

A close-up photograph of bright yellow, gelatinous fungi growing on a piece of weathered, grey-brown wood. The fungi have a bumpy, textured surface and are clustered together. The background is a dark, textured wood grain.

THE
FUNGI OF
KO'OLAU

BY BRIAN DEIS
WITH HELP FROM LUKE AMERINE



Hakuhia

THE FIRST PREZ MINISTRY FOR THE STEWARDSHIP OF THE LAND

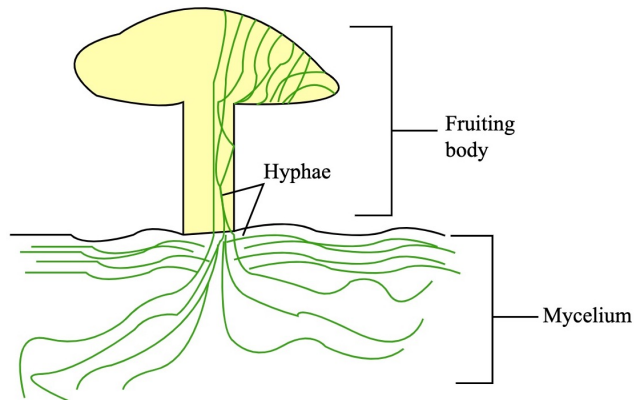
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Warning: Most of the species that occur on the lawns are toxic. One species belongs to the “death cap” group of fungi and is deadly, if ingested. Don’t eat any fungi that you cannot certainly identify. Even the edible ones should not be eaten raw

BACKGROUND

This booklet contains photographs of common species of fungi from the Ko'olau 'Aina of First Presbyterian Church of Honolulu. Over 50 species of fungi have been documented and this booklet includes 25 of the more commonly occurring species at Hakuhia.



What are Fungi? Fungi are not plants or animals. They are considered to be a different group of organisms altogether. Fungal anatomy contains two main features: 1) a **mycelium** mass that penetrates food sources like a decaying log and 2) the **fruiting body** which is produced to make spores. **Hyphae** is a term for the cells that make up fungi and are special to fungi. Most fungi are existing as just mycelium and they produce fruiting bodies when conditions are right to disperse, so you probably walk past many species that are just not fruiting at that moment. You might even find that if you find a particular fungus in one area you will find it there again in the future.



Gills are the structure underneath the **cap** of the fruiting body. They produce spores, and the color of the gills can help identify fungi. **Spores** in fungi grow into new mycelium, which eventually produce new fruiting bodies. There are fungal spores all over our atmosphere. Every time you breathe, you take in between 1-10 fungal spores. Most will not harm you though.

Species in this booklet are listed with their common and binomial name (i.e, genus and species [Latin names]) Some of these species do not have common names, so common names and facts are given only for certain species. "Spp." next to a genus means that the genus from the species is identified but the exact species is not.

COMMON FOREST FUNGI

These can be seen on the grasses that comprise the golf course and areas around the clubhouse. Sometimes you will see these species in mulch piles and in the forest.

California Agaricus. This is the most common fungi on the greens. You will find it near the club house and driving range. Mildly toxic.



Puffball Fungi. Young ones that do not have black spots are edible. Common in the middle of the greens during certain times of year.



Marbled Death Cap. They are usually very white with a marbled top. This species is **EXTREMELY** toxic. Do not touch or pick. The cap is white and gray. The gills are pure white.



Milky Conecap. Common near the clubhouse and mulch piles.



COMMON FUNGI IN THE FOREST

These species are also seen along the cart paths and in mulch and compost piles. Some species are found on the hiking trails around our Ko'olau 'aina, such as, the Likeke Trail.

Dead Man's Finger. Very common along cart paths and in the forest. Inedible.



Wood Ear. Edible and native to Hawaii. Do not eat raw! Common along stream beds and hiking trails.



Small Bell Fungi. Common along the cart paths, stream beds, and hiking trails. Edibility unknown.



Chaetocalathus liliputianus. (Magnified x10 in photo). Common along the cart paths, stream beds, and hiking trails.



Inky Cap. Common in mulch piles. Edible. There are a lot of different species that look similar. Their caps fall off and produce inky drips that are filled with spores. Juvenile mushrooms look fuzzy (photo on right).



Creeping Crumple Cap. This is a common species in forest hiking trails all over Hawai'i. Edible but rarely collected as food.



Super Cracked Ear. *Underside in first photo, top side in second photo.* These are the most common types of “oyster fungi” in Hawai’i. There is no stem on fruiting body. Edibility is unknown.



Sweet Osmanthus Ear aka Fan-shaped Jelly Fungus. An edible fungus. You might see this species growing out of the wood railings on the cart path bridges.



Earliella scabrosa. A common **shelf fungus**. This species has medicinal properties that are being studied.



Pink Gilled Mushrooms. Toxic; do not eat. You may see these on the Likeke Trail in vast numbers. Mushroom caps take in a range of colors, but gills are pink as the name implies.



Hobsonia mirabilis. Native to Hawaii. Looks like a clear slimy gel on tree branches.



Freckled Dapperling. This species is toxic. This is one of the largest species of mushroom at Kō'olau. It gives off a strong odor when handled. Juvenile in photo on the top right. Gills are white.



Turkey Tail. Medicinal and edible. Needs to be cooked or processed first.



Parachute Mushrooms. (Magnification x 10). Some species are larger and white in color. They are small, and they dry out very quickly when exposed to sunlight.



***Mycena* spp. 1 and 2.** Species from this genus are very hard to identify. They are usually smaller and white in color. Gills are usually white in color too.



Lion's Shield. Vibrant yellow but fades to white very quickly. This species is not very common but very distinguishable with its vibrant colors. Edibility unknown.



Spring Polyprora. Unique hexagonal underside in photo on left. Edibility unknown.



Cinnabar Bracket Fungi. This species has medicinal properties that are being studied along with many other bracket fungi.



Coral Fungus. Coral-like structure to fruiting body. Some species give off a very strong odor. Some are considered to be “the worst smelling fungus.”



Snow Gel Fungus aka White Witches Butter. Edible. Considered one of the best edible Hawaiian fungi. Do not eat raw! Found along the cart paths to the back gulches. Makes a delicious dessert.



Black Witches Butter. Another edible gel fungus found at Ko'olau. This species was first found in Bora Bora, then Hawaii. Found in the back gulches at Ko'olau, where the witches are!



What species did you find? Fill out the log below. If you find any species not in this book, please email a photo and or description to the author Brian Deis at Bdeis@hawaii.edu

Date	Species	Locations	Notes

