



Back of Peachland, B. C. Black Pine Killed by Mountain Pine Beetle.

there are piled over two million feet of good white spruce logs in a series of immense piles. Two of these piles had been cut two and a half years previous to our visit and the remainder one and a half years, or two winters before. The outer layers of logs in the piles cut latest were infested with countless numbers of the grubs then boring actively and audibly from four to six inches below the surface. The large amount of fresh boring-dust from the tunnels and lying everywhere between the logs gave evidence of the destructive work going on beneath the bark. On the older piles the outer layers of logs were completely ruined by the tunnels of the grubs, which had penetrated the heart wood and often passed completely through the trunk. At the time of our visit—July, 1915—the grubs had completed their two year's growth, transformed to adult beetles and all emerged from the logs of these older piles. Hundreds of thousands of feet of excellent white spruce had already been destroyed by borers in those piles, and much further injury will be done if no effort is made to prevent it. The whole loss could

have been averted very simply by booming the logs in a nearby cove during the spring following the cut.

In the Wake of Fires.

Losses from these large boring grubs occur frequently in our spruce and pine limits, when logs are left behind in the woods. Fire-killed and wind-blown pine, spruce and balsam in our woods are usually attacked by these beetles and the timber rendered useless within two seasons following the fire or storm. Fire-killed standing trees would remain excellent timber for many years if not attacked by insects and fungi or swept by succeeding fires.

Ambrosia-beetles excavate round tunnels about the size of the lead in a lead pencil deep into the wood of both deciduous and coniferous trees. The walls of the tunnels are stained black by a fungus which always grows thereon. The loss in reduction of value is at times very important. The most destructive of these borers, because its tunnels extend deepest into the wood, is the Pacific Coast Timber-beetle, *Platypus wilsoni*, found in the coast region of British Columbia. It extends its