PORIA INCRASSATA IN GIANT SEQUOIA

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During investigations on the factors associated with tree failure of giant sequoia (Sequoia gigantea), Poria incrassata (Berk. & Curt.) Burt (Synonyms: Serpula incrassata (Berk. & Curt.) Donk and Meruliporia incrassata (Berk. & Curt.) Murr.) was found associated with root and butt rot of two fallen, old-growth giant sequoia trees at the University of California Whitaker's Experimental Forest, adjacent to Sequoia-Kings Canyon National Park. A sporophore of Poria incrassata was found in June 1975, on wet bark near the lower side of the butt section of an old-growth giant sequoia tree that fell during the winter of 1964-65, and P. incrassata was cultured from decayed wood in the root and butt section of a nearby, old-growth giant sequoia tree that fell during the winter of 1974-75 (it was estimated that 55% of the root system was in an advanced stage of decay). Both were identified as Poria incrassata by Mrs. Frances Lombard and Dr. H. H. Burdsall, Jr. Mycological information about the organism can be found in Humphrey (3), Davidson and Lombard (1), Lowe (4), and Verrall (6).

P. incrassata has been primarily found decaying wooden structures in the southern coastal areas of the United States; however, it has also been reported in other areas of the United States, including California (6). P. incrassata has been rated as the most destructive of the building decays (5).

P. incrassata has been infrequently reported on living or fallen trees (6). In 1924, E. P. Meinecke, W. W. Wagener, and L. S. Gill collected sporophores of P. incrassata from two living coast redwood trees and from one fallen coast redwood tree (records from the Forest Disease Herbarium of the Pacific Southwest Forest and Range Experimental Station. U. S. Department of Agriculture, P.O. Box 245, Berkeley, California 94701). Davidson and Lombard (1) collected a fresh sporophore of P. incrassata from a Douglas-fir log in the woods. Hepting (2) lists P. incrassata as a trunk rot fungus of American holly (Ilex opaca).

This is believed to be the first report in which P. incrassata was found directly associated with a root and butt rot of forest trees. The organism was isolated from decay which appeared cubical on the cross section, but stringy in character when viewed in either the tangential or radial directions, and it is possible that more than one organism was involved in the decay. To find this particular fungus associated with two recently fallen old-growth giant sequoia trees is cause for some concern.

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