

= *Peniophora quercina* =

*Peniophora quercina* is a species of wood @-@ decay fungus in the family Peniophoraceae . The species produces fruit bodies which vary in appearance depending on whether they are wet or dry . The wet fruit bodies are waxy and lilac , and attached strongly to the wood . When dry , the edges curl up and reveal the dark underside , while the surface becomes crusty and pink . *P. quercina* is the type species of *Peniophora* , and was moved to the genus upon its creation by Mordecai Cubitt Cooke . The species is found primarily in Europe , where it can be encountered all year . Though primarily growing upon dead wood , especially oak , it is also capable of growing upon still @-@ living wood .

= = Taxonomy = =

Early descriptions of the species came from Carl Ludwig Willdenow , who named it *Lichen carneus* in 1787 , and Jean Baptiste François Pierre Bulliard , who , in 1790 , named it *Auricularia corticalis* . However , the sanctioned name is *Thelephora quercina* , given by Christiaan Hendrik Persoon in 1801 , and sanctioned by Elias Magnus Fries in the first volume of his *Systema Mycologicum* . The specific name *quercina* is in reference to *Quercus* , the generic name for oak . A number of authors ( including Jean @-@ Baptiste Lamarck , Lucien Quélet and Giacomo Bresadola ) reclassified Bulliard 's *Auricularia corticalis* throughout the 19th century , while Persoon 's *Thelephora quercina* was reclassified by Samuel Frederick Gray in 1821 , who placed it in *Corticium* as *Corticium quercinum* . However , in 1879 , Mordecai Cubitt Cooke transferred the species to his newly described genus *Peniophora* , declaring it the type species . Despite subsequent attempts at reclassification , Cooke 's name is the one currently used .

= = Description = =

*Peniophora quercina* produces resupinate fruit bodies which vary in appearance depending on whether they are wet or dry . They are up to 0 @. @ 5 mm ( 0 @. @ 020 in ) thick , and form irregular patches that sometimes measure several centimetres across . Initially , the species forms small , disc @-@ shaped fruit bodies through holes in bark , but these expand and merge to form the irregular patches . When fresh , the surface is reminiscent of jelly or wax , and can be smooth or warty , varying in colour from a dull blue to lilac . Initially , they are firmly attached to the wood on which they are growing , but as they dry , the edges roll inwards and reveal the dark brown or black underside . The dry specimens have a crusty and slightly fissured surface , and , in colour , are a bright pink or grey , tinted with lilac . There is a relatively thick layer of gelatinous flesh . Apart from a brown layer close to the wood , the flesh is hyaline . The species has no distinctive odour or taste , and is inedible .

= = = Microscopic features = = =

*Peniophora quercina* produces spores which take the shape of a curved cylinder ( sausage shaped ) , and have been variously reported as light red , pink and white . They measure from 8 to 12 by 3 to 4 micrometres ( ?m ) . The spores are borne on basidia , with four spores per basidium , which measure 50 to 70 by 5 to 12 ?m . The species has hyaline cystidia with thick cell walls , which are " heavily encrusted with crystalline material " . The cystidia are often buried within the fruit body as it grows , but can be found in large numbers . They have been variously described as spindle @-@ shaped or conical , and measure 25 to 35 by 10 to 15 ?m . The hyphae have clamp connections , and the base of the fruit body is made up of brown hyphae with moderately thick cell walls , measuring 3 to 4 ?m in width .

= = = Similar species = = =

*Peniophora limulata* is similar in appearance to *P. quercina* . However , the edges of the fruit body are highlighted in a dark black , and the species favours ash , as opposed to oak .

= = Ecology and distribution = =

*Peniophora quercina* typically grows upon dead wood , which can be attached to the tree or fallen , where it causes white rot . It favours oak , but can also be found on other deciduous trees , such as beech . *P. quercina* is known to be a pioneer species on dead wood , which means it can be the first species to grow . It is found in Europe , where it is very common . Though it can be encountered all year , it produces spores in late summer and autumn . It has also been recorded in Amur , in eastern Asia .

The species has also been identified in living sapwood , though it is latent at this time , and it is probable that it waits until the wood begins to die ( when it is drier , but contains more oxygen ) before the mycelia begin to grow . When the species was inoculated into living wood , it did grow , but only around the inoculation wound ; the species did not spread as it would have done on dead wood . Another study found that the species actively colonised partially living branches , causing white rot . However , the species had little effect on the cambium , and was mostly limited to the ends of branches .