

# Should the harvesting and selling of wild mushrooms be regulated?

by Denis R. Benjamin

*It is no dream  
Matsutake are growing  
On the belly of the mountain  
-Shigetaka*

In the spring of 2005, wild mushrooms disappeared from farmer's markets in the Los Angeles area. An environmental ombudsman from the local health department took it upon himself to protect the public, even though there was little evidence that they needed protection. This ban was later rescinded, sort of, following protests by customers, pickers, vendors and local markets. Good for them. A fascinating bureaucratic compromise was crafted; banishing mushrooms to the craft side of the market, and prohibiting them from the certified food side, with posted signs proclaiming that wild mushrooms are not an agricultural product. Other counties, Calaveras for example, maintained the general prohibition. Their logic was that since wild mushrooms can't be certified as safe, and yet are clearly agricultural, let's ban them.

To be generous, these public health officials were following a dictate common in most states that food has to be from an "approved source." What precisely is meant by this is open to wide interpretation. Interestingly supermarkets, restaurants, chefs and others do not seem to have any problem purchasing wild mushrooms and re-selling them to the public. Why farmers markets have been singled out for myco-discrimination is not clear, although local health departments are the agencies that might have the tightest sphincters. Supermarkets and other outlets fall under the jurisdiction of other regulators. These discrepancies highlight the schizophrenia towards the wild harvest.

For years federal and local governments have adopted wide ranging regulations in an effort to ensure the safety of our foods. One might question the effectiveness of these efforts, as rarely a week goes by without some major food related illness or epidemic, be it *Salmonella* on tomatoes or tainted peanuts. One could argue that this is due to inadequate enforcement. One can only imagine how much worse things would be without them. On the other hand, the fact that there are over 76 million cases of food related illness reported by the CDC each year suggests that we still have a major problem. Over 300,000 people are hospitalized as a result. But none of these are due to mushrooms.

The regulations are clearly focused on traditional and current methods of food production, primarily the commodities and the food staples. There is much less oversight on imported foods, although the volume and variety of these have

dramatically increased in recent years. Fresh French cheeses and real Italian charcuterie have always been off limits, despite the obvious evidence that the population in those countries continues to thrive, and with much more gustatory pleasure.

The rules cover a huge range of issues - from the amount of residual pesticides, to the number of fecal rat pellets that are permissible in a bushel of wheat. Many of the regulations were established years ago, with archaic techniques of

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At first blush this seemed absurd. At second blush it is really absurd. Here is a federal agency requesting an amateur, non-profit organization to assume all the liability for a ragtag bunch of wild-crafters who make some of their livelihood from this activity. Perhaps if they were willing to indemnify the society, like they do for the vaccine manufacturers, and provide substantial sums of money to develop, implement and administer training and certification programs this could be vaguely considered. As I pondered the issue, apart from the ridiculousness of the request, only one thought came to mind - is there a problem that needs a solution?



production, transportation, storage and preservation. A full exposé of the arcane regulations and their value to us as consumers is far beyond the scope of this article. Whether the latest iteration of food safety regulations will change the situation remains to be seen.

As food production, storage and distribution is now so centralized, it makes sense to target the mega-food companies with stricter oversight. After all it is mass production that leads to mass epidemics. Small producers or those on the fringe are also trapped in the regulatory web, but are not equipped, nor can they afford these draconian regulations.

What should interest us as both consumers and mushroom hunters, is the question, "should commercial mushroom picking (harvesting) and the wholesale or retail sale of mushrooms be regulated?" This topic first appeared in the 1980s when intense commercial picking and exportation to countries abroad provoked considerable alarm, especially along the West Coast. This gradually settled down into an uneasy stalemate. I never gave this much thought until the president of our society (Puget Sound Mycological Society) recently received a call from a local USDA official that they were considering requiring some evidence of knowledge/expertise on the part of commercial pickers and asked if our society would

provide classes and some sort of certification.

## Public Health and Safety

As consumers we all expect to be protected from preventable danger, be it our air, water or our food. All of these should be wholesome, and if not healthy, then at least safe. Government oversight of an activity may be required if there is a clear and present danger, or to prevent a significant problem from developing in the future; and there should be ample evidence that the regulation will have the intended effect. No one has been keeping statistics on the number of people poisoned by wild mushrooms picked and sold by US commercial harvesters. I am personally aware of only two cases - a woman in Seattle who bought *Amanita smithiana* in a small street-market thinking it was a matsutake (late 1990s) and two chefs in Portland, Maine, who in 2008, became ill after eating mushrooms purchased from a wildcrafter who came hawking to the door of their restaurant. There are perhaps other examples and we would love to collect more data. These incredibly rare examples suggest we do not have a crisis or an epidemic. There is little evidence to suggest that there is an existing problem.

As the sale and consumption of wild

mushrooms burgeons, might regulations be required to prevent a significant problem from developing in the future? A preemptive strike if you wish. Defining "significant" is a challenge. In the world of blood-banking for example, we have gone to incredible extremes and great cost to ensure that the risk of a tainted unit of blood is less than 1 in a few million. So what should it be for mushrooms? No one knows. All might agree that one preventable death is one too many, especially if it is you.

Some agencies are proposing the certification of commercial pickers to ensure their competence in differentiating toxic from edible mushrooms. Because the current incidence of poisoning is so low, it will be difficult to prove regulatory efficacy, but it would make all of us feel better that we are doing something positive. On the other hand an educated public might be a far more effective tool in "policing" egregious behavior. Imagine a general public that clearly knew the dozen or so edible mushrooms and was able to hold markets and chefs accountable. An hour of food safety instruction in schools might benefit the public a great deal more than the billions of dollars spent on regulations.

From the standpoint of public health and safety I remain unconvinced that at the current harvest levels and the limited number of species reaching the market - chanterelles, morels, boletes, lobsters, matsutake - anything needs urgent attention. This could change if commercial picking became more adventuresome. Others, with a more protective bent may well promote additional regulations. But for discretionary products such as mushrooms, *caveat emptor* might be a reasonable approach, especially if the public was informed that the wild mushrooms they are about to buy and consume were picked by someone without any training. If this was our water, our air or our food staples, I too would support much stricter oversight.

Mushrooms imported from abroad are of more concern. In the late 1970s the FDA discovered dried imported morels that contained *Gyromitra*. Subsequent studies showed that this contamination was not an uncommon practice. Some have gone as far as to suggest that we all should avoid imported dried mushrooms.

A recent study from Germany reported that dried boletes from China were contaminated with fragments of a plant in the Araceae family resulting in marked irritation of mouth and esophagus. Even canned mushrooms from abroad have proven to be hazardous due to bacterial contamination. I am all for being a "locavore" and supporting our own pickers.

## Environmental and Social Issues

How about regulations that protect the environment? This is where the debate can become very emotional. There have been reports of forests ravaged, stripped clean, by commercial pickers. Sometimes this takes on racial and ethnic overtones, with old time forestry workers accusing new immigrants of unethical behaviors. They, on the other hand, are merely trying to make a living. In some regions raking the duff to uncover matsutake buttons has certainly been destructive and on-going studies are examining the extent and consequence of this damage. Of some concern is the picking of all immature specimens in an area before the mushrooms have had the chance to sporulate and reproduce. No one yet knows the long term results of this practice.

The media hyped up the "mushroom wars" in Oregon and Washington, when rival harvesters began poaching on another's turf—remnants of the old Wild West. No regulation will solve such an issue apart from designating specific districts to specific groups or, heaven forbid, large agri-businesses.

At present there is mass confusion regarding licensing for commercial and recreational pickers, with almost no oversight on their activities. Not only does each agency have a different set of rules—be it National Parks, Bureau of Land Management, National Forests, Departments of Ecology, Fish and Wildlife Services, FDA, USDA, etc.,—but each of these, in each jurisdiction, establishes their own rules which change from year to year.

These attempts at regulation and licensing appear to be bureaucratic efforts with no basis in science or land-use policy. We should be encouraging

and teaching the general public these ancient foraging skills—a positive way to ensure that we all continue to value the remaining public lands. David Arora, author of *Mushrooms Demystified* and *All that the Rain Promises and More*, made a brilliant observation about the state of foraging, both around the world, and especially in the USA. He said, "First it is forsaken, then it's forgotten and finally it's forbidden." As mushroom hunters and natural historians, and as stewards of the land, we should do all we can to reverse this trend.

Commercial foragers are not a monolithic group. At one end are individuals who do this almost full time, following the mushroom fruiting with the changes in the weather and seasons. These are highly skilled and forest savvy, with a wealth of fundamental and native knowledge. Some may be barely illiterate, but I would trust them to find my food, long before I would expect them to recite the Latin scientific name of a mushroom "matsie," "blacks," "candies," and all their edible brethren are good enough for me. At the other end are occasional seasonal hackers trying to make a quick buck. These I wouldn't trust after a college semester course and a handful of useless certificates or diplomas.

Two main issues threaten the wild mushroom resource. Destruction and loss of habitat is perhaps the most crucial, and perhaps the most difficult to deal with considering the pressures on our forests. The second is the size and scope of the harvest. Lurking above all of this is the specter of climate change. It would be a tragedy to be reduced to the situation in Japan, where the matsutake harvest is now so low that companies sponsor trips to the forests for their employees where they see matsutake growing in the wild, but cannot pick them - matsutake zoos. Instead they import tons of mushrooms from Korea and the western US to meet the demand. This sorry state of affairs has already been reached in parts of California where many state parks are now off-limits to mushroom collecting.

Being a bellwether state, what happens in California often foreshadows what might occur in the rest of the country. Others may disparage and stereotype it as the land of "fruits and nuts," but no one should dismiss the broader consequences.

Given the rapacious nature of humans and the sad lessons we should have learned from fisheries, market hunting and every other wild natural resource, one can make a strong argument that the time has come to regulate and control the commercial harvest and protect the resource. How we do it is much more problematic, and might require some unique creative approaches, as ethical mushroom hunting should be eternally sustainable. Unless we do something sensible my grandchildren may never savor the aroma of a personally picked matsutake.

Instead of diluting our efforts on the issue of commercial selling and arcane, confusing regulations, let's focus on the knottier and larger issue of habitat protection. Add to that a solid dose of natural history education in our schools. Nothing is as powerful as a scientifically literate public.

It's not so much the people that are at risk, it's the planet.

[Denis Benjamin is author of *Mushrooms:Poisons and Panaceas* (W.H.Freeman and Co, 1995)

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