

## = Clavaria fragilis =

*Clavaria fragilis* , commonly known as fairy fingers , white worm coral , or white spindles , is a species of fungus in the family Clavariaceae . It is synonymous with *Clavaria vermicularis* . The fungus is the type species of the genus *Clavaria* and is a typical member of the clavarioid or club fungi . It produces tubular , unbranched , white basidiocarps ( fruit bodies ) that typically grow in clusters . The fruit bodies can reach dimensions of 15 cm ( 5 @. @ 9 in ) tall by 0 @. @ 5 cm ( 0 @. @ 2 in ) thick . *Clavaria fragilis* is a saprobic species , growing in woodland litter or in old , unimproved grassland . It is widespread throughout temperate regions in the Northern Hemisphere , but has also been reported from Australia and South Africa . The fungus is edible , but insubstantial and flavorless . There are several other small white coral @-@ like fungi with which *C. fragilis* may be confused .

## = = History and taxonomy = =

*Clavaria fragilis* was originally described from Denmark in 1790 by Danish naturalist and mycologist Theodor Holmskjöld , and was sanctioned under this name by Elias Magnus Fries in his 1821 *Systema Mycologicum* . The Latin epithet *fragilis* refers to the brittle fruit bodies . The species was redescribed by Swedish mycologist Olof Swartz in 1811 , using the name *Clavaria vermicularis* ( the epithet meaning " wormlike " ) . Though it is a later synonym ? and thus obsolete according to the principle of priority ? the latter name is still frequently used today . There are several other names considered to be synonymous with *C. fragilis* by the online taxonomical database MycoBank ( see the taxobox ) .

In North America , the fungus has colloquially been called " fairy fingers " or " white worm coral " . In the UK its recommended English name is " white spindles " . British naturalist Samuel Frederick Gray called it the " worm club @-@ stool " in his 1821 *A Natural Arrangement of British Plants* .

## = = Description = =

The fruit bodies of *C. fragilis* are irregularly tubular , smooth to furrowed , sometimes compressed , very fragile , white , up to 150 mm ( 5 @. @ 9 in ) tall by 5 mm ( 0 @. @ 20 in ) thick , and typically grow in dense clusters . The tip of the fruit body tapers to a point , and may yellow and curve with age . There is no distinct stalk , although it is evident as a short , semitransparent zone of tissue at the base of the club . Microscopically , the hyphae of the flesh are swollen up to 12 µm wide and lack clamp connections . The spores are smooth , colourless , ellipsoid to oblong , measuring 5 ? 7 by 3 ? 4 µm . The spores are white in deposit . The basidia ( spore bearing cells ) measure 40 ? 50 by 6 ? 8 µm , and lack clamps at their bases .

## = = = Edibility = = =

*Clavaria fragilis* is edible , but the fruit bodies are insubstantial and fragile . One field guide says " its flesh is tasteless and so delicate that it seems to dissolve in one 's mouth . " Its odor has been compared to iodine .

## = = Distribution and habitat = =

The species occurs throughout the Northern Hemisphere , in Europe , North America , and Asia . In North America , it is more common east of the Rocky Mountains . It has also been recorded from Australia and South Africa . In 2006 , it was reported from the Arctic zone of the Ural Mountains , in Russia .

The fungus grows in woodland and in grassland on moist soil , and is presumed to be saprobic , rotting fallen leaf litter and dead grass stems . The fruit bodies tend to grow in groups , tufts or clusters . Although they can grow singly , they are typically inconspicuous unless in clusters .

## = = Similar species = =

Similar fungi with simple , white fruit bodies include *Clavaria acuta* , an equally widespread species that typically grows singly or in small groups rather than in dense clusters and can be distinguished microscopically by its clamped basidia and larger spores ; the morphologically similar , but rare *C. atkinsoniana* , found in the southwestern and central United States , which cannot be distinguished from *C. fragilis* by field characteristics alone but has larger spores ? 8 @.@ 5 ? 10 by 4 @.@ 5 ? 5  $\mu\text{m}$  ; *C. rubicundula* , another North American species , which is similar in stature but has a reddish tint ; and *Multiclavula mucida* , a widespread lichenized species with smaller fruit bodies that occurs with its associated algae on moist wood .

## = = Conservation status = =

In North America , *Clavaria fragilis* has been called " by far our most common *Clavaria* " . In northern Europe , it is one of a suite of " CHEG " fungi ( CHEG standing for " Clavarioid fungi @-@ *Hygrocybe* @-@ *Entoloma* @-@ *Geoglossaceae* " ) considered to be indicator species of old , unimproved grassland ( permanent grassland that has not been cultivated for some years ) . Though such grasslands are a threatened habitat in Europe , *C. fragilis* is one of the commoner CHEG species . It is , nonetheless , on the national red list of threatened fungi in the Netherlands and Slovenia .