



COST ES0805 - WG 3 Workshop

**“Going beyond Plant Functional Types: Next-
Generation Concepts In Plant Ecological Modelling”**

Bulgaria, Varna, 23-25, 06. 2010

P R O G R A M M E

23.06.2010

13.00 - 13.10 – Opening of the workshop: Welcome to participants
Mariyana Lyubenova
Christian Reick

13.10 – 13.30 – Introduction to the terrabites programme and the position of this
workshop within this programme
Victor Brovkin

13.30 – 13.50 – Aims of this meeting: position paper and/or STSMs, introduction to
total programme, set-up of meeting
Peter van Bodegom

Topic 1:

*The problem of assessment and prognostics in a future climate: Can we catch the
environmental changes and particularly those related to vegetation characteristics
and vegetation-atmosphere interactions with PFTs? How many data do we need to
do this properly?*

Presentations session - Chair: Peter van Bodegom

13. 50 - 14.30 – Presentation 1: Jens Kattge - TRY – a global communal database of
plant functional traits

14.30 - 15.50 - Presentation 2: A. Chikalanov et al. Classification oriented
database and semantic web for plant and terrestrial modelling and information
exchange

15.50 -15.20 - Coffee break

15.20 – 16.30 Discussions

Topic 2:

Extend the number of PFTs:

*Which are the main variables that determine PFTs and that should be used to
distinguish PFTs to facilitate the modeling and prognostics in DGVMs?*

16.30 – 17.10 - Presentation 3: Geertje van der Heijden - Extending the PFT
scheme

in DGVMs – possibilities and limitations

17.10 – 18.30 - Discussions - (Continuation)

Potential solution 2: Extend the number of PFTs:

Given the broad classes of PFTs in current DGVMs, potentially more power could be achieved by extending the number of PFTs: Which are the main variables upon which PFTs should be distinguished in order to improve the modeling and prognostics in DGVMs?

18.30: end of the first day.

24.06.2010

Topic 3

Include variability in ecological parameters within PFTs:

How should this fact be reflected in DGVMs and could it be used for the objectives of increasing predictive power of DGVMs?

Presentations session - Chair: Miguel Zavala

09.00 - 09.40 - Presentation 1: R. Fantuchi et al. – Dendrochronology as a support to PFTs and DGVM

09.40 - 10.20 - Presentation 2: Peter van Bodegom – A fully trait-based approach to quantify global patterns in vegetation.

10.20 - 10.50 - Coffee break

10.50 – 11.30 - Presentation 3: M. Lyubenova et al. – Studies of stress periods as PFTs variables for assessment and prognostics

11.30 – 13.00 - Discussions

Potential solution 3. Include variability in ecological parameters in DGVMs:

How should variability in ecological characteristics be incorporated into DGVMs; include variability within a PFT or using other ways for quantifying trait variability and may it be used to increase predictive power of DGVMs?

Topic 4

PFTs in regional vs. and global vegetation models:

Are rules different at local or global scales? May we apply optimization or adaptation strategies to derive appropriate choices for DGVMs?

Presentations session - Chair: Victor Brovkin

14.00 – 14.40 - Presentation 4: Miguel Zavala: Iberian forests under Global Change: main impacts and resilience mechanisms

14.40 – 15.20 - Presentation 5: Stefan Dekker – Optimality approaches and processes to be included in DGVM - Stomatal adaptation to atmospheric CO₂ as a case study

15.20 - 16.00 - Presentation 6: Oscar Franklin: Evolving traits - an alternative to plant functional types

16.00 – 16.30 - Coffee break

16.30 - 17.10 - Presentation 7: Victor Brovkin

17.10 – 18.30 – Discussions

Potential solution 4: Can we apply optimization techniques or adaptation strategies to derive appropriate choices for DGVMs? E.g. to test whether rules different at local or global scales

18.30: End of the second day: there will be a restaurant reservation for the group for diner

25.06.2010

Topic 5

If defining PFTs, should that be based on growth forms, biomes/habitats, mixtures of those (as currently in most DGVMs) or should alternative classifications be incorporated?

Presentations session - Chair Peter van Bodegom

09.00 - 09.40 - Presentation 1: Ulo Niinemets - Stress tolerance and constitutive and induced BVOC emission potentials in PFTs: how to generalize

09.40 - 10.20 - Presentation 2: Ryan Pavlick - The Jena Diversity (JeDi) Model: A new Functional Diversity Approach To Modelling The Terrestrial Biosphere

10.20 – 11.20 - Discussions

Potential solution 5: Redefining PFTs: If defining PFTs in a new DGVM, should that be based on growth forms, biomes/habitats, mixtures of those (as currently in most DGVMs) or should alternative classifications be incorporated?

11.20 - 11.50 - Coffee break

11:50 – 12:20 – Presentation 3: Fred Baret – PFTs from and for Remote Sensing

12. 20 – 13.00 - Final discussion: PFTs and DGVMs – what are the contemporary positions from which we should continue? How to continue in terms of a paper and/or STSMs

13.00 – End of the Workshop.