



# The Lady-Slipper

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[www.knps.org](http://www.knps.org)

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## Kentucky's Common Milkweed (*Asclepias syriaca* L.)

By David Taylor, US Forest Service

Common milkweed is a perennial forb that spreads by means of rhizomes and seed. It is one of about 115 species that occur in the Americas. Most species are tropical or arid land species. Plants may occur as a few individuals, but once established, form small to large colonies. Individual plants range from 1 to 2 m (~ 3 to 6 ft) tall. Leaves are elliptic to ovate to oblong and somewhat thick. Mature leaves are 15-20 cm (6-8 in) long and 5 to 9 cm (~ 2 to 3.6 in) wide, with a prominent midvein. The underside of the leaf is frequently finely pubescent. The stem is stout, usually simple, and green to black (see below) in color. When broken, the leaves, as well as stem and fruit, exude milky latex. Flowers are purplish to rosy pink to mostly white or even greenish and about 2 cm (0.75 in) long and 1 cm (0.4 in) wide. They occur in semi-spherical umbels (umbrella-like clusters) in the upper leaf axils. Flowers are somewhat complex in their structure, with structures not found in the average flower (see [http://keys.lucidcentral.org/keys/v3/cutflowers/key/Cut\\_Flower\\_Exports\\_of\\_Africa/Media/Html/Fact\\_sheets/Asclepias.htm](http://keys.lucidcentral.org/keys/v3/cutflowers/key/Cut_Flower_Exports_of_Africa/Media/Html/Fact_sheets/Asclepias.htm) or <http://www.microscopy-uk.org.uk/mag/artfeb05/bjmilkweed.html> ). The flowers are strongly and sweetly scented. The fruits (pods), known as follicles, are formed from the union of multiple flowers. They are green, covered in soft spiky projections and are finely pubescent. When the seeds are mature, the follicle splits exposing the seeds. Each seed is equipped with a coma, a soft group of hairs. As the newly exposed seeds dry, the hairs of the coma expand allowing the seed to catch a ride on the wind. When broken, the leaves, as well as stem and fruit, exude milky latex.



Whole plant with flowers

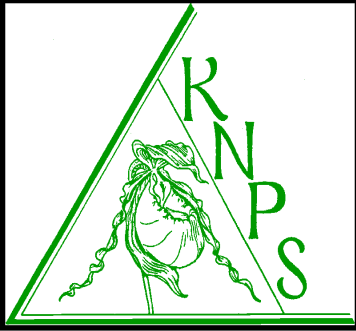


Milkweed pods

Common milkweed is a widespread and somewhat weedy species. It is known from most of the eastern U.S and the eastern-most prairie states as well as southern Canada from New Brunswick to Saskatchewan. It is frequently found in fence rows, on roadsides, in fields, and in prairies and pastures. Given the opportunity, it will establish in gardens and even thin lawns. It is tolerant of light shade, but generally is a full sun species.

The genus name, *Asclepias*, commemorates Asklepios, the Greek god of medicine. Some of the species have a history of medicinal use including common milkweed (wart removal and lung

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## The President's Message

By Alan Nations

Greetings - the summer seems to have passed so quickly. I hope you all have taken time to enjoy the summer flora. The wildflowers seem to be tall and healthy in the areas of central and southern Kentucky. I believe our late spring and early summer rains were the right combination to bring about some prolific growth. I also noticed other plants that were affected by the prolonged presence of moisture this spring. The Bidens (*frondosa*) commonly referred to as sticktight or beggar-ticks have occupied the lower portions of my prairie with the Indian grass, big bluestem and upland wildflowers. The prolonged moisture apparently triggered the germination of the sticktight seed present in the soil bank. The sticktight is a facultative wetland species normally found around pond and stream margins. For now I am enjoying its presence and bright yellow blooms. A couple of other native species have also benefited greatly from the weather patterns this year, the results of which have brought a lot of misery to the human element. I am referring to Ambrosia (*artemisifolia*) Common ragweed and Ambrosia (*trifida*) Giant ragweed. Common ragweed is the most widespread in Kentucky. The plants produce copiously in wet years, which has been my personal observation this year. I have observed Giant ragweed over 14 feet tall and common over 7 feet, which is unusual. Each individual plant is reputed to be able to produce a billion grains of pollen over a season and the plant is anemophilous (wind pollinated). The pollen is highly allergenic and is considered the greatest allergen of all pollens, and is the prime cause of hay fever in North America. The ragweed bloom in Kentucky generally starts in mid August and continues until cooler weather arrives.

I attended the Cullowhee Native Plant Conference held at Western Carolina University in July. This is a great conference sponsored by the university on their unbelievable campus which is located in a beautiful mountainous setting. I can easily say this is one of the best conferences I have ever attended, with great field trips and speakers making it a real learning experience. There were many knowledgeable, friendly folks in attendance from all over the southeast and mid-west. During the conference I also represented the Society at the Southeast Native Plant Conference; in attendance were seven other native plant societies. This was the group's second conference. I attended the first in Tallahassee in May 2010. The group is presently loosely formed; during the meeting there was discussion about forming as an organization. Most of the meeting was spent discussing the common concerns especially invasive species and the impact they are having on each state. There was also an exchange of ideas on common issues within the societies, ranging from newsletters to websites to fundraising and membership. The group communicates during the year in an effort to stay informed in areas of common concern. I will be reporting more on this later. I received some very good comments about our website and newsletter from other societies present at the meeting. I want to send a special note of thanks to our webmaster, Dave Luzader, and our Lady-Slipper board, Zeb Weese, Ron Jones and David Taylor and to all of you who write the outstanding articles and take the great photographs that appear on the site and in each issue.

Enjoy your fall, and plan to join us at Cumberland Falls State Park for our fall meeting, see you there,

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# Save the Date!

2011 KNPS Fall Meeting is set for

Saturday, October 1st at

## Cumberland Falls State Park!

We are still working on the Autumn 2011 joint meeting of the Kentucky Society of Natural History/Kentucky Native Plant Society at Cumberland Falls State Park. Here is what we have so far (all times/programs are tentative):

Saturday, October 1 at 9 AM -Hike of the Blue Bend Loop with Kyle Napier, Kentucky State Nature Preserves Commission Regional Manager.

Saturday, October 1 at 9 AM -Geology walk with Berl Meyer, Kentucky Society of Natural History.

Saturday, October 1 at 9 AM -Creek walk with Doug Stephens, biologist and McCreary County Judge-Executive.

Saturday, October 1 at 2 PM -Ecology hike with Dr. Sarah Hall, Kentucky Native Plant Society.

Saturday, October 1 at 2 PM -Ecology hike with James Kiser, Kentucky Society of Natural History.

Saturday, October 1 at 6:30 PM - KNPS meeting at the lodge

Saturday, October 1 at 7 PM - KSNH meeting at the lodge, followed by

"Natural History of Southeast Kentucky" by James Kiser, KSNH

KNPS members register on-site Saturday morning before the 9 AM hike and .

Stay tuned to [WWW.KNPS.ORG](http://WWW.KNPS.ORG) for more details!

**YOUR DUES ARE DUE!**

**PLEASE SEE THE BACK OF THIS NEWSLETTER FOR INFO  
ON RENEWING NOW FOR 2012!**



## Native Plant Stewardship Certification: First Class!

By Cheri Powell, KNPS member

Watch out wooly adelgid! Beware bush honeysuckle! The participants of the first KNPS Native Plant Stewardship Certification are hot on your trail. After six monthly classes, we have increased our native plant information, honed our identification skills and are ready to apply our new-found knowledge.

The classes started at Raven Run Sanctuary in January with an overview of the variety of native plant communities in Kentucky. We were given maps that showed the geology and the natural regions. Our vocabularies increased as we learned the difference between an acidic mesophytic forest and Appalachian mesophytic forest. We marveled at the detailed maps as we put our knowledge to the test and identified areas that fit the descriptions. We leafed through supplied literature and were saddened by the extent of Kentucky's threatened and endangered species, both plants and animals. We pondered what we were losing.

In February we learned about the threats to Kentucky's natural communities. Insect, plants and animals have all been brought into Kentucky's environs with little thought to the consequences. Who knew the impact of burning bush, wintercreeper, multi-flora rose and many others? Now we know. Some pests snuck in. The emerald ash borer came on a stabilizing wood for a legitimate import. Wooly adelgid came from Asia to Virginia in 1951. We learned how imported plants and insects can change a local landscape when they overrun the native varieties. We saw first hand the results of bush honeysuckle that had infested the Floracliff Nature Sanctuary. The native plants had disappeared. When the honeysuckle was cut down, native plants started returning the following season.

March brought a different perspective as we toured Salato Wildlife Center and saw many native plants being grown in greenhouses to be sold to the public in an effort to restore the native plant population. We learned how to propagate some of the more common plants and were given seedlings that we repotted. Most of those attending took home a trunk load of additional plants. We took a walking diversity tour around the grounds and saw examples of the varied communities that we learned about in the first class.

In April we got down and dirty. A revisit to Floracliff and a quiz of invasive and native tree identification tested our mettle. It was a stark reminder of how difficult the task is. We redeemed ourselves by cutting back a good size patch of bush honeysuckle. We left that afternoon with sore muscles and an appreciation of the magnitude of the problem.

May brought rain and a walk through Franklin County in search of Lucy Braun's rockcress, an endangered species known to be in the area. None were actually located, but many other wildflowers were in attendance to the delight of the hikers.

Natural Bridge State Park was a beautiful locale for the final class. We got specific information about the wooly adelgid and saw infestations on the hiking trails. We watched as the appropriate chemicals were applied to infested trees. We even gained the attention of park visitors who were there for the weekend and found interest in our impromptu classes along the trail. It said a lot when passers-by picked up on the topic, stopped to listen and even asked questions. It is obviously a subject that more people want to know about. So what happens now? Participants have given feedback to KNPS to make the next class even better. KNPS will have a planning session in September 2011 in anticipation of offering the class again in 2012. Those of you who sign up for the 2012 class will get to meet some of



Taking a break at Natural Bridge

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us in the inaugural class because almost everyone missed one class and we must make it up to receive the certification.

It's been a great experience.



*Cheri Powell is a new member to KNPS, but a long-time native plant enthusiast. She lives in the Highlands in Louisville with her husband Rick, cat Sadie and a large native plant garden in the backyard. She will be speaking on the topic of Invasive Plants and Some Alternative Native Plants to the Audubon Park Garden Club, on March 12, 2012 at 1:00. The meeting will be held at the Louisville Nature Center. All are welcome to attend.*

**Native Plant Stewardship Certification classes are forming, please go to <http://knps.org/stewardship.html> for more information!**

Chris Chandler leads a class discussion.

## Two Tropical Experiences planned for 2012—Costa Rica and Ecuador

### **Natural History of Costa Rica, ECU Biological Sciences, Spring 2012.**

This course introduces the student to the extraordinary variety of plants, animals, and ecosystems of tropical regions. Students will observe and study the wide range of habitats in the natural regions of Costa Rica. We will visit sites in the southern cloud forests and paramo, montane forests, Pacific Coast (including a boat trip to Canas Island), and at Monteverde. Emphasis will be on understanding biodiversity issues in the tropics and on conservation strategies needed to protect these dwindling resources. Specific topics to be addressed are: tropical ecosystems, species diversity, dominant and unique plants and animals in different life zones, and threats to tropical ecosystems. Prerequisite: One year of college-level biology. Students may take the class for undergraduate credit (Bio 599) or graduate credit (Bio 799). Students must be registered through ECU to take this course.

Cost is anticipated to be about \$2400 (including airfare).

Instructor: Dr. Ron Jones, ECU, [ron.jones@eku.edu](mailto:ron.jones@eku.edu)

Dates: March 1 to March 12, 2012. The class will also meet periodically throughout the spring semester, probably on Wednesday nights.

### **Ecuador and the Galapagos, KIIS program, Summer 2012**

The Kentucky Institute of International Studies is planning a 24 day trip to Ecuador in Summer 2012. Dr. Ron Jones is the Program Director, and he will teach a course titled "Tropical Biodiversity and Conservation." Other courses will also be offered, including one by Dr. Malcolm Frisbie (EKU) on "Evolution, Theory and Processes," and courses on Digital Photo Manipulation and Web Site Development by Dr. Jan Pearce ( Berea College). Two of the classes--Evolution and Tropical Biodiversity, can be taken for undergraduate or graduate credit (3 hrs each).

Throughout the program, we will be travelling to different parts of the country. In Quito we will stay at the Alston Inn Hotel, in Mindo at the Cabanas Armonia, and in Yanayacu at the Yanayacu Biological Station. The lodging sites in the Upper Amazonia rainforest and in the Galapagos are yet to be determined. Hotel and lodge rooms are usually double, triple and quadruple occupancy. On the mainland we will visit cloud forests at about 1200 m and 2100 m on the western and eastern Andes, tour the high elevation paramo, and stay at a lodge in Upper Amazonia (4 or 5 days at each major site). Throughout our mainland travels the emphasis will be on major ecosystems, and the associated plants and animals, especially tropical trees and tropical birds. Ron Jones has considerable experience with the botanical biodiversity of Tropical America, and our local guide will be Rudy Gelis (former student at Berea College and ECU) who is now widely known as an expert in tropical ornithology. Those with ornithological interests will have frequent opportunities to study the birdlife of the region, both on the mainland and on the Galapagos. The Galapagos portion of the trip will involve 4 nights and 5 day in the Galapagos, and visiting several different islands.

Dates of the trip are June 26 to July 19, 2012.

Cost is anticipated to be about \$5300 (including airfare to Ecuador, lodging, most meals, and airflight to Galapagos, mainland transportation, insurance, fees)

Contact Dr. Ron Jones at [ron.jones@eku.edu](mailto:ron.jones@eku.edu) for more information, or visit the KIIS website at [www.kiis.org](http://www.kiis.org).



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Monarch caterpillar on leaf

diseases) and butterfly weed (aka pleurisy root—pleurisy and other lung disease). The specific epithet, *syriaca*, means 'of Syria' and is a misnomer: Linnaeus thought the species was native to Syria. This species is sometimes eaten as a salad herb, requiring multiple boilings of the young shoots before it is palatable. The reason for the boiling is to rid the shoots of various cardiac glucosides and other bitter principles. Milkweeds contain various levels of these compounds which render the plants

toxic to most insects and animals. For some insects, the cardiac glucosides become a defense. They can store them in their tissue which renders them inedible or toxic to other animals. Monarch butterflies use this defense and birds leave them and the caterpillars alone. What the birds do not know is that northern monarchs feeding on common milkweed accumulate relatively little of the toxic compounds and probably would be edible. The more southern butterflies accumulate large amounts of the compounds from other species and are in fact toxic.

The stems contain a bast (inner 'bark') fiber used by Native Americans to produce twine and rope. The concentration and quality of the fiber make it potentially useful as a commercial fiber plant. Fiber quality is that of flax.

Common milkweed is an important pollinator and food plant for a large



Large mw bug adults and nymphs





Tussock moth caterpillars



Predated seeds

number of insects (more than 450 documented). It could be said that common milkweed is Nature's mega food market for insects. Numerous butterflies, flies, bees, wasps, and beetles feed on the nectar and pollen produced by the flowers. Even hummingbirds will try, apparently unsuccessfully, to extract nectar. Aphids, especially the yellow-orange oleander or milkweed aphids (*Aphis nerii*), are commonly found on milkweeds including this one. Large infestations of aphids can lead to formation of sooty mold on the plants which can turn the stems and leaves from green to gray to black. Two true bugs, the large milkweed bug (*Oncopeltus fasciatus*) and the small milkweed bug (*Lygaeus kalmia*) feed on the seeds, but the large milkweed bug is more often encountered. Large populations of either species can reduce the seed production potential of a col-



ony of common milkweed by as much as 80-90%. The colorful (red with black dots) red milkweed beetle (*Tetraopes tetraophthalmus*) feeds on the leaves. The milkweed leaf beetle (*Labidomera clivicollis*), another orange-red and black beetle may feed on common milkweed but has a preference for swamp milkweed (*A. incarnata*). At least two caterpillars, the milkweed tussock caterpillar (*Euchaetes egle*) and the monarch butterfly (*Danaus plexippus*) feed on this plant. The red (or orange-red) and black coloration of most of these insects is known as **aposematic** coloration; that is, the colors advertise the fact that the organism is not good to eat. Other palatable species mimic the toxic species and gain some protection as a result. A well known example is the viceroy butterfly (*Limenitis archippus*) which mimics the monarch (but go to [www.iscid.org/encyclopedia/Monarch\\_Viceroy\\_Puzzle](http://www.iscid.org/encyclopedia/Monarch_Viceroy_Puzzle) for a discussion).

For monarchs, common milkweed is among the most important food plants. It is the primary food plant for northern U.S. and southern Canada monarchs and is a major food plant for monarchs in the central and southern U.S. Monarchs migrating from the mountains of Mexico lay eggs on milkweed species in northern Mexico and the southern U.S. The butterflies that result from these eggs move further north in stages, with a change in species of milkweeds utilized as they move north. Common milkweed is the usual northern species. Monarchs can be helped by encouraging existing common patches of common milkweed and planting new ones. The plant grows readily from seed and spreads quickly by deep rhizomes. Because common milkweed can be weedy and difficult to remove, care should be used to establish the plant only in places where spread can be tolerated.



Milkweed aphid, mothers and young, on *Cynanchum laeve*





Announcing the new native plant blog from the University of Kentucky:

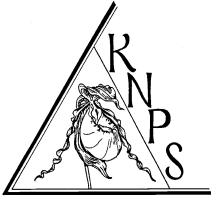
<http://kentuckynativeplantandwildlife.blogspot.com/>



**The Kentucky Native Plant Society is an official Affiliate of the  
Kentucky Conservation Committee!**

The KCC is the state's only organization dedicated solely to providing a non-partisan voice for Kentucky's environmental community in Frankfort. KCC works to make sound environmental stewardship a priority for elected officials and voters. For more information on KCC's activities, just go to:

<http://www.kyconservation.org>



Kentucky Native Plant Society  
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Frankfort, KY 40601

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Detach and send to: Kentucky Native Plant Society / 801 Schenkel Lane / Frankfort, KY 40601

**Note: To pay by credit card or PayPal account, please visit the website [www.knps.org](http://www.knps.org).**

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\* denotes required fields, we MUST have your e-mail address in order to distribute the newsletter!

*The Kentucky Native Plant Society was founded in 1986 for everyone interested in the native plants, trees, and wildflowers of Kentucky. Plants are essential to both the well-being of our Commonwealth's natural ecosystems and our enjoyment of its unique environment. With members in Kentucky and neighboring states, the Kentucky Native Plant Society is a leader in promoting education about, appreciation for, and conservation of the native flora of our Commonwealth.*