

Mushrooms 101

By Ariel Bonkoski



What is a Mushroom?

~ A mushroom is the reproductive fruiting body of a fungus.

~A fungus is a network of fine filaments known as Mycelium, that usually lives in soil or wood.

~Think of mycelium as a tree, and mushrooms as an apple.

~Not all fungus produces mushrooms (molds, toe fungus).

~Used to be considered a plant, but in 1969, Fungi became its own kingdom.



Ecological Roles of Mushrooms



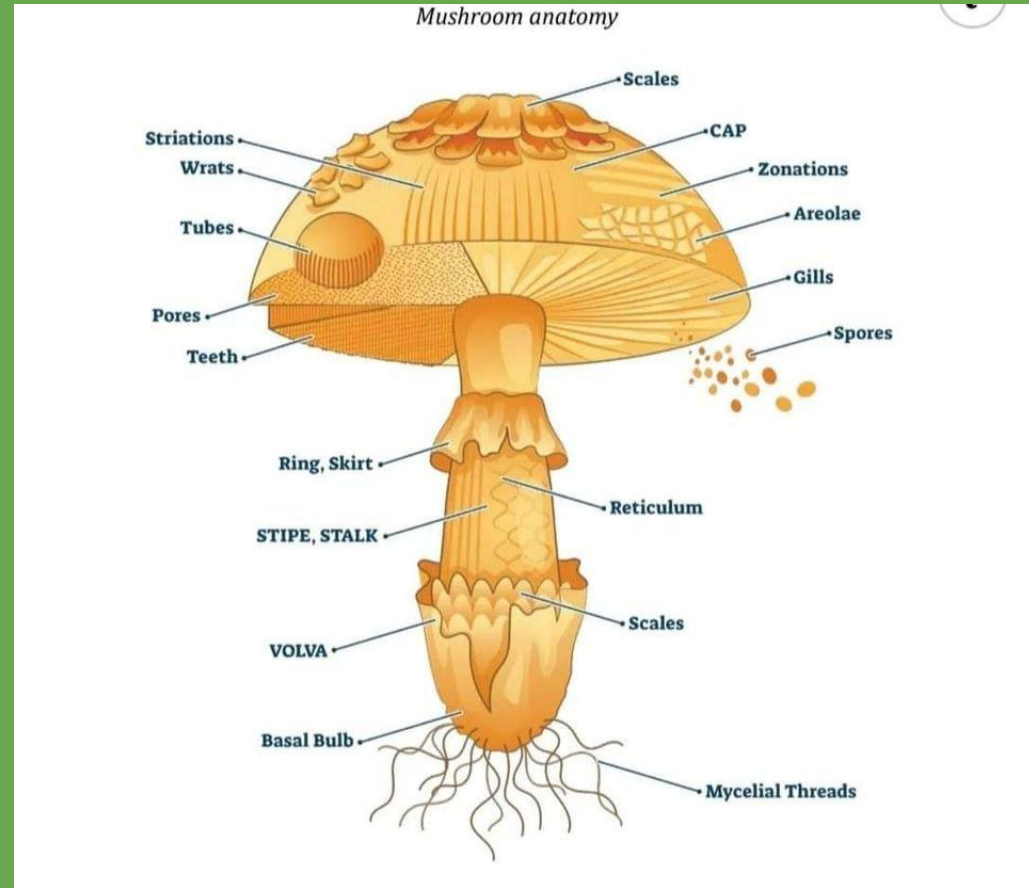
Saprotrophic fungi- gets its' nutrients by decomposing plant matter.

Parasitic fungi- gets its' nutrients from attacking a living host, like plants, animals or even people.

Mycorrhizal fungi- gets its' nutrients from symbiotic relationship with plants, meaning it has a mutually beneficial relationship.

Anatomical features

Learning how to describe your mushrooms can be extremely helpful in identifying your mushroom.



Some things to pay attention to when identifying

Every single feature is very important.

Color of cap and underside

Any color or texture pattern on the cap.

What kind of wood is it growing from or near. Is the wood dead or alive?

Note the size, shape and pattern of the underside(gills, pores, teeth)

If it has a stipe and what the color/texture of that is.

what is the growth pattern? (Singular, clustered, shelf like, rosette)

Does any part of the mushroom bruise? If so, what color?

what is the season?

What is the size of the specimen?

It is safe to handle mushrooms, so please don't be afraid to handle to get a good look at all the features!



How to harvest for identification



Harvesting for identification purposes can look a little different from harvesting for your table.

When harvesting a mushroom for identification purposes, meaning you want to take this specimen home to further investigate its' identity, it is very important to collect the WHOLE mushroom. Which may mean digging your fingers into the ground to get to the bottom of the specimen.

Keep the mushroom as intact as possible.

Collect a young and mature specimen if possible.

Keep separated from other specimens if possible, to avoid any confusion(I like to sort into paper lunchbags)

Taking photos for identification

Tips for mushroom identification



Picture of the mushroom undisturbed in habitat



Clear picture of the spore bearing surface with the stipe attached



Picture of the entire mushroom including base



Detailed view of the top of the cap

Post one mushroom at a time for best response.

Include location (country/state) and date found.

Include what it is growing from, sand, soil, grass, mulch, wood, etc.

If growing on wood, try to include the type of tree if possible.

Also take a moment to note how the mushroom smells.

Happy Hunting!



Picture of a cross section



Note any staining on the cap, stem, flesh, or pore surface when damaged

Harvesting Wild Mushrooms For Your Table

When harvesting mushrooms that you know are edible and want to take them home to eat, here's how you should do it:

You can cut or pluck your mushroom, but I suggest trimming off any super dirty spots with your mushroom knife. This will help prevent dirt from getting all over your harvest and will save you cleaning time later.

Avoid harvesting from areas treated with pesticides or other chemicals, also avoid harvesting from treated lumber.

Be aware not to damage the environment around you (avoid trampling, damaging trees, "leave no trace"). Should be practicing anytime in the woods.



Mushroom edibility

Edible means can be safely consumed.

Toxic means this could have health related consequences

Non edible means in most cases the species is not eaten due to things like flavor or texture.

Unknown edibility means we do not know if it can safely be consumed.

Just because a mushroom is considered edible does not mean there is zero risk.

Some people can have personal sensitivities to all mushrooms, or specific species, even if the mushroom is considered a safe edible mushroom. These sensitivities can even develop over time.

To avoid possible sickness, cook your wild mushrooms well, and start with small amounts if it's a new-to-you mushroom.

Do not eat a mushroom unless you are 100% sure of the identification.

Avoid eating mushrooms from areas that could have toxin exposures(examples: avoid areas nearby roads) and mushrooms that are dried out, past prime, moldy, etc.



My Favorite Common Edibles

Chicken of the Woods- *Laetiporus Sulphureus*



Hen of the Woods- *Grifola Frondosa*



Edible Mushrooms continued

Golden Chanterelles- *Cantharellus* spp.



Lion's Mane and Siblings. *Hericium* sp.



Morels-Morchella spp.



Toxic Mushrooms

False Morel- *Gyromitra esculenta*



Destroying Angel- *Amanita bisporigera* complex



Toxic Mushrooms

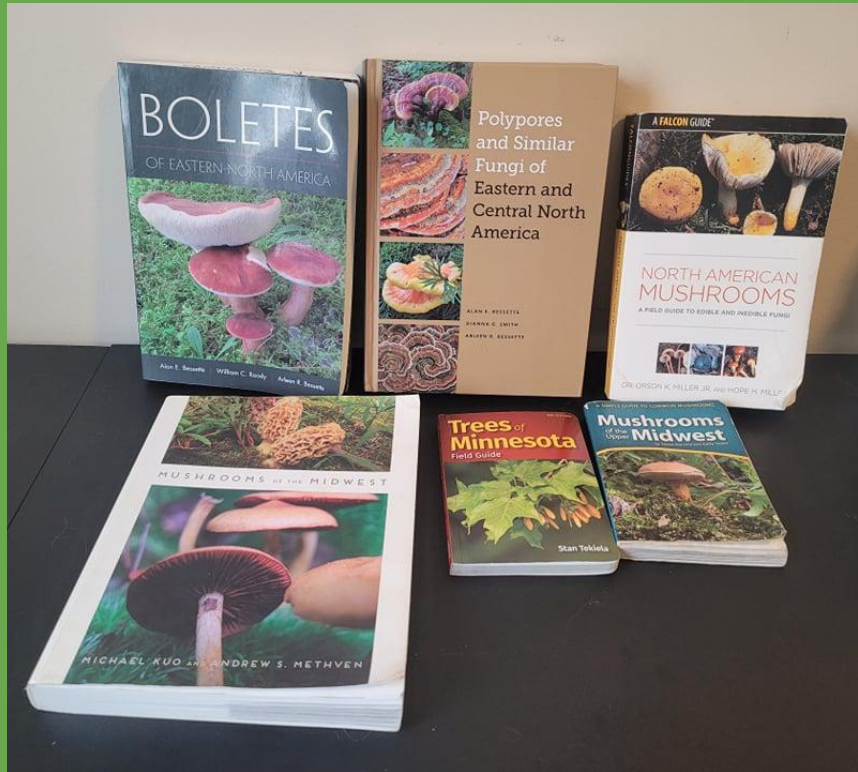
Jack-O-Lantern- *Omphalotus illudens*



Deadly Galerina- *Galerina marginata*



Books to assist in identification



Mushrooms of the Upper Midwest by Teresa Marrone and Kathy Yerich

Trees of Minnesota Field Guide by Stan Tekiela

Mushrooms of the Midwest by Michael Kuo and Andrew S. Methven

North American Mushrooms: A Field Guide to Edible and Inedible Fungi by Dr. Orson K. Miller JR. and Hope H Miller

Polypores and Similar Fungi of Eastern and Central North America by Alan E. Bessette, Dianna G. Smith, and Arleen R. Bessette

Boletes of Eastern North America by Alan E. Bessette, William C. Roody, and Arleen R. Bessette

Additional questions?

If you have additional questions or would even like ID confirmations, please feel free to email me at

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Find more class options at

www.arielsmushroomco.com

