

= *Mycena intersecta* =

Mycena intersecta is a species of mushroom in the *Mycenaceae* family . First reported as a new species in 2007 , it is known only from central Honshu , in Japan , where it is found growing solitarily or scattered , on dead leaves in lowland forests dominated by oak . The mushrooms have olive @-@ brown caps up to 12 mm (0 @.@ 47 in) in diameter atop slender stems that are 50 to 80 mm (2 @.@ 0 to 3 @.@ 1 in) long by 0 @.@ 7 to 1 @.@ 2 mm (0 @.@ 03 to 0 @.@ 05 in) thick . On the underside of the cap are the distantly spaced , whitish gills that have cross @-@ veins running between them . Microscopic characteristics of the mushroom include the smooth , irregularly cylindrical cheilocystidia (cystidia on the gill edge) , the absence of pleurocystidia (cystidia on the gill face) , the diverticulate elements of the cap cuticle , the broadly club @-@ shaped to irregularly shaped caulocystidia (cystidia on the stem) , the weakly dextrinoid flesh (staining reddish to reddish @-@ brown in Melzer 's reagent) , and the absence of clamp connections . The edibility of the mushroom is unknown .

= = Taxonom and naming = =

The mushroom was first collected by Japanese mycologist Haruki Takahashi in 1999 , and published as a new species (along with seven other Japanese *Mycenas*) in a 2007 publication . The specific epithet is from the Latin word *intersecta* or " intersected " , and refers to the intervenose gills . Its Japanese name is Oriibu @-@ ashinagatake (??????????) .

According to Takahashi , the fungus is best classified in the section *Fragilipedes* (Fr .) Quél . , as defined by the Dutch *Mycena* specialist Maas Geesteranus .

= = Description = =

The cap of *M. intersecta* is initially conical to convex to bell @-@ shaped , eventually reaching 8 to 12 mm (0 @.@ 31 to 0 @.@ 47 in) in diameter . When it is moist , it is partly translucent , so that the outlines of the gills underneath the cap can be seen . The cap is somewhat hygrophanous , and dry . Its surface is initially minutely pruinose (as if covered with a fine white powder) , but this effect soon sloughs off , leaving the surface smooth . The cap color is initially olive @-@ brown to yellowish @-@ brown , then somewhat paler from the margin . The white flesh is up to 0 @.@ 7 mm thick , and lacks any distinctive taste and odor . The slender stem is 50 to 80 mm (2 @.@ 0 to 3 @.@ 1 in) long by 0 @.@ 7 to 1 @.@ 2 mm (0 @.@ 03 to 0 @.@ 05 in) thick , cylindrical , and hollow . Its surface is dry , and colored pale olive @-@ brown near the top , becoming olive @-@ brown downward . Like the cap , it is at first pruinose , but smooths out in age . The base of the stem is covered with coarse white hairs . The gills are adnate to subdecurrent (running slightly down the length of the stem) , and distantly spaced , with 16 ? 19 gills reaching the stem . The gills are up to 1 @.@ 5 mm broad , thin , somewhat intervenose , and whitish , with edges that are the same color as the gill faces . Takahashi 's description does not include any discussion of the mushroom 's edibility .

= = Microscopic characteristics = =

The basidiospores are roughly ellipsoid and measure 7 @.@ 5 ? 8 @.@ 5 by 5 ? 6 μ m . They are thin @-@ walled , smooth , colorless , and inamyloid to weakly amyloid ? indicating a weak ability to absorb the iodine in Melzer 's reagent . The spore @-@ bearing cells , the basidia are 22 ? 31 by 5 @.@ 5 ? 7 μ m , club @-@ shaped , and mostly two @-@ spored . The cheilocystidia (cystidia on the gill edge) are 27 ? 40 by 3 ? 6 μ m , abundant , and form a sterile gill edge . They are irregularly cylindrical to constricted , smooth , colorless , and thin @-@ walled . Pleurocystidia (cystidia on the gill face) are absent . The hymenophoral tissue is made of thin @-@ walled hyphae that are 5 ? 18 μ m wide , cylindrical , smooth , colorless , and weakly dextrinoid . The cap cuticle is made of parallel , bent @-@ over hyphae that are 2 ? 6 μ m wide , cylindrical , and densely covered with warty or

finger @-@ like thin @-@ walled diverticulae that are colorless and inamyloid . The layer of hyphae underneath the cap cuticle are parallel , olive @-@ brown , and weakly dextrinoid , with short and inflated cells up to 22 μ m wide . The stem cuticle is made of parallel , bent @-@ over hyphae that are 2 ? 4 μ m wide , cylindrical , smooth to sparsely diverticulate . These hyphae curve outward to form club @-@ shaped or irregularly shaped caulocystidia (cystidia on the stem) that are olive @-@ brown , inamyloid , and thin @-@ walled . They measure 13 ? 29 by 3 ? 7 μ m , and are broadly club @-@ shaped to irregularly shaped , and often have one to three knob @-@ like excrescences . The stem tissue is made of longitudinally running , cylindrical hyphae that are 5 ? 12 μ m wide , smooth , colorless , and have a weakly dextrinoid in Melzer 's reagent . Clamp connections are absent in all tissues of *M. intersecta* .

= = = Similar species = = =

The European species *Mycena viridimarginata* is somewhat similar to *M. intersecta* in appearance , but may be distinguished by its greenish @-@ edged gills , cheilocystidia with abruptly tapering points , and clamp connections .

= = Habitat and distribution = =

Mycena intersecta is known only from Kanagawa , Japan . The fruit bodies are found solitary or scattered , on dead leaves in lowland forests dominated by the oak trees *Quercus myrsinaefolia* and *Q. serrata* .