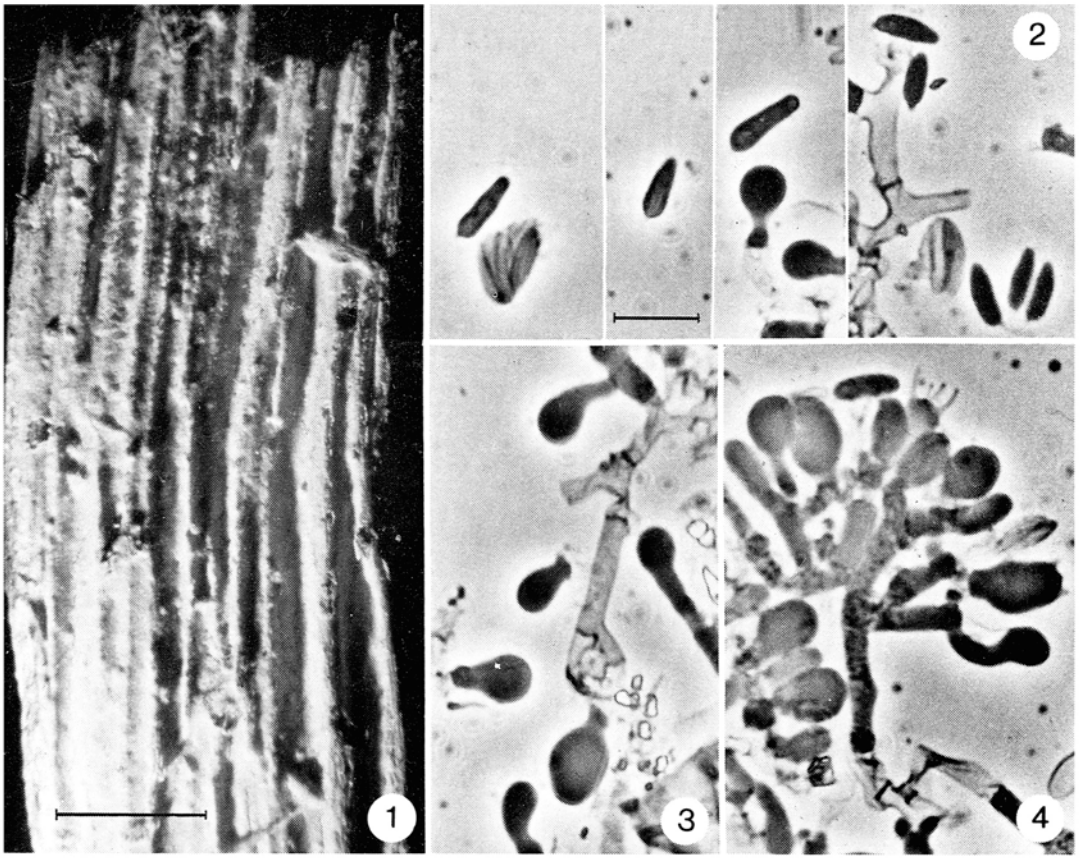
# ATHELOPSIS GLAUCINA




1, Effuse basidiome; 2, basidiospores; 3, immature basidia; 4, arrangement of basidia. All from DAOM 178919. 1, scale = 2 mm. 2-4, scales = 10$\mu$m.

**Athelopsis glaucina** (Bourd. & Galz.) Oberw. ex Parm., Consp. syst. Cort., p. 42. 1968.
≡*Corticium glaucinum* Bourd. & Galz., Hyménomycètes de France, p. 207. 1928.
≡*Athelia glaucina* (Bourd. & Galz.) Donk, Fungus 27: 12. 1957.
= *Corticium auriculariae* Bourd. & Galz., Hyménomycètes de France, p. 207. 1928, fide Liberta, Mycologia 53: 446. 1961.

BASIDIOME: thin (<0.1mm), pellicular, several centimeters long and wide; hymenial surface pure white, arid, smooth, a fragile crust over a thin, white subiculum. HYPHAE: distinct, hyaline, thin-walled, short-celled, branched, with branches typically diverging at a right angle, 2-3.5$\mu$m diam., with a clamp connection at each septum. BASIDIA: initially clavate to obpyriform, about 10 × 5$\mu$m, when mature from suburniform to clavate, commonly with a distinct stalk (3-4(-5)$\mu$m long), 12-13 × 6-6.5$\mu$m, with a basal clamp; sterigmata four, each 4$\mu$m long. BASIDIOSPORES: straight, cylindrical or some narrowed toward the apex, (7-)8.5-10 × 2.5-3$\mu$m, frequently adhering in groups of 2-4 spores, the wall smooth, hyaline, thin, nonamyloid.

SUBSTRATE: A soft, gray, decorticated log of *Populus tremuloides* Michx. 25 cm in diameter.

DISTRIBUTION: Yukon.

COLLECTION: **Yukon**, Nisling River valley, 900m alt., 137°52′, 61°54.5′, 25.VII.1980, DAOM 178919 (Ginns (4961) & W. J. Cody).

NOTES: This is the first report of *Athelopsis glaucina* from North America. It is known from central Europe (Liberta, loc. cit.; Oberwinkler, Sydowia 19: 50. 1965) and Scandinavia (Eriksson & Ryvarden, The Corticiaceae of North Europe, Vol. 2, Fungiflora, Oslo. 1973). Jülich & Stalpers (Proc. K. ned. Akad. Wet. 2nd Ser., 74: 53. 1980) reported it from U.S.S.R. but I have not found the source of this record in the literature.

The specimen is assigned to *A. glaucina* despite the fact that the hymenial surface lacks the pale yellow or pale green tints previously believed characteristic of basidiomes of *A. glaucina* (Eriksson & Ryvarden, op. cit.; Liberta, loc. cit.; Oberwinkler, loc. cit.).

The Yukon collection was compared with european specimens of *A. glaucina* (Sweden: Värnamo, Eriksson 621 and 8391; Uppsala, Lundell, Fungi Exs. Suecici 1837; filed as DAOM nos. 172868, 172867 and 68577 respectively) and all were considered to be conspecific. The most obvious variation between the collections was in hymenial coloration. The colors were white in DAOM 178919, pale yellowish white with a green tint in Eriksson 621 (near Munsell 7.5Y8/2) and Eriksson 8391 (whiter than 7.5Y8/2), and pale greenish yellow (paler than 5Y8/4) in Fungi Exs. Suec. 1837. The collections apparently represent different stages in the maturation of the basidiomes of one species. The young specimen (DAOM 178919) was characterized by a white hymenial surface, shorter and short-stalked basidia and shorter maximum spore lengths. In older specimens (e.g. Fungi Exs. Suec. 1837) the hymenial color was whitish with a green tint or pale yellow, many basidia had a stalk 4-6$\mu$m long and the maximum spore lengths were 10-12.5$\mu$m long. The hymenial pigmentation was due to scattered deposits of small (1-2$\mu$m diameter), amorphus, yellow granules in the hymenium and on the surface of some spores and subhymenial hyphal segments. These deposits in Fungi Exs. Suec. 1837, are readily observed in water mounts, but rapidly dissolved in 2% KOH. Bourdot & Galzin (loc. cit.) reported the dissolution of deposits in KOH. The granules may be leachates from the substrate but more probably they are break down products of spent basidia. The development of successive generations of basidia from the same hymenial area in *A. glaucina*, a common phenomenon in the corticioid fungi, results also in the formation of elongated basidia. The elongated basidia allow spores to be projected away from the hymenium without interference from old basidia.

The longer spores associated with pale yellow basidiomes and averaging 1-3$\mu$m more than in the white basidiome would seem to indicate that in older specimens some spores have had time to mature to their maximum length using the relatively greater quantity of cytoplasm available in the longer basidia.

The floras of Eriksson & Ryvarden (op. cit., p. 135) and Jülich & Stalpers (op. cit.) accept five species in *Athelopsis*. The long, narrow, straight spores of *A. glaucina* distinguish it from the other species.

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