

Wildlife Viewing

# Common Yukon mushrooms



  
Yukon



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**For more information on mushrooms and other Yukon wildlife, contact:**

Government of Yukon  
Wildlife Viewing Program  
Box 2703 (V-5R)  
Whitehorse, Yukon Y1A 2C6

Phone:  
867-667-8291  
Toll free:  
1-800-661-0408 x 8291  
Email:  
wildlife.viewing@gov.yk.ca

**Yukon.ca**

**Find us on Facebook at “Yukon Wildlife Viewing”**

Special thanks to Steve Trudell for his contributions to this project.

**For more information on harvesting forest resources, contact:**

Government of Yukon  
Forest Management Branch  
Box 2703 (K-918)  
Whitehorse, Yukon Y1A 2C6

Phone:  
867-667-3999  
Toll free:  
1-800-661-0408 x 3999  
Email:  
forestry@gov.yk.ca

## A guide to common Yukon mushrooms

Mushrooms play an important role in every ecosystem in Yukon. They were once thought to be very primitive plants, but are now recognised as neither plants nor animals, but members of their own kingdom: fungi. Following insects, fungi are the second most diverse group of organisms in the world, and some estimate that only 10 to 15 per cent of all North American fungi have even been described.

This guide will introduce you to some examples of common mushrooms you might find along Yukon's trails. The mushrooms are grouped into categories based on their morphology (appearance and structure), including a photo and short description. You will likely recognise some mushrooms but in order to fully identify one you'll need to purchase more detailed guides. Please remember that eating wild foods such as mushrooms can be dangerous and can result in severe illness or death.

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**Do not rely on this guide to identify edible mushrooms. This booklet will introduce you to the fungus among us, but there is much more to learn!**

# The fungus among us



**A mushroom is like the tip of an iceberg floating on the ocean; there is much more hiding beneath the surface.**

A mushroom is the fruit of a larger mold-like fungus living in the soil, wood, or other material known as the “substrate.” Fungi with these conspicuous fruitbodies are referred to as “macrofungi” but are popularly known as mushrooms or toadstools. Mushrooms play important roles in our ecosystems.

Many are decomposers that help to break down dead

plants. Others specialise in further breaking down organic material mixed in the soil.

Some species of mushroom have symbiotic relationships with plants. The mushrooms act as root extensions, trading nutrients and water for sugars and other organic compounds from the plant. The fungi help retain water and can assist in soil stabilisation.



**Mushrooms also form part of the diet of animals such as squirrels and caribou. The next time you encounter a squirrel midden in the forest, look up on the lower branches of a nearby spruce tree. Often you will find old mushrooms cached by the squirrel.**





## Mushroom habitat

Like plants, different fungi prefer different habitats.

Some grow in soil saturated with water. Others prefer dry, open fields. Mushrooms all grow on a certain type of substrate such as soil, decaying wood, gravel, or even live trees.

## Timing is everything

Mushroom growth is very dependent on season and weather conditions. Fungi can lie hidden beneath the surface of their substrate for many years until the conditions are right to produce a mushroom. Generally, a damp summer with plenty of rainy, warm days will produce bountiful mushroom crops. Just like wildflowers will bloom at different

points in the season, different species of mushroom will fruit at different times. Some arrive early in the spring and are absent for the rest of the summer, others will arrive just before frost. The fun in mushroom viewing is learning the habits of your favourite mushrooms, like the migration patterns of a bird. Sometimes you may only have a window of a few days to see them!



Carol Foster

Shaggy Manes can be found on residential lawns.



YG/Matt Clarke

These mushrooms prefer a gravel sandbar.



YG/Marina Milligan

Russulas can be found on woodland soil and leaf litter.



YG/Marina Milligan

A mushroom growing on decaying wood.

# Mushroom morphology

Mushrooms come in many different shapes and sizes, but they all function to produce and disperse spores, which are like seeds in fungal reproduction. The most common mushroom shapes found along Yukon's trails are:



James Lindsey/CC BY-SA 3.0

Cups



YG/Marina Milligan

Clubs or corals



Hayley McClelland

Brackets or shelves



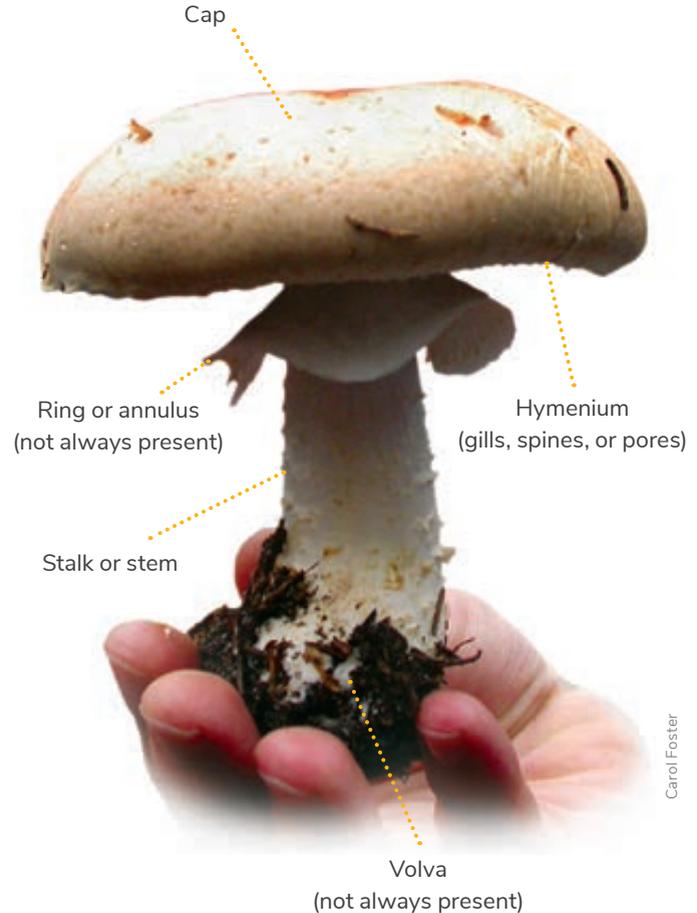
YG/Marina Milligan

Cap and stem

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Each mushroom will have different body parts that make it distinct.

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Carol Foster

## Mushroom identification

There are thousands of species of mushrooms in Yukon that even experts have difficulty identifying. Consider focusing on just three or four common mushrooms without trying to identify every fungus you find.



It's good practice to find a mushroom identification buddy with whom you can compare notes and seek a second opinion. You might see a mushroom as a rusty-red colour while your partner sees it as a brownish-orange colour, which may change how you identify it.

**Learning to identify mushrooms can be a daunting task.**



Sara Nielsen



Examples of spore prints



### Get a closer look

The colour of the spores will help you identify some mushrooms. Depending on the species, spores may be white, beige, rusty, brown, or black. If you are lucky you can see accumulations of spores beneath a mushroom where it is growing. More often, you will need to make a spore print with a healthy, mature mushroom.

### To make a spore print:

1. Cut off the stem.
2. Place the cap on a piece of black and white paper such as this sheet.
3. Cover and leave overnight or for several hours undisturbed.
4. Gently remove the cover and cap and note the colour of the spores left behind.

## Respectful mushroom viewing



**Whether you're photographing and drawing the colour and variety of Yukon's mushrooms, or looking for a tasty addition to dinner, it's important to have respect for the land.**

Here are some best practices for mushroom viewing:

- ▶ Respect land owners and their wishes, and ask permission if you'd like to view mushrooms on their property.
- ▶ Watch where you step. Avoid trampling other vegetation to reach a mushroom.
- ▶ Carry a map and compass or GPS to keep track of your location, and be prepared for sudden weather changes.



- ▶ If you wish to pick them, take only firm and robust mushrooms and leave the others to return to the soil. Mushrooms are the fruiting body of the fungus and are needed for reproduction.
  - ▶ If you are harvesting an edible mushroom, cut the stem of a mushroom rather than ripping out the "roots" to limit the damage done to the part of the fungus that is underground. However, if you are unfamiliar with a mushroom, you may need to collect the entire specimen for identification.
- ▶ Always carry bear spray and practice bear safety. Look up and around you from time to time to watch for signs of bear activity in the area. For more information on bear safety pick up the above brochure at your nearest Yukon government office, or download it from **Yukon.ca**.



## Fleshy pored mushrooms

### King Bolete

*Boletus edulis*

The King Bolete has a tan cap that turns brown and is larger than most other boletes. It has a massive stalk that is covered with a fine white “mesh” lacking brown scales. It is found under conifers in mid-summer and is considered by many to be the king of edible mushrooms. However, the flies also enjoy this mushroom and often find it first!

### Tinder Polypore

*Fomes fomentarius*

Many excited children have happened upon this shelf-like or “bracket” mushroom growing at the base of live trees or on dead logs. Its tough, woody cap makes it incredibly durable, and the tough pores underneath are much smaller than those of spongy boletes. This mushroom was traditionally dried and used as tinder to catch the spark when lighting a fire.



### Aspen Rough Stem

*Leccinum insigne*

This common bolete has an orange-reddish cap with a texture of soft leather, that is almost flat with age. The stalk is white when it is young, but develops tiny brown bumps with age, giving it the name “rough stem.” It is found under poplars in mid-summer, often before other mushrooms have fruited.



### Slippery Jack

*Suillus tomentosus*

Slippery Jacks are a common sight below the pine trees of Yukon's forests. Their bright yellow caps and thick spongy hymenium make them easily stand out amongst the moss and debris on the forest floor. The flesh turns blue when it has been bruised or cut, but not as quickly or noticeably as certain other boletes.



# Toothed mushrooms

## Sweet Tooth/ Hedgehog Mushroom

*Hydnum repandum*

The underside of this pale tan-to-caramel coloured mushroom has hundreds of brittle spines that break off easily. By contrast, the top of the cap is relatively smooth, though uneven. The Sweet Tooth grows on the forest floor closer to pine and spruce, often in patches. It fruits late in the season and is a good mushroom for beginner viewers as it is very distinct.



## Hawkwing

*Sarcodon imbricatus*

Hawkwings are large mushrooms distinguished by their dark brown caps with brown shingles or scales along the top. The surface is very dry and the underside is covered with thick teeth instead of gills. It is seen often in late spring under spruce trees.



## Bitter Hedgehog/ Blue-footed Scaly Tooth

*Sarcodon scabrosus*

This large mushroom closely resembles the Hawkwing. The scales on the cap are not nearly so large and prominent, and it has a strong odor of watermelon rind. The base of the stem is often blackish or even dark-greenish. It can be found next to Hawkwings, so watch carefully for differences between the two. It is found under poplars in mid-summer, often before other mushrooms have fruited.



## Combed Tooth

*Hericium coralloides*

This brilliant white mushroom has multiple branches with long teeth hanging down like a shaggy beard or icicles. It is strikingly beautiful and fruits repeatedly in the same location for many years. It grows on decaying logs or stumps of poplar trees in particular.



## Gilled mushrooms

### Shaggy Mane

*Coprinus comatus*

This highly distinguishable mushroom is a favourite among beginner mushroom viewers as it is easily identified by its cylindrical shaggy cap. The edges become black with age and quickly turn into an inky mess. Shaggy Manes are found in disturbed sites such as lawns, gravel pits, along trail sides, or road edges.

### Oyster Mushroom

*Pleurotus populinus*

This smooth, white, pale grey or pale brown shelving mushroom grows in clusters in early summer, mostly on poplar logs and stumps. The stalk is missing or very small and off-centre from the cap.

Its white or pale grey gills run down the stalk to the base of the mushroom. This mushroom sometimes has a subtle anise or licorice smell.



Aaron Sherman/  
Own work, CC BY 2.5

## Russulas

Russulas are one of the most common mushrooms you'll encounter in Yukon's forests. They are distinguished by their brittle texture and will snap cleanly like a piece of chalk. Though there are many colours and variations, they are very difficult to identify to the correct species.

### Short-stemmed Russula ↑

*Russula brevipes*

This common russula can be seen bursting from the soil fully formed.



### Emetic Russula

*Russula emetica*

Beautiful to look at not, but not to eat. Also known as "The Sickener."

### Fly Agaric/Fly Amanita

*Amanita muscaria*

This charismatic mushroom has a bright red to orange-yellow cap with white, wart-like dots over its surface. You may recognise this mushroom from the video game *Super Mario Brothers*. It is found in central Yukon near Dawson City as well as along the Alaskan coast. It is very toxic and potentially dangerous if eaten.



Carrie McClelland

## Orange Delicious/ Orange Milk Cap

*Lactarius deliciosus* group

The distinctly orange cap of this mushroom may have concentric rings or a greenish tinge with age. Its gills are bright orange and the flesh exudes an orange milky fluid when it is broken or cut. It is often found in mixed stands of pine and spruce.



Carol Foster

## Cortinarius species

This is a very common and diverse group of attractive mushrooms. However, its members are not easily identifiable and can frustrate even mushroom experts. They are recognized by the presence of cortina or a silky “cobwebby” veil that extends from stalk to cap.



## Woodland Agaricus

*Agaricus silvicola*

This white mushroom occurs on the ground under spruce and poplar trees and is quite common. It is distinguished from other agaricus mushrooms by staining a warm, golden-yellow when it is rubbed, by having a sweet anise smell, and typically has a longer, more crooked stem than other agaricus mushrooms.



Luridiformis, CC BY 3.0

## Prince Mushroom

*Agaricus augustus*

Prince Mushrooms are similar to Meadow Mushrooms though often much larger and covered with brown, fibrous scales. The skirt-like veil does not disappear like Meadow Mushrooms and it smells very sweet, like almonds. It is found on the ground in the woods or in disturbed areas with rich soil.



G. Chernilevsky/Own Work, Public Domain

## Meadow Mushroom

*Agaricus campestris*

These mushrooms are similar to ones you might find in the supermarket. They have a white cap and stalk, with pink gills that turn a dark chocolate brown with age. They grow in grassy and disturbed areas including lawns. Other mushrooms in their button stage can appear similar to a Meadow Mushroom. A chocolate-brown spore print (not rusty or cigar brown) will help identify this as an agaricus. Its pleasant “mushroomy” smell (not “chemically”) and lack of bright chrome yellow bruising when you crush the base of the stem helps distinguish this species from its relatives.



Nathan Wilson/CC BY-SA 3.0

## Those other mushrooms

### Common Puffball

*Lycoperdon perlatum*

Yukon's puffballs are often small and pear-shaped with no gills, teeth, or tubes. They grow in tightly packed clusters and turn brown with age. In late fall, should you step on brown puffballs, dark yellow-brown clouds of spores are released into the air.

Common Puffballs can be easily confused with other mushrooms at the button stage. If you want to be sure of this species, cut a cross-section to see if it is pure white inside (not yellowing) and doesn't have small gills hidden underneath or inside like shown here.



Beentree - Own work, CC BY-SA 4.0

### Morels

*Lycoperdon perlatum*

Morels have a distinctive honeycombed cap that is shaped like a Christmas tree. The ridges of the cap are fully intergrown with the stalk and do not hang over it. There is a great deal of variety in the shape and colour of morels. They fruit in spring, typically in areas that have been recently burned by forest fire.

### False Morel

*Gyromitra esculenta*

With their "brain-like" cap, False Morels are vaguely like true morels described above. However, the caps lack the ridges and pits of true morels, and are wavy or undulating. A cross section through the cap makes this distinction clearer. They can sometimes be found in the company of true morels, so care must be taken to distinguish between the two.



Steve Trudell

# Mushrooms in our ecosystem

**Though you may not see the iconic toadstool-shaped fruitbody, fungi appear in almost every type of environment on Earth. Fungi play a critical role in helping to renew and maintain healthy ecosystems.**

Many mushrooms are saprotrophic: they feed on dead organisms. They are essential in breaking down dead plants and animals so that the components are available for new life. These agents of decay enrich the soil by returning nutrients and reducing the debris of dead organisms.

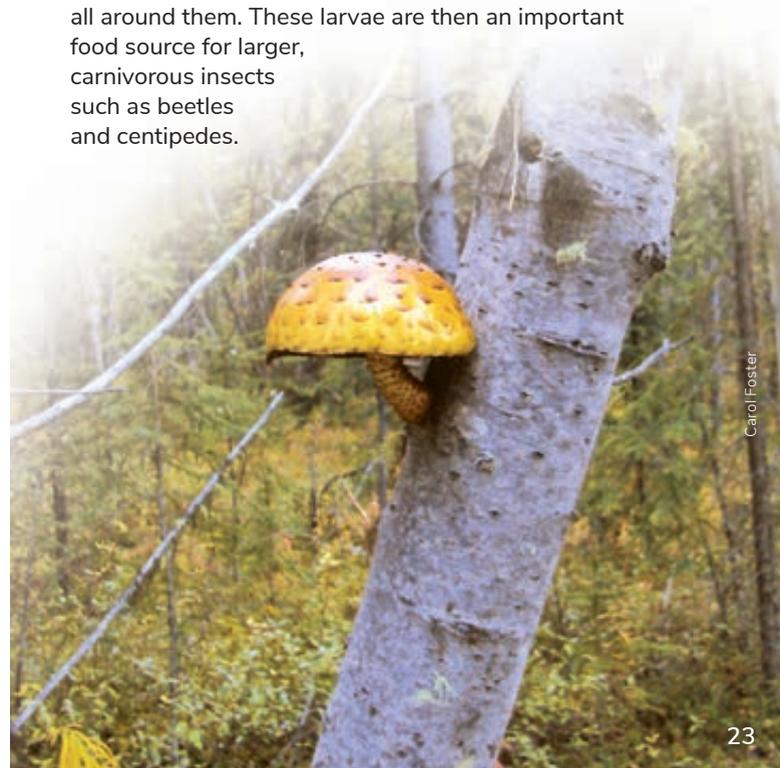
Other mushroom fungi are intimately associated with the roots of plants, forming mycorrhizas (“fungus-roots”) with them. The fungus provides the plant with nutrients such as nitrogen and phosphorus, essential in helping plants grow. In return it receives sugars from the photosynthesizing plants.

Fungi decay the inside of old trees, softening the wood and allowing woodpeckers to easily carve out holes for their nests.



These nests can then be occupied by other animals such as owls, squirrels, or even bats. Many creatures benefit from the presence of a fungus.

Mushrooms and mycelia provide food and habitat for some insects. Flies will lay eggs in a fresh mushroom and when the larvae hatch they have a readily available food source all around them. These larvae are then an important food source for larger, carnivorous insects such as beetles and centipedes.



# Mushroom myths

**FALSE**

## There are no poisonous mushrooms in Yukon.

There are plenty of poisonous mushrooms that are quite common throughout Yukon. However not all poisonous mushrooms are deadly. Some will make you quite ill and cause gastrointestinal problems.

**FALSE**

## Mushrooms have no nutritional value.

Mushrooms have many different types of nutrients. In fact some mushrooms have more potassium than bananas!

## Mushrooms are plants.

Fungi are neither plant nor animal but belong to their own kingdom.

**FALSE**

## If animals have nibbled on a type of mushroom, it's safe for humans too.

Animals have different digestive systems and metabolisms than humans and we can not necessarily process the same things. Using animal activity is not a safe way to determine if the mushroom is edible.

**FALSE**

# Additional resources

Start by purchasing two or three different books that focus on mushrooms of northwest North America. Each author will have used slightly different descriptors that may better relate to the mushroom you are identifying.

Remember that none of these books are based on observations of Yukon mushrooms; therefore, there may be slight variations between the mushrooms and habitat described in the book, and what is true for Yukon mushrooms.

*Alaska's mushrooms: a wide-ranging guide* (2016). Laursen, G.A. and McArthur, C.N. Alaska Northwest Books.

*All That The Rain Promises and More...* (1991). Arora, D. Ten Speed Press.

*Common Mushrooms of the Northwest* (2006). Sept, J.D. Calypso Publishing.

*Mushrooms and Other Fungi of North America* (2010). Phillips, R. Firefly Books.

*Mushrooms Demystified* (1986). Arora, D. Ten Speed Press.

*Mushrooms of Northwest North America* (1991). Schalkwijk-Barendsen, H.M.E. Lone Pine Press.

*Mushrooms of the Boreal Forest* (1997). Bossenmaier, E.F. University Extension Press.

*Mushrooms of the Pacific Northwest* (2009). Trudell, S. and J. Ammirati. Timber Press.

*Mushrooming with confidence: a guide to collecting edible and tasty mushrooms* (2012). Schwab, A. Skyhorse Publishing.

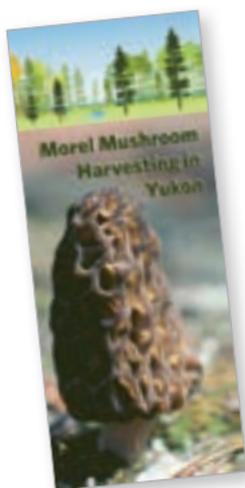


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Fires play an important role in rejuvenating Yukon's forests and keeping them healthy.

The year after a forest fire, morels will fruit in abundance for two to three weeks in June following the retreat of snow and return of warm weather. Morels prefer south-facing slopes that are well drained. They are usually grouped around the base of pine or spruce trees.



You can find out where the previous summer's forest fires occurred by visiting **Yukon.ca**.

Learn more about Yukon's morel mushroom harvest by picking up the Forest Management Branch's brochure or downloading it from **Yukon.ca**.

*For free distribution only.*

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