

## INTRODUCTION TO MATSUTAKE

Mushrooms are the fruit of a living organism called mycelium. Mycelium is a fungus which attaches to a trees roots. Tree and fungus form a partnership, beneficial to both, known as a symbiotic relationship. The mycelium provides the tree with water and nutrients. Trees provide food for the mycelium. Harvesting mushrooms is much like picking an apple. The fruit is removed but the organism remains to fruit again. Environmental conditions which determine why the mycelium is present are unknown. Preliminary investigations indicate soil decomposition as a part of ecosystem function. The mycelium moves through the soil changing soil composition and unlocking nutrients. Progression through soils varies greatly depending on a variety of conditions: Host age, soil type, moisture, litter depth, competing mycelium, and canopy closure are a few. Movement may be noted by observing fruit positioning. Fruit production occurs in the active area, or leading edge, of the mycelium. Fruit has been noted to remained stationary or advanced 1 to 5 centimeters per year. Some advancement is noted in most cases.

## HUNTING MATSUTAKE MUSHROOM

Hunting is the on site observations that lead to mushrooms. In most years fruiting is confined to micro environments, small areas with good production conditions, that year. Knowing the habits of fruiting conserves time, energy, and makes a successful hunter.

## HABITAT

This term refers to types of trees, litter layer, ground cover, and canopy closure. Matsutake mycelia habitat can vary greatly. Old growth forests to open Manzanita flats. Habitat is limited, to some extent, by tree association, a few conifer and evergreen hardwoods.

## HARDWOOD HOSTS

Common Name	Scientific Name
Tan Oak	<i>Lithocarpus densiflorus</i>
Madrone	<i>Arbutus menziesii</i>
Chinkapin	<i>Castanopsis</i>
Manzanita	<i>Arctostaphylos nevadensis</i>

## WHEN

To start, mushrooms must form. Formation falls under the category, "How Much", and isn't information needed to know when, but if there will be any. Formation begins with the first cooling in the fall. The second cooling is when mushrooms can begin to grow. Basic rule to start looking, Two cold spells, or frosts. This rule can be followed in most cases. Variations are attributed to fruit growth category.

## WHERE

Where can be more difficult to determine. Knowing exactly where requires extensive knowledge of the area in question. Getting a general idea is less difficult. Depth of original formation cooling is the key. Basic rule, The deeper the cooling, the sunnier the aspect, and the lower the elevation. Example: One year you harvested on the north side, at a high elevation. You found, or remember that the first cooling wasn't that deep. Another year the cooling was much deeper, and you found mushrooms in sunnier aspects and lower elevations. Similar cooling will produce in the same places.

If you don't have this information, all is not lost. A visit to your allotropa areas is necessary. Start looking in the coolest spots. Look within a few feet, 5 to 15, of allotrope sightings. If you find none, don't give up. Move to areas a little sunnier. Still none, change elevation. After you locate fruiting, note where fruiting is occurring. Elevation, sun exposure, aspect, and mushroom age are the keys. Age of mushrooms is immediately useful. Whatever age you find indicates older mushrooms in cooler places, and younger in sunnier. Basic rule, If you are finding older mushrooms, move toward the sun to find younger. If you are finding immature, move toward cooler spots. This rule can be followed in most cases. Variations are attributed to fruit growth category, "How Fast". You may find younger mushrooms in cooler spots simply because they are not growing as fast. This is not the usual, but does happen. Use the knowledge acquired on this scout to find more areas. On your next stop, look for a similar situation. Most harvesters go into the forest looking at the ground. Look at the canopy and the exposure. Let them guide you to the same conditions where you have found fruiting that year. Then start looking for mushrooms.