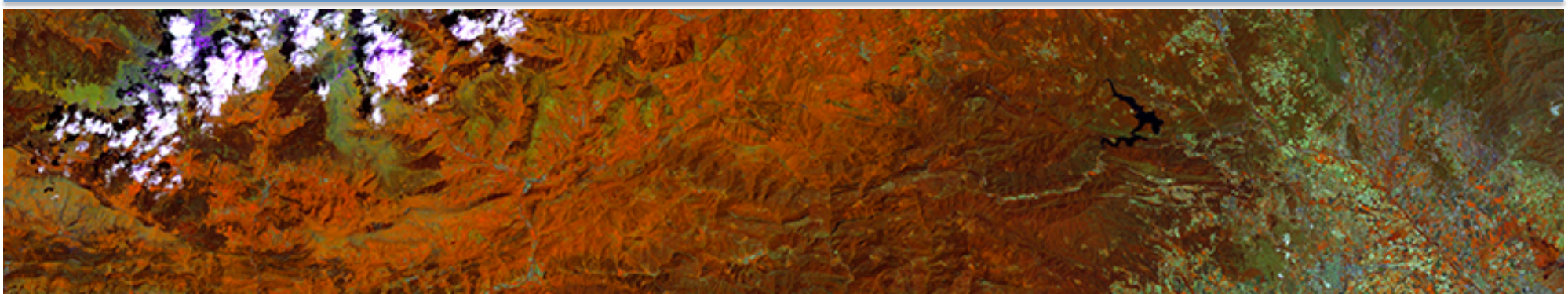




# New and old world perspectives for forest ecology and management in a context of global change

Project coordinator: Lluís Brotons



## NEWFORESTS project

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- **Context of the project.**
- **Maries Curie IRSES.**
- **NEWFORESTS project: background and rationale.**
- **Work-packages and topics.**
- **Challenges and way forward.**



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and management in a context of global change



## What is it? Marie Curie IRSES



*Marie Curie's International Research Staff Exchange Scheme (IRSES) helps research organisations to set up or strengthen long-term cooperation with others, through a coordinated exchange programme for their staff.*

Each staff member from an EU Member State or Associated Country staying in an eligible Third Country, **a monthly allowance to cover mobility costs** (including travel costs) will be paid by IRSES. The seconded staff members must continue to be **paid their salary** and are expected to return to their home organisation after the mobility period. A staff exchange programme can receive IRSES support for a period of 24-48 months. The maximum duration of the individual staff exchanges will be 12 months.

## NEWFORESTS, MARIE CURIE IRSES project.

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- **Aim:** The aim of **NEWFORESTS** is to create a competitive platform at the international level to analyse the responses of forest ecosystems to global changes and integrate current knowledge in sound and innovative forest management and planning approaches.
- Supporting mobility to reinforce long-term scientific cooperation.
- **Exchange of researchers.** 40 months. 2013-2016.
- Total 81 (48/33) staff members with a total 328 (193/136) pm.



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École Pratique  
des Hautes Études



# NEWFORESTS background



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## NEWFORESTS.

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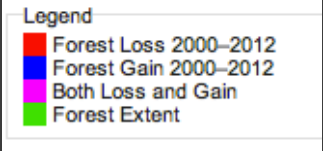
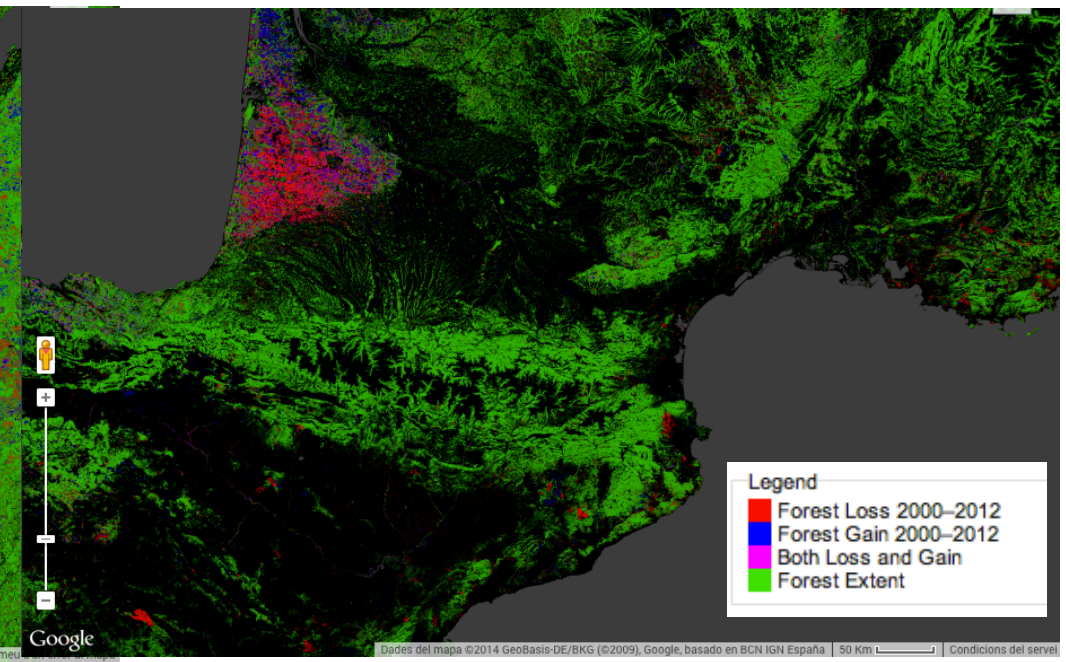
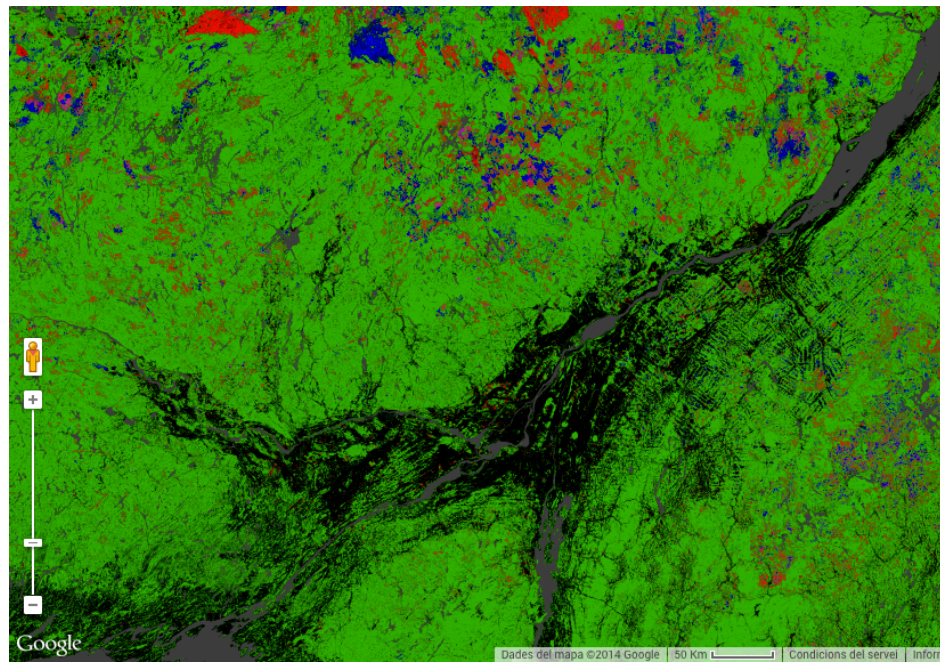
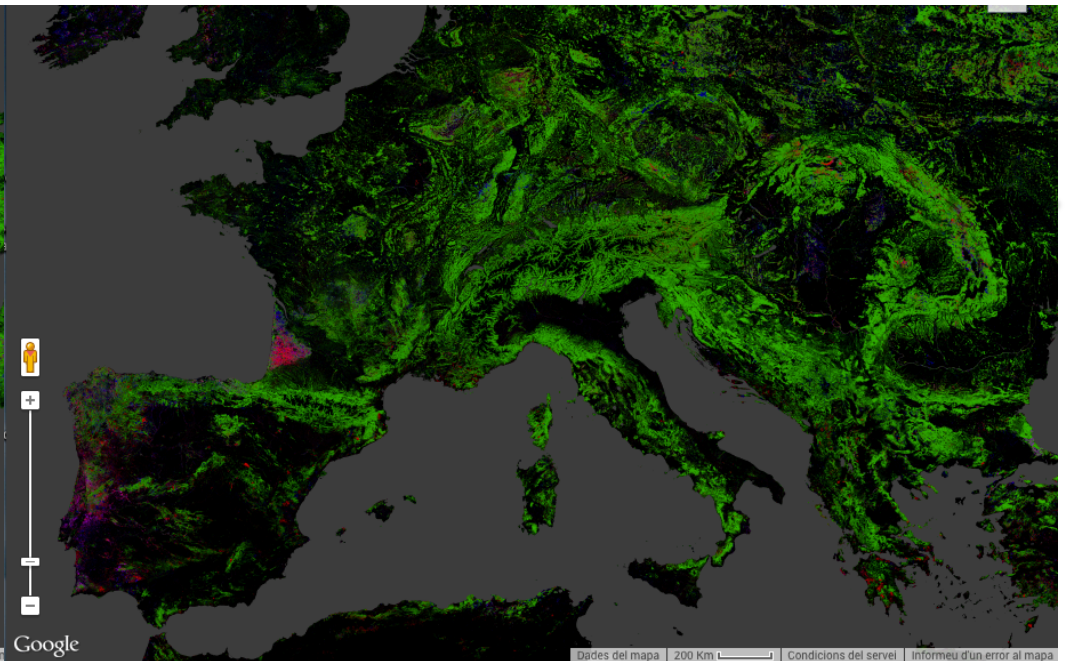
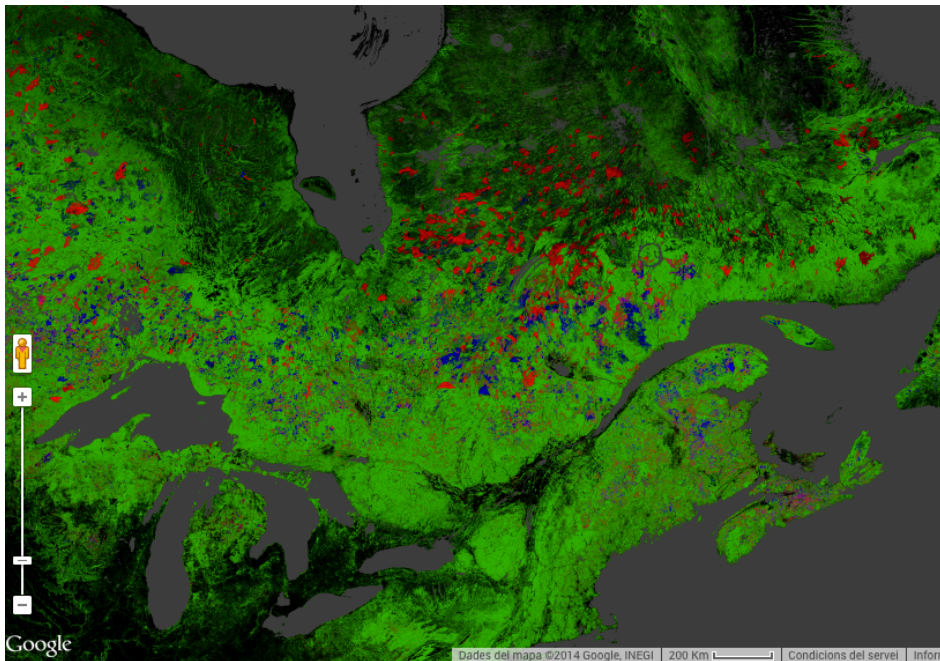
- **Exchange** of ideas and approaches on forest research topics.
- Use of common datasets and models.
- **Applicaton and test of** conceptual models in contrasted situations.
- **Comparative analyses** on new or existing data.
- **Deliverables: articles, workshops, models, common protocols**



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# New and old World perspectives for forest ecology and management in a context of global change











Work package number	1	Start date or starting event:	Month: 4
Work package title	FUNCTIONAL DIVERSITY AND ECOLOGY		
Beneficiary/Participant Organisation short name	CEF (UQAM, leading partner), CTFC, GREAF, CBAE		

- This WP considers both theoretical and practical aspects related to our understanding of **how ecosystem processes** (including carbon, water and nutrient flows) **respond to global change drivers**.
- **Task 1.1.** Developing new diversity plantation experiments.
- **Task 1.2.** Estimation of forest ecosystem carbon pools and fluxes.
- **Task 1.3.** Characterizing the variability in tree functional traits.



Work package number	2	Start date or starting event:	Month: 4
Work package title	BIODIVERSITY DYNAMICS		
Beneficiary/Participant Organisation short name	CEF (UQAT ,leading partner), CTFC, GREAF, CBAE, CEF		

- The research objectives within this package are oriented towards the understanding of the **mechanisms that generate and maintain biodiversity** in forest ecosystems
- **Task 2.1.** Determining the role of landscape structure and succession dynamics on forest biodiversity.
- **Task 2.2.** Create a scientific baseline on the long-term taxonomic diversity.
- **Task 2.3.** Investigate the effects of tree diversity on soil and canopy insect communities in agroforestry.
- **Task 2.4.** Investigate the emergence of novel communities



Work package number	3	Start date or starting event:	Month: 4
Work package title	DISTURBANCE DYNAMICS		
Beneficiary/Participant Organisation short name	CBAE ( <i>leading partner</i> ), CTFC, CREAM, CEF (UQAM)		

- Understanding **natural disturbance dynamics and determining how human-induced changes** are affecting current disturbance is of utmost importance to anticipate future impacts on forests.
- **Task 3.1.** Developing metanalyses of the impact of fires on biodiversity across forest systems.
- **Task 3.2.** Reconstruction of past fire disturbance regimes.
- **Task 3.3.** Climate-induced forest dieback: patterns, causes and resilience.



Work package number	4	Start date or starting event:	Month: 5
Work package title	FOREST COMPLEXITY MODELLING		
Beneficiary/Participant Organisation short name	CTFC (leading partner), CREAM, CBAE, CEF (UQAM)		

- Develop greater **practical expertise and knowledge of complex dynamics** in forest ecosystems; new **methodologies to plan and predict** the impacts of alternative forest management strategies; and **train qualified personnel** to use and improve tools employed in complexity science.
- **Task 4.1.** Modelling of forest spatial dynamics
- **Task 4.2.** Integrated modelling of landscape changes in response to simultaneous global change drivers.
- **Task 4.3.** Improving niche models using plant functional traits.
- **Task 4.4.** Understanding the interaction between the intensity of human-use, disturbance susceptibility and resilience.



Work package number	5	Start date or starting event:	Month: 5
Work package title	FOREST ECOSYSTEM MANAGEMENT		
Beneficiary/Participant Organisation short name	CREAF (leading partner), CTFC, CBAE, CEF (UQAM)		


- Fostering integrative discussions on how to implement various **forest management and silvicultural practices** at different spatial scales in a context of rapid environmental change.
- **Task 5.1.** Application of forest Management strategies and silvicultural practices at the landscape scale.
- **Task 5.2.** Establishment of reference indicators to guide forest management guidelines in future changing conditions.




<b>Work package number</b>	<b>6</b>	<b>Start date or starting event:</b>	<b>Month: 1</b>
<b>Work package title</b>	<b>PROJECT MANAGEMENT</b>		
<b>Beneficiary/Participant Organisation short name</b>	<b>CTFC (leading partner), CREAM, CBAE, CEF (UQAM, UQAT)</b>		



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**FOREST COMPLEXITY MODELLING**

**News**

- Start of the Newforests Project**  
1 October 2013  
The Newforests Project starts and for the next 36 months researchers from Canadian and European institutions will be bringing up a new international platform on forest research.
- Kick-off meeting coming soon**  
8 January 2014-01-10  
For three days (3-5 February 2014) representatives of each partner

**Agenda**

- Project start**  
1 October 2013
- Kick-off meeting of the Newforests Project**  
3-5 February 2014  
UQAM - Montreal, CANADA

**Agenda**

February 2014

Mo	Tu	We	Th	Fr	Sa	Su
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		

**@CEMFORResearch**

**Tweets** Follow

**Carl Sagan** @CarlSaganQuoted 2 Feb  
"In exchange for freedom of inquiry, scientists are obliged to explain their work."  
RT @CEMFORResearch

<http://www.newforests.cat>

**Web manager: Andrea Duane (CTFC)**



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## Challenges NEWFORESTS.

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- **Strengthen already established collaborations within NEWFORESTS.**
- **Develop new collaborations within the topics identified.**
- **Send enough researchers around... and produce visible research outputs...**
- **Develop new approaches combining the visions from the two systems.**
- **FINAL goal: develop an stable, long-term, structured collaboration between forest research in Canada and Europe.**



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**TUESDAY, FEBRUARY 4<sup>th</sup>**

**SCIENTIFIC NEWFORESTS MEETING**

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**MORNING SESSIONS (ROOM PK-3210, UQAM)**

**8:30 – 9:00 “Introduction to the NEWFORESTS project: scientific objectives and exchange plans”.** Speaker: Lluís Brotons, NEWFORESTS project coordinator (CTFC-CREAF researcher).

Presentations by European research institutions

**9:00 - 9:20 “CREAF, Forest ecology research and applications”.** Speaker: Javier Retana, Director of CREAF.

**9:20 - 9:40 “Main tasks and research initiatives of the CREAF in NEWFORESTS”.** Speaker: Enrique Doblas, CREAF researcher.

**9:40 - 10:00 “Paleo-fires and biodiversity in boreal and mountain forests”.** Speaker: Christopher Carcaillet, Coordinator of CBAE.

**10:00 - 10:20 “Fire and vegetation dynamics in boreal forests: processes and integrative proxy-model approaches”.** Speaker: Adam Alí, CBAE researcher.

**10:20 – 10:40 “Understanding the past, assessing the present and inspiring the future of Mediterranean forests”.** Speaker: Lluís Coll, CTFC-CREAF researcher.

**Coffee break**

Presentations by CEF research hubs

**11:00 – 11:20 “Centre for Forest Research: CEF research themes and Biodiversity issues to NEWFORESTS: Faunal responses to habitat fragmentation and structural attributes of boreal forests”.** Speaker: Pierre Drapeau, co-Director of CEF.

**11:20 – 11:40 “Natural disturbances, global changes and forest dynamics of boreal ecosystems”.** Speaker: Dan Kneeshaw, CEF researcher.

**11:40 – 12:00 “UQAT Forest Research Institute: overview of research expertise and contributions to NEWFORESTS”.** Speaker: Louis Imbeau, UQAT researcher.

**Lunch**

**AFTERNOON DISCUSSION SESSIONS**

**13:00 – 15:00 Break-up groups according to project WP.** Open discussions to identify, establish and outline ground for potential collaboration within the different topics.

**Coffee break**

