

## = Strobilomyces foveatus =

*Strobilomyces foveatus* is a little known species of fungus in the Boletaceae family . It was first reported by mycologist E.J.H. Corner in 1972 , from specimens he collected in Malaysia in 1959 , and has since been found in Australia . Fruit bodies are characterized by the small dark brown to black conical scales covering the cap , and the net like pattern of ridges on the upper stem . The roughly spherical spores measure about eight micrometres , and are densely covered with slender conical spines . The edibility of this species is unknown .

## = Taxonomy and classification =

*Strobilomyces foveatus* was first described scientifically by mycologist E.J.H. Corner in 1972 , from specimens collected in Sarawak , Malaysia in 1959 . It was one of several new *Strobilomyces* species he described in his monograph of Malaysian Boletaceae ? the others were *S. annulatus* , *S. mirandus* , and *S. mollis* .

The fungus is classified in the section *Strobilomyces* of the genus *Strobilomyces* . Species in this section are characterized by having spores that may be either smooth or with short spines or warts , ridges or reticulations . The ornamentation is reduced or absent in the suprahilar region ( a depressed area near the hilar appendage ) . The specific epithet *foveatus* is derived from the Latin adjective *foveola* , referring to a surface with pits or depressions .

## = Description =

The caps of the fruit bodies are between 7 to 10 cm ( 2 to 3 in ) wide , with a convex shape . The cap surface is covered with dark brown to black erect scales between 1 to 5 mm by 1 to 5 mm . The stem is up to 12 cm ( 4 to 7 in ) long ; it is 1 to 2 cm ( 0 to 5 in ) thick at the top , and 1 to 5 cm ( 0 to 6 in ) thick at the bottom . The surface of the upper stem is strongly reticulate ( covered with a network like pattern ) with individual meshes about 2 to 4 mm wide and 1 to 2 mm deep . The pores on the underside of the cap are between 0 to 5 mm wide , dirty white then gray , and they bruise a brownish to black color . The tubes which make up the pores are up to 1 to 2 cm ( 0 to 4 in ) long . The flesh is thick and initially white , but will stain a brownish to black after exposure to the air .

The spores are 8 to 10 by 6 to 8  $\mu$ m , and densely covered with slender conical spines about 0 to 5  $\mu$ m tall . The abundant pleurocystidia ( large sterile cells found on gill faces ) are thin walled , measuring up to 90  $\mu$ m long by 1 to 20  $\mu$ m wide , and ventricose ( with a swelling on one side ) , with a narrow appendage up to 20  $\mu$ m by 4 to 8  $\mu$ m . The hyphae that make up the cap surface and the warts are branched , loosely interwoven , and sooty colored ; the unclamped cells typically measure 17 to 45 by 9 to 26  $\mu$ m . The surface of the stem is made of a compact mat of hyphae roughly 120  $\mu$ m thick , that reduces to a sterile hymenium in the upper part of the stem .

Corner notes that the species " may be identical " with *Strobilomyces echinatus* Beeli , an African species with spores that measure 9 to 13 by 6 to 8  $\mu$ m .

## = Habitat and distribution =

Corner collected specimens growing in humus on the forest floor , in Bako National Park ( 1 ° 43 ' N 110 ° 28 ' E ) in Sarawak , Malaysia , in northern Borneo . It has also been collected from southern Queensland in Australia . Although it is not known definitively for *Strobilomyces foveatus* , all *Strobilomyces* species are suspected to be mycorrhizal .