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Photographing Insects in the Field: Basic Tips for Success

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This lovely beetle (*Hispinae* sp.) demonstrates the value of using a focusing light for low-light photography. The focusing light allowed us to see the interesting texture of this beetle and then efficiently focus on it for photographs. This is the only specimen we've ever seen, and we had just a few seconds to get shots before pouring rain sent

insects and photographers searching for shelter. Photo taken at La Selva Research Station, Costa Rica. f/10, 1/125th sec., flash. Photo by Lou Staunton.

By Lou Staunton and Jeremy Squire

Editor's Note: This post is Part 1 of a two-part series. Look for Part 2 later this month.

If you've tried using a macro lens to photograph arthropods in the field, you know it can be far more challenging than shooting in the lab or studio. As the lens gets closer to the subject, a movement of even 1 millimeter can throw your target area out of focus. We are photographers who specialize in photographing insects and small creatures. Following are some tricks we use to obtain sharper, more detailed, and better-composed macrophotographs in the field.

Get in Focus

In macrophotography, the area in sharp focus is often only a few millimeters (mm) deep. Autofocus gets the overall subject in focus. To fine tune, we then lock the focus and move our bodies back and forth slightly to select the final focus point.

Whenever possible, we sit to take our photographs. For this reason, we carry either a lightweight, collapsible, camp stool or a 9-inch-high collapsible plastic step stool (both available online for under \$20). These allow us to support the camera against our knees from a steady platform while we shoot.

Explore Hidden Camera Features

Many cameras have features buried in the settings that are useful for macro. "Focus peaking," for example, is a feature that highlights the area in focus with tiny white or colored dots. Or, your camera may have the ability to magnify the image in the viewfinder or rear screen. Once you acquire focus, you can switch to the magnified view and then "zoom with your body" to get the focus exactly where you want it.

Avoid Focus Hunting in Low Light

If you've tried using autofocus in a forest or other low-light environment, you may have noticed your lens "hunting" or struggling to acquire focus. The solution? Purchase an inexpensive keychain penlight and attach it to the lens barrel with gaffer tape and the beam directed at the space you expect your subjects to occupy. This "focus light" will allow your camera (and you) to see your subject and acquire focus more quickly. We use \$10 USB-rechargeable versions.





Check Your Background and Foreground

Ideally, you want a relatively smooth and defocused background so your subject dominates the picture. Before you shoot, make sure there aren't any light-colored branches or leaves in the background or foreground of your image. Even one such twig or small leaf can reflect light and produce a distracting blotch of color on the photograph. If you see one, simply shift your position or move it out of the way temporarily.

Avoid Bright Sun (Shade is Your Friend)

Beetles, flies, and many other arthropods often have highly reflective elytra, wings, or forelegs. In bright sun, this can result in "blown-out" areas or unsightly highlights on the photograph where the wing or elytra has reflected light back at the camera. Those blown-out areas may obscure detail important to your entomological photograph. One trick is to create shade by positioning your body between the subject; another is to use an umbrella to shade the subject. The best natural light is found on a bright but cloudy day or in the early morning or late afternoon.





Consider Lens Extension Tubes

Extension tubes (or just "tubes") are a relatively inexpensive accessory that allow you to increase the magnification of your subject. They are most useful for creatures under about 4

mm. They fit between the camera and the lens, contain no glass, and only minimally degrade the image resolution. You'll be working with a slightly decreased area of sharp focus (also known as depth of field) as you increase the tube length and corresponding magnification.

We don't like using tubes in the field, as putting them on and taking them off exposes the sensor and the camera's internal workings to detritus, which can get stuck to the sensor and create spots on the photo. That said, a permanently attached set of tubes may be the perfect solution if you find you consistently need more magnification. Read on for a better option.

Or, Try Magnifying Filters

For subjects smaller than about 4-5 mm, we favor a magnifying "filter." Raynox is used by many photographers and is basically a magnifying glass that can be quickly added or removed to your lens and thus avoids the shortcomings of extension tubes in the field. These cost about \$70. A Raynox will fractionally reduce the quality of your image, because it adds another layer of glass between the sensor and the subject. In practical terms, though, there is not a meaningful difference in the sharpness or resolution of your image.

The Raynox we use is the 250. The 150 version does not yield enough magnification on our Micro Four Thirds cameras, and the higher one is too difficult to use in the field since the depth of field becomes razor thin. With full-frame cameras, we feel the 150 is generally the best choice.

We hope this has been useful. Part II will contain information on cameras, lenses, and flash options suitable for macro.

Lou Staunton and Jeremy Squire are based in Virginia and specialize in macrophotography of insects and small creatures in the field. All photos included with this article were shot with an Olympus OM-D E-M1ii and an M.Zuiko 60 mm lens. See Lou's insect photography at www.eyetoeyewithnature.com (http://www.eyetoeyewithnature.com) and Jeremy's at www.jeremysquire.com (http://www.jeremysquire.com). Email: loustaunton@icloud.com (mailto:loustaunton@icloud.com) and jeremysquire@icloud.com (mailto:jeremysquire@icloud.com).

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3 Comments »

Nice photos and tips! Many thanks. Here is Quebec we are looking forward to warmer weather and all the little critters that come with summer. My camera is ready to go!

REPLY

Thank you very much, Gilles! Critters are starting to show-up in greater numbers down here in Virginia, & I hope it will be the same for you soon. Lovely photos in your Flickr gallery!

REPLY

Thank you for the tips! Looking forward to part 2!

REPLY

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