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Green antelopehorn, an unusual and quite pretty native milkweed. Kenneth Setzer - Fairchild Tropical Botanic Garden

HOMEPAGE

Yes, milkweed attracts monarch butterflies, but its story is more complicated

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Most gardeners recognize milkweed immediately as a butterfly attracter, but there's a complex community that revolves around this prolific plant that extends well beyond the monarch.

Milkweed may spread like wildfire, but it needs to. If you've ever watched just a few milkweed plants in your garden, you know that monarchs and other milkweed butterflies will certainly detect them and lay eggs. The caterpillars will then absolutely eat themselves out of house and home, stripping a few plants bare of leaves in hours, gone. That's what caterpillars — larvae — are: eating machines. They do almost nothing but eat and defecate in preparation for pupation and adulthood.

Milkweed refers mostly to plants in the genus *Asclepias*, an exception being giant milkweed, *Calotropis gigantea*. They're all in the same family, however. The "milk" appellation refers to the milky, sticky latex defense these plants exude when damaged. It is toxic and a skin irritant.

There are more than 100 milkweed species, but what we call tropical milkweed (*Asclepias curassavica*) is one of the most commonly grown. Native to tropical America, with crimson and orange flowers, it has caused problems when grown as a short-lived perennial in cooler regions, in short because it might be enticing monarchs to linger instead of migrating, which in turn may be linked to increases of a harmful monarch parasite.

Growing tropical milkweed south of Orlando should be fine, however, as we host a year-round, non-migrating population of monarchs in addition to some monarchs passing through. However, planting a native species is always a good idea.

Tropical milkweed flowers, fruit, and seeds.
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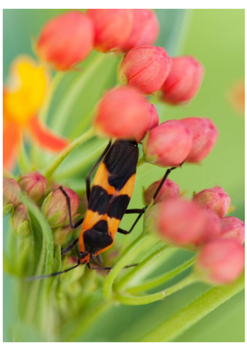
Observe milkweed closely; it is no passive vegetable. Upon feeding, a newly hatched caterpillar may become mired and die in the plant's defensive latex. Milkweed is full of toxins and has been linked to livestock deaths when consumed in large amounts. Even its pollinators face danger; honeybees and other insects have been seen to get trapped and die between flower parts.

Some animals have turned the plant's weapon to their own defense; caterpillars consume leaves and sequester the toxins to make themselves, and their adult forms, unpalatable to predators. The butterflies' bright colors are aposematic, a warning to predators.

Adult butterflies also feed on milkweed flower nectar, but aren't great pollinators. It seems the plants don't get much out of this one-sided relationship.

Another hurdle to pollination is the pollinia. This is a sack of pollen grains that milkweed and orchids produce, rather than individual pollen grains. Not all animals can carry it away, which may be why monarchs are not effective milkweed pollinators.

But pollination proceeds, thanks to bees and other insects. The resulting milkweed fruit is called a follicle, and looks like a small string bean. When it matures and splits open, dozens of seeds are revealed, each attached to silky strands to catch the wind for dispersal, called anemochory.



The milkweed bug eats its seeds, but otherwise won't harm the plant.
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Every resource has an exploiter, and milkweed seeds have the milkweed bug (*Oncopeltus fasciatus*). Their bright orange and black coloration, like the monarch's, serves as warning to predators that these bugs, too, are unpalatable, having sequestered milkweed toxins through consuming seeds.

Then there are the oleander aphids (*Aphis nerii*) clustered by the hundreds, like yellow pinheads, sucking sap from the plant. They too are fascinating in their ways. All are female, some are wingless, while some adults develop wings in times of overcrowding or dwindling food, possibly so they can fly away to new food sources. All are viviparous, giving birth to live young. The honeydew they secrete feeds ants and other creatures.

The sheer massive quantity of them is alarming. Their feeding doesn't seem to harm the milkweed much, but over time may weaken it, and monarchs are believed to avoid laying eggs where there are excessive masses of aphids. They can be sprayed off with a hose or the plants can be pruned and infested parts discarded.

At least a few strikingly beautiful beetles also frequent the milkweed buffet. I have not seen them in South Florida. A couple moth larvae may feed on milkweed foliage, and it suffers the usual pests other plants deal with, like scale. So you see milkweed needs to be weedy, or it would disappear. While its chemical defenses deter many herbivores, some have cleverly circumvented the toxicity and incorporated it into their own defenses.

I personally don't trust big box stores to not apply pesticide to plants, which really defeats the purpose of growing milkweed. So you might look for the native *Asclepias tuberosa* at native nurseries. Its fiery orange flowers are stunning, and it does not produce the latex of other milkweeds.

Fairchild grows numerous butterfly-supporting plants, in particular in the Lisa D. Anness South Florida Butterfly Garden, which is positively overflowing with native butterflies, skippers, and moths. An interesting plant in particular is the native green antelopehorn, *Asclepias viridis*. Its foliage is shorter and wider than tropical milkweed, and less "strappy" looking, plus, you get pale green and purple flowers. You can see it in our native plant and pineland areas (just ask for Plot 176).

The monarch migration is no less magnificent than that of reindeer or Arctic tern, and you can be a part of it thanks to milkweed, not to mention the hundreds of other organisms whose lives revolve around this weed of a plant.