

## IJWF Outstanding Associate Editor Award 2011

### DOUGLAS J. McRAE

Mr McRae has had a long involvement in wildland fire research with Natural Resources Canada, Canadian Forest Service (CFS), and was stationed at the Great Lakes Forest Centre, Sault Ste Marie, Ontario, Canada. As a student starting in 1974, he had a rare opportunity to be involved in a number of empirical fires designed to study fire behaviour in a number of forest complexes (e.g. immature and mature jack pine, and dead balsam fir stands) lead by Brian Stocks. With this introduction to fire research, he did not hesitate to accept a permanent position in 1976 as a forestry officer in the Forest Fire Research Unit and eventually was promoted to scientist in 1996. After 35 years, he retired in 2010, but is still working on contract with CFS. Mr McRae received his BScF at the University of Toronto in 1976 and his MSc (Fire) in Forestry from Colorado State University in 1977.

His interests in research were focussed on fire danger rating systems, fire behaviour, fire impacts and prescribed fire. In many cases, he monitored and documented both experimental fires and wildfires to collect data under a range of burning conditions required to develop fuel consumption and fire behaviour models (e.g. point-source fire growth, mixedwood prescribed fire models). He developed a number of prescribed fire guidelines. To better collect data, he has pioneered a number of new sampling techniques to improve the monitoring and documentation of fires (e.g. fuel sampling methodology, rate-of-spread timers, infrared monitoring).

Over the years his international collaboration with the global fire community has increased with participation in some unique projects such as the Mass Fire Study in Canada (1988–1990), the South African Fire–Atmosphere Research Initiative (SAFARI-92) in Kruger National Park, South Africa (1992), the International Crown Fire Modelling Experiment in Canada (1998–1999) and the Frostfire Experiment in Alaska (1999). Collaboration has also involved an on-going evaluation of the capability of using satellite-derived fire radiant energy data to provide a global estimate of fuel consumption on wildfires with King's College, England, and working with Chinese collaborators on evaluating the Canadian Forest Fire Weather Index System for developing a national Chinese system (Chinese Academy of Forestry). He has been a co-principle investigator on three National Aeronautics and Space Administration-funded projects: the Russian Fire Effects in the Boreal Eurasia



Region (FIRE BEAR) Project (1999–2011), The Influence of Changing Forestry Practices on the Effects of Wildfire and on Interactions between Fire and Changing Climate in central Siberia Project (2009–2011) and the Integrating Historic Patterns of Wildfire, Emissions, and Climate for Siberia as a Basis for Projecting Future Fire-Climate Interactions Project (2009–2013). He continues to lead CFS's Canada–Russia Wildfire Initiative (2005–2011), which is being carried out under a Statement of Cooperation on Forest Resources Management between Canada and Russia.

In addition, Mr McRae has served the international fire and forest research community by being a steering group member and secretariat for the International Boreal Forest Research Association (IBFRA) since 2002 and has been an Associate Editor for the *International Journal of Wildland Fire* for several years.