

毛木耳

Auricularia polytricha (Mont.) Sacc.

分類 Classification	木耳科，木耳目，擔子菌門 Auriculariaceae, Auriculariales, Basidiomycota
生境 Habitat	在死枝、傷口、死樹或樹樁上 On dead branches, wound, dead trees or stump



此真菌最大的特徵為其堅韌及凝膠狀至膠質的子實體，可以單生或叢生方式在腐木上出現。子實體扁薄、捲曲、杯狀至耳殼狀或有時於中心點幾個呈耳狀的子實體疊生。表面平滑，有時略有紋理或稜紋，微小柔滑或有纖細絨毛，乾後轉為灰白色。內層平滑至略有皺紋，新鮮時呈膠質，曬後呈黃褐色、灰褐色、褐色、乾後轉黑且硬。孢子無色，光滑，香腸形，大小為長12-18微米×闊5-6微米。



This mushroom is characterized by its tough, gelatinous to rubbery fruiting bodies. It may occur singly or in clusters on dead wood. Fruiting body is thin, wavy, cup-shaped to ear-shaped or sometimes with several earlike lobes originating from a central point of attachment. Outer surface is sterile, often veined or ribbed, minute silky or with fine downy hairs, turning greyish white when dried. Inner surface is smooth to slightly wrinkled, gelatinous when wet, tan to yellow-brown, greyish brown, brown, turning blackish and hard when dried. Spores are colorless, smooth, allantoid, 12-18 µm long × 5-6 µm wide.

這是一種非常普遍和常見的真菌，在大自然中負責降解已死的植物組織。因此，子實體的存在並不會對活樹造成任何有害影響。然而，已被分解的枯枝很容易折斷，因此建議為枯枝進行修剪。

This is a very widespread and common mushroom which degrades dead plant materials. Presence of fruiting bodies will not cause any harmful effect on living trees. The partially degraded dead branches, however, are prone to snap and therefore pruning is recommended.

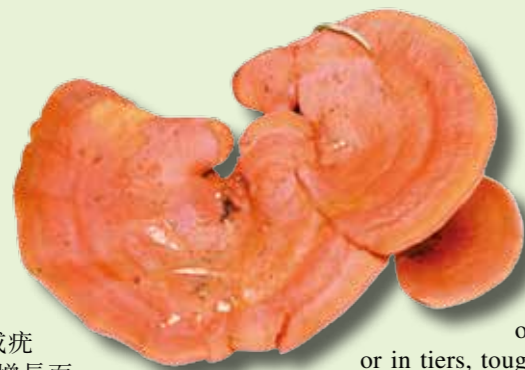


朱紅菌

Pycnoporus cinnabarinus (Jacq.) Fr.

分類 Classification	多孔菌科，多孔菌目，擔子菌門 Polyporaceae, Polyporales, Basidiomycota
生境 Habitat	在死枝、傷口、死樹或樹樁上 On dead branches, wound, dead trees or stump

這是一種香港常見的多孔菌，最鮮明的特點是它橘紅色的擔子果。子實體無柄，架狀，部分散佈在基質上，有時數個子實體可聚合、接邊或瓦狀疊生，新鮮時堅韌，乾後近乎堅硬。菌蓋半圓形或扇形，乾身，光滑或有細毛，起皺或疣狀，鮮橙至橙紅色或紅色，但會隨年齡增長而褪色。管孔面與菌蓋同色，但一般不會褪色。孢子無色，光滑，圓柱形，長5-6微米×寬2-2.5微米。



This is a common polypore in Hong Kong. The most distinctive feature is its orange red basidiocarp. Fruiting body is stemless, shelf-like, partially spreading over the substrate, fused, attached sideways or in tiers, tough when fresh, nearly rigid when dry. Cap is semicircular or fan-shaped, dry, smooth or finely hairy, wrinkled or warty, bright orange to orange red or red, but fading in age. Pore surface is bright orange to orange-red or red, scarcely fading. Spores are colorless, smooth, cylindrical, 5-6 µm long × 2-2.5 µm wide.

此真菌主要是腐生的，但偶爾會造成病害。它可能透過經修剪的傷口或自然產生的傷口感染樹木。當樹木遭受壓力影響時，如乾旱、颱風、機械損傷、移植和營養不良下，便特別容易受到傷害。這種真菌感染將導致白腐病，受影響的樹枝會容易折斷。若有此情況發生，就必須進行密切的監察和作適量的修剪。

This mushroom is primarily saprotrophic but has been occasionally reported to be pathogenic. It may infect trees via pruning cuts or natural wounds. Trees that are suffered from stresses such as drought, typhoon, mechanical damage, transplanting and poor nutrition are particularly vulnerable. This fungal infection will cause white rot and the affected branches will be easily snapped. Frequent monitoring and mitigation measures such as pruning may be needed.



裂褶菌

Schizophyllum commune (Fr.) Fr.

分類 Classification	裂褶菌科，傘菌目，擔子菌門 Schizophyllaceae, Agaricales, Basidiomycota
生境 Habitat	在死樹幹、傷口、死樹及樹樁上 On dead trunk, wound, dead trees or stump

細小而扇形的子實體是裂褶菌的最大特徵。在新鮮及乾燥時，子實體無柄、堅韌及革質。菌蓋近乎圓形、扇形或腎形，乾身，上有密集的絨毛，白色至灰白色或灰色，邊緣通常是波浪形或內捲，在乾燥天氣下，邊緣甚至會縱裂。菌褶從中心點開始幅射而出，間隔均勻，白色至灰白色，邊緣縱向裂開或形成縱向溝，天氣乾燥時，邊緣反捲。孢子無色，圓柱形至橢圓形，表面光滑，長5.7微米×寬2-3微米。



This is commonly known as split-gill mushroom and characterized by the small fan-shaped fruiting bodies growing in groups. Fruiting body is stemless, tough and leathery both fresh and dry. Cap is more or less round, fan-shaped or kidney-shaped, dry, densely hairy, white to greyish-white or grey, margin usually lobed, inrolled or even split in dry weather. Gills are radiating from point of attachment, evenly spaced, white to greyish, edges appearing split or grooved lengthwise, rolling back in dry weather. Spores are colorless, cylindrical to elliptical, smooth, 5.7µm long × 2-3 µm wide.

這種真菌主要是腐生的，但它亦會在活樹的傷口上生長，然後在樹皮下通過組織蔓延，形成白腐病。如發現枯枝上出現此真菌，應修剪枯枝及維持定期監察。



This mushroom is primarily saprotrophic but it also develops on wounds of living trees and then spreads through the tissues under the bark causing white rot. Dead branches with this mushroom should be pruned and regular monitoring is recommended.

薄邊蜂窩菌

Hexagonia tenuis (Hook.) Fr.

分類 Classification	多孔菌科，多孔菌目，擔子菌門 Polyporaceae, Polyporales, Basidiomycota
生境 Habitat	於活樹的死枝上或掉下的樹枝上 On dead branches of living trees or fallen branches



這種真菌的特色是其呈六角形的菌孔及薄邊的菌蓋。子實體無柄或有短小扁型的菌腳，有時平生只具狹小的菌蓋。菌蓋黃褐色至淡煙褐色，半圓形，長闊皆2-10厘米及厚1-3毫米，新鮮時平伏貼生，乾旱時彎曲，具同心環帶。管孔面榛子色至牛奶咖啡色，菌孔六角形，灰色，不規則排列，每厘米10-12個。孢子無色，圓柱形，平滑，長11-13.5微米×寬4-4.5微米。



This mushroom is distinguished by its hexagonal pores on the underside and thin edge of the cap. Fruiting body is stemless or with short resupinate foot, sometimes rather lying flat on substrate with narrow cap. Cap is yellow-brown, to pale snuff-brown, semi-circular, 2-10 cm broad and wide and 1-3 mm thick, flat when fresh, bent when dry, glabrous, concentrically zoned. Pore surface is hazel to milky-coffee with a greyish tint and irregularly arranged hexagonal pores, with 10-12 pores per cm. Spores are colorless, cylindrical, smooth, 11-13.5 µm long × 4-4.5 µm wide.

這種真菌在枯枝上非常普遍和常見。它的出現並不會對活樹造成任何有害影響。可是，被局部分解的枯枝會較容易折斷，因此建議為枯枝進行修剪。



This is very widespread and common fungus on any dead branches. Its occurrence will not cause any harmful effect on living trees. The partially degraded dead branches, however, are prone to snap and therefore pruning is recommended.

參考書目 Reference:

Arora, D. 1986. *Mushrooms demystified*. Ten Speed Press, Berkeley, 959 pp.
Gilbertson, R.L., Ryvarden, L. 1987. *North American Polypores*. Vol. 1 & 2. Fungiflora, Oslo, Norway, 452 pp.
Schwarze, F.W.M.R. 2008. *Diagnosis and Prognosis of the Development of Wood Decay in Urban Trees*. Enspeg, Rowville, 336 pp.
Stancheva, Y., Bencheva, S., Pavlidis, T., Ilieva, M. 2009. *Atlas of Wood Decaying Fungi*. Pensoft, Moscow, 349 pp.
Zhao, J.D. and X.Q. Zhang. 2000. *Flora Fungorum Sinicorum* Vol.18. Ganodermataceae. Science Press, Beijing, 204 pp. (in Chinese)

版權©2012 漁農自然護理署 香港植物標本室
©2012 Hong Kong Herbarium, Agriculture, Fisheries & Conservation Department. All Rights Reserved.
www.hkherbarium.net

文： 鄧銘澤博士
圖： 鄧銘澤、蘇毅雄、徐沛源、
袁志基、黃嘉麟、呂文容

Text: Dr. Alvin Tang
Photos: Alvin Tang, Samson So, Wynton Tsui,
Paul Yuen, Smith Wong, Manda Lui

01/2013

TdA - Concept, design and production www.tda.com.hk

香港常見的 木材腐朽真菌 Common Wood Decay Fungi of Hong Kong

Herbarium Leaflet
植物標本室單張

F1



真菌

在自然界是「雙非」，它既非植物，亦非動物，而屬於一種獨特的生物界別。它們不像綠色植物般含有葉綠素，它們靠分解有機物質來养活自己。我們肉眼所見的菇其實是真菌的生殖結構，稱為子實體，它在整個真菌的生命週期中只佔其中一段相對較短的生命階段，而真菌在整個生命週期中主要是以菌絲組成的菌絲體出現。大多數真菌是腐生的，它們生長在落下的枝條、樹樁、葉片、腐殖質、泥土、糞便及其他碎屑上，但亦有些是寄生的，從生物中獲得營養。這單張將介紹其中十種在香港最重要的木材腐朽真菌，並提供指引，幫助各樹木管理單位、樹藝師、以及公眾認識它們的辨認特徵、生存策略及其出現對樹木評估的重要性。



Fungi are neither plants nor animals but belong to a separate Kingdom on their own. They do not contain chlorophyll like green plants and they feed themselves by degrading other organic matter. A mushroom is the reproductive structure (fruiting body) of a fungus and a comparatively short-lived stage in the whole life cycle of a fungus. The main life-stage of a fungus comprises an extensive network of very fine threads, or hyphae, joining to form mycelium. Most fungi are saprotrophic which live on fallen branches, stumps, leaves, humus, soil, dung and other debris, but some are parasitic and feed on living things. In this leaflet, ten most important wood decay fungi in Hong Kong will be introduced and served as a guideline to help tree management units, arborists, as well as the public, to understand the identifying features, life strategies and the arboricultural significance.



漁農自然護理署
Agriculture, Fisheries and
Conservation Department

