

Mushroom Identification and Photography

BTC

April 2022

Warnings:

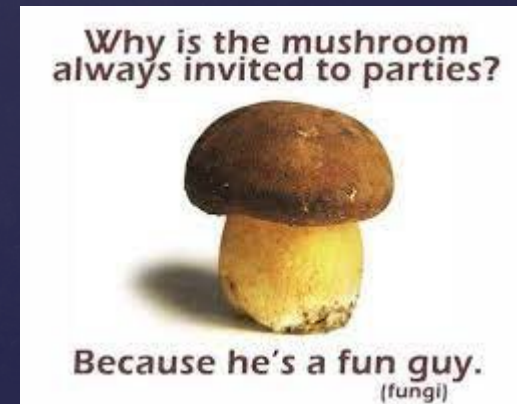
I am not an expert, this presentation is only for entertainment and information purposes.

It's illegal to pick plants and mushrooms in provincial parks and conservation areas. It's illegal (and rude) to forage on private property. The BTC asks we refrain from picking plants or mushrooms along the trail (invasive weeds excepted).

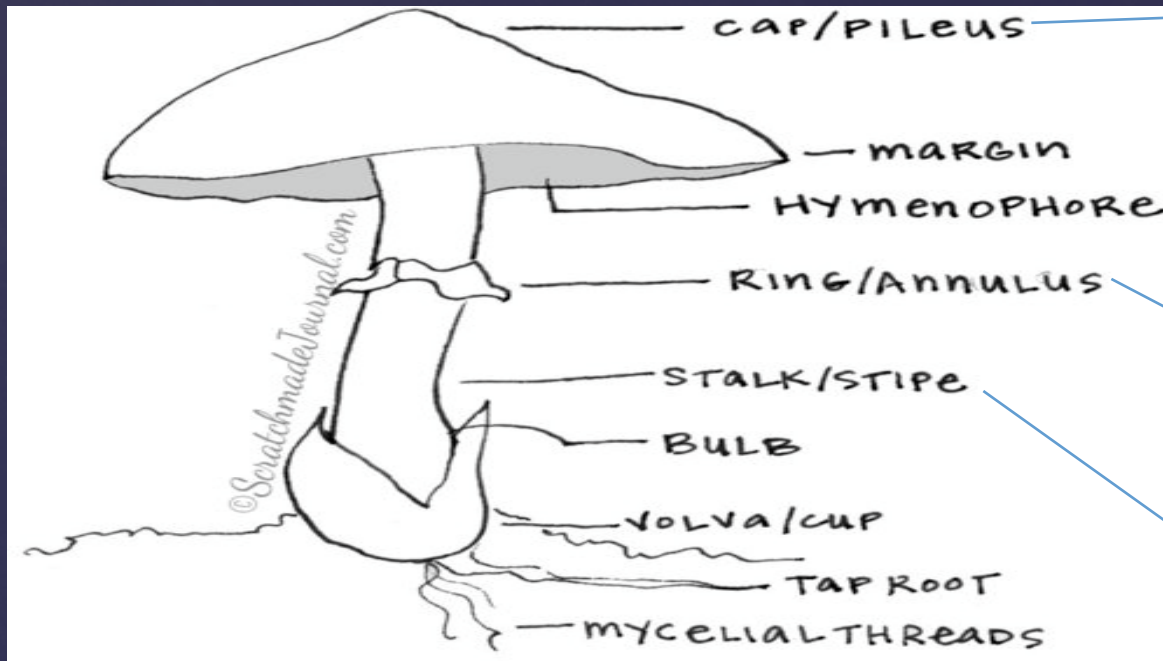


Overview


- Mushroom Anatomy
- How to Photograph Mushrooms
- Mushroom Families
- Examples from each family
- Poisonous Mushrooms
- Edible Mushrooms



Mushroom Anatomy



Things to look at when identifying mushrooms



Cap

- The top portion of the mushroom.
- Cap shape, color, and texture are used in identification.
- Cap can vary and change greatly over time.

Ring (or annulus)

- Remnant of a membranous tissue (veil) that completely covered the mushroom in its early stages of development.
- Some mushrooms have them, some don't, and some lose them with age so look at mushrooms closely and at different stages.

Stem (or stalk)

Many, but not all, mushrooms have stems. Stems can vary by:


- Shape and size
- Texture (chalk-like? string cheese texture?)
- Color (some change color, bruising when touched)
- Presence of remnant ring or volva

Volva

- Present at the base of some, but not all, mushrooms (a remnant on those mushrooms that initially developed from an egg-like sac).
- Carefully dig up mushrooms to determine if volva is present as cutting their stems may cut off volva.

Gills, pores, tubes, veins, teeth, etc...


- Examine the underside of the cap to identify spore-producing structures, a key part of mushroom identification.
- Common ways that mushrooms present spores include:



Spores

Spores enable mushrooms to reproduce and spread to new places. Spore color can be important in identification. To check spore color, make a spore print:

- Remove mushroom stem.
- Place cap gill (or pore) side down on a sheet of paper (white if you expect dark spores, black if you expect light or both if you are unsure).
- Cover with a bowl 12-24 hours.
- Check spore print left on paper.



Things to look at when identifying mushrooms

Tips for an accurate MUSHROOM IDENTIFICATION



Provide clear, detailed photos of all aspects of the mushroom, including the top, underside, and complete stem and base (if present), as well as a cross section



Note any staining if the pore surface, stem, gills, or flesh of the mushroom is damaged



Note any odor you detect



**POST ONE MUSHROOM AT A TIME!
Note the region where found
(country, state, etc.)**

**Note the habitat and any nearby trees
Growing from grass or soil?
Growing in mulch or from wood?
If growing from wood, note the
host tree, if possible**

**In some cases, a spore print or
nibble and spit taste test may be
necessary, so be prepared to
provide those results, too**

**Identifying mushrooms from photos
is often tricky...the more info we
have, the better!**

Mushroom Photography Tips

1. Get down low. Kneel or lie down on a plastic bag. Use a second bag to place your camera on.
2. Get as close as you can, while keeping the camera in focus.
3. If you are in an area that forbids picking the mushroom and you want to ID the mushroom, use the “selfie” option to photograph the gills.
4. Try to take the picture when the mushroom is lit up by sunshine.
5. Avoid camera shake, by placing your camera on the ground.
6. Frame your picture, using leaves and sticks.



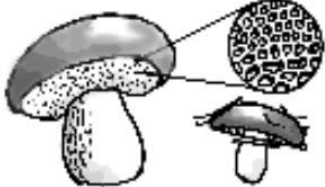

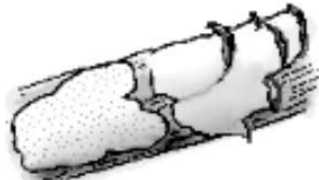





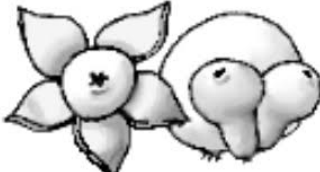





Sources:

9 tips for photographing mushrooms - Krijn van der Giessen Photography

[Tips for Identifying and Photographing Mushrooms - The Canadian Nature Photographer](#)

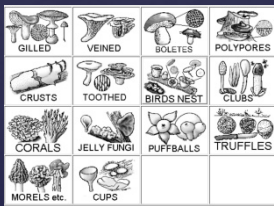
Mushroom “families”

 <p>GILLED</p>	 <p>VEINED</p>	 <p>BOLETES</p>	 <p>POLYPORES</p>
 <p>CRUSTS</p>	 <p>TOOTHED</p>	 <p>BIRDS NEST</p>	 <p>CLUBS</p>
 <p>CORALS</p>	 <p>JELLY FUNGI</p>	 <p>PUFFBALLS</p>	 <p>TRUFFLES</p>
 <p>MORELS etc.</p>	 <p>CUPS</p>		

Polypores



- Pores instead of gills
- Usually shelf-like
- Usually grow on trees



Lumpy Bracket
= *Trametes gibbosa*

Polypores

- Turkey Tail
- = *Trametes versicolor*

- *Trametes pubescens*



Polypores

- Birch polypore
- = *Fomitopsis betulina*
- (previously *Piptoporus betulinus*)



- Tinder polypore
- = *Fomes fomentarius*



Otzi, The Glacier Mummy

Polypores

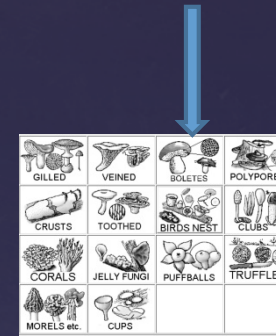
- Dryad's Saddle aka Pheasant Back
- = *Cerioporus squamosus* (*Polyporus squamosus*)



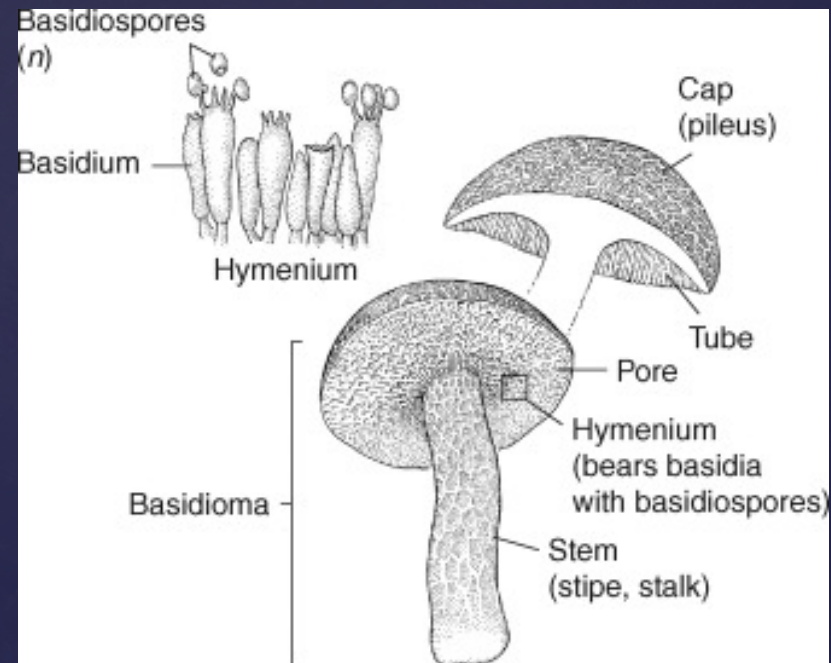
- Chicken of the Woods
- = *Laetiporus sulphureus*



Boletes



- Tubes instead of gills
- Caps very similar to that of gilled mushrooms
- Usually grow on the ground



Boletes

- King Bolete
- = *Boletus edulis*
- Prized edible!



Boletes

- Painted bolete
- = **Suillus spraguei**

- Granulated Bolete
- = **Suillus granulatus**



Boletes

➤ Scaber stalk















➤ Bicolour Bolete

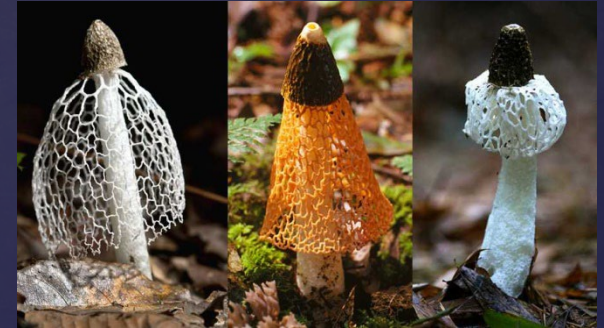


[The Bolete Filter \(wpamushroomclub.org\)](http://wpamushroomclub.org)
337 varieties

Puffballs and friends

 GILLED	 VEINED	 BOLETES	 POLYPORES
 CRUSTS	 TOOTHED	 BIRDS NEST	 CLUBS
 MORELS etc.	 CUPS	 PUFFBALLS	 TRUFFLES

➤ No gills



Puffballs and friends

➤ Morels and False Morels



Puffballs and friends

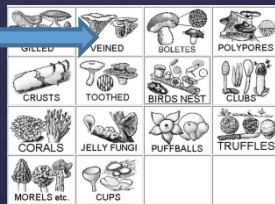
➤ Morels and False Morels



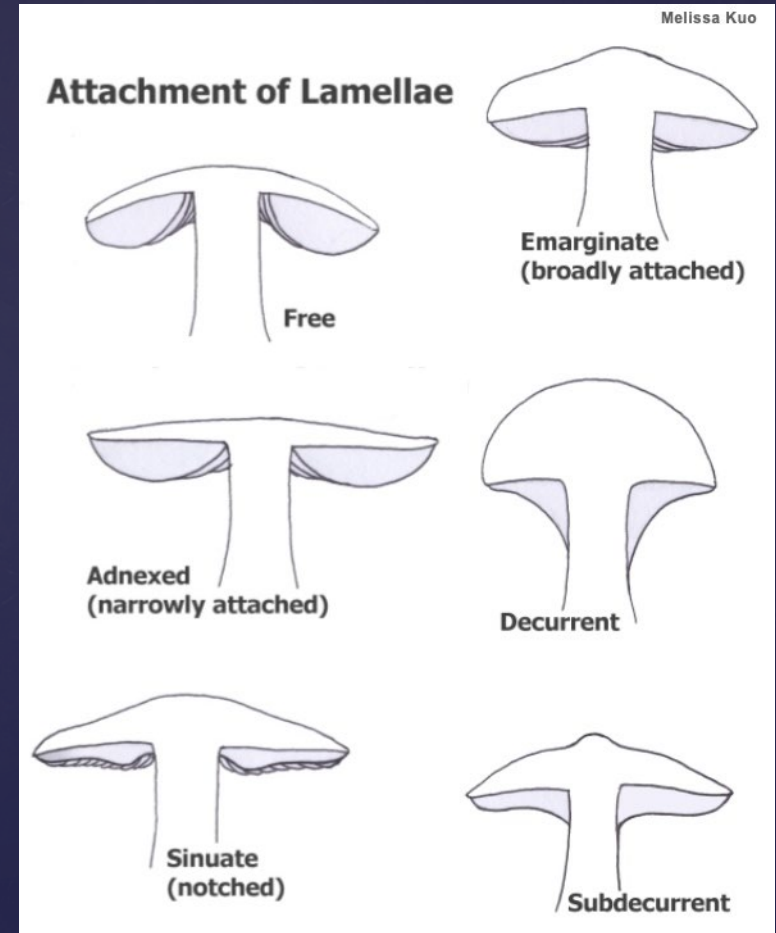
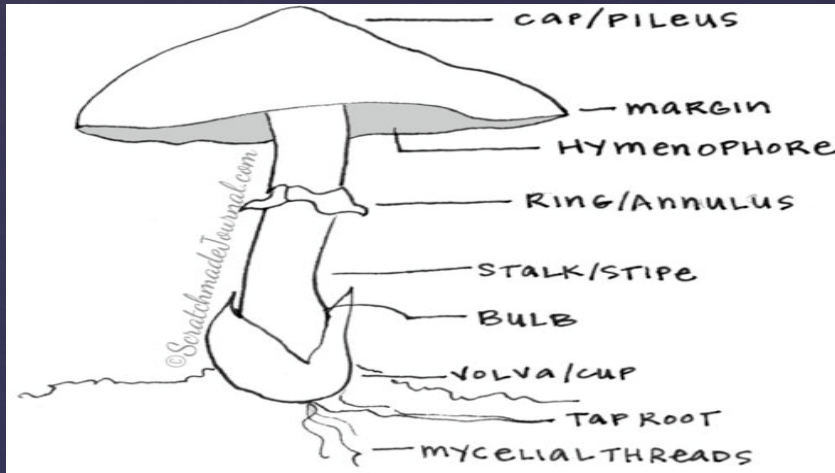
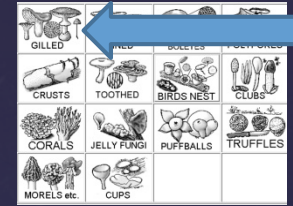
Morel
= *Morchella* sp.

False Morel
= *Gyromitra* sp.

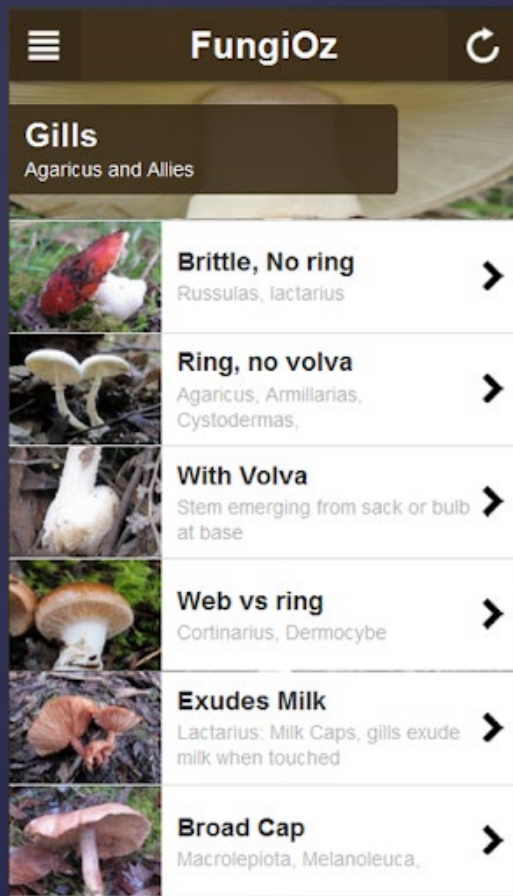
Chanterelles, Black Trumpets (veined)



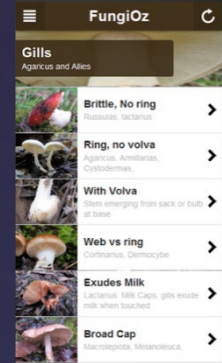
Gilled Mushrooms



Gilled Mushrooms, subcategories:



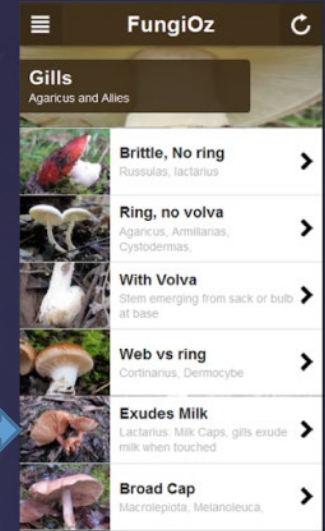
Gilled Mushrooms “Brittle Gills” =Russula sp.



The Sickener, Short Stemmed, Lobster, Green Cracked, Yellow Gill and hundreds more!



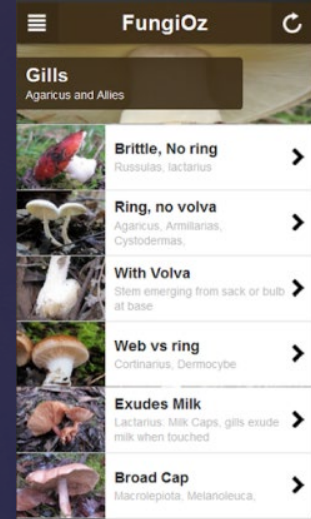
Gilled Mushrooms



Lactarius sp.



Gilled Mushrooms

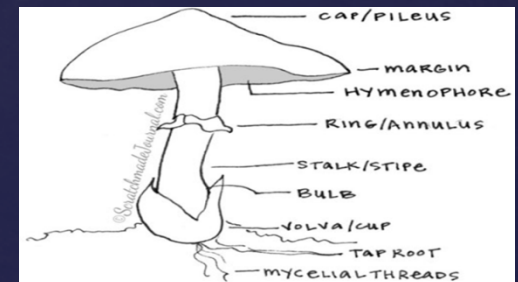
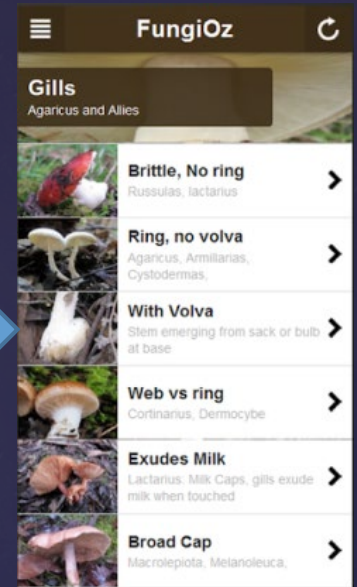


Gilled Mushrooms

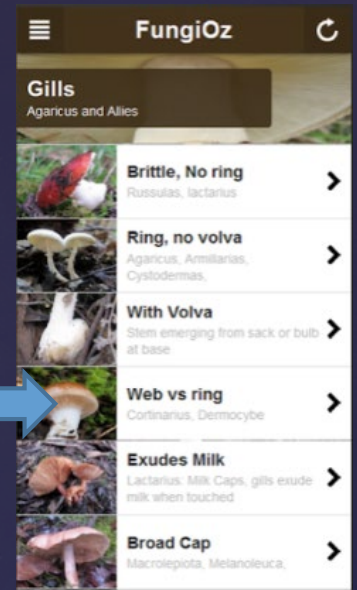


AMANITAS OF NORTH AMERICA

Britt A. Bunyard & Jay Justice



Gilled Mushrooms



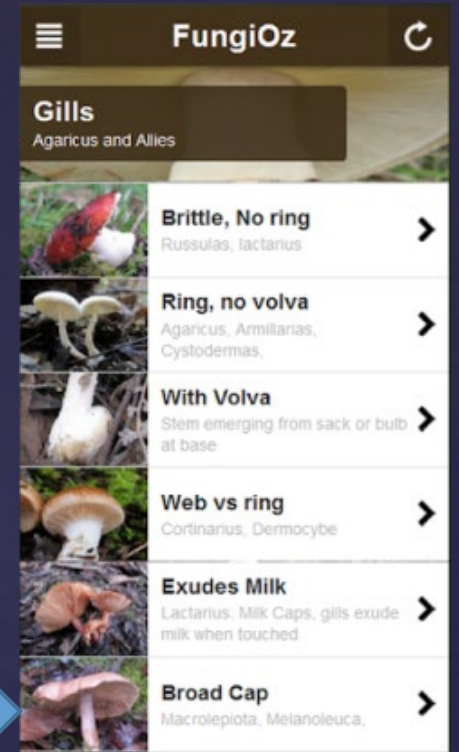
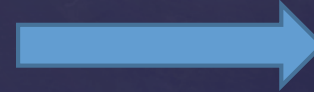
Gilled Mushrooms



Parasol (above),
False Parasol (below)



Blewit



Melanoleuca sp.



Any questions?

Coming up next: Poisonous Mushrooms

Poisonous Mushrooms



Poisonous Mushrooms



Death Cap
= *Amanita phalloides*

False Death Cap
= *Amanita citrina*

Contain Amatoxins.



Destroying Angel
= *Amanita bisporigera (virosa)*

Poisonous Mushrooms



Euro Fly agaric

= *Amanita muscaria* var. *muscaria*



American Fly agaric

= *Amanita muscaria* var. *formosa*



Panther Cap

= *Amanita pantherina*

(Which photograph is more appealing?
The one taken from a low angle
or the one from the top?)

*Toxins are
ibotenic acid and
muscimol.*

Poisonous Mushrooms



Deadly Skullcap
= *Galerina marginata*



Deadly Galerina
= *Galerina autumnalis*



vs. Honey Mushrooms (edible)

Poisonous Mushrooms



Webcaps (*Cortinarius* sp.)



Fibrecap (=Inocybe)



False Parasol

Poisonous Mushrooms



Jack O' Lantern (poisonous)

= *Omphalotus olearius*



Chanterelle (edible)

= *Cantharellus* sp.

Poisonous Mushrooms



Sulfur Tuft
(poisonous)

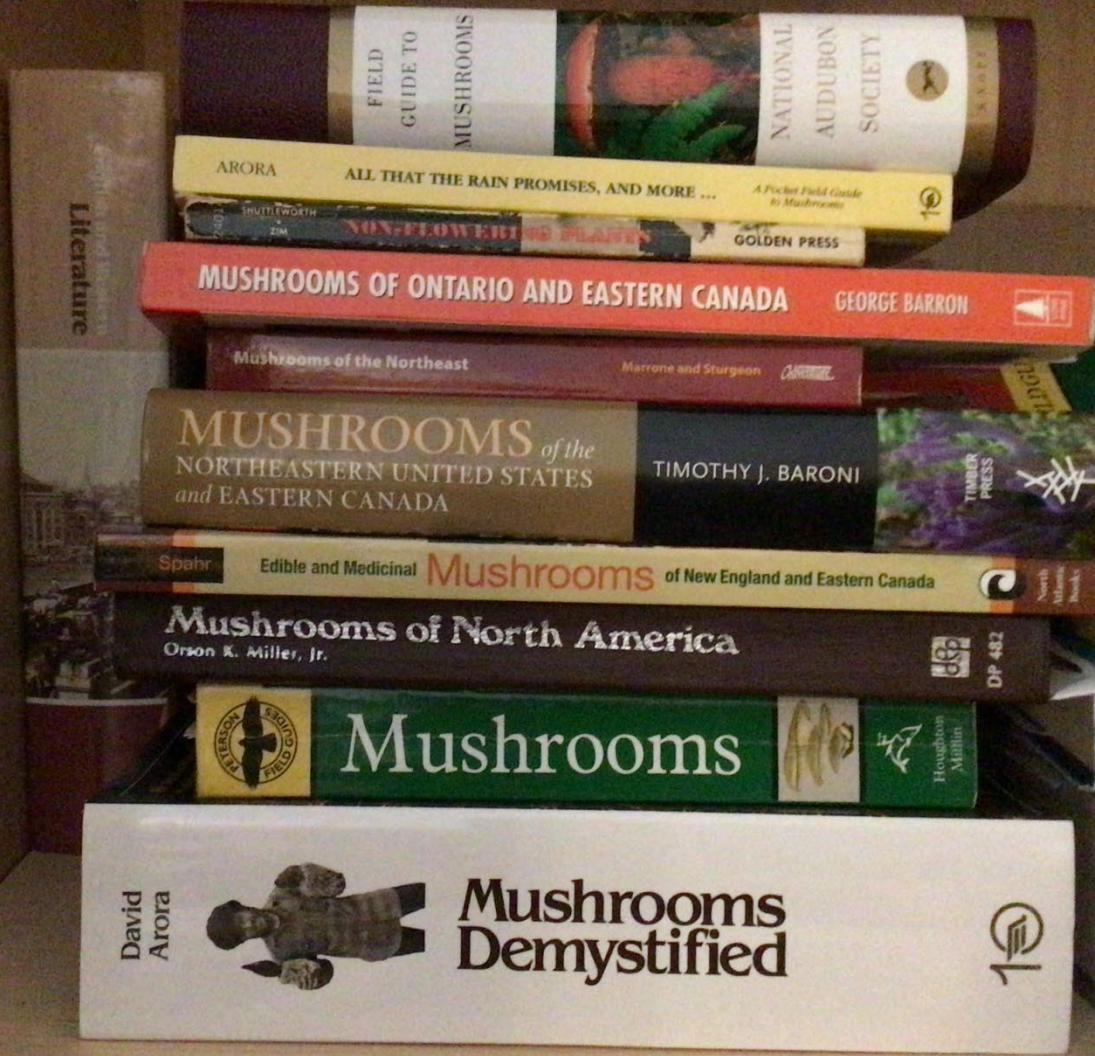


Brick Tops
(edible)



Edible Mushrooms





[Learn Your Land with Adam Haritan](#) (YouTube and www.)

<https://www.toronto.ca/wp-content/uploads/2020/05/8ef1-City-Planning-Mushrooms-of-Toronto-Biodiversity-Series.pdf>

[https://northernbushcraft.com/guide.php?ctgy=edible mushrooms®ion=ontario](https://northernbushcraft.com/guide.php?ctgy=edible_mushrooms®ion=ontario)

[http://www.foragingguide.com/mushrooms/edible by common name](http://www.foragingguide.com/mushrooms/edible_by_common_name)

<https://www.fungikingdom.net/mycology-education/edible-mushrooms--poisonous/index.html>

Facebook Groups

- Mushroom Identification Forum
- Ontario Mushroom Hunters and Foragers
- Mushroom Identification Page
- Russulas and Lactarius of North America
- Mycological Society of Toronto

- and dozens more!

Beware of Trolls who give false IDs!