

# International Graduate Course on Forest Ecophysiology

Parque Katalapi, X<sup>th</sup> Region, Chile  
January 6-14, 2011  
<http://www.parquekatalapi.cl>



## Organizers

Luis J. Corcuera (Universidad de Concepción)  
León A. Bravo (Universidad de la Frontera)  
Rafael E. Coopman (Universidad Austral de Chile)

## Invited Lecturers

Jaume Flexas (Spain)  
Ülo Niinemets (Estonia)  
Miquel Ribas Carbó (Spain)  
Ingo Ensminger (Canada)  
Jeroni Galmés (Spain)  
Ignacio García Plazaola (Spain)  
Hans Lambers (Australia)

**Registration fee:** Students (US\$300; 160000 Ch pesos). Professionals: US\$600; 320000 Ch pesos). This fee includes food and lodging, and course materials.

**Registration information:** contact Luis J. Corcuera at [luis.corcuera@parquekatalapi.cl](mailto:luis.corcuera@parquekatalapi.cl) or visit the web page <http://www.parquekatalapi.cl> ; Telephone 56-41-2203586.

**Registration deadline: November 15, 2010**

**Course Description:** This intensive theoretical-field graduate course spans over 10 days. It includes lectures, seminars, and practical classes in the field. The course will use the facilities of Parque Katalapi, located in Carretera Austral, X<sup>th</sup> Region, Chile. This course is designed as an intensive immersion experience. It requires stamina, endurance, social skills, and patience. The course will be centered on theoretical and practical aspects of forest ecophysiology.



## Topics of the course

1. Introduction to forests: what is a "forest"?
2. Forest structure, light and environment
3. Ecophysiological methods and techniques in forest research
4. Parameterization of Farquhar model - how to measure and derive parameters
5. Sampling for isotope analysis in the forest
6. Parameters from isotope analysis in forest research
7. Biochemical and Molecular Biology parameters as complements of forest research
8. Stomatal physiology and importance of mesophyll conductance
9. Rubisco regulation and physiology

10. Photoinhibition and photoprotection
11. Forest respiration
12. Abiotic stress in the forest
13. Water stress effects in the forest
14. Living in low light
15. Global warming effects on forests
16. Cold acclimation
17. High temperature stress
18. Photosynthesis and growth under high CO<sub>2</sub>
19. Forest Carbon balance
20. Volatile emissions by trees
21. Pigments physiology
22. Nutrients acquisition strategies

## Sponsors

- Departamento de Botánica, Universidad de Concepción, Concepción.
- Instituto de Silvicultura, Universidad Austral de Chile, Valdivia.
- Escuela de Verano de Postgrado. Doctorado en Ciencias m/ Biología Celular y Molecular Aplicada, Universidad de La Frontera, Temuco
- Proyecto Mecesus UCO 0214
- Proyecto Mecesus UCO 0708
- FONDECYT 1090397 (Int. Cooperation) and 11086162

