



The Source for Beautiful, Unusual, Exotic, and Native Plants



Milkweed: *Much More than Just a Monarch Host*

North American native species of Milkweed and Butterflyweed are often free flowering, generally perennial - may be clump forming or rhizomatous, natives that are host to a menagerie of beneficial insects as well as serving as the host for the majestic Monarch, Queen, and Soldier butterflies. We are currently letting the aphids have their way with our Milkweeds as this provides a wonderful nursery to a variety of predatory beneficial insects. Our aphid 'donut shop' has been packed with beneficials that include the ladybug or lady beetle – adults and larva, lacewing larva and adults, Syrphid flies, mummified aphids, and even assassin bugs. In IPM, or Integrated Pest Management, the *Asclepias* could be considered a 'trap plant' that actually attracts pests so that the nurseryman or gardener can monitor the buildup of pest populations. The aphid population will rarely reach levels that can actually kill the plant under normal conditions. By monitoring the pest levels on the 'trap plants', we are able to decide if further treatment is necessary (for aphids we prefer to use insecticidal soaps). Click on any of the pictures along the way for a higher resolution image.



Orange Butterflyweed

Asclepias tuberosa



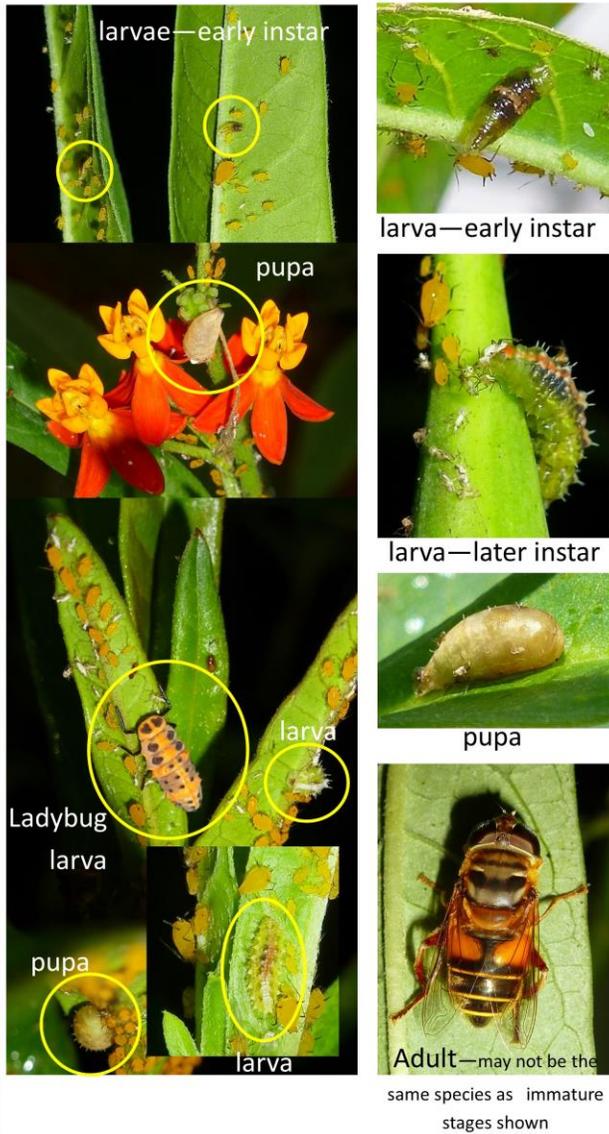
White Milkweed

Asclepias perennis

An established Milkweed's goal is to grow, flower, and produce viable seed. At the same time many species will produce a viable taproot and or series of rhizomes as well as new stem and flower buds. Large plants of [Asclepias tuberosa](#) can up to 50 stems per plant and most will terminate in flower clusters. Many species will flower periodically on and off throughout the growing season. The sweet nectar of the Milkweed is readily devoured by a variety of pollinating species. We have watched Swallowtails, Sulphurs, Hairstreaks and Skipper butterflies enjoying their rich nectar as well as hummingbirds, bees, wasps, beetles, flies, true bugs, and others. When in seed, some species will pause their growth to ripen seed. Once the seed has ripened, they typically return to growth and flowering again. Ample sunlight and good air circulation seem to be beneficial to overall plant health. [Asclepias perennis](#), White Milkweed, is actually fairly shade tolerant. Some species like [Asclepias viridis](#), Green Milkweed, may be tolerant of moist to wet clay conditions. Others like [Asclepias tuberosa](#) or Orange

Butterflyweed seem to prefer a well-draining, sandy, acidic soil with ample sunlight and good air circulation for best growth and flowering. Once established, many of our native species will return year after year with little to no additional care. [Asclepias](#) may not appreciate being moved once established. It is best not to damage their taproots and rhizomes while planting or transplanting. As the name implies most of these have an irritating, milky white to rarely clear, sap that some individuals may be sensitive to so be sure to handle broken plant parts with care.

Syrphid, Flower, or Hover Fly

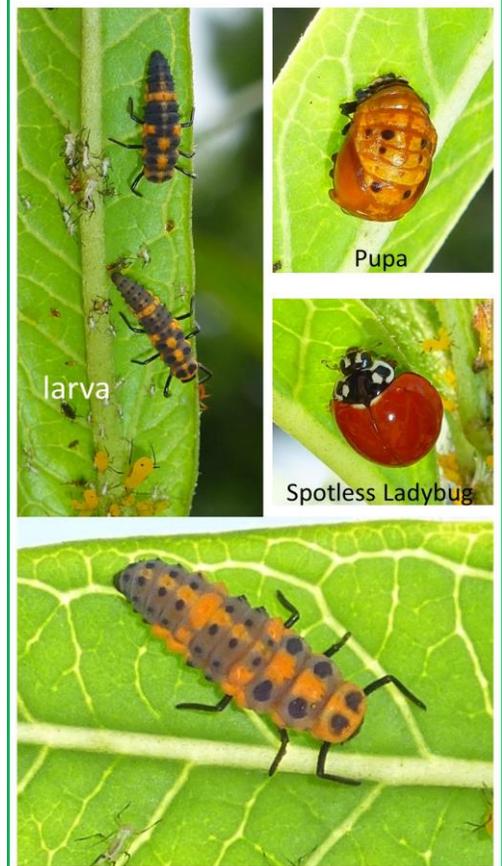


While monitoring the aphids recently we noticed an unusual slug-like predator (shown at left) devouring the Yellow Oleander aphids. Flower fly, Hover fly, and probably most correctly the Syrphid fly are all names applied to this native species of true fly of which we are thought to have over 800 species in North America. These insects are nearly the perfect garden guests. As adults, these flies often mimic our native bees and wasps with brown to black abdomens striped with yellow or orange. If threatened some species even imitate the warning buzz of a mad bumblebee to add to its faked ferocity as they are harmless to humans. The adults of the Flower fly are pollinators that feed on nectar, pollen (a rarity among insects), and even the honeydew produced by aphids. Females will lay their white, shiny, rice-like eggs singly among or near aphid populations. The eggs hatch out into legless, eyeless maggots that have hollow, three-pronged mouth parts with which they pierce soft bodied insects with and suck out their insides. Aphids are their preferred prey but they are also known to eat scales and other soft bodied insects. The empty husks of aphid bodies are then cast aside as they search for their next victim and provide evidence of their effectiveness. These voracious predators may consume as many as 400 aphids over the 2-4 weeks they spend as larvae. In the first instars, their body is clear and the digestive tract is visible and is typically indicated by brown colored fluid that fills it. When at rest the larva have some resemblance to bird droppings if only 1/4" long and 3/16" wide. In later instars they more closely resemble a small green caterpillar and have a double row of

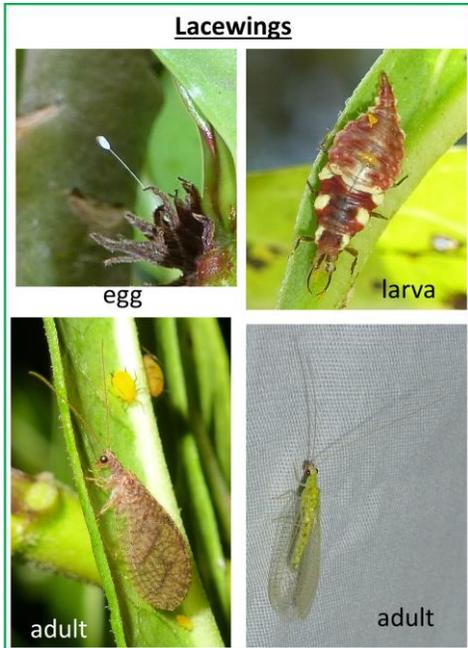
spike-like projections running down the back along with white stripes. Once mature, the larva may attach to a nearby stem or leaf, or drop to the ground to pupate in a light brown, tear drop shaped pupae before the final metamorphosis into the adult fly. Many species of the Flower fly may produce 3 to 7 broods or generations per year. For excellent information on Syrphid flies and their identification check out the "[Key to the Genera of Nearctic Syrphidae](#)" from the Canadian Journal of Arthropod Identification. The adult shown at the bottom left is similar to but may not be the same species as the larva that are shown. My tentative identification for the adult is *Palpada vinetorum* whose larva are considered aquatic filter feeders that eat organic matter.

Another welcome garden predator is of course the Ladybug or Lady beetle. Both adult and larva are voracious predators of soft bodied insects and they are sure to show up at any good 'donut shop'. The larvae can grow to nearly 1/2" long and when mature will attach to a nearby leaf or stem to pupate. Shown at the upper right is an adult Spotless Ladybug along with

Ladybug, Lady Beetle



unidentified larva and a pupa. To learn more about Ladybugs visit the [Lost Ladybug Project](#)'s website where they have identification keys, field guides, or submit your Ladybug images and contribute.

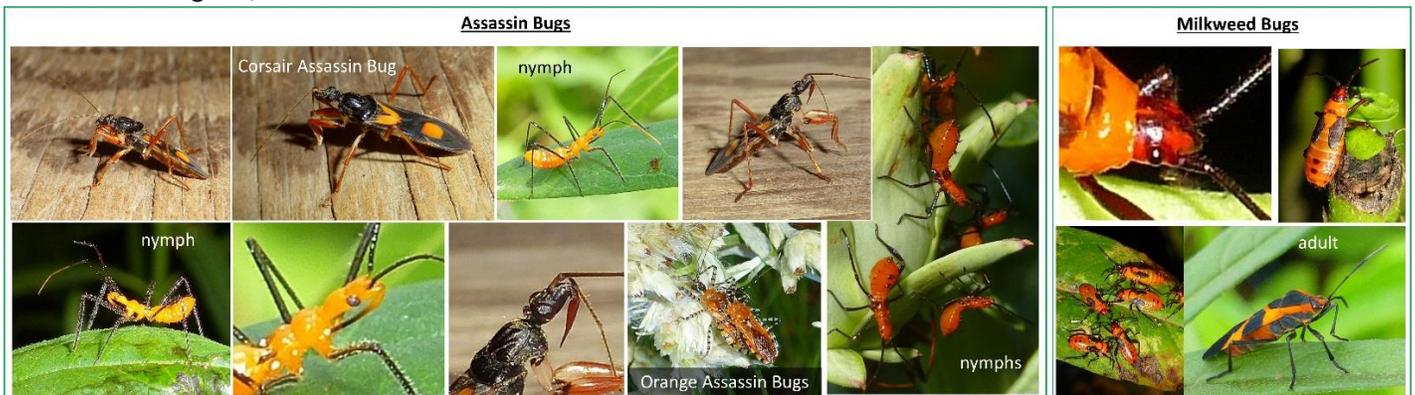


Very similar in shape and size to the Ladybug larva are the larva of Lacewings who are known as 'Aphid Lions'. Lacewings lay their tiny white eggs atop a long hair-like stalk. Adults generally only visit flowers to drink nectar and are typically nocturnal and so may be found at outdoor lights during the warmer months of the year. Did you know that some Lacewings sing? Click the following link to learn more about [The Cryptic Song Species of *Chrysoperla*](#) from Charles S. Henry and the University of Connecticut.

On the bottom of the leaves and among the bright yellow Oleander Aphid colony we find brown, often dull colored, motionless aphids. These are what are commonly known as 'aphid mummies'. These aphids are no longer a parasite upon the plant but are themselves the host to a tiny, 1/8" long, brown to black wasp. The mature female lays its eggs in aphids and the larvae live in and eat the insides of the aphid. Once the larva is mature, it will spin silk to attach the 'mummy' to the leaf while it spins a cocoon inside in which to pupate. Once mature, they cut a round hole in the back of the aphid

from which they emerge and begin the whole process over again. A nice article about these wasps can be found at Aggie Horticulture website from the [Galveston County Master Gardeners](#).

Another common pest of Milkweed are the Milkweed Bugs. According to the excellent book "[Bringing Nature Home](#)" by Dr. Douglas W. Tallamy, this is mainly a seed eater that prefers Milkweed. When seeds are not available, it may also feed on foliage, stems, and flower buds and some suggest that it may even resort to predatory habits. The long thin rostrum (like the proboscis of a butterfly) of this insect is inserted through the husk of an *Asclepias* seed pod where it injects various enzymes that convert the seed to a liquid that the bug can drink like a milkshake. This bug doesn't appear to be damaging unless there are too many for the plant to support. Generally only about 3/4 to 1" long with a black and orange body atop thin black legs, these true bugs are often found living in small groups in various stages from nymph to adult. These bugs are easy to confuse with some species of Assassin bugs, particularly the Milkweed Assassin Bug as well as the Corsair Assassin Bug in some regards, and so to prevent us from squishing the wrong bug, we have been working out an easy method for telling the two apart. Both are shown below with a close up of their heads. Notice that the head of the Milkweed bug is attached directly to the body and is somewhat triangular,



whereas the head of an Assassin bug is on a narrow neck (head and neck are about 1/8-3/16" long combined and the head can swivel). Assassin bug nymphs often appear to have a 'sway back' like an old broken down horse and in the case

of the Wheeled Assassin bug may have a rounded, spiky, wheel-like protuberance growing along the center of its back. Some Assassin bugs, like the Wheeled Assassin Bug and the Corsair Assassin Bug, are known to bite if handled, so be sure to give them the respect that they deserve. They are said to inject a paralyzing toxin into their prey and generally an Assassin bug bite is merely painful to most humans but in sensitive individuals it could cause dangerous allergic reactions.

Wow all of these critters on just a few Milkweed plants and we haven't mentioned the Monarchs! We were blessed with a few Monarch caterpillars this spring as the herd was moving north and hopefully some of them made it to maturity to add to the population. As many of you know their population has been way down this year so be sure to plant Milkweeds for the Monarchs and for all of the other beneficial insects that they are sure to attract. One of my brothers recently asked "If I plant Milkweeds now will I have Monarchs this summer?". My response was "Not exactly, at least in our area". We are generally only blessed with caterpillars here in Louisiana when the Monarchs are in migratory mode - early spring and early fall.



Monarch on Mexican
Butterflyweed

Asclepias curassavica

To see our current selection of Milkweeds just [click here](#). We will continue to add to our selection of new beautiful, unusual, exotic, and native plants throughout the year so check back often to see what's new! To see our current listing of over 150 new plants just [click here](#). The new [Camellias](#) from Bobby Green and Green Nurseries will soon be ready, to preview our fall lineup [click here](#). Don't forget our website now offers a new feature that will notify you when plants become available so that you don't miss out. On any plant that we are out of stock on you can click "Add to Notification" just below the 'Out of Stock' and our website will automatically send you a onetime email as soon as that product becomes available.

New Flash--- **Almost Eden's 2014 Fall Open House** will be held on **September 20th** and **21st** of this year so mark your calendar. Get your gardening buddies together and join us as we open our nursery and gardens to the public! Open from 9AM-5PM both days.

To join our mailing list go to <http://almostedenplants.com/shopping/shopcontent.asp?type=Email>

We hope that you have all had a safe and wonderful July 4th holiday weekend!

Thank You & Good Growing,
John, Bonnie, & Jeff McMillian
And the Crew at [Almost Eden](#)

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