

Painted Lady Butterfly

A CAROLINA™ CareSheet

Customer Information

Your painted lady butterfly order was one of the following (listed in order of popularity):

1. Larvae in self-contained cultures with food (item #144005 and #144024)
2. Larvae/food sets (item #144070 and #144076) for use with classroom kits
3. Adults (item #144079)
4. Eggs (item #144078)
5. Chrysalis (item #144030)

Please find the option below that pertains to your painted lady butterfly order. Carefully read and follow all instructions concerning your materials.

1.) Larvae in Self-Contained Cultures with Food

Painted Lady Butterfly Culture (item #144005)—our most popular format and the one we recommend using unless you have a classroom kit—includes 5 larvae in an 8-oz cup with food. Can be used as a refill for Carolina's Painted Lady Butterfly Amazing Bugs™ Kit (item #144084)

Live Painted Lady Butterfly Larvae (item #144024, comes in a pack of 3, and item #144026, comes in a pack of 12), each pack includes 2 larvae in 1-oz cups with food

Immediate Care and Handling

Remove the cup(s) from the shipping container and ensure that they are undamaged. The cup(s) contain the larvae with enough food to grow them to maturity.

Maintaining and Culturing Larvae

Place the cups in indirect light or room light. **Note:** *Do not place cups in direct sunlight, which can overheat the cups and kill the larvae.* Kept at room temperature, larvae mature in 5 to 10 days. Then they climb to the top of the cup, attach to its tissue paper cover, and molt into a chrysalis (a type of pupa). Leave the cup undisturbed for at least 1 to 2 days or until the chrysalises darken, which indicates

that they have hardened. (You must have a butterfly cage prepared at this point.) Open the cup and remove the paper with the hardened chrysalises attached. Pin or tape the paper to the inside of the cage, to either the top or side, so that the chrysalises hang in a natural position. A soft-sided cage, such as our Carolina™ Butterfly Sanctuary (item #674291) for up to 35 butterflies or Amazing Bugs™ Habitat (item #144092) for up to 8 butterflies, works best. You can also make a cage from a box or other materials. See section 3 below for information on feeding adult butterflies.

2.) Larvae/Food Sets For Use With Classroom Kits

Painted Lady Butterfly Culture Components 33-Larvae/Food Set (item #144070), includes 1 cup each of larvae and food

Painted Lady Butterfly Culture Components 60- to 75-Larvae/Food Set (item #144072), includes 2 cups each of larvae and food

Immediate Care and Handling

Remove the cups from the shipping container and inspect them to be certain they have arrived in good condition. These are replacement sets for our Butterflies in the Classroom Kits (item #144014 and #144015) and for the STC Program™: The Life Cycle of Butterflies Unit Kit (item #971501AV and #971501U2). Use these sets the day you receive them or by the day after you receive them. **Note:** *There is not enough food or space in the shipping cup to grow the larvae to maturity. If left in the shipping cup, most of the larvae will die.* We recommend these sets only if you have a kit containing the needed supplies, other than the larvae and food. These sets ship without instructions since you are expected to use the instructions included with your kit. **Note:** *To ensure that the specified number of larvae emerge as healthy adults, additional larvae are supplied with both sizes of larvae sets. However, the quantity of food supplied is only sufficient for the number of larvae specified in each set. You must purchase additional food if you wish to maintain the additional larvae.*

Maintaining and Culturing Larvae

Refer to your kit teacher's manual for instructions on setting up individual student 1-oz cups. If you do not have a kit, you should order a Culture Cup Set (item #144068)—which includes 33 one-oz cups, lids,

and tissues—for each set of 33 larvae and food. Rinse your hands well under running tap water and dry them before beginning. Use a clean plastic spoon to transfer 1 level teaspoon of food into each 1-oz cup. Lightly press the food into the bottom of the cup to create a good seal. The food should not be over ¼" (6 mm) deep. **Note:** *If the food is deeper than ¼", you may run out of food before filling all the cups, or there may not be enough space in the over-filled cups for the larva to reach maturity.* Use a small brush or swab to transfer one larva into each cup. (There is enough space and food in each cup to grow no more than 2 larvae to maturity.) Place a tissue over the mouth of the cup and snap on a lid. Trim the excess paper. (See section 1 above for more information on caring for the larvae and chrysalises. See section 3 below for information on feeding the butterflies.)

3.) Adults

We recommend adult butterflies for releases at special events, workshops, and displays. Adult butterflies are sold individually. If you wish to order large quantities of adults, we require 3 weeks advance notice so we can have the specified number of adults available.

Immediate Care and Handling

Adult butterflies arrive in cups containing folded paper towel. The butterflies are in the folds. Upon receipt, open the lid of the cup just enough to peer inside and confirm that the butterflies are in good condition.

Housing

Adult butterflies require a flight cage. We recommend our Butterfly Sanctuary (item #674291) for up to 35 adult butterflies. Our Butterfly Display Cage (item #671493) makes an attractive display at a school, science center, or special event. These cages have soft sides that protect the butterflies' wings and keep them looking fresh longer.

To transfer the butterflies, set the shipping cup in the cage and remove the lid. Carefully pull out the paper towel with one hand while using the other to remove any butterflies that cling to the paper towel. Wad the toweling and remove it with the cup, then close the cage. If you are planning to release the butterflies, it is best to give them a day to feed and recover from shipment.

Feeding

Butterflies need sugar to power their flight muscles. They do not require other food. To make food for your adult butterflies, dissolve 2 teaspoons of sugar in ½ cup of water. Keep the solution refrigerated when not in use. Replace the sugar-water solution every other day. With proper nutrition, adult butterflies generally live for 1 to 2 weeks, sometimes as long as 3 weeks. **Note:** *Do not put an open container of liquid food in your butterfly habitat. Butterflies will fall into it and drown.*

You can make a feeder from a small, empty plastic bottle or vial with a lid.

- a. Clean the container and lid with a mild solution of household bleach and water (1 part bleach in 9 parts water).
- b. Rinse the bottle **thoroughly** with water, and fill it with sugar-water solution.
- c. Roll up a piece of paper towel to make a wick. Punch a hole in the bottle's lid large enough to easily insert the wick.
- d. Dip the wick into the sugar-water solution and then squeeze out the excess.
- e. Insert the wick into the hole in the lid, leaving approximately ¾" extending out the top of the lid. Place the lid on the bottle.

Providing For Egg-Laying Females

Your female butterflies may lay eggs 5 to 7 days after emerging. Look for pinhead-sized, mint-green dots. If you place a potted plant in the cage, the females will deposit most of their eggs on it. Fertile eggs hatch in 3 to 5 days. (For more information on the care of eggs, see section 4 below.)

4.) Eggs

Note: *We recommend beginning with eggs only if you have experience raising painted lady butterflies and you are willing to accept a possibly higher mortality rate for larvae than you are accustomed to when using our 5-larvae cups. Newly hatched larvae are tiny and can dehydrate rapidly. They will die if you are not well prepared.*

Immediate Care and Handling

Open the shipping container and locate a plastic bag containing a small tube. Examine the tube to ensure that it is undamaged. It contains 30 to 35 eggs that will hatch in 3 to 5 days. You may be able to delay hatching for a few days by refrigerating the eggs at 45 to 50° F (7 to 10° C).

Hatching Eggs and Culturing Larvae

Transfer the eggs to a container with food for hatching. We recommend our Painted Lady Culture Medium (item #144043) as a food. A 16-oz or larger container with lid facilitates hatching. Use a push pin to make a few small holes in the lid, but do not make the holes too large or the tiny larvae may escape. Place a layer of food in the bottom of the container. This layer should not be over ¼" (6 mm) deep. **Note:** *Do not place the eggs in direct contact with the food, as the food will absorb water from the eggs and kill them.* Instead, cut a piece of waxed paper about 1" square and fold the edges to make a shallow pan. Gently dump the eggs onto the paper, and place the waxed-paper pan on the food. As they hatch, the larvae will crawl off the paper onto the food and begin to eat. (See sections 1 and 2 "Maintaining and culturing larvae" and section 3 "Feeding" for more information on caring for larvae, chrysalises, and adults.)

You can also raise larvae on plants (although it is better to hatch eggs on our food and not move the larvae for 5 to 6 days). Larvae grow quickly and can decimate several plants, so have an adequate supply of plants before beginning. Once larvae have fed on plants, they may not accept our food. Suitable plants include mallow, hollyhock, daisy, purple coneflower, black-eyed Susan, *Rudbeckia*, and thistle. Pick leaves from a plant and place them in a container with lid, then transfer eggs or larvae onto the leaves. You can also transfer larvae onto plants growing in a garden. **Note:** *Make sure there are no residual pesticides on any plants you plan using with any stage of butterfly.*

5.) Chrysalis

Chrysalises provide a quick way to obtain adult butterflies for workshops, life cycle displays, and other uses. Chrysalises are sold individually. If you wish to order large quantities of chrysalises, we require 3 weeks advance notice so we can have the specified number available.

Immediate Care and Handling

Open the shipping container and locate the small cup that contains the chrysalis wrapped in tissue paper. Open the cup, carefully unfold the tissue paper, and confirm that the chrysalis is intact.

Obtaining Adult Butterflies from the Chrysalis

We supply the chrysalis as an example of a stage in the life cycle of an insect with complete metamorphosis; however, the chrysalis is alive and most will produce an adult butterfly. If the chrysalis is attached to the tissue paper, pin or tape the tissue paper to the inside of a cage as instructed above in section 1 "Maintaining and culturing larvae." If the chrysalis is not attached to the tissue paper, you can attach it easily. Place a small drop of a white water-based (non-toxic) school glue (Elmer's® glue or a similar product) on the tissue paper. Use a pencil or toothpick to move the chrysalis until the tip of its abdomen is in the glue. You can identify the abdomen because it is more pointed than the head. It may have some tissue paper attached, and the old larval skin, which looks like a spiky ball, may be attached near the abdominal tip. Allow the glue to dry overnight before pinning the paper inside the cage. To feed the adult butterfly, see section 3 above.

FAQ's

My caterpillars are not moving. Are they dead?

Probably not. Caterpillars often rest for hours at a time, especially just before molting. To see if a caterpillar is alive, open the cup and gently touch the caterpillar with the tip of a soft brush. This should cause the caterpillar to move, if only slightly.

Can I take larvae out of the cup?

It is best not to open the cup until you are ready to move the chrysalises into the flight cage. Harmful salts and oils from your hands can transfer to the caterpillars during handling. Opening the cup can also allow bacteria or mold to enter, which could spoil the food.

My caterpillars aren't growing. What's wrong?

There are several possibilities; the most common is low temperature at night and over the weekend. Also, the caterpillars may be preparing to molt.

My caterpillars are turning red or pink. What's wrong?

The caterpillars have a bacterial infection that will kill them. Contact Carolina Customer Service (800.334.5551) for replacements. Discard all infected caterpillars. Also discard equipment that had contact with them or treat the equipment with a bleach solution (1 part bleach in 9 parts water) and rinse well before reusing.

The caterpillars are so hungry that they are eating away the paper at the top of the cup. The caterpillars chew the paper in an effort to move beyond the cup because they are responding to an instinctive urge to disperse before molting into a chrysalis. Few caterpillars engage in this interesting behavior pattern. If it becomes a problem, clean and dry your hands then remove the old paper and replace it with a fresh piece of tissue paper. Avoid papers that contain perfumes or lotions. You will not have to replace the paper again; the caterpillars are too close to molting to eat through another piece.

What about air for the caterpillars?

Examine the cup's lid. There should be some tiny holes punched in it. If not, punch 3 to 5 holes in it with a push pin. The caterpillars do not need much air. In fact, too much air causes their food to become dry and inedible.

My butterflies just emerged and there is red liquid all over. Is it blood? Are my butterflies okay?

Your butterflies are fine. The red liquid is not blood. It is **meconium**—liquid waste mixed with extra pigment left over from wing formation. Try putting a paper towel in the bottom of the cage to absorb the mess. *Interesting fact—insect blood is clear, not red.*

Some of the butterflies have crumpled wings. What can I do?

When the butterflies first emerge, their wings are crumpled and soft. The butterfly pumps blood into its wings to expand them. If the humidity is too low, the wings may dry and harden before they can expand. Try misting the inside of the cage with water to raise the humidity level and facilitate later emerging butterflies in properly expanding their wings. **Note:** *Misting only prevents the wings from drying and hardening. It will not reverse drying and hardening that has already occurred: Once hardened, the wing shape cannot be changed.*

What is a chrysalis?

Insects that undergo complete metamorphosis have a 4-stage life cycle: egg, larva (caterpillar), pupa (chrysalis), and adult. The chrysalis is a pupa with a hard outer shell. Many moths produce a cocoon, which is a silk case that contains a pupa.

The chrysalis fell to the bottom of the cup. What should I do?

Follow the instructions in section 5 for attaching the chrysalis to the paper.

Can my butterflies feed from flowers?

Yes, nectar from flowers is a natural food. Place a pot of petunias, marigolds, or other flowering plants in the butterfly cage. It may help to sprinkle the plants with sugar-water solution. You will probably see the butterflies feeding once they discover the flowers. If you use cut flowers, put them in a vase with a narrow neck so the butterflies cannot fall into the water and drown.

I only see 2 pairs of legs on each butterfly. What happened to the other pair?

The painted lady does not use its first pair of legs for walking. Instead, these legs are feathery and wrap around the butterfly's neck almost like a scarf.

How can I tell the male from the female?

Female butterflies have a larger, more rounded abdomen than males. This is due to the female's egg mass. The male's abdomen, when viewed from the top, has fairly straight sides. From the same view, the sides of the female's abdomen curve outward.

Related Products

[Painted Lady Butterfly Culture](#)

[Live Painted Lady Butterfly Larvae](#)

[Painted Lady Butterfly Life Stages, Eggs](#)

[Painted Lady Butterfly Culture Components](#)

Problems? We hope not, but if so contact us. We want you to have a good experience.

Orders and replacements: 1-800-334-5551, then select Customer Service.

Technical Support and Questions: caresheets@carolina.com



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