CLITOCYBE TABESCENS ASSOCIATED WITH DECLINE AND DEATH
OF CHINESE ELM AND WATER OAK

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In 1964, decline symptoms were found on 48 Chinese elms (Ulmus parvifolia) and 2 water oaks (Quercus nigra) in Washington County, Mississippi. Some of their foliage was yellowish, and small lateral branches were dying in parts of the crowns. Large branches later died and the entire crowns were infected.

In 1968, 22 of these elms and 1 of the oaks died. The 26 remaining elms had progressively worsening symptoms; the oak had lost 60% of its normal crown.

A fungus fruit ed profusely on the trunks of living and dead elms in the fall of 1968. Fruiting bodies were identified as Clitocybe tabescens Bres., with confirmation by Dr. Arthur S. Rhoads. Cultures isolated from root and trunk wood of living trees were identical to identified cultures of C. tabescens. On the bole of the living water oak tree, a mycelial mat and rhizomorphs were found under the bark, and sporophores were found approximately 20 feet up the trunk and at the base (Fig. 1).

This report is the first known instance of the fungus being isolated from Chinese elm. In 1950, Rhoads reported that C. tabescens caused root rot on Quercus laevis and Q. laurifolia (1). He reported it on roots of large Q. nigra in 1954 (2). He indicated that although young oaks are not susceptible, fairly mature oaks occasionally develop Clitocybe root rot and die after several years.

FIGURE 1. Sporophores of Clitocybe tabescens on trunk of Quercus nigra. The tree lost 60% of its crown on the side of bole where rhizomorph, mycelial mat, and sporophores were formed.

Literature Cited


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1Plant Pathologists, Southern Forest Experiment Station, Forest Service, United States Department of Agriculture. Assigned to the Southern Hardwoods Laboratory, which is maintained at Stoneville, Mississippi, in cooperation with the Mississippi Agricultural Experiment Station and the Southern Hardwood Forest Research Group.