

## FUNGI

In 1729, Italian botanist Pier Antonio Micheli first published descriptions of fungi. This was the birth of Mycology—the study of fungi. Fungi were classified within the plant kingdom, and a new branch of botany was born.

The late 1950s and early 1960s saw Fungi reclassified within the newly established “Kingdom Fungi,” the “fifth Kingdom” of living organisms. The worldwide scientific community accepted fungi as distinct organisms outside the Plant Kingdom.

Fungi are living organisms that do not require direct sunlight and do not employ photosynthesis to live, but rather require organic substances for nutrition. This is performed by the hyphae, or “roots,” which secrete digestive enzymes into their food. The enzymes break down the surrounding organic material into simple molecules that are absorbed into their cells. Fungi reproduce by producing spores, which serve as the “seeds” of a fungus.

The Kingdom Fungi includes mushrooms, truffles, molds, mildew, crop rusts, rots, scabs, blights, wilts, blotches, spots, and yeasts. (Some of the names are used interchangeably.) It depends upon to whom you are talking or what you are reading or watching as to the term

used. Homeowners refer to molds and mildew as the same thing. Many people use the word “mildew” in describing a particular smell, an odor, a fungal growth on garments, or a stain.

An organism can have various common names in many different languages, but it has one scientific name, which is in Latin. This Latin name is unique; it is used only for one organism. A scientific name has two parts; the genus name and the species name. Genus and species are usually *italicized* in print.

There are always new discussions and discoveries regarding the best classification of a given fungus. Some mycologists have moved downy molds, slime molds and water molds, to the Kingdom Protista, because characteristics of these types of living organisms suggest a closer relationship to amoebas than to fungi. (One such characteristic is these organisms’ lack of chitin in their cell walls. Chitin is the material that forms the exoskeletons—the hard outer shells—of insects.) Other scientists propose moving water molds and downy molds to a separate “Kingdom of Stramenopila.”

This is just one example of the scientific juggling that persists in the fungal world. Joining organizations such as the North American Mycological Association, the Mycological Society of America or a local mushroom club, are ways to become educated in the fungal arena.