= Mycena fuscoaurantiaca =

Mycena fuscoaurantiaca is a species of mushroom in the Mycenaceae family . First reported as a new species in 2007 , the diminutive mushroom is only found in Kanagawa , Japan , where it grows on dead fallen twigs in lowland forests dominated by hornbeam carpinus and Chinese evergreen oak trees . The mushroom has a brownish @-@ orange conical cap that has grooves extending to the center , and reaches up to 11 mm ( 0 @.@ 43 in ) in diameter . Its slender stem is colored similarly to the cap , and long ? up to 60 mm ( 2 @.@ 4 in ) tall . Microscopic characteristics include the weakly amyloid spores ( turning blue to black when stained with Melzer 's reagent ) , the smooth , swollen cheilocystidia and pleurocystidia ( cystidia on the gill edges and faces , respectively ) with long rounded tips , the diverticulate hyphae of the cap cuticle , and the absence of clamp connections .

= = Taxonomy , naming , and classification = =

The mushroom was first collected by Japanese mycologist Haruki Takahashi in 1999 and , along with seven other Mycena species , identified as a new species in a 2007 publication . The specific epithet is derived from the Latin words fusco- ( meaning " dark " ) and aurantiaca ( " orange @-@ yellow " ) , and refers to the color of the fruit bodies . Its Japanese name is Taisha @-@ ashinagatake ?????????? ( ????? ) .

Takahashi suggests that the species is best classified in the section Fragilipedes , as defined by Dutch Mycena specialist Rudolph Arnold Maas Geesteranus . Within the section , the North American species M. subfusca appears to be closely related to M. fuscoaurantiaca . M. subfusca may be distinguished by its spindle- to broadly club @-@ shaped cheilocystidia without a narrow neck , club @-@ shaped to irregularly shaped caulocystidia , and lack of pleurocystidia .

= = Description = =

The cap , which reaches 8 to 11 mm ( 0 @.@ 31 to 0 @.@ 43 in ) in diameter , is initially conical to convex to bell @-@ shaped , but becomes flattened in age . It is radially grooved almost to the center , and somewhat hygrophanous ( changing color as it loses or absorbs moisture ) . The cap surface is dry , minutely pruinose initially ( that is , appearing as if covered with a fine white powder ) , but soon becomes smooth . The cap is brown to brownish @-@ orange when young , with a somewhat darker center , and fades to paler toward the margin with age . The flesh is white , and up to 0 @.@ 5 mm thick . It does not have any distinctive taste or odor . The stem is 30 to 60 mm ( 1 @.@ 2 to 2 @.@ 4 in ) long by 0 @.@ 5 to 0 @.@ 8 mm ( 0 @.@ 020 to 0 @.@ 031 in ) thick , cylindrical , centrally attached to the cap , slender , hollow , and dry . Its color is orange to brownish @-@ orange , and it is initially pruinose , but later becomes smooth . The base of the stem is covered with coarse , stiff white hairs . The gills are adnexed ( narrowly attached to the stem ) , and distantly spaced , with between 16 and 18 gills reaching the stem . The gills are up to 1 @.@ 8 mm broad , thin , and pale brownish . The gill edges are pruinose , and the same color as the gill face .

= = = Microscopic characteristics = = =

The basidiospores are ellipsoid and measure 9 ? 10 @.@ 5 by 6 ? 7 µm . They are smooth , thin @-@ walled , colorless , and weakly amyloid . The basidia ( spore @-@ bearing cells ) are 19 ? 30 by 7 ? 9 µm , club @-@ shaped , and two @-@ spored . The cheilocystidia ( cystidia on the gill edge ) are thin @-@ walled , smooth , 25 ? 47 by 3 ? 20 µm , abundant , spindle @-@ shaped with a prolonged thickened tip , smooth , and colorless or pale vinaceous . The pleurocystidia ( cystidia on the gill face ) are 27 ? 75 by 5 ? 20 µm , scattered , and similar in shape and color to the cheilocystidia . The hymenophoral tissue ( tissue of the hymenium @-@ bearing structure ) is made of thin @-@ walled hyphae that are 10 ? 22 µm wide , cylindrical , often somewhat inflated , smooth , colorless , and dextrinoid ( turning reddish to reddish @-@ brown when stained with 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 covered with scattered , warty or finger @-@ like thin @-@ walled brownish diverticulae . The layer of hyphae beneath the cap cuticle is arranged in a parallel manner , hyaline ( translucent ) , and dextrinoid , containing short and inflated cells that measure up to 34 µm wide . The cuticle of the stem is made of parallel , bent @-@ over hyphae that are 2 ? 4 µm wide , cylindrical , smooth , brownish , and thin @-@ walled . The flesh of the stem is composed of longitudinally running , cylindrical hyphae that are 8 ? 20 µm wide , smooth , colorless , and dextrinoid . The strigose ( stiff or bristly ) hairs at the base of the stem are 2 ? 6 µm wide , and arise directly from the stem cuticle . They are bent @-@ over or erect , cylindrical , with rounded tips , sometimes flexuous ( winding from side to side ) , smooth , colorless , and thin @-@ walled . Clamp connections are absent in all tissues of this species .

= = Habitat and distribution = =

Mycena fuscoaurantiaca is known only from Kanagawa , Japan . It is found growing solitary to scattered on dead fallen twigs in lowland forests dominated by hornbeam carpinus ( Carpinus tschonoskii ) and Chinese evergreen oak ( Quercus myrsinifolia ) . Fruit bodies appear in November .