

## Detection of regional extent of permafrost thawing and waterlog damage area in boreal forest in eastern Siberia during w

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Wet climate with largely increased in rainfall during summer and snow accumulation during winter had perennially continued since 2004 in eastern Siberia. Soil moisture in the active layer had been rapidly increased corresponding with thawing permafrost near the surface during following years. The perennially water-logged active layer furthermore exacerbated the boreal forest habitat, namely withered and dead forests widely extended in this region. In the present study, we have attempted to extract the region of degraded boreal (larch) forest based on the analysis of satellite data (ALOS-AVNIR2 and PALSAR) in the left and right banks of the central Lena River Basin near Yakutsk, along with expansion of the water-logged forest floor in relation to permafrost degradation.

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