

Notes on Rearing Caterpillars by Ann Thering

Caterpillars face many dangers. Parasitic wasps, spiders, birds, fungal diseases are but a few. Less than one percent of butterfly eggs develop into a butterfly. If you are careful, you are doing the caterpillar a big favor by raising it at home. And, although it is time-consuming, it's fun to do.

Before capturing a caterpillar, you need to do a little homework. Caterpillars are very picky eaters; many eat only one kind of plant. If you find a caterpillar munching on a plant, if you can identify the plant, you may have figured out your food plant. Be careful; if it isn't eating, it just may have wandered onto a plant it does not eat. It's best to check field guides to see what butterfly or moth you have and what it eats. Because you will be providing food for the caterpillar, you need access to its food plant as it requires fresh leaves every day or two.

When capturing the caterpillar, don't touch it; just break off the plant, and put everything in a jar. (Some caterpillars have hairs or spines that can cause skin irritation or allergic reactions, and others are venomous.) Keep it from overheating. Take note of where you found the caterpillar so that you can later release the butterfly or moth in the same area.

The caterpillar needs a home or else it will roam where you don't want it to be. An aquarium or large jar with a mesh top works well. Good air circulation helps avoid fungal diseases. Provide a variety of sticks for the caterpillar to attach to when forming a chrysalis. Alas, sometimes it will ignore the sticks and attach to the sides or top of the container. That's okay. You still need twigs because if the butterfly falls while emerging, it needs to be able to climb up to a place where it can spread its wings to dry. Place the container out of direct sunlight in a sheltered area that receives natural light and outside temperatures.

The food plant will last longer of course if you put it in water. Please cover the container with foil or something so the poor caterpillar doesn't fall in and drown. Clean out the droppings every two days. Cleanup is easier if you put paper towels on the bottom of the container.

When cleaning or exchanging plant material, never ever try to pry the caterpillar from a perch, and avoid touching it. They hang on really tightly, and can easily lose a leg and die. So if it's on a spent leaf, just leave it be and remove the leaf after the caterpillar decides to move. Don't be alarmed if your caterpillar seems extra sluggish right before shedding its skin and moving to the next instar.

So far so good. How long will you have to feed this eating machine depends on how old it was when you found it. Caterpillars typically munch (sometimes loudly! I could actually hear a Pipevine caterpillar I was raising) about two weeks before becoming a chrysalis. Once the chrysalis forms, be sure it has enough space around it so that the butterfly can spread out its wings to dry without touching anything. If it is on a stick, you could carefully rearrange the stick, if necessary, but do not move

anything until the chrysalis has fully hardened, after a day or so. Also, do not try to move the chrysalis from the surface it has attached to. In spring and summer, it usually takes about 7-10 days until the butterfly emerges. You or a friend need to be around to watch every day, and release the butterfly. It takes several hours for the butterfly's wings to harden.

What if the chrysalis does nothing? Some summer chrysalises do not develop into a butterfly until the next year. In Wisconsin, late summer/fall butterflies overwinter as chrysalises or other life stages. If you have a chrysalis of a resident Wisconsin butterfly, such as a Black or Tiger Swallowtail, never ever leave it at room temperature to overwinter or it will emerge in icy cold January when you may be in Florida. An unheated porch is a good option. If you've captured a southern immigrant, such as a Pipevine Swallowtail, an attached garage that stays at about freezing will work well. It's best if the overwintering location gets exposure to natural light only. Do not spray water on your chrysalises. If the air is dry, you can add a few drops of water to a paper towel on the bottom of its home.

One more note. Another reason why you must identify your caterpillar is because some spend the entire winter as a caterpillar, and must burrow into soil to survive winter. If you have a woolly bear or hornworm, for instance, you should put a container with a few inches of soil in the aquarium. Both these critters are moths.

Good luck, and have fun! Metamorphosis is magical.

RESOURCES

Basic Techniques for Observing and Studying Moths & Butterflies by William D. Winter Jr. *Memoirs of the Lepidopterists' Society*, No. 5. 2000.

Caterpillars in the Field and Garden by Thomas J. Allen, Jim P. Brock, Jeffrey Glassberg. Oxford University Press. 2005.

Caterpillars of Eastern North America by David L. Wagner. Princeton University Press. 2005.

Peterson First Guide to Caterpillars of North America by Amy Bartlett Wright. *Peterson First Guides*. Houghton Mifflin Company. 1993.

Online

<http://bugguide.net/>

This online community of naturalists shares observations of insects, spiders, and other related creatures, including butterflies and their caterpillars. Huge collection of bug photographs from the U.S. and Canada.