

Spring 2018

Spore Print



Alberta Mycological Society

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Feature Mushroom: Morel

As with many areas of mycology today, our knowledge of the highly sought morel, and its varieties, is growing every day.

Commonly known varieties available in Alberta include;

Morchella elata—Black morel

Cap brown becoming black ridges,
brown pits

Morchella esculenta—Yellow morel

Stipe often constricted below yellow cap

Taxonomy:

Kingdom: Fungi

Division: Ascomycota

Class: Pezizomycetes

Order: Pezizales

Family: Morchellaceae

Genus: *esculenta/elata* etc.

When reading the Latin names for mushrooms it is always interesting to see what the translations for the genus are. In this case; *elata*—data and *esculenta*—food.

When & Where to find them: sunny south facing slopes once the soil temperature reaches approximately 10 C, often in the spring but may be later on your region.

Identification: As always, refer to your pocket guide for identification information and ensure that *all* characteristics meet the sample that you have collected.

Continue reading for more information on our featured mushroom...

Did you know: There have been reported cases of lead and arsenic poisoning after mushroom hunters collected *Morchella esculenta* (yellow morels) from an abandoned apple orchard in New Jersey that was contaminated with lead arsenate pesticides.

Always be cautious of your collection areas and any contaminants that may be absorbed by fungi and result in contaminated fruiting bodies (mushrooms).

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Morel Cont.

The species formerly classified as *M. esculenta* are the yellow morels, and have ridges that remain light-coloured at maturity. The most common in North America is *M. americana*, although *M. prava* also occurs across the continent, and an additional three species are found only in the east.

The last "oddball" morel is *M. rufobrunnea*, the blushing morel, which may be light to dark brown, but bruises reddish when fresh and young. It occurs in landscaped settings.

Taxonomy based on Franck Richard, Jean-Michel Bellanger, Philippe Clowez, Karen Hansen, Kerry O'Donnell, Alexander Urban, Mathieu Sauve, Régis Courtecuisse & Pierre-Arthur Moreau (2017) True morels (*Morchella*, Pezizales) of Europe and North America: evolutionary relationships inferred from multilocus data and a unified taxonomy, *Mycologia*, 107:2, 359-382

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Foray Highlights

Recent Forays have included Leduc County, Sherwood Park County, Wood Buffalo and many more.

There have been a variety of foraging finds including but not limited to:

- Morels
- Fiddleheads
- Chaga (*Inonotus obliquus*)

If you aren't already, consider becoming a member of the Alberta Mycological Society and joining us on these adventures!





Current Board

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*"Nature alone is antique, and the oldest
art a mushroom."*

-Thomas Carlyle



Winning Story—Morels

By Mitch Milgram

I've been collecting mushrooms for many years, but it wasn't until after I'd moved out west that I started collecting 'burn site morels'. The fact that you can sometimes find huge quantities of normally elusive springtime morels, in enough quantity that you can afford to file some away, keep some for yourself, and dry and sell more if you choose, has stimulated a new direction in my mushroom hobby.

I love the anticipation, planning, and excitement of discovering a whole landscape littered with morels. I'm fascinated with the culture around the commercial harvesting of these morels, with the spring up of migrant pickers' camps, and buyers setting up along the back logging roads. I enjoy being in the burns themselves...cont.

Are Morels Edible?

Morels are highly prized edibles and varieties are sought the world over.

Morels must be cooked: *Morchella* species are thought to contain small amounts of hydrazine toxins or an unknown toxin that are destroyed through cooking. The presence of hydrazine is controversial since there are no primary references of hydrazine having been detected in the species. Because of this, morels should never be eaten raw. It has been reported that even cooked morels can sometimes cause symptoms of upset stomach when consumed with alcohol.





Calendar of Events

Date - Event - Area

June 5—Foray in your neighborhood—Calgary
 June 7—Foray—Red Deer
 June 9/17—Morels—Beaver County
 June 21—Foray—Pine Lake
 June 24—Late Morels/Oysters—Parkland County
 June 25—Foray in your neighborhood—Calgary
 June 29—July 2—Weekend Foray—Rimby
 July 3—Foray in your neighborhood—Edmonton
 July 10—Foray in your neighborhood—Edmonton
 July 17—Foray in your neighborhood—Edmonton
 July 19—Foray—Innisfail
 July 21—Foray—Grand Prairie
 July 24—Foray in your neighborhood—Edmonton
 July 31—Foray in your neighborhood—Edmonton
 Aug 8—Foray in your neighborhood—Edmonton
 Aug 14—Foray in your neighborhood—Calgary
 Aug 15—Foray in your neighborhood—Edmonton
 Aug 16—Foray—Red Deer
 Aug 18—Foray—Athabasca
 Aug 31—Sep 2—Great Alberta Mushroom Foray

Did you know—Morels

The supreme flavour of morels is not just appreciated by humans; in Yellowstone National Park, black morels are also known to be consumed by grizzly bears (*Ursus arctos horribilis*).





Winning Story—"Morels"

By Mitch Milgram

... They have a stark and strange beauty, a fascination for me as I witness the seemingly random path of a fire, with craters burned deep, and islands of green untouched.

One spring about ten years ago stands out in my memory, as I got to know one site intimately. There was a sizable forest fire not far from where I live in the Shuswap region of central B.C. Access to these fire sites can often be challenging. Sometimes there is no access road. Often these sites are on the steep slopes of a mountain, where the fires are sparked by lightning strikes on the peaks. On this occasion I was lucky. A friend worked in forestry and figured out a back way into this burn site, away from the road access most others were using.

In preparation for each day's outing we'd stuff out oversized backpacks with at least two perforated 20 liter pails, then dangle some extra smaller containers on the outside with bungee cords. Packing some food, water, rough weather gear and bear spray, we'd then head out, carrying another two 20 liter pails, one in each hand. We'd hike for thirty minutes uphill, initially skirting the back 40 of an unwelcoming chick farmer until we'd entered Crown land.

After the first climb we'd reach the fire break, a jumble of tangled and fallen trees and scraped earth, the work of the previous year's fire crews in their attempt to contain the forest fire. Almost immediately, after scaling this obstacle, we'd excitedly hoot our first finds to one another. We'd try to temper our excitement and greed in consideration for each other as we clambered up the hillside, finding more and more morels as we entered the burn.

There were times when it was almost overwhelming. We would spot a cluster of morels and as we approached it we'd spot another cluster, then another, then more uphill. More back downhill that we'd missed, then more to our left, and right. We'd sometimes just have to stop, collect our thoughts, and map out a strategy. We'd be picking as fast as we could, sometimes leaving a pail here, a hat there, as markers to find our way back to a good spot as we were drawn this way and that. We'd temporarily jettison our loads as we scaled a particularly steep embankment, initially thinking we'd be able to carry the morels back in our hands, but returned instead with our shirts and hats removed and filled.

We'd go on like this for a few hours, until every container was filled, then stumble back, streaked with soot and sweat, but happy, to the vehicles. The beauty of this location was that it was so close to home and we were able to go back regularly for almost two months. We'd follow the fruitings uphill with the season and the warming of the soil at the higher elevations. Additionally, the morels were surprisingly clean, springing up through a carpet of fallen western red cedar leaves shed by the dead and damaged trees.

I'm planning on this spring's burn trips now. This summer I'll be watching the fire reports closely in anticipation of the next year's harvest, knowing as I do that with the changing and growing destructive scale of this region's fires I'll have to be careful what I wish for.



Recipe—Morels

Sautéed Morel Mushrooms

Serves 4-6 as a side dish

Ingredients

1 tablespoon vegetable oil
8 ounces morels, cleaned and cut in half lengthwise
2 tablespoons minced onion
1 minced garlic clove
2 tablespoons unsalted butter
1 teaspoon soy sauce
1 teaspoon lemon juice
1/4 cup of stock or water
1 tablespoon minced fresh parsley and/or chives
Salt and pepper

Directions

Heat the oil in a skillet over high heat. Add the morels and cook, avoid crowding the pan, stirring occasionally, until well-browned (about 5 minutes).

Reduce the heat to medium-high, add the onions and garlic and cook, stirring constantly, until fragrant (about 1 minute). Add the butter, soy sauce, lemon juice and stock and cook, swirling the pan, until the liquid reduces and the morels are coated in a creamy sauce, about 1 minute. Stir in herbs, and season to taste with salt and pepper.

Serve immediately

Recipe contributed by: Christine Costello

Preserving Morels

To preserve morels, it is usually best to dry them. Eight to ten ounces of fresh morels will dry to about one ounce. Store them in an airtight container and in a cool place. For best flavour, dried morels should be used within a year, but, for a longer shelf life, you can place them in the freezer. To re-hydrate, soak dried morels in warm water (60 C) for 30 minutes. The water can be lightly salted or sugared if desired. The soaking water is flavourful and can be saved and used for cooking.





Activity—Making a Spore Print

In this activity, you are going to collect the spores from your mushroom in a spore print.

Making a spore print is a fun way to learn about how a mushroom propagates (spreads its spores), assist you in identifying the mushroom and a creative way to make mushroom art.

Background:

What is a spore? A spore is the ‘seed’ of the fungus and is the means with which the fungus reproduces. Mushrooms, the fruiting bodies of fungi, carry millions of spores in a wide variety of ways, some of which include: on the underside of the mushroom cap or gills or in tubes, on spines, pores, or wrinkled surfaces of the mushroom, enclosed in fruiting bodies (puffballs) or in a saclike structure (flask, cup, brain or sponge fungi).

When the mushroom ages, it begins to drop its spores. The spores generally drop close to the mushroom, but can be carried to other places by the wind or by animals.

Materials Needed;

- Mature mushrooms ready to drop their spores.
- Construction or printer paper
- Cups or bowls large enough to cover the mushrooms
- Hair spray or aerosol fixative used for pastels or chalk drawings.



Join the Board!

If you are interested in the President or Treasurer positions please email our board for further information: amsdirectors@wildmushrooms.ws



Activity—Make a Spore Print Cont.

Activity:

1. Find a place in the house that you can set up your spore print so that it can sit undisturbed. Once set up, it's best not to move the spore print.
2. Cut the cap off the stem of your mature mushroom (Junior Mushroom Hunters: ask parent for permission first before using a knife).
3. Place the caps, gills facing down, on the paper. Cover the mushroom with a bowl or cup so it doesn't dry out.
4. Let the sporulating mushroom sit, undisturbed, for at least 12 hours.
5. Carefully lift the cup or bowls off of the mushrooms and behold! You should see a beautiful spore print of your mushroom. If you do not see a spore print yet, place the mushrooms back on the paper and wait another 12 hours.
6. If you wish to keep your spore print, spray it with hair spray or aerosol fixative.
7. Move your mushroom to a different space on the same page or use a new page and repeat the process. You should be able to create additional prints, sometimes up to 5-6 prints over the course of 5-7 days.



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