Not only are those strange balls of fungi known as puffballs fun to stomp, many species are perfectly edible treats, ready to roll into your kitchen.

Edible Puffballs of Illinois

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Most wild mushroom hunters in Illinois recognize but one edible species: the morel mushroom. And while those sponge-capped spring fungi are easy to recognize, morels appear only once a year, for a few precious weeks. Most mushroom fanciers, therefore, get just one chance annually to collect edible wild mushrooms.

But here's something to kick around: Puffballs, those spore-packed dust bags of the Prairie State, are one of the most unmistakable of our wild mushrooms. And, when collected fresh, puffballs can be a surprisingly worthy culinary subject.

Puffballs acquired their common name from the ability of mature specimens to discharge a cloud of internally produced spores when physically abused. If puffballs had no other redeeming qualities beyond shooting clouds of dust into the air, we'd still love them: Most hikers can't resist the temptation to ceremoniously stomp a dry puffball, just to see the cloud of spores blast outward.

Puffballs are called Gasteromycetes, or "stomach fungi," because their reproductive spores are produced internally and aren't dispersed until they mature and an opening in the outer wall of the mushroom occurs. While the Gasteromycete group contains edible, inedible and poisonous mushrooms, puffballs of interest to mycophagists (fungus eaters) are typically

These small, "spiny puffballs" (*Lycoperdon echinatum*) show the pure white interior of edible puffballs. More commonly collected are the "pear-shaped puffballs" (*Lycoperdon pyriforme*), above, found on logs and stumps during autumn.

The "giant puffball" (*Calvatia gigantea*) makes a grand appearance as the largest of our Illinois puffballs.

the larger species in the genera *Calvatia* and *Lycoperdon*. These range from golf-ball size mushrooms to some weighing more than 40 pounds. Look for them in the summer and autumn on dead wood or on the soil surface in forests, pastures, lawns, etc. They may be oval, round, pear shaped or irregular, and are white, cream or tan in color. Some disperse their spores through a pore while others require a fracture in the outer layer before their spores can escape (think again of hiking boots).

Fortunately, puffballs of eating size are usually not difficult to identify as true puffballs. The oft-quoted statement that all puffballs that are solid and white inside are edible should be taken with a grain of salt. Some puffballs listed as edible in mushroom books may cause gastric upset in some individuals. For this reason, it's a good idea to eat only one kind at a time, rather than a mixture of species. If gastric problems occur, you'll know which species caused them. Each puffball should be sliced top to bottom prior to cooking to ensure that all are white and solid inside. Those showing any evidence of internal critters or discoloration should be discarded, and toss any that have the outline of an embryonic mushroom inside. These are likely the "egg stage" of an *Amanita* mushroom and could be deadly.

The earthballs, members of the genus *Scleroderma*, also may be mistaken for puffballs. Earthballs differ from puffballs in that they have a thick or leathery outer skin, grow partially buried in the soil, and are dark purple to black inside early in their development. Most are poisonous, causing sweating, nausea, diarrhea and vomiting when eaten.

The pear-shaped puffball, *Lycoperdon pyriforme*, is one of the smaller puffballs collected for eating. It is common and is often found growing in large quantities on dead wood. Two softball-size puffballs, *Calvatia cyathiformis*, the purple-spored puffball, and *Calvatia craniformis*, the brain puffball, also are good edibles. The purple-spored puffball is commonly found in grassy areas and has purple spores at maturity, while the less-common brain puffball prefers to grow in forested areas and has yellow-brown spores.

It's the giant puffball, usually called either *Calvatia gigantea* or *Langermania gigantea*, that attracts sensational reports from those who encounter these strangely fascinating mushrooms. These spherical to irregularly shaped oddities commonly grow to the size of a basketball or larger and are usually found from late July through September in low areas and forest ravines. The exterior is white early, turning brown in maturity, and their size can be overwhelming to comprehend: The world record was found in New York in 1877 and measured more than 5 feet long and 4 feet wide.

Calculating the reproductive potential of such an amazing mushroom requires plenty of zeros. A basketball-size puffball, for example, might contain 7 or 8 trillion spores. According to a 2004 estimate, that world record from 1877 probably held some 83 trillion spores.

Taking the math a bit further, British mycologist John Ramsbottom calculated that if a mere 7 billion of the trillions of spores in a giant puffball produced an average-sized puffball, laid end to end, they'd circle the earth more than five times. And, if their spores did likewise, the resulting puffballs would reach the sun and back two times and have a mass 800 times the weight of the earth.

Perhaps it's fortunate very few puffball spores grow to produce puffballs.

Of course, it's also fortunate there are at least a few puffballs to kick around. And fresh puffballs are nothing to sneeze at. Melt some butter in a skillet, coat a few slices of fresh, white puffball in cracker or bread crumbs, cook them up, and decide for yourself which version—kicked or cooked—is the most enjoyable puffball.

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Puffball party snacks: Fry rings of puffball, stack bread, meat and cheese, then bake at 375 degrees for 10 minutes.