

Mushrooms of Guam



UNIVERSITY OF GUAM
COLLEGE OF NATURAL
& APPLIED SCIENCES



Entoloma sp.

The CHamoru name for mushroom is p̄ayon duendes, which means “umbrella for the duendes”, the elves that live in the jungle. This blue-green beauty has angular spores, but many species in this large genus are a drab brown color. The genus *Entoloma* is found around the world in many types of habitats.

This mushroom stains neon green when bruised. Touching a mushroom to determine if it stains when bruised or to determine its texture are useful tools for identification.

Photos by Sienna Hiebert



UNIVERSITY OF GUAM
COLLEGE OF NATURAL
& APPLIED SCIENCES

Hygrocybe sp.
Waxcap or waxy cap

Most waxcaps are found growing on the ground in soil exhibiting waxy to slimy caps, white spores, and smooth, ring-less stems. Colors vary from red or orange to golden for the cap and stems.

Mushrooms in this genus do not respond well to commercial cultivation, but many species are edible and harvested in the wild.

Photo right by G. Curt Fiedler
Photo below by Rosemary Winnall



UNIVERSITY OF GUAM
COLLEGE OF NATURAL
& APPLIED SCIENCES



***Marasmiellus* sp.**

The genus *Marasmiellus* is distributed widely throughout the tropics. The similar morphological traits within this genus do not allow for easy identification to species. These mushrooms play an important ecological role in the decomposition of dead wood and leaves and help keep the duendes dry.

Photo left by Sienna Hiebert

Photo below by Lauren Gutierrez



UNIVERSITY OF GUAM
COLLEGE OF NATURAL
& APPLIED SCIENCES

Phallus indusiatus
Veiled stinkhorn

Also known as *Dictyophora indusiatus*, this mushroom is common throughout tropical Asia. This distinctive looking mushroom secretes a slimy substance that contains its spores. Insects are attracted by the scent and help disperse the spores.

Immature fruiting bodies are egg shaped. The brown cap is actually colored by the gelatinous spore-filled substance. It is edible when cooked and commonly cooked in soups. This mushroom is sacred in many cultures around the world. It is also medicinal and used to treat dozens of afflictions.

Photos by G. Curt Fiedler



UNIVERSITY OF GUAM
**COLLEGE OF NATURAL
& APPLIED SCIENCES**

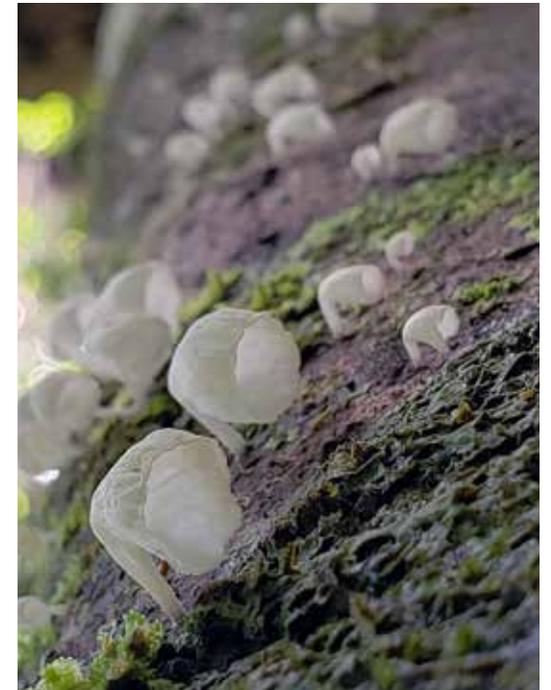


***Gloiocephala* sp.**

Species within this genus are mainly found in tropical and subtropical areas. They prefer damp wet places and grow well on grasses and sedges.

There are approximately 30 species in the genus and many of them do not develop into the classic mushroom shape of a stem with a wide cap on top.

Photos by Sienna Hiebert



UNIVERSITY OF GUAM
COLLEGE OF NATURAL
& APPLIED SCIENCES

Marasmius haematocephalus
Mauve parachute

This delicate red-capped mushroom is commonly found growing in the limestone jungles of Guam. It is identifiable by its red cap and brown fuliginous stipe. It has long slender reproductive spores, which are called basidiospores.

This tiny mushroom plays a large role in the decomposition of leaf litter on the jungle floor.

Photos by G. Curt Fiedler



UNIVERSITY OF GUAM
COLLEGE OF NATURAL
& APPLIED SCIENCES



***Geastrum* sp.**
Earthstar

The name earthstar comes to English from Greek, *geo* (earth) and *aster* (star), which describes the shape of the surrounding layer of the fruiting body that opens outward resembling the shape of a star.

For this particular genus, it is necessary to look at spore size and shape in order to identify to species. For some species there also needs to be a chemical spot test.

Photos by G. Curt Fiedler



Xylaria sp.

Xylaria commonly grows on dead trees and branches. There are many species within the genus with very descriptive common names like dead man's fingers (see photo below). The species in the photo above resembles a rhinoceros horn.

Photo right by Sienna Hiebert
Photo below by G. Curt Fiedler



UNIVERSITY OF GUAM
COLLEGE OF NATURAL
& APPLIED SCIENCES



Cordyceps sp.

This fungus is a parasite that infects and then kills insects and spiders, seen here on an arachnid. The mycelium of the fungus is growing out of the joints of the spider and causes its death.

Often, this genus of fungus will also infect the brain of the host insect and cause it to climb up on something high before dying. This is to assist the spores in catching the wind when the fruiting body erupts out of the host, therefore possibly infecting even more host insects or spiders.

Photos by G. Curt Fiedler



UNIVERSITY OF GUAM
COLLEGE OF NATURAL
& APPLIED SCIENCES

Flavodon flavus

This mushroom is a type of bracket fungus that feeds on rotting wood. The fruiting body is leathery, initially poroid (having pores on its underside) becoming irregularly toothed.

Studies conducted with *Flavodon flavus* have demonstrated that this species has the potential for antioxidant use in nutritional supplements and for other medicinal purposes.

Photo right by G. Curt Fiedler
Photo below by Dinesh Valke



UNIVERSITY OF GUAM
COLLEGE OF NATURAL
& APPLIED SCIENCES



***Scutellinia* sp.**
Eyelash cup

This tiny-cupped fungus is commonly found on Guam. Eyelash cups get their name from the eyelash-like hairs that can be seen on the fruiting body.

Scutellinia live on damp, rotting wood, which they help to decompose. The caps typically have a diameter of about one centimeter and are easily overlooked due to their small size.

Photo left by G. Curt Fiedler
Photo below by Dan Molter



UNIVERSITY OF GUAM
COLLEGE OF NATURAL
& APPLIED SCIENCES

Neonothopanus nambi

The bioluminescent mushrooms pictured above at night and below in the day are found in all tropical forests. Both species of bioluminescent fungi found on Guam are called donggat in Chamoru, which means twinkling lights.

It has been noted that these mushrooms are often seen growing on rotting bamboo at times of abundant rain on island.

Photo by G. Curt Fiedler



UNIVERSITY OF GUAM
COLLEGE OF NATURAL
& APPLIED SCIENCES



From top left clockwise the genera are as follows: *Microporus* sp., *Lachnocladium* sp., *Scutellina* sp., *Coprinellus* sp., *Ascocoryne sarcoides*, *Mutinus bambusinus*, *Exidia* sp., *Dacryopinax spathularia*.

This collage of photos amply demonstrates the diversity of fungi to be found in the leaf litter and decomposing wood around Guam. When taking jungle walks look closely and you may be rewarded by an encounter with a monumental mushroom keeping the duendes dry.

Photos by Nina Peck





Sources:
Fernando, M.D.M. et al. 2016. <http://www.dx.doi.org/10.25177/JPS.1.1.2>

Kuo, M. 2009, April. Retrieved from theMushroomExpert.com

<https://en.wikipedia.org>
<https://commons.wikimedia.org>
<https://mushroomobserver.org>
<http://www.mykoweb.com>
<https://www.nationalgeographic.com>

Cover photo: *Pleurotus* sp., Lauren Gutierrez

Writer & Layout: Olympia Terral

Mycological consultant: Sienna Hiebert

CNAS is ever grateful to G. Curt Fiedler, Sienna Hiebert, Lauren Gutierrez & Nina Peck who generously give CNAS permission to use their photographs.

