

## **An American perspective on wildfire: KfWF's visiting speaker Prof Brian Oswald, SFASU Texas**

Knowledge for Wildfire's third wildfire@manchester seminar took place on the afternoon of 12 June 2014, organised by Julia McMorrow (Geography). Practitioners from Natural England, National Parks, RSPB, the Fire Service, private land owners, Dorset County Council and others, joined academics and students to hear Professor Brian Oswald from Stephen F Austin State University in Texas speak on ***Fire ecology and fire risk– how understanding the first helps plan for the second.*** Brian is President of the Association for Fire Ecology.

The first half was a fascinating and entertaining insight into US wildfire policy past and present, including the role of prescribed burning for habitat and wildfire management. Brian showed how attitudes had changed from fire exclusion to gradual acceptance of fire as part of the ecosystem, spurred by the politically significant 1988 Yellowstone Park fire. He gave many examples of how fire is an integral part of the USA's ecology. He showed how fire exclusion had changed the ecosystem and fire regime, resulting in higher fuel load and continuity, which in turn has led to more severe fires. The message was that the ecology of an area, including the role of fire, has to be understood in order to develop appropriate wildfire management. There was a parallel to the UK debate about which ecosystem to restore to; for the USA, should it be restored to pre-Columbian native American or more recent landscapes?



'Restrictions on the use of fire in the USA were driven by politics, rather than ecology', he said. Over time, fire ecology has gradually been brought back in. Having spent Wednesday in the Peak District national Park (PDNP) with members of Fire Operations Group, Brian was aware that some of the management techniques he described would be harder to use in UK National Parks. He burns more vegetation in one hour as part of prescribed burn programmes, than the 60 hectare 2014 Easter Bank Holiday fire we visited near Robinson's Moss.

*Left to right; Brian Oswald (SFASU), Amy Brennan (SFASU), Fiona Draisey (PDNP ranger), Gordon Danks (PDNP ranger), Ian Leech (United Utilities), Andy Valentine (PDNP ranger) and Ian's dog, Willow.*

In the second half, Brian outlined wildfire issues in the Netherlands and the results of an on-the-ground fuel mapping project he is carrying out in partnership with the local Dutch Fire Service, the Netherlands Institute of Physical Safety (IFV) and the University of Applied Sciences. Two stereo photo guides on fuel assessment have been produced for the [Veluwe](#) heath and woodland area, and for [coastal dunes](#). **Nienke Brouwer** from the Netherlands described the third phase, which she is carrying out on peatland in Northumberland with a joint Dutch-Texan field team, led by Ester Willemsen (IFV) and Brian. The consensus from the audience was that the fuel assessment

technique would also be valuable elsewhere in the UK, but that it would need to take into account peat itself as a fuel.

The Fire Service strike meant we were five down, but one of the discussants, Buckinghamshire's Chief Fire officer, **Mark Jones**, even turned down a royal invitation to be there. The Forestry Commission discussant, Rob Gazzard, was due to give his response via phone, but technology and time defeated us. Sarah Proctor delivered a response prepared by **Jon Walker** from Moors for the Future Partnership. Both Mark and Jon raised thought-provoking issues. Mark said that scale was relative – small fires can have enormous impact in a small country with high population density like the UK (and the Netherlands). He also said that one of the big challenges is that the UK adopts technical solutions to wildfire management, which arguably needs a more ecological and adaptive approach; 'If fire isn't in the toolkit, then it needs to be'. Jon highlighted the urgent need for fuel load assessment and management of the £6 million of reseeded peat in the Peak District National Park. His response highlighted the contested role of prescribed burning on peatland ecosystem services and its relationship to wildfire. Moorland managers had registered for the seminar, but were unable to come, or the discussion might have taken a different direction on the role of prescribed fire in wildfire risk reduction.

Brian had been briefed on Manchester-based wildfire research at an informal seminar on Tuesday 10<sup>th</sup> June, hosted by **Jonathan Ayles** at Manchester Business School. Speakers included **Gail Millin-Chalabi** on her PhD work using radar to detect and monitor wildfire burn scars; **Gareth Clay** on the fate of carbon after wildfires; **Gina Cavan** (now at MMU) on spatial modelling of wildfire risk of ignition in the Peak District; and Jonathan on wildfire forecasting for the Peak District National Park, and the recent Wildfire Threat Analysis work with the Forestry Commission, Aleks Kazmierczak and



Julia McMorrow. Two other members of Manchester's wildfire research team, Julia McMorrow (Geography) and John Dold (Maths) had to be in London for an England and Wales Wildfire Forum meeting, held jointly with the Department for Communities and local Government.

Special thanks to Jonathan Ayles for organising the informal seminar, and to the Peak District Fire Operations Group for the field visit – Gordon Danks, Fiona Draisey and Andy Valentine (Peak District National Park rangers); Jon Heydon (Greater Manchester Fire and Rescue Service); and Ian Leech (United Utilities).

All three events were part of Julia McMorrow's NERC Knowledge Exchange Fellowship project, Knowledge for Wildfire [www.kfwf.org.uk](http://www.kfwf.org.uk).

*Gail Millin-Chalabi presenting at the informal seminar*

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24 June 2014