

CURRICULUM VITAE

September 2014

Lluís Coll Mir

1. General

- Surname and name: COLL, Lluís
- Working place: Forest Sciences Center of Catalonia (CTFC)
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2. Degrees

- PhD in Forest Ecology. Blaise Pascal University (Clermont-Fd, France). 2003.
- MSc in Forest Biology –Henri Poincaré University (Nancy, France). 2000.
- BSc in Forestry. University of Lleida (Lleida, Spain). 1999.

3. Position

- Researcher (Ramon y Cajal Fellow) at the Forest Sciences Centre of Catalonia, Spain (2009 – present).
- Associate Researcher at the Centre for Ecological Research and Forestry Applications (CREAF), Spain (2012 – present)
- Researcher (Juan de la Cierva Fellow) at the Forest Sciences Centre of Catalonia, Spain (2006 – 2008).
- Postdoctoral researcher in the University of Quebec at Montreal, Canada (2004 – 2005).

4. Project grants

4.1. Grants in national and international competitive calls

14. GESCLIMFOR: Pasado, presente y futuro de los bosques de montaña: seguimiento y modelización del cambio climático y de la gestión forestal (*Past, present and future of mountain forests: modelling and monitoring climate change and forest management*). 2014-2016. Funded by: Ministerio de Medio Ambiente y Medio Rural y Marino (Organismo Autónomo Parques Nacionales). Main researcher: Lluís Coll (CTFC). Amount: 23.345 €
13. NEWFOREST: New and old world perspectives for forest ecology and management in a context of global change (NEWFOREST). 2013-2015. Funded by: European Commission. FP7 (Marie Curie Actions – IRSES). Main researcher: Lluís Brotons (CTFC). Amount: 405.000 € (CTFC: 163.800 €)
12. RESILFOR: Forest resilience in a changing context: the role of stand attributes, disturbance characteristics and management techniques. 2013. Funded by: Ministerio de economía y competitividad. AGL2012-40039-C02-01. Main researcher: Lluís Coll (CTFC). Amount: 80.000 €

11. FORCLIMADAPT: Adaptation of Mediterranean woodlands to climate change effects. 2010-2013. Funded by: EU – Med Program. Main researcher: Paola Conti (Vésuve Park). Amount: 1.744.500 € (CTFC: 200.000 €).
10. FCM: Training program in Forest Complexity Modeling. 2011-2015. Funded by: Natural Sciences and Engineering Research Council of Canada. Main researcher: Christian Messier (UQAM). Amount: 150.000 \$CAN (2011).
09. TREBIO: El papel de las trayectorias históricas en los cambios de usos de suelo y sobre la biodiversidad en el Parque Nacional d'Aigüestortes i Llac de Sant Maurici (*Land-use changes and biodiversity in the Aigüestortes i Llac de Sant Maurici Natural Park*). 2011-2013. Funded by: Ministerio de Medio Ambiente y Medio Rural y Marino (200/2010). Main researcher: Lluís Brotons (CTFC). Amount: 68.310 €
08. Estudio de las poblaciones de tejo en la Sierra de Llaberia. Directrices para la conservación, gestión y análisis de su evolución (*Yew communities in the Sierra de Llaberia. Management orientations and conservation directives*). 2010. Funded by: Fundación Biodiversidad. Main researcher: Jordi Camprodón / Lluís Coll (CTFC). Amount: 35.357 €
07. DINAMIX: Dinámica de masas mixtas de coníferas: análisis de los principales procesos demográficos en un contexto de cambio global (*Conifer mixed-stand dynamics in the Pyrenees: analyzing the main demographic processes in a global change context*). 2010-2012. Funded by: Ministerio de Educación y Ciencia. AGL2009-13270-C02-01. Main researcher: Lluís Coll (CTFC). Amount: 60.000 €
06. UNCI'PLUS: Gestión multifuncional de las poblaciones de pino negro en el Pirineo catalán (*UNCI'PLUS: Multifunctional management of mountain pine forests in the Catalan Pyrenees*). 2009-2012. Funded by: Interreg IV-A (UE). Main researcher (Spain): Lluís Coll (CTFC). Amount: 612.017 € (CTFC: 140.507 €).
05. Los montes españoles y el cambio global: amenazas y oportunidades (MONTES) (*Spanish woodlands and global change: threats and opportunities*). 2009-2012. Funded by: Ministerio de Educación y Ciencia. CONSOLIDER CSD2008-00040. Main researcher: Javier Retana (CREAF). Amount: 4.000.000 € (CTFC: 250.000 €).
04. Restauración y gestión forestal (*Forest management and restoration*). 2008-2011. Funded by: Ministerio de Ciencia e Innovación (Programa de Proyectos Singulares y Estratégicos. PSE-310000-2008-1. Main researcher: Ricardo Alía (INIA). Amount: 209.809 €
03. Técnicas de producción y gestión de pino piñonero (*Pinus pinea*) para la producción precoz de piña: plantaciones injertadas como alternativa para la restauración de áreas degradadas y la generación de ingresos en comunidades rurales de Túnez (*Managing Pinus pinea for pine nut production as an alternative to restore degraded rural areas in Tunis*). 2008-2011. Funded by: Programa de Cooperación Interuniversitaria e Investigación Científica entre España y Argelia, Egipto, Jordania, Marruecos y Túnez (PCI-Mediterráneo). C/9165/07. Main researcher: Míriam Piqué (CTFC). Amount: 76.455 €

02. Cuantificación, caracterización y modelización del carbono orgánico en ecosistemas agro-silvo-pastorales a lo largo de gradientes climáticos y de uso: Aproximación multiescalar (CARBOCLUS) (*Carbon and nitrogen dynamics in agro-silvo-pastoral ecosystems along a climatic and land-use gradient*). 2007-2009. Funded by: Ministerio de Educación y Ciencia (Programa Nacional de Recursos y Tecnologías Agroalimentarias). SUM2006-0002-C02-01. Main researcher: M.T. Sebastià (CTFC). Amount: 124.412 €
01. Factores climáticos y de crecimiento que determinan el secuestro de carbono en la carrasca (*Quercus ilex*) y el quejigo (*Quercus faginea*) en condiciones mediterráneas (*Effect of growth and climatic factors in carbon sequestration by Quercus ilex subsp. ballota and Quercus faginea in Mediterranean conditions*). 2007-2009. Funded by: Ministerio de Educación y Ciencia (Programa Nacional de Recursos y Tecnologías Agroalimentarias). SUM2006-00025-00. Main researcher: Melchor Maestro (IPE-CSIC). Amount: 107.142 €

4.2. R+D contracts with the private and the public sector

04. Las perturbaciones inducidas por los temporales en los bosques de Cataluña: evaluación de los daños (*Evaluating recent wind and snow damages in Catalanian forests and associated-management actions*). 2011. Funded by: Departament d'Agricultura, Ramaderia, Pesca, Alimentació i Medi Natural (Catalan government). Main researcher: Lluís Coll (CTFC). Amount: 21.318 €
03. Asesoramiento científico-técnico para el diseño y establecimiento de una red experimental de bosquetes en masas irregulares de pino silvestre (*Establishment of a permanent network of monitoring plots in uneven-aged Pinus sylvestris stands subjected to different gap regeneration treatments*). Funded by: Centre de la Propietat Forestal. Main researcher: Alvaro Aunós (UdL). Amount: 9.000 €
02. Estudio del efecto de la estructura y la conformación del árbol en la susceptibilidad a los efectos del viento y la nieve de los bosques de pino negro y abeto del Pirineo oriental (*Analyzing the effect of stand structure in wind and snow damage in conifer mountain forests in the Eastern Pyrenees*). 2008. Funded by: Departament de Medi Ambient i Habitatge (Catalan government). Main researcher: Lluís Coll (CTFC). Amount: 27.827 €
01. A preliminary guide for Mountain pine (*Pinus uncinata*) management in the Pyrenees. 2007. Funded by: Departament de Medi Ambient i Habitatge (Catalan government). Main researcher: Lluís Coll (CTFC). Amount: 39.982 €

5. Publications

5.1. SCI-journals

34. Blázquez-Casado A., González-Olabarría J.R., Martín-Alcón S., Cabré M., Just A., **Coll L.** 2014. Assessing post-storm forest dynamics in the Pyrenees using high resolution LIDAR data and aerial photographs. Submitted.

33. Martín-Alcón S., **Coll L.**, De Cáceres M., Cabré M., Just A., González-Olabarría J.R. 2014. Combining aerial LiDAR and multi-spectral imagery to assess post-fire regeneration types in a Mediterranean forest. Submitted.
32. Ameztegui A., **Coll L.**, Messier C. 2014. Modeling the role of climate changes in tree demography and forest dynamics: the case of montane-subalpine Pyrenean ecotones. Submitted.
31. González-Olabarría J.R., Mola-Yudego B., **Coll L.** 2014. Different factors for different causes: analysis of the spatial aggregation of fire ignitions in Catalonia (Spain). Submitted.
30. Benavides R., Escudero A., **Coll L.**, Ferrandis P., Gouriveau F., Hódar J., Ogaya R., Rabasa S., Granda E., Santamaría B., Martínez-Vilalta J., Zamora R., Espelta J., Peñuelas J., Valladares F. 2014. Generalized early-recruitment demographic compensation challenges global warming impacts on Mediterranean mountain trees. Submitted.
29. González de Andrés E., Camarero J.J., Martínez I., **Coll L.** 2014. Uncoupled spatiotemporal patterns of seed dispersal and regeneration in Pyrenean silver fir populations. *Forest Ecology and Management* 319: 18-28
28. Filotas E., Parrott L., Burton P.J., Chazdon R.L., Coates D.K., **Coll L.**, Haeussler S., Martin K., Nocentini S., Puettmann K.J., Putz F.E., Simard S.W., Messier C. 2014. Viewing Forests through the Lens of Complex Systems Science. *Ecosphere* 5:art1 [dx.doi.org/10.1890/ES13-00182.1](https://doi.org/10.1890/ES13-00182.1)
27. Ameztegui, A., **Coll L.** 2013. Unraveling the role of light and biotic interactions on seedling performance of four Pyrenean species along environmental gradients. *Forest Ecology and Management* 303: 25-34.
26. Balandier P., Marquer A., Casella E., Kiewitt A., **Coll L.**, Wehrle L., Harmer R. 2013. Architecture, cover and light interception by bramble (*Rubus fruticosus*), a common understorey weed in temperate forests. *Forestry* 86(1): 39-46.
25. **Coll L.**, Camarero J.J., Martínez de Aragón, J. 2012. Fine roots seasonal dynamics, plasticity and mycorrhization in two coexisting Mediterranean oaks with contrasting aboveground phenology. *Ecoscience* 19(3): 238-245.
24. Puerta C., Espelta J., Sánchez-Humanes B., Rodrigo A., **Coll L.**, Brotons L. 2012. History matters: previous land use changes determine post-fire vegetation recovery in forested Mediterranean landscapes. *Forest Ecology and Management* 279: 121-127.
23. Ameztegui A., **Coll L.**, Benavides R., Valladares F., Paquette A. 2012. Understorey light predictions in mixed conifer forests: role of aspect-induced variation in crown geometry and openness. *Forest Ecology and Management* 276: 52-61.
22. Martín-Alcón S., **Coll L.**, Aunós A. 2012. A broad-scale analysis of the main factors determining the current structure and understorey composition of a sub-alpine (*Pinus uncinata* Ram.) forest. *Forestry* 85(2): 225-236.
21. Puerta-Piñero C., Brotons L., **Coll L.**, González-Olabarría J.R. 2012. Valuing acorn dispersal and resprouting capacity ecological functions to ensure

- Mediterranean forest resilience after fire. *European Journal of Forest Research* 131: 835-844.
20. Ameztegui A., **Coll L.** 2011. Tree dynamics and coexistence in the montane-subalpine ecotone: the role of different light-induced strategies. *Journal of Vegetation Science* 29(6): 1049-1061.
 19. **Coll L.**, Schneider R., Berninger F., Domenicano S., Messier C. 2011. Quantifying the effect of nitrogen induced physiological and structural changes on poplar growth using a carbon-balance model. *Tree Physiology* 31: 381-390.
 18. Domenicano S., **Coll L.**, Messier C., Berninger F. 2011. Nitrogen forms affect root structure and water uptake in the hybrid poplar. *New Forests* 42(3): 347-362.
 17. Ammer C., Balandier P., Scott-Bentsen N., **Coll L.**, Löf M. 2011. Forest vegetation management under debate: an introduction. *European Journal of Forest Research* 130: 1-5.
 16. **Coll L.**, González-Olabarria J.R., Pukkala T., Messier C. 2011. Predicting understory maximum shrubs cover using altitude and overstory basal area in different Mediterranean forest. *European Journal of Forest Research* 130: 55-65.
 15. Martín-Alcon S., González-Olabarria J.R., **Coll L.** 2010. Stand attributes and location define wind and snow damage in conifer mountain forests in the Eastern Pyrenees. *Silva Fennica* 44(3): 399-410.
 14. Ameztegui A., Brotons L, **Coll L.** 2010. Land-use changes as major drivers of Mountain pine (*Pinus uncinata* Ram.) expansion in the Pyrenees. *Global Ecology and Biogeography* 19: 632-641.
 13. Messier C., **Coll L.**, Poitras-Larivière A., Bélanger N., Brisson J. 2009. Resource and non-resource root competition effects of grasses on trees of different successional status. *Journal of Ecology* 97(3): 548-554.
 12. **Coll L.**, Potvin C., Messier C., Delagrangé S. 2008. Root architecture and allocation patterns of eight native tropical species with different successional status used in open-grown mixed plantations in Panama. *Trees* 22: 585-596.
 11. Delagrangé S., Potvin C., Messier C., **Coll L.** 2008. Linking multiple-level tree traits with biomass accumulation in native tree species used for reforestation in Panama. *Trees* 22: 337-349.
 10. Brooker R.W., Maestre F.T., Callaway R.M., Lortie C.L., Cavieres L.A., Kunstler G., Liancourt P., Tielbörger K., Travis J.M.J., Anhelme F., Armas C., **Coll L.**, Corcket E., Delzon S., Forey E., Kikvidze Z., Olofsson J., Pugnaire F., Quiroz Q.L., Saccone P., Schifffers K., Seifan M., Touzard B., Michalet R. 2008. Facilitation in plant communities: the past, the present and the future. *Journal of Ecology* 96: 18-34.
 09. Balandier P., Sinoquet H., Frak E., Giuliani R., Vandame M., **Coll L.**, Prévosto B., Curt T. 2007. Light use efficiency, carbon gain and growth of beech seedling (*Fagus sylvatica* L.) planted under Scots pine shelterwood. *Tree Physiology* 27: 1073-1082.
 08. **Coll L.**, Messier C., Delagrangé S., Berninger F. 2007. Growth, allocation and leaf gas exchanges of hybrid poplar plants in their establishment phase on

previously forested sites: effect of different vegetation management techniques. *Annals of Forest Science* 64: 275-285.

07. Picon-Cochard C., **Coll L.**, Balandier P. 2006. The role of below-ground competition during early stages of secondary succession: the case of 3-years-old Scots pine (*Pinus sylvestris* L.) seedlings in an abandoned grassland. *Oecologia* 148: 373-383.
06. Berninger F., **Coll L.**, Vanninen P., Mäkelä A., Palmroth S., Nikinmaa E. 2005. Effects of tree size and position on pipe model ratios, Scots pine. *Canadian Journal of Forest Research* 35(6): 1294-1304.
05. Curt T., **Coll L.**, Prévosto B., Balandier P., Kunstler G. 2005. Plasticity in growth, biomass allocation and root morphology in beech seedlings as induced by irradiance and herbaceous competition. *Annals of Forest Science* 62: 51-60.
04. **Coll L.**, Balandier P., Picon-Cochard C. 2004. Morphological and physiological responses of beech (*Fagus sylvatica* L.) seedlings to grass-induced belowground competition. *Tree Physiology* 24: 45-54.
03. Cochard H., Nardini A., **Coll L.** 2004. Hydraulic architecture of leaf blades: where is the main resistance? *Plant Cell and Environment* 27: 1257-1267.
02. **Coll L.**, Balandier P., Picon-Cochard C., Prévosto B., Curt T. 2003. Competition for water between beech seedlings and surrounding vegetation in different light and vegetation composition conditions. *Annals of Forest Science* 60: 593-600.
01. Cochard H., **Coll L.**, Le Roux X., Améglio T. 2002. Unraveling the effects of plant hydraulics on stomatal closure during water stress in walnut. *Plant Physiology* 128: 282-290.

5.2. Books/Book-chapters

04. Beltrán M., Piqué M., Martín-Alcón S., **Coll L.**, Cervera T. 2014. Models de gestió per als boscos de pi negre (*Pinus uncinata* Ram.). Generalitat de Catalunya. Centre de la Proprietat Forestal. Barcelona, Spain, 25 p.
03. Nocentini S., **Coll L.** 2013. Mediterranean forests: human use and complex adaptive systems In: Messier C., Puettmann K.J. & Coates K.D. (Eds.) Managing Forests as complex adaptive systems. Building resilience to the challenge of global change. The Earthscan Forest Library (series). Routledge. NY, USA, pp: 214-243.
02. **Coll L.**, Martin S., Nouguier S., Ladier J., Decoux J.L., Valadon A., Cantegrel R., Sivade L. 2013. Guía de selvicultura del pino negro en el Pirineo. Proyecto POCTEFA n° EFA82/08 UNCI'PLUS. ISBN: 978-2-9542347-1-7. Solsona, 188 p.
01. **Coll L.**, Navarro-Cerrillo R., Vericat P. 2009. A Review of Forest Vegetation Management Practices in Spain. In: Forest Vegetation Management Practices in Europe, McCarty N., Willoughby I., Balandier P (Eds). COST office, Brussels, pp: 131-138.

5.3. Other scientific publications

14. Piqué M., Beltrán M., Martín-Alcón S., **Coll L.** 2014. Des mesures de gestion pour adapter les espaces forestiers méditerranéens aux effets des changements climatiques. *Forêt Méditerranéenne*. In press.
13. **Coll L.** 2014. Gestión selvícola y regeneración en un futuro incierto: marco teórico y principios generales. *Cuadernos de la Sociedad Española de Ciencias Forestales*, 40. In press.
12. Martín S., Montero R., **Coll L.**, Aunós A. 2014. Propuesta metodológica para el establecimiento de una red experimental de estructuras irregulares por bosquetes en masas de pino silvestre de Cataluña. *Cuadernos de la Sociedad Española de Ciencias Forestales*, 40. In press.
11. Piqué M., Ammari Y., Solano D., Aletá N., Bono D., Sghaier T., Garchi S., Coello J., **Coll L.**, Mutke S. 2013. Production and management of Stone pine (*Pinus pinea*) for early nut production: grafted plantations as an alternative for restoring degraded areas and generating income in rural communities of Tunisia. In: *Options Méditerranéennes, Series A: Mediterranean Seminars*, 105: 43-47.
10. Martín S., Mariton B., **Coll L.** 2010. Les tipologies silvícoles com a eina per a la gestió i l'ordenació dels boscos de pi negre. In: XXVII Jornades Tècniques Silvícoles Emili Garolera, Tusell J.M., Vericat P (Eds.). Consorci Forestal de Catalunya. Santa Coloma de Farners, pp: 63-69. ISBN: 978-84-614-0313-4.
09. Ameztegui A., **Coll L.** 2010. Els canvis d'usos del sòl en i l'expansió del pi negre (*Pinus uncinata* Ram.) al Pirineu català (1956-2006). *Catalunya Forestal* 100: 15-17.
08. **Coll L.** 2007. Light interception by bramble and consequences for natural regeneration in forest. Short-term Scientific Report (COST E47). 8 p.
07. Fortier J., Messier C., **Coll L.** 2005. La problématique de l'utilisation des herbicides en foresterie: le cas du Québec. *Vertigo* 6 (2): 164-182.
06. **Coll L.** 2005. Effet de la méthode de traitement de la végétation compétitrice sur le développement du peuplier hybride dans le sud-est du Québec. *INFO-RLQ* 2:1-3
05. Messier C., **Coll L.**, Burgess M., Brown M., Delage M., Filiatrault P., Gagné P., Gaussiran S. 2004. A preliminary review of intensive forestry practices and policies for the main forestry provinces in Canada. Report for the Sustainable Forest Management Network (SFMn), 27 p + App.
04. Balandier P., **Coll L.**, Curt T., Prévosto B., Marquier A., Landré F., Jovie R. 2003. Croissance et développement du hêtre dans les espaces en cours de colonisation par les ligneux. Rapport d'études pour le ministère de la recherche (DRRT), 15 p.
03. **Coll L.** 2003. Compétition pour les ressources entre de jeunes hêtres (*Fagus sylvatica* L.) et la végétation dans des milieux en transition. PhD thesis. Blaise Pascal University, Clermont-Ferrand (France), 148 p.
02. Curt T., Balandier P., Cochard C., **Coll L.**, Debain S., Frak E., Lepart J., Prévosto B., Sinoquet H. 2002. Gestion durable de la végétation dans les espaces de

moyenne montagne en cours de colonisation par les ligneux. Rapport d'études. CEMAGREF-INRA-CNRS, 66 p.

01. **Coll L.** 2000. Mise en évidence expérimentale d'un contrôle stomatique de l'embolie chez le noyer hybride (*Juglans regia* x *Juglans nigra*). MSc thesis. Henri Poincaré University, Nancy (France), 27 p.

6. Communications to congresses and research workshops

6.1. International

19. **Coll L.** 2014. Les forêts de la Catalogne dans un contexte de changements globaux : passé, présent et futur. In: Conférence du Centre d'Etude de la Forêt. 27 February, Québec (Canada). Invited.
18. Messier C., **Coll L.** 2013. Managing mediterranean forests as complex adaptive systems (CAS): from theory to practice. In: EFIMED annual scientific seminar, 5 September, Barcelona (Spain). Invited
17. **Coll L.**, Ameztegui A. 2013. Simulating the dynamics of the Pyrenean montane-subalpine ecotone in a climate change context with the model SORTIE-ND. In: Conference on Climate Change and Tree Responses in Central European Forests. 1-5 September, Zurich (Switzerland).
16. Ameztegui A., **Coll L.** 2011. Tree dynamics and coexistence in the montane-subalpine ecotone. In: 12th European Ecological Federation Congress. 25-29 September, Ávila (Spain).
15. Martín Alcón S., **Coll L.**, Aunós A. 2011. Factors determining the current structure and understory composition of Pyrenean mountain pine forests. A broad-scale analysis. In: Environmental and Pyrenees International Conference (EPIC). 19-22 October, Pamplona (Spain).
14. Ameztegui A., **Coll L.** 2011. Seedling performance and adaptation to contrasting environmental conditions: a case study in the Eastern Pyrenees. In: IUFRO Conference Restoring Forests: Advances in techniques and theory. 27-29 September, Madrid (Spain).
13. Ameztegui A., **Coll L.** 2011. Dynamics and coexistence in the montane-subalpine ecotone: the role of different light-induced strategies. In: 4th International Conference on Mediterranean Pines. 6-10 June, Avignon (France).
12. **Coll L.** 2011. La forêt de montagne Méditerranéenne face aux changements globaux: une approche multi-échelle. In: Conférence du Centre d'Etude de la Forêt. 25 February, Quebec (Canada). Invited.
11. Martín S., González-Olabarria J.R., **Coll L.** 2010. Stand attributes and location define wind and snow damage in conifer mountain forests in the Eastern Pyrenees. In: International Conference Adaptation of Trees and Stands to Forest Disturbances: Management Considerations. 18-21 October, Riga (Latvia).
10. Valladares F., **Coll L.** 2009. The role of understory vegetation in Mediterranean forestry in the view of global change. In: International COST Conference in Forest

Vegetation Management - Towards Environmental Sustainability. 4-8 May, Vejle (Denmark).

09. **Coll L.**, González-Olabarria J.R., Pukkala T., Messier C. 2009. Analysing shrub control patterns in Mediterranean forests by basic site and stand structural parameters. In: International COST Conference in Forest Vegetation Management - Towards Environmental Sustainability. 4-8 May, Vejle (Denmark).
08. **Coll L.** 2006. Morphological and physiological responses of tree seedlings to competition. In: ESF-Workshop: Positive interactions, biodiversity and invisibility in a changing world. 3-7 September, Arcachon (France). Invited.
07. **Coll L.**, Messier C., Delagrange S., Berninger F. 2005. Effect of different vegetation control techniques on hybrid poplar development in plantations established on previously logged forest sites. In: 5th International Conference on Forest Vegetation Management, IUFRO, Oregon State University, 20 – 24 June, Corvallis, Oregon (USA).
06. **Coll L.**, Messier C., Delagrange S., Berninger F. 2005. Comparing different weed control techniques on hybrid poplar plantations in forested sites. In: 5th North American Forest Ecology Workshop, UQAM, 12-16 June, Gatineau (Canada).
05. Balandier P., **Coll L.**, Prévosto B., Curt T., Picon-Cochard C., Sinoquet H. 2004. Beech seedlings growth in the understorey of Scots pine stands as affected by competition for light, water and nutrients with the surrounding vegetation. In: International Symposium on Introduction of Broadleaf species for Sustainable Forest Management, 24 - 26 November, Reisenburg (Germany).
04. Balandier, P., **Coll L.**, Curt T., Picon-Cochard C. 2003. Nitrogen content, allocation and root morphology of beech seedlings in response to competition by herbaceous species. In: P. Grierson, L. Cullen, K. Bowler, J. Edwards, G. Duncan, T. Bleby (Eds.) Third International Symposium on Dynamics of Physiological Processes in Woody Roots; University of Western Australia, 29 September - 3 October, Perth (Australia), p .54.
03. **Coll L.**, Balandier P., Picon-Cochard C., Prévosto B., Curt T. 2003. Beech seedling development under Scots pine stands: management consequences of the competitive interactions between seedlings, ground vegetation and Scots pine stand. In: International Conference on Uneven-aged Forest Management: Alternative Forms, Practices, and Constraints; IUFRO, METLA, SLU, University of Helsinki, 8-17 June, Espoo (Finland), 1 p.
02. **Coll L.**, Balandier P., Picon-Cochard C., Prévosto B., Curt T. 2002. Competition for water and light between beech seedlings and the surrounding vegetation in abandoned meadows colonised by woody species. In: 4th International Conference on Forest Vegetation Management; IUFRO, INRA, CEMAGREF, 17-21 June, Nancy (France).
01. Berninger F., **Coll L.** 2001. The effects of tree size and stand density on pipe model relations in Scots pine. In: Workshop Water transport in woody plants and linkages to plant structure and productivity'; U. of Helsinki, 14-16 March, Helsinki (Finland).

6.2. National

16. Benavides R., Escudero A., García-Rabasa S., Granda E., **Coll L.**, Ferrandis P., Gouriveau F., Hódar J.A., Rincón A., Martínez-Vilalta J., Zamora R., Valladares F. 2013. Demografía y crecimiento primario durante la regeneración de tres especies de pino a lo largo de gradientes climáticos. In: 6º Congreso Forestal Español. 10-14 June, Vitoria (Spain).
15. Ameztegui A., **Coll L.** 2013. Simulación de la dinámica de masas mixtas de coníferas del Pirineo oriental bajo diferentes escenarios climáticos. In: 6º Congreso Forestal Español. 10-14 June, Vitoria (Spain).
14. Ameztegui A., **Coll L.** 2013. El papel del ganado en el reclutamiento de juveniles en bosques de montaña del Pirineo oriental: 4 años de seguimiento de una plantación experimental. In: 6º Congreso Forestal Español. 10-14 June, Vitoria (Spain).
13. Martín-Alcón S., **Coll L.**, Aunós A. 2013. Análisis estructural de los bosques pirenaicos de pino negro: tipologías estructurales y factores determinantes. In: 6º Congreso Forestal Español. 10-14 June, Vitoria (Spain).
12. Martín-Alcón S., **Coll L.** 2013. Plantaciones de enriquecimiento en pinares puros submediterráneos: resultados preliminares en un estudio sobre la plasticidad ecológica de las principales especies de frondosas rebrotadoras acompañantes. In: 6º Congreso Forestal Español. 10-14 June, Vitoria (Spain).
11. Benavides, R., Escudero, A., Rabasa, S.G., Granda, E., **Coll L.**, Ferrandis, P., Gouriveau, F., Hódar, J.A., Rincón, A., Ogaya, R., Martínez-Vilalta, J., Zamora, R., Espelta, J., Peñuelas, J., Valladares, F. 2013. Efectos del clima y factores locales sobre la regeneración de cinco especies arbóreas en montañas mediterráneas. In: XI Congreso Nacional de la Asociación Española de Ecología Terrestre, 6-10 May, Pamplona (Spain).
10. Pla M., Ameztegui A., Brotons L., **Coll L.** 2012. Procesos de colonización y densificación de zonas arbóreas y matorrales como indicador del cambio global en el Parque Nacional de Aigüestortes y Estany de Sant Maurici. In: XV Congreso Nacional de Tecnologías de la Información Geográfica, 19-21 September, Madrid (Spain).
09. **Coll L.**, González-Olabarria J.R. 2009. Determinación y análisis de las relaciones existentes entre el desarrollo del sotobosque y variables dasométricas y ambientales en los sistemas forestales de Cataluña. In: 5º Congreso Forestal Español. 21-25 September, Ávila (Spain).
08. Améztegui A., **Coll L.** 2009. Colonización y densificación de pino negro en el Pirineo catalán. In: 5º Congreso Forestal Español. 21-25 September, Ávila (Spain).
07. Martín-Alcón S., González-Olabarria J.R., **Coll L.** 2009. Caracterización de los daños causados por la acción del viento y la nieve en los bosques de coníferas de montaña de Cataluña. In: 5º Congreso Forestal Español. 21-25 September, Ávila (Spain).

06. **Coll L.** 2008. Les interaccions vegetals en milieu mediterraneu dans un contexte de changement global. In: Seminaire de l'Axe Ecologie de la Universite de Quebec a Montreal, UQAM, 19 November, Montreal (Canada). Invited.
05. Vericat P., **Coll L.**, Domínguez G., Piqué M. 2008. Silvicultura i canvi climàtic. In: Jornada sobre el canvi climàtic i l'activitat agrària, Centre de Formació i Estudis Agrorurals, 28 October, Reus (Spain).
04. **Coll L.** 2007. Un menú de estrategias radicales para la captura de los recursos subterráneos: análisis por grupos funcionales. In: Seminario: Avances recientes en la ecología funcional de las plantas: aplicación en la gestión de los ecosistemas, Centre Tecnològic Forestal de Catalunya, 3 August, Solsona (Spain).
03. Domenicano S., Berninger F., Messier C., **Coll L.** 2006. Ammonium and nitrate fertilisation of hybrid poplars: effect on root architecture and sap flow. In: 20ième édition du CONFOR, 2-5 February, Duparquet (Canada).
02. **Coll L.** 2005. Végétation control techniques in hybrid poplar plantations established in previously forested sites. In: Eastern Canada Végétation Management Associations Conference, 4-6 October, Kingston (Canada). Invited.
01. **Coll L.**, Messier C., Delagrange S., Berninger F. 2005. Étude comparative de différentes techniques d'entretien de la végétation compétitrice dans des plantations de peuplier hybride en milieu forestier. In: 73ème Congrès de l'ACFAS, UQAC, 9-11 May, Chicoutimi (Canada).

7. Management activities

7.1. Research responsibilities:

- Head of the Forest Functioning and Dynamics Unit at the Forest Sciences Centre of Catalonia (CTFC). 2007-present.
- Co-responsible of the group "Gestió Multifuncional d'Ecosistemes Forestals Mediterranis" recognized as "Consolidate Research Group" by the Generalitat de Catalunya (Catalan government)
- Member of the Management Committee for Spain in the COST actions: FP1206 (European mixed forests. Integrating Scientific Knowledge in Sustainable Forest Management; 2012-present) and E-47 (European Network for Forest Vegetation Management: Towards Environmental Sustainability; 2006-2009).

7.2. Organisation of conferences and research workshops:

- Chair of the 5th International Conference on Mediterranean Pines (Medpine5). 22-26 September 2014. Solsona (Spain)
- Organizer of the training school (COST Action FP-1206): "Studying mixed-forest dynamics and functioning: experimental and monitoring approaches". 28-31 October 2013. Solsona (Spain).

- Organizer of the seminar: “Disturbance and resilience in Mediterranean forest ecosystems”. 8 June 2012. Solsona (Spain).
- Member of the scientific committee of the IUFRO Conference: Restoring Forests: Advances in techniques and theory. 27-29 September 2011, Madrid (Spain).
- Member of the scientific committee of the International COST Conference in Forest Vegetation Management - Towards Environmental Sustainability. 4-8 May 2009. Vejle (Denmark).
- Organizer of the workshop: “Avances recientes en la ecología funcional de las plantas: aplicación en la gestión de los ecosistemas”. 3 August 2007. Solsona (Spain).

8. Teaching experiences

- Invited lecturer of the course ‘Trends of the forest sector in a global change context’ of the master in Forestry organized by the University of Lleida (Spain). Lecture: ‘Ecological responses of vegetation in a global change context’. Total 4 hours. 2008-2013.
- Main lecturer of the course *Functional ecology of forest ecosystems* of the Master in Forestry funded by the AECID (Agencia Española de Cooperación Internacional para el Desarrollo) and organised by the University of Lleida (Spain) and the University Gabriel Rene Moreno of Santa Cruz (Bolivia). Total: 25 hours. 2009.
- Main lecturer of the course *Forest Planning*. School of agricultural and forestry engineering of Lleida. University of Lleida (Spain). Total: 45 hours (1 season). 2009.
- Co-lecturer of the course ‘Tropical Ecology’ of the master in Environmental Sciences of the University of Québec at Montréal (UQAM), Canada. Total: 18 hours. 2004.
- Invited lecturer of the course ‘Forest Ecology’ in the master in Biology Sciences of the University of Québec at Montréal (UQAM), Canada. Total: 4 hours. 2004 and 2005.

9. Other research activities

9.1. Supervision of research fellows:

PhD thesis

- Aitor Ameztegui González. Forest dynamics at the montane-subalpine ecotone in the Eastern Pyrenees. University of Lleida (Spain). Presented in July 2013. Qualification: Excellent Cum Laude.
- Santiago Martín Alcón. Mediterranean forest resilience in a changing context; the role of stand structure and disturbance type. University of Lleida (Spain) (2011-present).

- Martina Sánchez Pinillos. The role of response-type diversity on post-disturbance dynamics. University of Lleida (Spain) (2014-present).

Msc thesis

- Martina Sánchez Pinillos. Assessing forest response-type diversity to natural disturbances in peninsular Spain and Balearic Islands. Polytechnic University of Madrid (Spain). 2014.
- Serajis Salekin. Natural diversification of black pine forests in the Prepyrenean mountains (NE Spain): the role of stand structure and canopy attributes. University of Lleida (Spain). 2014
- Jhonny Lino Pizza Tito. Composición florística y estructura de un bosque tropical subhúmedo. University Gabriel René-Moreno (Bolivia) / University of Lleida (Spain). 2010
- Santiago Martín Alcon. Las características silvícolas del rodal y su localización como factores definitorios del daño causado por el viento y la nieve en los bosques de coníferas de montaña de los Pirineos orientales. University of Lleida (Spain). 2009.
- Aitor Ameztegui González. Influencia de los cambios de uso del suelo en la expansión del pino negro (*Pinus uncinata* Ram.) en el Pirineo catalán durante la segunda mitad del siglo XX. University of Lleida (Spain). 2009.
- Amélie Poitras Larivière (co-direction with Christian Messier). MSc thesis. Compétition racinaire pour l'espace entre la végétation herbacée et des jeunes arbres de plantations. University of Quebec at Montréal (Canada). 2006.

9.2. Editorial experience and refereeing activities:

- Associated editor of the European Journal of Forest Research (since 2013)
- Associated editor of Canadian Journal of Forest Research (since 2011)
- Associated editor of New Forests (between 2010-2013)
- Referee of manuscripts for peer-reviewed journals:
 - *Ecoscience, Canadian Journal of Forest Research, European Journal of Forest Research, Annals of Forest Sciences, New Phytologist, New Forests, Plant and Soil, Forest Systems, Silva Fennica, Forest Ecology and Management, Journal of Forest Research, Forestry, Tree Physiology, PlosONE*
- Project evaluator for the National Evaluation and Foresight Agency of Spain (ANEP). Since 2010.
- Project evaluator for the Czech Science Foundation (2013)