

= *Psilocybe tampanensis* =

Psilocybe tampanensis is a very rare psychedelic mushroom in the Strophariaceae family . Originally collected in the wild in a sandy meadow near Tampa , Florida in 1977 , the fungus has never again been reported in Florida , but was later collected in Mississippi . The original Florida specimen was cloned , and descendants remain in wide circulation . The fruit bodies (mushrooms) produced by the fungus are yellowish @-@ brown in color with convex to conic caps up to 2 @. @ 4 cm (0 @. @ 9 in) in diameter atop a thin stem up to 6 cm (2 @. @ 4 in) long . *Psilocybe tampanensis* forms psychoactive truffle @-@ like sclerotia that are known and sold under the nickname " philosopher 's stones " . The fruit bodies and sclerotia are consumed by some for recreational or entheogenic purposes . In nature , sclerotia are produced by the fungus as a form of protection from wildfires and other natural disasters .

= = Taxonomy = =

The species was described scientifically by Steven H. Pollock and Mexican mycologist and *Psilocybe* authority Gastón Guzmán in a 1978 *Mycotaxon* publication . According to Paul Stamets , Pollock skipped a " boring taxonomic conference " near Tampa , Florida to go mushroom hunting , and found a single specimen growing in a sand dune , which he did not recognize . Pollock later cloned the specimen and produced a pure culture , which remains widely distributed today . The type specimen is kept at the herbarium of the Instituto Politécnico Nacional in Mexico . Guzmán classified *P. tampanensis* in his section *Mexicanae* , a grouping of related *Psilocybe* species characterized primarily by having spores with lengths greater than 8 micrometers .

= = Description = =

The cap ranges in shape from convex or conic with a slight umbo , expanding in age to become flattened or with a slight central depression ; it reaches diameters of 1 ? 2 @. @ 4 cm (0 @. @ 4 ? 0 @. @ 9 in) . The surface is smooth , not striate (grooved) , ochraceous brown to straw brown , buff to yellowish @-@ grey when dry , with slight bluish tones at the margin , hygrophanous , and somewhat sticky when wet . The gills are more or less adnate (broadly attached to the stem slightly above the bottom of the gill , with most of the gill fused to the stem) and brown to dark purple brown in color with lighter edges . The stem is 2 ? 6 cm (0 @. @ 8 ? 2 @. @ 4 in) long , 1 ? 2 mm (0 @. @ 04 ? 0 @. @ 08 in) thick , and equal in width throughout to slightly enlarged near the base . There are fibrils near the top of the stem . The partial veil is cortinate (cobweb @-@ like , similar to the partial veil of *Cortinarius* species) , and soon disappears . The flesh is whitish to yellowish , and bruises blue when injured . The taste and odor are slightly farinaceous (similar to freshly ground flour) .

The spore print is purple @-@ brown . When viewed with a microscope , the spores of *P. tampanensis* are somewhat rhombic in face view and roughly elliptical in side view ; they have dimensions of 8 @. @ 8 ? 9 @. @ 9 by 8 ? 8 @. @ 8 by 5 @. @ 5 ? 6 @. @ 6 ?m . Spores appear brownish @-@ yellow when mounted in a solution of potassium hydroxide , and have a thick , smooth wall , a distinct germ pore , and a short appendage . The basidia (spore @-@ bearing cells) are four @-@ spored , hyaline (translucent) , and measure 14 ? 22 by 8 ? 10 µm . The cheilocystidia (cystidia on the gill face) measure 16 ? 22 by 4 ? 9 µm , and are lageniform (flask @-@ shaped) with flexous thin necks that are 2 @. @ 2 ? 3 µm thick , and infrequently have irregular branches . There are no pleurocystidia (cystidia on the gill face) . Clamp connections are present in the hyphae .

= = = Similar species = = =

Guzmán considers *Psilocybe tampanensis* to be intermediate in form between *P. mexicana* and *P. caerulescens* . *Psilocybe mexicana* has a more *Mycena* @-@ like fruit body shape , and longer

basidia measuring 22 ? 24 by 7 @. @ 7 ? 11 ?m . It is known only from Mexico and Guatemala . *Psilocybe caerulescens* , found in the USA and Venezuela , is also somewhat similar , but has a collybioid habit (small to medium @-@ sized mushrooms with a convex cap) , with spores measuring 6 @. @ 7 ? 8 by 5 @. @ 2 ? 6 @. @ 5 by 3 @. @ 3 ? 5 @. @ 2 ?m , and cheilocystidia that are 15 ? 22 by 4 @. @ 4 ? 5 @. @ 5 ?m .

= = Habitat and distribution = =

For almost two decades after its discovery , *Psilocybe tampanensis* was known only from the type locality , southeast of Brandon , Florida . In 1996 , Guzmán reported finding it in a meadow with sandy soil in a deciduous forest in Pearl River County , Mississippi , a habitat similar to that of the type location . Due to its scarcity , however , its habitat preferences are not known with certainty . Like all *Psilocybe* species , it is saprobic .

Like some other psychoactive grassland species such as *Psilocybe semilanceata* , *Conocybe cyanopus* , *P. tampanensis* can form sclerotia ? a hardened mass of mycelia that is more resistant to adverse environmental conditions than normal mycelia . This truffle @-@ like form gives the fungus some protection from wildfires and other natural disasters . Other *Psilocybe* species known to produce sclerotia include *Psilocybe mexicana* and *Psilocybe caerulescens* . Sclerotia are also produced when the species is grown in culture .

= = Recreational use = =

Psilocybe tampanensis contains the psychedelic compounds psilocin and psilocybin , and is consumed for recreational and entheogenic purposes . The species was found to be one of the most popular psychoactive mushrooms confiscated by German authorities in a 2000 report , behind *Psilocybe cubensis* , *Psilocybe semilanceata* , and *Panaeolus cyanescens* . The alkaloid content in the confiscated samples ranged from not detectable to 0 @. @ 19 % psilocybin , and 0 @. @ 01 to 0 @. @ 03 % psilocin . According to mycologist Michael Beug , dried fruit bodies can contain up to 1 % psilocybin and psilocin ; in terms of psychoactive potency , Stamets considers the mushroom " moderately to highly active " .

The psychoactive compounds are also present in the sclerotia : in one analysis , the levels of psilocybin obtained from sclerotia ranged from 0 @. @ 31 % to 0 @. @ 68 % by dry weight , and were dependent upon the composition of the growth medium . Sclerotia are sold under the nickname " philosopher 's stones " . They have been described as " resembling congealed muesli " , and having a somewhat bitter taste similar to walnut . Strains existing as commercial cultivation kits sold originally in countercultural drug magazines are derived from the original fruit body found by Pollock in Florida . Methods were originally developed by Pollock , and later extended by Stamets in the 1980s to cultivate the sclerotia on a substrate of rye grass (*Lolium*) , and on straw . Sclerotia prepared in this way take from 3 to 12 weeks to develop . Pollock was granted a US patent in 1981 for his method of producing sclerotia .

= = Legal status = =

Psilocin and psilocybin are scheduled drugs in many countries , and mushrooms containing them are prohibited by extension . In the United States , Federal law was passed in 1971 that put the psychoactive components into the most restricted schedule I category . For about three decades following this , several European countries remained relatively tolerant of mushroom use and possession . In the 2000s (decade) , in response to increases in prevalence and availability , all European countries banned possession or sale of psychedelic mushrooms ; the Netherlands was the last country to enact such laws in 2008 . However , they did not include psilocybin @-@ containing sclerotia in the 2008 law , and thus , psilocybin @-@ containing fungal compounds are available commercially in the Netherlands . In parallel legal developments in Asia , *P. tampanensis* was one of 13 psychoactive mushrooms specifically prohibited by law in Japan in 2002 .

