



Spanish Network on Effects of Wildfires on Soils. The view after 5 years of networking

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1. WHAT IS FUEGORED?

The Spanish Thematic Network “Effects of Wildfires on Soils” (FUEGORED, <http://grupo.us.es/fuegored>) has been working for over 5 years at becoming a point of reference for the study of fire-affected soils and restoration strategies.

FUEGORED started in 2007, originally scheduled to run three years, as a result of the interest of Spanish researchers for developing better strategies and scientific interchange of ideas, people and collaboration between research groups.

The first steps towards the establishment of a working group were a series of fieldtrips through Spain (2003), USA (2004) and Portugal (2005), where discussions about problems and research strategies arised. In its early years the network was supported by the former Ministry of Science and Innovation.

This is a project to review scientific knowledge developed to date and discuss and propose future developments in scientific research about the effects of wildfires on soils. The objectives of the network are to promote and disseminate scientific research findings, provide technical and management information, and facilitate transference of knowledge between scientists, forest managers, students and society.

2. WHO IS IN THE NETWORK?

The research group consists of the leading names of Spanish science in the topic and young talents, which are currently developing the most innovative research lines. Currently, the network is formed by 245 members, researchers from over 30 Spanish universities and research centers to provide the experience of decades of scientific and technical work in areas affected by forest fires and outstanding foreign researchers from Europe, Australia and America, including countries such as Australia, Italy, Lithuania, Portugal, UK, USA and others. Forest managers and technicians from various institutions are also present.

3. MAIN ACHIEVEMENTS

Four international congresses have been promoted by the network in Valencia, 2008, Seville, 2009, Santiago de Compostela, 2010 and Tenerife, 2012 (the next meeting will be held in Barcelona in 2014). In addition, several contributions, courses and workshops have been celebrated in Spanish or international forums as the EGU General Assembly, the International Meeting of Fire Effects on Soil Properties (FESP2011 and forthcoming FESP2013) and the International Conference on Geomorphology have been also sponsored. Other activities include the publication of book series (two volumes have been published: Cerdá and Jordán, 2010; Cerdà and Mataix-Solera, 2009. The third one is currently in preparation), books of abstracts (Díaz-Raviña et al., 2010; Jordán et al., 2009), a series of technical reports (in preparation) and special issues in international journals (in, for example, *Catena*, *Geoderma*, *Environmental Research* or the *International Journal of Wildland Fire*).

A four-monthly journal (FLAMMA; <http://grupo.us.es/fuegored/flamma>) is published regularly since 2010 with an increasing audience and issues scheduled until 2014.

Also, the network has promoted voluntary environmental actions and educational activities.

4. MAIN CHALLENGES

The next challenges are to continue promoting the interaction between scientists, decision makers, forest management staff and end-users and to establish new connections with European institutions and research groups.

ACKNOWLEDGEMENTS

The Spanish Thematic Network “Effects of Wildfires on Soils” was supported between 2007 and 2009 by the Spanish Ministry of Science and Innovation (projects CGL2007-28764-E 2007-2008 and CGL2008-01632-E 2009).

REFERENCES

Cerdà, A. Jordán, A. (Eds.). 2010. Actualización de Métodos y Técnicas para el Estudio de los Suelos Afectados por Incendios Forestales [Updated methods and techniques for the study of soils affected by wildfires; in Spanish]. Cátedra de Divulgació de la Ciència, Universitat de València, FUEGORED 2010. Valencia. 521 pp. ISBN: 978-84-370-7887-8.

Cerdà, A., Mataix-Solera, J. (Eds.). 2009. Efectos de los incendios forestales sobre los suelos en España. El estado de la cuestión visto por los científicos españoles [Effects of wildfires on soils in Spain. The state of the question as seen by Spanish scientists; in Spanish]. Càtedra de Divulgació de la Ciència. Universitat de Valencia. 529 pp. ISBN: 978-84-370-7653-9.

Díaz Raviña, M., Benito, E., Carballas, T., Fontúrbel, M.T., Vega, J.A.(Eds.). 2010. Research and post-fire Management: Soil Protection and Rehabilitation Techniques for Burnt Forest Ecosystems. IIAG (CSIC). Santiago de Compostela. 326 pp. ISBN: 978-84-8408-583-6.

Jordán, A., Zavala, L.M. de la Rosa, J.M., Knicker, H., González-Pérez, J.A., González-Vila, F.J. (Eds.). 2009. Advances in forest fire effects on soils 2009. IRNAS-CSIC-Universidad de Sevilla. Sevilla. 144 pp. URI: <http://hdl.handle.net/10261/18162>.

FUEGORED INTERNATIONAL MEETINGS

FUEGORED2008. I International Meeting Effects of Wildfires son Soils. 03-05 December 2008. Valencia/Enguera/Alcoi, Spain.

FUEGORED2009. II International Meeting Effects of Wildfires son Soils. 04-06 November 2009. Sevilla/Cortegana, Spain.

FUEGORED2010. III International Meeting Effects of Wildfires son Soils Research and post-fire Management: Soil Protection and Rehabilitation Techniques for Burnt Forest Ecosystems 06-08 October 2010. Santiago de Compostela, Spain.

FUEGORED2012. IV International Meeting Effects of Wildfires son Soils 24-27 October 2012. Puerto de la Cruz, Spain.