

= *Mycena atkinsoniana* =

Mycena atkinsoniana is a species of agaric fungus in the *Mycenaceae* family . It is one of the so called " bleeding mycenans " that will ooze yellow to orange juice when injured . Other distinguishing features include the upper stem surface that is decorated with tiny purplish brown fibers , and the gills , which are pale yellow with maroon edges . The reddish brown caps are smooth with a grooved margin , and up to 3 cm (1 @. 2 in) wide . *Mycena atkinsoniana* is known from the United States and Canada , where it grows scattered or in groups on leaf litter in forests during the summer and autumn . It was originally described from collections associated with beech , but it is also frequently found under eastern North American oaks .

= = Taxonomy = =

The species was first described in 1935 as *Mycena fagicola* by American mycologist Alexander H. Smith , based on specimens that he collected the previous year in Cross Village , Michigan . The naming , however , was illegitimate , as it had been previously used by Camille Grognot (as *Mycena fagicola* Grognot. apud Roumeguère published in 1885) , so Smith changed the specific epithet to *atkinsoniana* in his 1947 monograph on North American *Mycena* species . Smith credited George Francis Atkinson with one of the early collections of the fungus in his 1935 species description . *Mycena* specialist Rudolph Arnold Maas Geesteranus agreed with Smith 's decision to change the epithet , concluding that although Grognot 's name was a nomen nudum (written without an adequate description) , he conceded that " the possibility cannot be excluded that one day some overlooked 19th century booklet or exsiccatum will turn up containing a description " .

= = Description = =

The cap is 1 ? 30 mm (0 @. 04 ? 1 @. 18 in) broad , initially obtuse to convex , later becoming broadly umbonate . Eventually the cap flattens , sometimes with the disc (the central region of the cap) slightly depressed . The cap margin initially touches the stem ; as it expands it becomes somewhat wavy . The extreme margin is marked by small lines , grooves or ridges when the cap is moist . The cap is initially covered with white powdery granules , but this later sloughs off to leave a smooth surface . The disc is brownish when young , but soon develops reddish tones ; older specimens are bay to Isabella , with lighter @-@ colored margins . The flesh is buff @-@ colored , and oozes an orange @-@ yellow juice when cut . The gills have an adnate attachment to the stem . They have a close to moderately crowded spacing , with between 23 and 26 gills reaching the stem . The gills are narrow to moderately broad , chamoisee when young , somewhat darker in age , with edges that are maroon , and either crenulate (finely scalloped) or even . The stem is 2 ? 4 cm (0 @. 8 ? 1 @. 6 in) long , 2 ? 3 mm thick , and more or less equal in width throughout . The stem base is rooted among the leaves and debris , and the base is covered with short stiff hairs pressed flat against the surface . Its surface is covered sparsely with minute purplish brown fibrils . The stem is dull reddish brown overall , but the color fades near the top . When mushroom tissue is cut or injured , it oozes a dull reddish @-@ brown juice or , in old specimens , a dull orange juice . *M. atkinsoniana* mushrooms have no distinctive taste or odor .

The spores are narrowly to broadly ellipsoid , amyloid (staining black to blue @-@ black in Melzer 's reagent) , and measure 7 ? 9 by 4 ? 5 ?m . The basidia (spore @-@ bearing cells) are four @-@ spored and measure 28 ? 30 by 6 ? 7 ?m . Cheilocystidia are plentiful , and arranged so as to form a sterile band on the edge of the gill . Measuring , they are narrowly fusoid (tapered at each end) , smooth , and have dark reddish contents . The pleurocystidia (cystidia on the gill face) similar in appearance to the cheilocystidia but far less abundant . Gill tissue is yellowish to very faintly vinaceous @-@ brown when stained with iodine . The tissue of the cap consists of several layers . The outer surface comprises a thin cuticle made of narrow hyphae filled with dark @-@ reddish material . Underlying this layer this is a region of vesiculose (swollen like a bladder) cells , while the remainder of the cap tissue consists of narrower woolly hyphae . Both layers of tissue

beneath the cuticle will stain very faintly vinaceous @-@ brown in iodine ; the stem tissue , in contrast , stains dark vinaceous @-@ brown in iodine .

= = = Similar species = = =

The " bleeding " will distinguish *Mycena atkinsoniana* from most other *Mycena* species commonly encountered . The common and widely distributed *M. sanguinolenta* is another " bleeder " , but it is smaller than *M. atkinsonia* , with a cap diameter ranging from 3 to 15 mm (0 @. @ 1 to 0 @. @ 6 in) . Additionally , it has distantly spaced gills and a stem that is the same color as the cap , and a dark red juice . *M. atkinsoniana* is also similar in stature to *M. pelianthina* (a non @-@ bleeding species) , but several field characteristics distinguish *M. pelianthina* , including a radish @-@ like odor and taste , a purplish to lilac @-@ colored cap , and purple @-@ gray gills with dark purple edges .

= = Habitat and distribution = =

The fungus is saprobic , and so derives nutrients from breaking down dead plant material , such as leaves , bark , needles , and twigs , that has fallen to the ground . Fruit bodies are usually found growing in groups or scattered on leaf litter in beech and beech @-@ hemlock forests during the summer and autumn , although it has been recorded growing on lawns . It is also often found under eastern North American oaks . The distribution includes the US states Connecticut , New York , Ohio , Michigan , and Vermont . It has also been collected in Quebec , Canada .