

Collecting, Preserving & Using Morel Mushrooms

Field Identification of Morel Mushrooms

There are a number of different species and varieties of edible wild morels. Harvesters must be diligent about identification. Consulting a number of up-to-date mushroom guides, such as Nancy Smith Weber's *A Morel Hunter's Companion*, is strongly advised. If you are suspicious about the identity of a harvested species, separate it into a different container from your morels and have it examined in more detail by a mycologist or, if you plan to sell them, at a buying station.

Beginners should always pick with an experienced person. Experimental consumption of unknown species is not recommended and could be lethal.

MushroomExpert.com offers some fundamental rules when it comes to picking mushrooms, but it is no substitute for a reputable field guide to mushroom identification. Visit www.mushroomexpert.com/morchellaceae.html for more information on morels.

The publication, *Harvesting Morels after Wildfire in Alaska*, is another resource that can be used to distinguish edible morels from false morels. It is the only publication that specifically deals with Alaska fungi that fruit while morels are fruiting. It may be downloaded from USDA Forest Service at www.fs.fed.us/pnw/pubs/pnw_rn546.pdf.

Habitat — Where to Find Morels

- Morels tend to show up the year after forest fires in conifer and hardwood forests.
- They appear above ground when conditions are warm and wet.
- They grow directly on the soil and prefer highly organic soils.

- They are not found in overly boggy areas.
- The air temperature will typically be 60° to 70°F, with overnight lows at 45°F and above.
- Mid-June until mid- to late-July is the best time for picking morels in Interior Alaska.
- When the bluebells are blooming is a good time to look for morels.



Photo by Trish Wurtz

Morels can be found in abundance during spring in forest areas burned the preceding summer. Proliferous fruiting (or flushing) of the mushroom bodies happens during a two- to three-week period, usually during June in Alaska, following the retreat of winter snow and a period of warm weather. Morels prefer the southern aspects of well-drained slopes and will occur in concentration around the base of coniferous trees. Patches of morels may occur where small depressions have retained soil moisture.

Proper identification and determining whether a mushroom is edible is the responsibility of the harvester. Many forest mushroom varieties are poisonous. There are many guidebooks available to assist with identification. When in doubt, leave it in the forest.

Sustainable Harvesting Methods

By practicing proper harvesting techniques, pickers will get the best possible recovery of mushrooms year after year. Pickers will also be protecting the mo-

All containers used in the collection, processing and storing of mushrooms must be food grade. Food-grade containers will not transfer noxious or toxic substances to the contents, provided they are new or have only been used for food. Generally speaking, these containers are sold with the intent of storing food or will have originally contained commercially bought food. Department stores, grocery stores and restaurant supply companies are good sources for unused, food-grade containers. The only metal that should be used for containers or drying racks is stainless steel in order to avoid metal poisoning.

rel fungus, which produces the edible fruit body, and they will be protecting the site that supports it. Try not to disturb the forest floor in the vicinity of morels. This could harm the mycelium, which produces the mushroom. Do not dig, rake or scrape the forest floor. Taking good care of mushroom sites while harvesting is the best way to ensure abundant crops of morels in the future.

Never “clear cut” a patch of morels. Close observation will show that some of the specimens may be either too mature or too small to harvest. Harvest healthy specimens. If you plan to sell them, buyers will provide size specifications. If pickers harvest and carry specimens that are not acceptable to the buying station, they will have wasted energy and will not be reimbursed. Leaving unacceptable morels in the forest allows the spores to reproduce and the soil to benefit from decomposing fungi.

Never pull the mushroom out of the ground by hand. Always cut off the morel cap at the top of the stem with a sharp knife. If you also harvest the stems, you may be asked to cut them off at the buying station as European buyers are only interested in the caps.

To ensure quality and avoid health risks for the consumers of your morels, never spray insect repellent in the vicinity of your mushrooms, and do not use any chemicals on the palm of your hands.

Morel mushrooms are difficult to see since they tend to blend in visually with the forest floor. Move slowly at first. Let your eyes adapt gradually to the subtle varieties of hue on the forest floor. Taking time to do this initially will allow you to be more efficient later in distinguishing a morel worth cutting from a morel worth leaving.

Nutrition and Health

Morels contain fiber as well as some protein and unsaturated fat, but the complete nutrient information is unknown. Nutritional value, flavor and aroma of morels are affected by conditions where they grow.

Although morel mushrooms are edible, they have been known to cause allergic reactions and gastrointestinal upset. Combining morels with alcohol can compound this. When small amounts are eaten at one time, they are not likely to be harmful for most people. Morels should be fully cooked before being eaten.

Selection

Proper identification of an edible mushroom is the responsibility of the harvester. Many forest mushroom varieties are poisonous. Guidebooks are available to assist with identification. When in doubt, leave it in the forest. Mushrooms should smell fresh and earthy. Those with soft spots or bruising should not be picked.

Storage

- Wipe mushrooms gently with a damp cloth or soft brush to remove dirt, debris and insects.
- Refrigerate debugged mushrooms between 34 degrees and 35 degrees F. Wrap them in a paper bag or waxed paper. Nonporous plastic bags are not the best choice as plastic accelerates mushroom deterioration. Optimum humidity for refrigerator storage is 85 to 90 percent, which also helps maintain quality and shelf life.
- Do not wash morels before storage. Mushrooms absorb water and the additional water will hasten deterioration.
- Mushrooms may absorb odors if stored near foods like onions.
- Refrigerated, fresh mushrooms will keep for two to three days. For longer storage, mushrooms should be frozen or dried.
- There is no need to peel mushrooms. Trim and discard any portions of the mushrooms that are discolored or infested with insects or maggots.

Freezing Morels

Preparation: Choose mushrooms free from spots and decay. Sort them according to size. Rinse in cold water. Shake gently to remove excess water. Trim ends of stems. If morels are larger than 1 inch across, slice them or cut them into quarters.

Prepare mushrooms for freezing by steaming, blanching or sautéing to inactivate enzymes that can cause color and texture deterioration. Steamed mushrooms will keep longer than those heated in fat. Freezing raw mushrooms is not recommended since they do not keep well and may develop a bitter taste. Dusting raw morels with flour before freezing results in a gummy texture and is not recommended.

To steam: Use a pot with a tight lid and a basket that holds the food 3 inches above the bottom of the pot. Put 1-2 inches of water into pot and add 1 teaspoon lemon juice per pint of water; bring to a boil. Add morels to basket in a single layer and place in pot. Cover. Steam 5 minutes. Remove morels and cool promptly. Package in freezer containers, leaving ½ inch headspace. Seal, label and freeze.

To blanch: Bring water to a boil. Add 1 teaspoon lemon juice per pint of water. Add morels to the boiling water and bring water back to boil. Boil 3 minutes. Remove morels from water and drain. Cool promptly then package in freezer containers, leaving ½ inch headspace. Seal, label and freeze.

To sauté: Follow the recipe on the back page for sautéed mushrooms. Cool, then package in freezer containers, leaving ½ inch headspace. Seal, label and freeze.

Drying Morels

Preparation: Mushrooms may be dried whole or in cut slices without blanching first. Drying time can be hastened by cutting morels into small uniform pieces. Dry only fresh mushrooms in good condition. Mushrooms are a low-acid food and must be dried until they are brittle (less than 10 percent moisture remains) to ensure that no microorganisms can grow.

Methods: Mushrooms may be dried by using a dehydrator, convection or conventional ovens, or a solar dryer or indoors at room temperature. Microwave ovens are not recommended for drying mushrooms since there is not enough air flow.

Choose a well-ventilated area to dry morels. Be aware that some people may have allergic reactions from drying mushrooms in their home. If you have allergies or have never dried mushrooms before, do not try to dry mushrooms inside your home.

If using a convection or conventional oven, temperature readings must go as low as 140°F. If your oven cannot go this low, your food will cook instead of dry. An oven thermometer can be used to check the temperature.

Drying times will vary according to conditions. Usually it takes 8-10 hours in a dehydrator and longer with other methods. Check the manufacturer's directions for recommended temperature settings and approximate drying times if you are using a commercially purchased dehydrator.

Use only stainless steel or plastic screens for drying. Other metals are not acceptable surfaces for drying. Screens and racks must be carefully cleaned as mushrooms leave a film that may cause mold to develop.

Storing dried mushrooms: Store in airtight, food-grade containers. Dried mushrooms will keep up to three months at room temperatures and longer in the freezer. Cook morel mushrooms thoroughly before eating.

Reconstituting dried morels:

- Pour boiling water over dried mushrooms and simmer 20-30 minutes or until they have returned to their original shape. Use a ratio of one part mushrooms to three parts water. Use as specified.
- Add dried mushrooms to a product with lots of liquid, such as soup. Cook for at least 20 minutes. This will rehydrate the mushrooms and cook them in a single step.

Pickling and canning are not recommended for morel mushrooms. There are no research-based processing times for canning morels.

Recipes

Morels and Summer Vegetables

1½ ounces dried morels, reconstituted (To reconstitute, see directions above.)
1 medium sweet bell pepper
2 small zucchini
2-3 tablespoons olive oil
1 tablespoon minced onion
1 small clove garlic, minced
1 tablespoon balsamic vinegar, optional
¼ teaspoon sugar, optional

salt and pepper to taste

Slice the reconstituted morels in half lengthwise. Wash bell pepper. Remove seeds. Slice bell pepper into thin strips.

Cut zucchini into thin slices. Sauté onion in olive oil in a 10-inch skillet over medium heat until golden. Add the morels and cook 2 minutes. Season with salt and pepper. Add the pepper, zucchini and garlic and cook 5 minutes. If using vinegar and sugar, combine in a small bowl to dissolve. Add this to the pan and cook 2 more minutes.

Morel Mushroom Stroganoff

1½ cups dried morel mushrooms (To reconstitute, see directions on page 3.)

1 pound beef (sirloin or your favorite cut)

1 finely chopped medium onion

½ teaspoon dried basil

¾ teaspoon nutmeg

½ cup beef stock

2 cups sour cream (regular or light)

salt to taste

8 cups cooked pasta

Reconstitute morels. Cut beef in ¼-inch-thick strips that are about 3 inches long; brown over high heat. Reduce heat to medium. Add onions and sauté until soft.

Drain morels thoroughly; squeeze out excess moisture. Add morels, basil and nutmeg to beef. Sauté approximately 5 minutes. Add beef stock and bring to a boil. Reduce heat to low. Add sour cream and salt. Stir until smooth.

Simmer over low heat for 15 to 20 minutes. Serve hot over your favorite pasta. Makes enough sauce for 5 to 6 people.

State agencies and landowners have a permit process. It is the responsibility of the pickers to find out about any access restrictions and obtain any necessary permits for the area(s) they intend to harvest. For further information on permit requirements, contact the Bureau of Land Management, the Alaska Department of Natural Resources, Fairbanks North Star Borough or Doyon, Ltd.

www.uaf.edu/ces or 1-877-520-5211

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Sautéed Morels

½ pound morel mushrooms, cleaned, patted dry
2 tablespoons butter

Melt butter in a 10-inch skillet. Add morels. Sauté slowly, until thoroughly cooked and tender. This will take 10-15 minutes.

Sources

- Ammirati, J., Traquair, J. and Horgen, P. 1985. *Poisonous Mushrooms of Northern United States and Canada*. Minneapolis: University of Minnesota Press.
- Andress, E. and Harrison, J. 1999. *So Easy to Preserve*. Athens: University of Georgia Cooperative Extension Service.
- Fisher, D. and Bessette, A. 1992. *Edible Wild Mushrooms of North America: A Field-to-Kitchen Guide*. Austin: University of Texas Press.
- Kuo, M. December 2002. "Preserving and Drying Morels." Retrieved from MushroomExpert.Com, www.mushroomexpert.com/morels/drying.html
- Mushroom Council Research and Information Website, <http://mushroomcouncil.org>
- Weber, N. 1988. *A Morel Hunter's Companion*. Lansing: Tow Peninsula Press.

Suggested Guidebooks

- Bossenmeier, Eugene F. 1997. *Mushrooms of the Boreal Forest*. University Extension Press, University of Saskatchewan, Saskatoon, SASK.
- Hall, Ian R. 2003. *Edible and Poisonous Mushrooms of the World*. Portland: Timber Press.
- Parker, Harriette. 1996. *Alaska's Mushrooms: A Practical Guide*. Anchorage: Alaska Northwest Books.

Additional websites

- The Great Morel: A Tribute to Shroomers, www.thegreatmorel.com/info.html
- Sonya Senkowsky. 2001. "Morel hunting" (radio script) from ARCTIC Science Journeys. Retrieved April, 2005 from www.uaf.edu/seagrant/NewsMedia/01ASJ/06.29.01morels.html

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