Long-Term Experiment Takes Some of the Mystery Out of Crown Fires

Martin E. Alexander

The August 2004 issue of the *Canadian Journal of Forest Research* (volume 34[8]) is devoted to a special topic: "The International Crown Fire Modelling Experiment (ICFME) in Canada's Northwest Territories: Advancing the Science of Fire Behaviour." Running from 1994 to 2001 at a site about 30 miles (50 km) north of Fort Providence, the ICFME was a major international wildland fire research effort organized by the Canadian Forest Service and the Forest Management Division in the Department of Resources, Wildlife and Economic Development (DRWED) of the Government of Northwest Territories (GNWT), with substantial cooperation from the USDA Forest Service.

> "What you guys envisioned and so many of us worked on will make fire history. Lots of excellent work, data, concepts and techniques to stoke the research fires for a long time to come."
>
> – Dr. Ted Putnam (2004)

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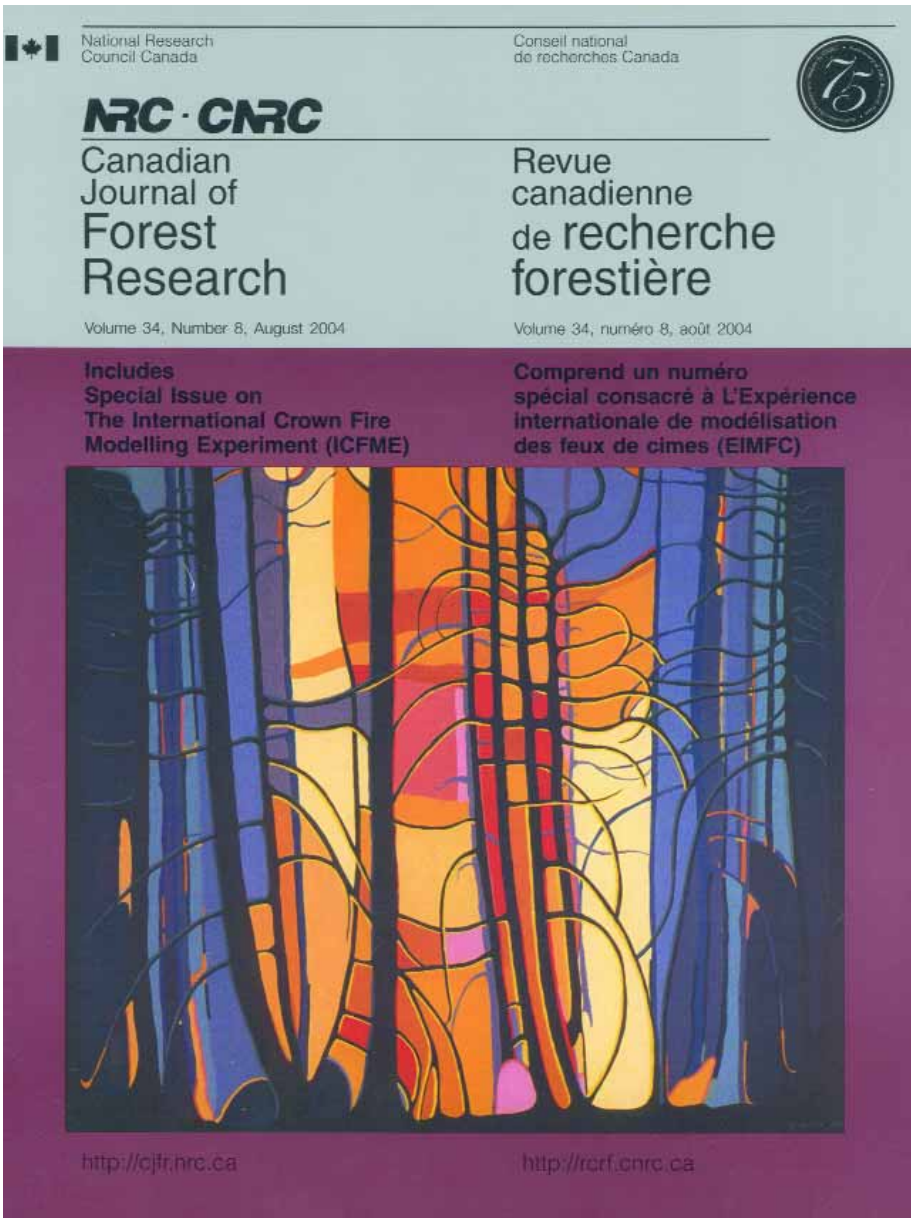

The special issue features 10 articles. The first article presents an overview and introduction to ICFME (Stocks and others 2004a). The other nine articles focus on some of the main research studies carried out during the course of the ICFME, including:

- Several aspects of crown fire behavior (Butler and others 2004a, 2004b; Stocks and others 2004b; Taylor and others 2004);
- Firefighter safety (Putnam and Butler 2004);
- The wildland/urban interface (Cohen 2004);

"And I believe that the fire pioneers, wherever they may be, would have to share some awe (and perhaps some envy) over the International Crown Fire Modelling Experiment…"

– Dr. Phil Omi (2004), closing address at the 22nd Tall Timbers Fire Ecology Conference

- Smoke chemistry (Payne and others 2004);
- Tree regeneration (de Groot and others 2004); and
- Charcoal deposits in lake sediments (Lynch and others 2004).

Article abstracts are available at <http://pubs.nrc-cnrc.gc.ca/cgi-bin/rp/rp2_tocs_e?cjfr_cjfr8-04_34>. To obtain a single copy, contact André Séguin, Subscription Office, NRC Research Press, National Research Council Canada, Montreal Road, Building M-55, Ottawa, Ontario K1A 0R6, 613-993-9084 (voice), andre.seguin@nrc-cnrc.gc.ca (e-mail). For more information, visit the ICFME Website at <http://fire.cfs.nrcan.gc.ca/research/environment/icfme/icfme_e.htm>.

The proceedings of the 22nd Tall Timbers Fire Ecology Conference (Engstrom and others 2004) also contains 18 papers from the poster session (e.g., Lavoie and Alexander 2004) and a special session on ICFME (e.g., Beck and Armitage 2004) organized and comoderated by the author and Rick Lanoville (GNWT-DRWED Forest Management Division). The conference proceedings are available for purchase from the Tall Timbers Research Station (<http://www.ttrs.org>).

Finally, for a detailed description of the jack pine–black spruce fuel type associated with the experimental burning carried out during the ICFME project, one should consult Alexander and others (2004). A copy can be ordered through the Canadian Forest Service online bookstore at <http://bookstore.cfs.nrcan.gc.ca/default.htm>.

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On the Cover:

Firefighters size up a blaze on the Bridger–Teton National Forest, 23 miles (37 km) south of Jackson, WY. Photo: Jed Conklin, The Spokesman Review, *Spokane, WA, 2003.*

The FIRE 21 symbol (shown below and on the cover) stands for the safe and effective use of wildland fire, now and throughout the 21st century. Its shape represents the fire triangle (oxygen, heat, and fuel). The three outer red triangles represent the basic functions of wildland fire organizations (planning, operations, and aviation management), and the three critical aspects of wildland fire management (prevention, suppression, and prescription). The black interior represents land affected by fire; the emerging green points symbolize the growth, restoration, and sustainability associated with fire-adapted ecosystems. The flame represents fire itself as an ever-present force in nature. For more information on FIRE 21 and the science, research, and innovative thinking behind it, contact Mike Apicello, National Interagency Fire Center, 208-387-5460.

Firefighter and public safety is our first priority.

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