From *Perennial Notes*, Newsletter of the Wisconsin Hardy Plant Society, November 2005

Longenecker Gardens—Lilacs, Magnolias and Conifers, Oh My!

WHPS uses proceeds from its plant sale to donate money to different organizations each year. One recipient of these funds is Longenecker Horticultural Gardens endowment fund. To show his thanks for this support, Ed Hasselkus, Professor Emeritus of University of Wisconsin Horticulture, led a group of WHPS members through the gardens. The endowment fund was originally set up by Ed Hasselkus and his wife Betty to ensure that the gardens will have a future, and to be able to hire a paid curator when, God forbid, Ed is no longer able to continue with his passion and work. Ed has been the curator of the gardens since 1966, and has continued as a volunteer since his retirement 11 years ago.

Saturday, October 1 was a beautiful sunny day at Longenecker Gardens at the UW Arboretum. We were given a brief history about Professor Longenecker, who taught landscape architecture and horticulture. Professor Longenecker became the first executive director of the University Arboretum, and he implemented a Master Plan for the 55-acre woody, ornamental plant display that was accepted in 1958. The first planted were lilacs, planted on Good Friday in 1935. The purpose of the Longenecker Horticultural Gardens is for field evaluation of woody plants, their adaptability to our climate, aesthetic merit, and to maintain a comprehensive collection of woody plants for teaching purposes and for the benefit of the general public. There are now over 2500 taxa, and it is considered the premiere collection in the State of Wisconsin.

The arrangement of plants is according to genus for the convenience of study and evaluation. Each plant has a label on the south side (facing the Beltline highway). It gives the Latin name, cultivar, common name and an accession number. The first two numbers are the year the plant was acquired.

As we began our tour we were introduced to the first of many landscape design concepts that Professor Longenecker created. He had great skill in creating vistas and outdoor rooms. We entered a room created by the surrounding lilac beds that are highlighted by magnolias which bloom at about the same time each year in the third week of May. There are over 300 varieties of lilacs. Ed stopped to show us the *Magnolia tripetala*, the umbrella magnolia, the showiest of all! He picks up a fuchsia-colored seed capsule from the ground and shows us how the bright red seeds are attached by a long silky string. As we left the room, we were introduced to the ornamental crabapple collection, which is not the biggest collection, but is the most up-to-date display in the world. Ed explained that the real beauty of the crabapple is not the showy flower display in the spring, which generally lasts only about five days, but the fruit display that persists for up to eight months even through the winter. He stopped to talk about the crabapple, ‘Firebird’, propagated and discovered by a former student, Mike Yanny of Johnson’s Nursery. To merit Ed’s praise, a crabapple must have tiny fruits, bite-size for birds, not have a litter problem, be persistent with good color through the winter, be resistant to apple scab and reliably flower and fruit every year.

Just beyond the crabapple collection to the right we continued our walk down a long open vista. The lure of blue spruce on a hillside makes our walk seem to have a destination. We stopped at a grove of *Betula populifolia* 'Whitespire'. Ed gave us the history of the 'Whitespire' birch, introduced to the trade in 1983. Ed was instrumental in its introduction, having noted that it was the only group that seemed resistant to the bronze birch borer. This selection has been reproduced through tissue culture, which has led it to be very uniform, with more vegetative growth, bushier and multi-stemmed. The name of the original Wisconsin selection is ‘Whitespire Senior’. Ed stated that "happy birches" may live up to 60 years of age, referring to the popularity of the *Betula nigra*, or River birch. As its name indicates, it is often found along riverbanks. Although it is adaptable to both wet and dry soils, it is intolerant of the highly alkaline soils found in most of our landscapes. As we left to walk just a bit further, we are shown the Honeylocust collection and the very first 'Skyline' Honeylocust planted in Wisconsin. Ed explained it has the best central leader, is most resistant to insects and has excellent autumn foliage.

Stopping just past the honeylocust collection, our view was directed to two benches facing each other many yards apart, creating another vista. The one on the left is Professor Longenecker's bench, which faces Ed Hasselkus's bench that leads you into the shrub garden.

As we continued, we passed the Beech and hybrid Elm collection. Ed pointed out *Ulmus x* 'Accolade', a Morton Arboretum introduction. Apparently, when micro propagated, it was not hardy, so it is grafted on a *Ulmus pumila*, or Siberian Elm. In its youth, it is a bit wild looking and needs staking and pruning, but it is worth growing for its fast growth rate, resistance to many diseases (including Dutch elm disease), and its vase-like form.

We passed far too quickly past the Ginkgo collection for my liking, but were rewarded with a view of *Aesculus x arnoldiana* 'Autumn Splendor' a Buckeye, the first to color up in the fall. The specimen we looked at is the oldest in Wisconsin.

Fraxinus americana 'Autumn Purple' caught our eye as we moved forward. This is a male white ash with excellent fall color and superior form that originated on the University of Wisconsin campus. In front, making a real statement juxtaposed to the darker color of the cultivar 'Autumn Applause' is *Fraxinus excelsior* 'Golden Desert', with striking bright yellow color! With the threat of the Emerald Ash Borer moving from Michigan to Ohio and the Upper Peninsula, there are studies being conducted to see if the *Fraxinus mandshurica* might be resistant to the beetle invasion.

Next, in full view, was the Pinetum! The Blue Spruces were magnificent against the blue sky. Ed mentioned that everyone loves the blue spruce, but it is over planted in our area and very prone to diseases. Usually, the Blue Spruce lasts only 25 years before getting cytospora canker and losing its lower branches. The layout of the Pinetum is according to genus. The Spruce collection is to the right, and over the hill, the juniper collection is in front of us and the pine collection is to the left, behind the junipers and over the top of the hillside. On the other side of the hill we would see the firs, hemlocks and our Eastern Douglas fir. To the left are a collection of Mugo pines of various growth rates and sizes. The group was awestruck by *Pinus x schwerinii* 'Prairie Giant', with long drooping needles and very large cones. This is a cross between the Himalayan pine, *Pinus wallichiana*, and our native white pine, *Pinus stroues.* It was grown by Ed from seed collected at the Morton Arboretum in Illinois.

We trotted, and believe me when you walk with Ed, you trot, to the far back fence line so that we could view a really nice witch's broom growing on a Scots Pine. Ed explained that a witch's broom is a proliferation of twiggy growth forming a tight dense shape, with the needles smaller than the species or cultivar. Witch's brooms have given rise to dwarf conifers that are suitable for smaller landscapes. They are most common on Norway spruce, and many cultivars have been introduced to the trade. *Picea abies* 'Nidiformis' (Bird's nest spruce) is a common plant which produced 'Little Gem'! As we passed through the Juniper collection, Ed headed toward a collection of maples. One of his graduate students heard of a stand of native red maples, *Acer rubrum*, growing in Waukesha county. They usually prefer acid soils. They grew out 300 seedlings from the site and found that they were actually a cross between *Acer rubrum* and *Acer saccharinum*, the Silver maple. They are now called *Acer x freemanii*. The most common is 'Autumn Blaze', a beautiful fast-growing shade tree with good fall color and without the mess and weakness of the Silver Maple. Out of the 300 seedlings, they picked five and then picked two. One was a female and the other a male that died later from verticillum wilt. The female has yet to be introduced to the trade, but Ed feels it has outstanding characteristics and calls it 'Waukesha'.

We headed south toward the spruce collection, and the group gathered around a very unusual conifer, *Sciadopitys verticillata*, the Japanese Umbrella pine. Ed was not convinced that it would be hardy to the Arboretum, which is definitely Zone 4. A sales representative from Iseli Nursery convinced him to give it a try. He originally planted it in 1992, up against the wooded area on the far east side of the Pinetum to give it as much protection as possible, only to find within a few years it was stretching toward the sun. He moved it to its present location, where it now flourishes. In some landscapes, to make it more dense people have sheared it, but as we admire it, there is really no need to do this. Its glossy thick green needles form an umbrella shape in whorls around the end of the stem. There is no other conifer that even resembles its tropical-like texture. It is a very slow-growing tree, gaining six-inch per year growth.

We began to wander through the Spruce collection, and Ed's favorite spruce, *Picea purpurea*, gets a lot of attention. It is a compact small dwarf, producing purple cones with very short needles, similar to *Picea orientalis*, the oriental spruce, but more reliably hardy. I pointed out *Picea abies* 'Acrocona' to those who trailed behind. The cones form at the tip of the branches and the spring flowers are a sight to behold! People commented that it was like an old-fashioned Christmas tree with candles at the end of each stem, displaying last years cones along with the new.

Unlike some conifer collections that are in beds, all of the pines are grouped by species, with enough room for them to grow to their ultimate mature size without interfering with each other. Rarely are any of the conifers pruned, allowing them to show their full growth potential. Ed mentioned he is on the board at the Bickelhaupt Arboretum, where everything is in beds, but each year as the conifers get older, many plants must be removed or replanted as they grow into each other. There is only one bed of conifers, the *Picea glauca* collection which includes the Alberta spruce 'Conica', 'Sanders Blue' and 'Rainbows End'.

We were then on the south edge of the Pinetum, and Ed made a direct line to the American Chestnuts. YES, we have American Chestnuts growing in Wisconsin that so far have not succumbed to the blight of the east and Appalachian Mountains. Ed stated that the probable reason is the barrier of Lake Michigan and the prevailing west winds that have protected them from the disease spreading into Wisconsin.

As some of us lagged behind admiring a cultivar of the Black Locust, *Robina pseudaocacia* 'Twisty Baby', Ed pointed out the Linden collection. Lindens we are told are a Japanese beetle favorite. Our next stop was at the lower Southeast corner of the Arboretum, where we viewed the *Taxodium distichum*, or Baldcypress. Ed asked me to tell the group a little about this magnificent conifer! A bit nervous talking about a tree in front of the guru of Horticulture, my mind went blank for a brief second and then I began to expound upon its virtues! Yes, I still love its deciduous feathery needles, buttressed trunk, red exfoliating bark and its perfect pyramidal form! Native as far north as central Illinois and south to Louisiana, it can grow in water, along stream beds, and even on dry uplands. In the cypress swamps, it will develop knees to help protect it from erosion.

We headed to the drinking fountain, bypassing the hydrangea collection, but we stopped briefly to admire the *Philodendron lavallei* 'Eyestopper', a cork-barked tree! Many of us had to touch and squeeze its corky bark and admire the beginning of its fall coloration. Our last stop was to admire another small-stature maple. This is a hybrid cross between the Japanese maple, *Acer palmatum*, and the Korean maple, *Acer pseudosieboldianum*. Seeds of the Korean maple, received from the Arnold Arboretum, produced seedlings with very incised leaves similar to the Japanese maples we all so covet. Fall color is outstanding on these trees, and Ed mentioned that the Morton Arboretum is experimenting with cross-breeding these maple, so stay tuned! Some day we may have a purple form that is actually hardy for our area!

Ed checked his watch and told us that his hour's walk, now extended to two hours, had to end. Well, yes, perhaps, but most of us agreed we could spend a whole day with him! In retrospect, it would have been nice to have had an extra half hour with Ed, as the football traffic had just let out, and getting home was a challenge!

For an introduction to the collection, this was a fabulous learning experience. Mind you, we didn't see the shrubs, explore the crabapple collection or the hawthorns, oaks, ornamental pears, catalpa or the beautiful barked Amur chokecherry! For those of you have never been to the Longenecker Horticultural Gardens, you have no clue what you are missing! Join us next time, as many felt this should be an annual event. Ed??? Thank you so much!

—Sandra Allen

If you are interested in continuing the growth and maintenance of this wonderful asset to our community, you can send your contribution to UW Foundation, P.O. Box 8860, Madison, WI 53791-9944 (place "Longenecker Gardens Endowment"on the memo line of your check).