

FIRE PARADOX – GFMC Prescribed Burning Demonstration Network Inventory Sheet

Prescribed Burning Demonstration Sites - Site Description and Objectives -		Local Site Name: Bor Island
Country: Russia	Region: Krasnoyarsk Region	Location: Sym Plain, in the Western Siberian Lowland
Unit No./Admin. Unit:	Owner:	Site area (ha): 50 ha
UTM zone:	UTM (x): 60° 45'N UTM (y): 89° 25'E	Map / Aerial photo : <input type="radio"/> Yes (Please attach) <input type="radio"/> No
First established: 1993	Area(s) burnt (ha): 50 ha	Fire return interval (or time since last burn, or next burn planned):
Number of plots (in case of an array of sub-plots for experimental repetitions, particular site differences or high number of operationally burned sites): 10		
Special remarks: Experimental fire		
Purpose of Treatment: High-intensity stand replacement fire under controlled conditions with characteristics of an uncontrolled wildfire		
Specific Treatment Objectives: Long-term observations between 1993 and 2192 (experiment duration: 200 years)		Objectives reached? <input type="radio"/> Yes <input type="radio"/> No Specify:
Desired burn conditions to reach objectives (optional or if necessary as general prerequisite)		
Wind speed (m/s): 2-2.5		Wind direction: SE
Relative humidity (%): 35-45		Soil moisture: DMC 270
Air temperature (°C): 25-30		Burn period (time of year): 20 June- 20 July
What problems do occur?		
Site description		
Vegetation type (main species): <ul style="list-style-type: none"> • <i>Pinus sylvestris</i>-<i>Ledum-Vaccinium vitis idaea</i>-<i>Pleurozium schreberi</i> type • <i>P. sylvestris</i>-<i>P. schreberi</i>-<i>Cladonia sylvatica</i> type • <i>P. sylvestris</i>-<i>Polytrichum commune</i>-dwarf shrub-Sphagnum type 	Annual mean precipitation (mm/a): 450-500 mm	Mean precipitation during time of burn (mm): 0 mm
Fuel load (target fuel) (t ha⁻¹): 16-18	Annual mean temperature (°C): 3.2 - 5.7° C	Mean temperature during time of burn (°C): 30-32° C

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Fuel description: See publications				
Topography: Level terrain	Slope (%) -	Aspect: -	Altitude (m a.s.l.): 150	Soil conditions: sandy surface materials of glacial outwash and alluvial origin, ferric podsol, with a coarse sand texture
Other:				

Burn team specifications

Parties involved: FIRESCAN Science Team	Specific expertise or training: <input type="radio"/> Yes <input type="radio"/> No Please specify:
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Documentation of demonstration site

Management plan: <input type="radio"/> Detailed management plan <input type="radio"/> Simple management plan <input type="radio"/> none	Burn protocol: <input type="radio"/> Yes <input type="radio"/> No	Monitoring of <input type="radio"/> Weather data <input type="radio"/> Fuel accumulation <input type="radio"/> Fire behaviour <input type="radio"/> Smoke
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Presentations:

Photos/ videos: See dedicated websites and publications

- <https://gfmc.online/conferences/1993.html>
- <https://gfmc.online/globalnetworks/balticregion/KrasnoyarskFireManagementWeek-2012.html>
- <https://gfmc.online/globalnetworks/balticregion/KrasnoyarskFireManagementWeek-2013.html>

Documentary:

- [The Bor Forest Island Fire Experiment](#) (1993, English Version, mp4, 3.5 GB)

Publications:

FIRESCAN Science Team. 1994. Fire in Boreal Ecosystems of Eurasia: First results of the Bor Forest Island Fire Experiment, Fire Research Campaign Asia-North (FIRESCAN). World Resource Review 6, 499-523 (J.G. Goldammer, coord.)

FIRESCAN Science Team. 1996. Fire in ecosystems of boreal Eurasia: The Bor Forest Island Fire Experiment, Fire Research Campaign Asia-North (FIRESCAN). In: Biomass burning and global change. Vol. II (J.S. Levine, ed.), 848-873. The MIT Press, Cambridge, MA.

Goldammer, J.G. (ed.) 2013. Prescribed Burning in Russia and Neighbouring Temperate-Boreal Eurasia. A publication of the Global Fire Monitoring Center (GFMC). [Kessel Publishing House, 326 p. \(ISBN 978-3-941300-71-2\).](#)

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