

# Wildfires in the Larch Range within Permafrost, Siberia

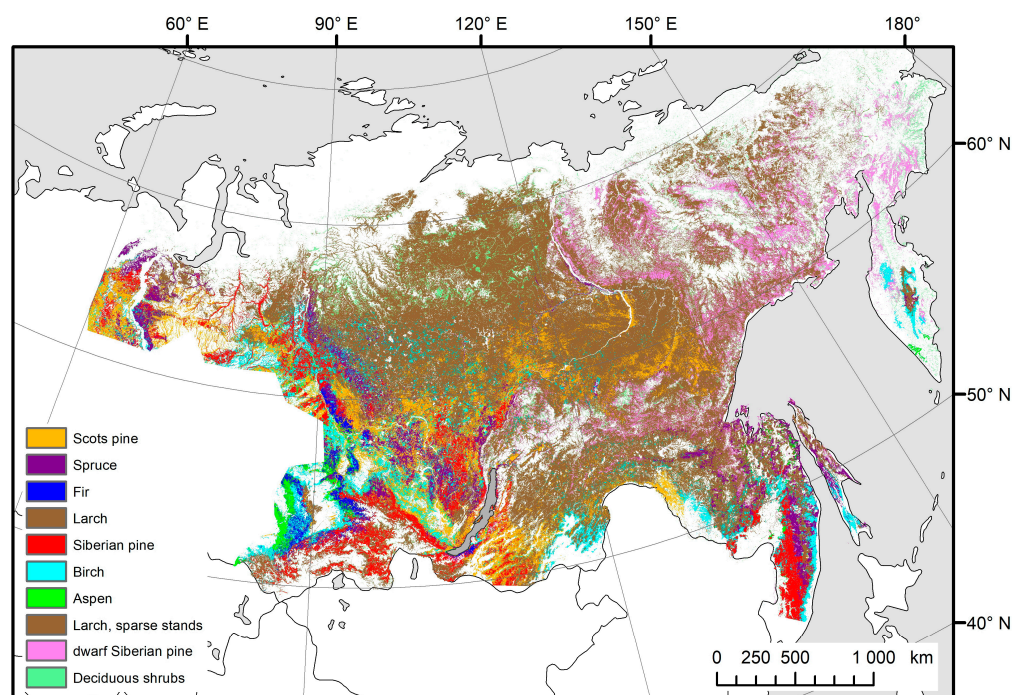
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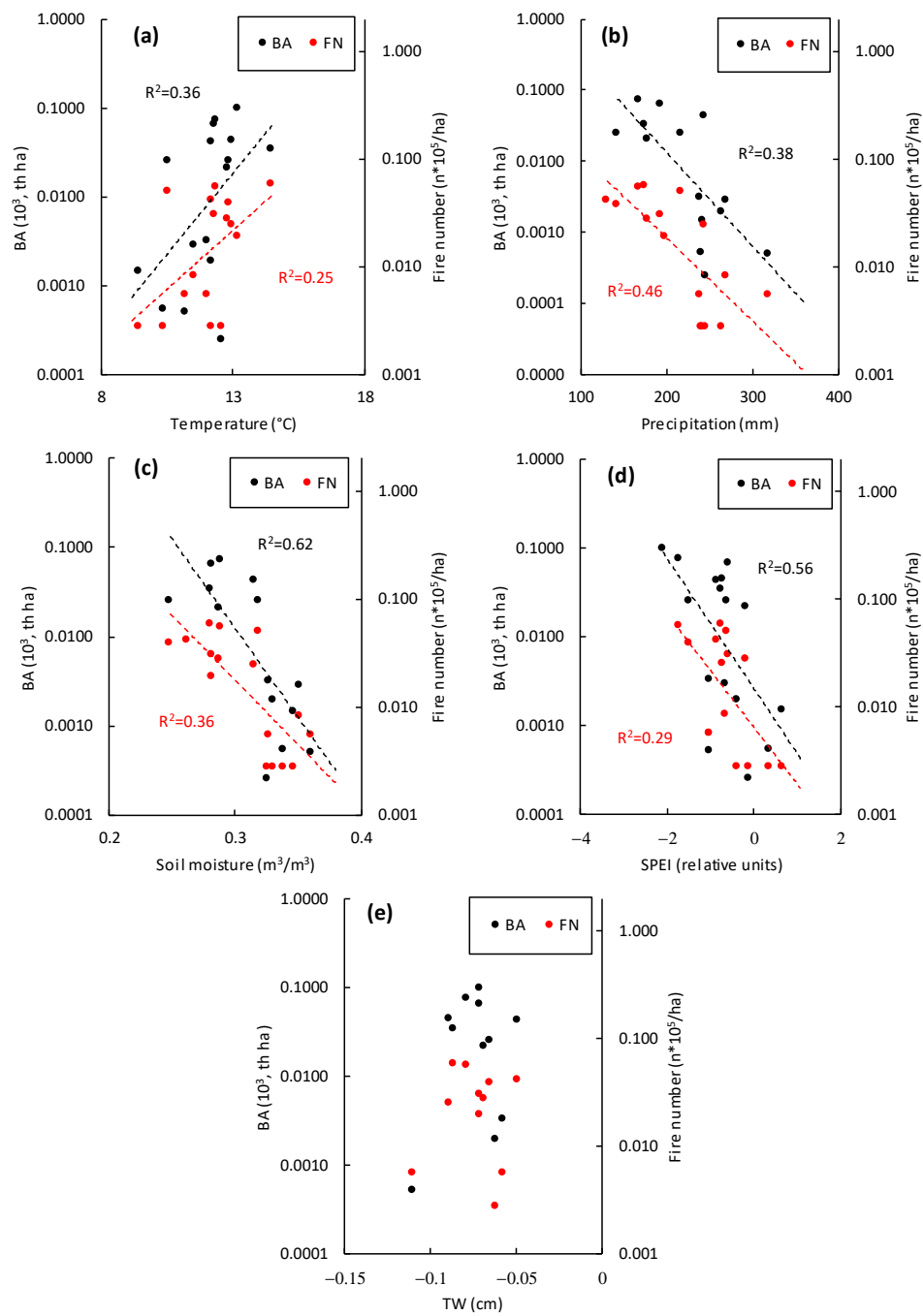
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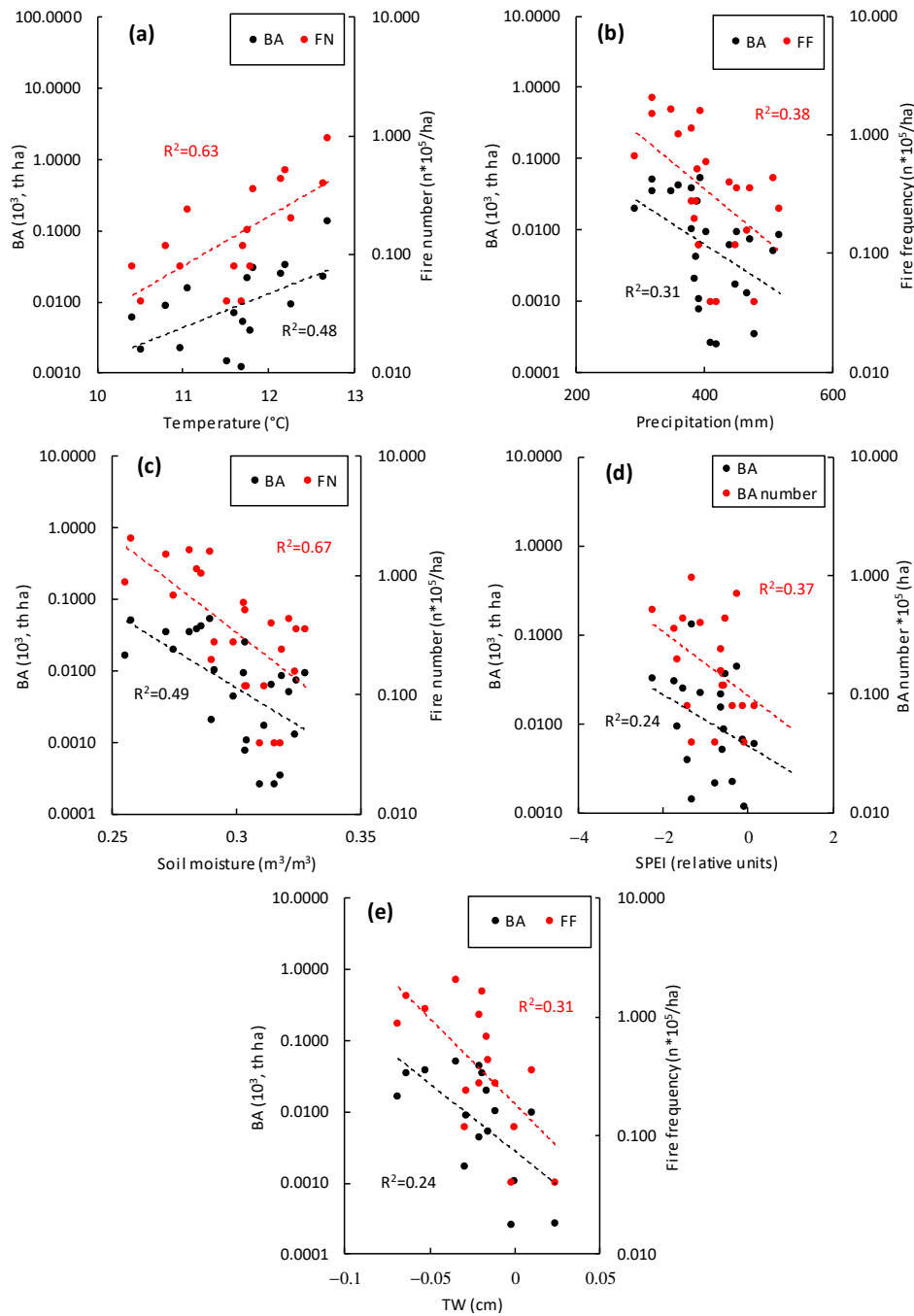
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**Figure S1.** Tree species composition map within permafrost zone. Based on the VEGA-PRO map (<http://pro-vega.ru/eng/> (accessed 14 July 2023)).

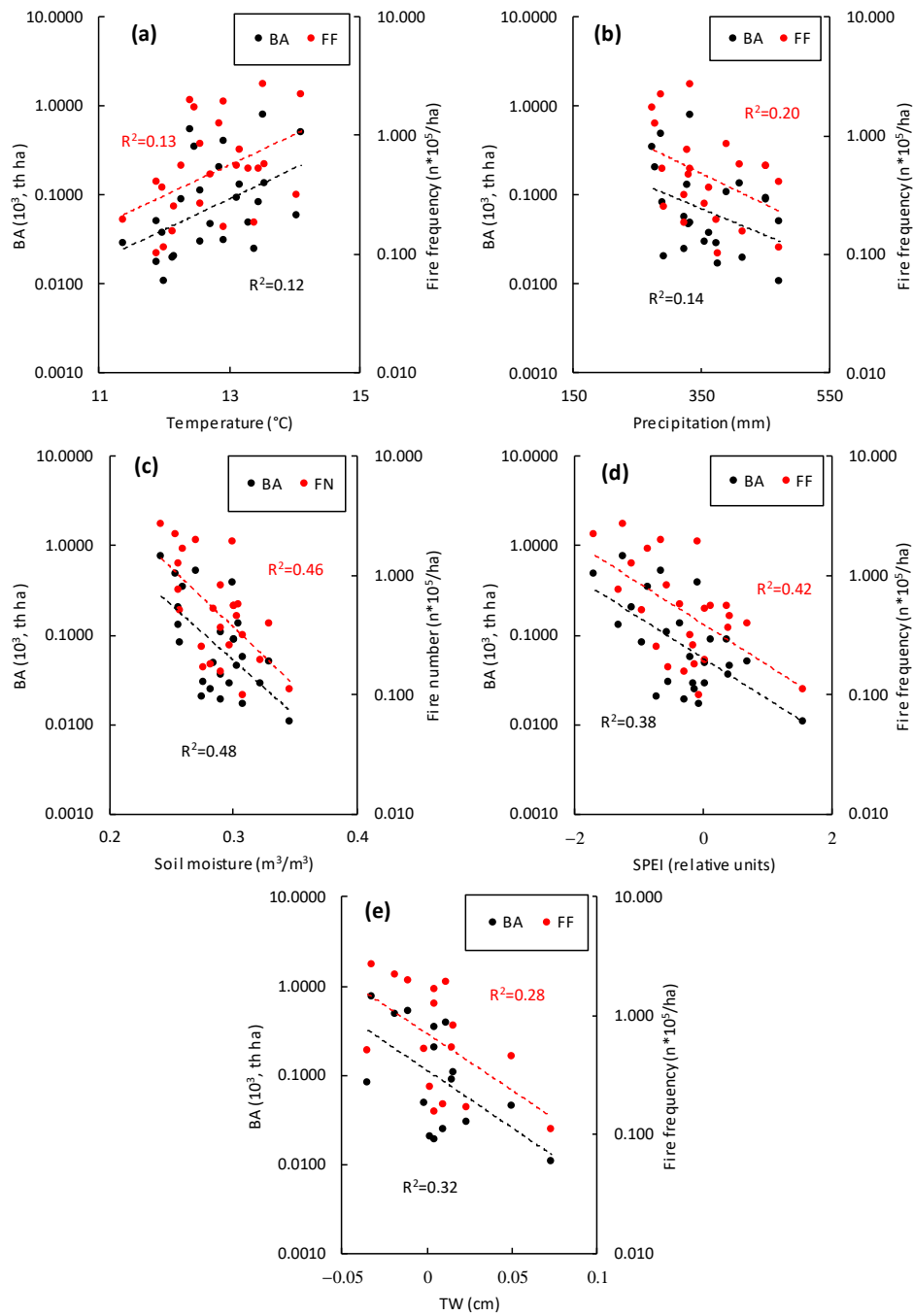


**Figure S2.** Study area North (Figure 1). Dependence of the annual wildfire North (BA >200 ha) occurrence on the (a) air temperature, (b) precipitation, (c) soil moisture (with 0–7 cm soil depth), (d) SPEI drought index and (e) terrestrial water content. Study period 1996–2022 with exception for TW (2002–2022). Climate variables considered for JJA period.



**Figure S3.** Study area South1 (Figure 1). Dependence of the annual burned area and fires number on the (a) air temperature, (b) precipitation, (c) soil moisture (with 7–28 cm soil depth), (d) SPEI drought index and (e) terrestrial water content. Study period 1996–2022 with exception for TW (2002–2022). Climate variables considered for JJA period. Large fires (i.e., BA > 200 ha with exception for (a): BA > 1000 ha) were considered.

It should be noted that only BAs larger than 1000 ha have correlations with temperature. Presumably, this is due to the fact that the cause of BA < 1000 ha is primarily anthropogenic impact, not a temperature in the presence of a deficit of precipitation and water in the soil.



**Figure S4.** Study area South2 (Figure 1). Dependence of the annual burned area (large fires, BA >200 ha) and fires number on the (a) air temperature, (b) precipitation, (c) soil moisture (28–100 cm soil depth), (d) SPEI drought index and (e) terrestrial water content. Study period 1996–2022 with exception for TW (2002–2022). Climate variables considered for MJJAS period.