

POLYPORUS DRYADEUS, A ROOT PARASITE ON WHITE FIR

by

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While on field work in what is known as Tejano Canyon in the Sandia Mountains near Albuquerque, New Mexico, the writer found many dead and dying trees of White Fir (Abies concolor). Some of the trees were more than two feet in diameter while others were small saplings. An examination of the diseased trees showed that they were attacked by some root parasite. Trees were found in all stages of the disease. Many were still alive but in a dying condition. In such cases all the larger roots were dead and in a rotten condition, while a few of the smaller surface roots were still alive but with their tips dead and the disease was progressing along the roots toward the base of the tree. On some of the larger trees, sporophores were found attached to the collar of the tree. Old as well as fresh ones were found, some even in the sporulating stage. Specimens of various stages of the rot and of the sporophores were collected for study. These specimens agreed in all essential characters, both gross and microscopic, with Polyporus dryadeus.

In a previous paper ("Polyporus Dryadeus, a Root Parasite on Oak" Journal of Agricultural Research, Vol. I, No. 3, December 10, 1913) the writer described this fungus as it occurs on oak and also called attention to a collection from the state of Washington on Tsuga heterophylla. It is now reported from another conifer, White Fir. A collection has also been seen from California on this last host.

The old sporophores on White Fir have the hymenium with tubes splitting into irregular areas. The surface of the pileus, in weathering, splits into irregular polygonal scale-like areas which separate slightly from each other. The fission is more or less parallel to the surface of the pileus. The weathered pileus is dark brown to almost black. The pileus of the fresh sporophores are typical of the eastern specimens of this fungus as it occurs on oak.

The setae were cat-claw shaped, dark chestnut brown, thick walled, 10 to 12 microns thick at the base by 25 to 30 microns long, averaging 11.5 by 26 microns. The spores were hyaline, obovate to globose, ranging from 7-8.5 by 7.5 to 10 microns, average 7.25 by 8.25 microns, usual size 7 by 8.5 microns. These characters of setae and spores agree with those found on oak.

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