

= *Mycena clariviolacea* =

Mycena clariviolacea is a mushroom in the *Mycenaceae* family . First reported as a new species in 2007 , it is known only from Kanagawa , Japan , where it fruits on dead fallen twigs in forests dominated by oak and chinquapin trees . Distinctive features of this species are found in its medium @-@ sized , dark violet fruit bodies , with caps up to 25 mm (0 @.@ 98 in) in diameter and slender stems that are about 30 to 40 mm (1 @.@ 2 to 1 @.@ 6 in) long . Microscopic characteristics include the amyloid spores (staining when treated with Melzer 's reagent) , the club @-@ shaped cheilocystidia (cystidia on the gill edge) that are covered with one or more , knob @-@ like , apical protuberances , the absence of pleurocystidia (cystidia on the gill face) , and the cylindrical , diverticulate caulocystidia (cystidia on the stem) .

= = Taxonomy , naming , and classification = =

The mushroom was first collected by Japanese mycologist Haruki Takahashi in 2000 , and , along with seven other *Mycena* species , was reported as a new species in a 2007 publication . The specific epithet is derived from the Latin words clari- (meaning " clear ") and violacea (" violaceous ") . The Japanese name is Shikon @-@ sakuratake (?????????) .

According to Takahashi , the amyloid spores , the cheilocystidia covered with one or more , knob @-@ like , apical excrescences , the diverticulate elements in the cortical layer of cap and stem , and the diverticulate caulocystidia suggest that the species is best classified in the section *Fragilipedes* , as defined by the Dutch *Mycena* specialist Maas Geesteranus .

= = Description = =

Depending on the age of the mushroom , the cap can range in shape from conic to convex to bell @-@ shaped to somewhat flattened in age ; it reaches 10 to 25 mm (0 @.@ 4 to 1 @.@ 0 in) in diameter . It is sometimes shallowly umbilicate (with a small depression like a navel) , radially grooved almost to the center , and somewhat hygrophanous (changing color as it loses or absorbs water) . The cap surface is dry , and pruinose (covered with what appears to be a fine white powder) , but this soon sloughs off , leaving the surface smooth . Initially , the cap color is dark violet , but it later fades to grayish @-@ violet around the edges . The whitish flesh is up to 0 @.@ 5 mm thick , and lacks any distinctive taste or odor . The slender stem is 30 to 40 mm (1 @.@ 2 to 1 @.@ 6 in) long by 1 to 3 mm (0 @.@ 04 to 0 @.@ 12 in) thick , cylindrical , centrally attached to the stem , and hollow . Its surface is dry , pruinose over the entire length , and grayish @-@ violet to dark violet in color . The base is covered with a white mycelial tomentum (a hairy covering of short , closely matted hairs) . The gills are adnate (fused to the stem) , and distantly spaced , with about 15 ? 19 gills reaching the stem . The gills are up to 2 @.@ 5 mm (0 @.@ 1 in) broad , thin , and the same color as the cap or paler .

= = Microscopic characteristics = =

The spores are broadly ellipsoid , smooth , colorless , amyloid (staining bluish to blue @-@ black when treated with Melzer 's reagent) , thin @-@ walled , and measure 8 ? 9 by 5 ? 6 µm . The basidia are 40 ? 60 by 10 ? 12 µm , club @-@ shaped , and four @-@ spored . The cheilocystidia (cystidia on the gill edge) are abundant , club @-@ shaped , and measure 30 ? 45 by 10 ? 17 µm . Their tips are covered with one or more , knob @-@ like short excrescences that are colorless and thin @-@ walled . Pleurocystidia (cystidia on the gill face) are absent . The hymenophoral tissue (tissue of the hymenium @-@ bearing structure) is made of thin @-@ walled hyphae that are 12 ? 21 µm wide , cylindrical (but often somewhat inflated) , smooth , and contain cytoplasmic brownish pigment . These hyphae are dextrinoid , meaning that they stain reddish to reddish @-@ brown in Melzer 's reagent . The cap cuticle is made of parallel , bent @-@ over hyphae that are 2 ? 7 µm wide , and cylindrical . These hyphae are smooth , or can be covered with scattered , warty or finger

@-@ like thin @-@ walled diverticulae that are colorless or pale brownish , and dextrinoid . The layer of hyphae underlying the cap cuticle is parallel , cylindrical , hyaline or brownish , and dextrinoid ; it has short and inflated cells that are up to 48 μm wide . The stem cuticle is made of parallel , bent @-@ over hyphae that are 3 ? 8 μm wide , and similar to the hyphae of the cap cuticle . The caulocystidia (cystidia on the stem) are 45 ? 88 by 5 ? 8 μm , cylindrical , diverticulate , colorless or brownish , and thin @-@ walled . The flesh of the stem is composed of longitudinally running , cylindrical hyphae that are 8 ? 25 μm wide , smooth , colorless , and dextrinoid . Clamp connections are present in the cap cuticle , the stem cuticle , the gill flesh , and at the basal septa of the basidia .

= = = Similar species = = =

Mycena clariviolacea is similar to the Brazilian species *M. cerasina* and the European *M. diosma* . *Mycena cerasina* , which belongs in the section *Cerasinae* of the genus *Mycena* , differs in having a grayish @-@ purple cap and stem , and forming somewhat utriform (wineskin @-@ shaped) to lageniform (flask @-@ shaped) , smooth cheilocystidia . *Mycena diosma* , classified in the section *Calodontes* , subsection *Purae* , may be distinguished microscopically from *M. clariviolacea* by its smooth , spindle @-@ shaped cheilocystidia and pleurocystidia , and nondiverticulate hyphae in the cortical layer of cap and stem .

= = Habitat and distribution = =

Mycena clariviolacea is known only from Kanagawa , Japan . Fruit bodies are found growing solitary or scattered , on dead fallen twigs in forests that are dominated by oak and chinquapin trees . The mushroom fruits from June to September .