From the Vice President .............................................................................. Karen Koelling

It's Spring! Almost. Can't you feel Nature awakening? I find myself walking outside, looking for the tiny, tender green shoots poking their brave noses into the crisp sunshine, signaling the coming explosion of color.

Those seed and nursery catalogues have begun arriving, and of course, I pore over each one the very day it hits my mailbox. Do you look for that new offering or next best cultivar like I do - already planning it's location among the others already there? We have lived here 6 years, and there are several distinct micro climates with our homesite that I am developing. My goal is to arrive at a "natural-looking" habitat that would have been there had the bulldozers not been there.

My Woodland Grove is an area of dry shade, and my plant selections need to work with root competition, shade conditions, and gentle slope. My choices include fern-leaf bleeding heart, lady's mantle, black cohosh, mosses and ferns, and spring ephemerals like Virginia Blue Bells, Trilliums, Lady Slippers, wild ginger, tiarella, native azaleas, Huechera, and Uvularia. These, and others, need to be happy in the Springtime sun and the oncoming shade conditions of Summer as the trees leaf out. There is always something interesting to observe, and I enjoy relaxing in the Grove with the solar water fountain I placed there last Summer.

Another area is a boggy/stream area at the bottom of our hill. It is a shady, moist area with standing water, and a bold stream. I planted variegated red twig dogwood, cardinal flower, and blue amsonia last Fall: they will be sprouting soon. The first blossom is always the dog tooth violet (last year on March 3), and I walk there almost daily looking for it's brave yellow blossoms. There is also native phlox, Echinacea, Joe Pye Weed along with its white cousin, White Snakeroot (Eupatorium sp.), blue lobelia, Queen of the Prairie, and cinnamon ferns. Also last Fall I planted a Sarracenia, and found it doing well yesterday near a log at pond-side. I smiled. There is lots to do here in the meadow/bog area.

My biggest challenge is the really steep hill just behind our house (NE facing) that virtually has no soil; the bedrock is at the surface on most of the slope! Along the way I have tried many plants, and some have been able to get a foothold, but for me it has been a giant learning curve to turn this challenge into a joy. I have successfully planted agastache, baptisia, and Virginia creeper, along with Carolina Sweet Shrub, some evergreens (non-native) and some climbing plants such as clematis, and trumpet honeysuckle. I search constantly for hardy perennials that will do well on such a challenging area (very steep, and very rapid drainage). There have been times I have planted things using an extension ladder because that is the only way to reach up the slope!

This year I am focusing on refining some areas, and enjoying others, while trying to work on those challenging slopes (I'm trying to turn the lemon into lemonade). It keeps me busy and out of trouble. Enjoy your Springtime with Nature.
MEMBER NEWS

Welcome New Members

Anne Booth, Hendersonville
Jackie Burke, Tryon
Pat and Charlie Davis, Highlands
Susan Hursey, Tryon
Louis Lieb, Asheville
Nancy Martin, Asheville
Nina Shippen, Brevard
Bill Stahl, Asheville

Thank you to members who made cash contributions last year: Bonnie Arbuckle, Elisabeth Fell and Earl and Bettye Miller

ANNUAL DUES. This is the final request for your Botanical Club membership renewal. If you are continuing as a member, please fill in all the information on the green form and return it with your check so we can verify our membership records.

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Winter Meetings. These meetings will automatically be cancelled if the Henderson County Schools are closed. Check the weather reports or telephone the Henderson County Office at 697-4733.

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Field Trip Cancellations. On occasion field trips need to be cancelled or changed either for weather conditions or other reasons such as road closings. Such changes are sent out by e-mail to all members at the latest by 7 a.m. the day of the field trip. If you do not have e-mail access, we will try to reach local members by telephone by 7 a.m. If in doubt, contact a leader or co-leader whose telephone number is listed on the schedule. When a field trip is cancelled, no member will be at the contact point.

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Any change of address, e-mail or telephone number, please inform our Treasurer, Alan Graham
544 Tip Top Road, Brevard, N.C. 28712. 828-884-3947 <adgraham@citcom>
Every quarter I summarize the walks from the previous period. The other day I mentioned to Anne Ulinski that since they all seem to run together after a while that "why not just copy and paste from older editions". The idea intrigued me and maybe this is that edition!

We closed out 2010 on a successful note with a series of good weather walks.

The outing to Flat Laurel Creek (Sam's Knob Meadow) was a windy day for that location. As you might expect at that time of year, asters and goldenrods were the dominant plants. Species of note included Fireweed (*Chamerion angustifolium* ssp. *angustifolium*).

It was a warm, sunny day at Kellogg Center, a spot we hadn't visited in a couple of years. Lots of plants were identified but only about a quarter of them were in bloom. Butterfly Weed (*Asclepia tuberosa*) was one of the more splashing blooming species.

The trip to Parkway South marked the third time we stopped at Wolf Mountain Overlook in recent months. Parkway mowing caused us to skip our usual stop at Log Hollow Overlook. The Grass-of-Parnassus (*Parnassia asparifolia*) was a highlight bloomer as usual. The Bottled Gentian (*Gentiana clausa*) was discussed as it has been renamed Balsam Mountain Gentian (*Gentiana latidens*) as a species specific to this small geographic location.

For the second year we held a Moss Workshop. This year we went to Holmes State Forest. The lower trail is loaded with interesting moss species. As most of us are just trying to learn mosses it provided a good discussion ground - literally since you must get down low to work on mosses. While billed as a moss walk, thirteen fern species were identified. Eight mosses were tentatively identified.

It was a pleasant fall day at the Givens Estate. The normally nice walking trails presented a new hazard - acorns. The species list was almost doubled.

The Annual Picnic at Ramblewood was a success as usual. Everyone enjoyed a diverse spread of goodies for lunch. The walk around the property was entertaining and spotted with a variety of mosses. We seem to focus on mosses this year.

We finally got to visit Courthouse Falls. The falls were beautiful. Trees and you guessed it - mosses were the botanical highlight as most blooming plants were well past their time. The trail is especially wet and this resulted in liverworts in addition to mosses.

There has been a stream restoration at FENCE. The restoration has changed the vegetation dramatically and rails have been relocated. As in previous years this is one of our last walks and "fruit and seed" were the major highlights. One trail did have an abundance of *Hexastylis*.

The last walk of the season was Estatoe Trail. This is a new trail along the Davidson River at the entrance to Pisgah Forest. It is named for the trading path that connected mountain settlements with the Cherokee town of Estatoe. The weather was chilly but the diversity of the plant species made it a candidate for multiple visits during 2011.

Well, what do you think? Did I cut and paste or did we really visit these places?
EARTH DAY AT BULLINGTON

The first Earth Day was held on April 22, 1970. This large scale grassroots environmental demonstration created public awareness of the importance of clean air, unpolluted water, greenhouse gases and threatened and endangered plants and animals. Laws were passed, international conferences were held and environmental organizations formed. The Western Carolina Club (WCBC) revised its mission statement to read: The mission of the club is to study and identify native plants and their habitats and to encourage members and the public to protect and preserve the biodiversity of our natural world.

WCBC and Bullington Center have developed a cooperative working arrangement. The Center provides a place for our indoor meetings and we lead walks and identification workshops for them. Larason and Juanita Lambert, Frances Jones and Bonnie Arbuckle have formed a group calling themselves “The Bullington Bunch.” They meet weekly during the growing season to work in the Woodland Shade Garden and the sunny area by the amphitheater. Many native plants have been planted and labeled. Large plantings are more visible and easily identified. The Bullington Bunch also helped design and install the Rain Garden.

We would like to increase the size of some spring ephemeral plantings as well as some of the sun loving plantings. You are invited to share native plants from your garden. We will celebrate Earth Day by planting them at Bullington on Friday, April 22.

It would be helpful to know what plants are being donated so that we can suggest a good planting area. Contact one of the Bullington Bunch with your donation information. The telephone numbers can be found on the current Botany Club schedule for April 22.

-Bonnie Arbuckle

Did you know?

According to old records, the first issue of Shortia was in March 1979. The club was already in existence and it was at their annual meeting in January 1979 that the publication was brought into existence. The first editor was Harvey Krouse and he wrote in the minutes of that meeting “participation by members is essential to the appeal and success of our newsletter. This can be in the form of personal experiences, botanical discoveries, excerpts from or complete published articles of related subjects.”

The club secretary agreed to handle the distribution of the newsletter.
FLOWERING PLANT FAMILIES – *Ranunculaceae* – Buttercup or Crowfoot Family

During 2010 I wrote about monocot plant families, which usually bear flower parts in multiples of three. This year I will cover a few seasonal dicot families. As you might recall, most dicots bear two embryonic leaves called cotyledons. The morphology of dicots is more varied and complex than that of the monocots. Flower parts are mostly in multiples of 4+.

This article examines some native members of the *Ranunculaceae* – represented in U.S. and Canada by approximately 22 genera and 284 species, including herbs, shrubs, and vines, primarily of temperate and boreal regions. Often thought as “simple” because it is a relatively evolutionarily primitive family, it is surprising to learn that its common pattern is the apparent lack of a pattern, with petals and/or sepals sometimes absent. In fact, in the past some of its genera have been elevated to a family level and later returned (subsumed) to *Ranunculaceae*. Its flowers usually bear superior ovaries with stamens spirally arranged and inserted in a cone-like receptacle. Its leaves may be simple or variously compound and opposite or alternate. Its fruits are often aggregated (crowded into clusters). Plants of this family usually contain concentrations of alkaloids that depress the nervous system.

Most flowers of the genera in this family typically display 5 showy petals or sepals. The flowers may be bilaterally symmetric (irregular, zygomorphic), such as *Aconitum* (Monkshood), *Delphinium* and *Consolida* (Larkspur), but most are radially symmetric (regular, actinomorphic), such as *Xanthorhiza* (Yellowroot), *Actaea* (Baneberry), *Anemone* (Anemone), *Aquilegia* (Columbine), *Caltha* (Marsh Marigold), *Clematis* (Clematis, Virgin’s Bower), *Ranunculus* (Buttercup), and *Thalictrum* (Meadow-rue).

Native members of this family are well represented during our Spring field trips, such as the Sharp-lobed Hepatica.

| **Hepatica nobilis var. acuta**  
(syn. Hepatica acutiloba, Anemone acutiloba)  
Sharp-lobed Hepatica  
Britton, N.L., and A. Brown.  
Look for it in rich deciduous upland wood with neutral soils.  
It often blooms in mid-February at Station’s Cove. | **Bearing evergreen leaves, this 6-inch tall, herbaceous perennial produces multi-stamened, showy sepals, inch-wide pink, violet, blue, or white flowers atop hairy petioles. Pollinated by bees and flies; mature seeds dispersed by ants.**  
After blooming, its 3-lobed basal leaves turn a reddish-brown mottled color. In early Spring the flowers usually emerge before their speckled new green leaves. |

Because of Hepatica’s liver-like leaf color, the “Doctrine of Signatures” incorrectly attributed curative properties to it and was often used as a remedy for liver ailments. Later, herbalists successfully used it to treat bronchial disorders.
Some of the symmetrical spring bloomers are, from left to right: *Anemone quinquefolia* (Wood Anemone), *Aquilegia canadensis* (Red Columbine), *Ranunculus fascicularis* (Early Buttercup, and *Actaea pachypoda* (White Baneberry, Doll’s Eyes).

Of the bilaterally symmetrical members of this family, the ones we most commonly see are *Aconitum uncinatum* (Southern Blue Monkshood) and *Delphinium tricorne* (Dwarf Larkspur).

**Delphinium tricorne**  
Dwarf Larkspur


Look for it sprinkled along the Blue Ridge Parkway’s sloping road cuts in March through May.

Hopi Indians extracted blue dye from its flowers, and settlers used the flowers to make ink.

Usually favoring rich, moist to dry woods and slopes, preferring calcareous or mafic rocks, this herbaceous perennial bears dark blue to violet or sometimes white flowers, about 0.5 inch long, in a loose terminal raceme. The uppermost sepal is long-spurred.

This Larkspur exhibits mostly basal leaves that are deeply cleft into several narrow, lobed segments. Its stems are pubescent, and the fruits are 3-parted follicles.

Like its relative the Monkshoods, Larkspurs are toxic if improperly used. However, also known as Lice-bane, it is well documented that a vinegar or rubbing alcohol tincture made from the flowers and leaves effectively kills lice and other noxious insects. Do not apply to irritated skin because toxic alkaloids may be absorbed into the body.

From the Greek, *Delphinium* means dolphin, likely referring to the shape of its long-spurred bud. From the Latin, *tricorne* means bearing three horns.

*D. tricorne* is mostly pollinated by bees, butterflies, moths, and occasionally hummingbirds.

*Jenny Lellinger*
Arthur Joura and The Bonsai Exhibition Garden

The North Carolina Arboretum

I am sure that most members of the Western Carolina Botanical Club have enjoyed the exhibit of bonsai at The North Carolina Arboretum, and many have probably attended the Carolina Bonsai Expo hosted there on the second weekend of October since 1996. It features the juried work of bonsai enthusiasts from bonsai clubs in our six-state region, free educational programming, workshops, and a bonsai marketplace. They may not be aware of how the collection has evolved over the years to become nationally recognized for its quality and unique presentation.

Bonsai had not been part of the Arboretum's original mission, but in 1992 Mr. and Mrs. George Staples of Butner, NC, offered a donation, and their bonsai collection was too valuable to turn down, so it was first housed in the greenhouse. At the recommendation of Dr. John L. Creech, former Director of the National Arboretum in Washington, D.C., who served as Interim Director of the NC Arboretum before the appointment of George Briggs, Arthur Joura was assigned responsibility for the care and development of the collection. Joura was already a member of the staff, working under Nursery Manager Ron Lance to build a collection of native woody plants. At the suggestion of Dr. Creech, Arthur spent a week in training at the National Arboretum's National Bonsai & Penjing Museum, a month in Japan and some time in New York State as the last student of Yuji Yoshimura, a seminal figure in western bonsai.

The Bonsai Exhibition Garden opened to the public in October of 2005, the culmination of a three-year design process in which Joura was intimately involved. It took two years to construct and was funded entirely by private donations. Joura’s work over the years was rewarded this year as the 2010 recipient of the Arboretum’s Outstanding Service Award.

There are more than 100 display-quality specimens in the bonsai collection, and more plants than that in various stages of bonsai development. All of the plants in this extensive collection have been either donated by private individuals or created at the Arboretum from seedlings, cuttings, nursery culls or plants collected from the landscape. What makes the Arboretum’s bonsai endeavor unique among all other public collections in the United States is the conscious development of a regional interpretation—the art of bonsai expressed with a Southern Appalachian accent.

There were no native plants in the original collection. Most books on bonsai recommended use of the traditional Japanese genera such as Japanese maple and Chinese elm. As part of his training, Joura queried other bonsai gardeners to learn about plants native to WNC that might work. He began experiments in the use of local species. He reasoned that our local red maple (Acer rubrum) was sufficiently similar to its genetic cousins, Japanese and trident maple, and found that it worked. He also guessed that the Japanese and Korean hornbeams might easily be substituted by the American species (Carpinus caroliniana), and it worked as well.
Eastern hemlock (*Tsuga canadensis*) and all five native pines can be used; pitch pine (*Pinus rigida*) is especially useful because it sprouts new growth out of old wood. Joura has had less success with oaks, although he is still trying the chinkapin oak (*Quercus muehlenbergii*); Japanese beech works better than the American species. Sourwood, which does not take well to cultivation, has been a failure.

One of the criteria that Joura uses is leaf size. Large leaves won’t shrink sufficiently; although, for fun, he has tried to use *Magnolia fraseri*, but without success. An experiment, still ongoing, is the use of *Viburnum cassinoides*, which he planted from seeds acquired twelve years ago. Native herbaceous plants, such as *Heuchera*, *Aquilegia* and *Saxifraga michauxii* and ferns can also be cultivated in small containers and used in bonsai as “accent plants.”

There is a long-time tradition in bonsai to create panoramas, referred to as “tray landscapes.” Joura’s first attempt was because of a dead juniper tree in the original collection, which he used in 1996 to represent the dead trees on Mount Mitchell. Since then, he has featured Vaccinium to represent blueberry picking at Graveyard Fields.

Joura’s educational background is in art, and he enjoys designing logos and other paintings for the Arboretum. The creation of bonsai is an important outlet for his artistic abilities. He finds that, as with most other artists, creation is a solitary activity, although over the years he has used specially selected and trained volunteer assistants.

Joura’s Eastern Red Cedar entry at the U.S. National Bonsai Exhibition this summer won their Ho Yoku award for the “Finest Creative Western Formal Display”.

-Paula Robbins

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Western Carolina Botanical Club members at the Arboretum

Four of our members are volunteers at the Arboretum. Lucy Prim works in the greenhouse. Paula works at the Information Desk at the Baker Center on Monday afternoons. She also leads wild flower walks along Bent Creek.

Linda and Howard Jackson work with Joe-Anne McCoy at the Center for Plant Conservation. Linda mounts the herbarium vouchers. Howard photographs vouchers and seeds and works on the data base.
SHORTIA

c/o Anne Ulinski
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FIRST CLASS

Hendersonville, N.C. 28739

SHORTIA

A quarterly publication of the Western Carolina Botanical Club

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Editor: Anne Ulinski
Editorial Assistants: Jean Lenhart, Kim Spencer
Member News: Ruth Anne Gibson

The purpose of the Club is to study the plants of the Southern Appalachian Mountains and the Southeast through field trips and indoor meetings. Membership is open to all. Individual/family memberships are $15. New members joining from the period July 1-December 31, pay $8. All memberships are renewable on January first of each year. Send dues to: Alan Graham, 544 Tip Top Road, Brevard, N.C. 29812