ORCHIDS! North Carolina Natives

By Marty Finkel, Master Gardener, Granville County,

There are several native orchids nearly everyone recognizes – the lady slippers. The Pink Moccasin Flower (Cypripedium acaule) is found mainly in the mountains and coastal plain in low pinelands and bogs, although we have them in the piedmont. I was very excited to find a colony of 12 plants on our property. A friend who lives on Sam Usry Road told me there was a large colony in a pine woods on his property. The flower stem is leafless, whereas the Yellow Lady Slipper has 3-5 alternate leaves on its flower stem. If you find them (and other orchid species), forget about transplanting to another site since it is almost impossible due to the symbiotic relationship with a certain fungus living in their roots. If the fungus cannot survive in an area, the orchids will not either. The orchid may survive its move for a few years but in nearly all cases dies sooner or later. I was part of a group of plant rescuers in the ‘60’s, and just ahead of the bulldozers in Cary we rescued hundreds of beautiful native plants. I do not believe any of the orchids survived transplanting whereas most of the other plants did. Look for its pink bloom in April-May in this area.

Pink Moccasin Flower (Cypripedium acaule)  Showy Lady Slipper (Cypripedium reginae)

The Showy Lady Slipper (Cypripedium reginae) is the rarest of our 3 slipper species, and it is found in swamps and on cool, wooded slopes in only 2 mountain counties. These plants are up to 2 feet tall and have leafy flowering stalks. Their large leaves are strongly ribbed and the flowers are fragrant. The pouch of the flower is dark rose while the upper petals are white. Blooms May-June.

The Yellow Lady Slipper (Cypripedium parviflorum var. pubescens) can be found growing as a single plant or in spectacular colonies. They are occasionally found on rich wooded slopes in the mountains and a few scattered places in the piedmont. Many years ago, I saw them at Hemlock Bluffs, now Hemlock Bluffs Nature Preserve, in Cary. I talked with the plants staff person at the Nature Preserve for this article, and he said the large colonies had disappeared but that there were still some yellow lady slippers left. Blooms April-May.

Yellow Lady Slipper (Cypripedium parviflorum var. pubescens)  Rattle-Snake Plantain (Goodyera pubescens)

A fairly common orchid around here and in the mountains is the Rattle-Snake Plantain (Goodyera pubescens), easily identified by its basal cluster of dark evergreen leaves with white netted veins. Look for it in small clumps or colonies in moist to dry pine and/or deciduous woods. The flower is not as charming as the previous orchid, since it is a compact 2 to 3-inch spike of small flowers at the end of a stalk rising from the clump of leaves. I see a lot of them in the woods on our property, blooming July-August.

The Showy Orchid (Galearis spectabilis) is a shorty at only 3-4 inches tall, but it can have 3-10 showy flowers consisting of 2 upright magenta upper petals and sepals and a white lower petal that forms the flat lip. The flower stalks rise between 2 wide lustrous basal leaves. Its favored sites are streams in rich hardwood (and rarely pine) forests in the piedmont and mountains. A former member of the Granville Gardeners club said she has them on their property in northern Granville Co. I saw one with multiple bloom stalks in a wooded area full of purple trilliums on family property in East Tennessee. Blooms May-June.

Showy Orchid (Galearis spectabilis)
The Garden Path

August 2009

The Crane-Fly orchid (*Tipularia discolor*) is often found in open deciduous woods throughout N.C. but is so inconspicuous that it is mostly overlooked. The 8-16-inch flower stalk is full of very small flowers that are brown and white, which blends with the color of the leaf litter. I looked at a flower with a hand lens and found it to be a perfectly beautiful tiny orchid. The leaves are absent when it is flowering in the late summer to fall. In the other seasons, look for oval leaves essentially without stems, brownish green on top and maroon underneath. Blooms July-August.

The Lily-Leaved Twayblade (*Liparis lilifolia*) shows up infrequently along stream banks and on moist slopes in the woods of the mountains and coastal plains. However, I found one on our property shortly after moving here. It was in the woods in the middle of one of the all-terrain vehicle and walking trails, so in order to protect it; I moved it to a “safe” location. Sadly, it did not survive beyond a couple of years, must be one of those that have a symbiotic relationship with the fungus. Its 4-10 inch flower stalk, which can have up to a dozen or more flowers in a single raceme, rises from two shiny basal leaves 2-5 inches long. The flowers are brownish-maroon and consist of broad lips with thread-like side petals and narrow, greenish sepals. Blooms June-July.

The Slender Ladies’ Tresses Orchid (*Spiranthes lacera var. gracilis*) is a dainty beauty, found in dry to moist fields, meadows, and sandy hardwood forests of the mountains and piedmont. I have found them in a sporadically mowed small meadow surrounded by woods on our property. I don’t find them every year or in the same place when I do see them, and I do not know the reason. Mowing at the wrong time possibly could be a cause. The white flowers spiral along the upper 1 to 4 inches of its 6-12 inch long stalk. Its leaves are usually absent at flowering time, like those of the crane-fly orchid. These are commercially available, and there is a larger form that is fragrant, *S. odorata* ‘Chadd’s Ford’. Blooms late summer or early fall here.

There are many more native orchids, some much showier than the ones presented here. The ones I chose to profile can, in most cases, be seen locally whereas most of the others are found in other regions of the state. The Fringed Orchids (*Platanthera ssp.*) are lovely, as you can see from the photographs. An area nursery sells many slipper orchids and Ladies’ Tresses that are commercially propagated, not wild-collected.

Much of the information for this article came from a book I found indispensable when I was identifying native plants, and it is still my main reference book. It is the 1968 edition of *Wild Flowers of North Carolina* by William S. Justice and C. Ritchie Bell. An updated second edition was published in 2005 and is well worth obtaining in either hardback or paper.
Since these orchids sometimes occur in different regions, the bloom time given is not duration of bloom, but a span that covers the 3 regions. If you would like to see pictures and descriptions of more native orchids, go to UNC’s Herbarium website: http://www.herbarium.unc.edu/orchids.htm

Credits by photographer:
Pink Moccasin Flower: Tammy Kennedy
Lily-Leaved Twayblade: Tom Harville
Showy Orchid: Max Patch
The following photographs by: David R. McAdoo:
Crane-fly Orchid, Yellow Lady Slipper
Showy Lady Slipper, Large White Fringed Orchid
Large Purple Fringed Orchid, Slender Ladies Tresses
Rattlesnake plantain

INTERESTING TIDBITS
By Marty Finkel, Master Gardener, Granville County

If you’re interested in growing hellebores from seed, here’s a tip from Tony Avent in the July Plant Delights newsletter. Gather seed as the pods begin to turn yellow and before they turn brown. Germination is far better when sown fresh. The seed will be shiny black when ripe. Surface sow (do not cover seed) in a well prepared soil bed or in containers.

Southern blight is one of the most difficult fungal diseases to control, and it will kill Hellebores, Ajuga, Monkshood, and countless other ornamentals. Carol Reese, Ornamental Specialist, University of Tennessee Extension, writes “…The fungal spores remain in the soil and the disease will indeed return when conditions are right. But it can be controlled with soil drenches or granular applications of fungicides. Bayleton, Terraclo and Cleary’s are all effective…” in the Q & A column in the Aug/Sept 2009 issue of Horticulture magazine.

Eventually, cherries, peaches and other stone fruits may be available without pits if the Agricultural Research Services scientists are successful in developing plums without pits from working with pitless plums bred nearly 100 years ago by Luther Burbank. The plums were preserved in germplasm banks.

Yet another benefit of using fish emulsion fertilizer is that it has been found by Canada’s McGill University to contain certain organic acids that are lethal to verticillium wilt and pythium damping-off fungi.

The Weed Science Society of America (www.wssa.net) reports that nine weeds in 20 states have been found to be resistant to glyphosate, the most widely used active ingredient in herbicides. They recommend that growers use more benign herbicides and non-chemical controls. This and the previous two tid-bits were found in Vol. 41, No. 10, August 2009 of The Avant Gardener.

PLANT OF THE MONTH
By Marty Finkel, Master Gardener, Granville County

Eucomis, Pineapple Lily

By Marty Finkel, Master Gardener, Granville County

Eucomis, ‘Autumnalis’    Eucomis, ‘Sparkling Burgundy’

Eucomis, 'Reuben'

Even though the Pineapple Lily has been around in gardens for a long time, not every species or cultivar is as familiar as the commonly seen one. Depending on the species, they bloom late summer and early autumn. The ones pictured bloom from July into August. They grow from bulbs which make a basal rosette of leaves that elongate to strap shape or lance shape and are mostly green. The cultivar ‘Sparkling Burgundy’ has deep burgundy colored leaves that change to wine-tinged green as the summer gets hot. The flowers are arranged as a tight raceme of star-shaped flowers on a thick stalk, similar to those of a pineapple. The flower stalks are about 12 to 15 inches tall and are reported to be good as cut flowers.

Plant the bulb about 6 inches deep in fertile, well-drained soil in full sun. Water freely when the plant is in active growth. There will be seedlings from time to time which can be potted up and moved or left in place. If seed is collected, sow it at 61 degrees F. in fall or spring.

Eucomis, ‘Autumnalis’    Eucomis, ‘Sparkling Burgundy’

Eucomis pictures: J.C. Raulston Arboretum
ROSE TIPS FOR THE MONTH

By Heidi Moore, Master Gardener, Warren County

Keeping up with rose maintenance is critical this time of year. Be sure to deadhead any spent blooms and clean up areas around your plants so as not to provide insects and disease the perfect environment to grow. Continue your fungicide spraying routine at least every week to ten days, and spray for insect damage only when necessary.

Black spot is one of our most difficult diseases to control, but there are several others that plague us during the growing season here in North Carolina. Botrytis blight can occur whenever roses are exposed to periods of wet weather and cool temperatures. The buds of roses may fail to open and become covered with a slimy, grayish brown, fuzzy growth. Infected buds, flowers and canes should be cut and destroyed as soon as symptoms occur.

Powdery mildew forms a whitish, almost talcum powder appearance on young leaves, buds and stems. Infected leaves curl and become distorted. The optimum conditions for the growth of powdery mildew are nighttime temperatures near 60 degrees with humidity of 90 percent or higher, followed by daytime temperatures near 80 degrees with 40-47 percent humidity. One of the best ways to avoid powdery mildew is to give the bush lots of sun and good air circulation. Spacing your roses far apart is a good start to providing a disease free environment for your roses.

Downy Mildew is another disease that we rarely see in North Carolina gardens, but it is becoming more of a problem in recent years. Downy Mildew favors cool, moist conditions when temperatures dip below 80 degrees and the humidity is higher than 85 percent. One of the main problems with this disease is that it is easy to confuse with blackspot but it does not respond to the same treatment. To decide which fungus you are dealing with, look to see if the black spots on the leaves cross the veins. If they do, you are probably looking at blackspot. If not, keep downy mildew in mind. With downy mildew, the defoliation often occurs from the top down, while blackspot defoliates from the bottom up. If detected, remove all the infected foliage from the plant and the garden to minimize spread of the disease. A severely infected plant should be removed from the garden and destroyed.

Information obtained from the July/August 2009 edition of The American Rose Magazine

AUGUST TO DO!

Fruits and Veggies

By Carl Shafer, Master Gardener, Vance County

- The week of September 1st is the recommended time to spray for peachtree borers. Get prepared now. Spray the trunk and major branches, paying particular attention to ground level, with permethrin. Follow label instructions. Peachtree borers may also attack apricot, cherry, nectarine, and plum trees.
- Strawberries set fruit buds for next spring in the fall, so now is the time to fertilize with a complete fertilizer like 10-10-10. Water if the ground is dry.
- Blueberries are also setting fruit buds in the fall. If you have not been fertilizing earlier in the year, do so now and keep plants watered.
- Clean up spent crops in the garden and plant your fall garden. See article in the July 2007 issue or pick up Horticulture Information Leaflet 8001, Growing A Fall Vegetable Garden: www.ces.ncsu.edu/depts/hort/hil/hil-8001.html
- If you are interested in extending your vegetable gardening season, see: www.pubs.ext.vt.edu/426/426-381/426-381.pdf or http://urbanext.illinois.edu/hortihints/0402c.html or Coleman, Eliot. Four-Season Harvest. White River Junction, Vt.: Chelsea Green, 1999.
- If you are not planting a fall garden or if you have extra unused space, plant a cover crop. See article in the August 2007 issue and/or see: www.clemson.edu/extension/hgic/plants/gardening/hgic1252.html.
- Make notes of successes and failures in the garden this year so that as you plan next year’s garden you can remember what to change and what to expand on. Note any diseases that require treatment before symptoms appear, so that you can take preventive measures next year.

On the web:
The Garden Path Newsletter
vance.ces.ncsu.edu/content/thegardenpath
Vance County Extension
vance.ces.ncsu.edu
Warren County Extension
warren.ces.ncsu.edu
Urban Horticulture at NC State University:
www.ces.ncsu.edu/depts/hort/consumer
AUGUST TO DO!

Landscaping & Lawn Care

By Onda Marable, Master Gardener, Vance County

- Cut leggy stems of petunias back by half to encourage new blooms.
- Remove or change water in bird baths, pets’ water bowls and potted plant saucers every 2 to 3 days to get rid of mosquito larvae.
- Check dry conditions around shrubs and trees — give them a deep soaking at least once week. Use a soaker hose or run an open hose at a trickle to allow water to sink in slowly.
- Raise the height of the blade on your lawnmower and check to see if it needs sharpening.
- Watch the level of any water garden and remember to add only declorinated water.
- Fertilize plants as recommended but not cool season lawns.
- Take soil samples to your local Extension Center.
- Transplant iris and daylily.
- To stimulate blooms on your wisteria next spring, cut back long runners and root prune.
- Late August and early September is the time to control Japanese beetle grubs.
- Make sure all your flowers, shrubs and trees are well watered and mulched during this hot month.
- Remember to take cuttings of your favorite shrubs and flowers for propagating and sharing with friends.
- Start thinking about the garden changes you want to make this fall.

Know Your Beneficials!!

By Cynthia Dickinson, Master Gardener, Warren County

As a gardener you should take stock of the beneficial insects in your garden. Do not be quick with the judgment, that if it is an insect it must be bad. All thought some do come as a double edged sword, the praying mantid for example. (This is not a typo: Only some praying mantids belong to the genus Mantis. Mantid refers to the entire group)

Insects are categorized by what they are; Predators, Parasitoids, Pollinators and Decomposers. Predators will catch, kill and eat other insects. The parasitoids, while developing on or within the host, will always kill them and are a great natural pest control. The pollinators ensure our vegetables and flowers get cross pollination to produce either fruit or seeds. Decomposers are somewhat less appreciated and the most needed. Their job starts when the life cycle ends. Without them we would be overrun with organic waste.

Some insects start out life as a predator and become a pollinator, so it is important to know the life cycle of an insect. When you see that large garden spider remember that it is doing a job. Using pesticides selectively is important as good insects need food, too.

Below are some very good websites to help you become more acquainted with your helpers in the garden.

http://entweb.clemson.edu/cuentres/cesheets/benefici/
http://www.pollinator.com/gallery/gallery.htm
http://www.ces.ncsu.edu/depts/hort/consumer/quickref/pest%20management/beneficial_insects.html
http://apps01.metrokc.gov/govlink/hazwaste/house/yard/problems/goodbugs.cfm
http://www.nysaes.cornell.edu/ent/biocontrol/

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