

Stalking the Wild American Copper

Take Your Best Shot

Butterfly Imagery in the Digital Age

by Howard Hoople

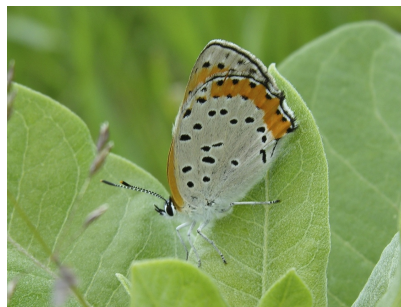
I've taken over 40,000 pictures of butterflies in the past eleven years. How is that even remotely possible? I want that perfect picture, the one that captures the soul of the butterfly in the image. One of the first butterflies that I found and identified on my own was an American Copper. When I see one now, it often reminds me of the magical moment when I first saw one in our neighbor's back yard in the fall of 1960. And I'm still trying to take a perfect picture of one!

What have I learned so far about how to take pictures of butterflies? Most butterflies are small. They move fast. Sometimes they're shy, sometimes not. Lighting is often a problem, as is getting the whole image in focus. Usually they're not very interested in cooperating with my picture-taking enterprise. There's a lot to keep track of. Most of what I've learned is to be patient and keep trying!

Why take pictures of butterflies? It turns out I have a lot of reasons ...

Identification. Pictures help me figure out what I've seen. I'm not particularly adept at getting a quick look at a butterfly through binoculars and being able to deliver a decisive ID. Often, if I'm taking photos of something I'm unsure about, I try to get pictures of both the upper and lower wing surfaces, since sometimes field marks on one side or the other can be definitive. Then I can puzzle over field marks and get help from friends out of the heat and confusion of the field.

I had no idea what this butterfly was when I took these pictures. But I did know that I didn't know what it was! So I worked hard to get photos of both the upper and lower wing surfaces. Later in the day, with the help of field guides and friends, I realized that it was a female Bronze Copper! I also took a photo of the place where I found it.



Documentation. Photos are an easy way to document what you saw, and where and when you saw it. I find it helpful to know, for instance, when I saw my first American Copper of the year in each of the last five years, because it informs my search for the first one of the new season.

Photography usually doesn't harm butterflies. I'm now amazed that my 12 year old self, armed with a net and a potassium cyanide killing jar, hunted for butterflies in woods and fields. I'm still a collector at heart, and pictures are a non-destructive collection. But remember to be careful, nonetheless. Try not to stress butterflies by chasing them or trampling vegetation.

Learning about butterfly behavior. Pictures also provide important information about how butterflies behave (e.g. How do they normally hold their wings when at rest?). Pictures of wild,

unrestrained butterflies help me understand what they typically do in a way that neither mounted museum specimens nor captive butterflies living in a butterfly enclosure can. And I haven't yet seen a butterfly conservatory that has American Coppers!

Here are two photos of a Monarch, taken just a few seconds apart. Until I looked at these, I had no idea that butterflies can move their heads while keeping their bodies in one position!



Sharing. Sometimes – not often, but sometimes – all the elements of a photo come together in one shot. It's fun to share that special moment with others who are, or maybe can become, intrigued by butterflies.

Understanding the preferences of a particular butterfly will greatly improve your chances of finding it. For instance, American Coppers like open fields, and tend to congregate around stands of sheep sorrel, their caterpillars' food plant. So when you're photographing butterflies, consider things that might improve your chances of finding them. Factors that I have found to be important include:

- Sunlight
- Food sources (nectar, sap, or animal droppings)
- Water
- Caterpillar food plant
- Time of day
- Time of season (when does this butterfly fly?)
- Type of habitat: field, woods or wet meadow

What is the best camera for taking pictures of butterflies? I wish that I could tell you that there is one perfect camera! But I don't think there is. The best camera for taking a picture of a butterfly that you're looking at is the one you have in your hands at the time! Many cameras will work just fine. Cell phone cameras can now take very reasonable photos of butterflies, as can high-end SLRs (Single Lens Reflex cameras), and everything in-between. But to optimize results you need to know the strengths and limitations of your camera and what you're trying to accomplish.

When taking photos of small, fast moving, inconsiderate subjects (e.g. butterflies), you're probably going to take a lot of bad photos. I do. Taking risks can sometimes be very rewarding. Experiment with camera settings. For instance, here's a photo taken of a Northern Pearly Eye at ISO 5000, which is a film speed way outside my comfort zone:



In addition, for me, the economics of digital photography are very compelling. I often take 200 or more photos in a single outing, and couldn't afford to do that if I were using film. And out of those 200 photos, sometimes I'm fortunate to get a few good shots. Happily, with digital photos, there's very little incremental cost to taking lots of photos. Except, of course, that you wind up with a lot of photos! It's important to have the courage to delete out of focus, poorly composed and duplicate photos just to keep from drowning in them.

Digital cameras fall into three categories, each of which has significant advantages and limitations:

- **Simple point-and-shoot cameras.** These cameras tend to be inexpensive, and many have a "close focusing" option (sometimes called a "macro" or "micro" setting) in the setup menu. Usually these cameras don't have a viewfinder, but have an LCD screen on the back of the camera. Simple cameras can take excellent photos, but they tend to have less sophisticated features (e.g. for focusing, ISO, and zoom) which can limit your options in taking the picture.
- **Advanced point-and-shoot cameras.** These cameras are very flexible. They often have astonishing zoom capability (allowing you to get an identifiable photo of a butterfly 30' up a tree), and can often produce excellent close-up photos of butterflies only 2" from your camera!
- **Specialized cameras.** SLRs (Single Lens Reflex cameras) and other high-end cameras are usually faster, and have better technical features for focusing etc. You can get lenses that are specially designed for close-up photography that give the best technical image quality. These close-up lenses are very good at what they're designed to do, but they sometimes fall short when you want that photo of a butterfly that is 30' up a tree! A telephoto lens, on the other hand, will allow you to get that long shot, but will be less useful for close-up work.

There are other specialized cameras and lens configurations that may suit your particular style and needs. My own preference is to keep things relatively simple. I want to take photos of wild, unrestrained butterflies. I want a hand-held camera that gives me the best close-up image I can get. I don't want to lug around a monopod or tripod. I've used advanced point-and-shoot cameras extensively, but recently I've been using an SLR with a close-up lens. I find that I'm now willing to exchange the flexibility of the point-and-shoot for the slight improvement in image quality that I can get with a macro lens.

How close can you get to a butterfly when taking its picture? With practice, you can sometimes get very close! Some of my best photos have been taken when the front of my lens is 2 inches from the butterfly.

- Remember the technical limitations of your camera. Some can focus as close as 4mm from the target, others no closer than 4 inches, others 12 inches or more! You can't get a well-focused photo if you exceed what your camera is capable of doing!
- Plan your approach to the butterfly. Where's the sun? What's the best angle to view the butterfly from? Anticipate how it might move.
- Learn how to approach a butterfly. Move slowly and stay low. Be patient and persistent. When the butterfly moves, follow it but don't chase it! Some butterflies will have nothing to do with you no

matter what you do. But some will eventually decide you're not a threat, and will let you approach them. I usually start taking photos from some comfortable distance from the butterfly – from about 4' away, for example. At that distance, I can usually get a photo that documents what butterfly I've found, which is a major objective. That calms me down, so I can move slowly. I move a bit closer, and take another picture, and then move closer. Often I'll take 5-10 photos as I approach a butterfly, until I'm very close.

- When taking your photos, remember to use good photographing technique. Many cameras today have anti-vibration technology built in. This feature helps, but only so much...
 - Create a stable platform to shoot pictures from: pay attention to footwork if you're still on your feet. Don't be afraid to get down on the ground! Knees and elbows can be important parts of your stable platform if you get down to the butterfly's level!
 - Hold the camera steady. Use both hands if you can.
 - Hold your breath when you release the shutter.
- Remember to change basic settings on your camera to fit the situation. Film speed, shutter speed and aperture setting all contribute to the overall result. I try to find the best combination of these settings for a bright, sunny day for the particular camera I'm working with. Then I change settings to accommodate differences from that perfect day that I encounter along the way (for instance clouds, shadows, or forest). Cameras often have a setting that allows film speed, shutter speed and aperture to change in a "programmed" way by the camera. That can be especially useful when you're first learning how these settings work. However, I now find I often get better results by changing settings on my own. There are, of course, many other settings that can contribute to improved pictures. I usually adopt one of these settings each year, and try to learn how its use can improve my photos.

There are several other things you should consider when taking butterfly photos:

- *Take care of yourself!*
 - Wear comfortable clothing and a hat. Long shirt-sleeves and pants will help protect you from sunburn, bug-bites, and poison ivy! Tuck your pant legs into your socks!
 - Insect repellent does not seem to repel butterflies, but it will repel mosquitoes, ticks and other biting insects.
 - Wear sunscreen.
 - Take plenty of water. Pay attention to the weather. Rest in the shade if it's too hot!
 - Remember that different parts of the country, or even different places close to home, can have very different hazards. Watch out for chiggers in Texas (and maybe on Horn Pond Mountain!), poison oak in California, and poison ivy and ticks in Massachusetts. I know I take better photos in places where I'm familiar with the risks.
- *Be considerate of others!* Sometimes it becomes very exciting to take photos of butterflies. Even when you are caught up in the excitement of the moment, please remember to give people with binoculars or other non-photographers the opportunity to get good views! When everyone has had good views, photographers should continue to be considerate! Using a flash or moving in very close may be essential to getting the picture you want, but these techniques may scare butterflies away. Allow others using less intrusive methods –

taking pictures at a distance and without a flash, for instance – to take photos before you move in trying to get that perfect shot.

- *Protect the environment.* Try not to trample caterpillar food plants or other sensitive vegetation. Stay on paths or in previously travelled areas to limit habitat destruction.

Butterflying and photography are both complicated disciplines. Bringing the two together is a real challenge, but I think effectively doing that is where the best photographs of butterflies come from. What butterfly is this? Is the plant the butterfly is perched on significant? Is this a typical time for this butterfly or is it unusual that it's flying now? Is it in its normal range, or isn't it? And do my film and shutter speeds and aperture setting fit the situation? You have to embrace both disciplines to get the photos you want.

Finally, here's a close-up photo of an American Copper, surrounded by flower spikes of Sheep Sorrel, its caterpillar food plant. The left front wing is a little out of focus. So I'll keep trying...

