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| Contents | Volume 18 | Issue 1 | 2009 |
|---|-----------|---------|---|
| <p>Improving estimates of savanna burning emissions for greenhouse accounting in northern Australia: limitations, challenges, applications Jeremy Russell-Smith, Brett P. Murphy, C. P. (Mick) Meyer, Garry D. Cook, Stefan Maier, Andrew C. Edwards, Jon Schatz and Peter Brocklehurst <i>International Journal of Wildland Fire</i> 18, 1–18</p> | | | <p>The paper provides a critical assessment of Australia's National Greenhouse Gas Inventory savanna burning emissions methodology, and the methodology and results developed for a landscape-scale emissions abatement project in fire-prone western Arnhem Land, northern Australia. The approach has wider application to fire-prone savanna systems.</p> |
| <p>Modeling fire danger in data-poor regions: a case study from the Russian Far East Tatiana V. Loboda <i>International Journal of Wildland Fire</i> 18, 19–35</p> | | | <p>This paper describes an approach to modeling fire danger in areas lacking sufficient information for application of existing approaches. It details the use of publicly available satellite and supporting information for analysis of fire occurrence in the Russian Far East, presents the model structure and parameterization, and demonstrates modeling results.</p> |
| <p>Regional-scale weather patterns and wildland fires in central Portugal Klaus P. Hoinka, Anabela Carvalho and Ana Isabel Miranda <i>International Journal of Wildland Fire</i> 18, 36–49</p> | | | <p>A statistical analysis was performed to show the relationship between wildfire related burned area in central Portugal and the regional-scale weather situation. This showed that in the pre-fire phase the surface flow above Portugal came from the north turning to easterlies and then to southerlies during the post-event phase.</p> |
| <p>The importance of fire–atmosphere coupling and boundary-layer turbulence to wildfire spread Ruiyu Sun, Steven K. Krueger, Mary Ann Jenkins, Michael A. Zulauf and Joseph J. Charney <i>International Journal of Wildland Fire</i> 18, 50–60</p> | | | <p>Wind is one of the most important factors that affects how wildland fires evolve. In this study, the effects of variations in the winds on the evolution of wildland grass fires in two types of atmospheric boundary layer flow are examined. The results show the relative importance of fire–atmosphere couplings or fire-induced circulations to fire line spread compared with the direct impact of the turbulence in the two different types of atmospheric boundary layers.</p> |
| <p>Frequency and season of fires varies with distance from settlement and grass composition in <i>Eucalyptus miniata</i> savannas of the Darwin region of northern Australia Louis P. Elliott, Donald C. Franklin and David M. J. S. Bowman <i>International Journal of Wildland Fire</i> 18, 61–70</p> | | | <p>In the Darwin area of northern Australia, fire frequency was higher further from settlement and in areas dominated by both short and tall annual grasses, especially late in the dry season. The cover of these grasses was a better predictor of fire frequency than the fuel loads they provided.</p> |
| <p>Construction of empirical models for predicting <i>Pinus</i> sp. dead fine fuel moisture in NW Spain. I: Response to changes in temperature and relative humidity Ana Daria Ruiz González, Jose Antonio Vega Hidalgo and Juan Gabriel Álvarez González <i>International Journal of Wildland Fire</i> 18, 71–83</p> | | | <p>Moisture content models were developed by statistical methodology from non-destructive repeat measurements. The methodology proposed is used to develop empirical vapour exchange models for dead fine fuels generated in <i>Pinus radiata</i> and <i>Pinus pinaster</i> stands.</p> |
| <p>What factors influence rapid post-fire site re-occupancy? A case study of the endangered Eastern Bristlebird in eastern Australia David B. Lindenmayer, Chris MacGregor, Jeff T. Wood, Ross B. Cunningham, Mason Crane, Damian Michael, Rebecca Montague-Drake, Darren Brown, Martin Fortescue, Nick Dexter, Matt Hudson and A. Malcolm Gill <i>International Journal of Wildland Fire</i> 18, 84–95</p> | | | <p>Although the Eastern Bristlebird is thought to be wildfire-sensitive, this study found that the species either persisted continuously on burned sites or returned to previously occupied sites within 2 years of a major unplanned fire. This has significant implications for fire management in areas where the Eastern Bristlebird occurs.</p> |

Synthesis of sediment yields after wildland fire in different rainfall regimes in the western United States

John A. Moody and Deborah A. Martin

International Journal of Wildland Fire **18**, 96–115

Sediment yields after wildfires across the western United States were compiled from the published literature (1927–2007). The yields were $\sim 200 \text{ t ha}^{-1} \text{ year}^{-1}$, which are comparable with long-term sediment yields from major rivers of the world. This indicates that wildfires, when followed by sufficient rainfall intensity, cause important landscape changes.

Fire intensity, fire severity and burn severity: a brief review and suggested usage

Jon E. Keeley

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Contrary to some recent suggestions, fire intensity, fire severity and burn severity are terms that should be retained, but defined operationally. Confusion arises when severity is defined too broadly and in all cases, these metrics should be kept separate from ecosystem responses.



The wildfire–urban interface at Coimbra, Portugal, in August 2005.

Photo: António Ferreira