



Friends of Lake Wingra



Promoting a healthy Lake Wingra
through an active watershed community

Raising Monarchs: Standard Method

Equipment

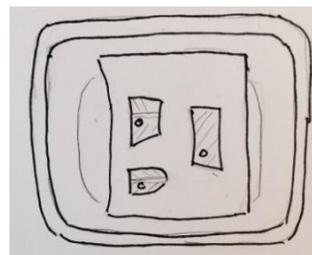
- Plastic containers
- Tightly woven, breathable fabric
- Large Kritter Keeper
- Floral tubes
- Paper towels
- Hand sprayer
- Magnifying glass
- Tweezers
- Optional: Netted tent

People raise monarchs in all sorts of containers, but if monarch-raising is new to you, we recommend the following method. It takes into account the monarch's special needs for air, hydration, space, food, and cleanliness. Some of the equipment, like plastic containers, you probably already have. We have floral tubes and Kritter Keepers available for sale at cost. Kritter Keepers can also be purchased at local pet stores.

Step 1: Find eggs and bring them home.

Friends of Lake Wingra will lead egg-finding trips throughout the summer. You will collect the eggs on the leaves they were laid on. At home, have ready a small plastic container with a damp—not

wet—piece of paper towel on the bottom and some tiny holes in the lid pierced with a needle. With nail scissors, cut out a little piece of leaf with the egg on it. With tweezers, transfer the leaf pieces to the plastic container.

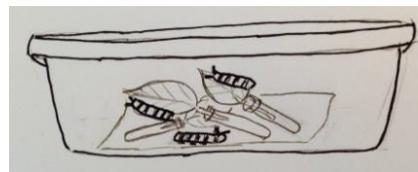


Step 2: When the eggs are ready to hatch, move them to a nursery container with fresh milkweed.

Look at your eggs at least once a day with a magnifying glass. When the top of an egg turns dark, that means it's almost ready to hatch. Prepare a plastic container about 6 to 10 inches long. Cut a hole in the lid for air. On the inside of the lid, tape a piece of tightly woven, breathable fabric or fine mesh. Line the container with a damp paper towel. Put the stem of a fresh milkweed leaf in a floral tube filled with water. Lay the piece of leaf with an egg on it on top of the fresh leaf. This is so that the baby caterpillar will have something to eat as soon as the egg hatches.



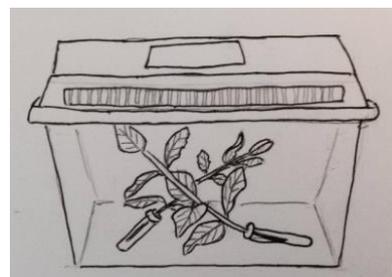
Your caterpillars will live in this nursery container until they are about three-quarters of an inch long. Multiple caterpillars can live in it at the same time. Whenever a milkweed leaf wilts, replace it with a fresh leaf. Take the old leaf out of the floral tube. Fill the tube with clean water, and insert the new leaf in it. Then lay the old leaf on top of the new leaf. The caterpillars will crawl to it on their own. (Don't pick a caterpillar up with your hands.) When there are no caterpillars on the old wilted leaf, remove it. Mist the leaves lightly once a day.



Every few days, clean out the frass (caterpillar poop). To do that, move the caterpillars and any milkweed that's still fresh to a "holding" bin. Take out the soiled paper towel. Rinse the plastic container with water and dry it. Add a clean, damp paper towel and move the caterpillars and milkweed back in. Be careful not to lose any caterpillars in the process! Count them when you take them out of the nursery container and when you put them back in.

Step 3: When they are roughly three-quarters of an inch long, move the caterpillars to a Kritter Keeper.

As your caterpillars grow, they will need roomier accommodations and lots more food. When they are about three-quarters of an inch long, move them to a Kritter Keeper, which is a large plastic box with a lid. Mainly, they must be big enough not to crawl out through the slits. Cut sprigs of milkweed, put the sprigs in floral tubes, and lay them in the Kritter Keeper. You will need to bring in fresh milkweed every one to



three days, depending on how many caterpillars you have and how big they are, and refill the floral tubes with water daily. As with the smaller containers, you can leave the wilted sprigs in the Kritter Keeper for half a day until the caterpillars find the fresh sprigs. Be aware that some caterpillars may not move for up to two days. They may even look sick. This could be because they are about to shed their skin, which they do five times. It's important to not disturb a caterpillar that's molting. If it's on milkweed, cut the leaf from the sprig and lay it on a new sprig. If it has climbed up the side of the Kritter Keeper and is motionless, just leave it be.

Now that your caterpillars are eating a lot, you'll need to clean out the frass every day. Afterwards, wipe the Kritter Keeper with a clean paper towel. Continue to mist the milkweed every day.

Step 4: Prepare the Kritter Keeper for the chrysalises.

After about two weeks from the time they hatch, when they are about 2 ½-inches long, your caterpillars will get restless and roam around. This means they are about to pupate, or go into the chrysalis stage. Prepare for this by replacing the lid of the Kritter Keeper with a manila folder held down with tape. This will make it easy for you to move a chrysalis once it attaches to the folder.

The caterpillar will crawl to the top of the Kritter Keeper and spin a silk pad. For a day, it will hang from the silk pad in the shape of a J. After that, its skin will break open and reveal a lime-green chrysalis.



This happens in about a minute! If you

collected all of your eggs within a day or so, you'll see a number of chrysalises forming at about the same time.

Step 5: Place the chrysalises in containers for transport.

You will be donating most of your chrysalises to the Monarchs for Kids program. So at this point, cut a small square around the part of the manila folder a chrysalis is hanging from and put it in a small plastic container. Put something in the container, like a piece of tissue, to keep the chrysalis from rolling around when it's transported. Write the date the chrysalis formed on the container so we can estimate when the butterfly will emerge. Then contact David Thompson at davidthompson20@aol.com or (608) 692-5467.

Optional but amazing: Take a monarch all of the way to the butterfly stage.

You'll want to see at least one monarch transform into a butterfly. It's an unforgettable experience. After you cut out the part of the manila folder with the chrysalis hanging from it, tape or pin it to the inside of a netted tent. Your monarch will be in the chrysalis stage for 10 to 14 days.

A monarch butterfly usually emerges in the morning. The evening before, its orange and black wings will show clearly through the skin of the chrysalis. Think about timing and how you can maximize your chances of seeing the adult wiggle out. If you won't be around the next morning, you can put the chrysalis in the fridge to delay the process for a day or two. The morning you take it out, it will likely emerge within a few hours. Keep your eye on the chrysalis. The emergence itself happens very rapidly.

After emerging, the butterfly will hang till its wings dry. Don't handle it during this time. About four hours after it emerges, you can release it if the weather is good—above 60 degrees.

Adult monarchs carry what's called the OE parasite and can spread spores to caterpillars. Do not keep butterflies and caterpillars in the same container, and do not allow a butterfly to emerge in a container that houses caterpillars. After touching a butterfly or its tent, wash your hands with hot water and soap or use hand sanitizer before touching a caterpillar, its container, or milkweed.

Questions or concerns? Contact David! There are also numerous helpful websites.

Cautions and Tips

- Milkweed that has been exposed to insecticide will kill caterpillars. Look for plants away from agricultural fields.
- Caterpillars can dry out. Keep containers out of the direct sun.
- Watch out for disease. If a caterpillar is inactive for more than two days and turns dark, it's probably sick. Isolate the caterpillar and see what happens.
- Monarchs raised in proximity to one another are prone to disease. Don't feel bad if you lose one.
- If you need to move a caterpillar—maybe it's wandered off while you were cleaning out its container—slip a piece of paper towel under its front legs and let it crawl onto it. Another trick is to gently tickle the caterpillar's rear end with an artist's paintbrush.