

Mélanie Saulnier

Ph.D Population biology and Ecology

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Ecologist and paleo-ecologist, I apply both pedoanthracological and dendrochronological approaches in studying history and dynamics of mountain forest at very high spatio-temporal resolution. My researches are based on a pluridisciplinary approach applied on forest ecosystems in order to characterize (i) the main drivers of individual tree growth, (ii) the effect of climate change on tree life traits and on natural forest disturbance regime, and (iii) the role of human on forest ecosystem trajectories. Improving knowledge of the natural and anthropogenic processes, which have led to current forest, will provide essential information to model forest evolution in response to global changes and to implement sustainable forest management, as well.

Key words: dendrochronology, pedoanthracology, disturbance ecology, forest ecology, global change impacts

Education

2012	PhD (Award: 07/11/2012) - Aix-Marseille University, Institut Méditerranéen de Biologie et d'Ecologie continentale et marine (IMBE), Aix en Provence, France. <i>Thesis:</i> History and dynamic of subalpine forest in the southern French Alps (Briançonnais, Queyras): pedoanthracological and Dendrochronological approaches
2008	Master degree in Systemic, Evolution et Paleontology - Pierre et Marie Curie University (Paris VI) and national museum of natural history of Paris, France. <i>Thesis:</i> Temporal variation of the relation between fir tree ring growth and climate in the Southern natural range in France (laboratory: IMBE, Aix en Provence)
2006	Master degree in Ecosystem Conservation and Restoration –Paul Verlaine University, Metz, France. <i>Thesis:</i> future prospects of the spruce-moss forest in the high latitude forest ecosystems (laboratory: Laval University and North study center, Québec, Canada)

Professional Employment and Academic Appointments

2020-2021	Post-doctoral researcher, CNRS UMR 5602 laboratoire Géode, Toulouse, France. <u>Research topics:</u> Study the long-term legacies and current impacts of anthropogenic and natural factors on the structure, functioning and biodiversity of current forest ecosystems in the Eastern Romanian Carpathians and the Northern Central Pyrenees
2018-2020	Post-doctoral researcher, Czech University of Life Sciences, department of forest ecology, Prague, Czech Republic <u>Research topics:</u> Study of the combined effects of disturbance and climate change on the biodiversity and carbon storage functions of natural Carpathian spruce and beech forests.

2016-2017	Post-doctoral researcher, CNRS UMR 5602 laboratoire Géode, Toulouse, France <u>Research topics:</u> Holocene history of vegetation at the Bernadouze peat bog site and assessment of the impact of charcoal making practices in terms of vegetation change and available organic carbon.
2014-2015	Assistant lecturer, Aix-Marseille Université, Marseille., France <u>Research topics:</u> Modelling of the ecological niches of Silene species in the PACA region, functional traits-potential niches relationship.
2013	Teacher in a forestry high-school, Le Mayet de Montagne, France
2008-2012	PhD researcher and assistant lecturer - Institut Méditerranéen d'Ecologie et de Paléoécologie, Aix en Provence, France <u>Research topics:</u> History and dynamics of the subalpine forest in the Southern Alps (Briançonnais, Queyras): pedoanthracological and dendrochronological approaches.

Awards and Honors

2020	Post-doctoral position funding by the French Research Agency (ANR BENDYS)
2019	(Re-) Qualification as a lecturer in Geography (for 4 years)
2018	Post-doctoral position in Czech Republic funding by the European Regional Development fund (EVA 4.0 project)
2017	Chairing the session on dendroclimatology at the conference Eurodendro in Tartu (Estonia) from 6 to 10 September 2017.
2016	Post-doctoral position funding by the Labex DRIIHM (CHARINTER Bernadouze)
2013	Qualification as a lecturer in Geography (for 4 years)
2011	Award for the best scientific poster in the MEDPINE 4 conference which held in Avignon, 6-10 June 2011

Teaching (HETD = hourly equivalent)

Bachelor degree:

- Plant biology: 40 HETD
- Diversity of the living world: 36 HETD
- Environmental Law: 35 HETD
- Discovery of the Mediterranean flora: 32 HETD
- Students' personal and professional project: 24 HETD
- Pedology: 15 HETD

Master degree :

- Initiation to research: 6 HETD
- Geographic Information System: 45 HETD
- Field school SEOLANE: 39 HETD (ATER)
- Soil analysis methods: 17 HETD
- Forest ecology: 11 HETD
- Methods in plant ecology: 11 HETD
- Paleoenvironment and evolutionary biogeography: 9 HETD

Student advising and mentoring

Thesis Committee

2016-2019 Adrien Favillier. Thesis entitled "Impact of global warming on avalanche activity in the Massif Central and the Alps" directed by Jean-Luc Peiry and co-directed by Christophe Corona. CNRS Laboratory UMR 6042 GeoLab in Clermont-Ferrand.

Mentoring of trainees

2021 Co-supervision of a master student, Lison Chassaing, studying technical gestures and the environment at the end of the Iron Age in Toulouse: morphotechnical and dendrochronological analysis of the casing of well 65 at Vieille-Toulouse (Haute-Garonne). UMR 5602 GEODE.

2020 Co-supervision of a master student, Ugo Bisson consisting in a bibliographical synthesis of European occurrences of the yew (*Taxus baccata* L.) during the Holocene. UMR 5602 GEODE.

2019 Supervision of the PhD fellowship of Léonel Fouédjeu-Foumou at the Prague University of Life Sciences (CULS). The objective was to train the student in the use of dendrochronology and to help him in the construction of the reference chronology of beech for his study area.

2016-2017 Supervision of:
- a master student, Nicolas Parizeau, for which I contributed to the dendrochronology training and supervised the dendrochronology on charcoals approach.
- a master student, Adèle Destanne de Bernis, for which I have been a referent for aspects related to the use of pedoanthracology.

2014-2015 Supervision of 4 master student (first year of master) that worked on a forest settlement front at high altitude. Two students studied the history of the environment using pedoanthracology and the two others students sought to characterize its current dynamics using dendrochronology.

2011 Supervision of a professional bachelor in a dendrochronological study

Research activities, projects and research groups

Research projects (closed or ongoing)

2020-2023 ANR BENDYS (dir. V. PY-Saragaglia): Responsible for Task 2 and Subtask 2.1. This project is concerned with the last European ("subnatural") old-growth forests of fir and beech and proposes a long-term and comprehensive study for a better understanding, conservation and management of these forests.

2018-2019 Outstanding output project n° 43110/1322/3218 (Responsible): Between higher disturbances both severity and intensity and an increase in the growth rate of trees: What consequences for the total surface of the canopy gaps, at the landscape scale, in the spruce (*Picea abies*) old-growth forests of the Carpathian arc under global change?

2018-2020 European Regional Development fund EVA 4.0 (post-doc researcher) : Creation of a new research center on the issues of forests, forestry and wood industry related to global change and the 4th industrial revolution. Responsible: Czech University of Life Sciences of Prague - Department of forestry.

2017-2018 OASIC - FORETEXIL (Co-responsible): The subnatural forests of Maramures (Eastern Carpathians) facing intensive exploitation: contingency plan for a global study for the implementation of integrated and sustainable management. Leader: V.Py-Saragaglia (CR1, CNRS).

2017 TAXUS APE GEODE (Co-responsible): Holocene history of a relict woody species from the Pyrenees: *TAXUS baccata*, L. Leaders: V.Py-Saragaglia (CR1, CNRS) and M.Saulnier (post-doc, CNRS).

2017	Labex DRIIHM - SCHRUBS (Co-responsible) : Use of radial growth of low woody plants for the reconstitution of supraforest vegetation dynamics in the Upper Vicdessos. Leader: C. Corona (CR1, CNRS).
2017-2021	Labex DRIIHM - FODYNA (associate member): Past FOrêts, DYnamics and recolonization process through the study of the historical miNier and metAllurgic activities in the Upper Vicdessos. Person in charge: V. Py-Saragaglia (CR1, CNRS).
2015-2018	Management Plan Assan Integral Biological Reserve 2015-2018 (associate member): reference for dendrochronological analyses which will aim to study the impact of anthropic activities (silviculture) on the dynamique of the stands. Creation of reference curves for Scots pine. Leader: ONF Hautes-Alpes.
2012-2015	GEVOCLE in the PACA region (Associate researcher): evaluate the importance of the flora regeneration niche in the PACA region and its evolution on the vulnerability of species. - modelling of realized and potential niches of species of the genus Silene. Leader: Arne Saatkamp (MCF, Aix-Marseille University).
2010-2011	ECCOREV Archipel-Écrins 2010 -2011 (chercheuse associée) : Archaeology, Anthropic Impact and Paleoenvironment in the Massif des Écrins.
2007- 2010	ANR ESCARSEL (Associate Researcher): Secular Climate Evolution in Circum-Atlantic Regions and Response of Eco-Lacustrine Systems. Leader : J. Guiot (DR1, CNRS).
2004-2014	PhénoClim (Leader 2012): Phenology and Climate, European funding (ERDF) - In charge of the project for 4 months.

Research groups

EBTRN: Associate Researcher in the European Beech Tree-Ring Network research group.

RENECOFOR: Associate Researcher with the National Network for Long-Term Monitoring of Forest ECO-systems (ONF).

GDRI Cold Forests: associate researcher of the International Research Group on Cold Forests.

REMOTE Primary Forest: associate researcher in the project "REsearch on MOUNTain TEMperate primary forest.

International reviewer

- Agricultural and Forest meteorology
- Journal of Forest Sciences
- Science of the Total Environment
- British Archaeological Report
- Ecologia Mediterranea

Publications and communications

Publications: Book chapter

Py-Saragaglia V., **Saulnier M.**, Cunill-Artigas R., Fouédje Foumou L., Paradis-Grenouillet S., Buscaino, S. and Galop, D., 2018. Long-term Forest Evolution and Woodland Uses in an Ancient Charcoal-production Forest of the French Eastern Pyrenees: an Interdisciplinary Approach with High Spatio-temporal Resolution. In: Paradis-Grenouillet S., Aspe C., Burri S. eds. Into the Woods, Overlapping perspectives on the history of ancient forests. Quae Editions.

Touflan P., Edouard J-L., Talon B., Guibal F., **Saulnier M.**, Corona C., 2010. Dynamique passée et actuelle d'un peuplement forestier de mélèze (*Larix decidua*) et de pin cembro (*Pinus cembra*) de l'étage subalpin : approche écologique. In D. Vallauri (éd.), Biodiversité, naturalité et humanité, pour inspirer la gestion des forêts, Paris, Lavoisier.

Publications: Published paper in peer-reviewed journal

- Pettit J.L., Pettit J.M., Janda P., Rydval M., Čada V., Schurman J.S., Nagel T.A., Bače R., **Saulnier M.**, Hofmeister J., Matula R., Kozák D., Frankovič M., Turcu D.O., Mikoláš M. and Svoboda M., 2021. Cyclone induced windstorms cause more severe forest disturbance than convective storms though to all windthrow is increasing in European primary beech forests. *Journal of Geophysical Research - Atmospheres*
- Fouédjeu L., **Saulnier M.**, Lejay M., Dušátko M., Labbas V., Jump A. S., Burri S., Buscaino S., Py-Saragaglia V., 2020. High resolution reconstruction of modern charcoal production kilns: An integrated approach combining dendrochronology, micromorphology and anthracology in the French Pyrenees. *Quaternary International*.
- Schafstall N., Whitehouse N., Kuosmanen N., **Saulnier M.**, Fleischer P., Svitavská-Svobodová H., Knutelski S., Chiverrell R., Kuneš P., Clear J., 2020. Changes in species composition and diversity in a montane beetle community during the last millennium. *Palaeogeography, Palaeoclimatology, Palaeoecology*
- Mainieri R., Favillier A., Lopez-Saez J., Eckert N., Zgheib T., Morel P., **Saulnier M.**, Peiry, J-L., Stoffel M., Corona C., 2020. Impacts of land-cover changes on snow avalanche activity in the French Alps. *Anthropocene*.
- Saulnier M.**, Schurman J., Vostarek O., Rydval M., Pettit J., Trotsiuk V., Janda P., Bače R., Björklund J., Svoboda M., 2020. Climatic drivers of *Picea* growth differ during recruitment and interact with disturbance severity to influence rates of canopy replacement. *Agricultural and Forest Meteorology*.
- Synek M., Janda P., Mikoláš M., Nagel T., Pettit J., Schurman J., Trotsiuk V., Morrissey R., Bace R., Čada V., Brang P., Bugmann H., Begović K., Chaskovskyy O., Dušátko M., Frankovič M., Kameniar O., Kníř T., Kozák D., Langbehn T., Málek J., Rodrigo R., **Saulnier M.**, Teodosiu M., Vostarek O., Svoboda M., 2020. Contrasting Patterns of Natural Mortality in Primary *Picea* Forests of the Carpathian Mountains. *Forest Ecology and Management*.
- Saulnier M.**, Py-Saragaglia V., Cunill R., Fouedjeu-Foumou L., Buscaino S., Métailié J-P., Galop D., 2019. Late Holocene local-scale vegetation dynamics and responses to land-use changes in an ancient charcoal-making forest of the Central Pyrenees (Ariège, France): a pedoanthracological approach. *Vegetation history and archaeobotany*.
- De Bouchard d'Aubeterre G., Favillier A., Mainieri R., Lopez Saez J., Eckert N., **Saulnier M.**, Peiry, J-L., Stoffel M., Corona C., 2019. Tree-ring reconstruction of snow avalanche activity: Does avalanche path selection matter? *Science of The Total Environment*.
- Schurman J.S., Babst F., Björklund J., Rydval M., Bače R., Čada V., Janda P., Mikolas M., **Saulnier M.**, Trotsiuk V., Svoboda M., 2019. The climatic drivers of primary *Picea* forest growth along the Carpathian arc are becoming spatially more variable with rising temperatures. *Global Change Biology*.
- Saulnier M.**, Corona C., Stoffel, M. Edouard J-L., Guibal F., 2019. Climate-growth relationships in a *Larix decidua* Mill. network in the French Alps. *Science of The Total Environment*.
- Shindo, L., Belingard, C., Edouard, J-L., **Saulnier, M.**, 2017. A long-term tree-ring chronology over 796 years for silver fir (*Abies alba* Mill.) in Southern France. *Annals of Forest Science*, 74 (4), pp.67.
- Saulnier M.**, Edouard J-L., Roques, A., Rozenberg P., Saracco G., Corona C., Guibal F., 2016. Spatio-temporal heterogeneity of Larch budmoth outbreaks in the French Alps for the last 500 years. *Canadian journal of forest research*. NRC Research Press, 2017, 47 (5), pp.667 - 680.
- Saulnier M.**, Talon B., Robin V., 2015. New pedoanthracological data for the long-term history of forest species at mid-high altitudes in the Queyras Valley (Inner Alps). *Quaternary International* 366: 15-24.
- Saulnier M.**, Edouard J-L., Corona C., Guibal F., 2011. Climate / growth relationships in a *Pinus cembra* high-elevation network in the Southern French Alps. *Annals of Forest Science* 68 (1): 189-200.

Publications: Paper submitted to peer-reviewed journal

- Fouédjeu L., Paradis-Grenouillet S., Larrieu L., **Saulnier M.**, Burri S., Py-Saragaglia V., *submitted*. From the reconstruction of charcoal making practices to long term forest management: an interdisciplinary study in the forêt de Bernadouze (Pyrenees, France). *Forest Ecology and Management*.

Publications: Articles in preparation for submission to peer-reviewed journals

- Saulnier M., Buechling A., Drobyshev I., Zang C., Hackett-Pain A., Čada V., Buechling A., Voltarek O., Schurman J., Rydval M., Pettit J., Svoboda M., *in prep.* Mast behavior improve model prediction of Beech (*Fagus sylvatica* L.) aboveground biomass in Carpathian primary forest. Targeted review: Journal of Ecology.
- Shindo L., Saulnier M., Belingard, C., Edouard, J-L., Guibal F., *in prep.* European larch sapwood: estimation for dating purposes. Targeted review: Dendrochronologia.
- Buechling A., Canham C., ..., Saulnier M., ..., *in prep.* Tree growth responses to global scale drivers are characterized by intraspecific variation and emergent behaviors. Targeted review: Ecological letters.
- Rodrigo R., Pettit J.L., Matula R., Kozák D., Bače R., Janda P., Mikolás M., Nagel T., Schurman J., Trotsiuk V., Frankovič M., Pettit J.M., Buechling A., Saulnier M., Čada V., Begovič K., Pavlin J., Chaskovskyy O., Teodosiu M., Dušátko M., Kníř T., Kameniar O., Málek J., Vostarek O., Synek M., Svoboda M., *in prep.* Historical mixed - severity disturbances shape current diameter distributions of temperate Norway spruce- – dominated primary mountain forests in Europe. Targeted review: Forest Ecology and Management.

Publications: Others papers

- Danneyrol, V., Saulnier, M., Talon, B., Blanchet, M., Sidamon-Pesson, C., 2017. Analyse pédoanthracologique. Travaux de la Massane, Tome n°111
- Talon, B., Touflan, P., Saulnier, M., Robin, V., Cattenoz, D., Hardion, L., ... & Guibal, F., 2011. Pedoanthracology and dendroecology: two complementary approaches applied to old forest history. *SAGVNNTVM Extra*, 11, 67-68.
- Saulnier M., Corona C., Edouard J-L., Guibal F., Thomas A., 2010. Cernes caractéristiques et anomalies extrêmes du climat dans les Alpes françaises entre 1500 et 2000. Collection EDYTEM 11: 77-86.
- Corona C., Edouard J.-L., Guiot J., Guibal F., Thomas A., Saulnier M. 2010. Reconstruction des températures estivales dans les Alpes françaises au moyen de données dendrochronologiques (749-2007 AD). Collection EDYTEM 11: 69-76.

Scientific communications in conferences, symposiums or symposia

- Fouédjeu L., Saulnier M., Labbas V., Lejay M., Buscaino S., Py-Saragaglia V. 2019. *The need for dendrochronology to improve the temporal resolution of charcoal manufacturing activity in the French Eastern Pyrenees: the case of the ancient charcoal-production forest of Bernadouze (Suc-et-Sentenac, Haut-Vicdessos)*. 7th International anthracology meeting, Sep 2019, Liverpool, United Kingdom. Oral.
- Fouédjeu L., Paradis-Grenouillet S., Artigas R., Saulnier M., Buscaino S., Py-Saragaglia V., 2019. *Sustainable management of wood for charcoal manufacturing activity in the Northern Pyrenees: dendro-anthracological study of charcoal kilns in the Bernadouze forest (Suc-et-Sentenac, Haut-Vicdessos)*. 7th International anthracology meeting, Sep 2019, Liverpool, United Kingdom. Poster.
- Fouédjeu L., Saulnier M., Cunill R., Buscaino S., Py-Saragaglia V., 2019. *Charcoal analysis of kiln terraces to reconstruct practices and wood uses' temporalities for charcoal manufacturing activity: the case of the Bernadouze forest (Suc-et-Sentenac, Haut-Vicdessos)*. 7th International anthracology meeting, Sep 2019, Liverpool, United Kingdom. Poster.
- Saulnier M., Voltarek O., Trotsiuk V., Pettit J., Janda P., Schurman J., Svoboda M., 2019. *What consequences may climate change have on the canopy openness turnover?* TRACE conference, Caserta (Italia), 7-10 May 2019. Poster.
- Saulnier M., Svoboda M., Mikoláš M., Pettit J., Trotsiuk V., 2019. REMOTE NETWORK: one of the world's largest databases on temperate primary forests in Europe. EBTRN Workshop, Freising (Germany), 14-15 March 2019. Oral.
- Saulnier M., Cunill-Artigas R., Benatti A., Garcia-Alvarez S., 2017. *Update the pedoanthracological methodology: Discussion from the recent insights to new interactive tools*, Third International Workshop of Pedoanthracology – The memory of the soils and wood charcoals, Limoges (France), 2-3 November 2017. Oral.

- Py-Saragaglia V., Fouédje Foumou L., **Saulnier M.**, Cunill Artigas R., Buscaino S., 2017. *Origin of charcoal vitrification: new insights on seasonality of natural fire regime and/or human practices using fire?* Third International Workshop of Pedoanthracology – The memory of the soils and wood charcoals, Limoges (France), 2-3 November 2017. Oral.
- Beato Bergua S., Ploblete Piedrabuena M.A., Marino Alfonso J.L., Métailié J.-P., Py-Saragaglia V., Cunill Artigas R., **Saulnier M.**, 2017. *First pedoanthracological analyses in the Aramo Range (Asturian Central Massif, Cantabrian Mountains, NW Spain): a new approach to the evolution of subalpine pastures and landscape*, Third International Workshop of Pedoanthracology – The memory of the soils and wood charcoals, Limoges (France), 2-3 November 2017. Poster.
- Saulnier M.**, Corona C., Py-Saragaglia V., 2017. *Larch forest in the French Alps facing global change: a synthesis of both tree-ring growth – climate relationships and insect disturbances for the past 500 years*. Eurodendro, Tartu (Estonie), 6-10 September 2017. Oral.
- Saulnier M.**, 2017. Séminaire Dynafor (Les retours du jeudi) : invitée Mélanie Saulnier. 22 Septembre 2017, Toulouse. Oral. (<https://www.youtube.com/watch?v=IksFB8pZmOE>)
- Saulnier M.**, Py-Saragaglia V., Cunill R., Fouedje-Foumou L., 2017. *Long term history of forest ecosystems of Bernadouze: a pedoanthracological approach*. Into the Woods, Overlapping perspectives on the history of ancient forests, Padova (Italie), 18-20 avril 2017. Oral.
- Cunill Artigas R., Métailié J.-P., Pélachs-Manosa A., Py-Saragaglia V., Soriano-Lopez J.M., **Saulnier M.**, Badache N., Galop D., 2017. *Current fir (Abies alba) forests in the Pyrenees, are they relictual woodlands of a Holocene glorious past?* Into the Woods, Overlapping perspectives on the history of ancient forests, 18-20 April 2017, Padova, Italy. Oral.
- Fouedje Foumou L., Py-Saragaglia V., Paradis-Grenouillet S., Cunill Artigas R., Brun C. **Saulnier M.**, Métailié J.-P., 2017. *Reconstruction with a high spatio-temporal resolution the past forest dynamics and charcoal making activities in an upper metallurgical valley in the eastern Pyrenees : first geoarchaeological, dendro- and anthracological results*. Into the Woods, Overlapping perspectives on the history of ancient forests, Padova (Italie), 18-20 avril 2017. Poster.
- Fouquemberg C., Talon B., **Saulnier M.**, 2014. *Why are Aleppo pine and umbrella pine so difficult to distinguish on the basis of their wood anatomy in calcareous Provence area (Southern France)?* 5th International Conference on Mediterranean Pines (medpine5) Solsona (Espagne), 22-25 septembre 2014. Poster.
- Saulnier M.**, Talon B., Edouard J.-L., 2013. *Subalpine forest history and dynamics in the French Alps (Queyras): Climatic and Human Pressur*. International open workshop "Socio-Environmental Dynamics over the Last 12,000 Years: The Creation of Landscapes III", Kiel (Allemagne), 15-18 avril 2013. Oral.
- Saulnier M.**, Corona C., Edouard J.-L., Guibal F., Thomas A., 2011. *600 years of Larch budmoth outbreaks in the French Alps: methods and history reconstruction*. Eurodendro 2011. Engelberg (Suisse), 19-23 septembre 2011. Oral.
- Saulnier M.**, Talon B., Touflan P., 2011. *Subalpine forests history and dynamics in the French Alps (Queyras). 5th International Meeting of Charcoal Analysis*. Valencia (Espagne), 5-10 septembre 2011. Oral.
- Saulnier M.**, Edouard J.-L., Corona C., Guibal F., 2011. *Climate / growth relationships in Pinus cembra in the Southern French Alps under Mediterranean bioclimat*. MEDPINE 4. Avignon, 6-10 juin 2011. Poster.
- Saulnier M.**, 2011. *Histoire et dynamique de la forêt subalpine dans le Queyras : Résultats préliminaires*. Congrès EDSE. Aix en Provence, 12-13 avril 2011. Oral.
- Saulnier M.** et Talon B., 2010. *Pedoanthracology: What is exactly a wood charcoal?* First international workshop in Pedoanthracology. Aix en Provence, 14-16 juin 2010. Poster.
- Saulnier M.**, 2010. *Étude de la relation entre la croissance du Pin cembro et le climat dans les Alpes Françaises depuis 500 ans*. Congrès EDSE. Cassis, 29-30 avril 2010. Poster.
- Saulnier M.**, Corona C., Edouard J.-L., Guibal F., Thomas A., 2009. *Cernes caractéristiques et anomalies extrêmes du climat dans les Alpes françaises entre 1500 et 2000*. Colloque "Panorama de la dendrochronologie en France", Digne-les-Bains, 8-10 octobre 2009. Oral.
- Corona C., Edouard J.-L., Guiot J., Guibal F., Thomas A., **Saulnier M.**, 2009. Reconstruction des températures estivales dans les Alpes françaises au moyen de données dendrochronologiques (749-2007 AD). Colloque "Panorama de la dendrochronologie en France", Digne-les-Bains, 8-10 octobre 2009. Oral.

Saulnier M., Corona C., Edouard J.-L., Guibal F. *Spatial patterns of climate extreme anomalies in the French Alps between 1500 to 2000 revealed from a dense tree ring chronology network*. Colloque international. 9th EMS Annual Meeting & 9th ECAM: Applications of Meteorology. Toulouse, 28 septembre – 1er octobre 2009. Poster. (I)

Corona C., Edouard J.L., Guiot J., Guibal F., **Saulnier M.** *Long-term summer temperatures variations in the southern French Alps, A.D. 749-2007*, European Geosciences Union, General Assembly 2009. Vienna, Austria, 19-24 avril 2009. Poster.