



Report to KfWf from Wildfire 2015 in Cambuslang, Scotland

The UK's biennial wildfire conference and exhibitions saw another successful year on the 10th and 11th November 2015. This time it was hosted by the Scottish Wildfire Forum in collaboration with the Scottish Fire and Rescue Services (SFRA) at their state-of-the-art training centre, at Cambuslang on the outskirts of Glasgow (Figure 1).



Figure 1 The Headquarters of the Scottish Fire and Rescue Service in Cambuslang, Scotland.

The aim of these events is to share knowledge and experience about the impact and management of wildfire on open landscapes in the UK. This year the theme was 'Wildfires: Prevention better than cure' and a range of wildfire prevention theories and applications were discussed. Alongside UK contributions, the conference attracted presentations from across the world including, USA, New Zealand and Italy. Topics included land management strategies such as prescribed

burning, grazing, and cutting to reduce fire-fuel load, provide fire-breaks and ultimately minimise the risk of damage from wildfires. It also addressed fire management and prediction from the perspective of stakeholders from all sectors, such as Fire and Rescue Services, government agencies, insurance companies, environmental and conservation NGOs, planning and policy officers, landowners, and land-managers. The event also received a letter of support from Paul Wheelhouse MSP, Minister for Community Safety and Legal Affairs in the Scottish Parliament.

The first day opened with a compelling presentation by CAL FIRE Battalion Chief Greg Bertelli, who spoke about being in charge of Initial Attack on the very recent Valley Fire on 12th September 2015 in Lake County, California. It spread over 118 square miles (an area twice the size of San Francisco), destroying 1958 structures and severely injuring four of his fire-fighter colleagues in a burn-over. Sharing the presentation, Andy Elliott, a Station Commander in Dorset, described how his visit to learn from Cal Fire turned immediately on arrival into career-defining first-hand experience. He became one of the first fire-fighters on the scene, battling the fire along with eventually almost 250 other fire-crew, as the [BBC News report](#) he showed explains.

The next presentation transported us back to the UK, where Paul Hedley (Deputy Chief Fire Officer, Northumberland FRS) and our own Julia McMorrow explained how their collaboration with Rob Gazzard (Forestry Committee) was investigating how and why assessment of wildfire risk differs between three data sources; Community Risk Registers, Fire Service Incident Risk Management Plans,

and national fire statistics from the Incident Recording System. This was followed by an introduction to the lunch-time poster session sponsored by Knowledge for Wildfire (KfWf).



Figure 2 The University of Manchester team in action at Wildfire 2015. Feedback and comments on our posters were noted down on pink sticky notes, attached by each poster. Clockwise from top left : Julia Mcmorrow with three of the five Manchester posters; Ioanna Tantanasi explaining to Paul Hedley how the KfWf UK vegetation fire researchers' database works; Stefania Amici (Honorary Visiting Fellow) with her poster on using remote sensing to distinguish flaming from smouldering combustion; Nnaemeka Ihenacho with his MSc project poster on wildfire threat to property assets in the rural-urban interface; Sam Gundy discussing his Masters project on how geography of wildfires changes between IRS categories with Roger Grau; Gail Millin-Chalabi's presenting on how to use radar images to detect peat burn scars in cloudy moorland areas.

The University of Manchester had a very strong presence this year both in the presenters' and posters' sections, with five members of staff and three Master's students (Figure 2). The poster session was one of the most significant sessions for me as it enabled me to present my recent NERC-IAA funded post-doc work on KfWf's survey of vegetation fire UK-based researchers, and to get some useful and constructive feedback from attendees. A variety of very interesting poster themes were on display, ranging from wildfire reporting and detection tools, communication strategies, and land-management methods, to bridging social and fire sciences to help communities cope (which, as the only social scientist in attendance, this made me very happy). Lunch was a lovely buffet with an unlimited supply of tea & coffee, and most importantly, cake! The lunch break allowed attendees to also visit the Exhibitors' display to see state-of-the-art equipment, including firefighting suits and various ingenious gadgets being demonstrated.

The day continued with Paolo Fiorucci (CIMA Research Foundation) who spoke about Italy's RISICO system, the country's successful fire danger index communication and risk forecasting tool for implementing prevention activities since 2005. We then heard from Lord David Johnstone (Chairman, Scottish Land and Estates) who gave a landowner's perspective on their role in engaging with the diverse stakeholder to prevent wildfires as well as the challenges and opportunities for future training, registers of assets, and communications they face.

We then broke off to attend the three interlinking, parallel sessions. I was in Session B where we heard about three case studies on 'Intelligence and Systems to Support Prevention' from Spain, the Netherlands and South Africa. This was particularly interesting to me as I was putting together a large funding application alongside colleagues Gail Millin-Chalabi and Stefania Amici on that very theme. The last session of the day was an interactive workshop led by Rob Gazzard, Paul Hedley and Julia on stakeholder priorities for managing wildfire risk in the rural-urban interface. The aim was to widen consultation first undertaken at the Greenwich seminar in April, which had focussed on the Swinley Forest fire. Attendees provided feedback and voted for their top three priorities using Post-it notes, the results on which are included in the online version of Rob Gazzard's presentation.



Figure 3 and Figure 4. left, traditional Scottish pipe-bands playing the Scottish national anthem; right, the controlled building fire simulation at the Scottish Fire Service training facilities.

The day ended with an informal dinner in the Training Centre with traditional Scottish entertainment (Figure 3) and a tour of the training facilities. The highlight of the tour was a controlled building fire

to simulate real-life scenarios, with thick smoke and menacing flames blazing through its windows (Figure 4).

The next morning saw a presentation from Grant Pearce (New Zealand Forest Research Institute Ltd) on adaptation and integration of the Canadian Fire Weather Index System into wildfire prevention in New Zealand. Roger Grau (University of Glasgow) also explained how Canadian Fire Weather Index sub-indices such as the Fine Fuel Moisture Code could be used to forecast flammability of key moorland fuels.

Three parallel sessions followed, and I attended the one on wildfire prevention, which tackled prevention in local to regional environmentally-protected and sensitive areas. The day then continued with four more presentations: on the National Operation Guidance for Wildfires; Wildfires, vegetation and land use change, and how to help build resilience of landscapes and rural communities; the Northern Ireland Wildfire Initiative in the Mourne Mountains; and finally, an update on the recent wildfire prevention activities carried out by the Scottish FRS. The day was formally drawn to a close by a panel-led Q&A.

As a social scientist, being in a wildfire conference surrounded by natural scientists and fire professionals was a very new experience for me. Unlike the social science events I usually attend, where we sit back and discuss and disagree endlessly about philosophical notions and applying theory to practice, this one demonstrated a full diverse background of attendees. It was very encouraging to see the participation such different stakeholders, demonstrating that in order to tackle a fire we need all segments of society to work together. I would have liked to have seen more representation from land-managers and farmers too, as this is an equally significant community with an important role to play in wildfire management. Finally, it was good to see the acknowledgement of the need for more social science to tackle wildfire prevention and reporting, since this is a big step towards bridging the two disciplines and collaboratively producing essential new knowledge.

Wildfire 2015 was an excellent conference and enabled me to catch up with colleagues, make new contacts, and learn about the practicalities and complexities of fire-fighting in the field – there is a reason why these people are called heroes! I would like to thank the Scottish Wildfire Forum, the Scottish Fire and Rescue Service and the conference Chair, Michael Bruce, for putting together such a successful event. Thanks also to KfWf and to The University of Manchester for the bursary which enabled me to attend the conference.

The poster abstracts are available online at <http://www.kfwf.org.uk/resources/presentations/>. Presentations are available at <http://www.firescotland.gov.uk/your-safety/wildfires/2015-uk-wildfire-conference-presentations.aspx>

Ioanna Tantanasi

University of Manchester