

= *Psilocybe pelliculosa* =

Psilocybe pelliculosa is a species of fungus in the family Hymenogastraceae . The fruit bodies , or mushrooms , have a conical brownish cap up to 2 cm (0 @. @ 8 in) in diameter atop a slender stem up to 8 cm (3 @. @ 1 in) long . It has a white partial veil that does not leave a ring on the stem . American mycologist Alexander H. Smith first described the species in 1937 as a member of the genus known today as *Psathyrella* ; it was transferred to *Psilocybe* by Rolf Singer in 1958 .

Psilocybe pelliculosa is found in the Pacific Northwest region of the United States and Canada , where it grows on the ground in groups or clusters along trails or forest roads in coniferous woods . A single collection has also been reported from Finland . The mushrooms contain the psychedelic compounds psilocybin and baeocystin , although at relatively low concentrations . Several mushroom species that are similar in appearance to *P. pelliculosa* can be distinguished by subtle differences in the form of the fruit body , or by microscopic characteristics .

= = Taxonomy = =

The species was first described scientifically by Alexander H. Smith in 1937 as *Psathyra pelliculosa* , based on specimens he collected in Washington and Oregon . The type specimen was collected near Lake Tahkenitch , Oregon , in November 1935 . In a 1941 publication , Smith revised his opinion , and considered the species to be the same as *Hypholoma silvatica* (later *Psilocybe silvatica*) , as he thought that the slight differences between the two were of no taxonomic significance . After reevaluating these two species in addition to several others closely related , Rolf Singer and Smith later reestablished the taxon and transferred it to *Psilocybe* in 1958 . *Psilocybe* authority Gastón Guzmán classified the species in the section *Semilanceatae* , a grouping of related species characterized by having roughly ellipsoid , usually thick @-@ walled spores , and lacking pleurocystidia .

The specific epithet *pelliculosa* is derived from the Latin *pellicula* , meaning " film " , and refers to the gelatinous pellicle of the cap . The mushroom is commonly known as the " conifer *Psilocybe* " or the " striate *Psilocybe* " .

= = Description = =

The cap of *P. pelliculosa* is initially sharply cone @-@ shaped , and expands slightly over time to become broadly bell @-@ shaped , but it never expands to become completely flat . The cap margin is pressed against the stem initially , and for a short time is appendiculate (has partial veil fragments hanging from the margin) . The caps of mature specimens are smooth , sticky , and have translucent radial striations that reach dimensions of 0 @. @ 8 to 2 cm (0 @. @ 3 to 0 @. @ 8 in) in diameter . The color ranges from umber to isabella (dark dingy yellow @-@ brown) when the mushroom is moist , and changes to pinkish @-@ buff when dry . The cap margin can have a greenish @-@ gray tinge . The cap cuticle is a thin gelatinous covering that can be peeled off .

The gills have an adnate attachment to the cap , are narrow to moderately broad , closely spaced , and eventually separate from the stem . Young gills are cinnamon @-@ brown in color , with lighter edges , but darken in maturity because they become covered with the dark spores . The stem is 6 to 8 cm (2 @. @ 4 to 3 @. @ 1 in) long by 1 @. @ 5 to 2 mm (0 @. @ 06 to 0 @. @ 08 in) thick , and roughly equal in width throughout except for a slightly enlarged base . The lower region of the stem is brownish in color and has silky " hairs " pressed against the stem ; the upper region is grayish and pruinose (lightly dusted with powdery white granules) . The flesh turns slightly bluish or greenish where it has been injured . The application of a drop of dilute potassium hydroxide solution on the cap or flesh will cause a color change to pale to dark yellowish- to reddish @-@ brown ; a drop on the stem produces a less intense or no color change .

The spore print is purplish @-@ brown . Under the microscope , the spores appear dull purple @-@ brown . They are ellipsoid to somewhat egg @-@ shaped , and , according to Singer 's original description , measure 8 ? 10 by 4 ? 5 ?m . A later study of specimens collected from British

Columbia , Canada , instead reported a larger spore size range of 10 ? 13 by 6 ? 7 ?m . The spores have an apical germ pore . The basidia (spore @-@ bearing cells) are four @-@ spored , hyaline (translucent) , and measure 22 ? 35 by 7 ? 10 ?m . There are abundant cystidia that form a sterile band on the edges of the gills (cheilocystidia) ; these cystidia are smooth , inflated , and fusoid @-@ ventricose (enlarged in the middle and tapered toward both ends) with an sharp tip , and measure 25 ? 30 by 6 ? 9 ?m . The cap cuticle (an ixocutis) is made of a layer of roughly horizontal , gelatinized , wavy , hyaline hyphae that are 0 @. @ 8 ? 5 @. @ 5 ?m in diameter .

= = = Similar species = = =

The overall stature of the fruit bodies of *P. pelliculosa* is generally similar to those of *Mycena* , *Galerina* , or *Hypholoma* . Smith noted a superficial resemblance to *Psathyrella fagicola* , based on similarities in the nature of the cap cuticle , the coloring , and the stem base covered in silky fibers . *Psilocybe pelliculosa* may be distinguished from *Psathyra fagicola* by the presence of a partial veil , firm gills , and smaller fruit bodies . *P. pelliculosa* is frequently mistaken for the widespread *P. semilanceata* , but the latter can be distinguished by its larger spores and a conical , papillate cap . Another similar species is *Psilocybe silvatica* , and a microscope is needed to reliably distinguish between the two species . *P. silvatica* , found from New York to Michigan and north to Canada , has longer spores . *P. pelliculosa* has a general resemblance to *Hypholoma dispersum* , a species found in northern North America and Europe .

= = Habitat and distribution = =

The fruit bodies of *P. pelliculosa* grow in groups or clusters on moss , forest debris , and humus in coniferous forests . The fungus prefers to fruit in disturbed areas such as trails and abandoned forest roads ; it is not commonly found in grasslands . It is known from the Pacific Northwest region of North America where it has been collected in California , Idaho , Oregon , Washington , and it is widely distributed in British Columbia , Canada . It is also found in northern Europe , a single collection from Finland . The fungus often fruits along forest paths and abandoned logging roads where alders and firs are growing . Fruit bodies tend to appear in late summer to early winter after cool , wet weather .

= = Psychoactivity = =

Psilocybe pelliculosa contains the psychoactive compounds psilocybin and baeocystin , and is used as a recreational drug . In terms of psychoactive potency , Stamets considers the species " relatively weak " . Psilocybin levels have been reported to range from 1 @. @ 2 to 7 @. @ 1 milligrams per gram of dried mushroom , while baeocystin was measured at 0 @. @ 04 % . According to some reports from the 1960s , the fungus does not produce psilocybin when fruit bodies are cultivated in the laboratory .