RHODE ISLAND Wild Plant SOCIETY

Cultivation Notes

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Swamp-milkweed – *Asclepias incarnata* **Family:** Asclepiadaceae

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Swamp-milkweed

The milkweeds, genus *Asclepias*, are a friendly bunch. They look enough alike to be clearly related to each other, but at least our Rhode Island species' are different enough to be easily distinguishable from each other. Furthermore, they are big, bold and tall, easy on creaking backs. Eight of the 110 species found in North America appear in the *Vascular Flora of Rhode Island*, although one of them, *A. purpurascens*, hasn't been reported in the state since 1906. *A. quadrifolia* is listed as "State Endangered," and four of the others are "Of Concern." That leaves *A. syriaca,* Common Milkweed, and *A. incarnate,* Swamp-milkweed, as abundant. *A. syriaca* can be found in just about any unmowed field. *A. incarnata* is common in its favorite wet environment, on the shores of many of our rivers and ponds. Swamp-milkweed, with its bright pink flowers, is no less glamorous than its popular but rarer cousin, Butterfly-weed (*A. tuberosa*). Both would probably prefer that we not mention their reviled cousin, Black Swallowwort (*Vincetoxicum nigrum*).

The milkweeds' pollination mechanism is so complex that one wonders how the job ever gets done. In the center of the flower is the gynostegium, a stumplike structure, consisting of the stigmatic head with five stamens fused to the outside of it. Each stamen is hidden behind one of the five petal-like hoods that surround the gymnostegium. The pollen-containing anthers, instead of waving in the breeze as in normal flowers, are stuck to the sides of the gynostegium. Each anther produces two pollinia, elongate masses of sticky pollen. Pairs of neighboring pollinia are connected by a tough thread and located on either side of a slit in the gynostegium. Inside the slit is the receptive surface of the stigma, and also the nectar glands. With luck, an insect trying to get at the nectar will get its leg stuck in the slit. If it succeeds in freeing itself with its leg intact it may snag the thread connecting two pollinia and find itself lugging a load of pollen. If it enters another milkweed flower in just the right way, one of the pollinia may enter the slit and fertilize the many ovules inside the gynostegium. This series of chancy occurrences may explain why an umbel of dozens of flowers produces only one or two seedpods or none at all.

The sticky white sap for which milkweeds are named discourages some, but not all, herbivores. This sap contains latex, which gums up the mouthparts of many insects, and poisonous alkaloids that induce vomiting and other unpleasantnesses such as death. The amount of latex and poison in milkweed sap varies widely among species with Swamp-milkweed containing roughly a fourth as much as the common *A. syriaca* although ten times as much as Butterfly-weed. Monarch larvae, though famously resistant, were found to grow faster on *A. syriaca* leaves if the latex supply was reduced by partially severing the main vein of the leaves compared to leaves not so treated. The same operation on Swamp-milkweed leaves had no discernible effect on larval growth rate, suggesting that there is a trade-off between the toxic effect of milkweed sap on insects and the protection it affords them against predators.

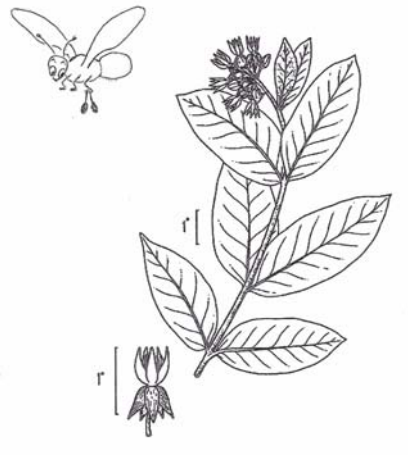
Milkweed sap has medicinal properties, as a well as a capacity for harm. For instance, although it can cause an irritating skin rash, it can also remove warts. This use, though effective, is not widely employed, as it requires applying the sap to the wart four or five times a day for several weeks.

During World War II, when access to rubber and kapok in Indonesia was cut off, Americans eagerly sought milkweed for its sap as a source of rubber and its floss, which is water proof and buoyant, to stuff life preservers. Unfortunately the latex concentration in milkweed sap, even in the relatively well-endowed *A. syriaca*, turned out to be much too low to allow the commercial production of rubber. The floss, on the other hand, proved to be ideal for filling life preservers and flight suits. Since there wasn't time to grow milkweed as a crop, rural schoolchildren were recruited to collect ripe but unopened seedpods from fields and roadsides.

Propagation
Growing Swamp-milkweed from seed in not difficult. The seeds should be brown and dry, collected when the seedpods have opened or are about to open. It is best to remove the floss. Also, the seeds need to be "vernalized," i.e., stored for the winter in the refrigerator in damp potting soil or between wet paper towels in a plastic bag. As the seeds don't germinate well above 80°, they should be planted in early spring, in wet soil. A drawback to seed propagation is that the plants need three years to mature enough to flower.

For speedier results, Swamp-milkweed can be grown from cuttings. The stems need to be cut underwater, coated with rooting hormone, placed in vermiculite or sand and kept wet. Rooting takes six to ten weeks. If you are truly impatient, a large healthy clump can be divided.

Cultivation
Although Swamp-milkweed grows well in ordinary garden soil, a large hole filled with 50/50 peat moss and soil plus several shovelfuls of organic fertilizer can provide the wet soil it normally enjoys in the wild. Extra water is best supplied via a rain barrel to save expensive city water.



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RIWPS Policy — *Never dig plants in the wild or without the written permission of the landowner. Take seeds sparingly.*

Note: Cultivation Note is a regular feature in ***WildfloraRI*,** the Bulletin of the Rhode Island Wild Plant Society. If you would be interested in writing a future cultivation note article or have suggestions of plants you would like to see included, please contact Dick Fisher at Richard.Fisher2@cox.net. The previous cultivation note topics are listed on the website and there is an easy to follow set of guidelines for the format of your article. — *WildfloraRI* Editorial Committee.