

= *Morchella importuna* =

Morchella importuna is a species of fungus in the family Morchellaceae described from North America in 2012 . It occurs in gardens , woodchip beds , and other urban settings of northern California and the Pacific Northwest region of the United States and Canada . The fungus has also been reported from Turkey , Spain , France , Switzerland , Canada and China , although it is unknown whether this is a result of accidental introductions . It is considered a choice edible mushroom . The fruit bodies develop a distinctive ladder @-@ like pattern of pits and ridges on the surface of their conical caps .

= = Taxonomy = =

Officially described in 2012 , *Morchella importuna* was one of 14 new North American species that resulted from the Morel Data Collection Project . The type locality was in King County , Washington . It was previously identified as phylogenetic species Mel @-@ 10 in a 2011 publication , and erroneously as the " Classic North American Black Morel " in 2005 , where it was lumped together with *Morchella angusticeps* , and what has since been described as *M. brunnea* . The specific epithet *importuna* , which means " inconsiderate " or " assertive " , refers to the morel 's habit of causing " consternation and distress among gardeners and homeowners whose territory has been invaded " .

As argued in a recent study by Richard et al. however , the name *Morchella importuna* is probably a later synonym of an old European taxon , such as *Morchella elata* , *Morchella vaporaria* or *Morchella hortensis* .

= = Description = =

The fruit bodies of *M. importuna* are 6 ? 20 cm (2 @. 4 ? 7 @. 9 in) high . The cap is 3 ? 15 cm (1 @. 2 ? 5 @. 9 in) high and measures 2 ? 9 cm (0 @. 8 ? 3 @. 5 in) wide at its widest point . It is conical to widely conical or occasionally egg @-@ shaped . Its surface has pits and ridges , with 12 ? 20 primary vertical ridges and numerous transecting horizontal ridges , creating a laddered appearance . The cap is attached to stipe with a sinus about 2 ? 5 mm both deep and wide . The ridges are smooth or finely velvety and colored pale to dark gray when young , becoming dark grayish brown to nearly black in age . They are bluntly rounded when young , but later become sharpened or eroded . Pits are vertically elongated in all stages of development . They have a smooth or finely velvety texture . The pits open and deepen with development , progressing from gray to dark gray when immature to grayish brown , grayish olive or brownish yellow at maturity . The stipe measures 3 ? 10 cm (1 @. 2 ? 3 @. 9 in) high and 2 ? 6 cm (0 @. 8 ? 2 @. 4 in) wide , and is often somewhat thicker near the base . Its whitish to pale brownish surface is smooth or finely mealy with whitish granules . It develops longitudinal ridges and grooves (particularly near the base) as the fruit body matures . The flesh is whitish to watery tan , measuring 1 ? 3 mm thick in the hollow cap ; in the stipe , this tissue is sometimes arranged as chambers or layers . The sterile inner surface of the cap is whitish and pubescent (covered with short soft " hair ") .

The ascospores are elliptical , smooth , and measure 18 ? 24 by 10 ? 13 µm . The cylindrical , hyaline (translucent) , asci are eight @-@ spored , measuring 220 ? 300 by 12 ? 25 µm . Paraphyses are septate , measuring 150 ? 250 by 7 ? 15 µm . They are cylindrical with variably shaped tips : rounded to roughly club @-@ shaped , pointy , or fuse @-@ shaped . Elements on the sterile ridges are septate and measure 25 ? 300 by 10 ? 30 µm . Terminal cells are cylindrical with a rounded tip that is variably shaped similar to the paraphyses . Both the paraphyses and the terminal cells are hyaline or brownish in dilute (2 %) potassium hydroxide .

As a member of the *Morchella elata* group of black morels , *M. importuna* is sought after as a choice edible mushroom . Raw morels are poisonous and should always be cooked .

= = = Similar species = = =

The rare Pacific Northwest morel *Morchella hotsonii* , known only from its type collection , is quite similar in appearance to *M. importuna* . The former species is distinguished by its finely velvety surface .

= = Habitat , distribution , and ecology = =

A saprobic fungus , *Morchella importuna* fruit bodies grow in wood chips , gardens , and planters in urban areas . Kuo suggests that it has mycorrhizal tendencies when grown in an environment with trees . Known primarily from northern California and the Pacific Northwest region of the United States , it has been reported from British Columbia (Canada) , California , Washington , Nevada , and Oregon , although there have been a few isolated reports of the morel from the Midwestern United States and from eastern North America . Fruiting occurs in the spring , from March until May . Identified as phylogenetic species " Mel @-@ 10 " , *Morchella importuna* has also been found in Turkey and China , but it remains unclear whether dispersal between these distant locations occurred naturally or through accidental introduction by humans .