

## Using Umbrellas to Modify the Light

An umbrella is a very useful tool to take when going out to photograph mushrooms. Not only will it help keep you and your photography equipment dry if it starts to rain, but more importantly, it can help you take better mushroom photos.

If you have the *National Audubon Society Field Guide to North American Mushrooms* by Gary Lincoff, you probably have seen several mushroom photos in it that were taken by Emily Johnson. She often used a white umbrella to modify the light for her pictures.

There are many types, styles, and colors of umbrellas. However, only white, black, silver or gold-colored ones are preferred for photography.

To see some in use, just take a look at the larger umbrellas being used at portrait studios where the lighting is being bounced off the umbrellas onto the family below. In a similar manner umbrellas can be used for mushrooms.

Professional photography stores sell umbrellas that are specially designed for this purpose. They have gold and silver ones that reflect more light than the white-colored one. The gold umbrella is used when you want to imitate early morning lighting; it produces a color more similar to sunlight. A silver-colored one is used when a stronger effect is desired over a white umbrella; they also throw the light a little further and have a slightly different-colored light. White umbrellas reflect a more natural-colored light. Black umbrellas are used to block light. There are also combination-colored umbrellas that can have alternating colors of gold and silver lines, or reversible ones that can be taken off and changed to get another color, similar to a reversible jacket.

I prefer an umbrella that is white on the inside and has a black removable cover on the outside. I leave the black covering on when bouncing the flash off the inside of the umbrella and letting the light rain down onto the mushrooms to produce a beautiful, evenly lit picture. This technique can also be done with an all white umbrella, and the results can be an almost shadow-free, even light. I remove the covering and use the white only when using the umbrella as a diffuser, like a soft box, and place the flash on the outside of the umbrella and the mushroom on the inside.



*Here the Laetiporus is photographed naturally without using an umbrella or a flash. Notice the harsh shadows under the mushroom. The pores and the pore color are impossible to see.*

My second choice in an umbrella would be a small, five-dollar, white umbrella from a store like Wal-Mart. In fact, I would recommend starting out by trying a plain, everyday, white umbrella.

Just as there are many colors of umbrellas, there are also many types of fabrics used to make them. Some are made of nylon and are fairly translucent; they can be used without a flash and just put over the mushroom when there is a lot of harsh sunlight or contrasty mixed light falling on the mushrooms causing bad shadows. The umbrella will then act like a diffuser or a scrim and even out the light. Other types are more satin-looking and are opaque and work better for bouncing the light.

The closer to the mushroom a white umbrella is when using flash, the more light that will be cast onto the fungi. The correct placement of the umbrella and flash can be slightly different for different mushrooms with their own lighting challenges, but I usually keep the umbrella fairly close to the mushrooms.

The umbrella is placed over the mushrooms lying on its side. It is often placed on the back side of the fungi and the camera in the front or off to the side. The umbrella handle is aimed at the mushrooms to point and direct the light onto the fungi. On the rare occasion that even more light is needed, aluminum foil can be used in the opening to direct the falling light onto the underside of the mushrooms.

Using the umbrella with a flash causes a loss of lighting, compared to using a flash without an umbrella—usually about one stop less. If you have a more modern camera, typically exposure compensation will not be needed. Shooting raw with a

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*In this photo the black umbrella was placed over the mushroom to block the harsh sunlight. One would assume that the shadow from the umbrella would make it even darker. In reality the shadow from the umbrella evened out the light, thus making the pores underneath visible. Flash was not used for this photo.*



*The flash is aimed up onto the white inside of this umbrella that has a black removable outer shell. The reflected light bounces off the white inside and rains back down onto the mushroom. Since the umbrella is angled with the inside facing towards the front and underside of the mushroom, the picture has fairly even lighting. See setup at right.*



*The white umbrella is placed at the side of this Chicken Mushroom with the handle aiming towards the mushroom. The flash is aimed from the outside. The light passing through the umbrella gets softened. The photo in the left column at the bottom is the result. The shadow on the left is a result of the flash being held a little to close to the umbrella. The further away the flash is held from the mushroom the softer shadows will be. Multiple flashes can be used but are not necessary for fungi.*



digital camera makes correcting minor exposure issues fairly easy.

An umbrella is also useful for photographing shiny or slimy mushrooms, or fungi with other features that could reflect light. A reflection or glare from the flash could show up in the photo and be distracting. The umbrella prevents a direct beam of light from flash alone from hitting the fungi, and does this by spreading out the light and thus preventing reflections or hotspots.