Spruce Injured by Fungus Northwest of Lake Winnipeg. 215

A little further west, on Burntwood Lake, and southerly up the File River, the damage was more striking, whole trees, instead of only the tips of branches, standing yellow and apparently dead, the boughs wreathed with cobwebs.

Along the Grassy River, another tributary of the Nelson, about sixty miles south of the Burntwood, the trees were affected in like manner to a point a little east of Wekusko Lake. It was noticed that on points projecting from the north shore of the lake, trees on the east side were quite yellow, while those on the west side were only tipped, and generally the more exposed sides of the trees everywhere were most affected.

Throughout the whole region, white spruces alone were attacked, though black spruces are common, and often grow in close association with the white. A small branch, with the fungi, was sent by Prof. Macoun to Prof. Geo. F. Atkinson of Cornell University, who writes:

"It is Peridermium decolorans Pk., 27th Rept. N.Y. State Mus. Nat. Hist., 104, 1875. This has a wide distribution in alpine regions and northern North America. It occurs on Picea Mariana, rubra, Engelmannii, Sitchensis and Canadensis, the latter one being the white spruce.

Here it occurs along the mountains of the Pacific from Banff, British Columbia, into Alaska. Probably the reason it does not occur on the black spruce, is because this form on the white spruce may be a biological or physiological form. You will find an account of its distribution on pages 428 and 429 of the August, 1906, number of the Bulletin of the Torrey Botanical Club."

The attack of this fungus, though probably only in extreme cases resulting in the death of the tree affected, must retard its growth, and, if recurring year after year, to a very marked degree.

There are specimens in the herbarium of the Geological Survey, collected by Prof. Macoun in 1881 near Lake Manitoba, but no serious injury to spruce trees in that region has been reported.

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The Annual Meeting of the American Forestry Association will be held in Washington on Wednesday, January 9th, 1907. Reduced rates on all railways have been secured for members and friends. Programmes, full particulars as to rates, etc., and other information may be had from the Secretary of the Association.