

Environmental Case Study
Northern California and Oregon
Matsutake Mushroom Mania

Introduction

A fungus is causing a furor in the forests of Northern California and Oregon. The fungus is an autumn mushroom that grows in coniferous forests, and the Japanese are willing to pay big bucks for them. The American matsutake (pine mushroom) usually grows under the old needles of pine and fir trees. It has a strong, spicy aroma and firm flesh.

Mushroom collectors wander among the Cascade Mountain forests of Northern California and Oregon, looking for small bulges or cracks in the soil that indicate a mushroom pushing its way upward. An old screwdriver or similar tool is used to probe the forest floor breaking off matsutakes and replacing the soil and duff. If done well, the mycelium (analogous to a plant's root system) will continue to produce mushrooms year after year. The matsutake collectors take their harvest to a "buyer" who sorts them according to age and quality and ships them to Japan within forty-eight hours. In Japan, the mushrooms are meticulously cleaned, resorted into more precise categories, and sold as a gourmet item to restaurants and stores. Chief executives are sometimes presented with a grade-one matsutake in a crystal case accompanied by two sake glasses. Some people consider the matsutake to be an aphrodisiac.

The Issues

So, what's the problem? Where big money can quickly be made, trouble often seems to follow. Prices per pound range from about \$20.00 to as much as \$800.00, depending on the market. Experienced pickers have been known to earn \$1800.00 in a single day! The matsutake mania has been described as a modern-day "gold rush." People who have never before heard of the matsutake are rushing in to grab their share.

With too many people going after this limited resource, the race is on, and each matsutake picked is money in the pocket. Instead of gently probing and removing each mushroom, some pickers scrape and dig with long, pointed sticks, or even worse, rakes. Forest rangers have described such abused areas as looking like they have been cultivated by a rototiller or "torn up by wild pigs." These practices destroy the mycelium layer, which means that the mushrooms will not grow back. Because the mycelium is symbiotically interconnected with the roots of nearby pines and firs, the very health of the forest may be at risk.

There are a number of other problems associated with this "tragedy of the commons." Many mushroom pickers carry firearms with them. Among some pickers, the finding of a matsutake patch is signaled to other members of the party by shooting twice into the air. Guns, when combined with possessive feelings about certain mushroom-rich areas, can easily lead to trouble.

Many matsutake pickers camp out, night after night, in mushroom country. One concessionaire's camp in Oregon included over 2000 people. Associated problems include sanitation, fire prevention, and road traffic congestion. Fish and game regulations have been violated, and old vehicles have been abandoned. Some pickers bring their own bodyguards, prostitutes, and drugs. Large quantities of cash and alcohol use can be a volatile mix.

Many of the mushroom pickers are recent immigrants from Cambodia, Laos, Thailand, and Vietnam. Some may not read or speak English. This complicates communication about understanding regulations and good practices. A brochure explaining that certain areas were off-limits to mushroom

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pickers had to be printed in three Asian languages. There have been cases of some pickers feigning not to understand English. They therefore have an excuse to be ignorant of laws and regulations.

Intervention

The U.S. Forest Service manages much of the land on which matsutakes are harvested. Familiar with managing trees, this agency has been caught off-guard by the huge onslaught of matsutake pickers. One response by the Forest Service has been to require that mushroom pickers buy permits. This provides a chance for the Forest Service to educate pickers about regulations and good practices. Some collectors, however, do not even attempt to purchase the permits for various reasons. Monitoring is difficult over the thousands of acres of National Forest lands. There are very few Forest Service personnel to police the areas compared with the high numbers of mushroom-hungry pickers.

The Forest Service has received criticism for not being proactive with the matsutake situation. There have been some studies of the biology of matsutakes and human influences on them, but they may be too little, too late. As the Japanese matsutake becomes increasingly rare in Japan, the pressure will continue to be felt on the American matsutake and the forest lands on which they grow.

References

Websites

1. Matisiman.com at <http://matsiman.com/index.htm>
2. Southern Oregon Mail Tribune at <http://www.mailtribune.com/archive/2003/0829/local/stories/18local.htm>
3. USDA Forest Service at <http://www.fs.fed.us/r6/winema/specialprojects/matsutake.shtml>

Key Principles

1. Natural Resource Use and Abuse
2. Public Lands Management and Policy
3. Tragedy of the Commons

Ethical Considerations

1. What should the U.S. Forest Service do about the collection of matsutake mushrooms?
2. What are the rights of mushroom pickers versus the rights of the forest?
3. What are the pros and cons of strict regulations on collecting foods from public forests?

Civic Engagement & Service Opportunities

1. Volunteer for a local community group that monitors natural habitats in your area.
2. Write or e-mail your local politicians about regulating the collecting of organisms from public lands.
3. Form a student group having an environmental preservation mission.
4. Set up a public forum at your school discussing the collection of organisms from public lands.



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