

A NEW SPECIES OF ARTHROBOTRYUM

RUTH A. HOERL

A collection of *Arthrobotryum* by Mr. Harold E. Parks, from Smith River Valley, Del Norte County, California, represents an undescribed species. Specimens of the fungus were sent in April, 1933, to Dr. Lee Bonar of the University of California, Berkeley, who suggested and directed this study. The writer is indebted to Mr. Parks for subsequent collections and field observations, which have shown that the fungus is continuously present in this area.

Arthrobotryum spongiosum sp. nov. Mycelium copiosum, compactum massis spongiosis sed densis; hyphae fuscae, profuse ramosae, compactae cellis fere globosis, 10–30 μ diametro; synnemata sparsa, nonnumquam absentia, ferme 1 mm. alta, fusca, composita ex pluribus conidiophoris filiformibus dense compactis; capitula globosa, conidia dilute brunnea, cylindrata-ovoidea, 3-septata, leviter stricta ad septas, 32–44 $\times$ 10–16 μ .

Mycelium abundant, composed of spongy but dense masses; hyphae dark, profusely branching, composed of cells almost spherical, 10–30 microns in diameter; synnemata sparse, sometimes absent, averaging 1 mm. high, dark brown, composed of

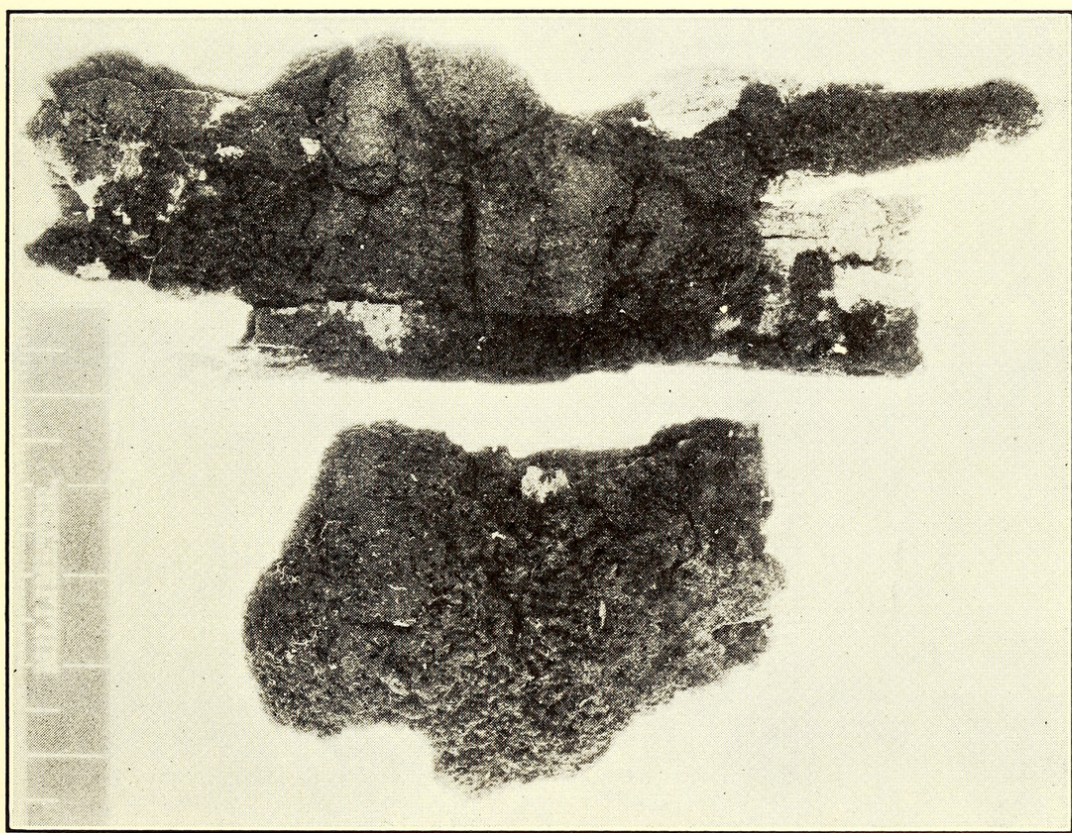


FIG. 1. *Arthrobotryum spongiosum* Hoerl. On bark of *Libocedrus decurrens* Torr., $\times 1$.

many closely compacted parallel conidiophores; heads globose, conidia pale brown, cylindric-ovoid, 3-septate, slightly constricted at septae, $32-44 \times 10-16$ microns.

Habitat: on twigs and branches of *Libocedrus decurrens* Torr., *Chamaecyparis Lawsoniana* (Murr.) Parl., and *Pseudotsuga taxifolia* (Poir.) Rehder.

Type: on *Libocedrus decurrens* Torr., above Eighteen Mile Creek, Smith River, Del Norte County, California, April 19, 1933, Harold E. Parks 4422 (U.C. Herb. 596853).

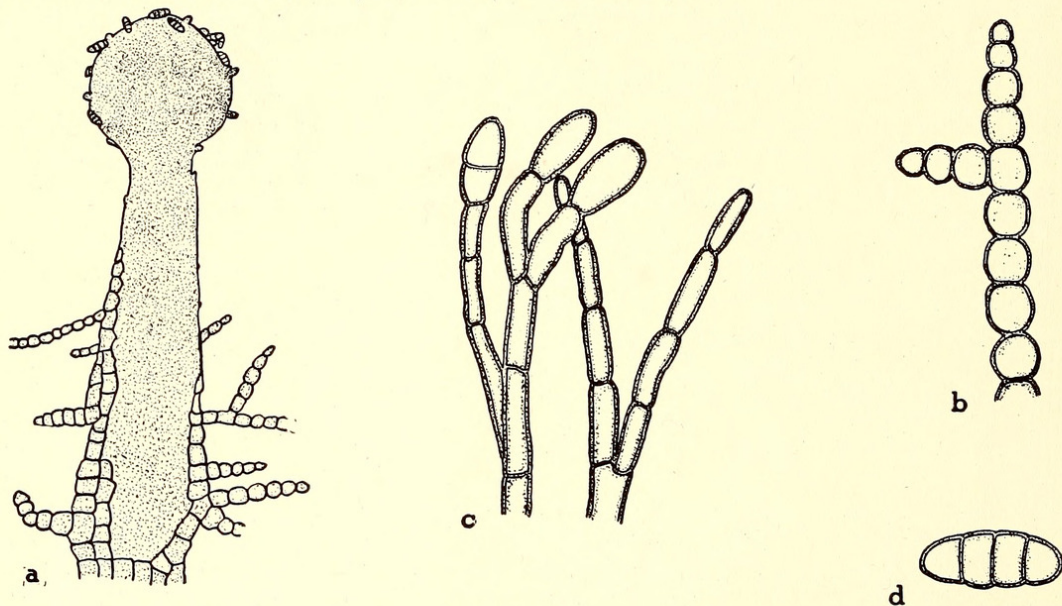


FIG. 2. *Arthrobotryum spongiosum* Hoerl. a, synnema, $\times 50$; b, detail of branching hypha, $\times 430$; c, detail of conidiophores and immature conidia, $\times 430$; d, mature conidium, $\times 430$.

In most of the described species of *Arthrobotryum* the superficial vegetative mycelium is sparse and the synnemata are numerous and gregarious. In this species the opposite situation exists. The outstanding characteristic of the fungus is the thick mat of superficial growth. The mycelium forms compact, black, irregular, often more or less confluent masses which are one-half to three-fourths of an inch in depth, and which extend over the branches, giving a general blackened appearance (text fig. 1). Fruiting bodies are scattered and not numerous, and in some collections are entirely lacking. Although the synnemata rise from the surface of the mat, they are not easily seen with the naked eye because of their small size and the spongy uneven character of the mycelium.

The superficial mycelial mats tend to fall away during the dry season. Conclusive evidence has not been found to indicate that hyphae penetrate into living tissue of the host, and no injury to the tree is apparent.

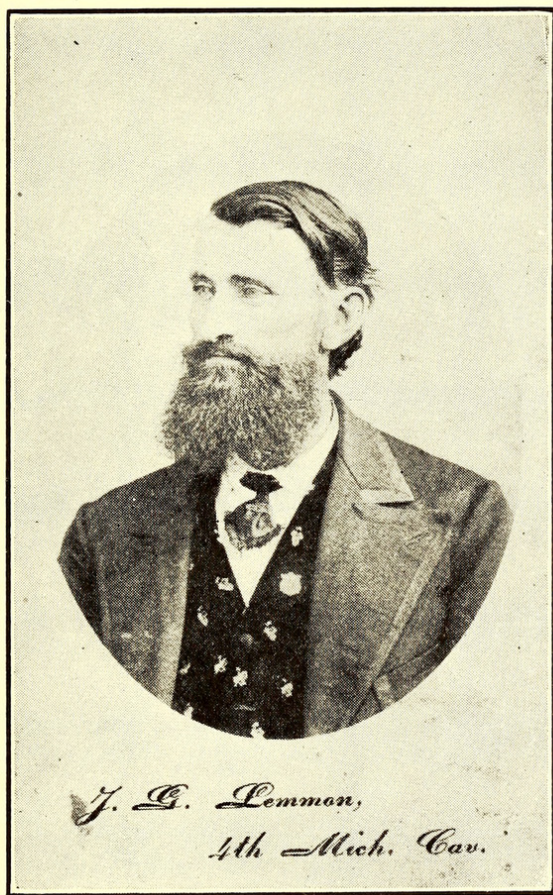
The genus *Arthrobotryum* has a wide distribution. Species have been described from Italy, Holland, Germany, England,

India, Ceylon, Borneo, Cuba, Porto Rico, and New Jersey. *Arthrobotryum spongiosum* approaches *A. atrum* Berk. & Broome, a European species, in spore size, but other characters widely separate the two species.

University of California,
Berkeley, March, 1938.

A PORTRAIT OF JOHN GILL LEMMON

The accompanying photograph of John Gill Lemmon was given to me by Mrs. Stacy Slipner of 3241 Broadway, Sacramento, California. Mrs. Slipner, who was born in Sierra County, California, in 1859, was a pupil of Mr. Lemmon's in the seventies. Her reminiscences regarding the Lemmon family are summarized in the following statements:



Frank Lemmon was farming in the Sierra Valley during the Civil War. After the war, his brother John, another brother (Judge William Lemmon), and a sister (Mrs. Olson) joined him in California. John had served in the Union Army; Mrs. Olson, also, had served the Union cause by working in hospitals. John had been a prisoner of the Confederates [in Andersonville] and had been subjected to severe physical and mental strain. He became the school teacher in Sierra Valley. He was a good teacher, popular with children and parents. Mrs. Lemmon was also a botanist; she was a Californian, but not from the mountains.

Mrs. Slipner's reminiscences convey an impression of a gentleness which might not be expected in the grimly bearded veteran.

The photograph, beneath which is printed the legend "J. G. Lemmon, 4th Mich. Cav.", bears on the reverse the imprint of a San Francisco photographer. It was evidently made not long after the war, but there is no definite information as to its date. —HERBERT F. COPELAND, Sacramento Junior College, Sacramento, California, January, 1939.



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