Nature in the Backyard

Sentient Beings Living Near You

by Michael Erlewine

Nature in the Backyard

by
Michael Erlewine

Heart Center Publications

315 Marion Avenue
Big Rapids, Michigan 49307
Michael@Erlewine.net

First Published 2009

ISBN 9781450548380

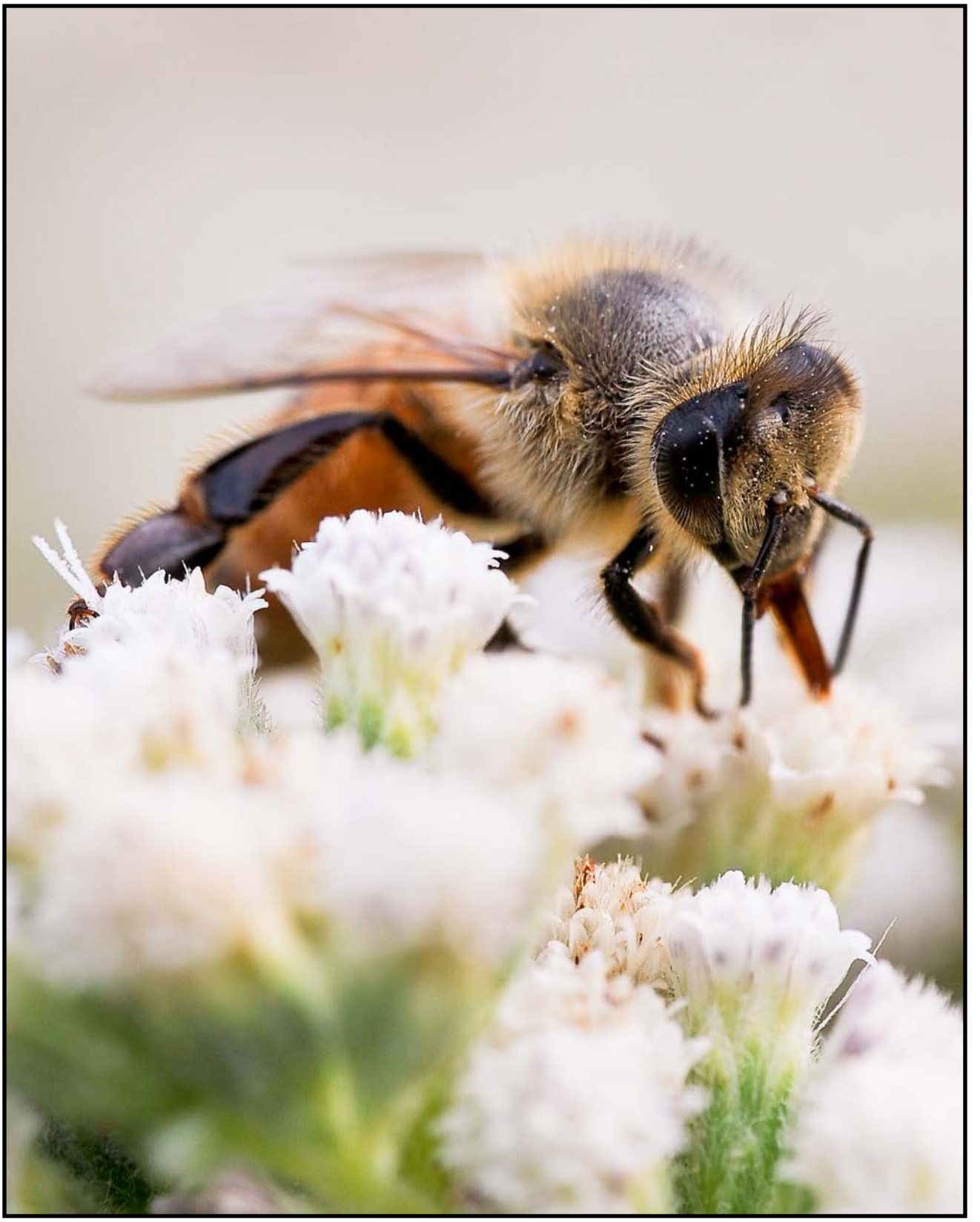
Graphic Design by Michael Erlewine

This book is dedicated
to
Max and Molly
(*And of course to Connor and Micaela*)

From Froggy Grandpa

I would also like to thank the grounds crew at the Highland View Cemetary in Big Rapids, Michigan for their kindness in putting up with me all these years. Thanks Folks!

Table of Contents



Nature in the Backyard

I was fortunate to be introduced to the world of nature at an early age, thanks to the kindness of a woman named Peggy Dodge, a graphic artist and a friend of the family. My mother and Mrs. Dodge would meet with a small group of local artists at the Dodge farm, which was located in a rural area that included a small pond, meadows, and fields. Mom would take me along. Peggy Dodge also had a true love of nature and all its creatures, a love which she was kind enough to share with me when I visited. I was six years old.

From that age until I was about sixteen, I studied nature with an intense passion pretty much all the time. School was lost on me, for I was way too busy thinking and planning what I would do each afternoon out in nature when school was over for the day. I had my own mini-nature museum in my room, where I kept all kinds of animals, insects, snakes, and you-name-it, including rattlesnakes, copperheads, skunks, spiders, boa constrictors, and anything I could manage to keep alive. I had insect collections, rock collections, leaf collections, fossil collections, shell collections, and so on. It would be true to say that any real education I got (at least what actually sank in) came from what I learned from observing nature. And it never occurred to me that everyone else was not getting this same education!

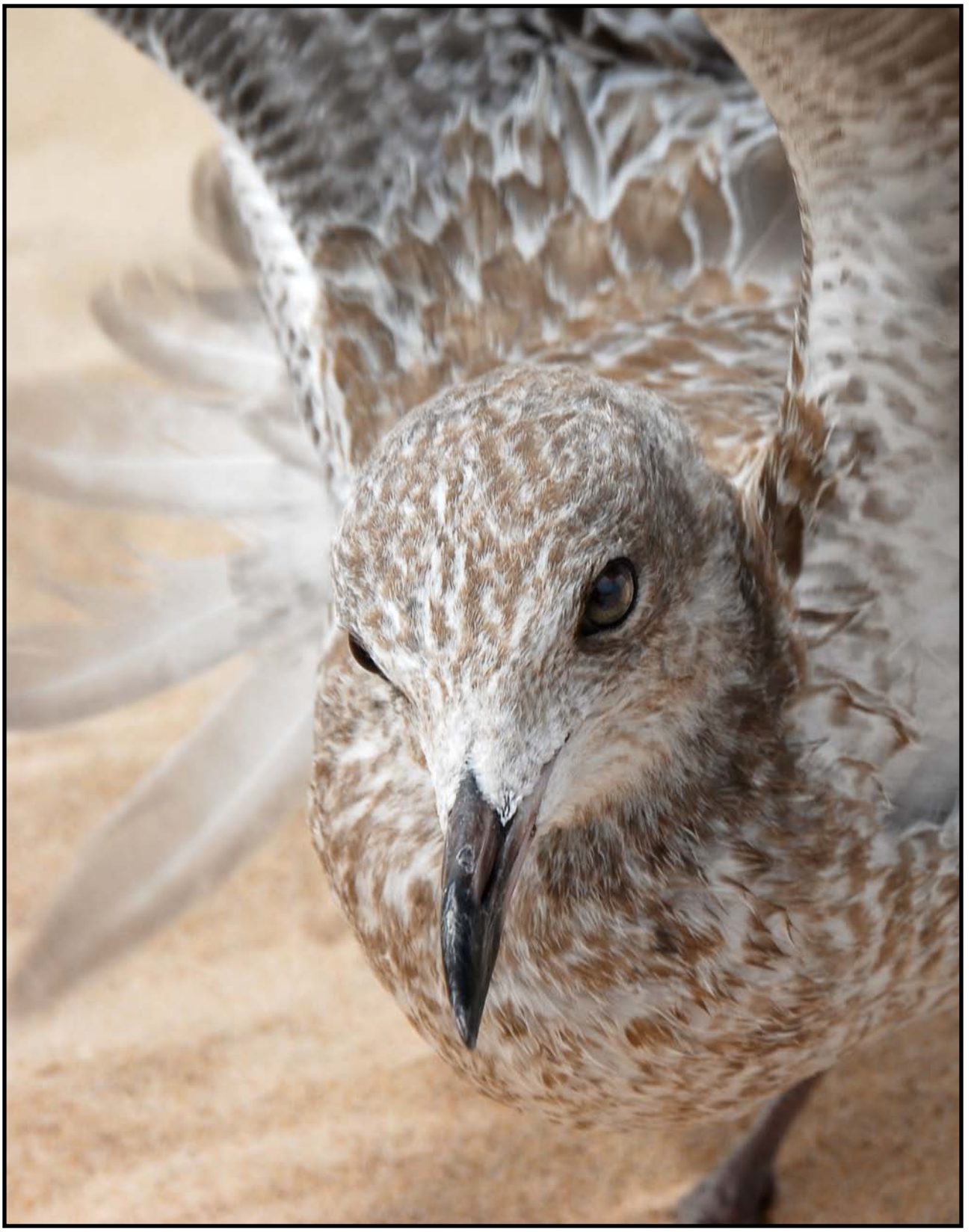
I am creating this book for my grandchildren in hopes of passing on to them some of my enthusiasm for the world of nature. I am sharing this with other readers because advancements in print-on-demand and media in general make it easy to do so.

Let me begin by pointing out that I realized quite early-on that there are real differences between natural law and human-made laws. Human laws are made by people, and they can be bent, twisted, and even broken at times. This is of course what lawyers do so well. Yet nature's laws cannot be broken. If we break them, they break us. No one defies the law of gravity with impunity. What goes up, comes down. What is born, eventually dies. We all know this, at least in principle.

Because I grew up with my eyes glued on natural law, that was the law that I came to revere as the truth – the bottom line. Society's laws were far less consistent and frequently just plain confusing for me. But it is only in recent years that I have realized what a great teacher nature was for me and how lucky it is that I put my trust in what I saw in nature, rather than only in the various rules and laws society wanted me to learn, which often seemed to contradict one another, and still do.

There is something wonderful about consistency, especially when one is young and trying to get a handle on life and, if nothing else, mother nature is consistent. Her laws are always the same and there is no way of getting around them, and no exceptions. What you see is what you get. There are no behind-the-scene or backroom deals being made. Nature demonstrates perfect equanimity. Everyone and everything is treated equally. This fact alone avoids the confusion that society's laws can instill in us. In nature, a rose actually is a rose, is a rose…

And nature keeps no secrets. She openly shares the facts of life and death with anyone who cares to observe. Unlike society, where death, dying, sickness, and all of the suffering-side of life is for the most part either sanitized or swept under the carpet, nature never blinks. It is all right there for us to see, if we will just take a peek. I am not saying here that what nature shows us is always a pretty sight, but with nature you never have to figure out what is real and what is not. It is obvious. For a little kid (or even an adult!) this can be an extreme act of kindness. What society does not care to discuss with us, nature is only too ready to reveal. And



nature has other messages for us as well.

Impermanence

I can't say for those of you reading this, but in my experience too much of the time the sheer business of life causes me to forget many of the more important things. I am ashamed to say that it takes some really sobering event (like the death of someone close) for me to snap me out of my busybody trance and take even a day or so of time to really consider life itself. And while I never expect or welcome such events, I do very much appreciate some time out at those special moments, time to consider the bigger picture, and the ability to remember deeply once again what is really important.

Nature on the other hand is a constant reminder of how impermanent this life we are all living is. I can never forget the time I was traveling through India and was saying goodbye to a great Tibetan meditation teacher, who said to me: "Tomorrow, or next life, Michael, whichever comes first." His words woke me up a bit and the message was much like the one that nature is consistently offering us: awareness of our own impermanence. None of us are about to live forever, and we might keep that in mind once in a while.

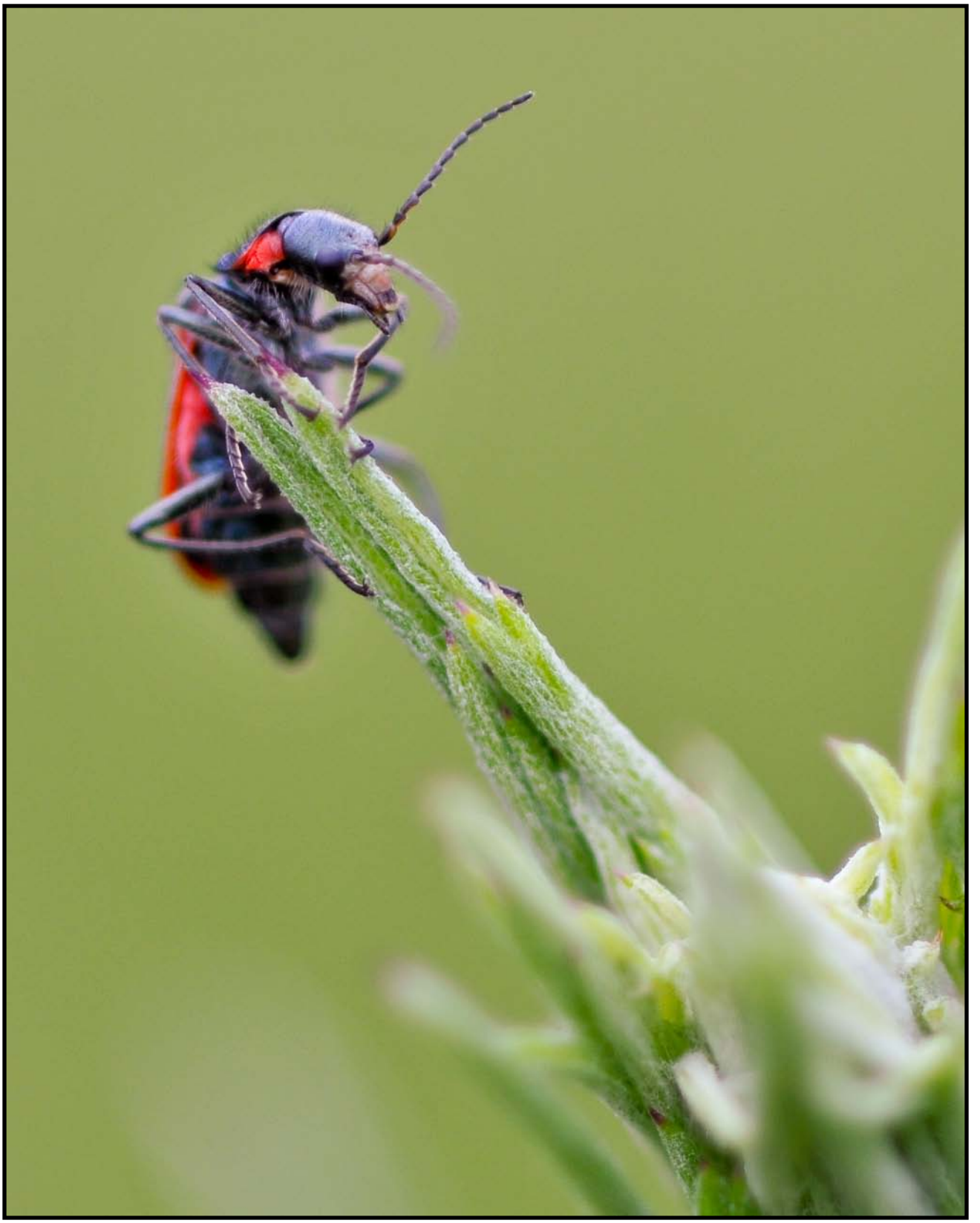
Nature points out impermanence to us all the time. It is hard for me to take a walk along a country road in the early morning dew and see the thousands of earthworms and slugs trying to cross the tarmac before the fierce summer sun rises and fries them to a crisp. These creatures made a bad decision to cross the road just at that time and, though sometimes I try to pick them up and carry them to the grass on the roadside, it is almost impossible to save them all. I just can't do it. And some of them are crawling in the direction of travel of the road itself, so they will never make it! This is just one instance of the kind of impermanence nature demonstrates. It is all around us.

And, as mentioned earlier, nature never blinks. We blink. Nature shows us precisely how cause and effect works, what the Asians call 'karma' - action and the results of that action. And the equanimity of it all! No one breaks the law of gravity, neither person nor creature. All are treated to the same result if we break that law. Nature brooks no lawyers.

And as we get closer to nature, as we take time to actually look, we see that every form of life, every sentient being, is not unlike ourselves. Every creature out there wants to be happy (to just live) and no creature that I have ever seen wants to willingly suffer, unless it's a human being. We each seek happiness and we try real hard to avoid suffering. Every sentient being feels the same way. We have that kinship with all sentient beings.

Nature reminds us that life is in fact impermanent and that all life is indeed precious, and that those who have life don't want to lose it. And in nature it is easy to see that our every act has consequences, real results that we would be well advised to keep in mind. And all of the above is ongoing, in fact seemingly endless. Nature is not about to change, and the only actual change we can expect will be our own attitude, how 'we' receive or take what is given, how we accept what is already there. Nature is the perfect teacher when it comes to attitude adjustment. She proves that we might well adjust our attitude to her laws and how, if we do not, we will pay a very dear price. And I have forgotten perhaps the most important message that nature teaches us, and that is about love and compassion. It does exist.

In what I have written so far, there is seemingly no compassion in nature. She is merciless, inexorably precise about what she exacts from us, and when. There are no sentimental tears shed by Mother Nature. She is indeed a harsh mistress. But she does have one soft spot and it is



important for each of us to discover what that is.

If we look for compassion and kindness in nature, it is nowhere to be found, unless we could agree that her laws themselves are kind in the long run. It seems that love and compassion are only to be found in the relationship between a mother and her children. True love and real compassion (and a willingness to do anything for another being) is pretty much limited to the way a mother feels about her child, and what she is willing to do for that child. And you see this all through nature, not just with human moms. The love of a mother for her child is the one bright spot in what otherwise may appear as the torrent of nature's nature.

It would seem from observation that most natural creatures live in perpetual terror of being killed and eaten, while at the same time hunting, killing, and eating something else themselves. I know this is not 100% true, but in general nature is not a peaceful place at all, and most sentient beings do not live in serenity. My point is that perhaps the only place in nature that we find love and compassion is in the relationship of a mother to her offspring. This is a rule that is remarkably constant throughout all natural realms – the love of mother and child. Can you even imagine if it were not there? How could life go on?

And it is interesting to me that all of the religions of the world appear to be working very hard to have us treat each other as a mother naturally treats her child, to get us to go beyond family love (the love family members share) and extend that same love to others, to those outside of our immediate family. The Buddhists would have us extend that love to all sentient beings, and not just to humans. Christians say "Do onto others, as you would have them do onto you" and the Buddhists would agree with that, but they would add: and you make the first move! Reach out with kindness.

In nature, compassion is always local, limited to that very special relationship between a mother and her children. Fathers share in that too, of course, but it is with mother and child that true love and compassion seem to be most pure and present. In this way, Nature is a great teacher. She does not obscure or perfume the way things are. Truth is revealed for what it is in nature – straight out. We can see impermanence clearly, not obscured or sanitized as it is most of the time in society. It is clear through examining nature that life is indeed precious, and is not something guaranteed to go on forever. And it is clear that our choices, our every action, bring consequences. And the situation that nature presents is not only the way things are right now, but the way things will continue to be on into the future. The way things are is the way things have always been and will always be. It is up to each of us to respond to these very clear facts, something that in most societies we never have a chance to do. Instead, most of us tend to ignore all of this and willingly prefer to remain ignorant.

The only light in this otherwise fierce darkness is, as I pointed out, the very real love, care, and compassion that a mother has for her children. Thank heaven for that! Mother love has been a beacon of light for all of us virtually forever. There is nothing else like it on earth. The Buddhists have patiently tried to tell us for centuries that every person we meet, even every sentient being, has been our mother in some past lifetime, and that every last sentient being has also been our child. Perhaps this is an attempt to make clear to us that we should treat each other with the same kindness, endless love, and compassion a mother will show her child. This may be the bridge we as a human race have been forever unable to cross, the key not only to Mother Nature, but to our own nature, the two being the same anyway!

The question is how can we do this? How can we learn to treat each other with the kindness that our own mother has shown us?

Well, the Christian, Buddhist, and other religions have been trying for thousands of years to show us how, to point out the way, and they all seem to agree that it involves treating ALL sentient beings as a mother treats a child, with that same endless care, kindness, and compassion, a universal remedy that is much easier to say than to act out in real life.

And it would seem that this will not happen until the kind of compassion arises in each us for all sentient life that we find in how a mother loves her child. And last, it seems that many of us don't get really serious about all this unless something upsetting happens to us. This is another way. Exposing ourselves to the truth of nature a little at a time can help to make that possible by gradually softening our obscurations and giving us opportunities to feel compassion for all beings. Our greatest teachers (saints, priests, lamas, etc.) have shown us what this might look like, but not enough of us have been able to have that realization.

May that kind of compassion awaken in all of us and may we share that kind of realization-with one another. May we extend this to all sentient beings who, like us, seek to be happy and not to suffer.

Nature: Getting Into It

Looking out your windows at the birds visiting your feeder is a good start, but probably not the way to really learn about nature. Watching from a distance may be great for landscapes and sunsets, but for any real knowledge you have to actually get your whole body out there and into it – complete immersion. And there are two qualities you will need, and they are time and patience, time for anything worthwhile to sink in, and patience to be still enough to experience what is there.

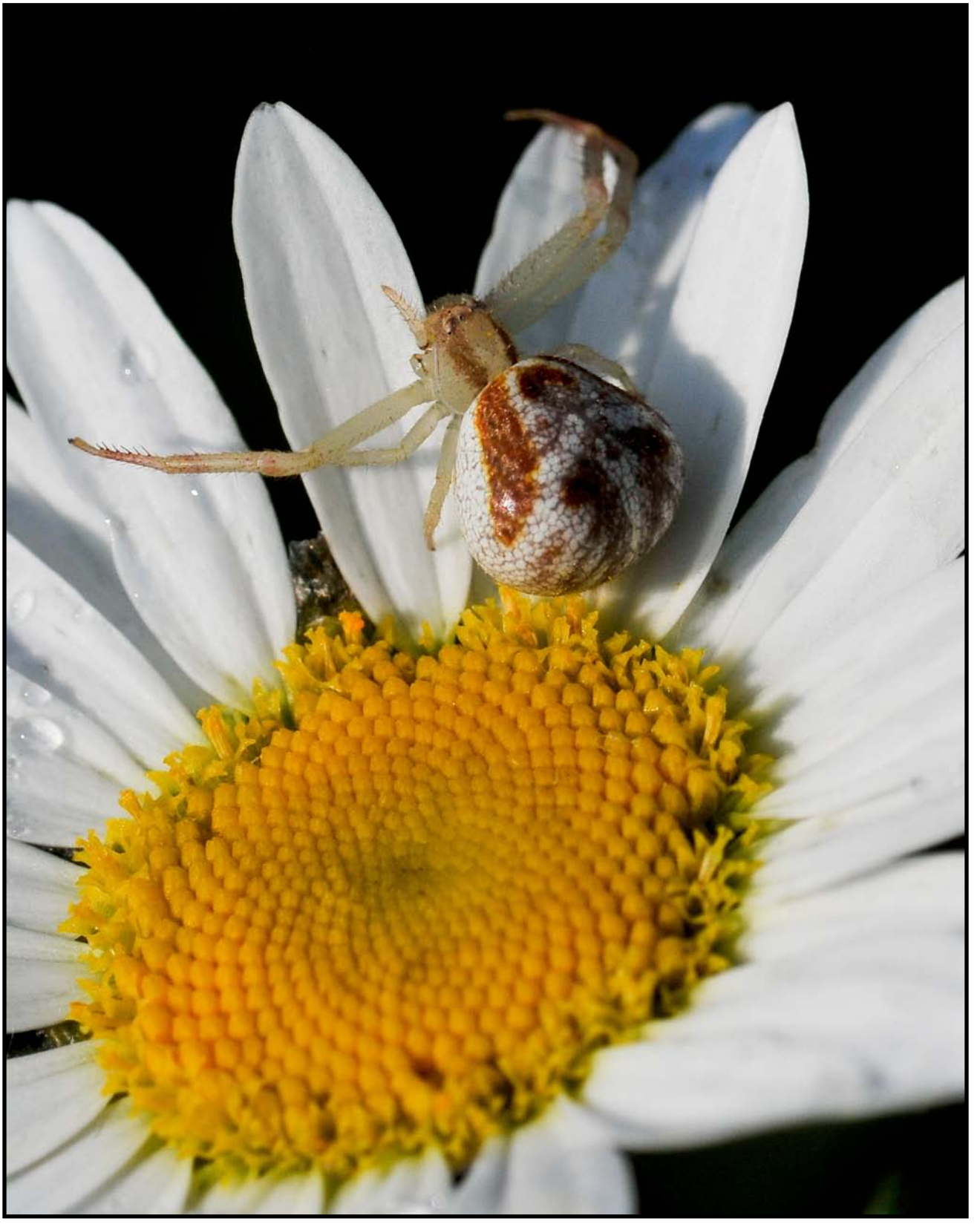
For myself, since I am mostly old now, I like to find a nice spot (often in my own backyard), and just plop down and sit for a spell. And it does take time, time for me to unwind and become more aware, and time for the critters that went silent on my arrival to resume their business as usual.

In recent years, I stopped mowing my back yard and just let it grow. I seldom walked on my mowed yard anyway, or at least not often. My front yard stays mowed (the city demands it), but my backyard has become a home for countless insects, not to mention toads, and even the occasional rabbit or two. And I also have a large area in that yard where I have let the milkweed take over and that patch alone is an incredible place for many insects, butterflies, moths, and spiders. They are having a big party out there.

After ten minutes or so (this is where the patience comes in), I tend to calm down and begin to "see" the life around me. Of course, it is up and moving again, but often I just don't see what was there all the time until I relax. I usually have my camera with me, but things would be the same without it. Before long everything is going on again, often on the same plant or even the same leaf. All I have to do is observe.

And if I am looking for some critter in particular (on a 'hunt'), that seldom works, because I hurry right by everything else that is right there, that is happening now, and usually don't find what I was looking for anyway. For me it is much better to use the "found" approach, just taking lots of time, and seeing what happens to be there right now, rather than what I wish were there. I also find it good to keep in mind what the long-term benefits of nature watching are:

Watching nature gives me a second opinion on just how life works compared to what organized society offers. Society sends many mixed



messages, trains of thought going in opposite directions, enough blurring of the truth to breed confusion. Nature is 20-20 all the time, but it may take a while for you to get used to it. Of course, nature can be "beautiful" in itself, but the real beauty of nature is in what it brings out in me, in the reaction I have to what I see. For example, it is very difficult to look carefully at nature and not be moved at some of the things I mentioned earlier, things like (1) the preciousness of life, (2) the impermanence of it all, (3) the instant karma of cause and effect, (3) and the endlessness of it all. Compassion naturally arises in this situation.

If what I see does not invoke a reaction, does not bring forth some compassion from within me, then I usually need a stronger dose. Right now I only get what I am talking about here when someone close to me dies and puts me into a special frame of mind for a short time. I am suggesting that we develop that frame of mind a little at a time rather than only through the shock of a loss or tragedy. Trust me, it works, and it is good to be able to get into this frame of mind on a regular basis, to learn to "die daily" as the Christian saints point out.

Tools That Help

For older folks like myself, a good folding lawn chair is a big help, also perhaps a good magnifying glass, because the mini-dramas are at least as interesting as the more obvious larger ones. In my case, I like to do macro (close-up) photography, so I have some incredible lenses that let me see what is going on out there, up close and personal.

And I don't always go miles out in the brush. My own backyard is a wonderful place to observe much of the time. There are also some nice nature parks close to me that I can drive to and wander in. The local cemetery is perhaps my favorite place of all. It has tons of shrubs and flowers where all kinds of insects hang out. Better yet, this cemetery ends in a wonderful open field with paths I can take. If things are too wet, I can always walk along the mowed edge of the cemetery and look into the field next to it.

And I do make special trips from time to time to one nature sanctuary or another, and those are fun too, but most days it is very local, like outside my back door. And the change in perspective achieved through all this is gradual, slow. Letting the mind rest and the compassion that naturally arises from what we see does not happen all at once, but takes time. It is an investment in reality, one that I find more than worth the effort. See for yourself.

The Photography

All photographs were taken with a Nikon D300, D700, D3x, or D3s camera on a Gitzo tripod. In general, the most-used lenses were, in order of frequency of use:

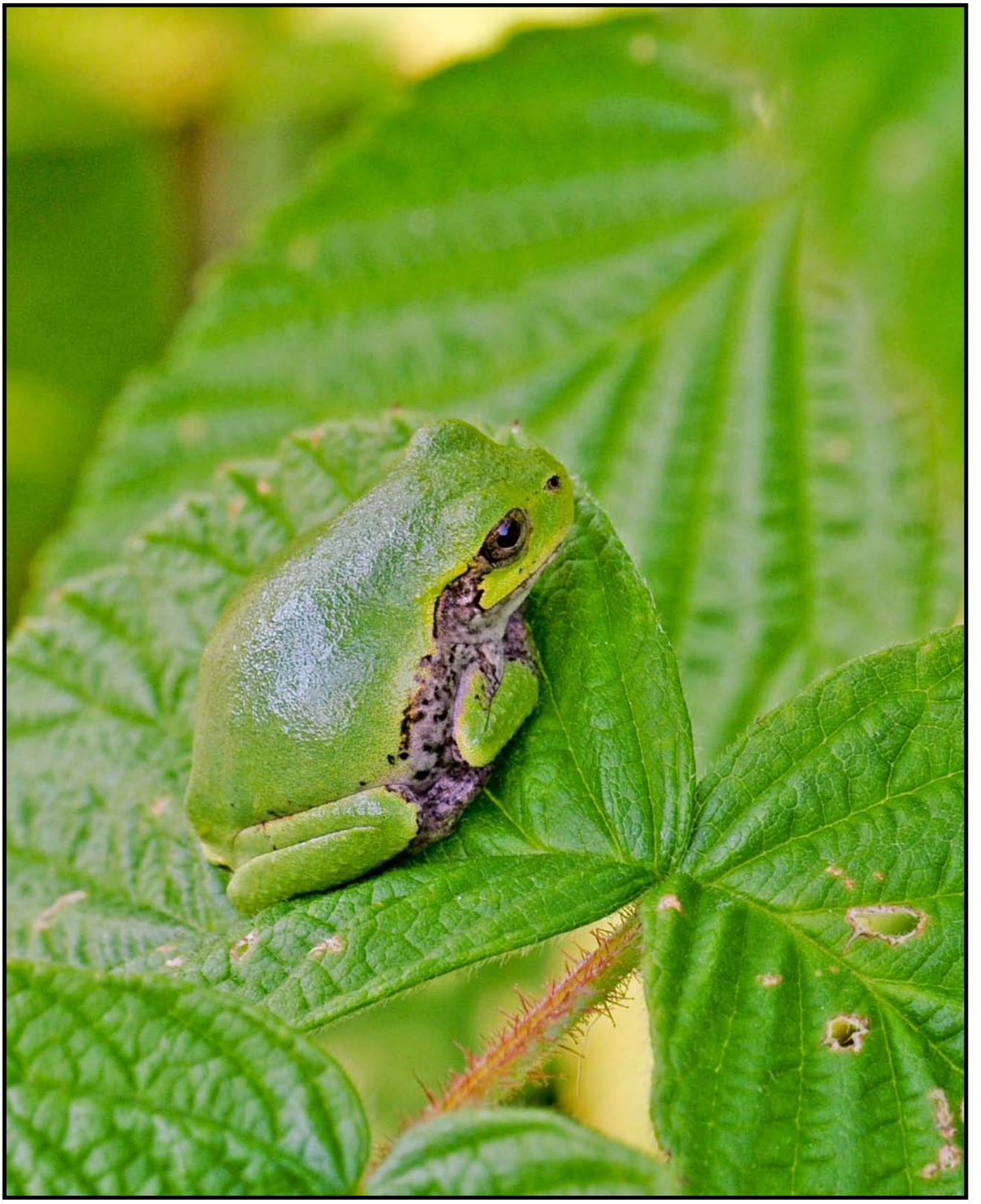
Voigtlander 125mm f/2.5 APO Lanthar

Nikkor 85mm PC-E f/2.8

Nikkor 105 mm f/2.8

Nikkor 17-35mm F/2.8

The majority of these photos were taken during the spring, summer, and fall of 2008, where almost every day I was out in the meadows as the sun came up taking pictures and welcoming the day.



Frog, Toads, and Salamanders

Eastern Newt (Notophthalmus viridescens) Eft Stage

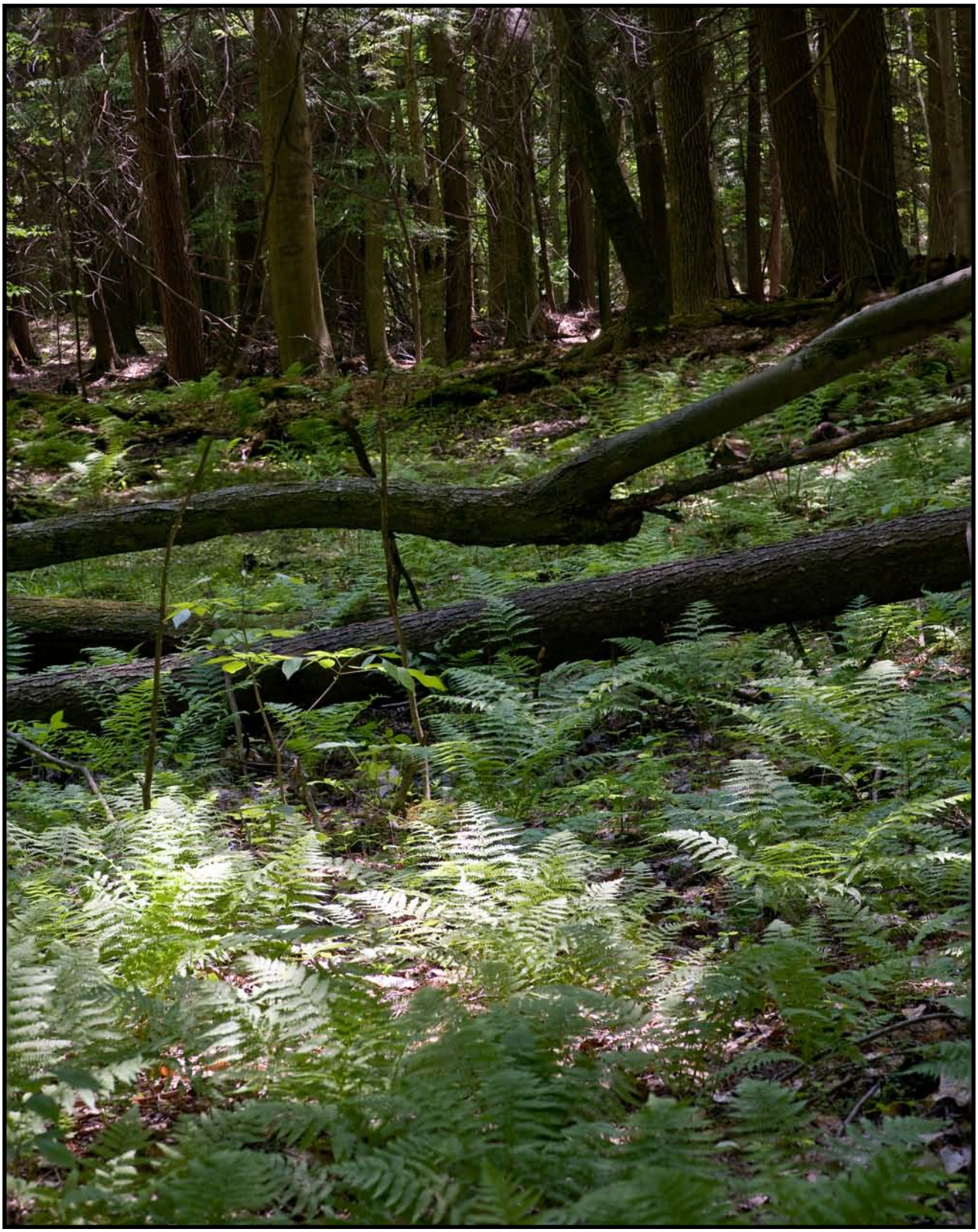
To me, this is Michigan's most marvelous salamander, the land or "Eft" stage of the Common Eastern Newt, the adult which spends most of its later life living in ponds. However, early in life this little salamander leaves the ponds, develops a quite-dry and red-colored skin, takes to the land, and moves into the forests. They are incredibly striking creatures to discover and are most easily found after a rain while they are out walking along the forest floor. When the weather is damp is when these salamanders travel and they can travel long distances. If you are very gentle, they will walk on your hand. Not all young newts become efts; some stay in the ponds and go directly to the adult stage, which is somewhat larger and they have a greenish-brown color.

Habitat: Forest with moisture and plenty of leaves and logs, something for them to easily get under when it gets too dry. They live on small insects, grubs, worms, and whatever they can find that are moving around in their vicinity and that are not too large.

Red-backed Salamander (Plethodon Cinereus}

The Red-backed Salamander (shown here) actually comes in two different colors, the other being gray and called the Lead-backed Salamander. These salamanders are somewhat fragile and need lots of moisture. You won't find them out in the open, but they can be found by very gently turning over rotten logs and looking carefully for them. It can be harmful to them if you pick them up when your hands are dry. Best to leave them alone or learn how to pick them up very gently and let them walk on the palm of your hand or on a moist leaf placed on your hand. If grabbed by their tail or attacked by a predator, they often loose the ends of their tails.

Habitat: Deep moist woods, often where there are ferns and many fallen logs. They do not breed in ponds, but lay eggs under logs from which the young hatch. The photo on the right is the kind of place you might find the Redback. They eat small insects and other invertebrates.



Wood Frog (Rana Sylvatica)

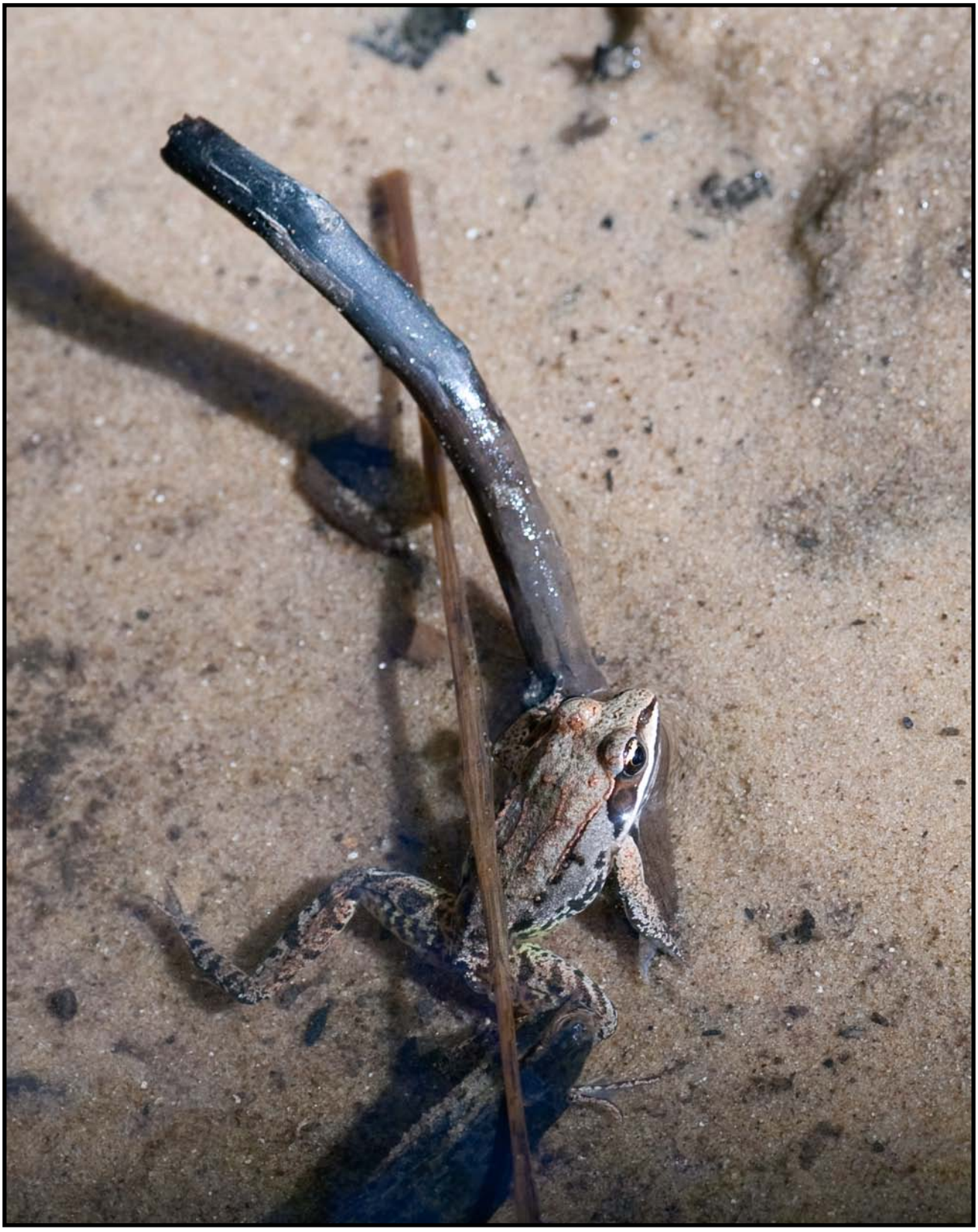
This is the first frog to appear in the spring ponds, usually in March and April, quite often while there is still ice on the ponds. You can recognize them by their duck-like quacking or croaking sounds, almost a gobble or chuckling sound. A chorus of Wood Frogs make quite a strange racket. You can recognize these frogs by their face mask and bronze body color. They generally are about 2 to 3 inches in length. After mating season you can find them in woodsy streams or on the forest floor itself, when it is moist. They are not easy to catch.

Habitat: In the early spring the Wood Frog can be found in small ponds, particularly the temporary spring ponds, those ponds with a mass of dark leaves on the bottom. Later find them in moist woods.

Wood Frog (Rana Sylvatica)

Here is a Wood Frog that I found living along a slow but very fresh stream that ran through a woods. He was in the water along the bank, but usually dove into the water before I could get very close. Here is one who resurfaced after awhile along a sandy bank. Often they will dive to the bottom and become almost invisible, holding their breath for a long time like this one with its head stuck under a piece of wood trying to wait me out. I could see him!

Habitat: In the early spring the Wood Frog can be found in small ponds, particularly the temporary spring ponds, those ponds with a mass of dark leaves on the bottom. Later find them in moist woods.



Striped Chorus Frog (Pseudacris triseriata)

The Striped Chorus Frog is about the size of the Spring Peeper, which makes it about 1 to 1 ½ inches long. Along with the Wood Frog, this is among the first frogs to get into the ponds in spring and begin calling. I find the Wood Frog is the first around mid-Michigan, where I live. They make a raspy single-note screech, sometimes said to make a sound like running your thumbnail over a pocket comb. They are easily distinguished from the Spring Peeper's sweet single-note call. The weather can still be very cold, with ice on the ponds, and temperatures barely above freezing. In this case, they will only call during the warm part of the day and on cloudy/cool days, not at all.

Habitat: In the spring, they can be found in small woodland or meadow ponds, marshes, and those ponds that appear only temporarily in the spring. Later, they move into the woods and shrubbery, but are seldom seen, unlike the Spring Peeper which is relatively easy to find during the summer.

Spring Peeper *(Pseudacris Crucifer, Hyla Crucifer)*

The Spring Peeper is generally considered the sure sign of spring, although both the Wood Frog and the Chorus Frog are out singing earlier in most places. The sweet sound and peep of the Spring Peeper is certainly easier on the ears than the croak of the Wood Frog or the raspy call of the Chorus Frog. They begin calling in late March and early April, and continue into the first part of May. A large chorus of Spring Peepers is a deafening cacophony, especially if you are standing in hip boots right in the middle of them and the sound is coming from all sides. A warm spring rain or ever a warm sunny day is enough to really get them going. These frogs are about 1 to 1 ½ inches long, and have a sideways cross on their backs.

Only the males call and the females find them. They can be hard to see, since often they just have the tip of their head and two eyes above water. But once they get singing, many will crawl higher and actually become more visible. It is also very hard to tell exactly where a call is coming from. My ears play tricks on me, so the best way to spot them (at least when the sun is out) is to watch for the glint of sunlight reflecting off the full-expanded throat sac when they are singing.

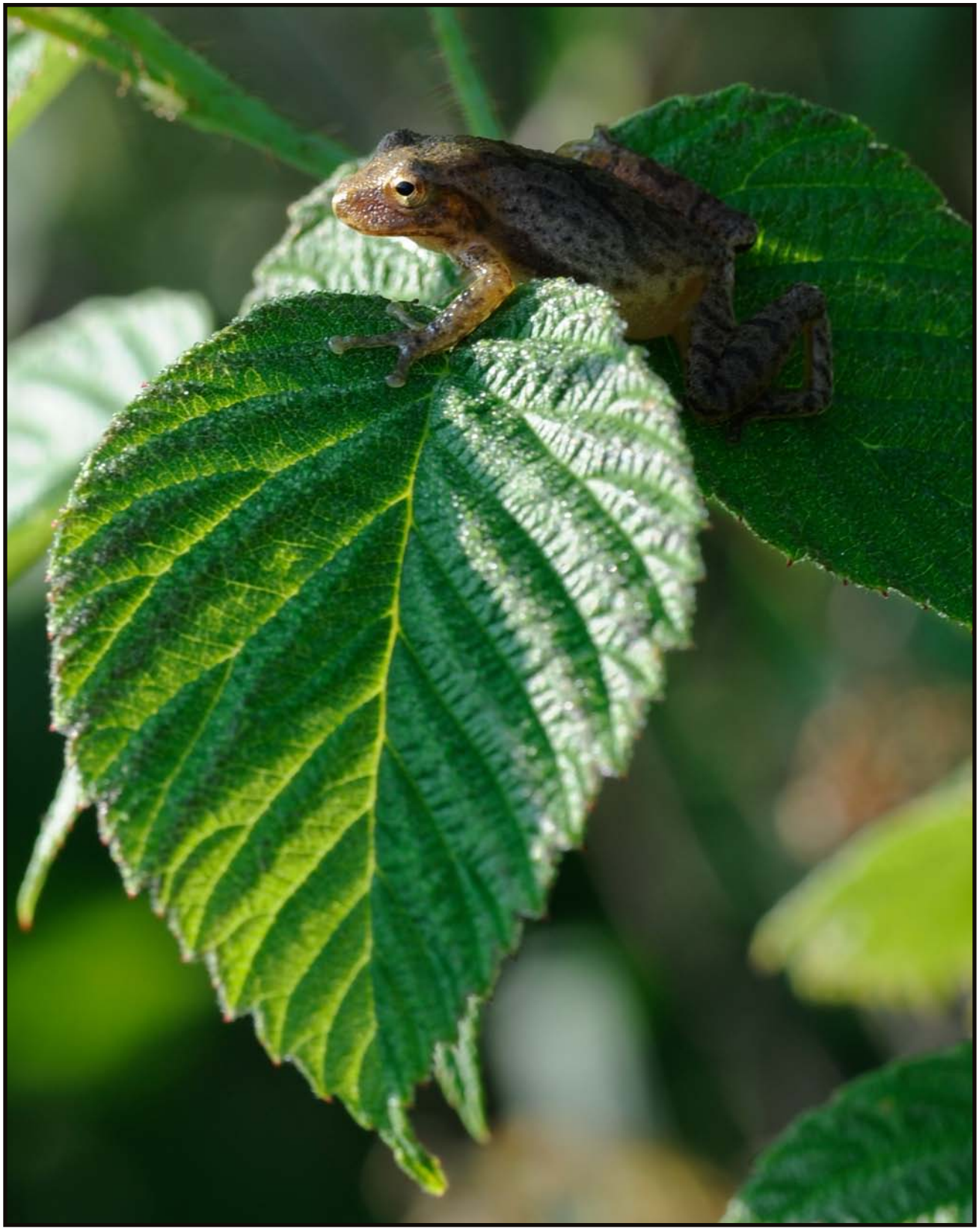
Habitat: In the spring, they are in the small woodland ponds, marshes, and temporary spring ponds, but later move into the woods and meadows, where they hunt for mites, bugs, ants, and just about anything that moves and is not too big for them to tackle.

Spring Peeper (Pseudacric Crucifer, Hyla Crucifer)

The Spring Peeper hibernates through the winter out of the reach of frost and the bitter cold, comes out early in the spring, and heads straight for the ponds, where thousands of them gather to mate. You won't find them in large bodies of water, except perhaps around the edges of coves, but can be sure to find them in small woodland ponds and temporary spring ponds.

In the summer these frogs are in the woods and meadows, where they hunt for small insects and worms. Wild raspberry bushes are a good place to find spring peppers, as well as many other forms of life. These tiny frogs are too delicate to handle, unless you can learn to gently cup them and let them walk around on your hand for a moment.

Habitat: In the spring, they are in the small woodland ponds, marshes, and temporary spring ponds, but later move into the woods and meadows, where they hunt for mites, bugs, ants, and just about anything that moves and is not too big for them to tackle.



Gray Tree Frog (Hyla versicolor)

This is perhaps the most beautiful and gentle of all the frogs in my area. And unlike most of the other frogs, the gray tree frog spends most of its time quite away from water, living in trees and bushes. It has small suction cups or "sticky toes" on the fingers of each hand and measures about 1/ ½ to 2 ½ inches long. They can climb right onto a glass window, for example. In the spring, when it breeds in late May or even early June, you can hear the frogs calling from trees and shrubbery that is always fairly close to a pond or water source. Their call is a short music-like trill and often comes from trees or shrubbery surrounding a pond.

Their name "versicolor" refers to the fact that they can change their color depending on the background they are sitting on, usually from a gray-green to a bright green and back again. In the summer I tend to find them in the early morning, before the sun is too strong on bushes like the raspberry plant, looking for food. You may not see them at first, so it is best to be very still and wait until they move, which is usually very slowly. But then you will see them and can enjoy this most-lovely creature.

Habitat: Woodland ponds in late May and most woods and dew-ridden meadows (in the early mornings).

American Toad (Bufo Americanus)

The common toad may be everyone's all-around favorite critter to come across in the backyard. They are harmless, don't bite, are not slimy, and you can pick them up an hold them for a short while if you are careful. The old story that toads give you warts (because a toad's skin is bumpy) is just not true. About the worse thing a toad will do is pee on your hand if you are not gentle and manage to scare them. They usually are from 2 to 4 inches in length and often get quite fat.

Like most amphibians, toads hibernate away for the winter, and they don't wake up from winter as early as the frogs like the Spring Peeper. Here in Michigan we don't really see toads until sometime in May, when they start singing in small ponds in the woods and meadows. They make a long sustained trill sound. And toads don't need to be wet all the time as frogs do. The skin of a toad is dry and you can find them far from water and ponds, in fact almost anywhere at all. In early summer, if you look carefully, you can sometimes find baby toads about the size of your little fingernail hopping in the shady forest floor, sometimes hundreds of them. As for food, toads eat earthworms, slugs, and insects like flies and crickets – anything that moves!

The toad below was hopping around in my back yard, but the singing toad on the right was way out in the middle of a woodland pond. I had to wade out in hip boots with my camera and a tripod to take this picture.

Bull Frog (Rana Catesbiana)

The Bullfrog is by far Michigan's largest frog, reaching up to 8 and 9 inches in length. They are identifiable by their large size and smooth upper backs, compared to the Green Frog, which has two ridges of skin running down the back. This is the granddaddy of frogs and their call is instantly recognizable by its deep, low, resonant sound, said to be like saying "Jug-o-Rum." They don't mate until later, usually in June and July, and they mate in permanent waters. Their tadpoles overwinter, taking two seasons to mature and transform into adult frogs. You won't find them in small forest ponds, but instead in the marshlands next to lakes, larger ponds, and along the shoreline (in the reeds and lilies) of lakes. This is a difficult frog to catch without a boat and a net. There is nothing quite like holding (or trying to!) a large bullfrog in your hands. They are wonderful creatures with a very gentle look.

Habitat: Lakes, larger ponds, and other permanent waters, river backwaters, but they prefer warmer waters with much plant growth. Seldom leaves the water.

Green Frog (Rana clamitans)

Green Frog (Rana clamitans) This is Perhaps Michigan's most commonly-seen frog, a combination of its relatively larger size and preference for sunlight and more open bodies of water. My guess is that more kids have caught a Green Frog than any other kind. You won't find them in very large lakes and not in the temporary spring woodland ponds. Instead, they like permanent ponds or marshes and the edges of lakes, where there is full sun and lots of vegetation, like lily pads. The throat is yellow in the male, and white in the female.

Their size is from 3 to 4 ½ inches in length, and they are recognizable by the two ridges of skin that run down the upper back of their body. They mate in permanent waters usually in May and even into June, and their tadpoles overwinter, taking two seasons to mature and transform into adult frogs. Their sound is a single strong "Gump" every little while, rather than any kind of constant calling. A pond of Green Frogs calling is actually pretty wonderful, like a bunch of very shy frogs volunteering an occasional "Gump." These are the kind of frogs I teach my grandkids how to catch.

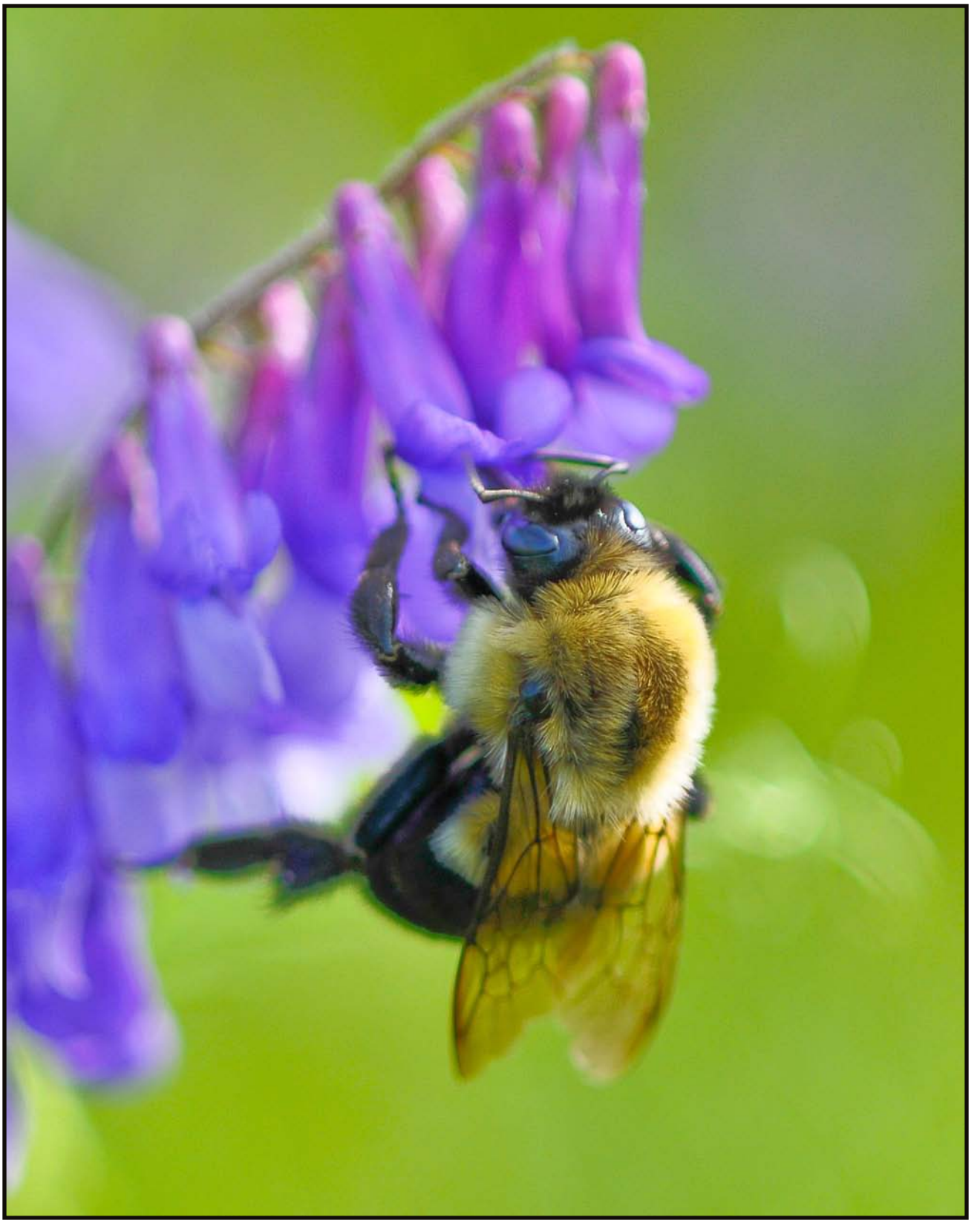
Habitat: Lakes, marshes, ponds, and other permanent water with plenty of vegetation.

Northern Leopard Frog (Rana pipiens)

Sometimes also called the "Meadow Frog," because they often are found in damp grass or in the grass along the edges of ponds, where they are sitting. As you walk along the pond perimeter, the Leopard Frogs make a dash for the water. Other frogs don't venture out so far. These frogs can be hard to catch and many a child has chased a Leopard Frog from spot to spot as it leap-frogs toward the waters of a nearby pond. The color of this frog, which is about 2 to 3 ½ inches long is green, and can be at times a very bright green at that.

They breed in late April and on into May, not in the woodland ponds, but rather in more permanent waters and marshes. This frog is frequently found on bogs and fens. You can distinguish the Leopard Frog from the quite similar Pickerel Frog in this way: Both frogs are green with brown spots down their back. The Leopard Frog has spots which are randomly placed, while the Pickerel Frog's spots are lined up in pairs along the length of the back.

Habitat: Marshland, wet meadows, grassy-edge ponds, and even lakes with plenty of vegetation at the shore.



Bees, Wasps, and Hornets

Honeybee (Apis mellifera)

With scores of books written on this wonderful insect, the honeybee is a whole world in itself. Unlike the wasps, yellowjackets, and hornets, if the honeybee stings you, it dies in the process, so for the most part these little creatures never look for trouble. And they are everywhere there is pollen and nectar and (of course) are busy as a bee. I have not seen too many wilds swarms of honeybees, so mostly if I want to see a lot of them all together I have to visit them at a hive.

In this photo, although I am only inches away, my presence did not seem to upset them, only make them curious. As you can see, these little guys are as interested in looking at me as I am at watching them. It is comical the way they stand at the entrance to their hive, turn their faces toward me, and look up.

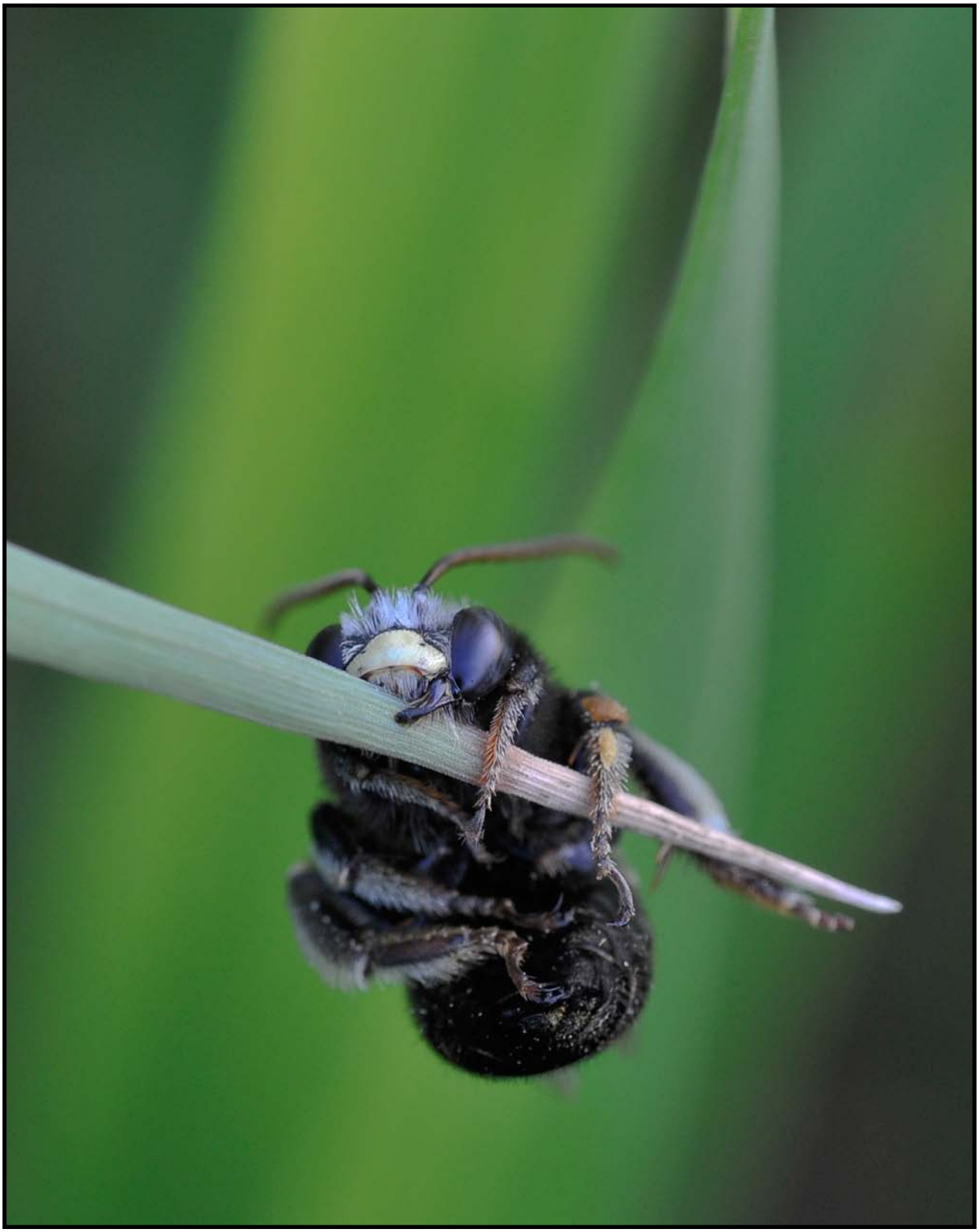
Habitat: As mentioned, the common honeybee lives in a hive, but there are some 5,000 different kinds of wild bees and obviously most of them don't have man-made hives. Many are solitary, making their homes in the hollows of trees and other cavities, like tunnels in the ground, and anywhere.

Bumblebee (Bombus)

Bumblebees are much less organized than honeybees. Their nests seldom number more than fifty bees and are in the ground, either in burrows left by other critters or in tall grass. They don't overwinter as a hive, but the queen does, coming out in the spring and creating a new colony. They range in size from about one-half inch to an inch. The one pictured here is not the common bumblebee, but that one is pictured on page 42 is.

The bumble bee can sting repeatedly and walking on or near their nest in the ground can be enough to get a bunch of them after you, so take note. The bees come pouring out and after whomever has violated their territory. Bumblebees love the pollen of flowers and are great pollinators. They have long tongues through which they extract flower nectar, which they then carry back to the nest and store in brood cells, just like honeybees. I frequently find bumblebees who have spent their nights not in a burrow, but clinging to a stem, covered with dew. Not sure what kind of bee this is, but it took him a good hour or two to un-dew and be on his way in the early morning sun. Their muscles have to reach a temperature of about 86 degrees before they can fly, and they help this to happen by vibrating their flight muscles while holding their wings still – a warm up.

Habitat: Their habitat tends to be in open fields and grass, under the ground in holes or abandoned burrows.



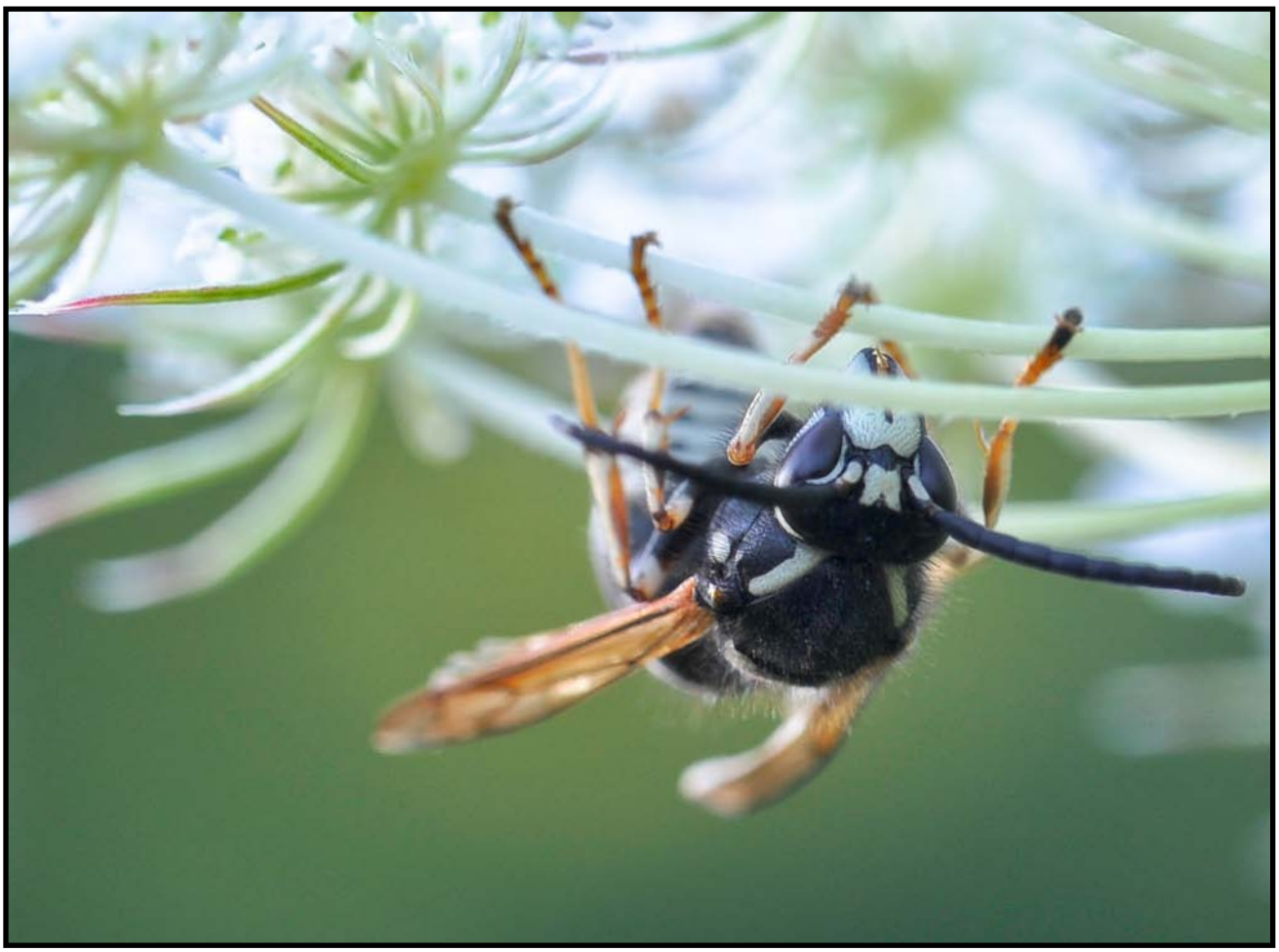
Bald-faced Hornet (Vespula maculata)

When you talk about a hornet's nest, these are the insects that make them. They are extremely aggressive around nests and they sting repeatedly. They typically are about ¾ of an inch in length with easily identifiable white and black markings. Like honeybees, they have a hive, usually a paper hive which they build about the size of a football, but it can easily be two or more feet in length. The hives are usually hanging in trees.

Bald-faced hornets are very aggressive and don't wait for you to make the first move. If you are in their space, too near the nest, or "whatever," they will attack. And they can sting repeatedly, and inject venom with each sting. They eat both nectar and other insects.

Here is a nest that probably was made by hornets but, as it was already autumn, had been abandoned. It is over two feet long and in perfect shape. I was amazed at how large it was and could only imagine how many hornets it was home to earlier in the summer. Even then, I did not get too close to it. At the end of each season, the nest is abandoned, and the rest of the colony dies off, leaving the queen to overwinter.

Habitat: On the fly most of the time, but they live in large oval-shaped nests usually in deciduous trees.



Paper Wasp (Polistes spp.)

The paper wasps are less aggressive than yellowjackets and hornets, but still can sting repeatedly, and will. Like the yellowjacket, they make small paper nests. Their nests are open and the individual cells are not covered by a cap. The colony dies off as the cold weather approaches, and only the mated female offspring overwinter. Paper wasps feed on flies, caterpillars, and other larvae, feeding all of these to their own larvae.

This nest was just in a field and I might very easily have just walked into it, had I not luckily seen it. Even so, they were quite aware of me trying to photograph it and kept a close eye on what I was doing.

Habitat: Plants, flowers, meadows.

Yellowjacket (Vespula maculifrons)

A close relative of the hornet, the Yellowjacket is very aggressive and, unlike the honeybee, can sting repeatedly. These are social insects, so if you see one, you are bound to run into more of them. If they feel their nest is threatened or you get too close to their nest, they will actually attack you. If they are circling your head, this is not a good sign.

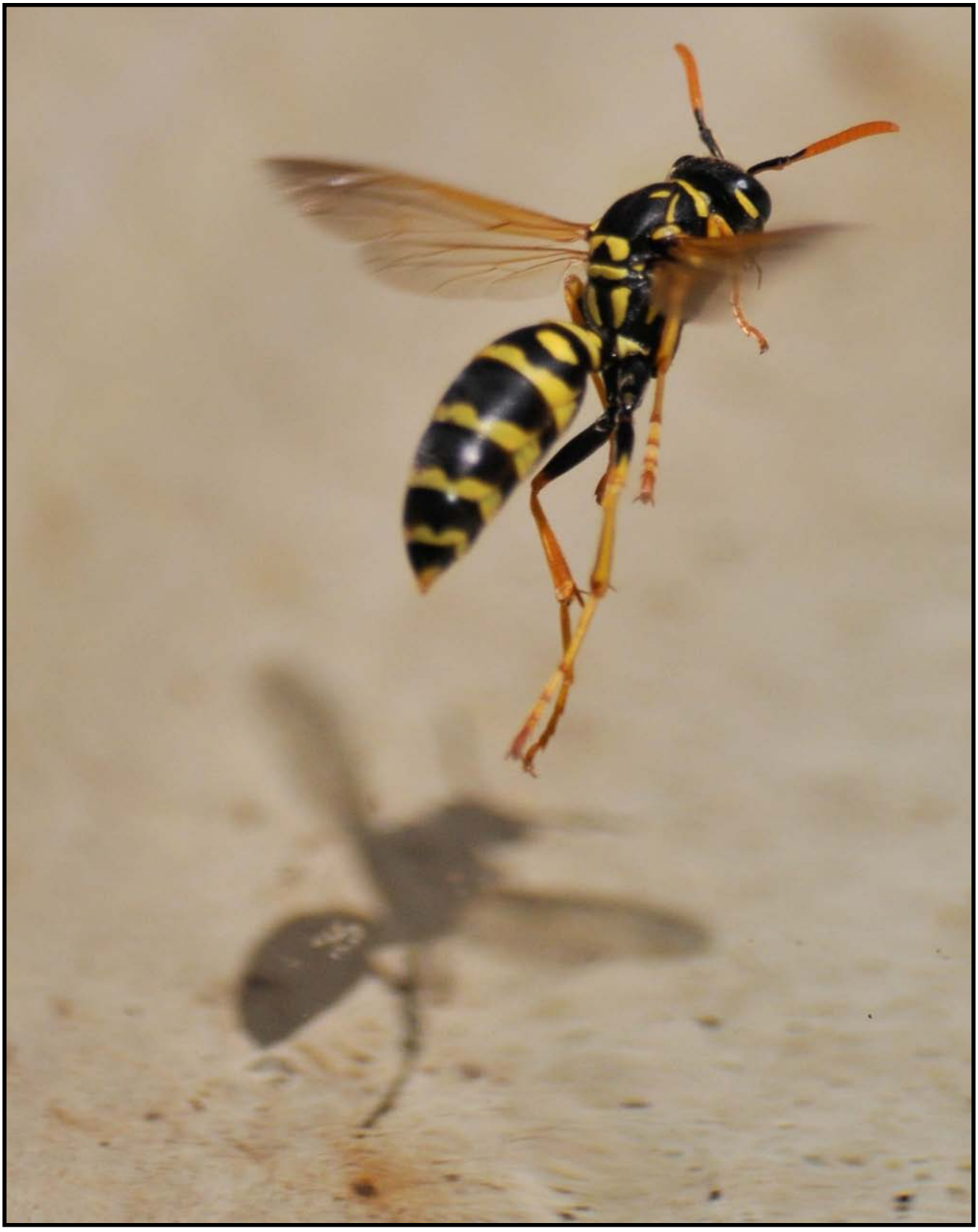
They build small paper open nests, but also have been known to have nests with thousands of workers in them. A German variety (now in this country) creates enclosed, football-sized nests and is much more aggressive, often marking an intruder and pursuing them. The adults feed on liquids rich in sugars and nectars, but the larvae in the nest accept meat, insects, and so on, which is pre-chewed by the adults and fed to them..

Habitat: Anywhere sheltered cavities can be found. They love to make tiny nests in my barbecue grill and if I don't drive my car much, they start building them in the wheel wells of my car. It seems like there are always too many of them everywhere around the outside of my house.

Yellowjackets

One thing that all of the bee family suffer from is a scarcity of water in late summer and early autumn. We have a little birdbath in our yard and on a warm or sunny day there is an endless stream of yellowjackets, wasps, and so on going and coming, landing every few seconds it seems. And they can literally walk on water as this photo shows. I pull up a plastic lawn chair, set up my camera and tripod and have plenty of opportunities to photograph these little guys.

Habitat: Anywhere sheltered cavities can be found. They love to make tiny nests in my barbecue grill and if I don't drive my car much, they start building them in the wheel wells of my car. It seems like there are always too many of them everywhere around the outside of my house.



Dragonflies and Other Flies

Yellow-legged Meadowhawk (Family Sympetrum)

There are so many dragonflies that it is very hard to identify which one you might be looking at, so we could easily have a whole chapter just on local varieties. This lovely specimen was really attracted to this particular resting spot. I just sat down on the ground with my camera for perhaps twenty minutes or more, gradually inching closer and closer until I was almost right on top of him. He would leave for a minute, but return to the same perch over and over again. Dragonflies eat small flying insects, which they catch as they fly around.

Habitat: Commonly found near ponds, marshes, and any water where there is plenty of vegetation along the shoreline.

Damselfly (Family Argia)

The close-winged damsel fly seems very delicate compared to some of the larger helicopter-style dragonflies like the Green Darner. These lovely creatures are commonly found around ponds and water, but also in woods where there is a mixture of shade and sun. They are totally harmless, cannot bite or sting you, but your handling of them (if you could catch them!) can easily hurt their fragile wings. There is something very timeless about a damselfly flitting in the sun and shadows of a forest glade.

In the photo below, we have a damselfly covered by dew and waiting to dry off, after a night of clinging to this plant stem.

Habitat: Commonly found near ponds, marshes, and any water where there is plenty of vegetation along the shoreline.

Half-Banded Topper Dragonfly (Sympetrum semicinctum)

I find dragonflies fascinating and beautiful. What perfect flying machines! Some of the larger ones seem never to land at all, although of course they do. And they are harmless, can't bite, and are in no way aggressive, in fact just the opposite. Dragonflies are shy and usually manage to remain just out of camera reach, at least as close as I would like to get.

This beautiful dragonfly is never found far from ponds or marshlands and, like all dragonflies, tends to keep on the move and this one was kind enough to hang around for a while. Often if I am patient, a dragon fly will return again and again to the same perch, giving me plenty of time to admire it.

Habitat: Marshlands, meadows and fields within flying range of ponds and permanent open water.

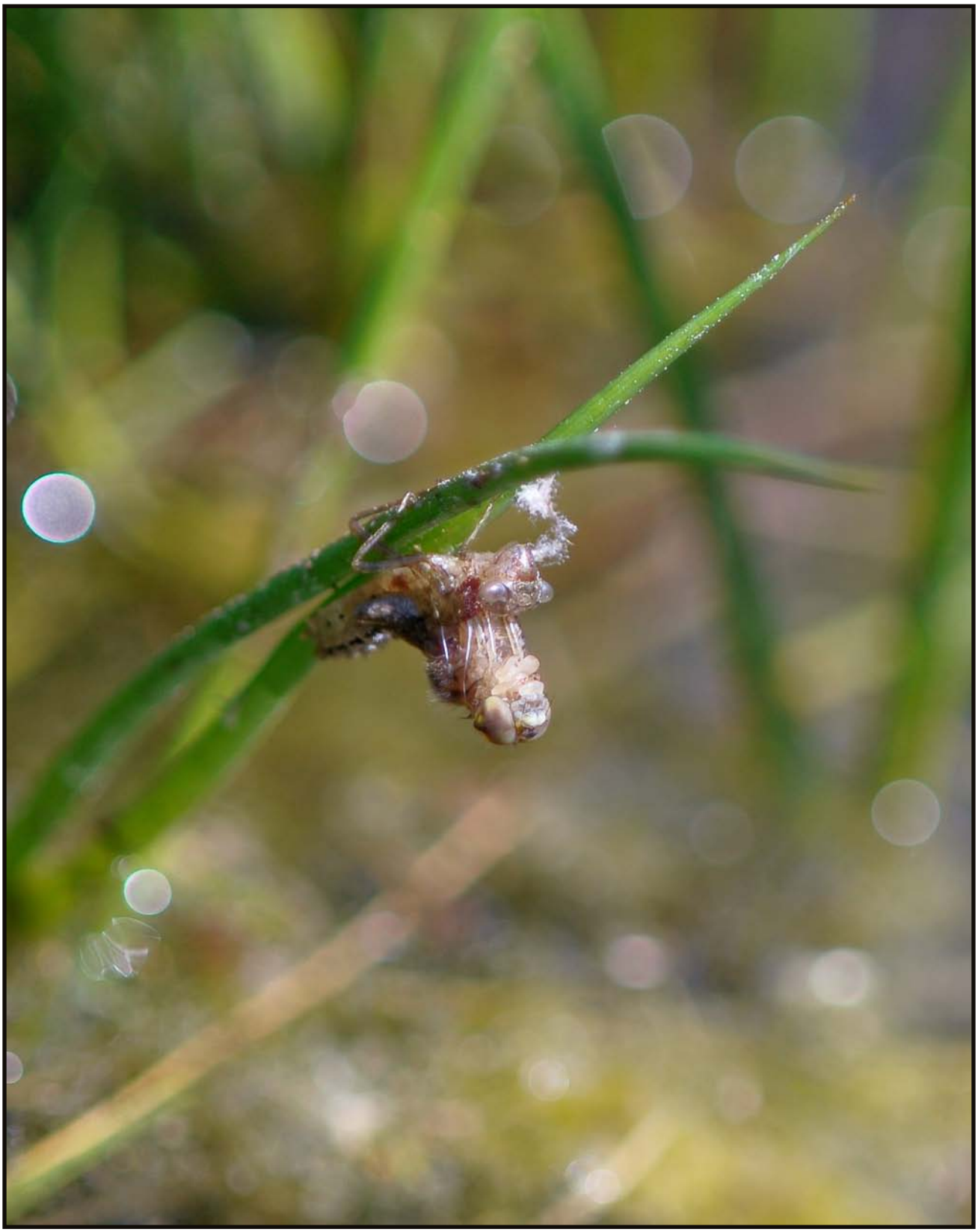
Dragonfly Hatching

On any late spring day, you may find dragonfly nymphs hatching. In particular, along the edge of small ponds where there are plant stems emerging from the water. This is where the dragonfly nymphs will climb out of the water on a stem and emerge from their casing to become a dragonfly and take to the air.

The process only takes an hour or so and is wonderful to watch. This little brown nymph which has lived its whole life (so far) underwater, one warm sunny day is ready to hatch out into a full-sized dragonfly. Underwater, dragonfly nymphs are fierce and voracious eaters, savaging anything that moves, including tadpoles, fish, and even each other! They love mosquito larvae and help to keep the population of mosquitoes down.

The underwater nymph sheds its skin several times underwater before it performs its final molt above water. The upper back of the nymph splits open and the tender dragon fly emerges and gradually unfolds its very delicate wings, a bit at a time. And then they hit the air.

Habitat: Around the edges of ponds, marshes, and even permanent waters.



Cranefly (Tipulidae)

Often mistaken for Godzilla mosquitoes, these large ungainly flies are common and slow-moving enough that it is not hard to get close to them. You see them at all times of the warm months, usually never too far from a water source where their larvae live. They are harmless and cannot bite or sting, existing on nectar or nothing at all, while the larvae eat dead and decaying organisms.

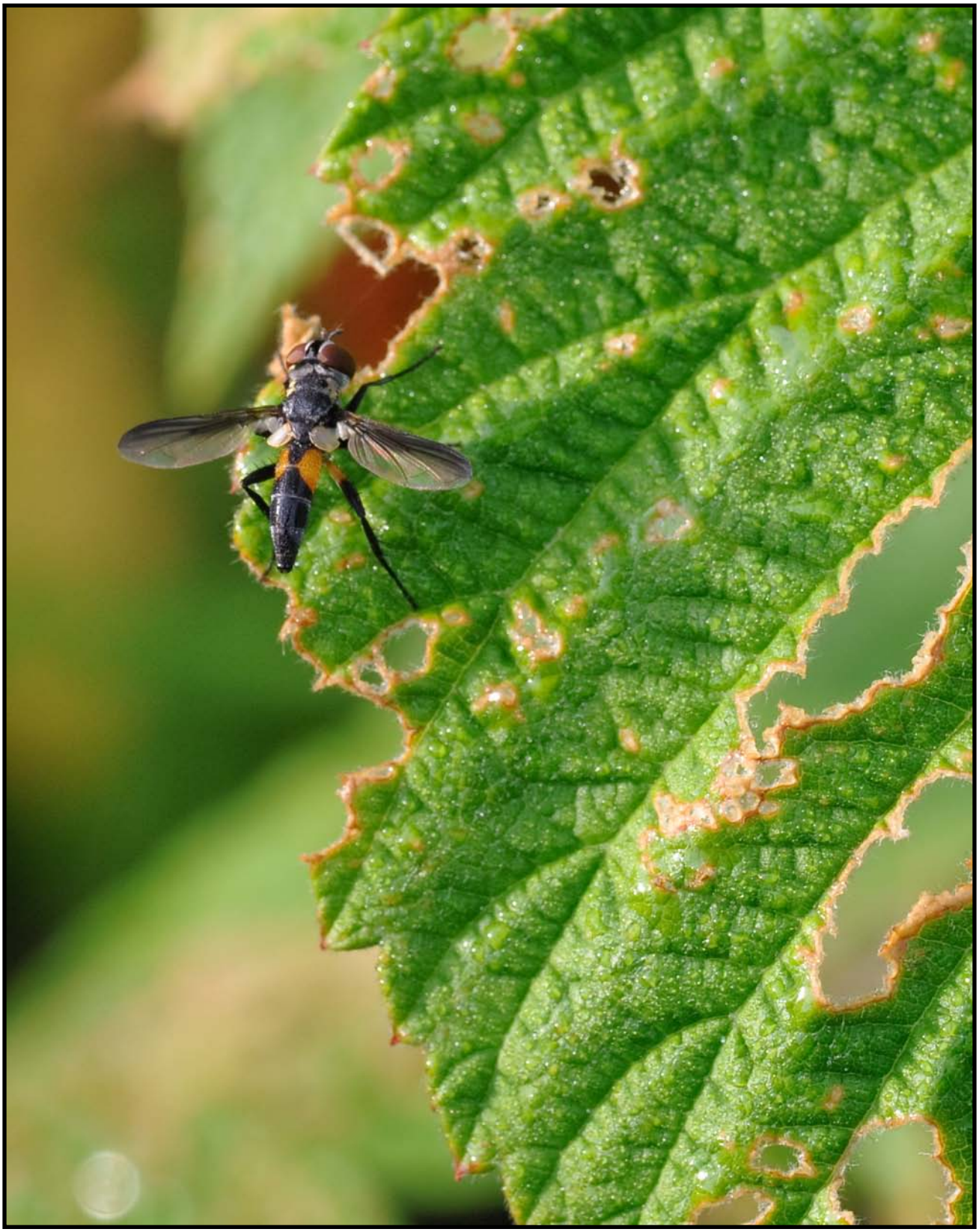
With their very long legs, orange-colored bodies, and large green eyes, they are fascinating to watch. More often than not, you will find them sitting there motionless in the center of some plant, with their legs extending in every direction. These are wonderful creatures.

Habitat: Fresh water, fast-flying streams, meadows, marshes, as well as rotting wood, tall grass, and woodlands, in general.

Tachnid Fly (Family Tachnidae)

Tachnid flies are parasitic flies, living on the larvae of other insects. They land on various caterpillars and such, actually laying their eggs in these larvae, and then letting their own larvae feed on their live hosts. Beetle larvae are a favorite target. The adult flies feed on flower nectar.

Habitat: They frequent forests, woodlands, gardens, and parks.

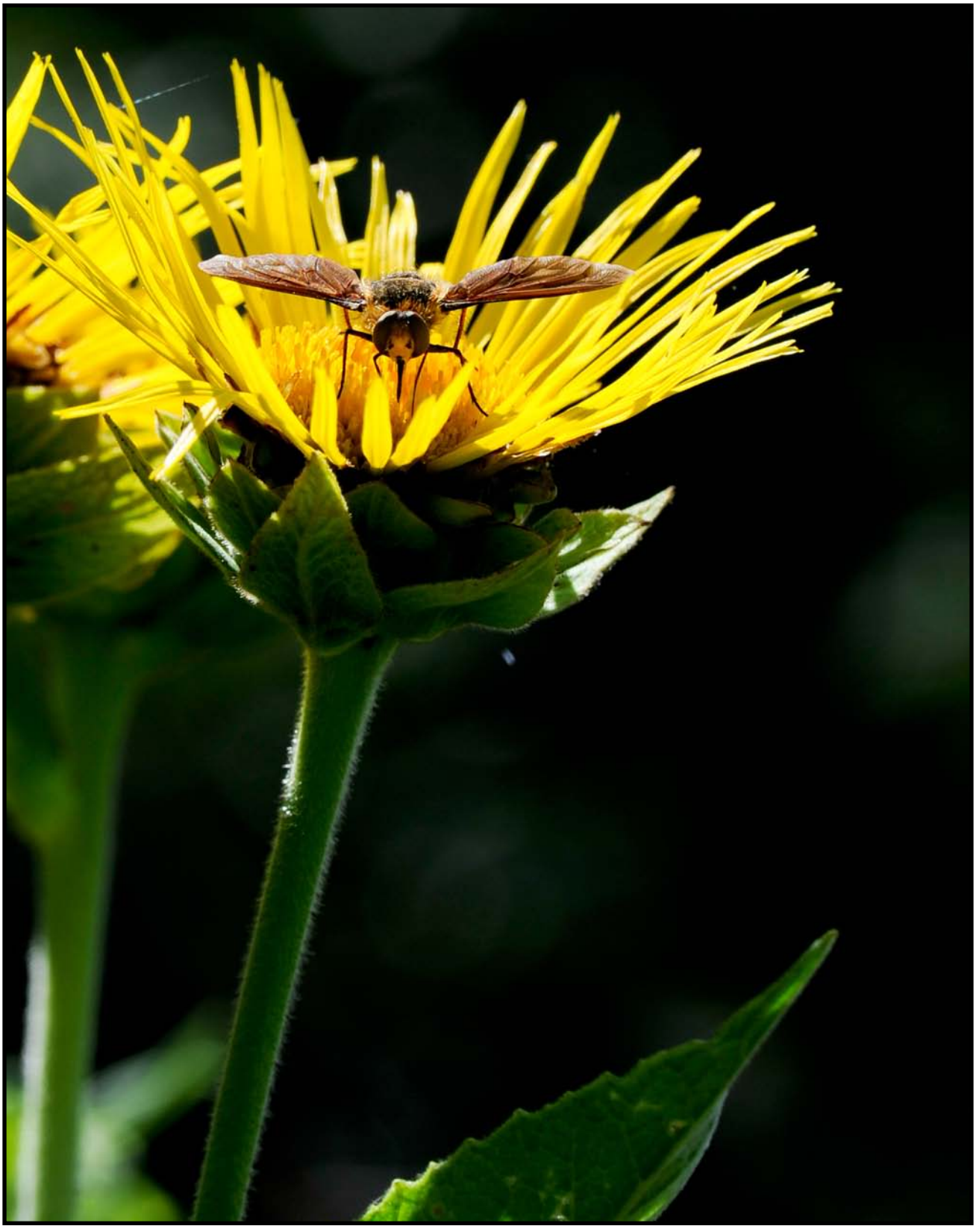


Horse Fly (Family Tabanidae)

This fellow seem to be present on hot, windless, sunny days, and likes to seek out moving objects, with a preference for the dark-colored ones. This striking horse fly shown here was sampling flowers down near the edge of a small lake. I am glad he was not sampling me, because the female horse flies not only really bite, but suck blood as well! Both male and female horse flies feed on the nectar of flowers, but only the females also have a taste for blood. They have two sharp knife-like mandibles that essentially slash the skin, and the horse fly drinks the blood that comes out. Pictured here is a female.

Their enormous eyes mean that one of the primary ways they hunt is by sight, although sensing carbon dioxide (like our breath when we exhale) is a close second. The males don't bite and are seldom seen around, as in "around us."

Habitat: Wooded areas, wet soil that is close to bodies of water. The larvae develop in moist soil and mud, although some can be aquatic.

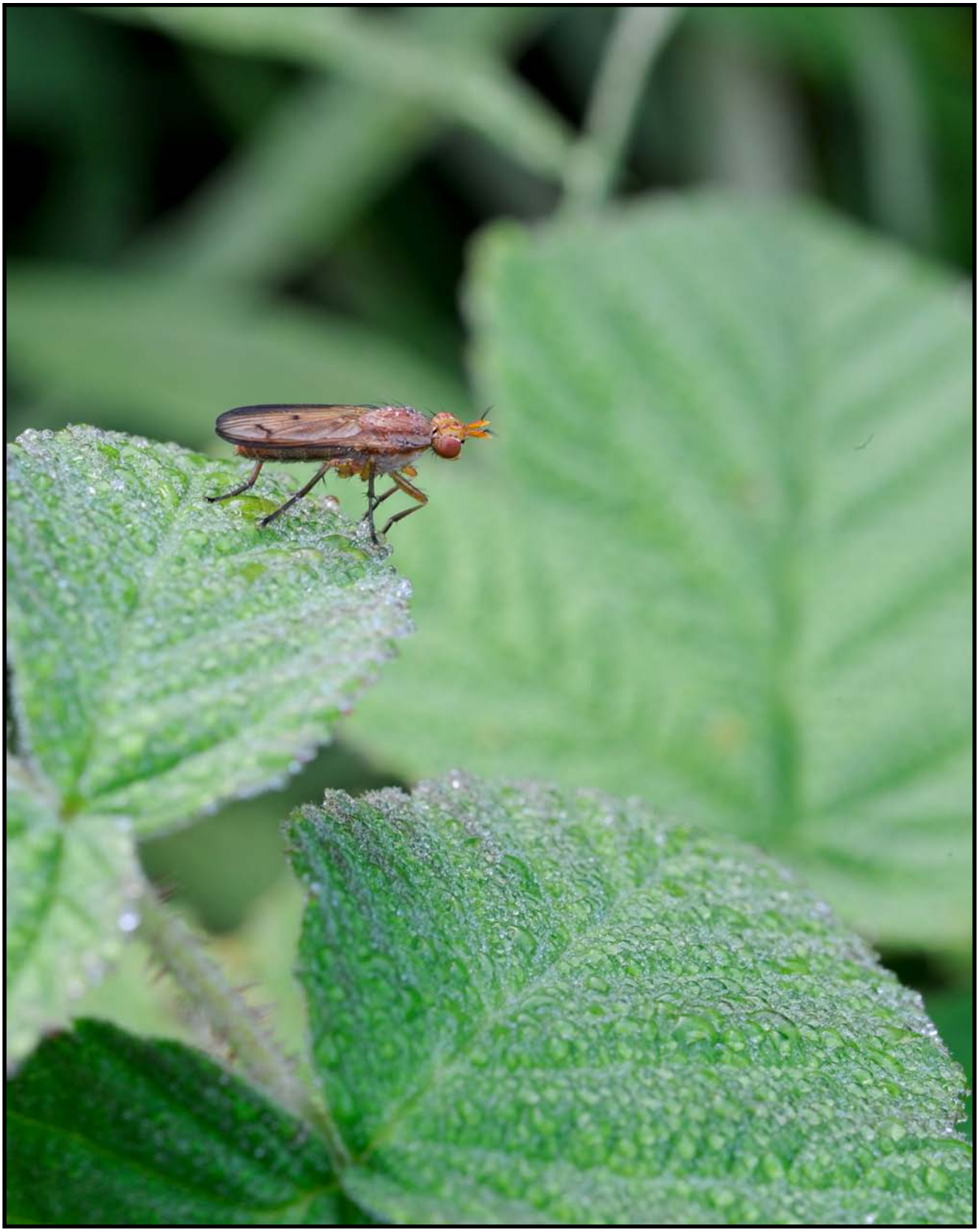


Dung Fly (Family Scatophaga)

I am sure the Dung Fly did not name himself, because who would want to be called a 'poop' fly? The name aside, I find these little red-bodied flies very good company, especially in the very early mornings when the dew is on the leaves and they have not really managed to get moving around a lot. The Dung Fly is a voracious predator of other flies and smaller insects. They lay their eggs (of course) in dung, where the larvae live and develop.

I often find them in the early mornings (as you see them here), perched high up on a plant and just kind of facing or looking out across some vast expanse of space. It is like the Grand Canyon for them.

Habitat: Pastures, parks, woods, gardens, anywhere that dung and other flies congregate.



Robber Fly (Family Asilidae)

With a name like "Robber Fly," we might wonder what it is that they rob and from whom? Well, the answer is they rob from other insects and what they rob is life itself. Robber flies are very agile and fast-moving, and they tend to descend on their victims from above, stabbing them with their beak and injecting saliva that contains nerve-paralyzing enzymes that tend to pre-digest the insides of their prey. When their prey (bees, beetles, dragonflies, etc.) is fully paralyzed, the robber fly sucks up the pre-digested insides of their victims like a soda through a straw. Larvae live in the soil, feeding on organic matters such as wood, and on. These flies can and do bite, if handled.

This particular robber fly has caught himself a Mayfly, and is in the process of digesting his meal.

Habitat: Woods, meadows, shrubbery, more sunny than not.

Flesh Fly (Sarcophaga haemorrhoidalis)

This very common-looking fly (also called the red-tailed fly) does not bite or sting, but it does lay its eggs on non-living materials like excrement and carrion (dead flesh), so can be a carrier of disease. Some are also parasitic, laying their eggs in the live bodies of other insects. Unlike many other types of flies, the flesh fly can fly in the rain.

It takes about two weeks for an egg to go through the larval stages and emerge as an adult fly, which then feeds on liquids such as plant nectar and honeydew.

Habitat: Everywhere: rural and urban communities, woodlands, etc.

Syrphid fly (Toxomerus geminates)

The Syrphid fly is more commonly known as the "Hoverfly," as they tend to freeze their flying motion in the air for an extended period of time, in particular while feeding on the nectar of flowers. The larvae of some forms eat plant aphids, which endear them to gardeners. The larvae also can develop in stagnant water.

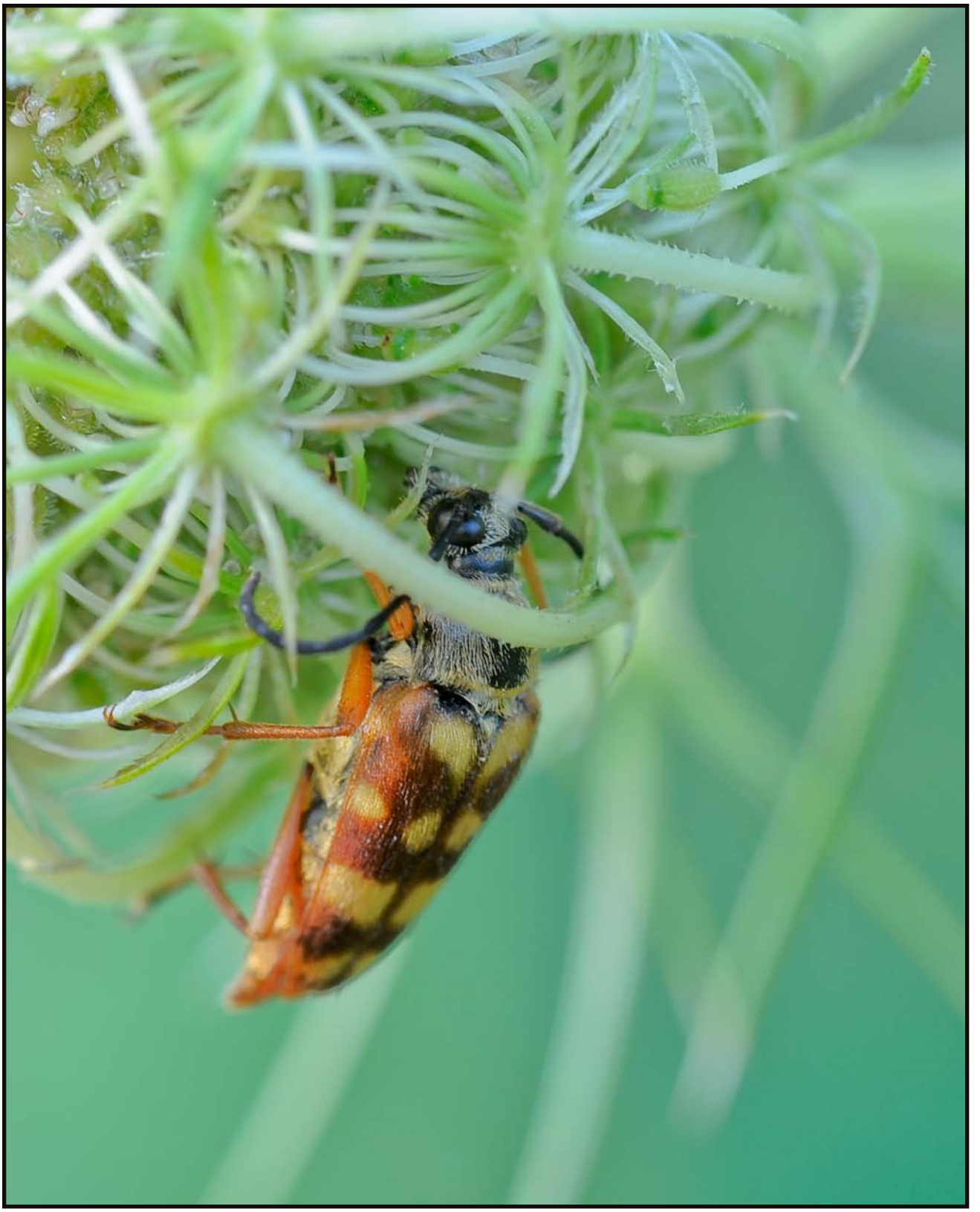
The ability of the hoverfly to position itself in midair where we can see it makes them fascinating (and unavoidable) to watch. There they are, right in front of our eyes and perfectly motionless – hovering. As flies go, Syrphid flies are really quite lovely and refined, compared to say horse or house flies.

Habitat: Cosmopolitan, found almost everywhere except where there is no moisture.

Larva Sawfly (Trichiosoma)

What looks here like a caterpillar is actually the larva of the common Sawfly, which feeds on foliage, often the needles of pine trees and other conifers. They can ruin a stand of pines, for example. The worms or larvae have (aside from three pairs of true legs) numerous false 'fleshy' legs, which lack the little hooks that real caterpillars have. So they look for all the world like a standard caterpillar. The adults are seldom seen (I have no picture) and do not bite or sting. They are not true flies, and look very much like small wasps, but are not.

Habitat: Woodlands and forests which contain the host tree of preference.



Beetles

Longhorned Beetle (Megacyllene robiniae)

Also known as the "Locust Borer," this long-horned beetle appears late in the season, and looks especially lovely on the Goldenrod plant, which it seems to like the pollen of. The larvae (which have a two-year cycle) of these beetles bore into the inner bark of large trees like the black locust and are very destructive.

These brightly-colored beetles are about one inch in length (not counting their very long antennae) and make a spectacular color combination when seen feeding on the profuse goldenrod flowers in late August. This beetle is not a bit skittish and seems oblivious to being watched, much like another showy insect, the Japanese beetle.

Habitat: Anywhere you find Black Locust trees.

Japanese Beetle (Popillia japonica)

This very beautiful beetle is hated by gardeners for the kind of plant destruction that you can see in these photos. They feed on over 300 species of plants, including poison ivy. The Japanese Beetle usually come in huge numbers, seemingly have a thoroughly great time, and leave your plants in shreds. That aside, they are bright and shiny beetles that are not shy, prefer groups, and seem to systematically destroy the plants they feed on, from the top down. They don't bite, and you can let them walk on your hand or climb on your fingers.

There is a famous story in the history of science where the classical scholar Benjamin Jowett asks biologist J. B. S. Haldane if he had learned anything about God from his scientific studies. Haldane responded, "He has an inordinate fondness for beetles." Well then, God probably especially loves the Japanese beetle, because they occur in such large numbers and are very hardy.

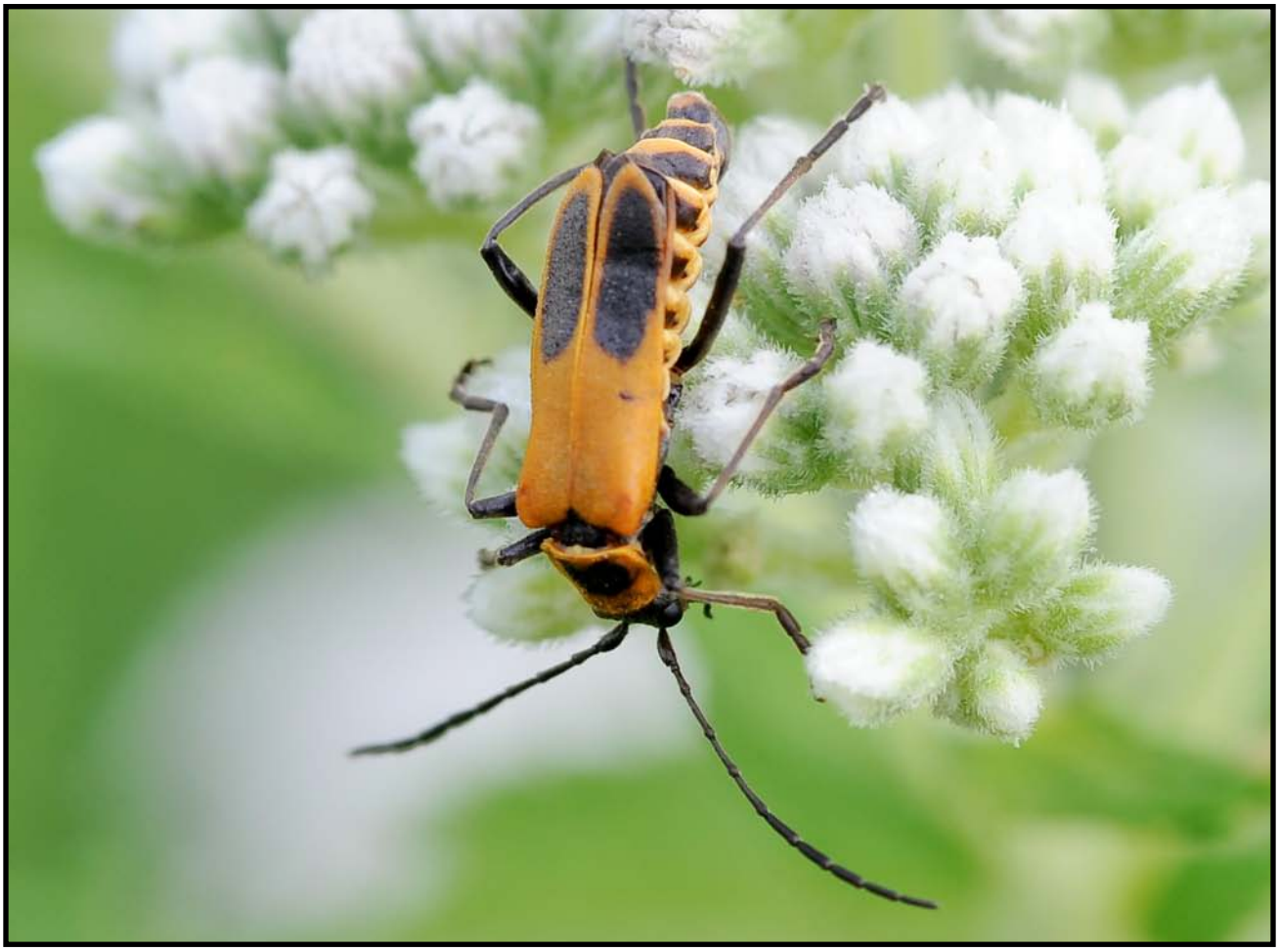
Habitat: Pervasive, in woods, meadows, shrubs, and gardens.

Pennsylvania Leatherwing (Chauliognathus pensylvanicus)

This is a member of the Soldier Beetle group, a relative of the lightning bug or firefly beetle. These beetles are very common and feed on plant pollen and nectar, in particular goldenrod flowers. The larvae are laid in the soil. The adults come out in June and July in this area and are only a little shy. Mostly they just go about their business, letting you get as close to them as you would like.

Notice the single "n" in this beetle's Latin name for "Pennsylvania." This is correct, as scientific nomenclature requires all given names to remain "as is," and the name was spelled incorrectly from the get-go.

Habitat: Older fields, meadows, flowers. Easter half of the United States.



Red Milkweed Beetle (Tetraopes tetrophthalmus)

This is one of the long-horned beetles and it feeds almost exclusively on the bitter-tasting (not that I would know) milkweed plant. Like the monarch butterfly, predators avoid eating this beetle because of its bitter taste. The beetle's eggs are laid on milkweed stems close to the ground, and the larvae (which overwinter in the roots) pupate in the spring. Early summer is when the adult beetles emerge.

These fellows are plentiful in this area and are very slow moving and methodical. They make no attempt to hide themselves when I approach. If I read the literature right, the "red" in "Red Milkweed Beetle" refers to the "Red Milkweed" rather than the red color of the beetle.

Habitat: Milkweed, in fields, along roadsides.

Seven-Spot Ladybug (Coccinella septempunctata)

Ladybugs (also called Ladybirds in Europe) feed on tiny aphids that live along the stems of certain plants. This Seven-spot Ladybug (which is the most common form found in Europe) has been repeatedly introduced to the United States to help control aphids, and is now thriving here. Gardeners love them. Both the larvae and the adults prey on plant aphids. This species frequently overwinters and emerges early in the spring. They are said to emit a foul-smelling substance from the joints in their legs that warn off predators, but I have never seen this happen.

Ladybug are brightly colored and cheerful; at least I find them so. How they get into my office I will never know, but they periodically just show up, sometimes in the middle of winter. In their folklore, this little beetle is thought to bring good luck, especially in love-related matters. And there is the old poem:

"Ladybird, ladybird, fly away home, your house is on fire and your children are gone."

Habitat: Broad range, literally anywhere that aphids can be found, which are its primary food.

Weevil (Family Hylobius)

I like weevils. They don't bite and are funny looking enough to make me laugh. I know they do damage to crops by laying eggs in developing bolls like, of course, the cotton boll. Their white legless larvae then feed on and pupate within the boll. They can have five generations a year in the south. The adults winter in the ground or debris.

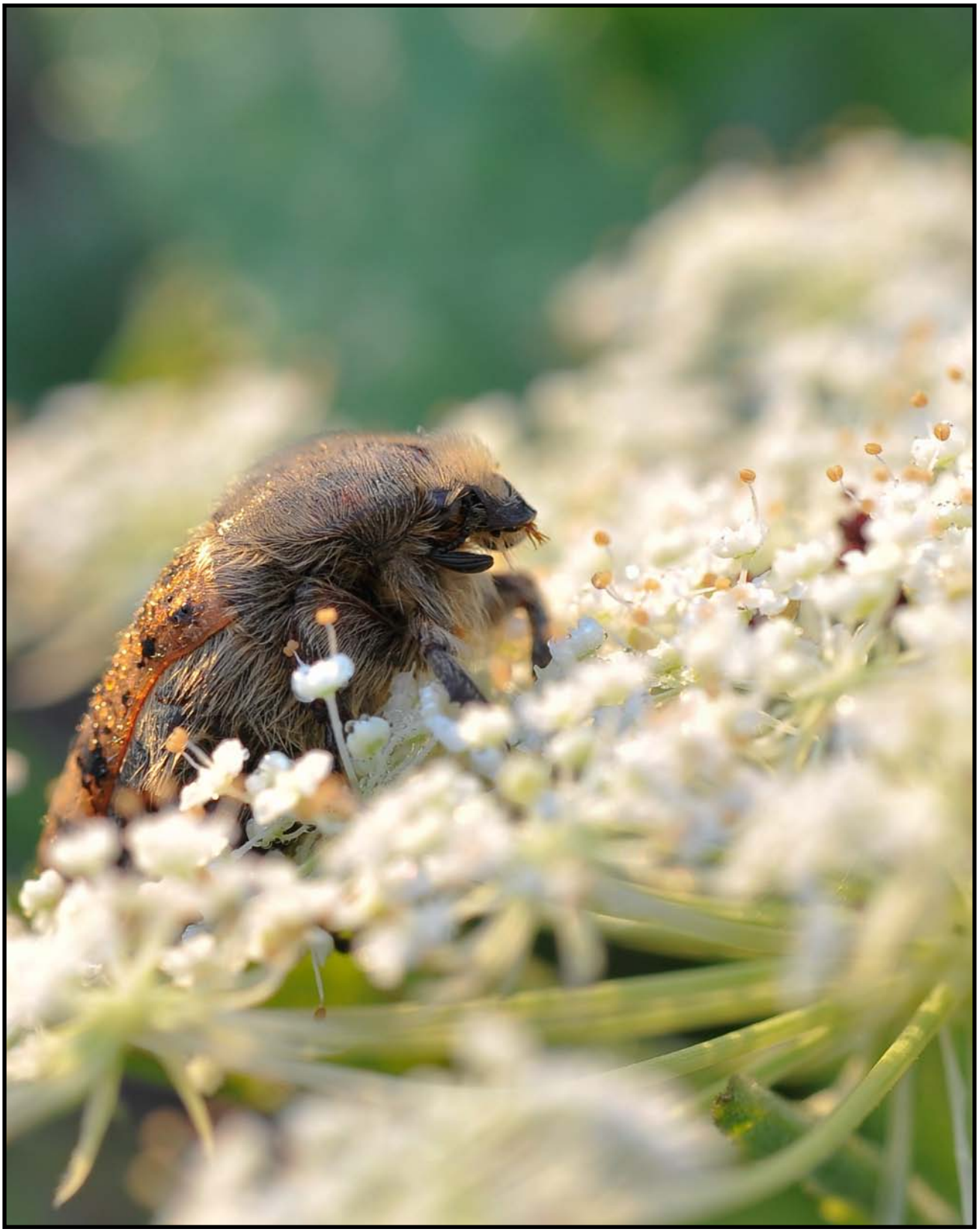
Shown here is a typical weevil. When I accidently bumped the milkweed leaf he was on, he promptly rolled over and played dead for a while, then got back up and started moving around again. They are harmless, don't bite, and tough as all get out, so you can pick them up if you want, but they are small.

Habitat: Fields, crops, as well as granaries, food-processing plants, and food markets. They like nuts, acorns, old pasta, beans, corn, and so on.

Bumble Flower Beetle (Euphoria inda)

This robust hairy beetle is often mistaken for a bumblebee as it comes slowly buzzing along just above the ground. They are among some of the first to appear in spring. This somewhat clumsy and slow-moving insect wears a hairy coat that looks like a fine cloth or tapestry. They like flowers and the juices of fresh corn, grapes, and other fruit. This beetle can usually be found in meadows and open areas. If handled, they can emit a strong chlorine-like odor. The larvae live in rotten wood and beneath woody debris.

Habitat: Fields and meadows in Easter and central North America.

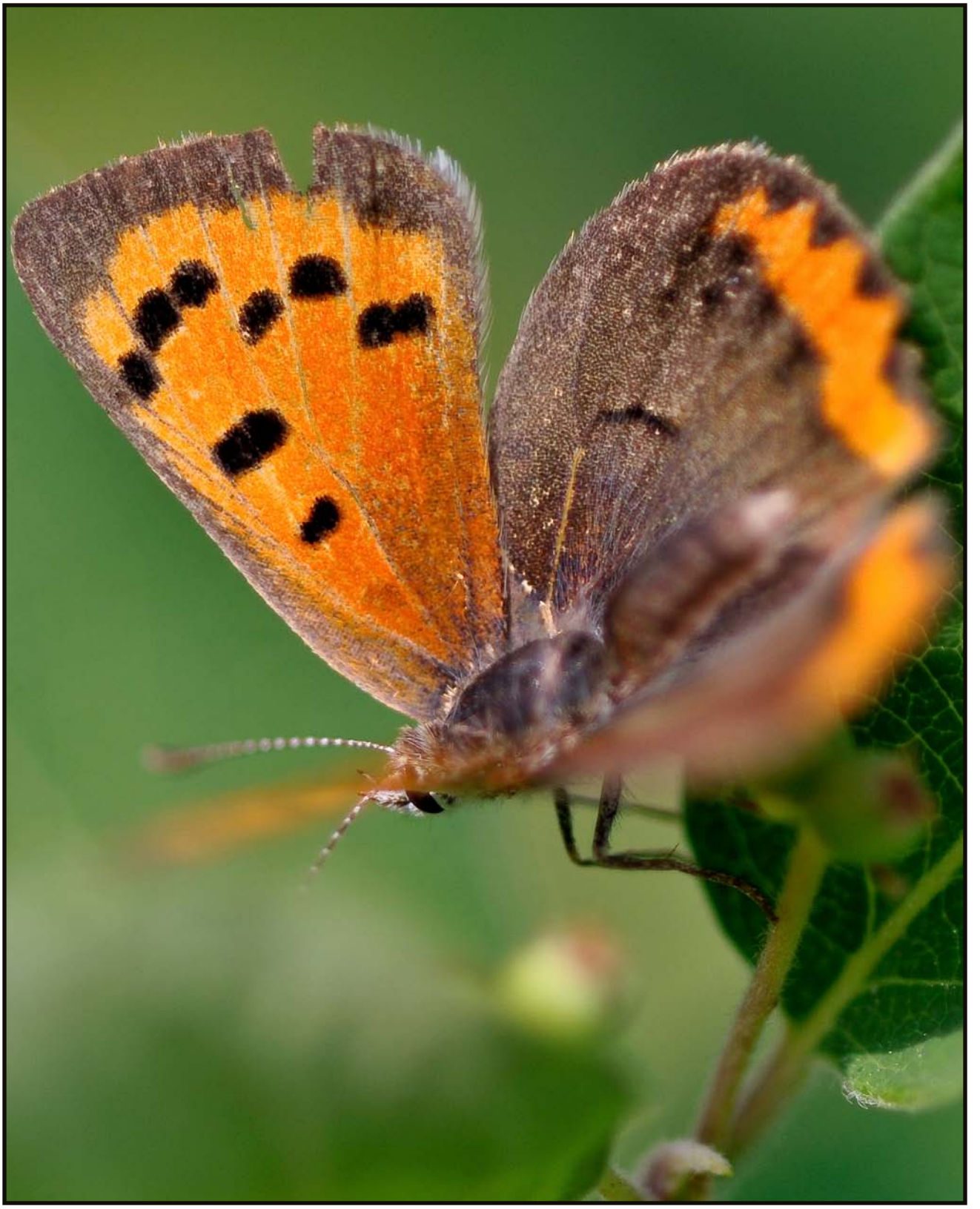


Dogbane Leaf Beetle (Chrysochus auratus)

These little bright-colored shiny guys are a little bit disgusting, I have to admit. They congregate in good numbers, all clustered together at the top of the plant they are eating, and hardly move an inch. In fact their droppings are all over the plant and themselves, for that matter. They seem to eat everything around them. The larvae live in the ground and feed on roots and other plant materials. They are unusual in that even a slight change of light or position will result in a different kind of sheen and reflection.

I visited this bunch of eaters many times and they were always busy with dogbane and milkweed. They emit a foul-smelling odor when touched and tend to drop off the plant to the ground.

Habitat: Fields, meadows, open sunny space.



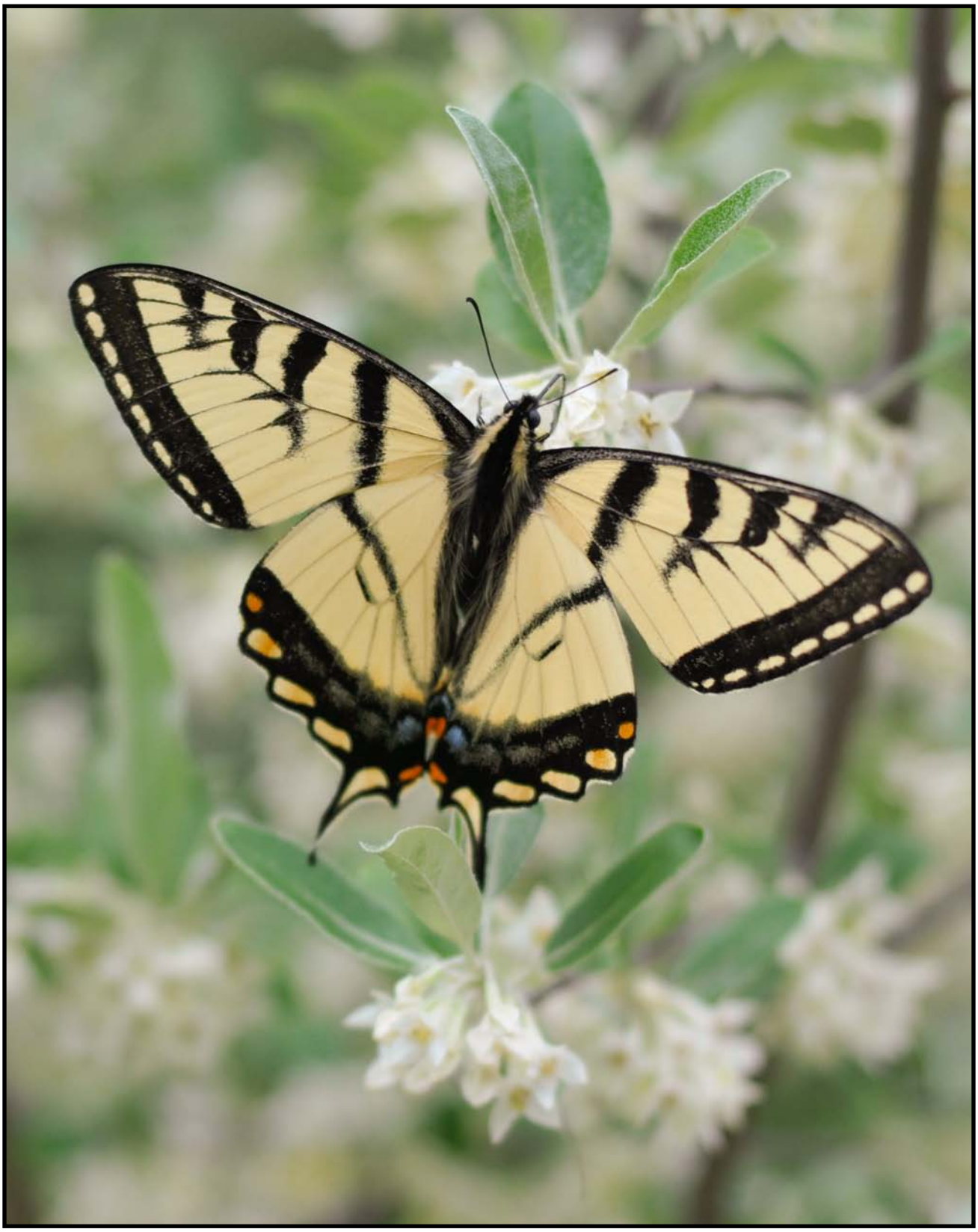
Butterflies and Moths

Tiger Swallowtail (Papilio glaucus)

This very large and lovely butterfly is common from the East Coast to the Rocky Mountains, and tend to congregate in the spring on roads and sandy areas where there is moist sand or perhaps small puddles. The adults eat nectar from flowers such as lilac and wild cherry. The caterpillars feed on a variety of trees, including wild cherry and willow. The males are yellow as shown here, but the females come in both yellow or blue-black. This is quite a spectacular looking butterfly.

This is probably the most-commonly seen of the larger butterflies, suddenly flitting past me and on to somewhere or hanging around milkweed patches and the shores of permanent water, such as ponds and marshes. The individual butterflies are loners, except during mating season when they congregate as shown here.

Habitat: Deciduous broadleaf woods, forest clearings or edges, parks, gardens, suburbs – almost anywhere.



Skippers

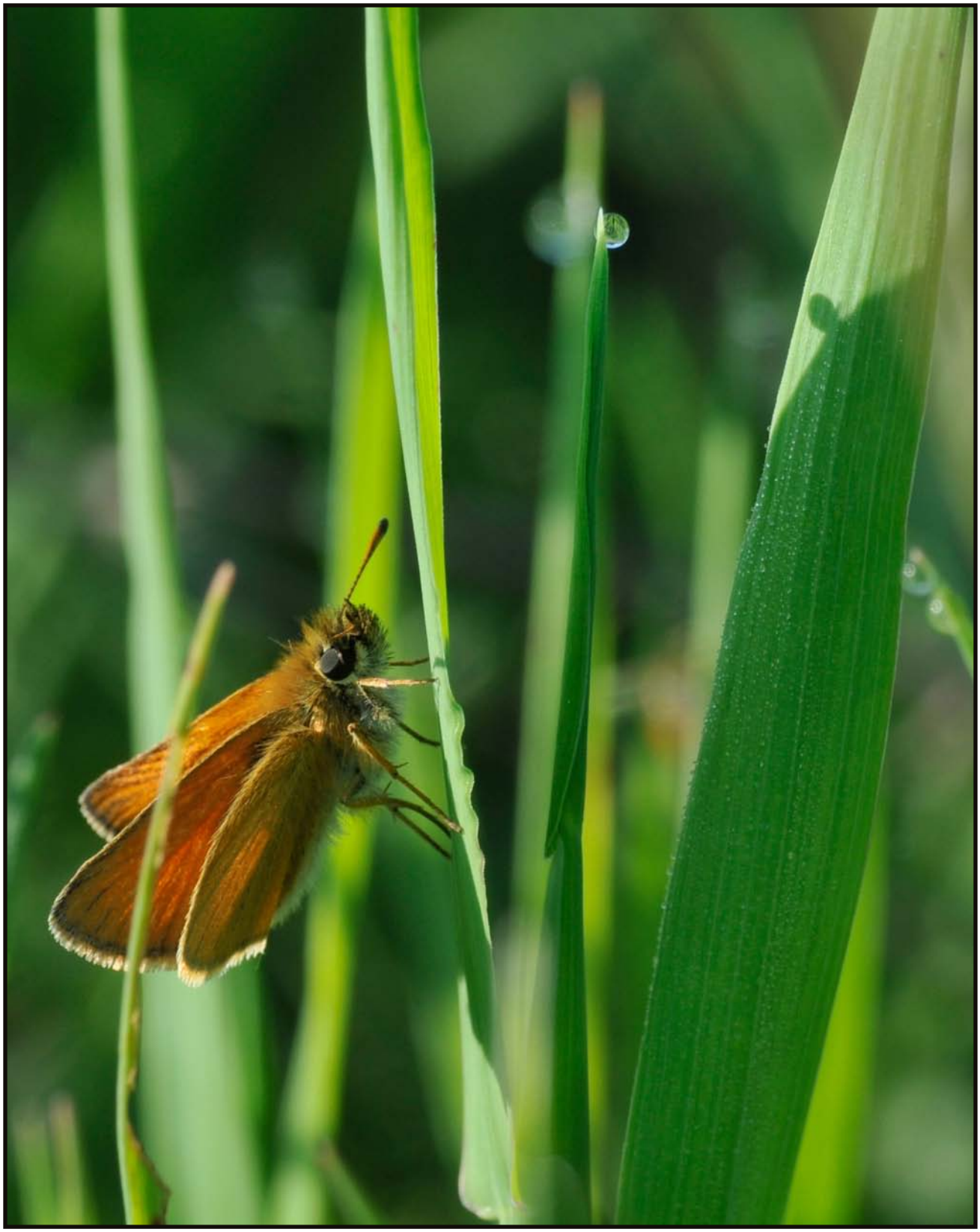
On the right is the Least Skipper (Ancyloxpha numitor), while below is the Silver-Spotted Skipper (Epargyreus clarus).

These common butterflies tend to appear as the morning warms up, as they need temperatures above 77 degrees in order to fly. It is easy to find them in a meadow early in the morning, covered with dew, and waiting for the dew to dry and the temperature to rise. These are solitary butterflies, except during mating season.

Skippers literally skip or flit around, which is probably where their name came from, and mostly they like to be out in the sun, moving from flower to flower. Some have said that skippers look like they are a cross between a butterfly and a moth, perhaps because they have that fuzzy-bodied look and big dark eyes that many moths have.

If you are out in the meadows like I am, skippers are a constant companion, because they are almost always around.

Habitat: Meadows, open fields, sunny patches on the edges of forests.



Eastern Tent Caterpillar (Malacosoma americanum)

This moth (and larva) is often confused with the much-hated Gypsy Moth, whose larvae also build a tent nursery. The emerging caterpillars themselves build the tent-nest in which they live. The caterpillars travel during the day to feed on leaves, but return back to the nest in the evening following tiny trails of silk they have laid down. These caterpillars are among the earliest to emerge in the spring, at which time they immediately build a tent and depend on the morning sun to raise temperatures enough for them to move around and feed. The enclosed tent acts like a miniature greenhouse and traps the rays of the sun.

These caterpillars actually are quite beautiful. As for the damage they cause to trees, experts say this is a natural cycle that has been going on virtually forever, and repairs itself within a few years after the devastation occurs.

The adult female lays eggs on a twig, which overwinters. It is the next spring, when the caterpillars emerge that the tent is built

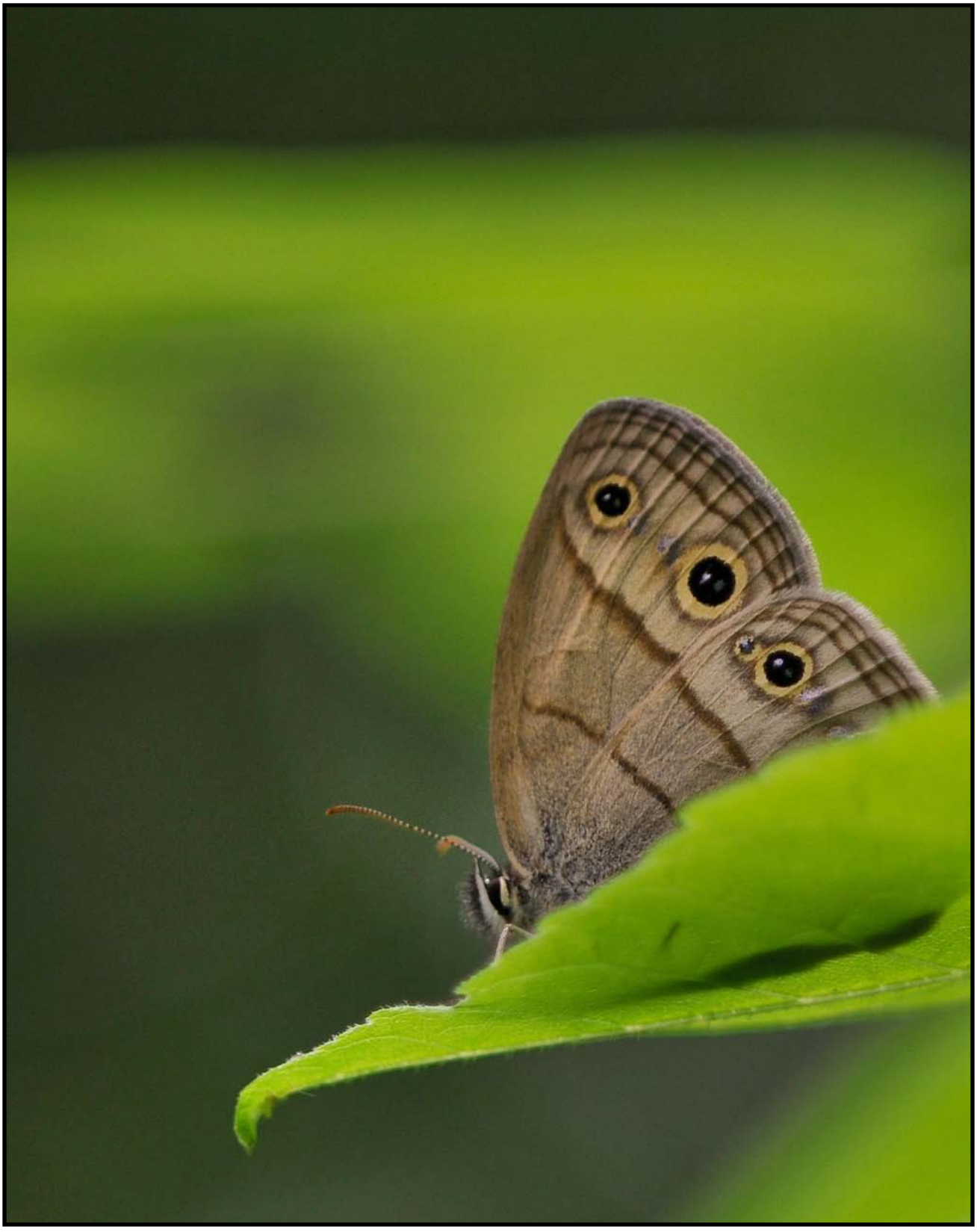
Habitat: Larvae build tents primarily in cherry and apple trees.

Little Wood Satyr (Megisto cymela)

The Little Wood Satyr (pronounced: Sate-er) is pretty much the hallmark of woods, anywhere sun and gently shade mix. These butterflies slowly fly in an almost awkward jerky way, frequently pausing to rest here or there on a leaf or twig. They appear in Michigan in late May and June, and are almost a constant to those of us who wander the forests. The larvae feed on various grasses, while the adult butterflies take flower nectar and saps.

Of the smaller butterflies, especially in open woods, this is probably the most easily encountered. There is something magical when I stand in a quiet glade, with the sun streaming down through the top of the forest, and all is silent and motionless, except for the bouncing flight of this little butterfly. It is as if time somehow stops for an instant.

Habitat: Woods, meadows with shrubs, sunny areas with some shade.



Cabbage Butterfly (Pieris rapae)

The Cabbage Butterfuly was introduced into Canada from Europe in the 1850s, and has spread virtually everywhere. It is a great pollinator, said to be four times as proficient as honeybees for plants, such as the wild radish, red clover, dandelion, black-eyed susan, buttonbush, and wild strawberry. However, they also like many garden plants like broccoli and cabbage, thus the name.

This is a butterfly that you will come across virtually everywhere, but particularly where there is sunshine and open light. Like the tiger swallowtails, cabbage butterflies love to congregate near streams and marsh areas, where there is a moist open space, such as damp sand. Here are some cavorting on damp sand near a creek.

Habitat: Meadows, fields, sunny areas.

Monarch (Danaus plexippus)

Everyone seems to know the brightly-colored Monarch Butterfly, also known as the milkweed butterfly because they lay their eggs on the common milkweed plant. As summer ends, monarch butterflies migrate and can be found moving southward along the shorelines of the Great Lakes on their way to Mexico and Central America. They tend to overwinter in conifer groves. On the long migration trip, the original butterfly dies, but its offspring finds its way back up north and the cycle begins again.

The monarch lays its eggs on the milkweed plant, on which the emerging caterpillars feed. The adult butterfly enjoys the nectar from the milkweed flowers. Monarchs have a bitter taste (due to the milkweed) and thus birds and other predators don't eat them. More on this in the following pages.

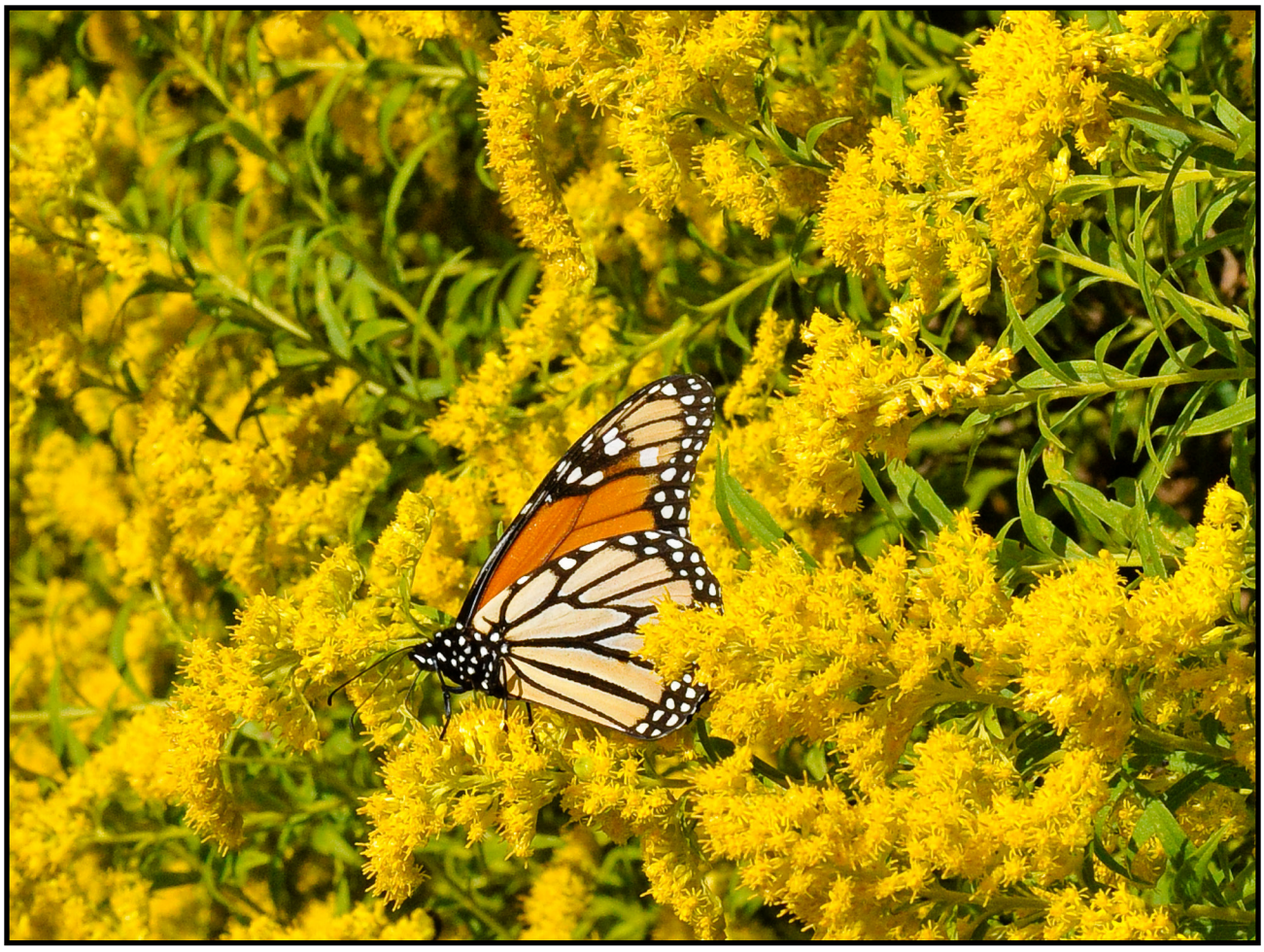
Habitat: Fields, meadows, prairies, gardens, parks, and along the road.

Viceroy Butterfly (Limenitis archippus)

The Viceroy Butterfly is almost a perfect mimic of the monarch butterfly, which it seeks to emulate because predators won't eat the monarch due to the bitter taste of the milkweed they were raised on. Viceroys apparently are good eating for birds, but because they so resemble the monarch, they too are avoided. Below is a photo of monarch butterfly, while to the right are photos of the viceroy. The only obvious difference is the black quarter-circle band in the lower wing on each side. This is how to tell one from the other.

Viceroy larvae do not eat milkweed. The adults feed on carrion, manure, and the nectar of certain sunflowers, while the larvae are raised on poplar, willow, and cottonwood tries.

Habitat: Moist areas, such as the edges of swamps or lacks, wet meadows, thickets, valley bottoms, and the like.



Monarch Caterpillar (Danaus plexippus)

The monarch caterpillar is about two-inches long and has bright colors and a nice fat body as the photos show. The caterpillars are not shy and very slowly go on munching no matter how close you approach. They systematically eat through a leaf, from top to bottom, or from side to side. They can be hard to spot, because they often tend to remain on the underside of the leaf, but once they hit a leaf edge, they stand out. I like to go back and visit a particular caterpillar over a period of several days. When they are full grown, they form the most elegant chrysalis I have ever seen. I wish I had a picture to show you, but I can't find the one photo I took.

Habitat: Milkweed plants. Visible in the later part of the summer.

Fluffy Caterpillar (Spilosoma virginica)

Fluffy Caterpillar (spilosoma virginica)

Also called the Yellow Wooly Bear caterpillar, the Fluffy Caterpillar is quite stunning to see in person. The adult is called the American Ermine moth and is quite elegant as well. This caterpillar overwinters and is one of the first to emerge when the warm sunshine of spring returns. The caterpillars feed on various ground covers, like clover and grasses.

On the right-hand photo is a caterpillar covered with dew in the early morning in a raspberry patch.

Habitat: Forests, trees, shrubs, low-growing plants.

Milkweed Tussock Moth Caterpillars

Looking for all the world like some fancy breed of small dog, the Milkweed Tussock Moth (on the right), like the Monarch butterfly, feeds on the milkweed plant, although this caterpillar makes do with the tougher parts of the plant, while the monarch caterpillar prefers to dine on the more tender parts of younger plants. These bright-colored caterpillars show up toward the end of summer on milkweed plants, and are very slow moving and conspicuous.

You can frequently find these caterpillars sharing a plant with the long-horned milkweed beetle.

Habitat: Look for milkweed in fields, along roads, etc.

Sawfly Larva

Here is another worm that looks more like a caterpillar, and is actually the larva of one of the sawflies. Notice that aside from three pairs of legs (a few on the front and one on the rear), the other legs are not real, but just fleshy fake legs, made to resemble a caterpillar. These worms seriously defoliate conifers and thus are not popular. They will wipe out an entire branch and then move on to the next one. The larvae pupate and overwinter in the topsoil, emerging in early spring as adults to lay more egsg.

Habitat: Hosts are Jack Pines, Scottish pines, and other conifers.

Beautiful Wood-nymph Caterpillar (Eudryas grata)

This brightly colored caterpillar turns into a miller moth called "Beautiful Wood-nymph," and is not too commonly found. Actually, the adult moth has been described as looking like bird droppings, no disrespect intended.

Habitat: Buttonbush, Ampelopsis, grapes, Virginia creeper, hops.

Dead-wood Borer Caterpillar (Scolecocampa liburna)

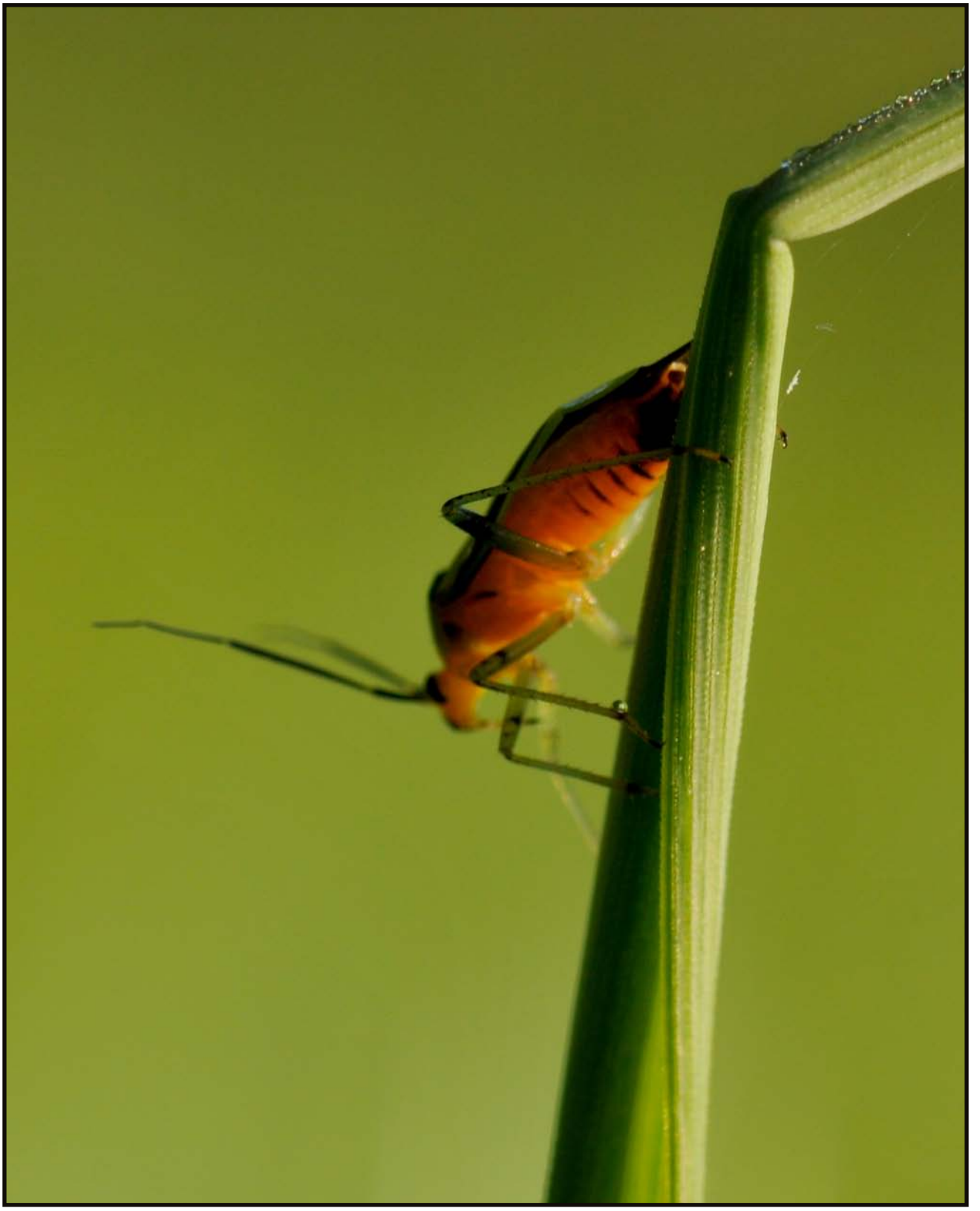
These larvae feed on decaying logs and wood debris in deciduous forests. They appear in late May on into July, and a second generation can appear in late August in the south. The larvae dig tunnels in hickory, oak, chestnut, sycamore, and other trees. What this larva was doing up in the flowers of a plant I have no idea, but I watched it for quite some time having (what seemed to me) a wonderful time in the warm sunlight.

Habitat: Deciduous forests.

Curve-Lined Angle Moth (Digrammia continuata)

This moth is the adult of one of the "inchworm" or "measuringworm" larvae that we are all familiar with, worms usually feed externally on leaves and pupate in loose cocoons in leaf litter or soil. The larvae feed on Juniper bushes and the Eastern Arborvitae. The flight of this moth is similar to that of butterflies.

Habitat: Widespread. Juniper bushes.



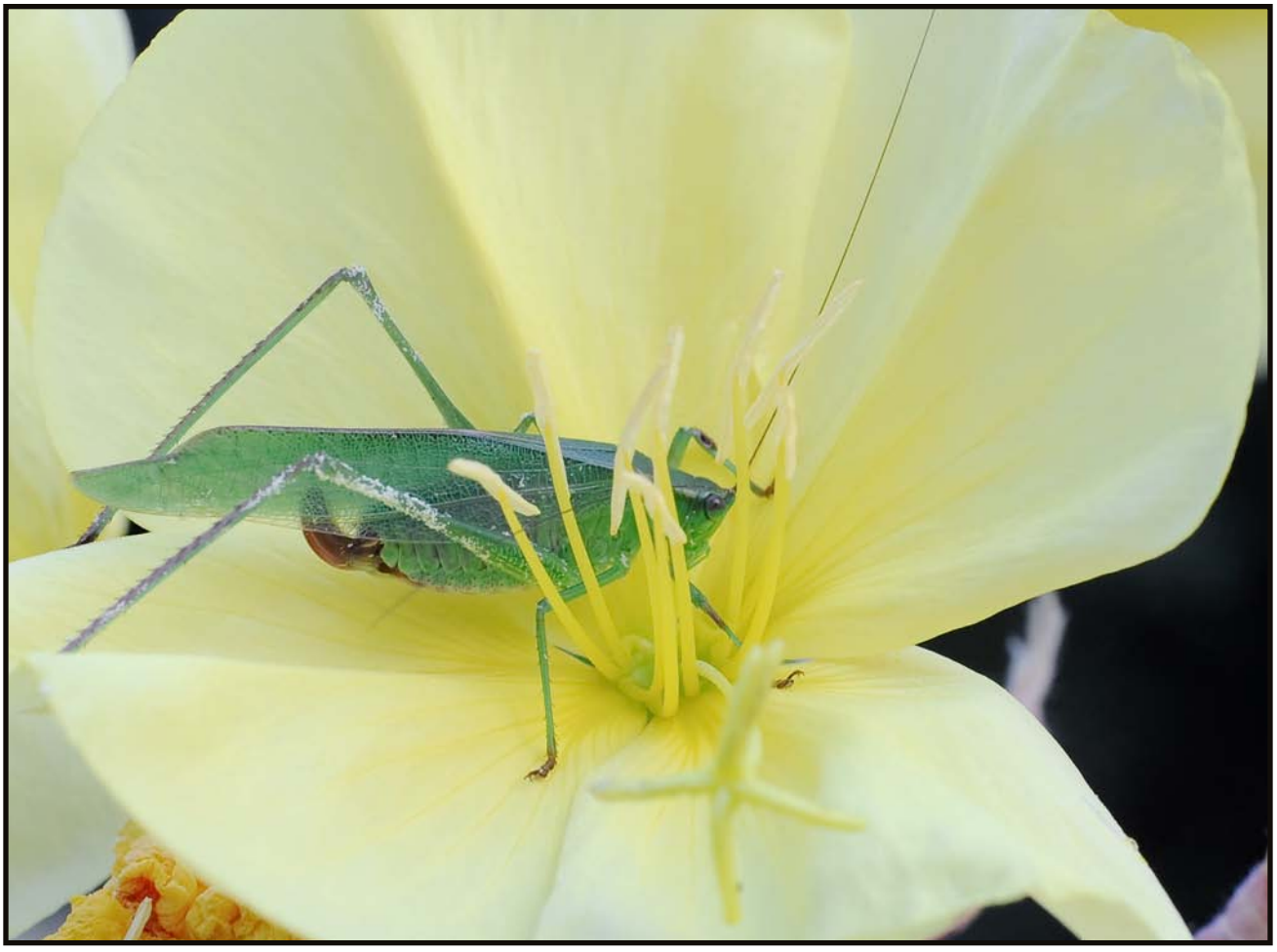
Bugs and Other Insects

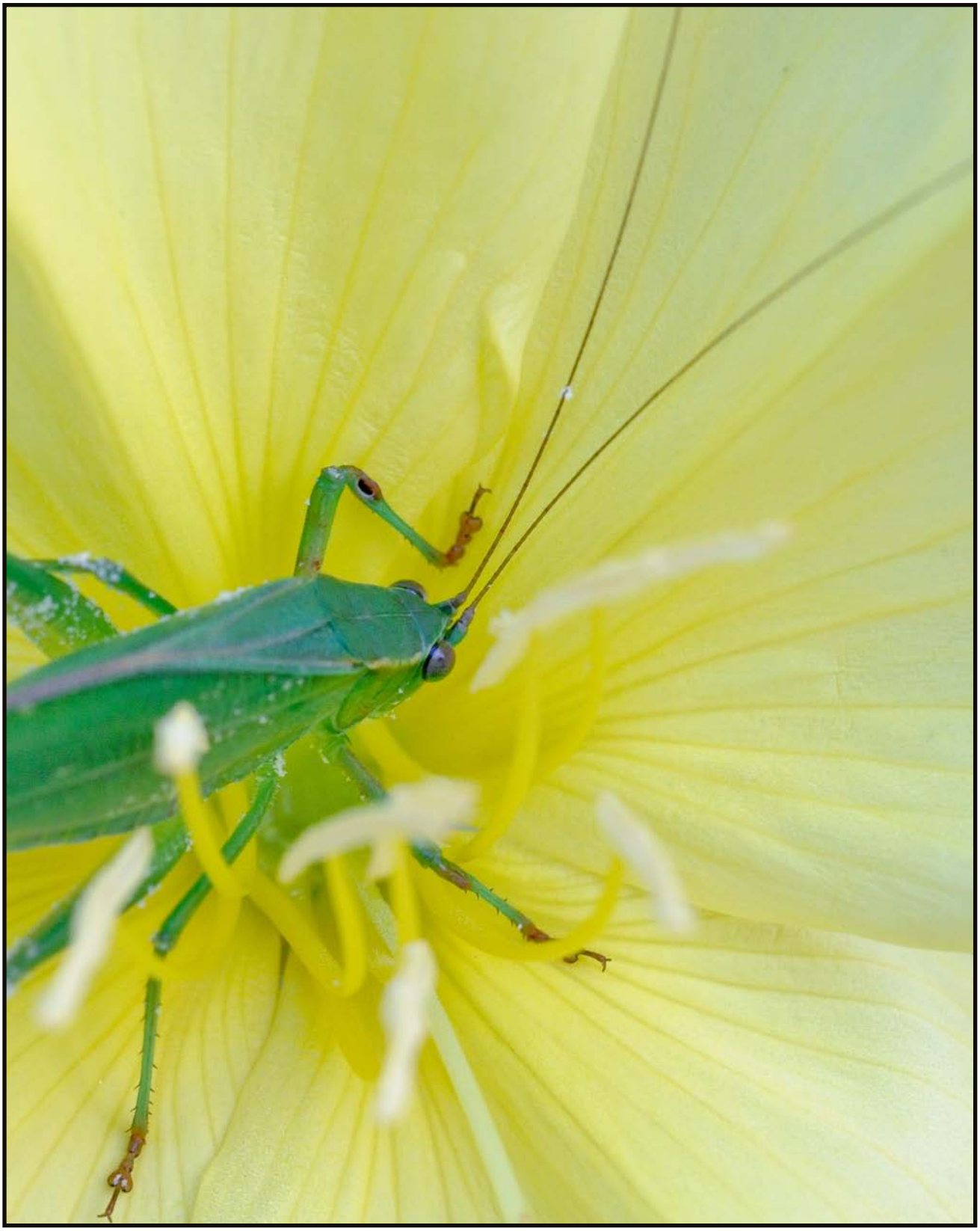
Katydid (Family Tettigoniidae)

Katydid are lots of fun, first because if they are busy on a plant, they are not going to pay much attention to you and are not likely to just fly away. Also, the younger katydid's wings may not be long enough to fly anyway. And they are just kind of funny to watch as they carefully walk around on a plant. Let me give you an example.

When I sometimes visit upstate New York in the late summer and early fall, the katydids are all in the trees and as evening comes on they all being to sing, and they are not shy about it. They collectively make an incredible racket, filling the entire night air with their song. It is wonderful just to have them singing all around me like that.

Habitat: Meadows, fields, shrubs, grasslands.





Katydid (Family Tettigoniidae)

One year I had a good-sized group of Evening Primrose, with large yellow flowers that only open in the evening and close in the morning – one night only. Well, all the local katydids apparently love to eat those primrose flowers, because many mornings when I would be getting ready to head out to photograph, there would be one or more katydids right in the middle of the flowers themselves. And they were not the least bit shy. Perhaps it was the cool of the morning, but they just sat in there and I could see that often they had eaten a lot of the flower they were in. Not a problem, because as soon as the Sun came up, that flower would fade and wilt away.

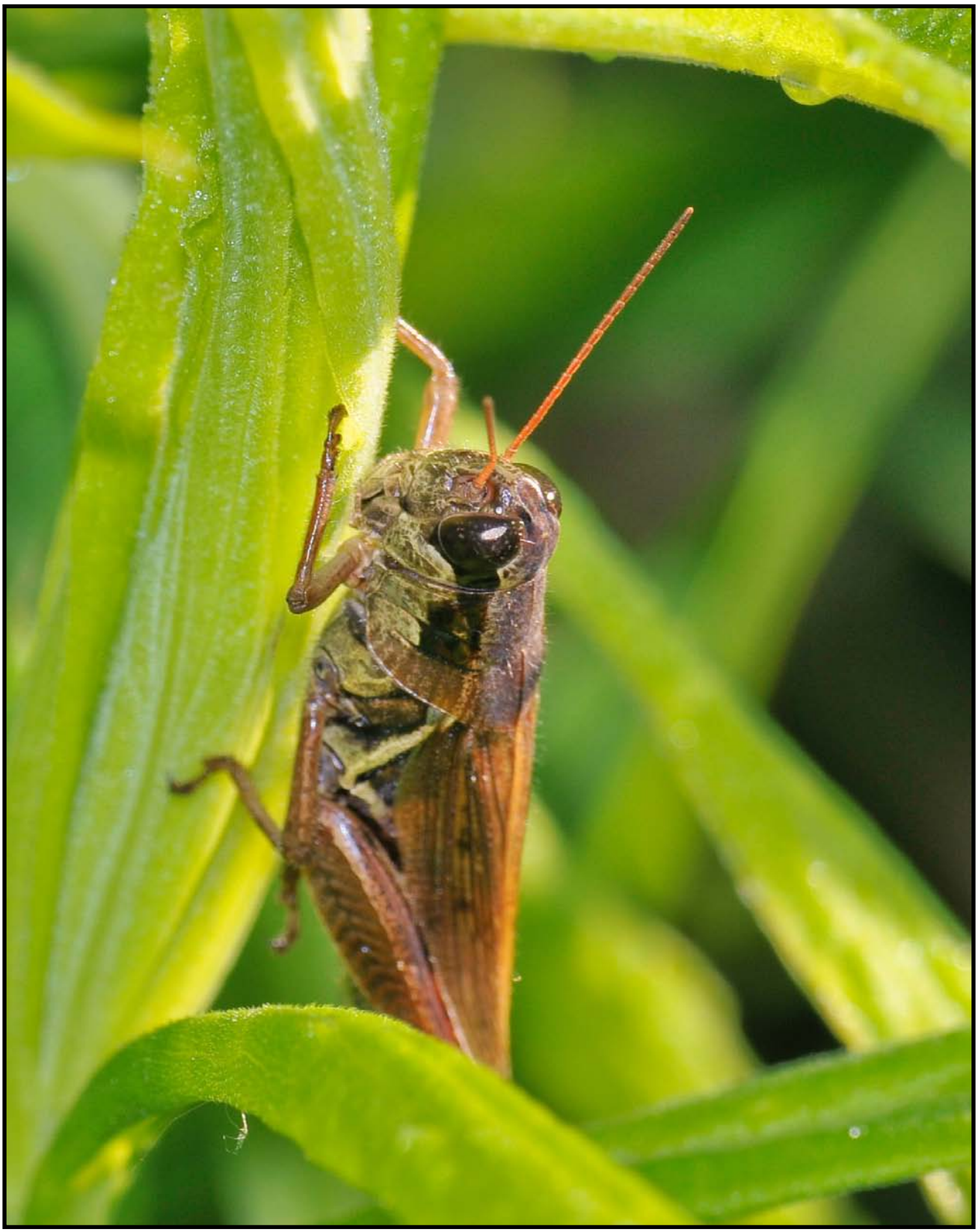
Habitat: Meadows, fields, shrubs, grasslands.

Common Grasshopper (melanoplus differentialis)

The common grasshopper is considered a major pest when commercial growing and crops are concerned, and in the wild they like to eat a mixture of grasses and broad-leaf plants. They can be strong flyers and in hot climates even seek the air to avoid the heat on the ground, having been see by airplane pilots at heights of 1,400 feet above the surface.

And they come in a wide variety of sizes because the larvae or 'nymphs' as they are called resemble the adults, only they are smaller and a little bit like a caricature of the mature insects. They don't bite and about the worst thing they can do (if you manage to catch one!) is regurgitate on your hand what we used to as kids call "tobacco," being a combination of chewed grass and stomach fluids. They are pretty aware and tend to stay just out of reach. In the early mornings when they are covered by dew, they are much more approachable. I always find these insects pleasant and friendly looking.

Habitat: Pervasive. Meadows, fields, prairies, crop areas, each with moisture.



Scarlet-and-Green Leafhopper (graphocephala coccinea)

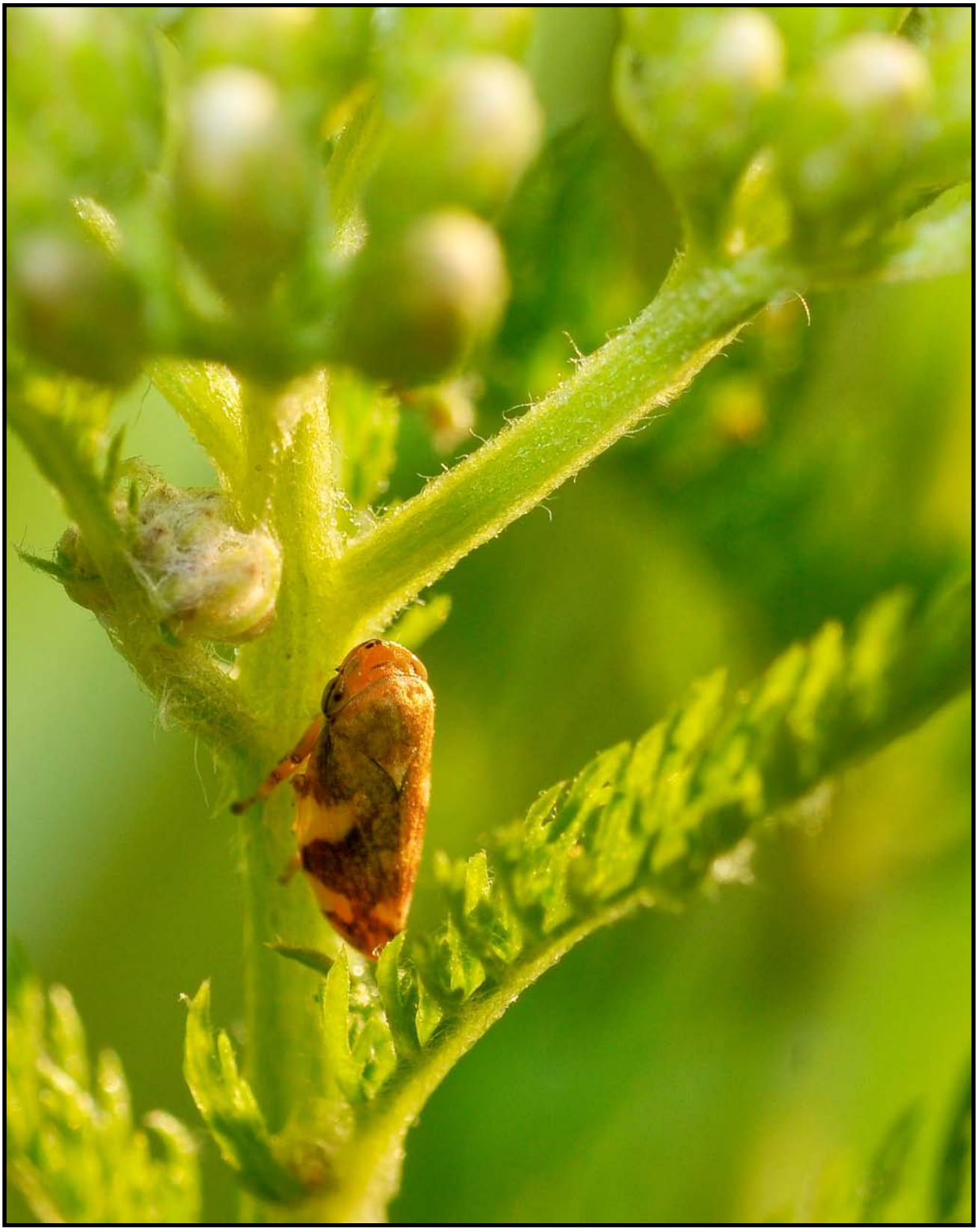
This brightly-colored leafhopper is best spotted early in the morning when they are still sluggish and dew covered. It loves plants and feeds on their juices, but plants don't love the leafhopper, because something in their saliva makes the leaves wilt and die wherever they have eaten. The leafhopper lays its eggs right in the plant tissue, and gardeners know that they feed on their Rhododendron and Azalea plants and don't like it.

Habitat: Meadows, fields, gardens.

Two-stripped Planthopper (Acanalonia bivittata)

Here are a few of the many varieties of leafhoppers, plant-hoppers, and treehoppers (whatever you want to call them), including this little fat beauty in the lower left corner of this page. They feed on plant juices and their eggs hatch to produce little nymphs that eat the same food.

Habitat: Shrubs, meadows, fields, herbaceous plants.



Speckled Sharpshooter (Paraulacizes irrorata)

This leafhopper is considered a "bad bug" and is not liked by commercial plant growers because they are voracious eaters, easily consuming up to 100 times their weight a day. They happen to be one of my favorite insects, because of their size (they are perhaps the largest leafhopper) and my own experience with them.

I discovered one on a plant growing along the edge of a local cemetery. I was surprised at its large size and behavior. Treehoppers and leafhoppers tend to be wary and keep their distance, but this bug was ingenious at staying out of sight. No matter how carefully I moved around the stem it was on, the insect was instantly moved to the opposite side. It took me a very long time to get the shots I was able to take.

I would come back to this same plant over a period of days, and there he would be, in exactly the same spot. Then one day when I came to visit him, he was gone. The entire area had been mowed. The adults overwinter, so I hope to see him in the spring.

Habitat: Plants in meadows, fields, in sunny areas.

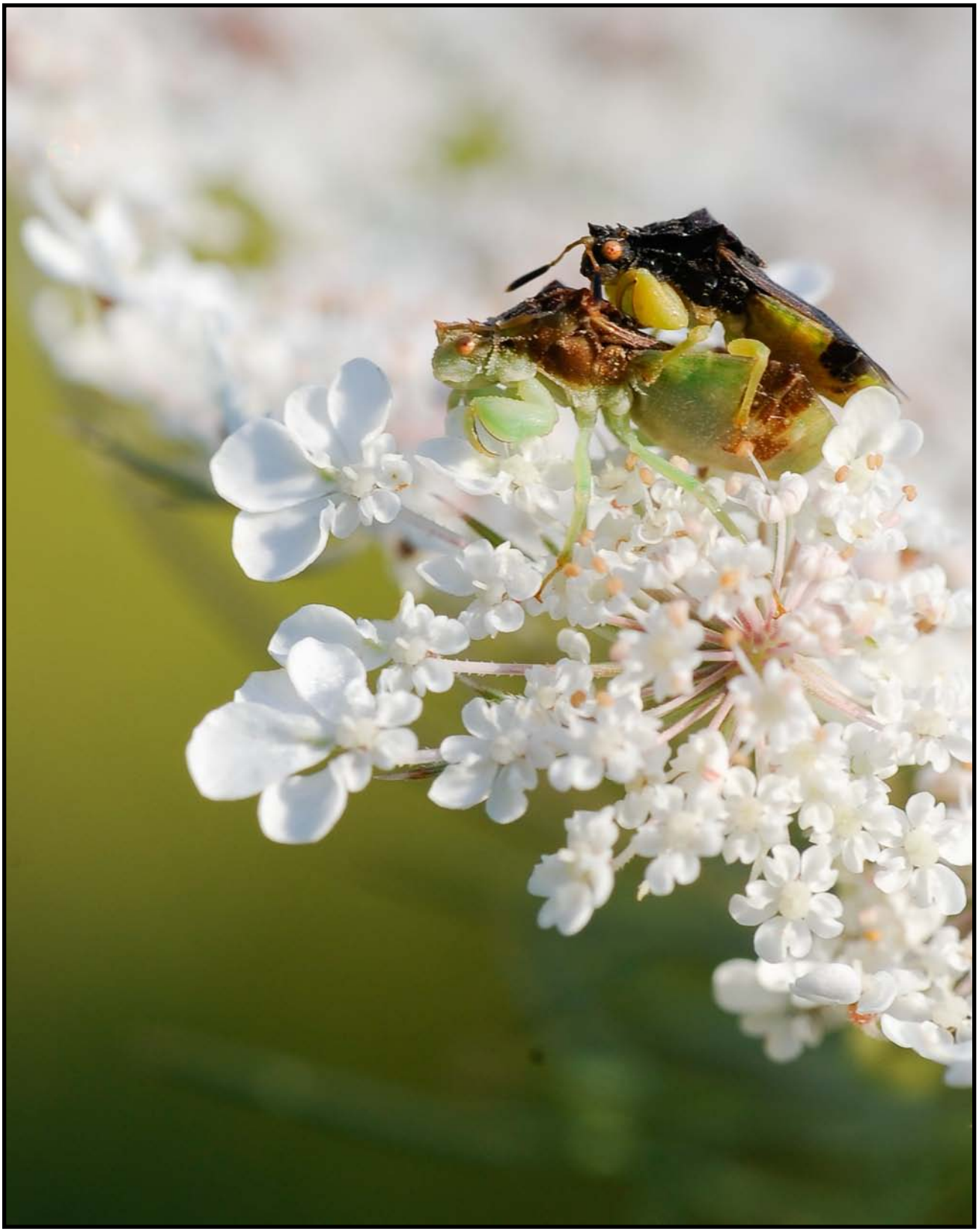
Jagged Ambush Bug (Phymata erosa)

The ambush bug is a real predator, with vice-like claws similar to the praying mantis. Built like a tank and looking like Terminator, this is a real killing machine, able to capture and subdue insects much larger than itself.

A creature of the meadows, often hidden in the very tops of plants like the Queen Anne's Lace and Goldenrod, the ambush bug hides motionless, hidden among the flowers waiting for a visitor to grab. This tiny predator can bring down huge moths, hornets, bees, and just about any insect that dares to get near it.

The ambush bug grabs a passing insect, pierces it's skin, injecting venom which soon paralyzes its victim, causing the insides of its victim to decompose into a kind of a soup. The ambush bug then drinks the soup through a tube, much like drinking liquid through a straw.

Habitat: Fields, meadows, gardens, flowers.

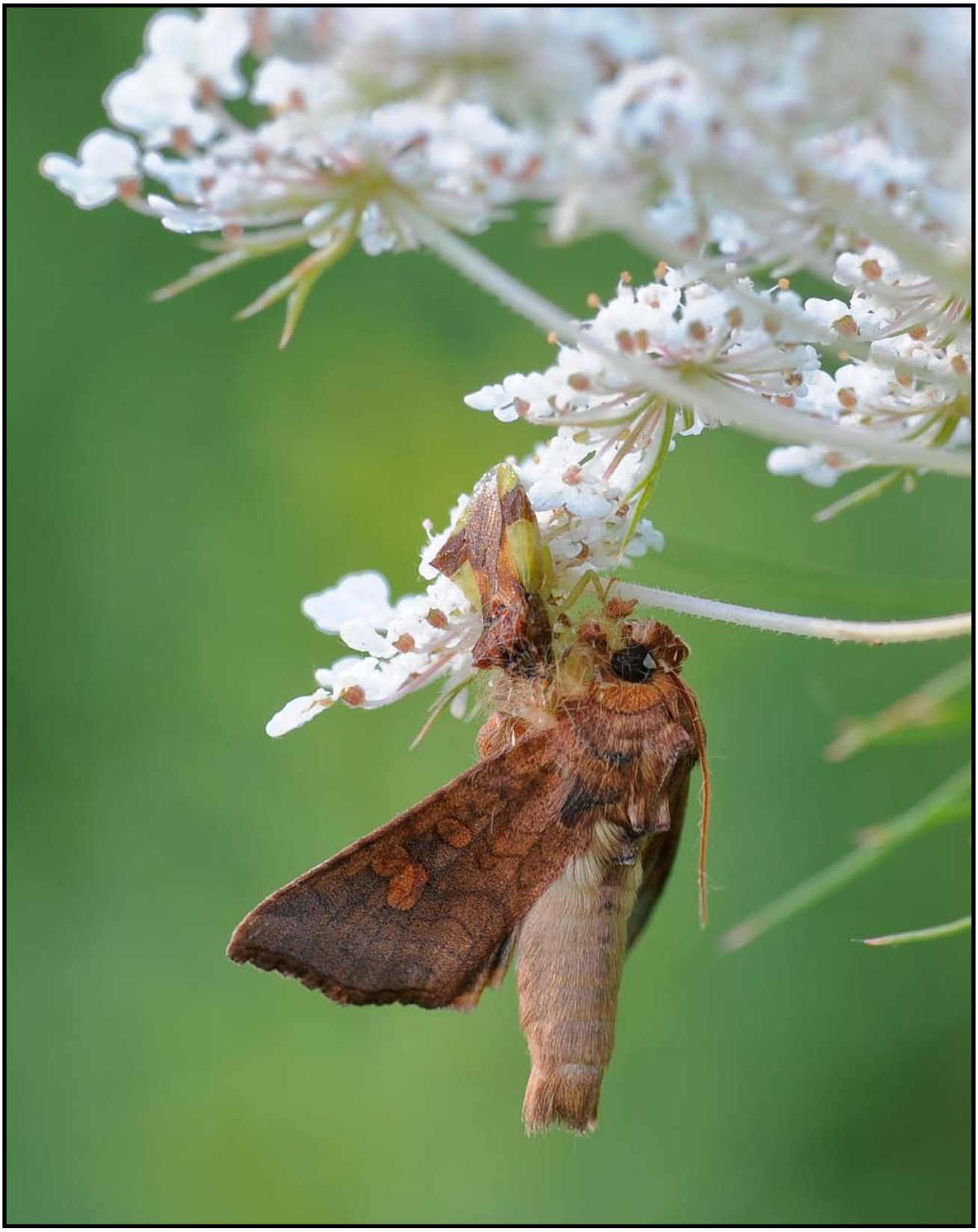


Jagged Ambush Bug (Phymata erosa)

Here are a couple examples of the strength and power the jagged ambush bug has, easily overpowering insects much larger than itself. On the right, an ambush bug has captured what appears to be some form of Sphinx moth (much larger than itself), and is in the process of drinking its bodily fluids while holding it.

In the photo of the moth (I don't know what kind it is), I did not at first realize that this moth which was holding so still for me was the victim of an ambush. If you look under the moth's wing on the right side of the photo, you will see that an ambush bug has this moth and is in the process of feeding on it.

Habitat: Fields, meadows, gardens, flowers.



Assasin Bug (Sinea spinipes)

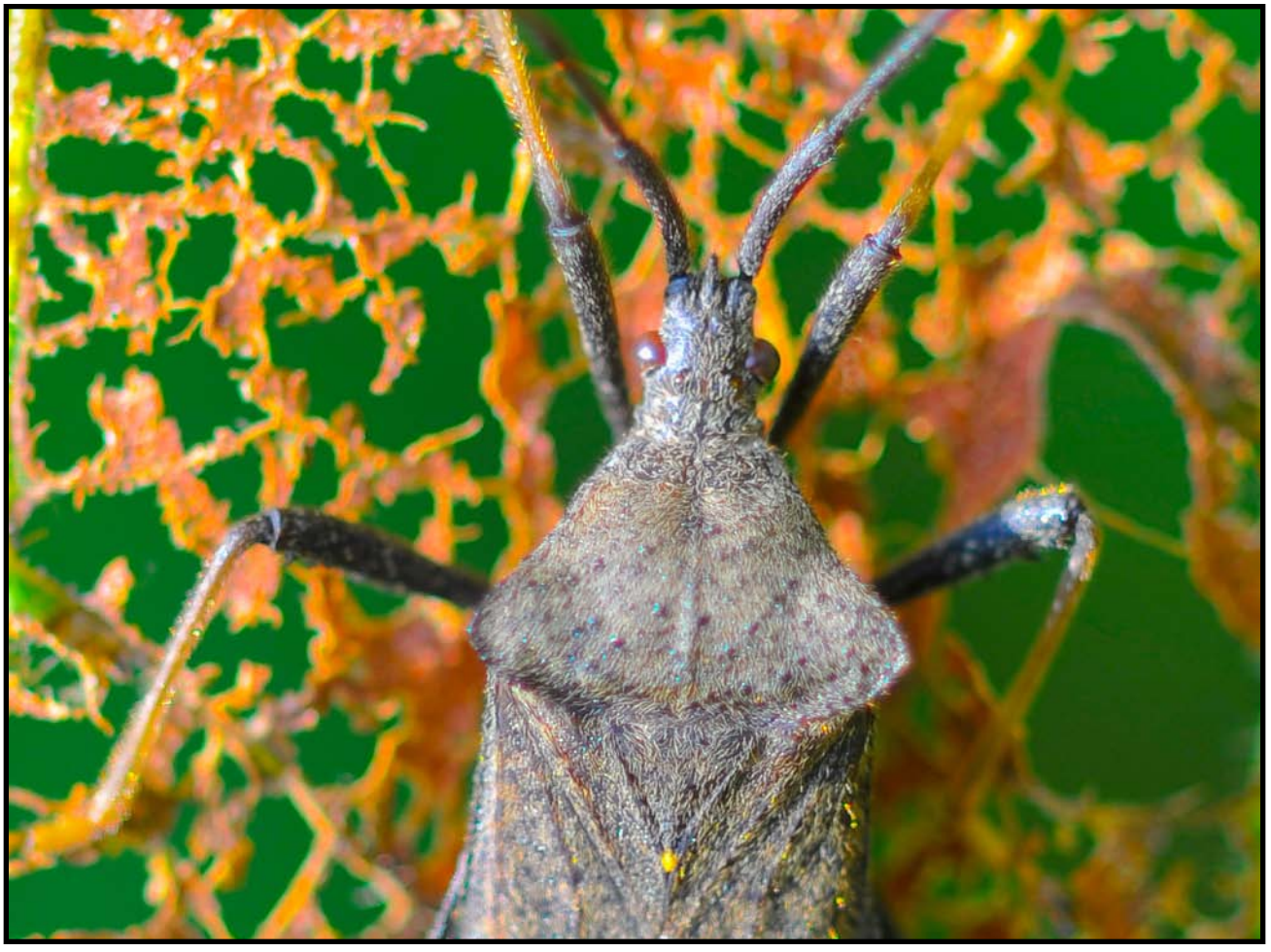
If this insect were six feet long, we'd be running for our lives. This is a very mobile and aggressive predator, hunting down and feeding on other insects. They look to me like they have had way too much caffeine. This bug overwinters as an adult and emerges in the spring, usually in late April. The young nymph resembles the adult, but is smaller, molts, and gradually assumes the size and look of the adults.

Habitat: Eastern and central North America, fields, meadows, with flowers..

Assasin Bug (Arilus cristatus)

Here is a most common form of the assassin bug. On the mornings when nothing else seemed to be out, I usually can find one of these guys perched on a bush waiting for breakfast. They are not particularly skittish and usually will not run away.

Habitat: Fields, meadows, on flowers and plants.



Walking Stick (Family Diapheromera)

I found this Walking Stick early one morning on a raspberry bush in a meadow. It was almost invisible until it moved, which probably protects the insect from being eaten by predators. The juveniles (which hatch from single eggs that overwinter) look like the adults, but are of course much smaller and more attenuated. In Michigan, they can be found later in the summer, usually in August and September.

The food of the walking stick is the leaves of deciduous shrubs and trees. Walking Sticks are very docile and don't move particularly fast. I let him climb on to my hand and walk around.

Habitat: Deciduous woods and forest.

Praying Mantis (Tenodera aridifolia)

The Praying Mantis is no-doubt the rock star of assassin bugs, with a profile high enough that most people know what they look like. With their two clamp-like front legs, they are fierce predators and voracious eaters, tacking any bug they can overpower, including other members of their own species.

The female lays her eggs in a frothy brown case that looks like it was spray-on insulation. The egg cases, which may contain 50 to 400 eggs, overwinter and hatch in the spring. The hatchling nymphs are solitary and look like ultra-miniature adults. The female is known to kill and eat the male after mating.

They are hard to hand capture without injuring them, but will often readily climb onto your extended hand and proceed to walk around. They have very sharp vision and appear very aware of anything that moves near them.

Habitat: Meadows, fields, gardens. Widely distributed.

Red Ant (Family Myrmica)

This colony of red ants (right) was on the top of a mound of excavated earth that the colony had built in the middle of a field. Surrounded by grass, only the very top (like a bald head) was open to view and on that the ants were busy moving in and out of the nest. They are omnivorous, constantly searching for sources of food, which can include live and dead insects, animals, whatever. And they don't have a single queen, but can have hundreds of queens in the same hive. Suffice it to say, they are a highly organized machine.

These critters not only can ruin picnics, they can inflict painful bites and will do so at the earliest opportunity. I tried to keep my distance from them and had to be very careful setting up my tripod to take this shot. Even then, I got a couple of outriders trying to climb my legs.

Habitat: Meadows, fields, open areas.

Spiders

Jumping Spider *(Family Salticidae)*

This little jumping spider was sitting on a milkweed stem just watching me. Of course, with a name like that, these spiders can really jump. I must have made him nervous because he was moving (teeny jumps) back and forth on the stem almost faster than I could see. When I would try and get close to him to take his picture, he would slide around to the other side of the stem and peek out at me.

Jumping spiders have eight eyes and the sharpest vision of all spiders. Here he looks like a little SUV, complete with headlights and fog lights. Jumping spiders like to eat insects, but they don't make "spider webs" and wait for something to get caught in them. Instead, they are active hunters and like to be on the move. They must like to camp out, because when they get tired and want to sleep, they make a little tiny web tent and hide in there.

It turned out this particular jumping spider had his eye on a little earwig and before I knew it he jumped right on the earwig and that was the end of the earwig.

H**abitat:** Tree trunks, grasses, shrubs, plants, leaves.

The Spider and the Fly

What is nice about going out in the yard and just sitting down by a bush or a flower is that, after a short while, the insects and other life on the plant (that froze motion when I sat down) begin to move around again. Often there are all kinds of life living on the same plant or even the same leaf! For example, this jumping spider.

I was watching him just sitting way back there in the plant and trying to take his picture when this big green bottle Fly flew in and landed on the same leaf as Mr. spider.

The fly seemed to take no notice of the spider and was busy washing his face, but the spider took total notice of the fly. In a split second, the spider jumped around to face the fly and watched it with great interest. And watch he did. That fly must have been just what he was looking for. Well, the end of this story is that the spider did not get the fly, who soon disappeared into the air.

Habitat: Tree trunks, grasses, shrubs, plants, leaves.

Crab Spider (Family Thomisidae)

This crab spider was hanging out on a lovely Trillium flower deep in the woods. Crab spiders are not web makers, but prefer to hunt and (in particular) ambush their prey. There is no doubt that this particular spider had staked out this Trillium as his own and was waiting for any unwary insect that might want to visit the flower. When an insect goes into the flower, the crab spider will quickly follow after and grasp the insect with its large powerful forelegs.

Habitat: Fields, meadows, flowers, plants

Branch-Tip Spiders (Family Dictyna)

This small Branch-Tip spider was busy building her web in a meadow between some long-stemmed grasses. After they build a web, they find a little roost at one end of the web where they hide out, ready to rush in should any insect fly into it.

The spider will grab its dinner and take it back up to the roost to eat it or wrap it up with webbing for a later lunch. At some point the spider will create a web sac full of spider eggs that it will keep right in the center of the web. When the baby spiders hatch out, they will live on the web with the mother for some time.

Habitat: Meadows, fields, open grasslands, bushes.

Elegant Crab Spider (Xysticus elegans)

They get their names because they actually look like crabs, with their larger forearms ready for a wide embrace, and they also scuttle from side-to-side just like crabs. These spiders are not web builders, but instead are "ambushers," preferring to lie in wait for some passing insect and then rush and grab them with their wide forearms.

This crab spider was hanging out in a meadow waiting for something, but when I got too close he went and wedged himself down between the flowers (photo on the right), as if now I could not see him.

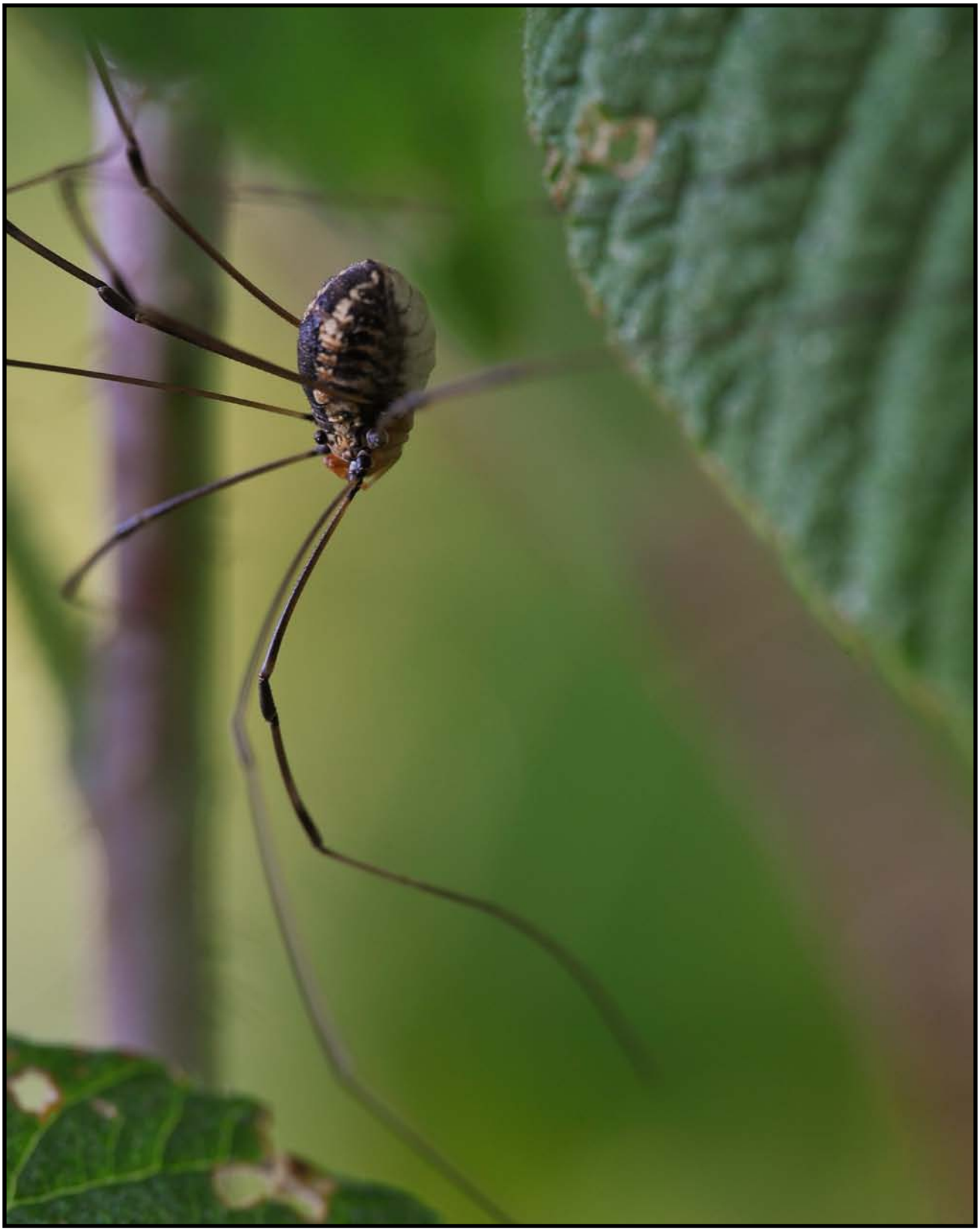
Habitat: Fields, meadows, grasslands.

Daddy-long-legs (Phalangium opilio)

Every kid knows the Daddy-long-legs spider (also called the "Harvestman)." They occur almost everywhere, in city lots and parks, as well as in the wild. They can move fast or slow, but slow is more usual, although they don't always like their picture taken and will keep moving until they are well out of site. They eat various organic materials, including fruits, vegetation, old animal tissue, and so on.

Daddy-long-legs have one generation a year (except in the south), laying eggs which are laid in most areas, under rocks, in the soil, and on plants which, after overwintering, hatch in the spring. They don't bite, although they can secrete a foul-smelling liquid if handled. However, they are totally harmless otherwise, and will easily accept a walk on your hand if so prompted.

Habitat: Crops, meadows, fields, bushes, low vegetation.

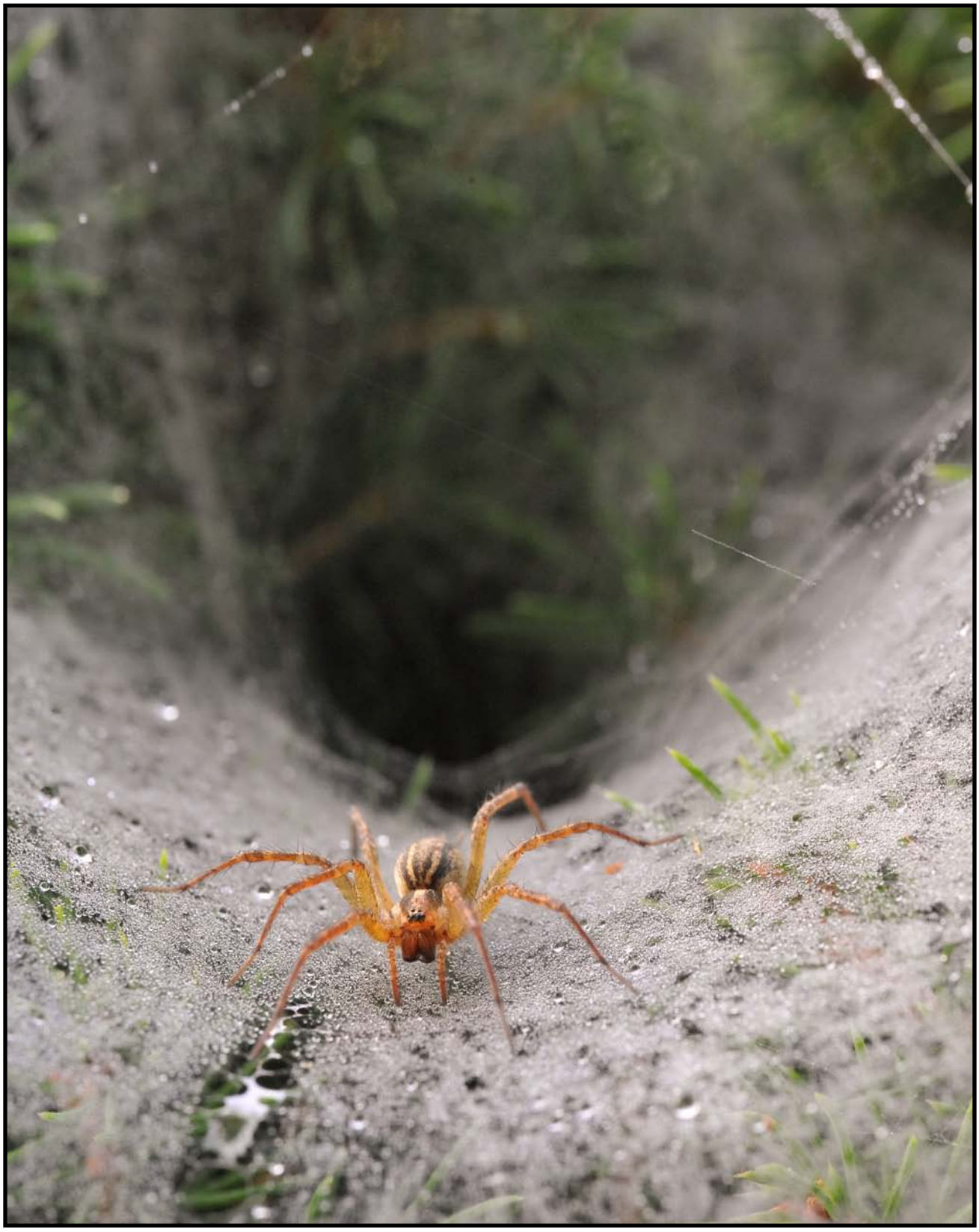


Funnel-web Spider (Agelenidae)

These somewhat-large hairy spiders look kind of scary close-up, but their bite is actually harmless to people. They make funnel-shaped webs, which can be large (covering a foot or more of space) or small – just a web tube. The funnel webs can be in bushes or grass, but usually close to the ground. And the webs can look like the charnel grounds that they are, if only because of the various molted pieces of the spider (arms, legs, etc.) that tend to be strewn around the web. It took me a while to realize these are cast off molting, rather than the results of cannibalization.

The spider resides at the back of the tube but usually can be coaxed out by gently touching the web with a stick, at which time they may run out hoping to find some prey struggling in the web.

Habitat: Grass, twigs, low bushes, generally close to the ground.



Funnel-web Spider (Agelenidae)

Here is a spider in his funnel tube, who has in front of him a fly he has captured and all wrapped up in webbing for a later lunch.

Young spiders hatch from eggs and look just like the adults from birth. These spiders are somewhat long-lived, living up to three years and overwintering.

Habitat: Grass, twigs, low bushes, generally close to the ground.

Spider Family (epeiridae)

This small Branch-Tip spider was busy building her web in a meadow between some long-stemmed grasses. After they build a web, they find a little roost at one end of the web where they hide out, ready to rush in should any insect fly into it.

The spider will grab its dinner and take it back up to the roost to eat it or wrap it up with webbing for a later lunch. At some point the spider will create a web sac full of spider eggs that it will keep right in the center of the web. When the baby spiders hatch out, they will live on the web with the mother for some time.

Habitat: Meadows, fields, open grasslands, bushes.

Banded Garden Spider (Argiope trifasciata)

The appearance of the large orb weaver spiders is a sure sign that summer is almost over. Take a walk through the meadows in the very early morning when the dew is on the grass, and these large webs stand out in the morning sun and are easy to find. These magnificent spiders usually are not easily spooked and will remain right at the center of their web even on close approach. If they are frightened, they will instantly drop out of the web to the ground and lose themselves in the underbrush. Their bites are not serious, but similar to a bee or wasp sting and they are not likely to bite unless you are messing with their egg case.

On the right is a photo of a garden spider who has captured some prey. They immediately begin to wrap whatever they catch in webbing, around and around they tumble their catch, which is still living. When they have got it wrapped up, they inject poison that paralyzes the captured insect, after which they can eat it at their leisure. The majority of webs are created along an east-to-west axis

Habitat: Fields, meadows, anywhere there are tall stems or grass to put up their webs.

Banded Garden Spider (Argiope trifasciata)

Visiting these webs at dawn, as the sun highlights the dewdrops on the web and covering the spider itself, is a special experience – beautiful.

Habitat: Fields, meadows, anywhere there are tall stems or grass to put up their webs.

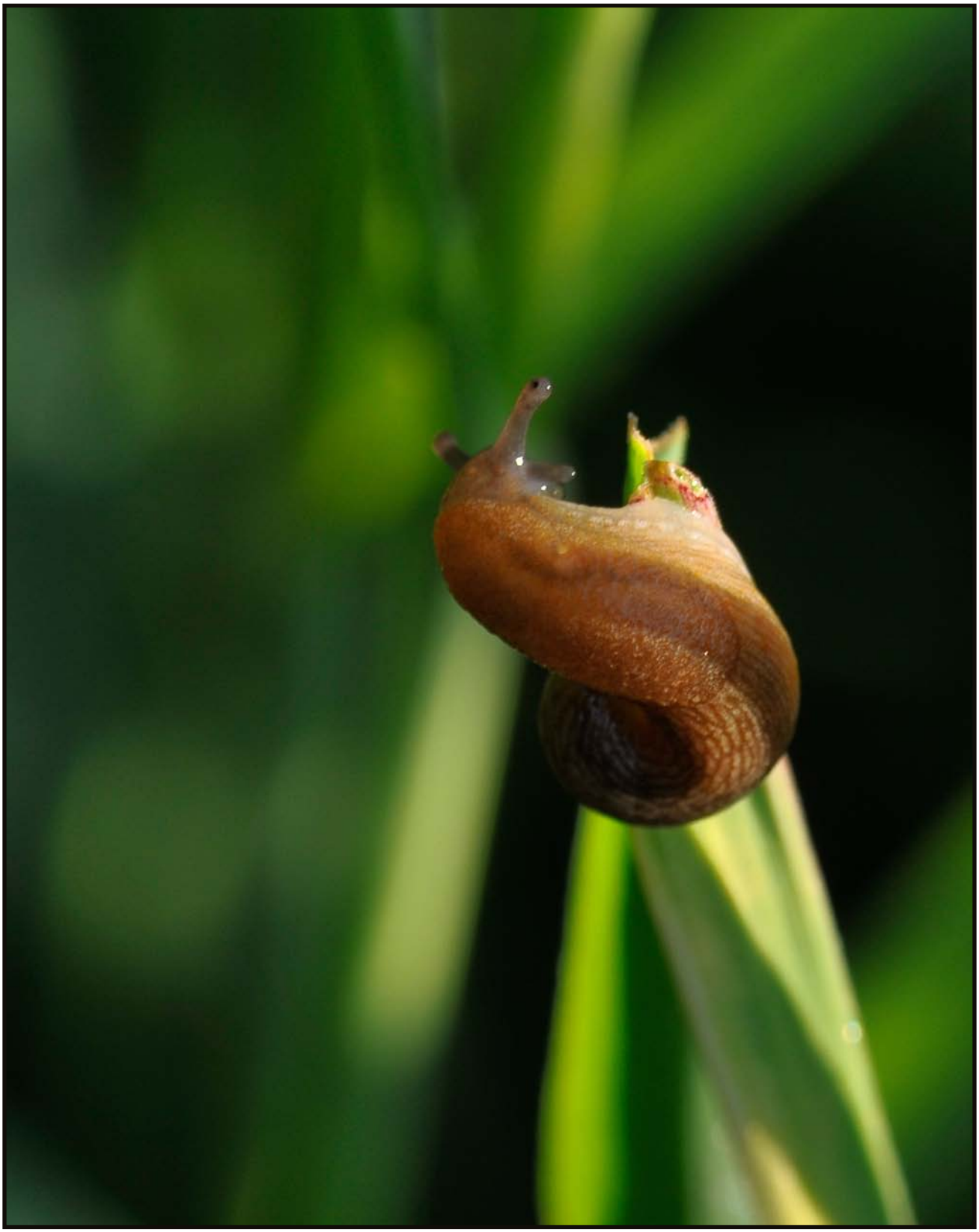
Slugs (Molluscs, Gastropods)

Slugs (like Japanese Beetles) are hated by gardeners because they like to eat plants and it makes no difference to them whether the plant is wild or in a garden. Slugs are like snails without a home or shell. They can only live in a place that is moist and has plenty of water. On their head are two eye stalks that can detect changes in light, but do not see clear images. Slugs have a scraper-like raspy tongue that helps them tear or scrape food, which usually consists of green planets, but also worms, mushrooms, insects, dead animals, and feces.

Slugs are like earthworms in that when they are done eating, whatever comes out of them helps to enrich the soil. Slugs travel by secreting a coat of mucus that allows them to move over dry and rough surfaces smoothly. You can see the tracks of slugs, mucus paths, wherever they have been.

Sometimes I try to get the slugs off the road before the sun dries them up, but it is very slow going and my hands get all covered with their mucus.

Habitat: Meadows, fields, bushes, anywhere with moisture and vegetation.



Land Snail (Camaenid)

Land snails are not popular with gardeners, but always fun to see in the wild. Their shell provides portable shelter, protection from enemies, and a good way to conserve moisture. If fact, if things get too dry, snails attach themselves to some hard-flat surface, seal up their front door, and wait it out until the rains return.

Snails leave trails of mucus behind them, so they are easy to track, and the trails of a bunch of snails look like a complex highway system. Like slugs, snails have two light-sensitive feelers or antennae that can dimly see, their version of eyes. They also have two touch–sensitive lower tentacles that help them feel their way along as well as taste things.

The snails mouth is at the bottom of their head, where they have thousands of sharp teeth that they use like a file or rasp to scrape away small particles of food. Snails are slow-moving by nature, but they can cover quite a lot of ground, like the distance of almost a quarter mile in a night.

Habitat: Moist areas, fields, meadoes, woods, almost anywhere there is enough moisture

Snakes and Turtles

Painted Turtle (Chrysemys Picta)

The painted turtle is perhaps the most common turtle encountered, and can usually be found basking on a log or vegetation in ponds and lakes. They get up to about 9 inches in length and, as their name suggests, have a bright-colored border around the edge of the shell. They feed on insects, snails, tadpoles, plants, seeds, and sometimes even on carrion. They stay in the ponds except when they migrate from pond to pond, which usually happens when the weather is damp.

This little guy was no larger than a fifty-cent piece and feisty as all get-out. I found him in a small pond in my brother's backyard and saw no sign of an adult. We spent a little time together and then I let him find his way back to the water, which he is furiously doing in the photo on the right.

Habitat: Marshy ponds, small lakes, and other shallow, weedy waters.

Blanding's Turtle (Emys blandingii)

This wonderful turtle is not encountered as often as most of the others in my area, because they like a more woodsy environment, mostly permanent weedy ponds in woods or backwaters. They get quite large, up to almost eleven inches, and are quite docile in temperament. While my first encounters with the Blandings Turtle was in small ponds in the deep of woods where they could be found basking on old logs, they can also be found trying to cross roads and may need your help to get to the other side if they are frightened and have just shut down and are sitting there. Watch for cars! Although aquatic by nature, they do travel over land to mate, find nest sites, or change ponds. They feed on crayfish, tadpoles, insects, and carrion.

Habitat: Open water, but small weedy ponds, often in woods, sloughs, and small lakes.

Wood Turtle (Clemmys insculpta)

The Wood Turtle likes streams and small rivers, but they also do a fair amount of foraging on land during summer, particularly in swamps, woods, and even meadows, never too far from some source of water. Where I live, there is a creek where they like to hang out, and I frequently encounter them walking along a dirt path that follows the creek. I don't know if they just kind of fall into the path or like to travel it because it is easy going compared to the brush on either side. Frequently one of my dogs will find one, pick it up in its mouth, and bring it to me.

The Wood Turtle eats everything, plants, carrion, animals, whatever they can manage to find, especially earthworms. They lay their eggs in holes they dig in sunny sandy areas along a river or stream bank. This turtle gets up to about nine inches in length and can live up to 2 years.

Habitat: Streams, small rivers, and marshes.

Snapping Turtle (Chelydra serpentine)

Now this turtle really can bite, as his name suggests, and he gets up to 20 inches long, and that is just his shell. The snapping turtle is more aquatic than most other turtles and seldom basks in the sun. More likely, you see just the tip of his nose and two nostrils, as he scouts around for something to snap and eat, like any small animal he can catch, not to mention tadpoles, crayfish, and even insects. They lay eggs in sunny sandy spots along the banks and let the warmth of summer incubate the hatchlings, which emerge in late summer.

I seldom see them in the water, but I frequently encounter them trying to cross roads, especially where some car has just missed them, causing the snapper to freeze up and stop moving completely. I stop my car (turn on your flashers!) and try to get them to the other side, but doing that takes caution. This one was big and heavy. Grab them by their tail and hold them away from your body, because their neck is long and they will try to snap your leg if you are not careful. And their bit can snap a stick in two like butter, so be warned.

Habitat: Marshes, lakes, ponds, slow rivers.

Blue Racer (Coluber constrictor foxi)

The common blue racer is the largest of the snakes in the Mid-West, attaining lengths of up to six feet. They come in various shades of blue and blue-black, and their eastern cousin is mostly black. And while not venomous, they certainly can (and will) bite. I still have scars on my hands and arms from bites received as a teenager (I really wanted to see them up close). Catching them is not that easy, because they move fast.

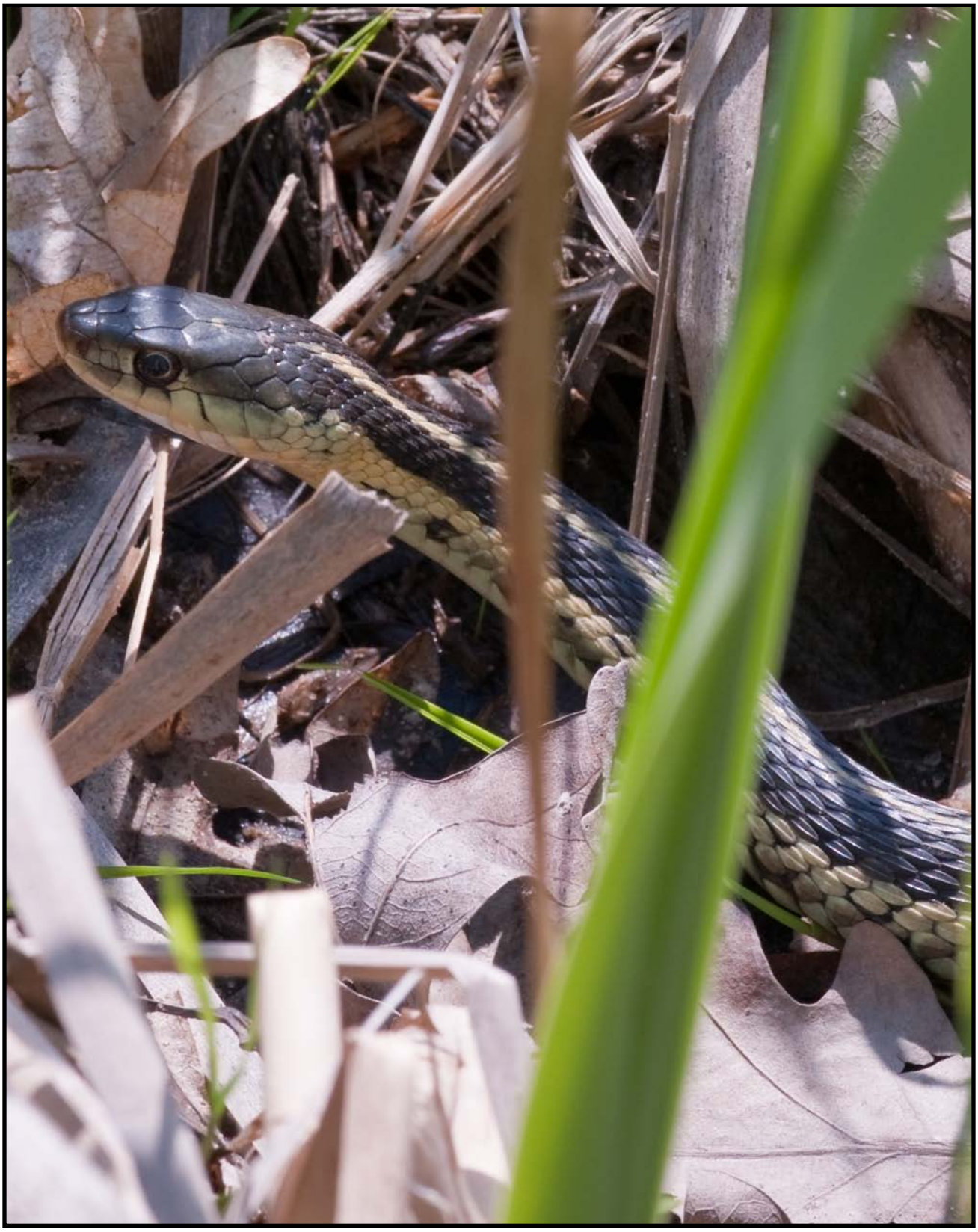
Unfortunately, most folks only ever see them after they have been run over on back country roads. The best way to find a live one is in the spring (or later, in the early mornings), when they are getting sun. You can find them in not-so-grassy areas with plenty of rocks. And they are not adverse to climbing trees. They lay eggs in rotting wood during June and July, and the young racers appear in late summer.

Habitat: Open ground, sunshine, fields, rocky areas.

Ribbon Snake (Thamnophis sauritus)

A very gentle snake that resembles the garter snake, but much more refined looking. Some have said they look like a "pretty" garter snake, or as a lovely female garter snake should look. And, unlike the garter snake, they don't bite and are very docile. Catching them, however, is another matter. They move somewhat fast. You can find them near streams, ponds, and the edges of lakes where they hunt frogs, tadpoles, salamanders, and even small fish. This is a very thin and lovely snake, a perfect species to introduce your grandkids to and for hand holding.

Habitat: Near water, streams, pond and lake edges, marsh, and most areas.



Eastern Garter Snake (Thamnophis sirtalis)

This hardy snake is probably the most commonly encountered of all snakes, found almost everywhere, from your backyard, to fields, parks, woods, and marshes. Although they can get up to four feet long, most specimens are in the 1 to two foot range. And they bite, but the bites are not deep. When handled, they also like to discharge a musky-smelling secretion on your hands, which is hard to wash off. They give live birth to their young sometime toward the end of the summer.

They like to feed on earthworms, toads, frogs, tadpoles, and fish.

Habitat: Marshes, woods, fields, almost anywhere.

Snakes Shed Their Skin

Here is a photo of the skin shed by a snake and left behind. I would guess that this is the skin of a ribbon snake, only because I found it in some reeds along the shore of a marsh, but it could also be that of the garter snake. Snake skins are fun to find and something kids really get a charge out of handling and examining them.

Hard to say where you will find them; they could be anywhere. The snake sheds its skin repeatedly over its lifetime. A few days before shedding, the eyes of the snake become opaque and the whole body seems to lose its sheen. Then the snake rubs its head against some rough surface until the old skin breaks and then proceeds to wedge itself against a surface and crawl out of the skin, the skin turning inside-out, like pulling off a sock. The new skin is bright and colorful.

Habitat: Anywhere is possible.

Northern Water Snake (Nerodia sipedon)

This rather nasty-tempered snake is about as close to becoming poisonous as any snake that we might encounter, so say the experts. They certainly have their biting down cold, and will do so anytime you handle them. They get up to four feet in length, spending most of their time either in the water (they swim well) or sunning on the bank. In fact, a typical way to encounter them is to startle them while they are sunning on a bank and watch them hurry into the water and swim away.

This is a handsome snake that has colorings similar to some rattlesnakes, and the larger specimens have quite a girth and weighty feel when you pick them up. Did I mention they will bite? Not as common as they used to be, they are found along the banks of streams, lakes, and ponds, sometimes hanging from bushes above the water – ready to just drop in.

Habitat: Open water ponds, marshes, larger streams.

Brown Snake (Storeria dekayi)

This is the most docile and gentle of all the snakes I have encountered. The Brown Snake, also called Dekay's Snake, lives on earthworms and slugs. Not often encountered, this very shy snake can be found under objects in woods, ravines, vacant lots, marshes, and woodlands. They never bite and are great snakes for kids to hold, if they are treated gently.

You find them under pieces or wood, logs, etc., but not necessarily objects as moist as you would need for a frog or salamander. I usually manage to come across several of these each year, and they are always a treat to spend a few moments with.

Habitat: Woodlands, marshes, fields.

When the Frost Comes

When summer ends and the first frost hits, it is tough for all the critters that I have been visiting. Many of them die before the frost arrives, rather than because of it, which was a surprise to me. It also means the end of being outside for me, the end of having my windows open, and the fresh air blowing through the house. And I have to put away my camera and come inside for more than half a year. It almost makes me want to move south, but I would miss the freshness of the air and the clear running water of the northern streams. I like to look into a river and see the bottom, not some muddy murky stuff.

Below is one of my favorite caterpillars covered with frost and struggling to hang in there. It had better make a cocoon very soon or suffer the consequences. More painful is the empty nest of the funnel spider on the right. I have been visiting this fellow for weeks, peering into his nest or watching him out on his veranda watching me. Then one day he was gone and never came back. This is one of those little lessons in impermanence that nature is so kind to show us.

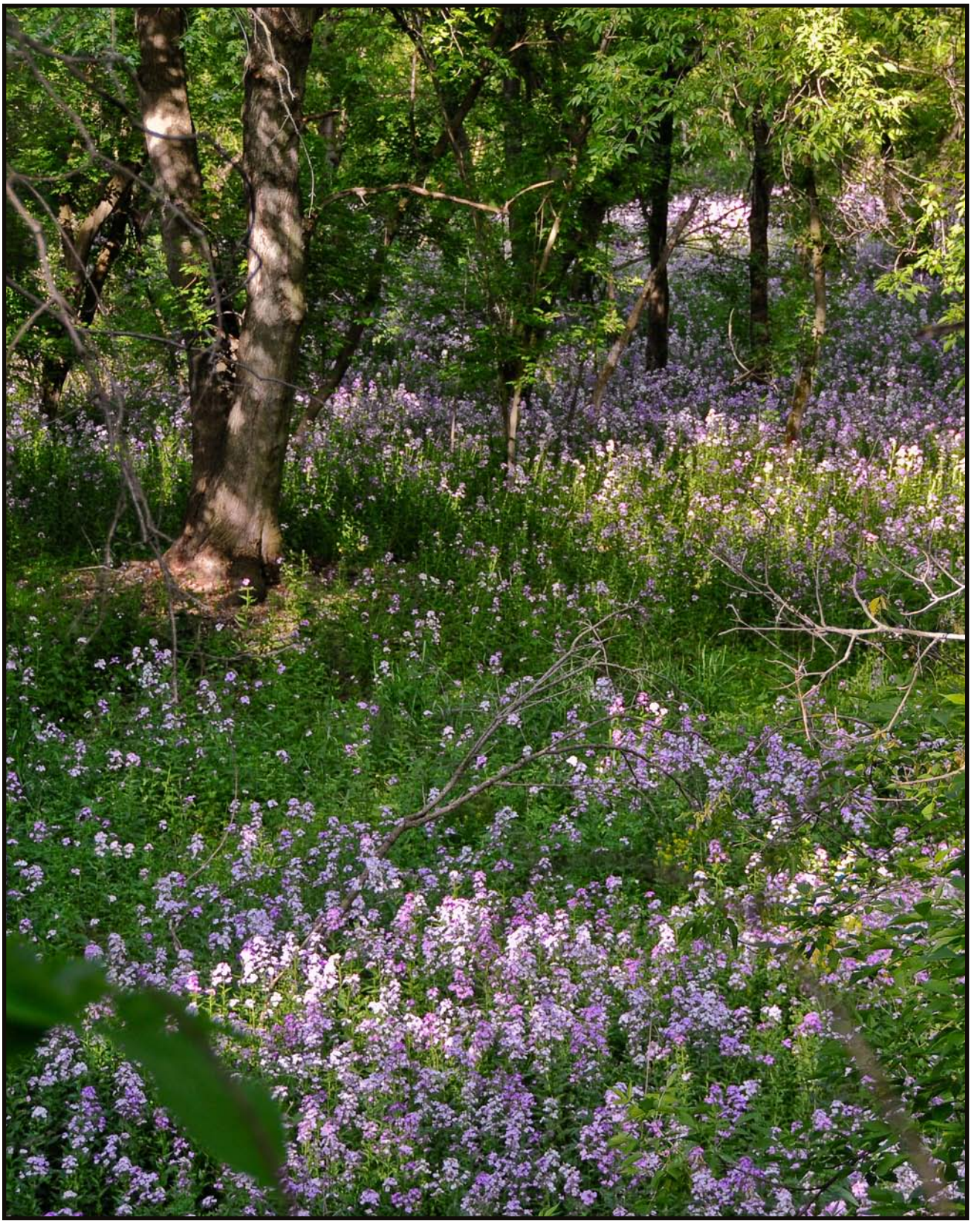
The End of the Season

Then the leaves begin to fall and it soon is too cold to do much. Beautiful it is, and the Autumn is absolutely gorgeous, with the bright reds first, then the fierce oranges colors, and lastly the yellows going to brown. But it is all over for the season, and all of insects are either dead or have found some place to hole up for the winter.

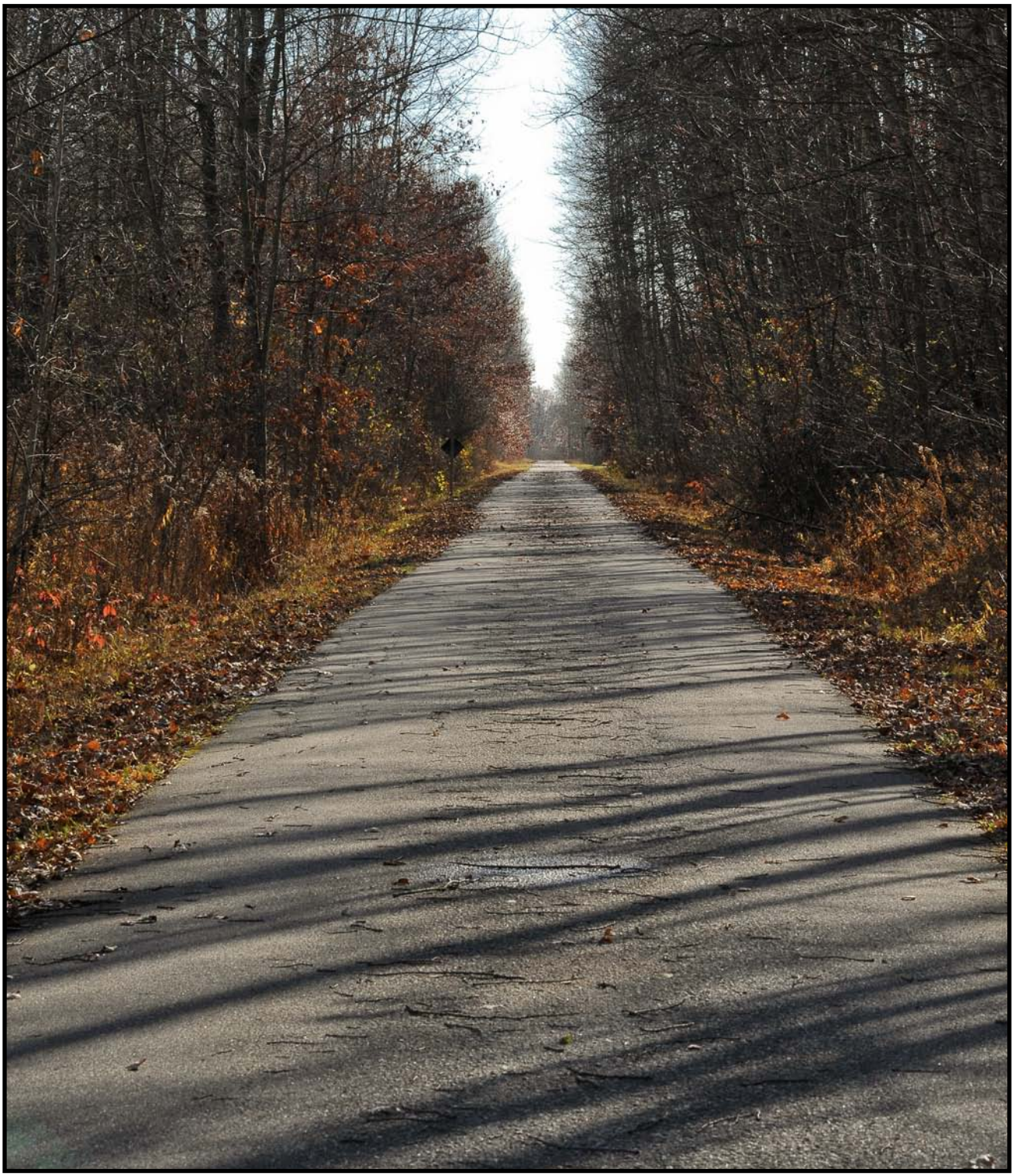
During the warm spots of the fall days I still see the occasional turtle, snake, and frog moving around, but I try to warn them that they had better get a move on while the moving is possible. Where exactly they hide out for the winter and how do they get far enough away from the cold to survive is a mystery to me. Just like how does a paper-thin cocoon of a moth or butterfly keep the larvae warm enough, alive enough, to make it through the winter? There is something miraculous involved, I am sure.

My wife laughs at me because from the moment of the winter solstice in late December, the sun starts to move north again toward summer, and I am already counting the days until spring.

H-01 Woodland Flowers and Meadows



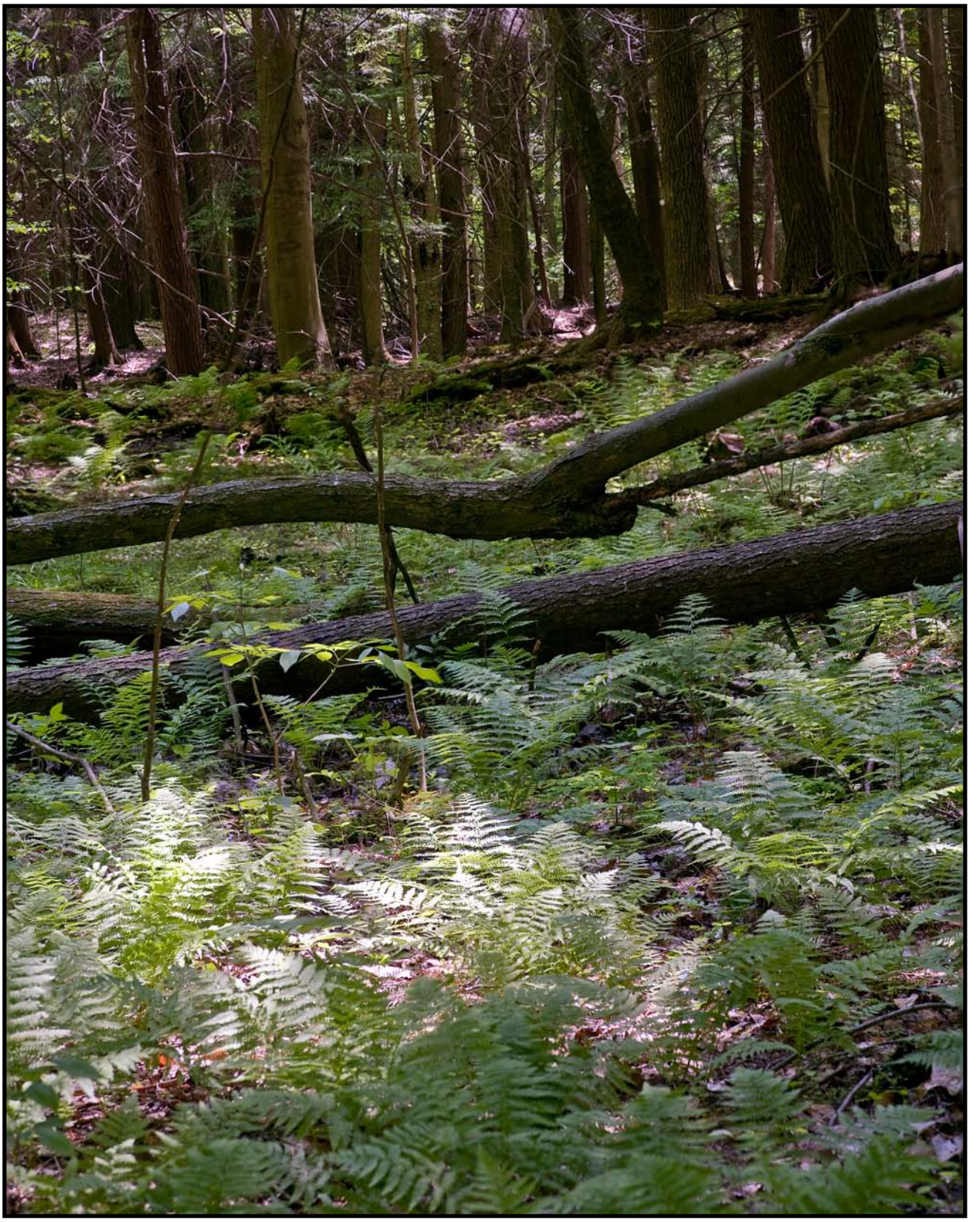
Habitats



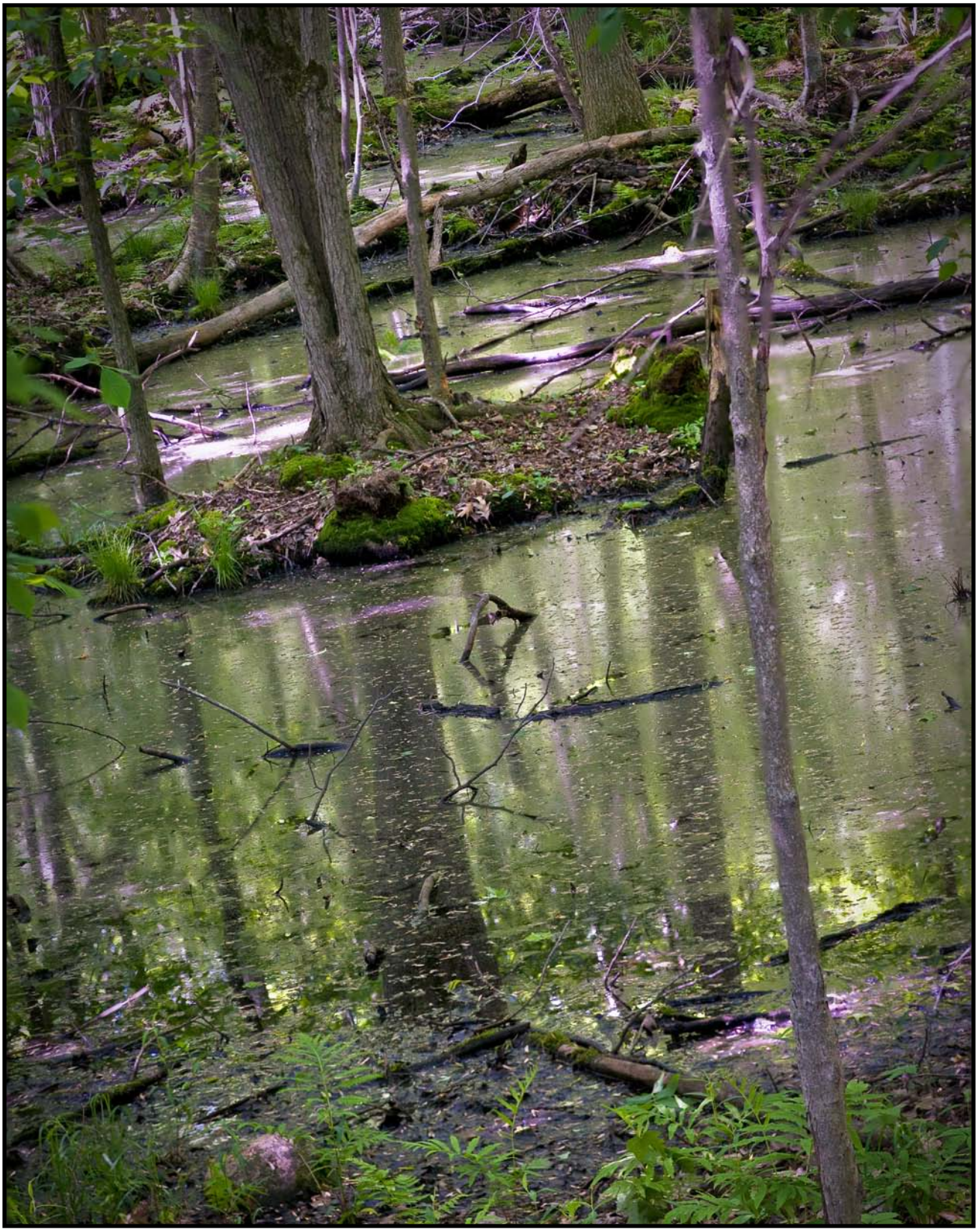
H-03 Letting Your Backyard Grow Wild Brings Wildlife

H-04 Crop of Milkweed in My Own Back Yard

H-05 Deep Woods with Ferns, Shade, and Moisture



H-06 Deep Woods with Temporary Spring Ponds



H-07 You Local Cemetery and Borderlands

Cemeteries and public parks are a great place to find small wildlife like butterflies and other insects on the shrubbery, and particularly along the borders, where the mowed lawns meet the fields and bushes. I prefer cemeteries because there is usually almost no one there. The bushes, trees, plants, and flowers around the actual graves are a good place to look, but my favorite cemetery finds me way up at the far end of it where the fields and wilds meet the well-groomed grass. That is where I spend a lot of my time, poking around in the areas just beyond the cemetery limits.

In the early dawn, when the sun is just peaking over the hills, I have to wear hip boots in the fields just because the dew is so dense I would otherwise be soaked to the skin in a minute. I spend hours wandering along the partially mowed field paths or just sit myself down somewhere and watch the life begin to move around me. This is often the very best part of my day.

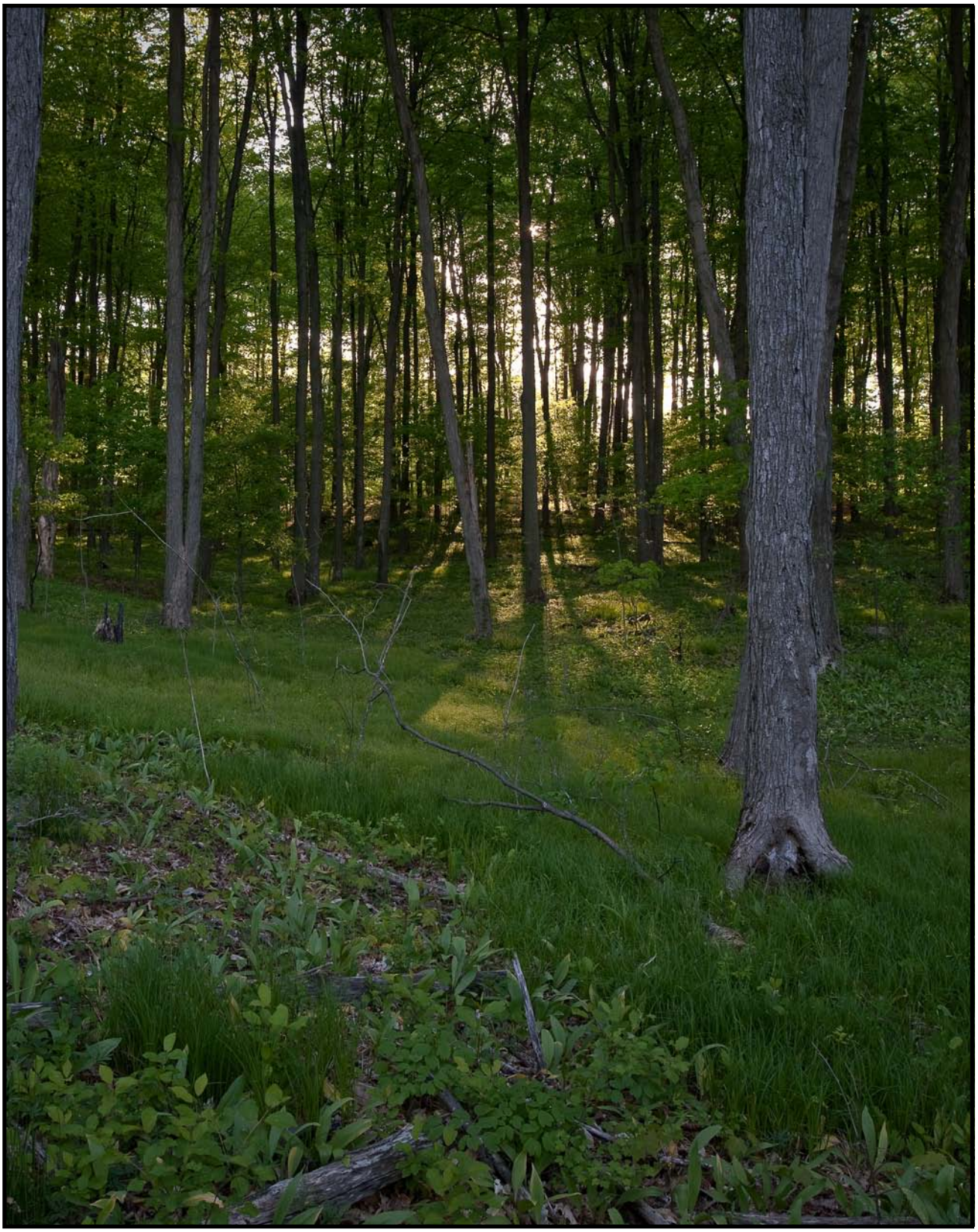
H-08 Marshes on Permanent Waters

Like the Florida Everglades, Michigan has vast marshlands that are not good for much more than serving as a habitat for wildlife. They are not lakes and not small ponds, but relatively shallow water, often stretching for miles with all kinds of reeds and vegetation on the shores, and lily pads and beaver houses in the waters. You can launch a small canoe and paddle through a marsh for hours. You can see osprey and sometimes eagles, beavers, muskrat, great blue herons, and other water birds like ducks, geese, swans, and so on. You can see turtles and snakes, tadpoles, frogs, and in the spring salamanders. There are innumerable dragonflies, butterflies, insects, odd flies, bees, and you-name-it. There are water lilies, rushes, cattails, and other water plants. No one goes here because to them it is a "swamp."

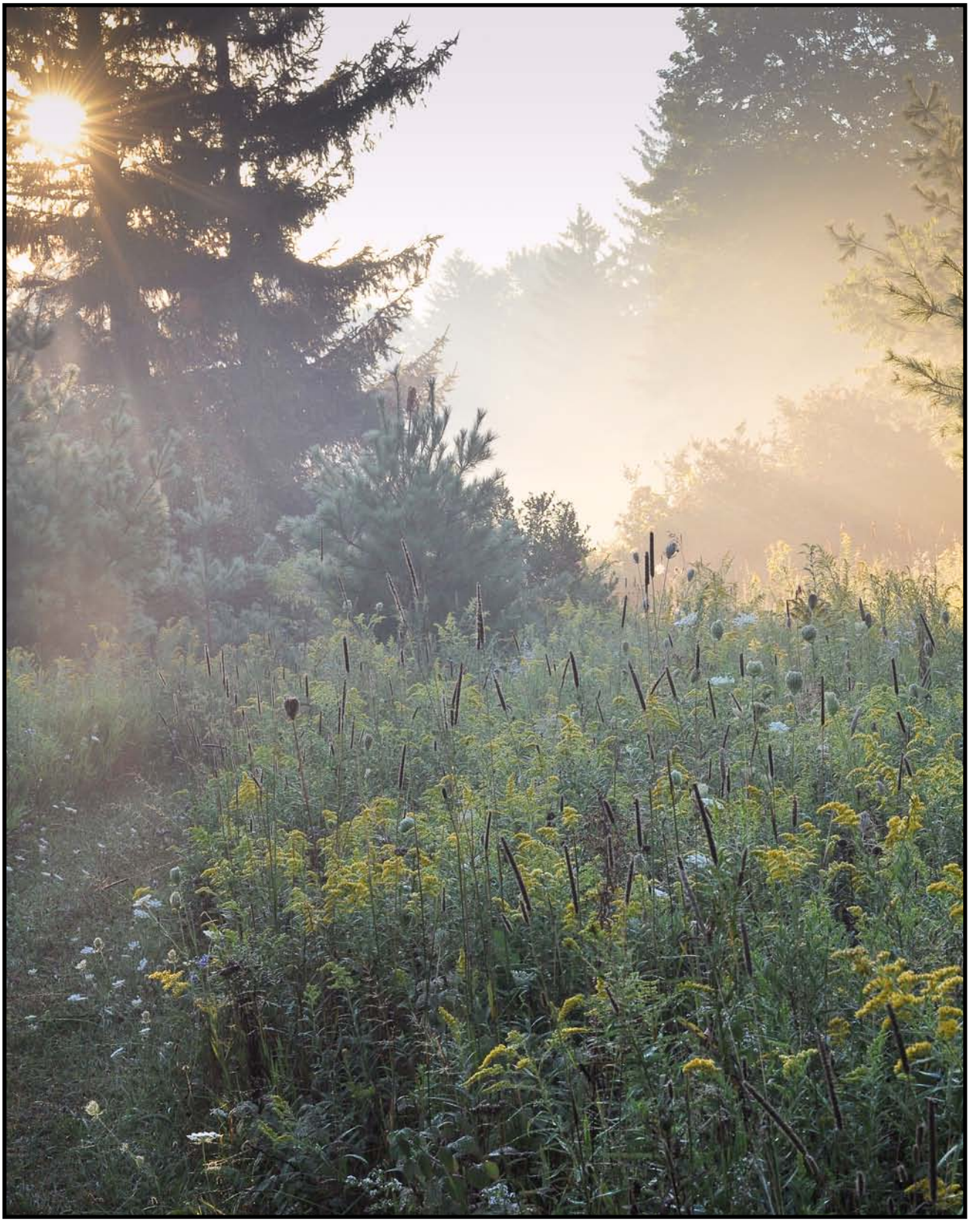
Or you can move along the shoreline in a canoe and have a great view of trees, forests, and skylines. Of all the rich nature habitats, the marshes should be at the top of your list.

H-09 Relatively Dry Woods with Patches of Sun

H-10 Shady Dry Woods with Minimal Ground Cover



H-11 Open Meadow with Shrubbery



H-12 Open Meadows and Fields

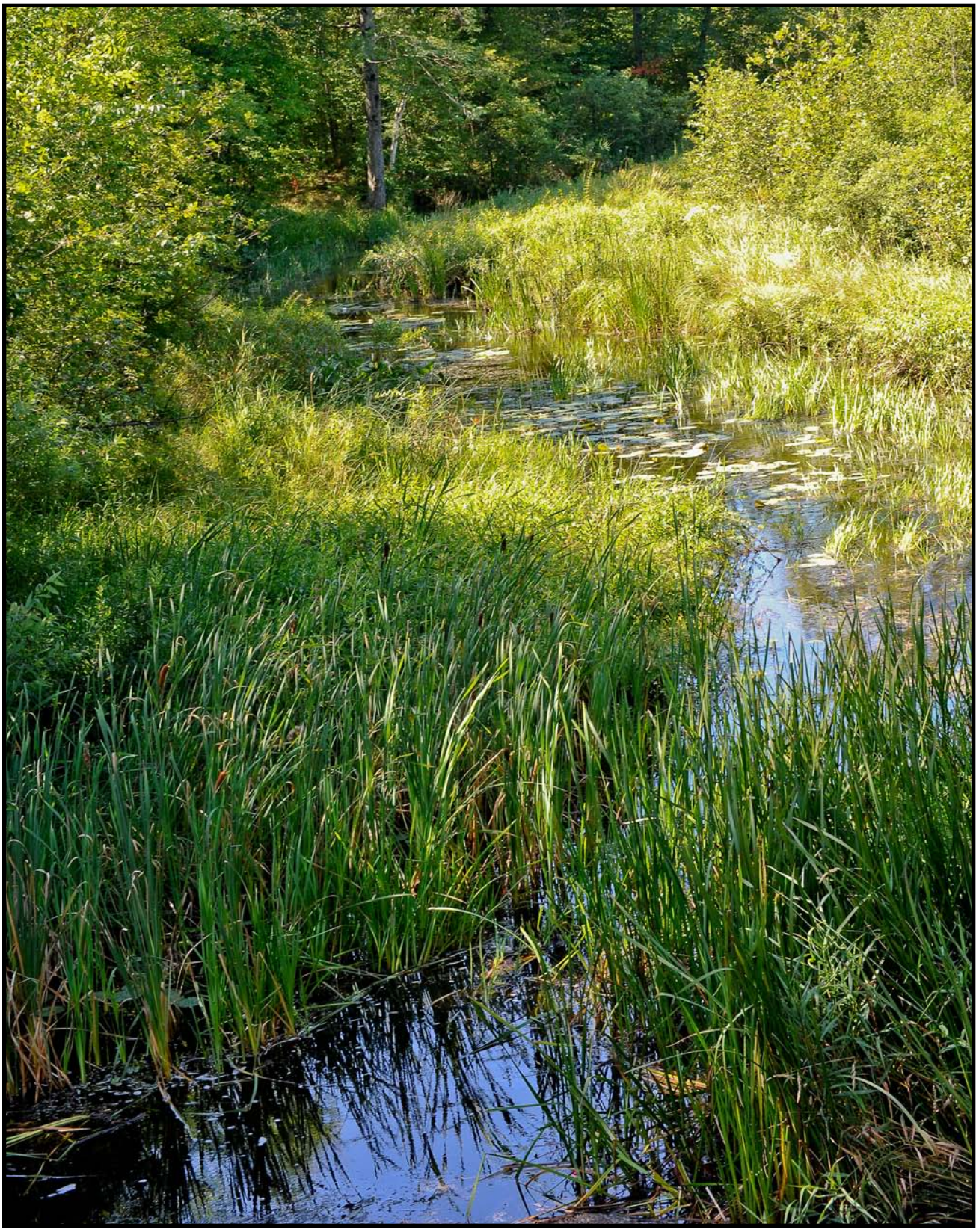
H-13 Large Ponds and Small Lakes with Open Water

Michigan, where I live, has a lot of water, everything for vernal spring ponds, to vast marshlands, to the Great Lake which contain one fifth of all the fresh water in the entire world. And we have fens and bogs and sloughs, and so on. When I was young, Michigan's license plates always read "Water Wonderland," and it is that. Generally speaking, the larger the open body of permanent water, the less shore creatures you will find.

The spring ponds, which are temporary, are filled with life, but only for a short time. More permanent smaller ponds, ponds that survive the heat of the summer, are also chocked full of life, and the shores of these are great places to encounter wildlife of all kinds, like the one shown below. But as you get to larger and larger bodies of water, the amount of wildlife that can sustain itself becomes less, until with the great lakes you have the denizens of the lake, the shore birds, but not the frogs, insects, and what-not that you see in the small bodies of water.

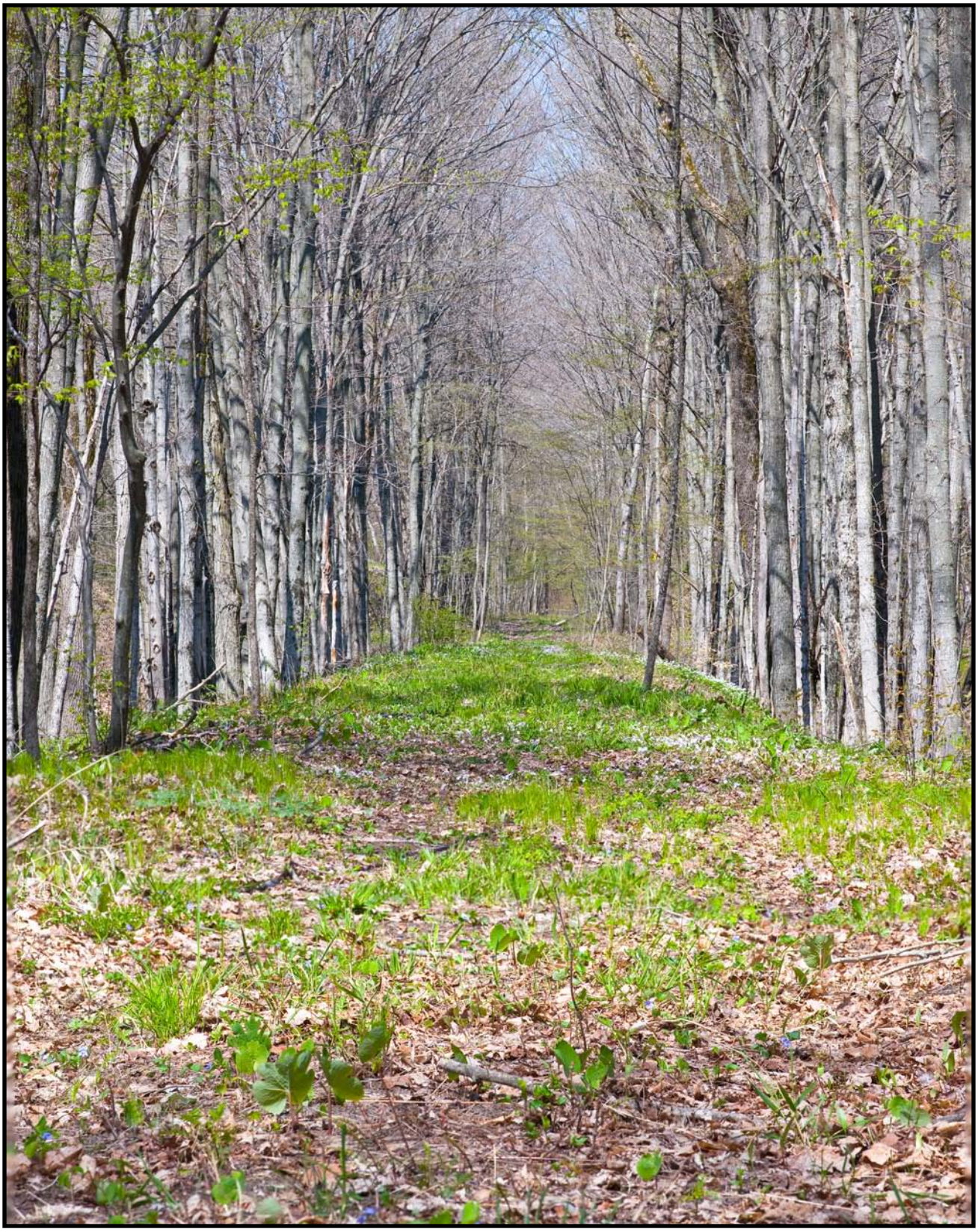
It is the same with rivers and streams. The streams, like the one shown on the right are filled with life. Put on a pair of hip boots and meander upstream, and you will have a feast of life to observe. However, when you get to rivers, especially fast-moving rivers, the sheer amount of wildlife at its edges drops off. In other words, stick to the smaller bodies of water if you want to maximize your opportunities for critters.

H-14 Streams with Some Open Sun



H-15 Overgrown Meadows and Paths

H-16 Paths and Trails in Woods



Portrait of the Author

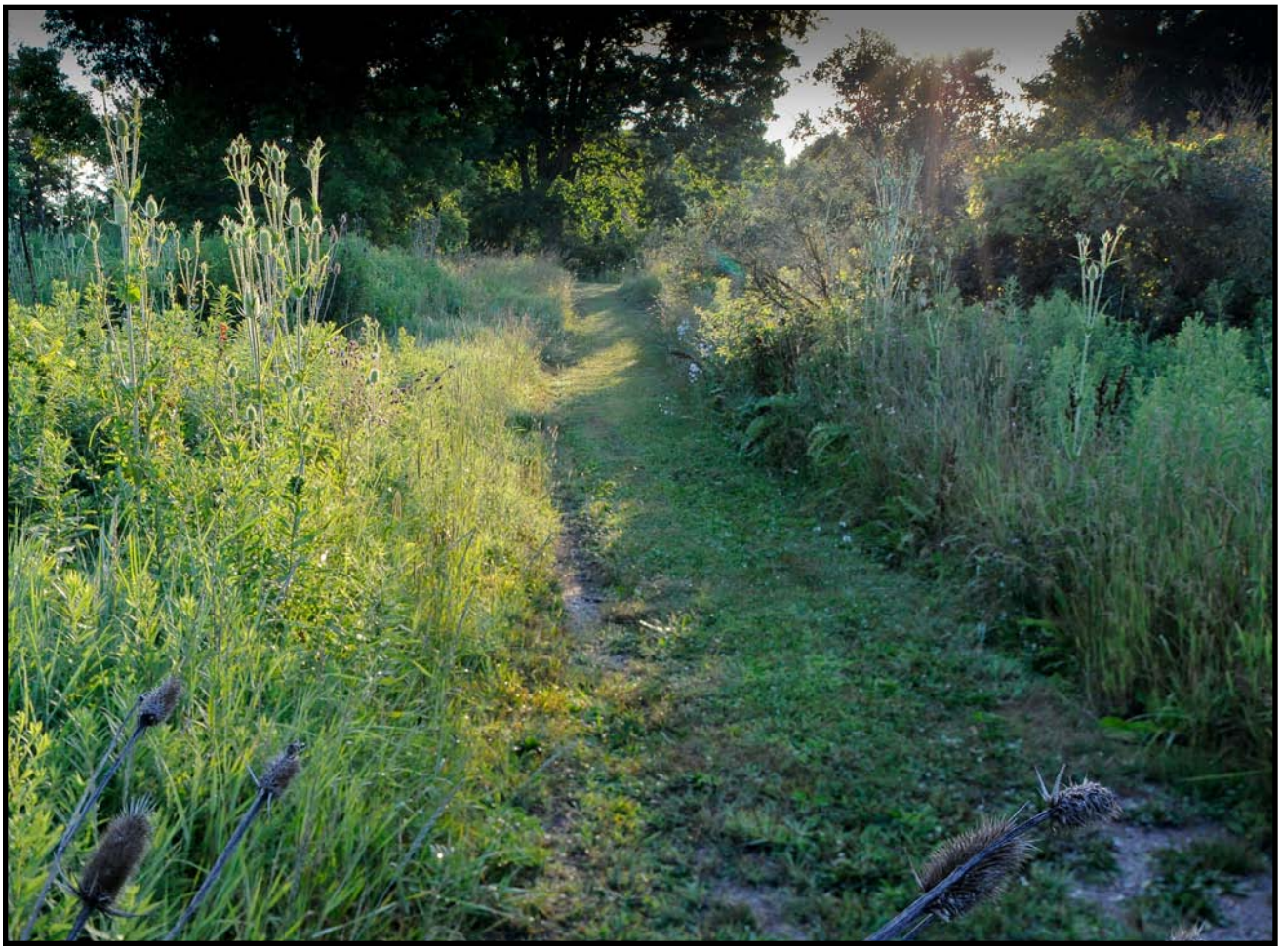
Michael Erlewine is an award-winning archivist of popular culture and renowned astrologer. Perhaps best known for founding AMG, the All-Music Guide, All-Movie Guide, All-Game Guide, Classic Rock Posters Guide, and other large Internet sites, Erlewine is also an expert photographer, author (some 35 books), lecturer, and counselor. Erlewine founded Matrix Software in 1977, the second oldest software company on the web, the only older being Microsoft.

Erlewine is also a musician. He traveled with Bob Dylan in 1961, was lead singer and amplified harmonica player for the Prime Movers Blues Band (Iggy Pop was his drummer), and opened for Cream in 1967 during the Summer of Love at the Fillmore Auditorium in San Francisco.

Michael Erlewine has studied and practiced Tibetan Buddhism for some 35 years and has traveled in Tibet, Nepal, India, and China.

He can be reached at:

Michael@Erlewine.net



Partridge Bug (Scolops sulcipe)