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# Characteristics of large fires in Wood Buffalo National Park, Canada

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Wood Buffalo National Park is Canada's largest park (44 807 $km^2$) and one of the largest in the world. Situated in the northern boreal forest astride the Alberta/Northwest Territories border ($60^o$ N), the park sees much wild fire activity. The latest National Parks Act places a greater importance on the protection of ecological integrity, which stresses native biodiversity and maintaining ecological and evolutionary processes. Fire is recognized as a natural process that ideally should be allowed to run its course, with intervention only when required due to risks to people, property or neighbouring jurisdiction. In most parks, such threats require active fire suppression, but in remote parks such as Wood Buffalo, fires are permitted to burn with little intervention. This makes the park an ideal location to study natural fire growth and behaviour.

This paper discusses several extreme large-fire events (50 000 ha or more) that have occurred within Wood Buffalo National Park over the last decade. The fire weather conditions and fire behaviour of these fires are described along with conditions that have lead to their extinguishment. Results of various efforts to model the fire growth are presented, with implications for operational and landscape fire modelling.