

**‘Lest we forget’:  
Canada’s major wildland fire disasters of the past, 1825-1938**

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**Abstract.** This paper provides an overview and summary of nine of the most devastating wildland fire disasters to have occurred in Canada and in some cases, adjoining areas of the United States, in the distant past. The list includes the following cases: 1825 – Miramichi, New Brunswick/Maine; 1870 – Saguenay - Lac-Saint-Jean, Quebec; 1908 – Fernie, British Columbia; 1910 – Baudette, Minnesota/Rainy River, Ontario; 1911 – Porcupine, Ontario; 1916 – Matheson, Ontario; 1919 – Saskatchewan/Alberta; 1922 – Haileybury, Ontario; and 1938 – Dance Township, Ontario. The loss of life was a significant feature in all of these fires. Drawing upon written and photographic resources, the main features of each incident are highlighted. While some of the factors responsible for these past disasters have changed, there is ever reason to suspect that similar occurrences are still possible today. The first step to avoiding any further tragedies with respect to wildland fire disasters is public awareness. Hopefully the compilation of information documented in this paper will serve as a constant and endearing reminder of Canada's history of past wildland fire disasters.

**Additional keywords:** catastrophic fires, conflagrations, fatalities, fire environment, large fires, tragedy fires, wildfires, wildland-urban interface.

### **Introduction**

The genesis for this paper came about as a result of a presentation I made about a year and a half ago in Moncton, New Brunswick (Alexander 2009). I was surprised to learn during my visit that one of the local fire chiefs, who had been born and raised in New Brunswick, was unaware of the Great Miramichi Fire that swept through a large region of the province and adjoining areas of Maine on October 7, 1825. This fire or series of fires still remains the largest wildland fire complex to have occurred in eastern North America. In fact, at one time a certain website (<http://ca.askmen.com>) ranked the 1825 Miramichi Fire as ‘Number 4’ on the all-time top 10 list of Canadian disasters.

Should I have been surprised at this general lack of awareness? Perhaps so. There is however a small section of the Central New Brunswick Woodmen’s Museum in the town of Boiestown devoted to the 1825 Miramichi Fire and the New Brunswick Department of Natural Resources also has a summary of the incident posted on their Forest Fire Watch website. Nevertheless, this situation got me to thinking that there might very well be a general lack of awareness of Canada’s past history of wildland fire disasters across the country and the lessons to be learned from these incidents. So, towards this end, I elected to examine what else has been done or is being done to memorialize the Miramichi Fire and a selection of eight other historic wildland fire disasters that have occurred across Canada and in some cases, adjacent areas of the United States (Figs. 1-10). The information on the nine wildland fire disasters presented in Table 1 has been distilled from the numerous sources referenced in this paper.



**Fig. 1.** Year and general location of nine of Canada's major wildland fire disasters of the past, 1825-1938. Refer to Table 1 for further details on each fire.



**Fig. 2.** Painting depicting the 1825 Miramichi Fires as they swept into communities in New Brunswick and Maine (Unknown source; image courtesy of Keith G. Barr, Fredericton, NB).



**Fig. 3.** An engraving depicting a family surviving the 1870 Saguenay - Lac-Saint-Jean Fires in Quebec by entering the river (from Blanchet 2003).



**Fig. 4.** The convection/smoke column associated with the major run of the 1908 Fernie Fire in southeastern British Columbia (photo from [http://www.crowsnest.bc.ca/c\\_08276.html](http://www.crowsnest.bc.ca/c_08276.html)).



**Fig. 5.** Burying the dead following the 1910 Baudette, Minnesota/Rainy River, Ontario Fires (photo courtesy of Minnesota Historical Society - <http://www.mnhs.org/>).



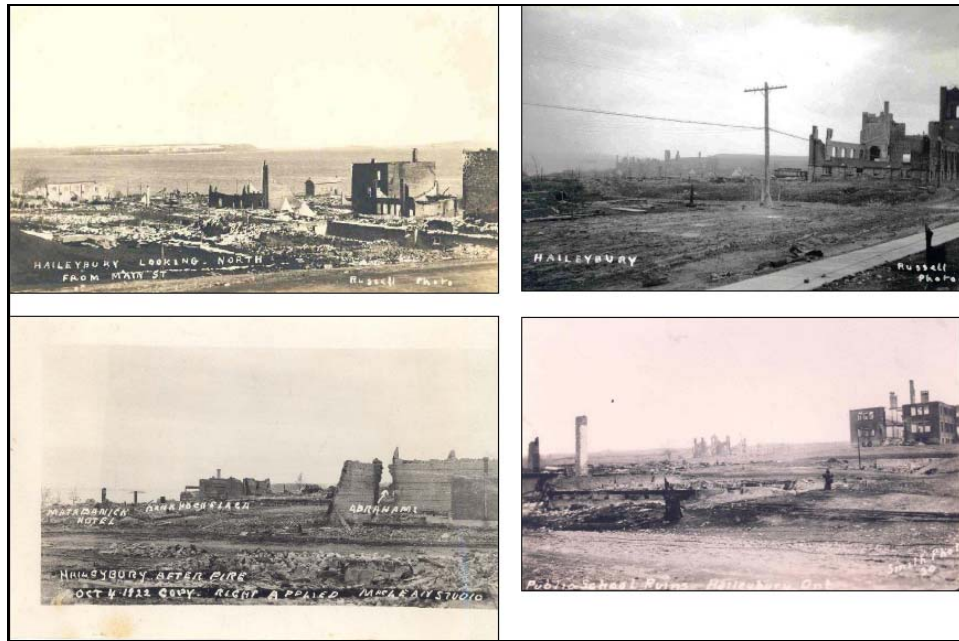
**Fig. 6.** One of the grave sites following the 1911 Porcupine Fire in northeastern Ontario (photo from <http://www.collectionscanada.gc.ca/sos/002028-4100-e.html>).



**Fig. 7.** The immediate smouldering aftermath of the 1916 Matheson Fire in Ontario (photo from <http://www.iroquoisfallschamber.com/web-content/Pages/nushka.html>).



**Fig. 8.** Red Cross relief effort following the 1919 Saskatchewan/Alberta Fires (photo courtesy of Tom Maccagno and Lac La Biche Archives, Lac La Biche, AB).



**Fig. 9.** Scenes of the town of Haileybury, Ontario, immediately following the 1922 fire (photos from [http://www.musevirtuel.ca/pm.php?id=record\\_detail&fl=0&lg=English&ex=327](http://www.musevirtuel.ca/pm.php?id=record_detail&fl=0&lg=English&ex=327)).



**Fig. 10.** Scenes associated with the memorial services for those who lost their lives in the 1938 Dance Township Fire in northwestern Ontario (collage of newspaper photos obtained from <http://www.fftimes.com/100-years-100-stories/dancephoto.html>).

**Table 1. Summary of the associated features of nine major wildland fire disasters to have occurred in Canada and bordering regions of the United States between 1825 and 1938**

Name and location	Date	Estimate of fire size	Lives lost	Notes of interest
Miramichi, New Brunswick/Maine Fires	Oct. 7, 1825	1.2 million hectares (336,000 in Maine)	At least 160 confirmed although estimates range as high as 500.	Largest fire complex of all time in eastern North America result of many small settler and logging fires. Preceded by a severe summer drought.
Saguenay - Lac-Saint-Jean, Quebec	May 19, 1870	0.4 million hectares	Only 7 but many people were reported to be seriously injured.	Settlers burning slash from land clearing operations coincided with dry conditions in the spring coupled with strong winds.
Fernie, British Columbia	Aug. 1, 1908	25,900 hectares	As many as 22 reported.	Fires burning in logging slash for a month prior to major run.
Baudette, Minnesota/Rainy River, Ontario	Oct. 7, 1910	121,500 hectares	42 reported on the U.S. only.	Four wind-driven fires (3 caused by railroad and one by a settler).
Porcupine, Ontario	July 11, 1911	0.2 million hectares	The true toll of dead will never be known but 73 were officially reported.	Many smaller fires were burning at the time. Spring came early and the summer was a "hot, dry one".
Matheson, Ontario	July 29, 1916	0.2 million hectares	Officially 223 although the actual number was probably much higher.	Many settler and lightning fires merged into a single, wind-driven conflagration. Area experienced very little rain that summer.
Saskatchewan/Alberta	May 19, 1919	Perhaps in excess of 2.8 million hectares	At least 13 confirmed and unknown number of burned victims. Many injured.	Undoubtedly a complex of many fires burning simultaneously over a wide area. Springtime burning conditions.
Haileybury, Ontario	Oct. 4-5, 1922	168,000 hectares	Officially 43.	Fires set by farmers and settlers outside the burning permit season. The summer had been unusually hot and dry. Exceptionally strong winds affected the fire.
Dance Township, Ontario	Oct. 10, 1938	30,355 hectares	17 plus 18 others seriously injured.	Several settler fires merged together. No rain for a month prior to fire occurrence.

### **Parallels with other wildland fire disasters**

Upon examination of the particulars associated with these nine wildland fire disasters (Table 1), we find that there are many similarities with other wildland fire disasters in the United States and more globally (Plummer 1912; Guthrie 1936; Storey and Noel 1965; Arnold 1968; Brown and Davis 1973; Cheney 1976; Martin and Weise 1995), including the 1910 fires in the western US:

- The area burned was generally vast with homes and other building devastation high.
- The loss of life was a significant feature in all of these fires (223 fatalities officially confirmed in one fire alone)<sup>1</sup>.
- Fuel types consisted largely of conifer-dominated forests impacted by logging and settler development (i.e. slash debris).
- Fires occurred late in the season following an extended summer drought or a rainless period in the spring prior to “green-up”.
- Air temperatures and relative humidities were moderately severe but surface winds were often strong. The 1908 Fernie Fire, for example, burned a strip 4.8 km wide for a distance of about 32 km (Plummer (1912). This length-to-breadth ratio (6.7:1) suggests that the prevailing winds would have been ~50 km/h (Taylor *et al.* 1997).
- Many small to medium-sized fires burning simultaneously over a relatively large region.

Furthermore, fire protection and suppression in most of the situations given in Table 1 was either non-existent or still in its infancy. The real ‘burning question’ though becomes: Are the planets likely to align again? In other words, can such wildland fire disasters of the past occur again?

### **Comparing then and now**

Presumably the public’s general indifference to forest fires is no longer a factor like it was in the past (Parminter 1978; Pyne 2007). For example, in reporting on the forest fire situation for Canada in 1908, H.R. MacMillan (1909) – then the Assistant Inspector of Forest Reserves for the Department of Interior’s Forestry Branch – had this to say about the Fernie Fire of 1908:

The Fernie fire is a good illustration of what is, throughout the newer districts of Canada, a common condition. The Fernie fire was, for a month before the town was consumed, burning in the logged-over lands and waste lands of the Elk River Valley surrounding the town. Because it was not destroying timber *at that time merchantable* no one made the slightest effort to control the fire. Though for over four weeks it spread through the timberland, destroying all small growth, it was allowed to continue unchecked, and the result was that it got into the slashing near the town, a wind sprang up, and, borne upon it, the fire consumed the town and almost everything within its limits, bringing 22 persons a horrible death, and entailing on a large number the tremendous property loss of \$2,000,000.

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<sup>1</sup> I have found, as Lesile (1954) did and like many others have, that the number of fatalities associated with the wildland fire disasters given in Table 1 as reported on in various written sources varies quite widely. In many cases we will never know the true number of lives lost. Thus, except for the 1938 Dance Township Fire, the values given in Table 1 should be regarded as conservative estimates.



In order to try to answer the general questions poised above though, a number of factors need to be examined. These include assessments of the fire environment, potential causes, fire control effectiveness, and cultural changes:

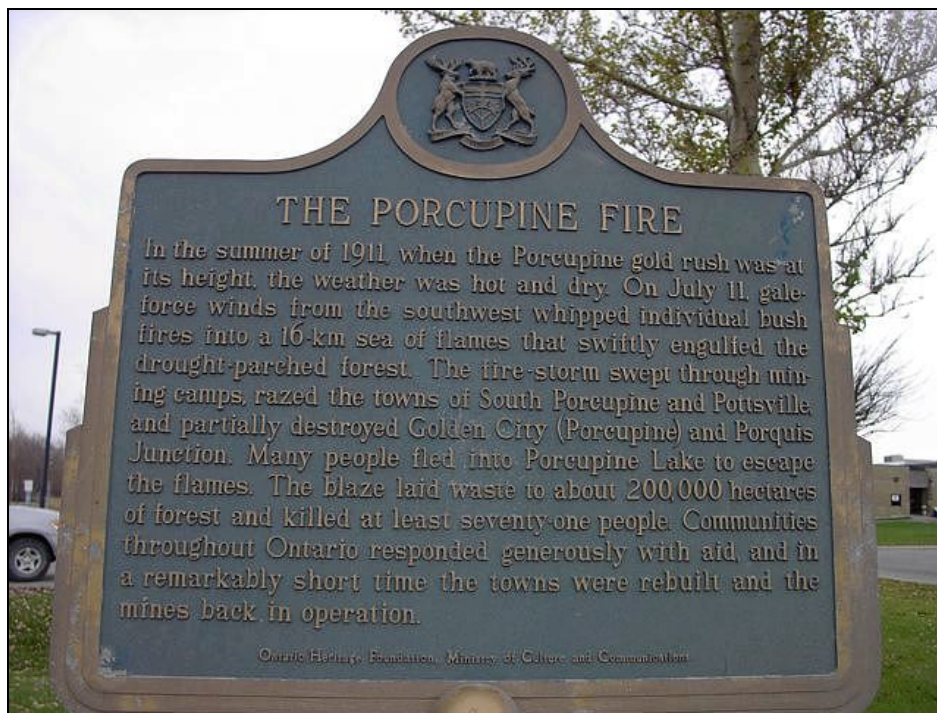
- *Fuels.* – Slash fuels are not the problem they were before but other equally flammable fuel complexes have emerged (e.g. mountain pine beetle-killed forests). The fuel types around affected communities have in some cases been radically altered.
- *Weather conditions.* – Perhaps we are seeing earlier and longer fire seasons with more frequent periods of critical fire weather as a result of global climate change.
- *Ignition sources.* – Far better fire prevention programs exist (e.g. burning permits) but a multiple fire scenario is still a distinct possibility (e.g. lightning, powerline starts).
- *Fire intelligence and suppression capability.* – Obviously greatly improved as a result of modern technology (e.g. fire weather/danger forecasting, aircraft) but there are limits.
- *Values-at-risk.* – The wildland-urban interface fire problem has greatly expanded but by and large, building structures are less flammable. Advances in transportation have made successful evacuations a far more distinct option than they were in the past.
- *Understanding by the general public* – Better informed and more knowledgeable about wildland fires.

From the above summary one might tend to conclude that there is little cause for concern. Indeed, on the subject of forest fire disasters in Canada, *The Canadian Encyclopedia* website (<http://www.thecanadianencyclopedia.com/>) indicates that ‘Great fires still ravage Canadian forests, but modern detection, firefighting techniques and air evacuations ... probably mean that huge killer fires have ceased to be a threat’. Most wildland fire specialists would disagree (e.g. Haines and Sando 1969; Arnold 1971; Brown and Davis 1973; Chandler and Kiil 1977).

Admittedly it is hard to substantiate either a decrease or an increase in the chances of future disasters on the scale of the past. As Brown and Davis (1973) point out, in spite of the favorable changes in sources of fire risk and effectiveness of firefighting efforts, the ‘two basic ingredients for large fires – that is suitable weather conditions and available fuels – will continue to be present’. Arnold (1971) notes that, “The fact remains ... than when weather, fuel and ignition conditions peak at the same time, we can expect to continue to see comparable disasters today’ and while modern communications ‘should reduce loss of life from thousands to only a few – though there is the potential for large loss of life in many places’. Brown and Davis (1973) emphatically state that ‘it is nonetheless both easy and dangerous to ... lull one into believing that big fires cannot occur again. They can, and one should never forget it’.

### **Ways of helping to remember the past**

The Spanish philosopher George Santayana stated that ‘Those who cannot remember the past are condemned to repeat it’. So, what have we done as a society to help us remember our past wildland fire disasters and the lives lost? Several affected communities have established plaques (Figs. 11-13), monuments (Fig. 14) or memorials (Figs. 15-16). As Gulliford (1997) has noted, in this way ‘The living have remembered the dead, and therefore, the dead go on living’. The memorial sculpture commemorating the 1922 Haileybury Fire located on the shore of Lake Timiskaming (Fig. 17) is especially inspirational considering that many of the town’s residents were forced to take refuge in the lake’s cold waters and cover themselves with wet blankets.



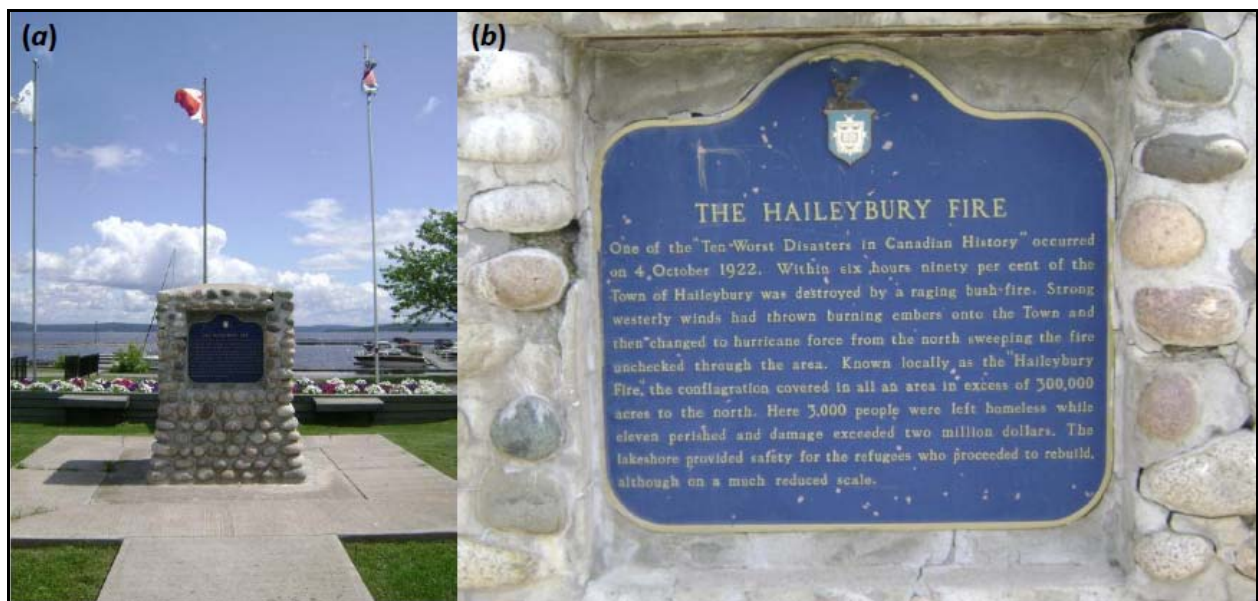
**Fig. 11.** Historical plaque established to commemorate the 1911 Porcupine Fire in northeastern Ontario (photo from <http://www.ontarioplaques.com/>).



**Fig. 12.** Historical plaque established to commemorate the 1916 Matheson Fire in northeastern Ontario (photo from <http://www.ontarioplaques.com/>).



**Fig. 13.** Historical plaque established to commemorate the 1922 Haileybury Fire in northeastern Ontario (photo from <http://www.ontarioplaques.com/>).



**Fig. 14.** Monument (a) with historical plaque (b) established to commemorate the 1922 Haileybury Fire in northeastern Ontario located on the shore of Lake Timiskaming (photos from [http://www.waymarking.com/waymarks/WM7VZQ\\_The\\_Haileybury\\_Fire\\_Pioneer\\_spirit\\_Haileybury\\_Ontario\\_Canada](http://www.waymarking.com/waymarks/WM7VZQ_The_Haileybury_Fire_Pioneer_spirit_Haileybury_Ontario_Canada)).



**Fig. 15.** Monument erected in the cemetery at Val-Gagné, Ontario, in memory of Father Wilfrid Gagné and sixty-four other Nushka inhabitants who perished in the 1916 Matheson Fire (photo from <http://www.iroquoisfallschamber.com/web-content/Pages/nushka2.html>).



**Fig. 16.** Memorial established to commemorate the 1938 Dance Township Fire in northwestern Ontario (photo by Robin Payeur, Burriss, ON).



**Fig. 17.** Memorial sculpture by Ernie Fauvelle located on the shore of Lake Timiskaming establish to commemorate the 1922 Haileybury Fire in northeastern Ontario (upper photo from <http://ih2.redbubble.net/work.310798.7.flat,550x550,075,f.great-fire-of-1922-haileybury-ontario-canada.jpg> and photo insert from <http://www.flickr.com/photos/franctasy/2482566381/>). The following poem by Brian Beaudry appears on a granite monument associated with the memorial site (from <http://outdoors.webshots.com/photo/1176337201028745782XUwABZ>):

#### IN EACH CHILD

I HAVEN'T THE STRENGTH TO HOLD  
FOR YET ONE MOMENT MORE  
AN ACRID HAZE OF MOLTEN AIR  
SHROUDS THE BURNING SHORE  
ENTIRE TOWN ENGULFED IN FLAME  
THIS LAKE OUR SOLE FLIGHT  
PRAYING FOR OUR LORD'S ASSIST  
TO SAVE US THROUGH THIS PLIGHT  
I OFFER YOU IN FADING STRETCH  
THIS PRECIOUS CHILD OF MINE  
HOLD HER ABOVE THE WAVES  
RESASSURE HER ALL IS FINE  
ALL THAT I HAVE IS LOST TO FIRE  
I COULDN'T LOSE HER TOO  
PLEASE BEAR HER A LITTLE WHILE  
HELP HER MAKE IT THROUGH  
THIS TOWN WE CALLED OUR HOME  
IS NOW ALL BUT GONE  
BUT IN EACH CHILD WE WILL FIND  
THE STRENGTH TO CARRY ON

Koch (1942) stated that ‘If history is not written it is soon forgotten’. Weick and Sutcliffe (2001) in turn have indicated that ‘If timely, candid information generated by knowledgeable people is available and disseminated, an informed culture becomes a learning culture’. In this regard, a number of books have been published to date on the nearly all nine of the wildland fire disasters focused on in this paper (Fig. 18). The latest effort appears to be a forthcoming book by on the 1825 Miramichi Fire being written by Dr. Alan MacEachern, an associate professor in the Department of History at the University of Western Ontario (MacEachern 2009). A number of smaller technical reports and popular articles have also been published over the years (e.g. Ganong 1906; Anonymous 1911a, 1911b, 1917; Leslie 1954; Haines and Sando 1969; Stocks and Walker 1973; Miramichi Literacy Writers 1985; McIntyre 2003).



**Fig. 18.** Covers of various books dealing in whole or in part with major wildland fire disasters in Canada written by Holbrook (1960), McClement (1969), Dion (1979), The 75th Anniversary of the Great Fire of 1922 Committee (1997), Johnson (1999), Blanchet (2003), Barnes (2004), Pyne (2007), McQuarrie (2008), and Dalstrom and Dalstrom (2009). Not included in the above collage are general disaster-related books which include chapters on wildland fires (e.g. Looker 2000).

Information on all of the wildland fire disasters discussed in this paper is available on several websites, including a number that feature films that serve to dramatize the events (e.g. <http://www.onf-nfb.gc.ca/eng/collection/film/?id=53774>):

1825 Miramichi, New Brunswick/Maine Fires

- [http://www.gnb.ca/0079/miramichi\\_fire-e.asp](http://www.gnb.ca/0079/miramichi_fire-e.asp)
- [http://en.wikipedia.org/wiki/Miramichi\\_Fire](http://en.wikipedia.org/wiki/Miramichi_Fire)
- <http://www.frenchfortcove.com/id23.html>
- <http://www.frederictonfirefighters.ca/museum/miramichi.htm>
- <http://www.woodmensmuseum.com/>
- <http://homepages.rootsweb.ancestry.com/~nbpast/NO/no-fire.html>

1870 Saguenay - Lac-Saint-Jean Fires, Quebec

- <http://www.histori.ca/minutes/minute.do?id=10172>

1908 Fernie Fire, British Columbia

- <http://www.crownsnest.bc.ca/ferniefirephotos.html>
- <http://www.crownsnest.bc.ca/ferniefire03.html>
- <http://www.passherald.ca/archives/100824/index4.htm>

1910 Baudette, Minnesota/Rainy River, Ontario Fires

- [http://en.wikipedia.org/wiki/Baudette\\_Fire\\_of\\_1910](http://en.wikipedia.org/wiki/Baudette_Fire_of_1910)
- <http://www.lakeofthewoodshistoricalociety.com/history7.html>
- <http://www.baudetteregion.com/news/news/1910-forest-fire-observed-110>
- <http://www3.gendisasters.com/minnesota/3532/baudette-spooner,-mn-great-fire-1910>
- <http://www.ffmpeg.com/100-years-100-stories/FIRE1910.html>
- <http://www3.gendisasters.com/fires/17482/rainey-river-on-fire-oct-1910>

1911 Porcupine Fire, Ontario

- [http://en.wikipedia.org/wiki/Great\\_Porcupine\\_Fire](http://en.wikipedia.org/wiki/Great_Porcupine_Fire)
- <http://www.collectionscanada.gc.ca/sos/002028-4100-e.html>
- <http://www.timminstimes.com/ArticleDisplay.aspx?archive=true&e=2037344>
- <http://www.timminspress.com/ArticleDisplay.aspx?archive=true&e=1112186>
- <http://www3.gendisasters.com/fires/8656/porcupine-district-on-forest-fires-july-1911>
- <http://www.thedailypress.ca/ArticleDisplay.aspx?archive=true&e=612122>
- <http://www.timminspress.com/ArticleDisplay.aspx?archive=true&e=2662466>
- [http://wapedia.mobi/en/Great\\_Porcupine\\_Fire](http://wapedia.mobi/en/Great_Porcupine_Fire)

1919 Alberta/Saskatchewan Fires

- [http://www.llbchamber.ca/index.php?option=com\\_content&view=article&id=5&Itemid=10](http://www.llbchamber.ca/index.php?option=com_content&view=article&id=5&Itemid=10)

1916 – Matheson Fire, Ontario

- <http://www.history.ca/ontv/titledetails.aspx?titleid=79107>
- <http://www.factualtv.com/documentary/Disasters-of-the-century-Matheson-Fire>
- <http://boards.ancestry.com/localities.northam.canada.ontario.cochrane/36/mb.ashx>
- <http://kinseydotca.blogspot.com/2009/03/dr-albert-lauder-kinsey-great-fire-of.html>
- <http://www.iroquoisfallschamber.com/web-content/Pages/nushka.html>

- [http://wapedia.mobi/en/Matheson\\_Fire](http://wapedia.mobi/en/Matheson_Fire)

1922 – Haileybury Fire, Ontario

- [http://en.wikipedia.org/wiki/Great\\_Fire\\_of\\_1922](http://en.wikipedia.org/wiki/Great_Fire_of_1922)
- [http://www.museevirtuel.ca/pm.php?id=story\\_line&lg=English&fl=0&ex=327&sl=8130&pos=1](http://www.museevirtuel.ca/pm.php?id=story_line&lg=English&fl=0&ex=327&sl=8130&pos=1)
- <http://municipalite.notre-dame-du-nord.qc.ca/en/feu22.html>
- [http://www.virtualmuseum.ca/pm\\_v2.php?id=record\\_detail&fl=0&lg=English&ex=00000444&hs=0&rd=113486](http://www.virtualmuseum.ca/pm_v2.php?id=record_detail&fl=0&lg=English&ex=00000444&hs=0&rd=113486)
- [http://wapedia.mobi/en/Great\\_Fire\\_of\\_1922](http://wapedia.mobi/en/Great_Fire_of_1922)
- <http://www3.gendisasters.com/fires/8381/various-towns-on-forest-fires-oct-1922>

1938 – Dance Township Fire, Ontario

- <http://www.fftimes.com/100-years-100-stories/thanksgivingfire.html>
- <http://www.fftimes.com/100-years-100-stories/patterson.html>
- <http://www.fftimes.com/100-years-100-stories/firerefugees.html>
- <http://boards.ancestry.com/localities.northam.canada.ontario.rainyriver/296/mb.ashx>
- <http://www.rainyriverrecord.com/node/5245>

### **Grading our efforts to date**

It would appear that we have done a lot to help us to remember our past wildland fire disasters in Canada. I would in fact give us a ‘B grade’ on our collective efforts to date. However, in our efforts to avoid complacency and ambivalence on the matter, those familiar with the six-stage disaster model presented in Turner’s (1978) book *Man-made Disasters: The Failure of Foresight*, would point the implications of ‘Stage II – The Incubation Period’ of his model that centers around ‘The accumulation of events that detracted from adhering to safe work practices’. So the questions now become: Is it enough to avoid relearning the mistakes of the past<sup>2</sup> and could we do more? The answers: No, probably not, and, yes, by all means.<sup>3</sup>

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<sup>2</sup> One seldom gets second chances when high-intensity wildfires come knocking. However, fortunately this was the case in Alberta in 1968. Between May 16-31, 250 fires burned more than 385,000 ha of forest land. Most of the conflagrations occurred in a 240-km semi-circular strip across central Alberta bordering a transition zone between forest and prairie where land clearing and debris-burning is prevalent. Hundreds of settler fires were burning adjacent to this forest zone before and during the peak fire period and many of these subsequently united and spread from the agricultural zone into the forested zone. The largest conflagration burned an area of 133,565 ha, most of which occurred on May 23 when the fire advanced 64 km during a 10-h period towards the town of Slave Lake under the influence of strong southeasterly winds (Kiil and Grigel 1969). A disaster was avoided when weather conditions abated.

<sup>3</sup> Consider for a moment the question poised by Andrea who asked the question on an internet site (<http://en.allexperts.com/q/Canadian-History-2762/Great-Fire-1916.htm>) as to why did so many people die in the 1916 Matheson Fire.



### **Possible future initiatives**

So what might possibly be done? Outside of major commemorations (e.g., 100th anniversary), I would like to suggest that we consider yearly reminders on the annual calendar dates of these wildland fire disasters. This could be in the form of articles in local newspaper and/or brief summaries on various online calendars. For example, of the nine wildland fire disasters discussed in this paper, the 1922 Haileybury Fire is the only one included on the 'Wildland Fire Event Calendar' (<http://www.iawfonline.org/calendar>) located on the International Association of Wildland Fire's website. It would then be advantageous to have a website where a person could go 'for further information'. In this regard, the website devoted to 'The Great Peshtigo Fire of 1871' that occurred in Wisconsin is quite impressive (<http://www.peshtigofire.info/>).

I had a hand for example in compiling the list of wildland fire case studies to be included within the natural hazards section of the online *Atlas of Canada* website ([http://atlas.nrcan.gc.ca/site/english/maps/environment/naturalhazards/forest\\_fires](http://atlas.nrcan.gc.ca/site/english/maps/environment/naturalhazards/forest_fires)) developed by Natural Resources Canada. This represents a good start but I believe in addition to websites for individual wildland fire disasters that we also need a nationally dedicated website similar to that of the Canadian Fallen Firefighters Foundation (<http://www.cfff.ca/en/>). Such a website would also recognize lesser known, but equally important incidents<sup>4</sup>, and other major wildland-urban interface incidents of the past such as the 1938 Bloedel Fire near Campbell River on Vancouver Island, BC (Keller 2002) and the series of wildfires that impacted communities in Newfoundland during the 1904 fire season (Wilton and Evans 1974).

### **Concluding remarks**

While major wildland-urban interface fires have continued to occur in Canada (e.g. Pattison 1995; Qunitilio *et al.* 2001; Filmon *et al.* 2004), no members of the general public have been killed as a result of being entrapped or overrun by wildfire since the Dance Township Fire in 1938. Other regions of the globe have not been so fortunate (Alexander *et al.* 2011). Australia for example has suffered its share of wildland fire related fatalities in modern times (Cheney 1976). However, in light of the 173 deaths associated with the Black Saturday fires in Victoria, Australia on 7 February 2009 (Teague *et al.* 2010), the following passage taken from an editorial that appeared in *Australian Forestry* (Anonymous 1983) following the 1983 Ash Wednesday fires in southeastern Australia in which 75 people perished, is an especially sobering thought:

Once again Victoria and South Australia have experienced exceptionally severe bushfires. They were not totally unexpected. Fires of similar intensity had occurred in south-eastern Australia several times in living memory – in Victoria in 1939, South Australia in 1958 and Tasmania in 1967. Long before mid-summer, drought had desiccated the fuels on forest and farm, and it needed only a day of high temperatures and very strong winds to generate perilous conditions. Ash Wednesday, 16 February 1983, was such a day.

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<sup>4</sup> For example, in 1884 a wildfire that occurred within the Township of Morley in the Rainy River District of northwestern Ontario resulted in the deaths of a mother and her three children when their cabin was overrun (<http://www.townshipofmorley.ca/fullhistory.html>).

Even if a sustained massive fire prevention program were adopted, it would be unrealistic to hope that the combination of going fire and extreme weather conditions will not occur again. It would therefore appear that holocausts can be expected somewhere or other in south-east Australia perhaps once every twenty or thirty years. This means that the people will have to learn to live with the risk of holocaust, especially people who opt for non-urban life-styles.

What can be learned from the latest disasters? Progress will surely be made in various technical areas. Research and review will provide new information on such matters as fire protection and suppression, town planning strategies, refuge arrangements, the organization of relief, forest rehabilitation, and contingency approaches to the management of wood-flows, wildlife, recreation and other forest benefits. Advances in technical areas will be of great value. It would be valuable too to make comparable advances in the areas of public policy. People forget, community attitudes change and policies erode. Perhaps one of the great challenges, given the realities of south-eastern Australia, is to learn how to ensure the permanence of public interest policies where permanence is required.

Haines and Sando (1969) have stated that ‘until man learns how to fireproof the forest or modify the weather, he must remain constantly alert to the threat of new fire disasters’. In this respect, a word regarding the title of this paper is in order. The words **lest we forget** form the refrain of a poem by Rudyard Kipling entitled ‘Recessional’ which he composed on the occasion of Queen Victoria’s Diamond Jubilee in 1897. The phrase passed into common or popular usage following World War I, becoming linked with Remembrance Day observations. It has since been used in various ways in both film and song for example. It also seems a fitting means of warning or cautioning us about failing to forget the perils of wildland fire disasters.

In closing, I’d like to just say – borrowing from the title of the paper by Hartley and Langlois (1998) – ‘Don’t Blame the Goaltender – the Whole Team is Responsible for Wildland Fire Safety’. Everyone has a role. It is my sincerest hope that this paper will inspire others to take up the cause of instilling public awareness about Canada’s past wildland fire disasters. Considerable conviction is required to try and avert such incidents from every happening again. The awareness level in communities that have been directly affected in the past is undoubtedly high. The greatest challenge will be in those areas that haven’t experienced a major wildland fire disaster in the past as a result of a ‘it can’t possibly happen to us’ type of attitude (Alexander 2004).

### **Epilogue**

The following four line stanza or quatrain is taken from the poem ‘The Miramichi Fire’ by John Jardine of Black River, NB, written a few days after the 1825 disaster (Manny and Wilson 1968; Arbuckle 1978):

*I heard the sighs, the cries and groaning,  
Saw the falling of the tears;  
By me this will not be forgotten,  
Should I live a hundred years.*

To view the full version of the poem visit <http://www.museevirtuel-virtualmuseum.ca/edu/>.

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### References

- Alexander ME (2004) Can wildland conflagrations be stopped? Available at <http://fire.feric.ca/other/CanWildlandConflagrationsBeStopped.htm> [Verified 9 December 2010]
- Alexander ME (2009) Are wildland-urban interface fire disasters avoidable? Invited Keynote Address at New Brunswick Association of Fire Chiefs 32nd Annual Convention, 23-25 May 2009, Moncton, NB. Available at <http://www.wildfirelessons.net/documents/AreWUIFireDisastersAvoidable-MAlexander.pdf> [Verified 9 December 2010]
- Alexander ME, Mutch RW, Davis KM, Bucks CM (2011) Wildland fires: dangers and survival. In 'Wilderness Medicine'. (Ed PS Auerbach) 6<sup>th</sup> edn. (Mosby: Philadelphia, PA) *In press*.
- Anonymous (1911a) The Great Miramichi Fire. *Canadian Forestry Journal* **7**, 49-51.
- Anonymous (1911b) The Porcupine and Cochrane Fires. *Canadian Forestry Journal* **7**, 95-99.
- Anonymous (1917) Recollections of Canada's greatest forest fire. *Canadian Forestry Journal* **13**, 1409-1410.
- Anonymous (1983) Editorial: The Ash Wednesday fires. *Australian Forestry* **46**, 1.
- Arbuckle DM (1978) 'The North West Miramichi.' (Westboro Printers Limited: Ottawa, ON)
- Arnold RK (1968) Mass-fire: the disaster we face. *Michigan Conservationist* **37**(4), 2-6.
- Arnold RK (1971) Review of *The Flaming Forests* by Fred McClement. *Forest History* **15**, 36.
- Barnes M (2004) 'Killer in the Bush: The Great Fires of Northeastern Ontario.' 2nd edn. (Highway Book Shop: Cobalt, ON)
- Blanchet P (2003) 'Forest Fires: The Story of a War.' (Cantos International Publishing, Inc: Montreal, QC)
- Brown AA, Davis KP (1973) 'Forest Fire: Control and Use.' 2nd edn. (McGraw Hill: New York)
- Chandler C, Kiil D (1977) Wildfires and tame fires in North America's forests. *Fire Journal* **71**(6), 36-41, 85.
- Cheney NP (1976) Bushfire disasters in Australia, 1945-1975. *Australian Forestry* **39**, 245-268.
- Dalstrom HA, Dalstrom KC (2009) "We Were Not Worried at Dinner Time": The October 1938 Forest Fires and the Last Frontier in the Rainy River – Lake of the Woods Borderland. (Rainy River District Women's Institute Museum: Emo, ON)
- Dion JF (1979) 'My Tribe, the Crees.' (Glenbow Museum: Calgary, AB)
- Filmon G, Leitch D, Sproul J (2004) Firestorm 2003: Provincial review. Government of British Columbia. (Victoria, BC) 2004. Available at <http://www.2003firestorm.gov.bc.ca> [Verified 9 December 2010]

- Ganong WF (1906) On the limits of the great fire of the Miramichi of 1825. *New Brunswick Natural History Society Bulletin* 5, 410-418.
- Guillford, A (1997) Fire on the mountain: Tragic death and memorialization of the Storm King fourteen. *Montana the Magazine of Western History* 47(2), 44-57.
- Guthrie, JD (1936) Great forest fires of America. USDA Forest Service. (Washington, DC)
- Haines DA, Sando RW (1969) Climatic conditions preceding historically great fires in the North Central Region. USDA Forest Service, North Central Forest Experiment Station, Research Paper NC-34. (St. Paul, MN)
- Hartley B, Langlois W (1998) Don't blame the goaltender – the whole team is responsible for fireline safety. In 'Proceedings Canada/US Wildland Fire Safety Summit, 29 September – 2 October 1997, Rossland, BC. p. 9 (International Association of Wildland Fire: Fairfield, WA)
- Holbrook SH (1960) 'Burning an Empire.' (MacMillan: New York)
- Johnson GA (1999) 'Lac La Biche Chronicles: The Early Years.' 1st edn. (Portage College: Lac La Biche, AB)
- Keller K (2002) 'Wildfire Wars: Frontline Stories of BC's Worst Forest Fires.' (Harbour Publishing: Madeira Park, BC)
- Kiil AD, Grigel JE (1969) The May 1968 forest conflagrations in central Alberta – a review of fire weather, fuels and fire behavior. Canada Department Fisheries and Forestry, Forestry Branch, Forest Research Laboratory, Information Report A-X-24. (Edmonton, AB)
- Koch E (1942) History of the 1910 forest fires in Idaho and western Montana. USDA Forest Service, Region I. (Missoula, MT)
- Leslie AP (1954) Large forest fires in Ontario. Ontario Department of Lands and Forests. (Toronto, ON)
- Looker J (2000) 'Disaster Canada.' (Lynx Images: Toronto)
- MacEachern A (2009) An introduction, in theory and practice. In 'Method and Meaning in Canadian Environmental History'. 1st edn. (Eds A MacEachern, WJ Turkel) pp. ix-xv. (Nelson Education: Scarborough, ON)
- MacMillan HR (1909) Forest fires in Canada during 1908. Canada Department of Interior, Forestry Branch, Bulletin No. 7. (Ottawa, ON)
- Manny L, Wilson JR (1968) 'Songs of Miramichi.' (Unknown publisher: Fredericton, NB)
- Martin RE, Sapsis DB (1995) A synopsis of large and disastrous fires. In 'The Biswell Symposium: Fire Issues and Solutions in Urban Interface and Wildland Ecosystems', 15-17 February 1994, Walnut Creek, CA (Eds DR Weise, RE Martin) USDA Forest Service, Pacific Southwest Research Station, General Technical Report PSW-GTR-158. (Albany, CA)
- McClement F (1969) The Flaming Forests. (McClelland and Stewart: Toronto, ON)
- McIntyre T (2003) Canada's incendiary past: fires that have burned their way into Canadian history. Available at <http://www.canadiangeographic.ca/magazine/ja03/indepth/timeline.asp> [Verified 9 December 2010]
- McQuarrie N (2008) 'Dance is on Fire!' (Fort Frances Times: Fort Frances, ON)
- Miramichi Literacy Writers (1985) 'The Great Miramichi Fire.' (Mirmichi Literacy Council: Chatham, NB) Available at <http://www.nald.ca/library/learning/miramichi/fire/fire.pdf> [Verified 9 December 2010]
- Parminter JV (1978) An historical review of forest fire management in British Columbia. MFor essay, University of British Columbia, Vancouver.
- Pattison L (1995) 'The Garnet Fire.' (Friesen Printing: Altona, MB)

- Plummer FG (1912) Forest fires: their causes, extent and effects, with a summary of recorded destruction and loss. USDA Forest Service, Bulletin 117. (Washington, DC)
- Pyne SJ (2007) 'Awful Splendour: A Fire History of Canada.' (UBC Press: Vancouver)
- Quintilio D, Lawson BD, Walkinshaw S, Van Nest T (2001) Final documentation report – Chisholm Fire (LWF-063). Alberta Sustainable Resource Development, Forest Protection Division, Publication No. I/036. (Edmonton, AB)
- Stocks BJ, Walker JD (1973) Climatic conditions before and during four significant forest fire situations in Ontario. Environment Canada, Canadian Forestry Service, Great Lakes Forest Research Centre, Information Report O-X-187. (Sault Ste. Marie, ON)
- Storey TG, Noel SM (1965) A selected list of large spreading fires in the world since 1825. USDA Forest Service, Division of Fire Control, National Fire Coordination Study. (Washington, DC)
- Taylor SW, Pike RG, Alexander ME (1997) A field guide to the Canadian Forest Fire Behavior Prediction (FBP) System. Natural Resources Canada, Canadian Forest Service, Northern Forestry Centre, Special Report 11. (Edmonton, AB)
- Teague B, McLeod R, Pascoe S (2010) 2009 Victorian Bushfires Royal Commission. Printer for the State of Victoria, Final Report Summary. (Melbourne, Victoria) Available at <http://www.royalcommission.vic.gov.au/Commission-Reports> [Verified 9 December 2010]
- The 75th Anniversary of the Great Fire of 1922 Committee (Comp) (1997). 'The Great Fire of 1922.' (Highway Book Shop: Cobalt, ON)
- Turner B (1978) 'Man-made Disasters: The Failure of Foresight.' (Wykeham: London)
- Weick KE, Sutcliffe KM (2001) 'Managing the Unexpected: Assuring High Performance in an Age of Complexity.' 1st edn. (University of Michigan Business School: Ann Arbor, MI)
- Wilton WC, Evans CH (1974) Newfoundland forest fire history 1619-1960. Environment Canada, Canadian Forestry Service, Newfoundland Forest Research Centre, Information Report N-X-116. (St. John's, NF)

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