ALASKA MUSHROOM GUIDE for Harvesting Morels

FNH-00021

Getting Started

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 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 very fundamental rules when it comes to picking morels, but it is no substitute for a reputable field guide to mushroom identification. Visit www.mushroomexpert.com/morels/cardinal.html for “Cardinal Rules” of morel picking.

*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.

Personal Safety in the Forest

Harvesting mushrooms for a living is hard, dirty and tiresome work. Beginners should expect long hours of physically challenging work and should bring plenty of drinking water. Pickers should be prepared for changes in weather, rough terrain, airborne ash, dense brush and unexpected encounters with wildlife. Pickers should know how to read maps and use a compass to ensure that they can safely return to their campsite or vehicle. Accurate maps or aerial photographs should be taken in the field. Pickers should be aware of basic search and rescue procedures in the event they are lost or injured in the woods. Only experienced backcountry travelers should attempt picking in remote areas. Following proper safety precautions and practicing strict “no trace” camping and hiking procedures is particularly important in remote areas.

Always be good stewards of the land. Leave some of the mushrooms you find. Do not collect mushrooms from previously harvested areas; leave the rest for wildlife food and to reproduce other mushrooms. Know whose land you are picking on and either go through the permitting process or have prior approval. Minimize impacts to the fungus by not disturbing the ground habitat. Do not dig, rake or scrape the forest floor. A footprint should be the only thing you leave behind. Don’t harvest more mushrooms than you need.
Permit Requirements

State agencies and landowners have a permit process. It is the responsibility of the picker to learn any access restrictions and obtain any necessary permits for the area(s) they intend to harvest.

For further information on permit requirements contact:

Bureau of Land Management
Northern Field Office
1500 University Avenue
Fairbanks, Alaska 99709
907-474-2302

State of Alaska, Department of Natural Resources
Division of Lands, Mining and Water
3700 Airport Way
Fairbanks, Alaska 99709
907-451-2740

Doyon, Ltd.
Doyon, Limited
1 Doyon Place, Suite 300
Fairbanks, Alaska 99701
907-459-2037 or (907) 459-2031

Fairbanks North Star Borough
Borough Land Management Department
809 Pioneer Road
Administrative Center, 2nd Floor
Fairbanks, Alaska 99707
907-459-1241

Warning!

Proper identification and determination of 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.

Harvesting

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 because these are too wet.
- 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. A good sign to look for is when the bluebells are blooming.

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. They 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.
Forest Protection

A burning permit is required for burning on all lands during the fire season as declared by the State of Alaska. When traveling in the forest always use your ashtray, especially when driving along forest roads; stop for a smoke break instead of smoking while walking; select your campfire sites carefully, and put fires out completely before leaving a site. When choosing an area to harvest, beware of fires which have survived underground. Consult with local authorities concerning up to date forest fire information. Contact:

Bureau of Land Management
Alaska Fire Service
P.O. Box 35005
Ft. Wainwright, Alaska
907-356-5500

State of Alaska, Division of Forestry
Northern Regional Office
3700 Airport Way
Fairbanks, Alaska 99709-4699
907-451-2660

Delta Area Office
P.O. Box 1149
Delta Junction, Alaska 99737
907-895-4225

Fairbanks Area Office
3700 Airport Way
Fairbanks, Alaska 99709-4699
907-451-2600

Tok Area Office
P.O. Box 10
Tok, Alaska 99780
907-883-5134

Valdez Copper River Office
P.O. Box 185
Glennallen, Alaska 99588
907-822-5534

Litter — Campsites — Wildlife Encounters

Food, garbage and unsanitary practices can attract animals and result in unhealthy camp conditions. Care should be taken to properly store food and refuse away from the campsite. Ensure that all human wastes are dealt with in a sanitary fashion. All garbage is to be packed out and disposed of in an approved dump site. You are not permitted to erect any permanent structure. Campsites must be left clean, safe and sanitary.

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 morel fungus, which produces the edible fruit body, and they will be protecting the site which supports it. Never disturb the forest floor in the vicinity of morels. This could harm the mycelium which produces the mushroom. Sensible care taken on mushroom sites this season is the best way to ensure abundant crops of Alaska morels in the future.

When pickers arrive in a patch of morels they should never “clear cut.” Close observation will show that some of the specimens may be either too mature or too small. Always harvest healthy specimens. 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. Furthermore, those morel spores will not be distributed and the soil will not benefit from decomposing fungi bodies.

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. Minimizing the amount of excess with you while harvesting will allow you to move faster in the forest and conserve your energy for picking more mushrooms.
Morel mushrooms are difficult to see, since they tend to blend in visually with the forest floor. You will need to 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.

Harvesting Equipment

Consider the following list of equipment for harvesting morel mushrooms:

- At least one good wild mushroom guide (preferably more than one)
- Map of the area (with plastic cover)
- A good compass with a strap
- Two food-grade 5-gallon plastic buckets with ventilation holes
- Emergency blanket
- External backpack frame and bungee cords
- Bear mace, bear spray or bear flare
- Whistle with a strap
- Two 6-inch serrated kitchen knives (for cutting off caps)
- A package of dust masks
- A watch, preferably with an alarm
- First Aid kit

Handling and Transporting Morels Back to Camp

To ensure the quality of your product and to 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. Always carry sufficient toilet paper and wash your hands. Place the morel caps gently in the bucket, and avoid banging the bucket into obstacles. The bucket must be listed as food grade. A food grade container will not transfer noxious or toxic substances to the contents. Move gently through the forest. Refrain from overfilling your containers or compressing the morels. Always try to keep morels cool, well ventilated and in the shade.

Preserving Morel Mushrooms

Although true morel mushrooms are edible, they have been known to cause allergic reactions and gastrointestinal upset. Combining morels with alcohol can compound this. Morel mushrooms should only be eaten if they are fully cooked. It is recommended to only eat a small amount of morels at any one time. (Poisonous Mushrooms of the Northern United States and Canada and A Morel Hunter’s Companion)

Cook morel mushrooms in a stainless steel or Teflon-coated pan. Iron or aluminum pans can give the mushrooms an unpleasant metallic taste. (Montana State University News Service)

Warning!

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Selection and Storage

Mushrooms should smell fresh and earthy. Those with soft spots or bruising should be rejected. Once home, refrigerate mushrooms between 34° and 35°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 before storage. Since mushrooms absorb water, it is not recommended to wash them before storing, as this will also hasten deterioration. Mushrooms may absorb strong odors if stored near pungent items like onions, etc. (Alaska’s Mushrooms a Practical Guide, MushroomCouncil.org)

Fresh mushrooms will only keep, refrigerated, for a few days. For longer storage, mushrooms may be frozen or dried.

Preparing Mushrooms for Use

- Wipe mushrooms gently with a damp cloth or soft brush to remove dirt, debris and insects.
- When ready to use, mushrooms may be gently rinsed in cool water and drained. Shake gently to remove excess water. Mushrooms readily absorb water so do not soak them. Excess moisture speeds deterioration.
- There is no need to peel mushrooms. Trim and discard any portions of the mushrooms that are discolored or infested with insects or maggots. (Alaska’s Mushrooms: A Practical Guide, MushroomCouncil.org)

Freezing Mushrooms

Preparation: Choose mushrooms free from spots and decay. Sort according to size. Wash thoroughly in cold water. Trim off ends of stems. If mushrooms are larger than 1 inch across, slice them or cut them into quarters.

Mushrooms can be steamed or heated in fat in a fry pan. Steamed mushrooms will keep longer than those heated in fat.

To Steam: Mushrooms will have a better color if given antidarkening treatment first. To do this, dip for 5 minutes in a solution containing 1 teaspoon lemon juice or 1½ teaspoons citric acid to a pint of water. Then steam whole mushrooms 5 minutes, buttons or quarters 3½ minutes and slices 3 minutes. Cool promptly, drain and package, leaving ½ inch headspace. Seal and freeze.

To Heat in Fry Pan: Heat small quantities of mushrooms in margarine or butter in an open fry pan until almost done.

Cool in the air or set pan in which mushrooms were cooked in cold water to chill more quickly. Pack into moisture vapor-resistant containers, leaving ½ inch headspace. Seal and freeze.

Drying Mushrooms

Preparation: Mushrooms may be dried whole or in cut slices without blanching first. Drying time can be hastened by drying in small, uniformly cut pieces. Mushrooms are a low-acid food and must be dried until they are brittle or less than 10 percent moisture remains to insure no microorganisms can grow.

Methods: Mushrooms may be dried by using a dehydrator or convection or conventional ovens, or by sun drying or drying indoors at room temperatures. Microwave ovens are not recommended for drying mushrooms. Drying times will vary according to conditions. Usually it takes 8 to 10 hours in a dehydrator and longer with other methods. If using a convection or conventional oven, temperature readings must go as low as 140°F. If your oven does not go this low, then your food will cook instead of dry. Use only stainless steel or plastic screens for drying to avoid metal poisonings.

Storage of 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.

Rehydrate Dried Mushrooms: Place the dried mushrooms in boiling water for 15 minutes or until they have returned to their original shape. Cook the mushrooms thoroughly before eating.
Add dried mushrooms to a product with lots of liquid, like soup. Cook for at least 15 minutes. This will rehydrate the mushrooms and cook them in a single step.

**WARNING:** Some people are allergic to drying mushrooms and 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. Place the drier in a well-ventilated area. (MushroomExpert.com)

**CAUTION:** Do not can wild mushrooms. There are no research-based processing times for canning wild mushrooms.

**Marketing**

The marketing of morels should only be attempted by experienced and qualified operators who are able to certify that their product is authentic, safe and good quality.

The major international markets for Alaska morels are in Europe and Japan. Smaller markets exist in Canada and across the Lower 48 states. It should be noted, however, that all these markets are changeable. The mushroom industry is still evolving both nationally and internationally, and product supplies, demand and prices can change rapidly and without notice in the international marketplace. There are a number of strong international players in the wild mushroom trade, and unexpected events, weather or harvests in countries elsewhere can have a major influence on the price and demand for Alaska mushrooms.

It should also be emphasized that morel markets are extremely sensitive to product quality and regional reputation. Prices and demand for the product can vary considerably depending on the track record of the region or the individual supplier in regard to producing good quality morels.

Even within regions, there are no stable industry standards for product prices. Most prices at the wholesale and shipping level are negotiated on an individual basis between supplier and buyer. Prices can rise or drop radically within short spaces of time, and prices reported by one operator or industry study may not necessarily reflect the industry average.

**Searching for Markets**

There are a number of ways to research potential markets for morel mushrooms. Inform yourself about the character of the market by talking to more experienced industry members and finding out about how the final product is used. Visit specialty food shops/delicatessens that sell European style products and take notice of ingredients, packaging and presentation. Observe the range of products where mushrooms are currently used and where morels might be substituted.
It is also useful to investigate other wild food markets. You may call, write and meet with producers/marketers of these products, inquiring about industry contacts, distributors, outlet managers and sales representatives who might be interested in learning about your product. Research library reference sections for food industry member addresses and statistics on consumer patterns. Try to acquire mailing lists for specialty food clientele who might respond to direct marketing. A computer search engine would help find this type of information.

**Suggested Guidebooks**


**Additional Sources**


The illustrations and photos contained in this document are not meant for identification purposes and should not be used in place of a reputable guidebook for identifying mushrooms. Proper species identification is the responsibility of the picker.

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