

# WHAT ARE ALL OF THESE ORANGE THINGS ON MY MILKWEED?!



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## Common Concerns in Late Summer

Every year, usually during August, I receive numerous emails, texts, and phone calls regarding a LOT of orange or yellow ‘bugs’ on milkweed plants. This phenomenon is typical for late summer and is an intriguing part of milkweed ecology.

## Identifying the Oleander Aphid

The yellowish-orange insects commonly found on milkweed are oleander aphids (*Aphis nerii*). These aphids are bright yellow with black legs and antennae and are often mistakenly called “milkweed bugs.” Their populations surge in late summer because they reproduce without mating (parthenogenesis), and adults will develop wings to relocate when milkweed resources run low.

Oleander aphids feed on a variety of plants such as oleander (*Nerium oleander*), Vinca, different species of *Asclepias* (milkweed), and wax plant (*Hoya carnossa*). They extract plant sap and secrete honeydew, a sweet, sticky substance that attracts ants. Ants tend to aphid colonies, collecting honeydew as food.



*Figure 1 Oleander Aphids feeding on Swamp Milkweed*

When aphid populations are small, they rarely cause lasting harm to milkweed plants. However, unchecked growth in the absence of natural predators can lead to problems.

# Why Do Aphids Appear in Large Numbers?

The abundance of aphids often stems from a recently established habitat where milkweed is newly available, drawing in large numbers of insects. It's like opening a new restaurant in a town that has never had any restaurants before...open season, large crowds!! As your habitat starts to mature, more species of insects and birds will begin to appear, along with beneficial insect predators that would generally keep your aphid population (and others) in check.

Predator populations might be slow to establish, especially in new gardens. The use of insecticides and mosquito sprays in surrounding areas can further hinder the presence of natural predators. Communicate with neighbors about sustainable pest management, such as using [mosquito buckets](#), which help control mosquitoes without harming beneficial insects.

Adding a variety of plant species to your property will encourage insect diversity and eventually support predator populations. To manage aphids, remember the **three S's**:

- **S-Squish:** Using your thumb and forefinger, gently squish aphids on the stems. **Wear gloves and wash your hands thoroughly after handling aphids or the milkweed plant.**
- **S-Squirt:** Use a hose or spray bottle to wash aphids off the plant. This can be combined with squishing.
- **S-Spray:** If aphids are overwhelming and damaging your milkweed, use horticultural soap or oil, spraying only infested areas to protect the rest of the plant.

## Homemade Aphid Spray Recipe

Monarch Watch recommends the following mixture to control aphids:

- 1 oz Isopropyl Alcohol
- 1 oz Blue Dawn
- 1 oz White Vinegar
- 1 gallon of Water

Mix thoroughly and apply with a spray bottle directly onto aphids. Please avoid contact with caterpillars or beneficial insects, as the spray may harm them.

# Toxicity and Warning Coloration

Many insects, including monarch butterflies, store toxic chemicals from their host plants, making them unpalatable to predators. Dr. Lincoln Brower's famous experiment demonstrated this: Blue Jays that had never seen monarch caterpillars happily snatched them up and ate them. However, within minutes, these blue jays became violently ill and vomited the contents of their stomachs.



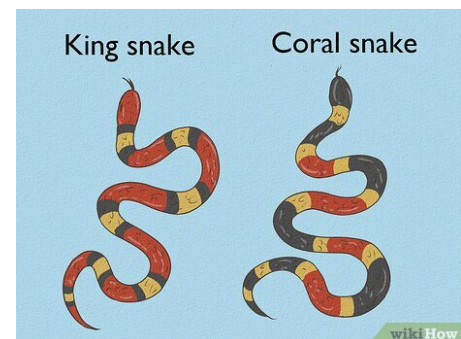
*Figure 2 Blue jay eating monarch wing*



*Figure 3 Blue Jay vomiting stomach contents*

Species with toxicity often display bright warning colors (aposematic coloring), typically red, black, and yellow, or some combination of these colors. Predators soon recognize these signals and avoid such prey. This trait is called Müllerian mimicry.

Some non-poisonous species mimic these colors (called Batesian mimicry) to deceive predators, such as the harmless kingsnake resembling the venomous coral snake.



*Figure 4 Batesian Mimicry Example*

## Other Milkweed Bugs

During late summer, you may also encounter Small and Large Milkweed Bugs (*Lygaeus kalmia* and *Oncopeltus fasciatus*).

The two species are difficult to tell apart except for the size criteria.



Figure 5 Small vs Large Milkweed BUGs

## Milkweed Bugs and Plant Impact

Small and Large Milkweed Bugs are Müllerian mimics and store toxins after feeding on milkweed. They use their slender beaks to feed on the outer seed layers of milkweed pods, leaving plenty of seeds viable. Unless present in large numbers, they do not harm the plants and typically do not require control.

To reduce overwintering insects, remove leaf litter and old milkweed stalks in late fall.

## Distinguishing Milkweed Bugs

Large Milkweed Bugs grow up to  $\frac{3}{4}$  inch and can be confused with Box Elder Bugs, though the latter are smaller and not usually found on milkweed. Small Milkweed Bugs reach only  $\frac{1}{2}$  inch, but both can be managed with the same strategies.

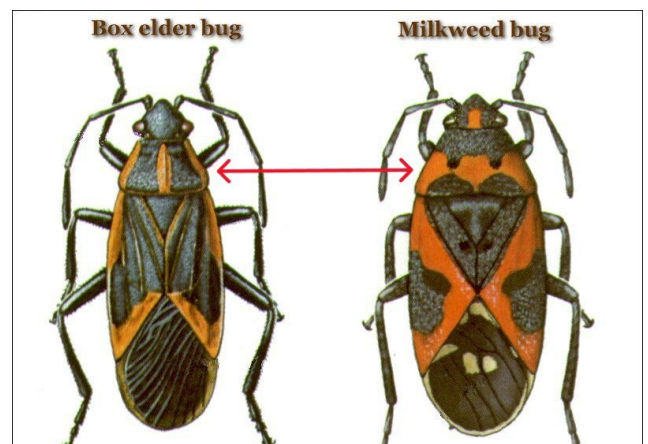


Figure 6 Box Elder vs Milkweed Bug



## Milkweed Beetles

Common beetle species on milkweed include the Red Milkweed Beetle (*Tetraopes tetraophthalmus*) and the Swamp Milkweed Leaf Beetle (*Labidomera clivicollis*). The former feeds on leaves, buds, and flowers, while the latter prefers Swamp Milkweed (*Asclepias incarnata*) and can have two generations per year in southern regions. If beetle populations become problematic, use the same management methods described above.



Figure 7 Red Milkweed Beetle



Figure 9 Swamp Milkweed Leaf Beetle Adult



Figure 8 Swamp Milkweed Leaf Beetle larvae

## Further Reading

If you are interested in learning more about the ecology of the milkweed plant, here is an excellent article about the [Ecology of the Common Milkweed](#), *Asclepias syriaca*. Common Milkweed is not considered native to the state of Georgia, but the information will apply to the species that are native here.

If you would like more information on the amazing genus of milkweed plants, here are several books that are well worth reading.:

The Milkweed Lands: An Epic Story of One Plant: Its Nature and Ecology by Eric Lee-Mader

Milkweed Matters: A Close Look at the Life Cycles within a Food Chain by Lisa Connors

Milkweed Monarchs and More: A Field Guide to the Invertebrate Community in the Milkweed Patch by Ba Rea, Dr. Karen Oberhauser, and Michael A. Quinn