



edible
**MUSH
ROOMS**

Safe to Pick, Good to Eat

BARBRO FORSBERG
& STEFAN LINDBERG



Barbro Forsberg Stefan Lindberg

EDIBLE MUSHROOMS

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SKYHORSE PUBLISHING



SHAGGY INK CAP.
PAGE 2, PARASOL MUSHROOM.

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First published in 2012 as *Matsvampar* by Barbro Forsberg and Stefan Lindberg, Bonnier Fakta, Sweden

Text, graphic design, and scanning of mushrooms by Barbro Forsberg

Photography and reprographics by Stefan Lindberg

Facts checked by Michael Krikorev

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10 9 8 7 6 5 4 3 2 1

Library of Congress Cataloging-in-Publication Data is available on file.

ISBN: 978-1-62873-644-1

Printed in China

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ACKNOWLEDGMENTS

HELPFUL BOOKS FOR MUSHROOM IDENTIFICATION

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A LOVE OF PICKING

THE HUMIDITY IS *high and our pots and pans simmer away. Scores of mushrooms are cleaned and left to soak while our woodstove is working at maximum capacity.*

Suddenly, a dragging sound from the larder makes us raise our heads from the mounds of mushrooms. Swish, swoosh . . . splat!

What are these strange, poltergeist sounds? They have a rational explanation; steam from the boiling mushrooms causes the wallpaper to release rapidly from the stone wall. One strip has already piled on the floor, and several more have come loose up near the ceiling. They look like they're about to fall down at any minute. Soon the whole wall is bare; undressed, hot, and all shiny from the damp.

THIS IS JUST one of many mushroom-collecting memories. Simply put, we are mushroom maniacs and we love picking, cleaning, and eating mushrooms.

It's exciting to test edible mushrooms that you've never tried before, but sometimes it can be hard to identify them using regular mushroom guides. This is why we've made a book that's slightly different. We've included forty edible mushrooms that we have gotten to know over the years, and we hope that the average mushroom picker will dare to try some of these mushrooms that they might not have tasted before. These fungal treasures create such heavenly tastes.

Barbro Forsberg
Stefan Lindberg

MUSHROOMS FOR PICKING

IN THIS BOOK we have selected forty mushrooms that are safe to pick and that taste good. That's not very many when you consider that there are 5,000 mushroom types with a visible fruiting body (the part of the mushroom that is picked) in the United States alone and of these, only a few hundred are considered to be good, edible mushrooms.

All mushrooms consist of a network of fine threads underneath the earth, the mycelium, which obtains nutrients via organic material, dead or alive.

Mushrooms are divided into different groups depending on where they get their nutrients. Mushrooms that live off of, and break down, dead organic matter are called saprophytes and they play a vital part in nature. Within this group there are several tasty edible mushrooms, such as the St. George's and the Parasol Mushroom.

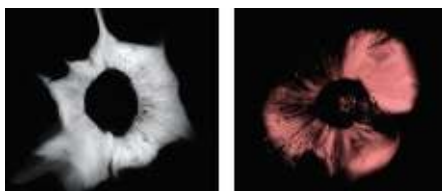
Mycorrhizal mushrooms have a symbiotic relationship with living plants, which are their hosts. The mycorrhizal mushrooms get their food from these plants in exchange for providing the plant with water and minerals. The mushroom's mycelium works as an extension of the plant's root system, thereby creating a successful symbiosis between plant and mushroom.



A Velvet Bolete's fruiting body.



Under the earth's surface we find the vegetative part that creates the fruiting bodies that are picked. The white stuff is the mycelium of a Velvet Bolete that is growing out from the roots of a pine tree, giving the tree an increased rate of nutrient absorption.



If you are unsure of the type of mushroom you have, you can determine the color of the spores. Place the mushroom with the surface that creates the spores face down on black or white paper (depending on the color you are expecting the spores to be). Cover the mushroom so the spores don't fly around the room. After a few hours, a deposit of spores will have fallen onto the paper. The photo to the left shows the spores from the St. George's mushroom, which are white, in contrast to its poisonous look-alike, the Livid Agaric, which has a pink spore print.

Most edible mushrooms are mycorrhizal mushrooms and are attached to various types of trees. The Chanterelle, for example, grows with both coniferous and deciduous trees while the Slippery Jack only has one host, the pine tree.

The third group, the parasites, include only a few edible mushrooms. This book only contains one, the Wood Cauliflower on [page 129](#).

A lone mycelium can produce a vast number of fruiting bodies within a limited area and it is here that the spores are created and dispersed to create new mushrooms.

Determining the Species

THE SPECIES OF mushrooms that are unique in their appearance are easy to learn, while those that have several look-alikes take a bit longer to get to know.

It's a good idea to own several mushroom books so you can compare the pictures and descriptions. Make sure the books are less than ten years old, as new discoveries are constantly being made and some mushrooms might be re-evaluated and defined as edible where they were once inedible and vice versa.

If you use all your senses, i.e. memorize the smell and the feel of each mushroom, you will eventually get to know a group of edible mushrooms and you can skip poring through your guidebook every time you come home from picking mushrooms.

A spore print is always a good idea if you want to be completely sure that it's not a poisonous look-alike and you can find out how to do this in the photo and text at the bottom of [page 2](#).

It's harder to distinguish between some types of gilled mushrooms (agaricales), especially *Russulas*. Many look so alike that it can require microscopic examination to be completely sure. Thankfully, there are few poisonous *Russulas* but some of them taste bad and are not considered edible. How to recognize and taste test a *Russula* is described on [page 159](#).

We have chosen not to present the edible wild white meadow mushrooms (*Agaricus*) in this book (and yes, there are poisonous white mushrooms). This is mainly due to the fact that each year there are several mistakes made between the Destroying Angel and wild white meadow mushrooms. Besides, you can just as easily buy the cultivated ones cheaply in the supermarket.

According to the food advisory board, neither wild nor cultivated white mushrooms should be over-consumed.

Locating Mushrooms

IF YOU CAN learn which host tree goes with which mushroom, it will be easier to find your favorite mushrooms.

Many mushroom species grow over a long fruiting period and can even appear several times in a season, making it worth returning to the patch where you found them.

You stand a greater chance of finding mushrooms in an older forest where the ground has not been disturbed by tree felling for the past forty or fifty years. Here, you'll often find a wider variety of mushrooms. Some areas of nature are more unique and are host to rare animals, plants, and mushrooms. For example the Pig's Ear on [page 115](#) is a so-called "indicator mushroom," which indicates that the forest has not been recently disturbed.

Another tip is to join an arranged mushroom tour with a knowledgeable guide and in this way learn more about how to locate and recognize mushrooms.

MUSHROOMS IN THE KITCHEN

AS SOON AS you've plucked the mushroom from the ground, you need to treat it like fresh produce and take care of it as quickly as possible. You should always do the first, rough cleaning as you pick it, removing the soil-covered base, and if you are able to finely clean it the same day, it will last longer. More information on picking and cleaning can be found on [page 13](#).

If you don't have time to prepare the mushroom after finely cleaning it, it will keep for a few days in the refrigerator. If you have a large quantity of mushrooms and the weather is cool, you can store the cleaned mushrooms outside under a roof for 24 hours.

Preparing Fresh Mushrooms

BEFORE YOU PREPARE the mushrooms, you need to remove excess liquid. After cleaning them, place in a frying pan or pot with no cooking fat or oil, at a low heat. If the mushrooms are dry, you can add a dash of water. Once the mushrooms start to release liquid, increase the heat; allow the liquid to evaporate before adding butter. You can then salt and fry the mushrooms. After this, the mushrooms can be cooked further, for example in a stew, sauce, or a soup.

Parboiling and Freezing

WHEN FREEZING MUSHROOMS you don't need to remove all the liquid as you would when preparing fresh mushrooms, and no butter needs to be used. When frozen, the mushrooms should be covered in their own juices, as this makes them less chewy. They will keep for up to a year.

You can also freeze the mushrooms directly without parboiling them. They take up more space but will taste fresher because you can cook them without having to first defrost them. Place the frozen mushrooms straight into a hot frying pan with some butter and fry quickly.

Drying

THE BEST WAY to store mushrooms is to dry them, as the flavors will be concentrated and they will last pretty much forever if stored in a sealed glass jar in a dark, dry place.

You can dry mushrooms in several ways. The main thing is that they need to air out, and a kitchen table makes a good surface for this. Cover it with newspaper to protect the table's surface, and place a clean cloth on top, like an old table cloth or a sheet. If you place the mushrooms straight onto the newspapers they can stick. Wooden frames with mosquito netting also work well. The mushrooms should be spaced out slightly.

Mushrooms that are less "meaty" are easiest to dry. More dense mushrooms such as the Porcini should be cut into thin slices before drying.

Some mushrooms are considered less suitable for drying—Chanterelles and Hedgehog mushrooms, for example—as they become chewy and bitter, so parboil and freeze these instead.

Drying time is normally two to four days at normal room temperature. When they're ready, the mushrooms should be crispy and easy to break or crumble. You can even buy electric mushroom dryer or electric dehydrators that will dry the mushrooms in a few hours.

Drying them in the oven is not a good method; in order to get the liquid out, you would need to leave

the door open, which makes the heat uneven. At temperatures above 104°F (40°C) the mushrooms will start to cook and will be destroyed.

If you have a lot of dried mushrooms, you can make mushroom flour using a food processor or a mortar and pestle. The flour tastes great when added to sauces and soups.

Don't forget that mushrooms release spores while drying, and in larger quantities can cause problems in small children or those with allergies or asthma.

Soaking

BEFORE COOKING WITH dried mushrooms, you need to soak them. Boil some water and pour into a bowl. Dilute with some cold water until it is lukewarm and not above 104°F (40°C). Make sure your fingers are dry when removing the mushrooms from the jar and don't stand too close to the steam from the pot.

The mushrooms should be just covered by water and after roughly 15–30 minutes they are ready to use.

You can also use the soaking liquid to add some flavor to your dish. Add a little at a time and taste it as you go; otherwise it can become too bitter.

Two pounds of mushrooms (1 kg) is equivalent to approximately 3½ oz (100 g) of dried mushrooms.



A mosquito net is ideal for drying mushrooms. Here, a few thinly sliced Porcinis are lying out to dry.



Dried mushrooms need to be stored in a dark, dry place. New research shows that edible mushrooms are a lot healthier than once thought. Among other things, they contain antioxidants and minerals.

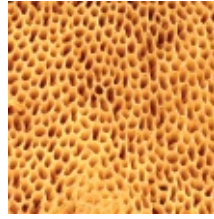
MUSHROOM TERMINOLOGY

VARIOUS MUSHROOMS HAVE the most amazing shapes and colors and even one species will often go through a major transformation during its lifespan.

To simplify things when defining the mushroom species there are certain terms for the different appearances—mainly concerning the shape of the caps.

The spore-producing tissue, the hymenium, is also an important distinguishing feature. This is usually found under the cap on the pores, ridges, teeth, and gills, and the shapes all have different names.

Spore-producing Tissue



Tubes/pores (Slippery Jack)



Ridges (Chanterelle)



Teeth (Wood Hedgehog)



Gills/Lamellae (Parasol Mushroom)

Cap Shapes



Umbilicate



Infundibuliform



Conical



Ovate



Convex



Flat



Umbontae



Campanulate



Depressed

Gill Shapes



Decurrent



Free



Adnexed



Adnate

EACH CHAPTER in this book ends with a page presenting a short overview of the species. The following is a general explanation of the descriptions.

FRUITING BODY: The part of the mushroom that grows above the earth (except truffles).

CAP: The top part of the mushroom.

GILLS, RIDGES, PORES, AND TEETH: The hymenium, or surface where the spores are produced, is usually found underneath the cap.

STIPE: The stem of the mushroom, usually upright, occasionally angled.

FLESH: The inside of a mushroom.

VEIL, RING, VOLVA: The veil is a thin layer that protects the young fruiting body and breaks as the mushroom grows. The partial veil, attached to the center of the stipe and the edge (margin) of the cap, protects the young gills or pores. The remnants create a ring around the stem of the mushroom. The universal veil envelops the whole fruiting body and the remnants create a “cup” at the base of the stipe called a volva, and sometimes scales on top of the cap.

SPORE PRINT: The color of the spores is a good way to identify mushrooms. The spore powder can be seen on gills and at the pore openings. Determining the color of the spores can help to identify the type of mushroom it is ([page 2](#)).

RANGE AND HABITAT: Different kinds of mushrooms appear in different seasons, types of terrain, host trees, and weather conditions. Some species are more particular than others and are therefore sometimes rarer. These should be spared from picking.

SMELL AND TASTE: It is very useful to be able to recognize the smell of a mushroom. Smell the spore-producing tissue, the hymenium, as this contains most of the aroma producing molecules. We do not recommend tasting raw mushrooms with the exception of the *Russula* ([page 153](#)).

PICKING AND CLEANING: It is best to place picked mushrooms in an airy basket with a clean piece of newspaper at the bottom. Do the dirty work on site with a knife and brush. Cut off the earth-covered stipe and, if necessary, divide the mushroom before it is placed in the basket. Avoid placing heavy fruiting bodies on top of fragile mushrooms. Never use plastic bags, as this will increase the rate of bacterial growth. Unknown mushrooms should be kept separately and if in doubt, do not eat them.

PREPARING AND STORING: Most edible mushrooms are suitable to fry and stew. If you wish to preserve the mushroom you should dry or parboil them before freezing ([page 3](#)).

LOOK-ALIKE MUSHROOMS: Most mushrooms have a look-alike and most of these are not harmful. Some are just as good as edible mushrooms and some aren't. A few look-alike mushrooms are mildly to deadly poisonous ([page 208](#)).





Soon we will be enjoying a Porcini-filled sandwich, a delicacy that's hard to beat.



Just like freshly baked bread, a perfectly "baked" Porcini cap.

THE WINDOWS HAVE been rolled down, and as the car slowly rolls down the country road, we carefully scan

the surrounding area, peering through the trees.

“Stop!” I cry, “I think I see some mushrooms!”

We push the thickly-growing spruce branches aside and stumble into a beautiful fairy tale forest where the setting summer sun shines its golden rays. This golden light reveals every mushroom picker’s dream and we find ourselves in a treasure trove filled with Porcini, the king of mushrooms.

Large and small caps appear, like smooth, freshly baked buns, and they cluster in the moss on their chubby little rococo stalks.

I PLACE MY fingers around a balloon shaped cap, a Porcini “baby,” and feel the moss against my fingers. I clutch the end of the stalk and gently twist to remove the whole fruiting body. It is heavy and dense, despite not being fully grown, and half the stalk is still hidden inside the almost spherical cap. I peel away the earth around the base of the stalk to reveal a flesh devoid of any insect damage—a real find!

A pretty vein-like pattern is faintly visible on the round stalk, especially near the top. The thin pore surface, which is puffy and yellow-green in the older specimens, is crispy and hard and a light beige color. The smell is pleasant, mild and nutty and a little sweet and sour. Even the older Porcinis seem unscathed by attack from maggots and insects.

The cap surfaces are sticky from the rain, which means that these boletes have grown at record speed.

WE NEED TO thoroughly clean and cut away anything that’s infested with insect larvae. The larger mushrooms are divided and placed in their own basket so they don’t squash the smaller ones. The pores on the older specimens are soft and slimy; they will only turn to mush in the pan, so we peel away the soft tubes and discard them.

The baskets are soon filled with these majestic mushrooms; this is what we call a Porcini year . . . and mushroom happiness!



Some years are Porcini years, and that's when the woods kindly offer up vast amounts of this amazing edible mushroom.



The King of the Mushrooms

THE PORCINI RULES the mushroom kingdom. This is not just because of its size, as the Porcini is the most prized and frequently picked edible mushroom in the world. It was even feted during Roman times. It's also one of the most commercially used of all the wild edible mushrooms.

Millions of tons of Porcini are shipped around the world every year. Freshly frozen, dried, pickled, flour, and so on. China is one of the largest exporters, and it has an extensive trade in growing wild edible mushrooms. Italy and France are some of the largest importers; despite having Porcini mushrooms on their own soil, the natural supply simply is not large enough.

Cep, another name for Porcini, is really an umbrella term for several species, for example the

Summer Cep and Pine Bolete. In the United States, several closely related species are referred to as the King Bolete group. It doesn't really matter if you confuse these species, as they are all edible and each tastes just as good as the others.

Porcini grows mainly in coniferous and deciduous forests in the northern hemisphere and grows well with many different types of trees.

The species can now also be found in South Africa, where it unintentionally travelled with imported trees.

THE NORTHERN EUROPEAN Cep is considered the best tasting cep. It has a sweeter and fuller taste than those from other parts of the world.

In the United States, Porcini grows from mid-summer to late fall all over much of the country, in forested regions and in suburbs with planted trees. Some years the woodlands are teeming with ceps during a limited but intensive growth period—usually one to two weeks. You need to be quick, though, as you are not only competing with insects for these delicacies; even larger animals like deer, wild hogs, squirrels, and mice, are fond of ceps.

In parts of North America, there is a variety known as the King Bolete and even in Sweden the name has royal ties (the Swedish name for it is “Karljohan”). Our first king to carry the name Bernadotte was Karl XIV Johan, who became king of Sweden and Norway in 1818. He brought French culinary traditions to Scandinavia and taught the upper class to eat “tube cep” or “gentleman’s mushroom,” as it was then called.



The Bolete Eater, *Hypomyces chrysospermus*, is a common parasitic mold that is found on ceps. Usually, at first you don't see the attack on the thick base of the stipe. Eventually, the mushroom becomes covered by a white coat that turns yellow and gives off a bad smell.

It was much later that the general population found an interest in mushrooms as a food source.

The tube cep, also known as the gentleman's cep, is a large mushroom. This species distinguishes itself from other mushrooms in that the hymenophore, on the underside of the cap, does not consist of

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