Photographing Nebraska's Outdoors

In this third part of our series on nature photography, we discuss how to successfully capture macro photography images.

Macro Photography

Chris Helzer – Nature photographer

My favorite type of photography is macro photography, otherwise known as close-up photography. One of the best things about macro photography is that you don't have to travel very far from home to find good pictures. If you take the time to look closely in your backyard, the city park or the creek just outside of town, you're sure to find plenty of subject matter. You don't need a lot of equipment either, but let's start there.

For macro photography I use a small Bogen tripod that only stands about four feet tall when fully extended. I can spread my tripod's legs to get close to the ground if needed, and I can extend the center post if I need more height. For subjects really close to the ground I attach a Bogen Super Clamp and small ballhead to one of the tripod's legs. That way I can slide the clamp down to ground level and still have a stable base to shoot from, which is very important.

Make sure you have a lens that will focus as close as you need it to. Many manufacturers claim their normal lenses are capable of doing macro photography, but a lens specifically designed for close-up photography, often referred to as a macro lens, will usually focus a lot closer and give you much better results. I've always used a 100mm or 105mm macro lens because of the longer working distance it gives me from the subject and the way it limits the amount of background that shows behind the subject. Because the Nikon D200 I currently use has a digital sensor smaller than a 35mm frame, my 105 mm macro lens acts like an even longer lens, which I really like. Speaking of cameras, because I shoot close-up photos using manual focus and manual exposure, the camera body itself might be my least important piece of equipment. I have taken just as good of photos using older, manual focus cameras as I have with newer, autofocus digital cameras. Getting the right focal point and exposure can be really tricky when doing macro photography, and I like the control I have when doing those things myself.

The last piece of equipment that I consider essential is a cable release, which keeps the camera from shaking or moving when I click the shutter. This is especially important with the long exposures I often need because of low light and the small apertures used to maximize depth-of-field.

Weather is a key element of close-up photography. Most days there are only a couple small windows of opportunity when the light and wind are both right for making good photos, so it's important to plan ahead. Photography involves capturing the reflection of light off of a subject, so the quality of that light should be your first concern. Go out early in the morning and late in the evening for nice, warm light and interesting shadows, and take advantage of bright, overcast days and the soft, even light they provide. The other limiting factor besides light is wind. While it's possible to take close-up photos on windy days (particularly of rocks!), most subjects are easier to photograph when not waving in the breeze.

Once you have the necessary light and wind conditions, the next challenge is controlling depth-of-field – the amount of the photo that appears to be in focus. When photographing very close objects, the depth-of-field is very shallow, which means you have to think carefully about which parts of the subject you want in focus. If the subject is an insect or animal, it's usually important for the eyes to be in focus. With flowers or other subjects, you must decide what the focal point of the photo is going to be and make sure that it is sharp. Oftentimes positioning the camera's film plane parallel to the subject will give you a better chance of getting the entire subject in focus.

One nice thing about narrow depth-of-field is that it often allows you to "fuzz out" a photo's background, accentuating the main subject. The further your subject is from objects behind it, the easier it is to fuzz the background out. Make sure you pay attention to potential distractions – gently push aside stray grass leaves, for example, and position your camera so that the horizon line doesn't intersect your subject.

The best way to learn macro photography is to just try it, so the next time the wind dies down in the evening, pick up your camera and head outside. You'll be amazed at the number of photo opportunities waiting right outside your backdoor.

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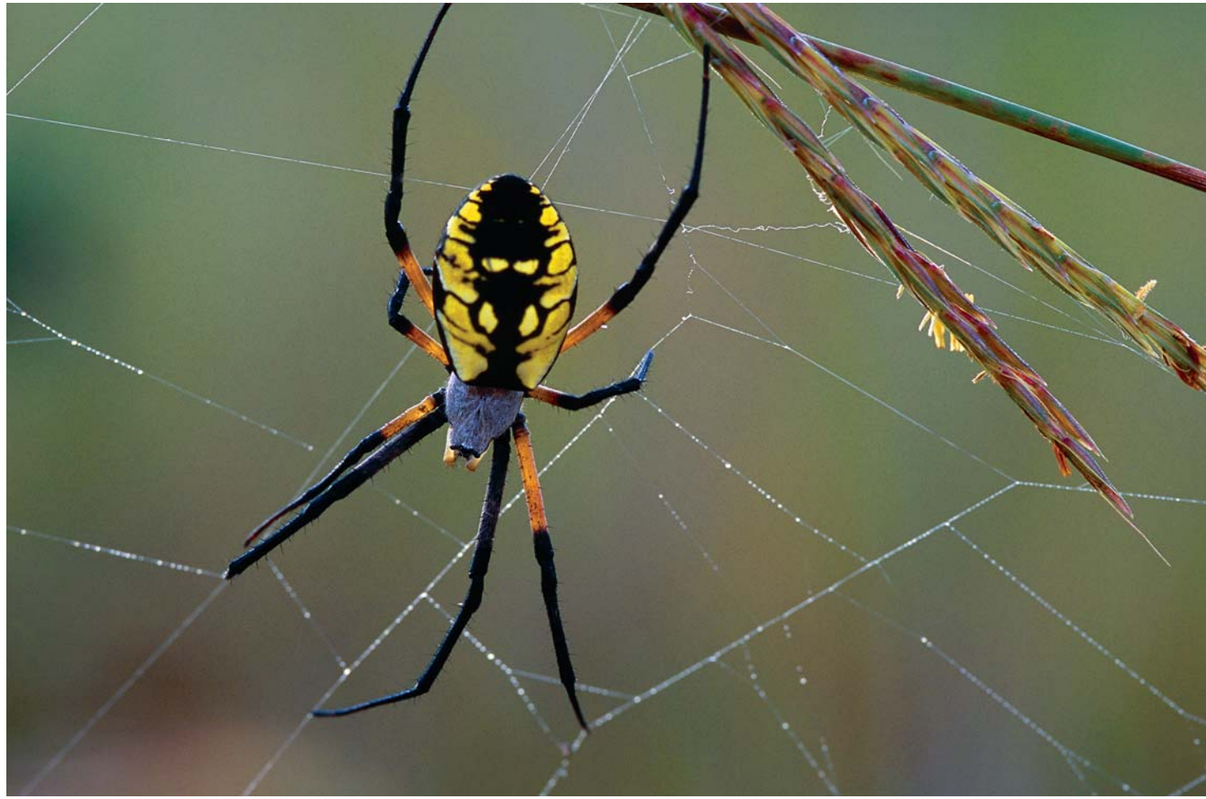

PREVIOUS PAGE: This caterpillar was photographed at Griffith Prairie, a Prairie Plains Resource Institute preserve in Hamilton County, with a 105mm lens, $^{1}/_{13}$ second at f/8, ISO 100. The picture was taken after the sun had gone down, so the light on the caterpillar is afterglow reflecting from the sky.

OPPOSITE: This milkweed leaf with sunlight shining through it was also shot at Griffith Prairie. A 105mm lens was used, set for $^{1}/_{25}$ second at f/16, with an ISO of 100.

ABOVE: This garden spider was photographed among big bluestem in a restored tallgrass prairie near Aurora using a 105mm macro lens and Fujichrome Velvia film.

RIGHT: These bark beetle galleries were found on a cottonwood log at Olson Nature Preserve near Albion. Bright, overcast light helped the picture, and the subject made the wind irrelevant. The photo was shot using a 100mm macro lens and Velvia film.

ABOVE: This sideoats grama plant was photographed in a native grass plot on the University of Nebraska-Lincoln's East Campus using a 100mm macro lens and Velvia film.

LEFT: This dragonfly was photographed on roundheaded bushclover inside Aurora's city limits using a 105mm macro lens and Velvia film.

OPPOSITE: These Dutchman's breeches flowers were found in an oak woodland near Papillion. They were photographed using a 100mm macro lens and Velvia film. Exposing for the white flowers made the background appear completely black.