

## = Cortinarius iodes =

*Cortinarius iodes* , commonly known as the spotted cort or the viscid violet cort , is a species of agaric fungus in the family Cortinariaceae . The fruit bodies have small , slimy , purple caps up to 6 cm ( 2 @. @ 4 in ) in diameter that develop yellowish spots and streaks in maturity . The gill color changes from violet to rusty or grayish brown as the mushroom matures . The species range includes the eastern North America , Central America , northern South America , and northern Asia , where it grows on the ground in a mycorrhizal association with deciduous trees . Although edible , the mushroom is not recommended for consumption . *Cortinarius iodeoides* , one of several potential lookalike species , can be distinguished from *C. iodes* by its bitter @-@ tasting cap cuticle .

## = = Taxonomy = =

The species was first described scientifically by Miles Joseph Berkeley and Moses Ashley Curtis in 1853 . The type collection was made by American botanist Henry William Ravenel in South Carolina . Joseph Ammirati and Howard Bigelow considered *Cortinarius heliotropicus* , described by Charles Horton Peck 1914 , to be the same species as *C. iodes* after examining the holotype specimens of both . According to the nomenclatural databases MycoBank and Index Fungorum , however , *Cortinarius iodes* does not have any synonyms . If they are indeed the same species , the name *C. iodes* has priority . *C. iodes* is classified in the subgenus *Myxacium* , along with other *Cortinarius* species that have a slimy cap and stem .

The specific epithet *iodes* means " violet @-@ like " . It is commonly known as the " spotted cort " or the " viscid violet cort " .

## = = Description = =

The cap is initially bell @-@ shaped before becoming broadly convex and then flat in maturity ( sometimes retaining a broad umbo ) , and attains a diameter of 2 ? 6 cm ( 0 @. @ 8 ? 2 @. @ 4 in ) . The cap surface is slimy ( in wet weather ) and smooth , and has a lilac or purplish color . The flesh is white , firm , and thin . The color fades in maturity , and the cap develops irregular yellowish spots , or becomes yellowish in the center . Gills are attached to the stem and packed together closely . They are lilac to violet when young , but become rusty brown to grayish cinnamon when the spores mature . The stem measures 4 ? 7 cm ( 1 @. @ 6 ? 2 @. @ 8 in ) long by 0 @. @ 5 ? 1 @. @ 5 cm ( 0 @. @ 2 ? 0 @. @ 6 in ) thick , and is nearly equal in width throughout other than a somewhat bulbous base . It is solid ( i.e. , not hollow ) , slimy , smooth , and has violet or purplish colors that are usually lighter than the cap ; sometimes , the stem base is more or less white . The cobweb @-@ like , pale violet partial veil leaves a zone of thin , purple or rusty fibers on the upper stem . The mushroom has no distinctive taste or odor . Although edible , it is not recommended for consumption .

*Cortinarius iodes* produces a rusty @-@ brown spore print . Spores are elliptical , with a finely roughened surface , measuring 8 ? 10 by 5 ? 6 @. @ 5 ?m . The basidia ( spore @-@ bearing cells ) are four @-@ spored , club @-@ shaped , and measure 28 ? 39 @. @ 5 by 9 @. @ 3 ? 14 ?m . Both cheilocystidia and pleurocystidia are absent from the hymenium ; the gill edge is populated by basidia and their undeveloped equivalents , basidioles . The cap cuticle comprises a distinctive layer of 3 ? 8 ?m @-@ wide hyphae that form a layer usually 110 ? 125 ?m thick ; this layer is less distinct or thinner in old or poorly preserved specimens . Clamp connections are present in hyphae throughout the fruit body .

## = = = Similar species = = =

*Cortinarius iodes* is a fairly distinctive species and its combination of characteristics make it readily identifiable . Several other *Cortinarius* species have evolved a slimy coating that probably help

protects the fruit bodies from predation by insects and other invertebrates . Other field techniques can be used to help identify dry fruit bodies that have lost their slime coat : by checking for leaf and twig debris adhering to the surface , or , by kissing the cap and stem to exploit the lips ' enhanced sensitivity to stickiness . *C. iodeoides* is virtually identical in appearance to *C. iodes* , but can be distinguished from the latter by its bitter @-@ tasting cap cuticle and smaller , narrower spores measuring 7 @. @ 7 ? 9 @. @ 3 by 4 @. @ 6 ? 5 @. @ 4 ?m . The " violet cort " ( *Cortinarius violaceus* ) has a dry , scaly , dark purple cap and stem . The " pungent cort " ( *Cortinarius traganus* ) has a dry , light purple cap and stem and a bad odor . Two other widespread *Cortinarius* species with violet coloring and a slimy cap , *C. salor* and *C. croceocaeruleus* , can be distinguished from *C. iodes* by the absence of yellowish spotting . A North American species *C. oregonensis* has a paler lilac cap with a central region that is yellowish or brownish , and smaller spores that measure 7 ? 8 by 4 ? 5 ?m . A non @-@ *Cortinarius* lookalike , *Inocybe lilacina* , has a dry , silky cap that features a prominent umbo .

= = Habitat and distribution = =

*Cortinarius iodes* forms mycorrhizal associations with deciduous trees , particularly oaks . The fruit bodies of *Cortinarius iodes* sometimes grow singly , but more often scattered or in groups under hardwood trees , in humus and litterfall . Typical habitats include bog edges , swampy areas , and hummocks . Fruiting usually occurs from July to November . In North America , it is common in eastern regions , and rare in the Pacific Northwest . Its distribution extends from eastern Canada south into Central America and northern regions of South America . It also occurs in northern Asia .