



East Bay Amanitas: The Good, the Bad, and the Beautiful

by Debbie Viess



I first fell in love with amanitas on a walk along the Huckleberry Trail. Huckleberry Botanic Regional Preserve is a small jewel of an East Bay park with a plethora of interesting and unusual plants, as well as many interesting and unusual mushrooms. But twenty-odd years ago I didn't know a mushroom, let alone an amanita mushroom, from a hole in the ground!

So when I saw a tiny gray and graceful form growing out of the path, I was stopped dead in my tracks. I dropped to my knees and made a sketch of it on the only paper that I had with me—a bank deposit slip! I carried that scrap in my wallet for years before I could finally put a name to my drawing. That captivat-

ing mushroom turned out to be an edible amanita commonly called a "grisette" (*Amanita vaginata* group). It set me on an unexpected path of discovery and changed my focus from zoology and animal behavior to an obsessive passion for mushrooms in general and amanitas in particular.

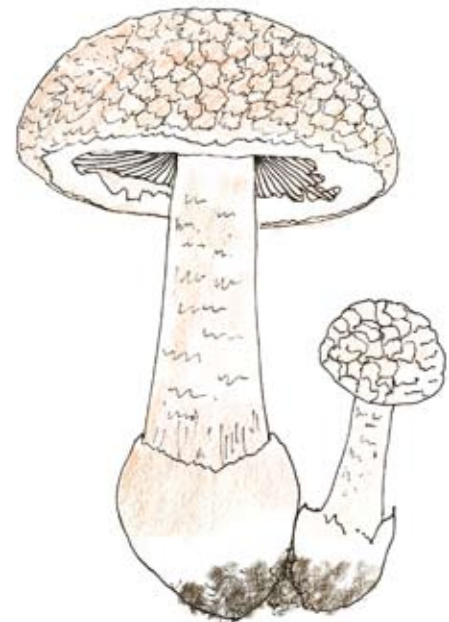
Why should you care about amanitas? Most Americans pay little attention to the world of fungi, organisms that do their important work quietly and mostly unseen by the human eye. As botanical enthusiasts, though, you might give the fungi their due: Almost all of the plants examined to date have a symbiotic relationship with fungi, a partnership that is essential to the ability of both to grow and thrive. Amanitas also feature prominently in human society: Within the genus *Amanita* are both the deadliest as well as the most delicious of mushrooms. No other group of mushrooms inspires such contrasts of fear and delight.

Bay Area amanitas are eye-catching as well as notorious. They occur in a rainbow of colors, from brilliant red to orange, yellow to green, and in more muted colors like browns and grays and whites. These often tall and stately mushrooms are mostly found in mycorrhizal (fungus/root) associations with

a broad spectrum of local trees and shrubs, both conifers and hardwoods, native and introduced species.

The ephemeral amanita mushroom is the spore-producing structure of a long-lived fungal mycelium—a vast underground mass of highly branched and anastomosing fungal cells called "hyphae." Extensions of the mycelia wrap around, fuse with, and penetrate between the cells of the smallest roots of their host trees, forming visually distinctive nodes. In essence, tree and fungus become one meta-organism. The fungal mycelium absorbs, stores, and shares water with its plant host, and also provides essential minerals and protection from root pathogens. In return, the tree shares its photosynthesized sugars with the fungus.

DuSunnir Canyon, Feb. 14, 2002.



Amanita novinaupta

Amanita spores are white in mass, thin walled, and of various shapes. If they land in a suitable environment, the spores will grow into haploid