sharp questions.

Mark Kac

QUALITY BEFORE QUANTITY

Do we need better data in our models or more data in our models?

Should we have more quality-oriented models or do we need a lot of models?

Modelling Trend:

MOVING FROM DESCRIPTION
TOWARDS EXPLANATION