

FIRE UPDATE

BUSHFIRE CRC NEWSLETTER APRIL 2014



RESEARCH TO DRIVE CHANGE

Sharing outcomes. Building knowledge.

The Bushfire CRC is currently undertaking a large program of work to communicate to our agency partners the findings from the last three years of research. This is an important step in ensuring the research is made accessible to a broad range of audiences both now and into the future.

As part of this project, the Bushfire CRC will be producing a number of documentary style videos and conducting online forums to stimulate discussion and raise awareness of the various projects and their outcomes. This practical approach will enable as many staff, volunteers and researchers to participate as possible.

Each video and forum will be available online, along with *Fire Notes* and more in depth research reports, leaving a strong legacy for the future.

Over the coming weeks, Amber Brodecky of Cube Management Solutions will be in

touch with project leaders and end users to discuss the videos and online forums and seek involvement in them. The Bushfire CRC is very mindful of your time and is aiming to keep your participation succinct and of professional benefit. Both the videos and forums are a fantastic opportunity to broaden awareness of each research project within partner agencies. Researchers and institutions will be clearly identifiable in each of the videos, giving appropriate recognition and longevity to the science.

This forum series will begin in May and be progressively rolled out over the following months as the research concludes. Details about how to tune into the first forum on 8 May (see Northern Fire Mapping story below) will be made available shortly.

The Bushfire CRC is excited to communicate this important body of work, and believe it is an important step in achieving the recognition the science rightly deserves.

The Northern Fire Mapping project will be the first online forum held, scheduled for 8 May. Information about registration will be provided in coming weeks. The project developed fire severity mapping to help manage fire in the tropical savannas and rangelands across Queensland, the Northern Territory and Western Australia. The study has determined that on average over half the landscape was affected by fire each year, releasing vast amounts of carbon and destroying the carbon stored in trees. Reducing these greenhouse gas emissions will have enormous financial benefits for fire managers, as well as indigenous land owners, allowing them to earn incomes managing the land. Researcher Dr Andrew Edwards (Charles Darwin University) will discuss these results.

SAW IT AT THE MOVIES

The research of two Bushfire CRC PhD students has been captured in informative short videos.

Mika Peace (Bureau of Meteorology) was a state finalist in South Australia at FameLab, an international science communication competition. See her video detailing how 3D interactions between fire and atmosphere

influence bushfire behaviour on the [Bushfire CRC website](#).

Brenda Mackie (University of Christchurch) entered the Cooperative Research Centre Association's Early Career Researcher competition, summing up her PhD thesis in 30 seconds. Learn all about warning fatigue really quickly on the Bushfire CRC [YouTube channel](#).

CEO'S BLOG

GARY MORGAN



The Bushfire CRC has been about learning and sharing, and this applies not just to research and science, but experiences too. Continuing the

international collaborations established over the last decade is a visit in early May by American and French fire and risk managers.

Tom Harbour, US Forest Service National Director of Fire and Aviation Management, and Jean-Michel Dumaz, Director General Pôle Risques (a French risk management research organisation), will take part in an international symposium on fire management in Canberra, as well as meet with fire and land managers in other states. This is a great opportunity for Australia to continue to learn from the experiences of others. We all face similar issues and these global connections impart new thinking and provide mutual benefits for all.

The Bushfire CRC has established Memoranda of Understanding with these organisations and will be introducing them to the Bushfire and Natural Hazards CRC, aiming to continue these important relationships.

These opportunities reinforce the global recognition that the Bushfire CRC has been the leading fire and emergency management research organisation in Australasia for a number of years, as well as emphasising the Bushfire CRC's significant global leadership role in promoting sound fire management based on scientific research. It is anticipated the Bushfire and Natural Hazards CRC will continue in this space, expanding into other hazards.

On a separate note, I am looking forward to the upcoming research to drive change forums taking place in the coming months. Our partners have invested significantly in research by the Bushfire CRC, and this series of online events will ensure a broad awareness of the research within partner agencies and provoke thinking about how to utilise the research findings. I am confident you will learn much from these events.

RESEARCH UTILISATION BLOG NOREEN KRUSEL



Recently I commissioned a high level synthesis of existing Bushfire CRC community safety research in partnership with AFAC. Taking in the last 10 years, the aim was to assist the AFAC Community Safety Group gain a better understanding of the key themes that have emerged from the research. A workshop (right) to explore and validate these themes was held recently, led by Professor Timothy Skinner. The outcomes will assist the industry and agencies to

focus their ongoing efforts in improving and developing their community safety practices. The industry ought to be congratulated for their willingness to consider research based evidenced. A big pat on the back to all involved, but let's not forget this doesn't stop here. Difficult policy changes remain and improving practise is an ongoing quest!



The lifecycle of a bushfire was studied using the CSIRO Pyrotron.

FINAL OUTPUTS ONLINE

Three more projects have finalised their final reports. They are now available on the website.

The *Fire development, transitions and suppressions* project, led by Andrew Sullivan at CSIRO, was the first comprehensive investigation of the factors influencing the lifecycle of a bushfire, from its inception, through its development and growth to the point where it begins to throw firebrands and start spotfires, starting the cycle again. Read the final report at www.bushfirecrc.com/publications/citation/bf-4448

The *Modelling investigation of lofting phenomena and wind variability* project led Jeff Keper (Bureau of Meteorology) investigated the science behind extreme fire weather and

how these conditions contribute to dangerous spotting. As the understanding of the physical mechanisms that lead to spotting increases, the ability to be able to predict it better will increase. View the final report at www.bushfirecrc.com/publications/citation/bf-4447

The *Effective incident management organising* project led by Christine Owen (University of Tasmania) aimed to better understand how multi-agency emergency management coordination at regional and state levels (and at a national level in New Zealand) could be improved in order to reduce the consequences to communities of an emergency. Findings will enable agencies to continue to refine their processes. Learn more at www.bushfirecrc.com/publications/citation/bf-4449

GET GEARED UP

The Bushfire CRC has surplus clothing available for researchers and partner agency staff and volunteers. If you, your agency (this includes fire brigades!) or institution would like Bushfire CRC shirts, polos, vests or field shirts (a range of sizes available for all), contact vaia.smirneos@bushfirecrc.com

ALL YOU NEED TO KNOW ABOUT FIRE BEHAVIOUR

Replay many informative talks showcasing all fire managers need to know about fire behaviour science right now on the [Bushfire CRC website](http://www.bushfirecrc.com).

The helpful talks explain many of the recent advances in knowledge of fire behaviour models, fuels, fuel moisture, fire weather, and fire spread simulation. All were part of a fire behaviour symposium in October 2013, which was hosted by CSIRO Ecosystems Science and supported by the Bushfire CRC. The symposium presented the current state of the science on fire behaviour in Australia for the operational practitioner, with Bushfire CRC research presented by Andrew Sullivan, Jim Gould, Miguel Cruz and Matt Plucinski from CSIRO, Jeff Keper from the Bureau of Meteorology and Kevin Tolhurst from the University of Melbourne.

COMMUNICATIONS BLOG

NATHAN MADDOCK



Long after our doors have shut, the Bushfire CRC will have a suite of legacy materials accessible to all

our partners and the wider public.

We want the research to drive change and to instigate thinking about utilisation, as this is the research our partners around Australia and in New Zealand have invested in. Our final forums are for everyone, including agency staff, volunteers and anyone interested in learning more about bushfire science.

The online forums and videos will highlight key research findings, but the overall suite of resources that will form the legacy are just as important. *Fire Notes* will help you get the quick research facts and findings, and the final research reports will be there for you to delve deeply into the issues. Make sure others in your organisation know about this legacy. The Bushfire CRC is about sharing outcomes to build knowledge.