

# Conifer Quarterly

Vol. 20 No. 4

Fall 2003





Anne Brennan

Above: Our hike down the Denver Botanic Gardens' picturesque Walter A. Pesman Trail on Mt. Goliath was a favorite tour destination during this summer's National Meeting near Denver.



Tony Green

Above right: When Jerry Morris talks, people listen. At his greenhouses, he explained how he transplants old, naturally dwarf trees into containers as "natural bonsai." Read more about the meeting on pages 38-44.



Charlene Harris

*Picea orientalis*  
'Skylands'



Charlene Harris

The Central Region discovered these beauties at John and Margaret Havlis' garden in Woodstock, Illinois, during their summer meeting. Read more about the Central Region's activities on pages 45-46.

*Pinus contorta*  
'Taylor's Sunburst'

## Contents

### Featured conifer group: Deciduous conifers

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**6 Deciduous Conifers: Great Choices for the South**

*By Tom Cox*

**12 Reader Recommendations**

### More features

---

**16 Pining for the Release of *Wollemia nobilis* – Part 2**

*By Sally McGeoch*

**22 Conifer Chameleons for Year-Round Color**

*By Terri Park*

**26 Conifer Chlorosis**

*By Joe B. Parks*

**29 Tiny Hemlocks: 20 Years Later**

*By Joel Spingarn*

**31 Split-Rock Pine Still Attracts Attention in Michigan**

*By Michael J. Griesmayer*

**32 Robert L. Fincham Honored for Dedicated Support**

**34 Society Recognizes 35 Years of Plant Exploration by Jerry Morris**

**38 Rocky Mountain Vistas, Native Plants Highlight Denver Meeting**

*By Anne M. Brennan*

**47 The Hemlock Tree**

*By Michael Rodd*

### Conifer Society voices

---

**2 President's Message**

**4 Editor's Memo**

**15 Letters**

**36 Board Approves Dues Increase**

**37 Iseli Award Winner Announced**

**45 Central Region 2003 Roundup**

Cover photo: *Metasequoia gyptostroboides* 'Gold Rush' growing at Birchwood, the property of Dean Linderman in Leesburg, Virginia. Photo by Dean Linderman.

# Conifer Quarterly

Fall 2003  
Volume 20, No. 4

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## PRESIDENT'S MESSAGE

The Board of Directors met in Denver and welcomed Elmer Dustman and Byron Richards to the team. The Board agreed to increase dues (see article on page 36) and approve the recommendation of the Jean Iseli Award Committee for this year's donation to **Delaware Valley College** for its Martin Brooks Conifer Collection (see page 37). Committee Chairman **Edward Hasselkus**, **Paul Halladin** and **Bill Thomas** deserve our thanks. A summary of the Board meeting minutes is included with this issue.

The Western Region hosted the 20th National Meeting in Denver, Colorado. The leadership of co-chairs **Don Howse** and **Panayoti Kelaidis**, meeting and post-conference tour logistics coordinator **Charlene Harris**, administrator **John Martin**, and hospitality chair **Kathleen Pottratz** made the meeting possible. The meeting was well attended, including representatives from the new British Conifer Society (**Derek and Carolyn Spicer** and **Chris Reynolds**). Merit Awards were presented to **Bob Fincham** and **Jerry Morris**. Thanks go to Chairman **Don Howse** and the Awards Committee for selecting these two very deserving individuals. **Tom Whittenbaugh** was also recognized for his ongoing efforts behind the scenes for the Society.

Many have privately said to me that this was the best meeting the Conifer Society has ever held. While those already mentioned deserve our thanks and much of the credit, they did have a lot of help. I was very pleased with those who

came forward to volunteer and I would like to thank them all, so please forgive me if I miss someone. **Pat and Dan Montague**, **Byron and Hazel Richards**, **Clark and Joy Coe**, **Jerry and Saunny Morris** and the Denver Botanic Garden (DBG) staff – especially **Mark Fusco** and **Dan Johnson** – provided exceptional support. (A donation was made to the DBG in appreciation of their efforts; the funds were designated for support of the DBG's Bristlecone Pine Educational Projects.) Thanks also to our two garden hosts: **Jerome and Mary Kern** and **Trey and Nancy Styler**.

**Bill Barger**, **Larry Stanley**, **Dennis Lee**, **John Martin**, **Don Wild**, **Gary Whittenbaugh**, **Tom Whittenbaugh** and **Jim Kelley** helped make our first virtual auction succeed. We are grateful as well to the auction donors!

Thanks also to **Charles T. Fooks**,

the chair of the Seed Exchange (please harvest and donate your seed!); **Bill Barger** for the Web site and database (we still need data and photos!); and husband-and-wife team **Anne Brennan and Tony Green** for documenting our meetings. Anne still welcomes your articles and photos for the *Conifer Quarterly*, so please don't be shy!

There has been a lot of good work by a lot of good people during the last 90 days. Please thank them when you see them and ask how you can help at the Regional and National levels.

What will *you* do in the next 90 days to make the Conifer Society better? ▲



### Publication Dates

Issue	Calendar Quarter	Deadline to submit articles	Publication Date (approx. mailing)
Winter	Jan/Feb/Mar	Oct 31	Jan 15
Spring	Apr/May/June	Jan 31	Apr 15
Summer	Jul/Aug/Sept	Apr 30	July 15
Fall	Oct/Nov/Dec 31	July 31	Oct 15

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As summer departs from many of our gardens for a six-month vacation, we begin to notice changes in our plants – some dramatic, others more subtle.

While conifers here in the Northeast are generally outdone by maples, hickories and other deciduous trees in the fall foliage extravaganza, some conifers refuse to play a supporting role and put on a respectable presentation of their own. From the golden yellow of *Larix* and *Pseudolarix* to the coppery reds and browns of *Metasequoia*, *Taxodium* and *Glyptostrobus*, these trees don't go quietly. And after the needles have fallen, the deciduous conifers assume an entirely new de-

meanor as their bark is exposed and the naked branches sport a dusting of new snow. Tom Cox describes the best characteristics of seven deciduous conifer species beginning on page 6.

But let's face it, we practical types may prefer the so-called evergreen conifers for year-round screening or foliage interest. Are we doomed to a static garden view day in and day out? Not at all! As Terri Park explains on page 22, the plants she affectionately calls "conifer chameleons" transform their colors – and her garden – in a seasonal progression.

Looking ahead to winter weather and the next *Conifer Quarterly* issue,

I'm eager to hear from readers who are fond of *Cedrus*, the true cedars. Here's another opportunity for those of you in warmer zones to show off your favorite plants. Or, if you live in Zones 5 or 6 and plant cedars anyway, let us know what has worked for you. (I know I'm not the only one.)

But Midwesterners, take heart – the Spring 2004 issue will highlight *Chamaecyparis*, so let's hear from those of you who collect the showy plants from this diverse genus.

Until we meet again in January, enjoy your winter holidays and those colorful conifers! *Anne*

The genus **Cedrus** will be featured in the Winter issue!

Do you have a special plant or favorite cultivar you'd like to show our readers?

Contact the Editor with questions, or send in your photo or comment by November 15th.

The Spring 2004 issue will feature **Chamaecyparis**, so start planning now to contribute a picture or recommendation!



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# Deciduous Conifers: Great Choices for the South

by Tom Cox

*Believing that conifers are unnecessarily absent from southern gardens, one collector developed a living laboratory in Georgia to test hardiness and adaptability. Here he shares his findings on five deciduous species.*

Having long been fascinated by deciduous conifers, I have pondered what geological events caused certain conifers to evolve this survival strategy. When one thinks of conifers one usually assumes evergreen; the deciduous conifers are something of an enigma. Altogether, there are some 500 species of conifers and most of them retain their foliage through all seasons. Why, then, do a very small number lose their needles? Was there perhaps some place in time when extremely dry winters necessitated that certain species shed their foliage to survive?

While most of the deciduous conifers are found today in China, fossil remains reveal that at one time, most were also indigenous to North America. Even today in southern and western China the winters are dry; the spring is also dry and is followed from June to September by heavy rain, cloud and humidity; autumn is again dry and sunny. Similarly, here in the Southeast some swamps dry up completely in winter.

With the exception of *Larix*, which is not discussed here since I have no experience with growing it, the remaining deciduous conifers are native to the southern U.S. and northern Mexico. As with many broadleaf trees such as dogwoods, maples and sweet gums, there

exist a great affinity between coniferous plants of the southeastern U.S. and China. Why are there no such similarities between plants from Asia and the western U.S. coast? Compare the physical features of *Metasequoia* and *Glyptostrobus* from southern China with those of the three *Taxodium* species from North America. All belong to the family Cupressaceae (formerly Taxodiaceae) and all are relics of a vanished prehistoric era – remnants of an earlier world.

The following data is based on research, personal observation and hands-on experience.

## ***Glyptostrobus pensilis* (Canton water pine)**

During the Tertiary period, the genus *Glyptostrobus* was not only rich in species but also had a wide distribution in the Northern Hemisphere. It was almost completely destroyed due to glacial activity. *G. pensilis* is the only remaining species. A rarely encountered genus, it closely resembles bald cypress (*Taxodium distichum*) and is also similar in appearance to the dawn redwood (*Metasequoia glyptostroboides*), which is also found in wet habitats. Like the other genera discussed here, *Glyptostrobus* develops good reddish-brown fall color before needle drop in autumn.

It is the smallest of the deciduous conifers, and while it can achieve much greater size in its native habitat, it should top out at around 20 feet (6 m) high and 8 feet (2.4 m) wide in cultivation.

*G. pensilis* is thought to be almost extinct in the wild, but in China it has been widely planted for timber and to stabilize riverbanks. The largest trees are in Fujian Province and some are as tall as 90 feet (27 m). Unlike the bald

## ***Glyptostrobus pensilis* is thought to be almost extinct in the wild**

cypress, *Glyptostrobus* does not appear to produce the upward growing pneumatophores or knees from its roots under wet conditions. I am interested in hearing from any reader who has observed otherwise.

Rob Means at Yadkin Valley Nursery has introduced the cultivar 'Woolly Mammoth,' which he graciously shared with us this past spring. It is planted on the edge of a stream where its roots are constantly moist, and it appears to be very vigorous – over 12 inches (30 cm) of new growth through June. Since it is less than 3 feet (0.9 m) tall, I am unable to discern how it differs from the species. We are most excited to be trying this extremely rare genus for the first time.

## ***Metasequoia glyptostroboides* (dawn redwood)**

Along with the Ginkgo, this tree is a living fossil of sorts that was native to North America during the Jurassic, Cretaceous and other bygone periods.

While most readers know the story of its discovery, the saga bears repeating.

In 1941, a Japanese scientist named Shigeru Miki, professor of botany at Osaka City University, published a study of certain fossils thought to be *Sequoia*. Earlier botanists had named these fossils *Sequoia disticha*, and they had been found in rocks up to sixty million years old. Dr. Miki discovered some fragments and discovered the needles were opposite one another along the twigs, while those of *Sequoia sempervirens* are arranged in alternating groups. He proposed they be moved to the new genus *Metasequoia* – to denote something like a sequoia – with a specific epithet of *glyptostroboides* to denote something like a Canton water pine, *Glyptostrobus pensilis*.

The story does not end there, however. In 1944, a Chinese forester named Wang Zhan came upon an unfamiliar tree near the village of Mo-tao-chi, in the province of Sichuan in west-central China. Collections of needles and cones were sent to the National Central University, Nanjing. Realizing that the tree was one that Chinese botanists had never seen before, other experts were called in. Finally the mystery was solved: the tree looked exactly like Dr. Miki's fossil *Metasequoia*. A tree thought to be extinct for over five million years that was known only by fossil remains from Japan, North America and Manchuria was still growing in a remote area of China. As a result of the efforts of Dr. E.D. Merrill at the Arnold Arboretum, seeds were collected in 1947 and subsequently distributed to botanical gardens throughout the world.

The climate in Sichuan Province is similar to that of Georgia, and rainfall is

fairly heavy, averaging 50 inches (127 cm) a year. However, nearly all that rain falls during the summer.

Like *Glyptostrobus* and *Pseudolarix*, *Metasequoia* is a monotypic genus. It also shares the trait of its foliage turning a beautiful copper-brown before needle drop in autumn. Some cultivars of interest we are presently growing include:

‘Ogon’ is a golden-needle form that holds its color well in the heat of the south. Its growth rate appears to be a bit slower than that of the species.

‘Sheridan Spire’ is similar in all respects to the species but more narrow in form.

‘White Spot’ has pronounced white markings in center of its leaves. While the distinct whiteness tends to fade somewhat in the heat, the foliage color remains distinct from the species, and the growth rate appears to be a bit slower. It looks like a winner in the landscape.

#### ***Ginkgo biloba* (maidenhair tree)**

*Ginkgo* is closely related to conifers, although it is a broad-leaved tree. In prehistoric times there were numerous species of *ginkgo* that enjoyed a wide distribution beyond China. Today only a single species survives and it is questionable if it still exists in native stands.

It seems that no matter where we visit, *ginkgo* is widely planted as a street tree. Here in Canton, Georgia, we have numerous trees planted around the courthouse and many of them are female. The female tree produces uncovered ovules (often referred to as fruit) which develop a fleshy covering that is quite messy and malodorous when ripe. For this reason, only known male clones should be planted.

Based on observation, *Ginkgo* is not a fast-growing tree and is likewise slow to achieve good form in the landscape. That said, a fully mature specimen is a sight to behold. *Ginkgo* performs well in

*Of all the  
deciduous conifers,  
the golden larch  
produces the most  
prominent fall  
display of color*

the heat and humidity of Georgia and can usually be depended on for great yellow fall color.

We are growing the following cultivars at Cox Arboretum:

‘Saratoga’ has a distinct central leader and the leaf is longer than that of the species. It has dependable good fall color and can be maintained as a shrub by simply topping the leader. Or, left to its own devices, it can reach a height of 40 feet (12 m). It’s one of my personal favorites.

‘Chi-Chi’ came to us as liners last year that are now 2 feet (0.6 m) tall. According to the literature, they should mature at around 6 feet (1.8 m). The cultivar is densely branched and looks like a good dwarf form, despite no appreciable fall color last year.

Our ‘Golden Globe,’ a recent introduction planted in 2002, is presently an 8-foot (2.4-m) whip. The specimen presented a uniform gold color last fall, and we expect it to mature into a symmetrical, broad conical tree with a more globose form than the species.

#### ***Pseudolarix amabilis* (golden larch)**

Native to eastern China, golden larch is yet another example of the complete adaptability of certain Asian flora to portions of the U.S. Fossil remains of the golden larch have been found in the Cretaceous strata of eastern and western Siberia and in the Paleocene-Pliocene strata in Europe, Central Asia, Northeast China, Japan and western part of the U.S. Due to climate changes during the last ice age, all plants of golden larch vanished from the globe except for a few locations along the lower and middle reaches of the Yangtze River. Native stands are rare and scattered in distribution, and seed sets only at intervals.

After trying and losing several *Larix*, which just won’t survive in the Deep South, we were excited to obtain small liners of the golden larch. From this liner stock, we now have several 15-foot (4.5 m) specimens in less than 7 years. These are grown in full sun and receive no special attention. We have also transplanted several with no problems. Of all the deciduous conifers, the golden larch produces the most prominent fall display of color. The golden larch is aptly named and was originally called the “golden pine” in China.

Topping out at around 50 feet (15 m) over time, this is not a tree for the small landscape. However Dirr mentions that it “grows slowly enough that it can be integrated into the small landscape,” at least temporarily (*Manual of Woody Landscape Plants*, 5th ed.).

#### ***Taxodium distichum* (bald cypress)**

In the Deep South, river swamps are often covered with a growth of these cypresses. This past spring we were the

guests of Jordan and Bennett Jack in their beautiful winter home in Charleston, South Carolina, and we were treated to a visit to Beidler Forest, one of two remaining virgin Bald Cypress swamps remaining in America. The trees are over 1500 years old and at least 80 feet (24 m) high; it is a surreal experience to walk among these giants and to view nature as it once was.

Much has been made about the true purpose of the knees that only occur when the tree grows in or very near water. At one time it was believed that their purpose was to provide aeration to the root system, but this does not appear to be the case. A more plausible expla-

*I was surprised to discover  
that bald cypress actually  
grows faster on soil  
that is not constantly moist  
and displays a more  
beautiful fall color*

nation is that they further buttress a tree growing in mucky soil. During a discussion I had several years ago with Jim Wilson (formerly with the PBS show *Victory Garden*), he theorized that one purpose might be to act as a weir to trap nutrients in moving water, which sounds reasonable to me. As to why cypresses shed their needles, they are native to swamps that may remain inundated nine or ten months of the year, but these swamps are often dry the remaining time. I was surprised to discover that bald cypress actually grows faster on soil that is not constantly moist and displays a more beautiful fall color.

I've seen two outstanding bald cypress cultivars at Bernheim Arboretum – 'Monarch of Illinois' and 'Shawnee Brave' – and they are both top grade cultivars for the large property. We recently acquired the weeping form 'Cascade Falls' from Larry Stanley of Stanley & Sons Nursery, and it grows quickly. Stake it to the desired height and then let it show off. This is one of the most exciting plants to come our way, and we look forward to watching it mature.

**Taxodium ascendens (pond cypress)**

While some authors, such as Adrian Bloom in *Gardening with Conifers*, treat *T. ascendens* as a subspecies or variety of *Taxodium distichum* (bald cypress) rather than a distinct species, I am of the opinion that enough differences occur to make it distinct. In its native habitat, this tree grows on more upland areas and is not typically seen growing in water but rather around it. At Callaway Gardens in Georgia, I have seen mature specimens of both species growing together beside a pond and I tend to rank *T. ascendens* as the more graceful of the two.

Borrowing from this theme, we planted both species directly into approximately one foot of water where the

water level remains constant. Whereas *T. distichum* has grown somewhat slowly, *T. ascendens* has grown extremely slowly. Moreover, *T. ascendens* has not produced any knees thus far, and the fall color has been less than spectacular. We will soon be trying pond cypress on land to evaluate growth rate.

During a visit several years ago to Bernheim Arboretum in Clermont, Kentucky, I had the occasion to view the cultivar 'Prairie Sentinel.' If one has the space by a pond or a lake, this would rate as one of my top choices for landscape beauty. It matures to approximately 60 feet (18 m) tall and 10 feet (3 m) wide, which is slightly shorter and about half as wide as the species.

**Taxodium mucronatum: (Montezuma bald cypress)**

Like our two native *Taxodium* species, *T. mucronatum* grows in temperate swamps and along rivers and streams. According to my personal observation, the species tends to hold its needles longer and is likely evergreen in Mexico. For a Zone 8-10 climate, I would rate this species slightly superior in landscape beauty to our natives. It is a bold tree in every respect and can grow

to immense proportions. Last year I planted a small seedling that unfortunately did not survive the several days when we experienced 4 °F (-15 °C). I am of the belief that if one can get enough wood on a plant after several years then it might survive here. Michael Dirr suspects that "it does not shut down early in fall and/or initiates cambial activity too early in spring and is injured by late fall or early spring freezes, respectively" (*Manual of Woody Landscape Plants*, 5th ed.).

I am not aware of any cultivars of *T. mucronatum*.

Not only do deciduous conifers have a storied history, but also there are species and cultivars well-suited to most any growing condition and space constraint. And the best news? They are readily available! ▲

*About the Author:* A retired Army Officer and BellSouth employee, Tom has worked with plants for over 25 years. In 1990, his wife Evelyn and he founded the Tom Cox Arboretum in Canton, Georgia, which is now recognized as one of the largest private collections of woody plants in the southeast. Tom observed that conifers were woefully underrepresented in the southern landscape, so he set out to expand the landscape palette in and around Atlanta and serve as a technical resource for those interested in successfully growing conifers. Today they are growing over 600 different conifers covering 29 genera. Visit [www.coxgardens.com](http://www.coxgardens.com) for more information.

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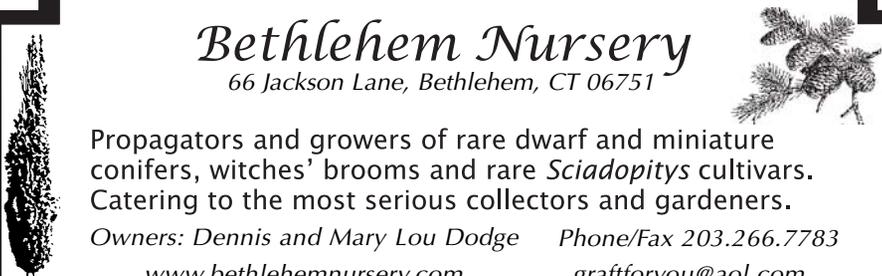


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# Reader Recommendations

Your favorite deciduous conifer cultivars

Dennis Dodge of Bethlehem Nursery in Bethlehem, Connecticut, recommends ***Larix laricina* 'Bear Swamp,'** from a witches' broom. The new growth appears silver against the existing green needles.



Dennis Dodge



Dean Linderman

***Larix decidua* 'Varied Directions'** assumes many forms at maturity, including this cascade of foliage at Birchwood, Dean Linderman's home in Leesburg, Virginia.



Michael J. Griesmayer

Left: Michael J. Griesmayer prefers ***Larix kaempferi* 'Pendula,'** shown here in his Iron Mountain, Michigan, garden.

Readers should note that there is now general consensus within the academic community that the plant known in the trade as *Larix decidua* 'Pendula' should properly be called *Larix kaempferi* 'Pendula.' Look for a detailed discussion in an upcoming issue.



Maude Henne

Below: Maude Henne is another fan of ***Larix decidua* 'Varied Directions'**. She photographed this cone in the garden of Dr. David M. Merrell in Rossford, Ohio.



Dennis Dodge

This ***Larix decidua* 'Varied Directions'** presents an imposing silhouette. The tree is about 20 years old with a 12-inch (30-cm) caliper, according to Dennis Dodge.

## Reader Recommendations

(continued from page 13)

Right: *Taxodium ascendens* 'Nutans' thrives on Dean Linderman's property in Leesburg, Virginia.



Dean Linderman



Kenneth Murray

Left: Kenneth Murray of Wilmington, Delaware, has patented *Metasequoia glyptostroboides* 'Golden Dawn,' a dwarf dawn redwood displaying striking yellow spring foliage and growing just 6 inches (15 cm) per year. He found the mutation in a seedling bed.

## The Conifer Database Needs Your Photos!

It's a fact: People who love to **grow** plants also love to **photograph** them!

Collectively, our members have a treasure trove of excellent conifer slides, prints and digital images.

Please consider uploading your high-quality conifer pictures to enhance our Conifer Database at [www.conifersociety.org](http://www.conifersociety.org). Use the

"New Conifer" button to tell us the plant name, then you will be able to upload your picture.

If you need additional instructions, contact Bill Barger at [bbarger@saberlogic.com](mailto:bbarger@saberlogic.com), who will answer your questions or refer you to one of our Society's seasoned database contributors who will walk you through the process. The Conifer Society thanks you!

## Conifer Society Slide Sets Available to Members for Local Presentations



Would you like to talk to your garden club or social organization about gardening with conifers?

Two slide sets featuring attractive plant combinations and design ideas are available to Conifer Society members. Many of the images come from the slide collection of Charlene Harris.

Contact coordinator Byron Richards to borrow the slides:

Byron Richards  
[barhr@cytechcis.net](mailto:barhr@cytechcis.net)  
Phone: (828) 696-0801

## CORRECTION

The two photos of *Picea glauca* 'Sanders Blue' that appeared on the inside back cover of the Summer 2003 *Conifer Quarterly* were taken at Rich's Foxwillow Pines in Woodstock, Illinois. Mike Ecker, horticulturist at The Dawes Arboretum, was the photographer.

## Letters

### Biological Control of Adelgids Requires Caution

I found the article on the hemlock woolly adelgid (Vol. 20 No. 3, Summer 2003, p. 6) very interesting, but I am concerned about the practice of introducing the non-native beetles into the U.S. to control adelgids. Is anyone studying whether any of our native bird species may eat the adelgid? I feel that the bigger picture requires more study, including what species prey on the adelgids and the beetles in their native habitat.

For now, I am managing to keep a handle on my hemlocks' adelgid infestations using oil and insecticidal soap sprays, because I do not want to lose these trees.

On another subject, I would also like to hear from members who can recommend conifers suitable for Cape Cod, Massachusetts, where I live.

Janis Bartlett  
[herb@capecod.net](mailto:herb@capecod.net)

### BBG Conducts *Metasequoia* Survey

I am writing you for help on collecting information about cultivated *Metasequoia glyptostroboides* (dawn redwood) in your members' private or public gardens. They many visit [www.metasequoia.org](http://www.metasequoia.org) for more information about the data I am collecting. The Conifer Society's help is much appreciated. Thank you in advance.

Jinshuang Ma  
Research Taxonomist  
Brooklyn Botanic Garden  
[jinshuangma@bbg.org](mailto:jinshuangma@bbg.org)

# Pining for the Release of *Wollemia nobilis* – Part 2

by Sally McGeoch

*Commercialization is one of the best forms of insurance against loss of the Wollemi pines in the wild*

The remarkable discovery of the Wollemi pine in Australia in 1994 was hailed the botanical find of the century and the equivalent of finding a dinosaur alive on earth today. Found just 90 miles (145 km) from Sydney in a rugged national park, this Jurassic species sparked the interest of collectors, horticulturists, botanists and home gardeners across the globe.

The challenge for authorities desperate to protect the ancient relic was to ensure maximum protection for the Wollemi pines in the wild while also making this “dinosaur tree” available for the public to appreciate, as a legacy from our past and reminder of the precious few wild places that remain on this planet.

The “Wollemi Pine Recovery Plan” identified the need to maintain secrecy around the exact location of the pines in the national park. Strict rules were also set in place to control visits by the handful of select scientists permitted to monitor and study the wild population.

A further strategy outlined in the Recovery Plan was the commercialization of the Wollemi pine. Authorities felt that the

most effective way to minimize threats to people visiting the very fragile wild population, where fewer than 100 plants remain, was to reassure the public that they would be able to buy their own cul-



Jaime Plaza / Royal Botanic Gardens Sydney

tivated Wollemi pine in the future. The commercialization of this rare and threatened species in order to conserve it has set a precedent in Australia for the management of endangered species.

## The Commercialization Process

The decision to commercialize the Wollemi pine was no doubt influenced by case studies in Australia where endangered species were not protected adequately in the wild and subsequently destroyed. Wild populations of the fox-tail palm (*Wodyetia bifurcata*) in the state of Queensland were ravaged by international poachers and seeds were sold overseas without returning any benefits to Queensland. The authorities behind the protection of the Wollemi pine were eager to ensure these mistakes were not replicated and that the commercialization process is carefully controlled.

Cultivation research commenced in December, 1994, when the pines were first discovered and cuttings were collected from the wild. Initially, significant energy was invested in attempting to cultivate the Wollemi pines from seed collected in the wild. However, seed collection was incredibly difficult and fraught with danger. The seed cones of the Wollemi pine cannot be collected by climbing the trees, as the seeds are located up to 130 feet (39 m) high at the very crown of the pines.

It was a brave national parks ranger that managed to collect some seed by being lowered down to the tops of the trees on a cable from a hovering helicopter. Not only was this technique deemed to be very dangerous but the downward thrust from the helicopter shattered many of the fragile cones.

Special nets were erected on the forest floor to collect fallen seed but this method was also unsuccessful in capturing viable quantities of seed.

Early success in cultivation from cutting material collected in the wild was due to the hard work of horticultural research scientists such as Cathy Offord. Cathy and her team at the Royal Botanic

*Special nets were erected on the forest floor to collect fallen seed but this method was also unsuccessful in capturing viable quantities of seed*

Gardens based at Mount Annan in Sydney were the first to propagate the Wollemi pines and study its growth habit in cultivation. Cathy found the Wollemi pine in cultivation to be robust and faster growing due to its favorable response to light. Propagation survival rates were also found to be higher than for the average native plant. For instance, the average mortality rate of an Australian plant in a nursery is around 5% but for *Wollemia* it is almost 0%.

Based on these successful cultivation trials, Royal Botanic Gardens Sydney (who had been licensed by the New South Wales National Parks Service to research the Wollemi pines) decided to seek a commercial partner to produce commercially viable numbers of Wollemi pines. They advertised in Australia and internationally for expressions of interest from commercial partners to propagate and market the Wollemi pines. In 1999, a

joint venture between the Queensland Department of Primary Industries Forestry (QDPIF) and a commercial nursery in Queensland (called Birkdale Nursery) was selected. QDPIF has extensive experience as one of Australia's leading propagators of conifers with more than 100 years of sustainable and

*After extended trials,  
the overall survival rate  
of propagated cuttings  
is about 90%*

innovative forest management expertise. Birkdale Nursery is a specialist exporter and marketer of Australian ornamental plants. The joint venture company is called Wollemi Australia.

After the commercial partners were announced, Royal Botanic Gardens Sydney sent 500 precious seedlings and 300 cuttings north to Queensland to kick off production. A special dedicated facility now houses the Wollemi pines in production. After extended trials, the overall survival rate of propagated cuttings (propagation strike rate) is about 90%.

Scientists have been able to trace the exact parent of many of the cuttings provided, but this has not been possible with most of the seedlings. Of those cuttings provided by Royal Botanic Gardens Sydney, the propagated plants exhibit mature foliage if the cutting is taken from a more mature plant. Likewise, a Wollemi pine will exhibit juvenile foliage if taken from a

younger plant. All of the cultivated plants send out a major flush of new bright-green growth in early summer, which gives the Wollemi a distinctive two-toned appearance.

A further interesting habit discovered in cultivation has been the development of a waxy pink resin cap that appears in winter on the growing tips of plants. This cap seems to protect the growing tip in the cooler months, and then it melts away in spring.

#### **How to Acquire a Wollemi Pine**

The international release of the Wollemi pine is set for 2005/6. This date has been set to allow sufficient time for comprehensive research and development into the best propagation methods and to build up sufficient quantities of plants for release to the community. Taking the time to ensure the success of the Wollemi pine in cultivation is important for safeguarding the ongoing survival of the species in the wild. Every plant sold will return a royalty to the NSW National Parks and Wildlife Service and Royal Botanic Gardens Sydney for the purpose of conserving the wild population of Wollemi pines and other rare and threatened species in the area, such as the dwarf mountain plum pine (*Microstrobus fitzgeraldii*), the brush-tailed rock-wallaby, and the koala.

The key markets for the Wollemi pines will be the United States, Japan, the United Kingdom, Europe and Australia. The range of available sizes will vary across each market, and will include larger plants 10-13 feet (3-4 m)

tall as well as smaller plants suited for indoor decoration. They will be available in the United States through select retailers and also via the Wollemi Pine Web site ([www.wollemipine.com](http://www.wollemipine.com)). It is anticipated that the Wollemi will be sold primarily as an indoor pot plant, since it responds well to low light and air conditioning. It is also suitable as an outdoor tree in some parts of the United States, and trials to test its hardiness in various climatic zones will begin soon. Based on its success across different climatic regions in Australia, the Wollemi pine is known to survive temperatures from 23-115 °F (-5 to 46 °C).

The price of a Wollemi pine is yet to be determined. It is known that the price

*Based on its success  
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will depend on the age of the Wollemi pine and its relationship to the wild population. For example, small plants that have been propagated from 2nd or 3rd generation cuttings and are just a year old will be priced lower than the larger 5- to 10-foot [1.5- to 3-m] trees ranging in age from 3-7 years that are immediate descendants of the wild population. Wollemi Australia's aim in the propagation of the Wollemi pine is to ensure that a range of plants will be ultimately made available to all who wish to care for one.

To assure customers that their plant is authentic and returning royalties to conservation, all official Wollemi pines sold will be certified. These trees will be given a serial number and an official label bearing the Wollemi pine story as well as detailed care information. There will also be information available through the [www.wollemipine.com](http://www.wollemipine.com) Web site about where to find local advice on caring for a Wollemi pine. In the meantime, all those interested in acquiring a Wollemi pine are encouraged to register their interest by subscribing to the Wollemi Pine Conservation Club through the Web site. Subscribers will receive quarterly e-mail newsletters on the progress of the pine in cultivation and news on how to purchase a plant closer to the release date in 2005/6.

#### **Where to See a Wollemi Pine**

Although plans are in place to publicly display the Wollemi pine in the United States, there are currently no pines in the United States. The only place to view the Wollemi pine is by visiting any of the following institutions in Australia:

- Royal Botanic Gardens Sydney (Sydney)
- Mount Annan Botanic Garden (Sydney)
- Mount Tomah Botanic Garden (Blue Mountains)
- Taronga Park Zoo – Creatures of the Wollemi Exhibit (Sydney)
- Adelaide Botanic Garden North Terrace (Adelaide)
- Mount Lofty Botanic Garden (Crafers)
- Australian National Botanic Gardens (Canberra)



Jaline Plaza / Royal Bot. Gardens Sydney

- Royal Tasmanian Botanic Gardens (Hobart, Tasmania)
- Kings Park and Botanic Garden (West Perth)

There is also a fascinating film called "The Edge" that is shown on a six-story high screen in the Blue Mountains at Katoomba (near the wild Wollemi pines' location) and highlights the story of the discovery of the Wollemi pine, with

breathtaking footage of the Wollemi area. In July 2003, 4000-year-old Aboriginal rock paintings were also discovered in this area, highlighting the urgent need to save our wild places and conserve precious relics such as the Wollemi pine. ▲

*A special thanks to Dick Hammerschlag for his encouragement and support in writing this two part series.*

*About the author:* Sally McGeoch has been involved in horticulture through her family's nursery business for over 20 years. Birkdale Nursery, based in Brisbane, Queensland (Australia) is a specialist exporter of Australian ornamental plants. Birkdale Nursery and the Queensland Government Department of Primary Industries Forestry secured the exclusive rights for the propagation and marketing of the Wollemi Pine on behalf of the Royal Botanic Gardens Sydney.

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The above 3 pictures were taken at the National Arboretum in Washington D.C. in August of 2001. When planted in the fall of 1998, they were 3 feet tall and planted on 6 1/2 foot centers. They grew 3 feet in the first year (1999), and are now 10-12 feet tall. It can be trimmed to any height or width to create the ultimate natural or formal hedge.

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# Conifer Chameleons for Year-Round Color

by Terri Park

*If you're just starting a conifer garden or want to expand the color palette of an existing collection, consider these plants. (See photos inside back cover.)*

One of the primary reasons I fell in love with conifers is that they are 365-day-a-year plants. Just like your favorite cat or dog that greets you by the door when you come home from work, conifers will be there for you to enjoy every day. They are especially valuable in the winter months when the skies are gray, the deciduous tree trunks are gray-brown and leafless, and the grass is either drab beige or covered with snow. There's just

*Just like your favorite cat or dog that greets you by the door when you come home from work, conifers will be there for you to enjoy every day*

not much color to excite the eye in most landscapes. However, my conifer collection has an endless variety of hues of greens, golds, blues, and variegations. I especially like the “conifer chameleons” – the plants that change color from summer to winter and back again.

## A Rainbow of Winter Colors

Even on the coldest winter days, I feel compelled to take a short walk in a part of my garden, just to shake off the day

cooped up inside at work. The plant that draws my attention near the driveway is the Christmas-tree-shaped false cypress that started out as a bun, *Chamaecyparis thyoides* ‘Heatherbun’ (I). It is a soft, fuzzy medium green in the summer, but turns to hazy heather purple in the wintertime. I just have to pet it and see the green underlying color normally hidden from view.

A newcomer to the same bed is a twisted coral-shaped conifer that is lime green with yellow tips on each branchlet, the *Chamaecyparis obtusa* ‘Coraliformis Aurea’ (D). This chameleon seems to be multicolored in winter with green, salmon orange, and gold. I can't wait until it grows a little larger and showier.

*Thuja occidentalis* ‘Sherwood Frost’ (I) displays a very different color combination. A semi-dense, tall shovel-shaped arborvitae, it is a light green with creamy white edges in summer, then it does a “chameleon change” to an olive green with honey colored edges in winter. It may not be what you'd call a riot of color, but hey, this is winter! Any color but gray-brown is appreciated.

A few short steps away lies a fan-shaped array of muted port-wine color stretched out like a carpet, the *Microbiota decussata* (D), or Russian cypress. This chameleon plant contrasts with the

various green textures of its bed partners in winter, but displays grass-green foliage with rusty-orange limbs in summer.

My all-time favorite year-round conifer is the creeper *Juniperus horizontalis* ‘Mother Lode’. This plant is a brilliant gold in summer but undergoes a multicolor change to shades of deep gold and salmon orange with green undertones in the winter. The warm shades remind me of a summer sunset; this is a conifer that begs to be touched to see its full array of color.

That brings us to our first dwarf conifer hillside – a palette of various blues, greens, yellows and variegations. The most unusual winter color here is *Chamaecyparis thyoides* ‘Red Star’ (D), an upright column of burgundy in winter that changes to a deep sage green in summer.

## Yellow Chameleons

Strolling in a different direction, I pass a variety of greens and various textures of *Taxus* (yew), *Chamaecyparis* (false cypress), *Thuja* (arborvitae), *Ilex* (holly), and *Buxus* (boxwood), and then I see two beams of brilliant canary yellow (yes, in winter!) calling to me. The first is the *Juniperus chinensis* ‘Plumosa Aurea’ (D), a juniper whose branches form curving vertical feather plumes. It is soft to the touch, unlike its cousins. The golden shade deepens in the winter. In my garden, this plant lives close to an *Acer griseum* (paperbark maple) with gorgeous, abundantly peeling orange-bronze bark – a must-have small deciduous tree for every yard.

Another yellow fellow is the squat, globe-shaped *Pinus mugo* ‘Honeycomb’ (D). For those of you who still

believe that yellow conifers look sick, you haven't seen this plant! The mugo pine subtly changes into a lime green in summer, and one would never suspect how beautiful it is in winter.

One of my favorite new conifers for winter is the yellow compact shrub Korean fir, *Abies koreana* ‘Goldner Traum’ (D), which means “golden dreams.” If you are at first shy about yellow conifers, you can't go wrong with this one; it changes from gold in the winter to lime green in the summer, and it grows best with a little shade in the hot Midwest summers. A similar color chameleon that I don't yet have is *Pinus contorta* ‘Chief Joseph’ (D). This plant even made the Conifer Society's list of

## Conifer Growth Rate Categories

**Large (L)** = Grows 12 inches (30 cm) or more per year. Plant may exceed 15 feet (4.5 m) in 10 years.

**Intermediate (I)** = 6-12 inches (15-30 cm) of new growth per year.

**Dwarf (D)** = 3-6 inches (8-15 cm) of new growth per year.

**Miniature (none in this article)** = Less than 3 inches (8 cm) of growth per year.

These measurements apply to either height or width, depending on the plant's shape, and assume a small plant to begin with. The lower end of each range usually corresponds to my central Indiana garden.

Top Ten Conifers. With thousands to choose from, that's quite an honor!

### The Blues

The most notable blue conifers in my garden are the *Picea pungens* 'Saint Mary's Broom' (D), a compact, slow-growing blue spruce bun, and *Chamaecyparis pisifera* 'Curly Tops' (D), a cute, blue-white globe that begs you to

*As an extra color bonus, the Korean firs produce gorgeous purple cones in spring that stand upright on the branches*

feel the soft, gently curving ends. Remember when you were ten and your mom gave you your first home permanent and you just had to touch your new head full of soft curls? Another blue is *Juniperus horizontalis* 'Monber' (Icee Blue™) (D), a horizontal creeper with tight scales forming coral-shaped branchlets that fall blue over the wall.

And of course, I would be remiss to omit the well-known *Juniperus squamata* 'Blue Star' (D) that is blue in summer but changes to a purplish heather blue in winter. A related plant, *Juniperus squamata* 'Blue Carpet' (I) is less expensive because it's fast growing. It doesn't form the same carpet but does stay low in nearly horizontal sprays reaching only 12 inches in height. It will outgrow its space in several years, so you'll need to either replace it or dig deeper into your wallet for a slower-growing blue. Both plants are very com-

monly available, but 'Blue Star' will remain a nice plant for decades. I've often thought of an all-blue conifer garden with white annual and perennial flowers for a cooling summer effect, but that's another topic.

There are a few greens with prominent white undersides that give a bluish-green overall effect that is consistent all year. The dwarf Serbian spruce *Picea omorika* 'Nana' (D) is a perfect dense ball that has never needed even a stray-hair pruning. Two more are the tall Christmas-tree shaped Korean firs, *Abies koreana* 'Silberlocke' and *Abies koreana* 'Silver Show' (I). Both of these tend to be open-structured as youngsters, gaining more density with age. As an extra color bonus, the Korean firs produce gorgeous purple cones in spring that stand upright on the branches.

One of the brightest conifers is *Abies concolor* 'Candicans' (L), a Concolor fir. Many of us like to pronounce it "candy canes" because each needle does resemble a white candy cane with the tiniest green stripe. A young tree will look a little scrawny, but if you visit its older brother at the Chicago Botanic Garden on the conifer hillside, you'll see it's worth the wait. Or dig deeper into the pocketbook and have a nursery plant a seven- to eight-foot tree for you. These I did see in a local nursery this spring, and I was tempted!

### Yellow Highlights Year Round

Most yellow conifers only deepen to gold in winter and don't show a dramatic color change. You can't beat *Chamaecyparis obtusa* 'Verdon' which grows a little faster and resists winter sunburn better than its sister plant *Chamaecy-*

*paris obtusa* 'Nana Lutea', which would prefer winter midday shade. These short conical cuties are bright yellow on the exposed surfaces but transition to a bright lime green on the interior foliage that is shaded from the sun. These you must swipe with your hand to see the color changing underneath the dense, soft, fan-shaped foliage.

*Picea orientalis* 'Skylands' (I) is a small-needled Oriental spruce that is yellow year round with dark green inner needles. Its slender conical shape and small, tight needles give it a refined, elegant look. It is a very popular conifer among collectors. Like several of the yellows, it does appreciate some midday summer shade.

One large conifer that many people would make space for is *Pinus densiflora* 'Oculus-draconis' (L). This Japanese red pine has green two-year-old needles, but its first-year needles display a double yellow stripe, giving the plant an overall yellow glow. It remains that bright yellow all year round and may be the most striking plant on the property. Since it is a pine, you can pinch the candles once every spring to keep it more compact or let it grow like gangbusters and provide another shady spot for hostas.

### Green Forms the Backbone

There are so many colorful beauties for your summer or winter garden interest; I've barely scratched the surface and haven't even mentioned the beautiful greens that are the backbone of the winter garden. The landscape would look barren without them. There's enough color available in conifers that I have little need for time-consuming perennials and annuals, although I do have some nice combina-

tions of conifers and matching hostas.

My parting advice: Have fun surfing the Web this winter and check out the Conifer Society's Web site at [www.conifersociety.org](http://www.conifersociety.org). Even if you don't own a computer, it's worth a trip to your local library to scan the wealth of information about reference books and nursery sources as well as the Conifer Database. You can stay cozy inside while the snow blows and dream of unpacking rare mail-order treasures come spring. Or with any luck, as demand for conifer chameleons increases, a local nursery might finally offer them. ▲

*About the author:* Terri Park and her husband Jay are both small animal veterinarians by profession and conifer enthusiasts by hobby. Since moving to their 3.5 acres in 1978, they've been planting trees and improving their plant collection ever since. Members of the Conifer Society since 1997, they've attended all of the Central Region meetings since then to learn from the experts and renew friendships with the "terrific people" who are members.

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# Conifer Chlorosis

## Considerations Before Using Sulfur to Reduce Soil pH

by Joe Parks

*Editor's Note:* The article "Sulfur Reduces Chlorosis on Dwarf White Pine" that appeared in the Summer issue (Vol. 20, No. 3, p. 17) prompted several responses and additional suggestions from members. The article below by Joe Parks incorporates these and other issues.

Although there are many white pines and other conifers growing here on our property at Parkwood Farm in New Hampshire, I do not claim expertise regarding them specifically. However, knowing what I do about plant nutrition, I hope you will allow me to offer a few comments in response to Chub Harper's suggestion to use sulfur for treating white pine chlorosis (Vol. 20, No. 3, p. 17), and to offer some additional advice about conifer nutrition.

Sulfur is probably the best and most benign of all soil acidifiers. However, *unless you know the requirements of your plants* and the acid/alkaline (pH) balance of the soil in which they are growing, the addition of sulfur or any acidifier on a continuing basis could be dangerous to their health.

A single application of sulfur is unlikely to create a problem, but what if improper soil acidity is not the cause of the chlorosis? A lack of iron, nitrogen or manganese is as likely to be the culprit as is soil pH, so it is unwise to assume that improper soil acidity is the cause. The only exceptions are in geographic areas where the soil is so alkaline that it requires regular treatment to maintain the proper pH for acid-loving plants,

such as the Niagara Escarpment in Ontario, Canada.

It is best to first determine the soil pH and then, if needed, to use an acidifier *only around those plants that are acid lovers*. If this doesn't solve the problem then the soil should be ana-

*Although some specialized plants seem to do well in highly acidic soils, most of the plants we call "acid loving" will perform best between pH 5 and pH 6.*

lyzed. As mentioned above, sulfur is the best and safest acidifier, but if it isn't available then ferrous sulfate (in the mono-hydrate form) can be used. Don't even consider using aluminum sulfate, due to the toxic effects of aluminum on plants at low pH levels.

### Why is soil pH important?

The soil acidity problem is twofold. First, for plants requiring an acid soil, the soil must be sufficiently acidic so that nutrients such as iron will be in a water-solu-

ble form the roots can use. Second, for best plant performance, the soil must not be overly acid since many nutrients such as nitrogen become "locked up" (insoluble) and unavailable to plants, while micronutrients become more and more soluble until they may become toxic.

In a very acid soil in which the pH falls below 4.6, the major soil constituent aluminum begins changing to a water-soluble form that is toxic. The lower the pH, the more toxic aluminum there will be in the soil. In this form, aluminum interferes with root cell division, decreases root respiration and consequently interferes with nutrient uptake.

Although some specialized plants seem to do well in highly acidic soils, most of the plants we call "acid loving" will perform best between pH 5 and pH 6. Within that range, nutrients are in the proper form and toxic materials remain at tolerable levels.

### The right mulch can prevent chlorosis caused by soil nutrient imbalances

I urge you to mulch your conifers! A good organic mulch is the best fertilizer you can apply. It serves as a source of nutrients and a buffer against drought, and it can also reduce soil toxicity problems. In nature, conifers nearly always have a heavy mulch of their own needles. Although a mulch reduces soil toxicity and watering problems, its most important contribution is that it supports a vital microbial population.

The microbes and fungi living in mulch do more to decompose organic matter than the more visible worms and nematodes do. This microbial population breaks the mulch down into nutrients that are readily used by plants,

including levels of micronutrients that are usually sufficient to meet a plant's needs.

One caution: *Do not overmulch!* Too much mulch can be worse than no mulch. The problem is that thick, tight mulches can reduce the oxygen supply to the point that roots cannot function properly. Naturally, needles are the best conifer mulch. They break down slowly and tend to make a loose mulch that can be piled four to six inches deep. Other organic materials can be used, though I consider both grass and peat moss to be unacceptable. Unless they are very loose, other mulches should be no more than about two inches deep. Additional mulch should be added at least every other year to provide a continuous supply of "food" to the soil organisms and nutrients to your plants.

### Fertilizer applications provide missing nutrients

Lastly, some nutrients are so highly soluble that rain readily leaches them out of the soil. Nitrogen is leached most readily but calcium, magnesium and sulfur are also easily leached, and a lack of any of them can cause chlorosis. For acid-loving plants, I replace the lost nitrogen and try to avoid "hidden hunger" by applying a fertilizer containing ammonium sulfate in late fall after the plants are fully dormant. The benefits are threefold: the application provides sulfur and nitrogen and also lowers the soil pH.

All plants require calcium, and the calcium needs of plants growing in acidic soils are often misunderstood and thus overlooked. Calcium loss can thus be a serious problem in acidic soils. If a soil test indicates pH 5 or above, the use

of lime or ground limestone to provide needed calcium may be undesirable; it may push the pH above 6, causing an iron shortage and consequently chlorosis. Therefore, to avoid this problem I use gypsum to supply the needed calcium because it does not materially affect soil acidity. If the soil acidity is below pH 5, then ground limestone (not lime) may be used to provide the necessary calcium while raising the soil's pH into the preferred range.

In some areas, there is the additional problem that soils are naturally deficient in some nutritional element. For example, magnesium levels are very low and boron is almost non-existent in New England soils. In such situations, the missing nutrient must be added to the

soil if plants are to thrive.

I have no doubt that readers with more expertise than I will have other thoughts. I hope those people will share their ideas, because we grow such a diverse lot of conifers in such a wide variety of soils that it is almost impossible for one person to be aware of all the nutritional problems. ▲

*About the author:* Conifer Society member Joe Parks has retired from "four or five different careers," but his interest in plants is a lifelong passion. During many years of rhododendron hybridization and other experiments, he has also learned about plants' interactions with soils, nutrients and microorganisms.



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## Tiny Hemlocks: 20 Years Later

by Joel Spingarn

*Two hemlock cultivars have proven over time to be among the most dwarf, and a third merits propagation and distribution*

It has been almost twenty years since Dr. Peter Del Tredici published his hemlock odyssey, *St. George and the Pygmies: The Story of Tsuga canadensis 'Minuta'* (Theophrastus, 1984). It was an admirable endeavor to clear up confusion and establish the true discoverer and origin of this plant.

The story reads like a mystery novel with an interesting cast of players comprised of nurserymen and collectors. The main character, Daniel St. George, is allegedly the plant's discoverer but denies being so. An informant leads a collector to the discovery area near Charlotte, NC, and he may be the individual who originally collected the plant but does not divulge his identity lest he offend Mr. St. George. Several interesting coincidences spice up the tale, and several "innocent bystanders" – collectors including myself who received the plants – help to

muddle up the nomenclature.

Although Dr. Del Tredici's investigation was extremely thorough and provided many interesting and important facts concerning not only *Tsuga canadensis* 'Minuta' but also *Tsuga canadensis* 'Pygmaea,' its primary intent of naming the discoverer of 'Minuta' could not be accomplished. My aim is to bring up to date some of my plant statistics that were supplied for the story.

### 'Minuta,' 'Pygmaea' and 'Verkade Petite'

My 12-year-old 'Minuta' in 1966 was 6 inches (15 cm) high and 7 inches (18 cm) wide. At present it is 30 inches (76 cm) high and 42 inches (106 cm) wide. 'Pygmaea' in 1969 was 4 inches (10 cm) high and 6.5 inches (16.5 cm) wide, but it has now grown to 29 inches (74 cm) high and 44 inches (112 cm) wide. This suggests that 'Pygmaea' is a faster growing plant than 'Minuta,' which corroborates Dr. Del Tredici's experience with similar plants at the Arnold Arboretum.

As for needle length, those of 'Minuta' are 5-8 mm, compared to 5-7 mm for 'Pygmaea,' so it would be difficult to distinguish one from the other by needle length. When I measured the leaves of 'Pygmaea' in 1969, they were considerably shorter on the small, immature plant.

While on the subject of slow-growing plants, I think it appropriate to include a description and a bit of history of a tiny



*Tsuga canadensis* 'Verkade Petite'

plant that was in my collection in 1969 and has since shown itself to be possibly the most dwarf and slow-growing hemlock of all. This little gem, now about 34 years old, is only 13 inches (33 cm) tall and 12 inches (30 cm) wide. The leaves are 3-6 mm in length. *Tsuga canadensis* 'Verkade Petite' was discovered growing in a seed bed by John Verkade of Verkade's Nursery in Wayne, New Jersey, in the early 1950s. The following description is Mr. Verkade's:

"It has an annual growth of 1/6 inch to 1/8 inch. It has a cluster of tiny brown eyelets on each of its tiny branches, and in the spring it is a mass of light green when the new growth takes place. 'Verkade Petite' must be planted in the shade, as it cannot adjust to the summer

sun, but it is very hardy and will not be harmed by -10°F. The parent plant is now 16 years old, 2 inches high and 3-1/2 inches across and is an irregular globe."

Subsequently, this parent plant was accidentally hoed under by one of the workman and could not be found, but not before John Verkade had rooted three cuttings. I received one of the propagations and that is the plant I described above. As far as I can determine, no other propagations survive. I hope John Verkade's son, Dave, will attempt to reintroduce the plant into cultivation at some point. Dave is presently relocating from Pompton Plains, New Jersey, to Flemington; you may e-mail him at davesnursery@prodigy.net. I also welcome comments by e-mail at spin1@optonline.net. ▲

## Split-Rock Pine Still Attracts Attention in Michigan

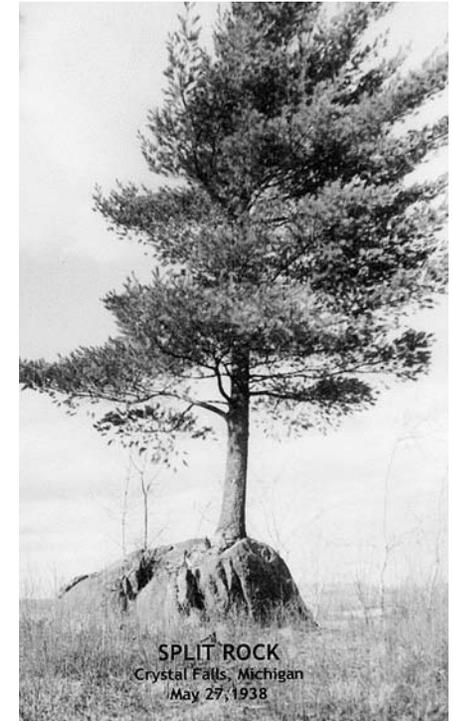
by Michael J. Griesmayer

Split Rock has been a roadside attraction for many years. Located near Crystal Falls in the Upper Peninsula of Michigan, along U.S. Route 2, this Eastern white pine (*Pinus strobus*) was a tourist attraction as early as 1938 (see photo at right).

The story goes like this: A seedling germinated in one of the rock's shallow fissures well over 100 years ago. As the tree's roots grew and the trunk expanded, the force split the rock, spreading it about two feet apart at the top.

The tree continued to grow to 65 feet (19 m), spreading the two boulders further apart until 1998, when the tree died. However, the trunk still stands as a testament to the tree's strength and power. ▲

*Right:* The Split Rock pine was standing tall in 1938, as shown here, and continued to grow until 1998.



SPLIT ROCK  
Crystal Falls, Michigan  
May 27, 1938



Michael J. Griesmayer

This recent photo shows the lower trunk still standing, supported by the rock it split apart long ago.

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*About the author:* Joel Spingarn, a founding member of the [American] Conifer Society in 1983, was one of the first collectors of dwarf and unusual conifers in the U.S. During the 1960s and '70s, he wrote of his conifer collection in the publication of the American Rock Garden Society. He exchanged plants and expertise with many of the most prominent nurserymen of that era, both here and in Europe. Joel is known for selecting and naming cultivars of *Chamaecyparis obtusa* but has always had a fondness for the genus *Tsuga*.



# Robert L. Fincham Honored for Dedicated Support

*The Award of Merit for Dedicated Support of the Conifer Society recognizes those who have made outstanding contributions to the Conifer Society through their service, enthusiasm, commitment and promotion of membership in the Society. Also, this award acknowledges those who have been deeply involved in the activities of the Conifer Society, organizationally or otherwise.*

For almost 30 years Bob Fincham has had a passion for conifers. However, his efforts to help found and lead the American Conifer Society during its early years, combined with his educational efforts are what we recognize with this Merit Award today.

While Bob was only one of many visionary individuals who made important contributions to the founding of the Society, Bob clearly exercised a leadership role. Even before the organization was formalized, Bob chaired a committee to develop the Society name, purpose and bylaws in the fall of 1982.

The American Conifer Society was formed in January of 1983, and the Board of Directors elected Bob as the first president. He continued as president until August 1987 – the longest term anyone has served as Society president. In addition, Bob also served as the acting editor for the first two issues of the American Conifer Society *Bulletin*

National President Dennis Groh (left) presents the Award of Merit to Bob Fincham.



Bob Fincham

Dianne Fincham

Tony Green

and authored the first *Bulletin* article in the summer of 1983. Always an educator, Bob has authored 35 articles for the *Bulletin*. (On a side note, his wife Dianne edited 11 issues of the *Bulletin*



Tony Green

during the period 1984-1988 and had the first cover with color in the spring of 1987.) The Conifer Society owes a debt of gratitude for you both having the selflessness to volunteer significant amounts of your personal time, and the tenacity to get the Society launched and guided over some initially rough periods.

Today the Conifer Society makes a long overdue award to our first president and a passionate educator. In my opinion, there might not be a Conifer Society if Bob Fincham had not been willing to step forward and volunteer. Congratulations and thanks, Bob! ▲

– Dennis Groh, from the award presentation at the National Meeting in Denver, Colorado

Thanks to Don Howse and his Merit Award Committee for an outstanding job every year behind the scenes. The Conifer Society appreciates their volunteer leadership efforts.

This year, we decided for the Conifer Society's 20th Anniversary to change the Award from a traditional plaque, which Mr. Harper has always been kind enough to prepare (thanks Chub), to a laser engraved item made from wood.

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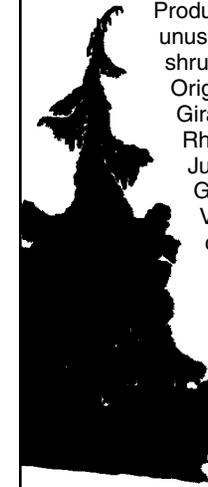


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# Society Recognizes 35 Years of Plant Exploration by Jerry Morris

*The criteria for the Award of Merit for Development in the Field of Conifers includes the collecting and displaying of conifers, willingness to share knowledge of plants, and enthusiasm and drive to discover and develop noteworthy cultivars. Also taken into consideration are published articles, books or texts as well as new or improved propagation techniques and designs for the use of conifers.*

To those of you who don't know Jerry Morris, I would like to explain a few of the many reasons Jerry earned this award. When Jerry was 21 years old he met Bob Moore, a plant explorer who probably got him started down the path

of plant collecting.

Since then, Jerry has been responsible for finding and introducing over 500 cultivars of western species conifers. For over 35 years, he has roamed the Rocky Mountains and journeyed to 10 western states in his quest for plants – Idaho, Montana, Arizona, Oregon, New Mexico, California, Utah, Wyoming, Nevada, and Colorado.

As a result of all this exploration, he has introduced many new cultivars, most notably of the following species:

- Pinus aristata (bristlecone pine)
- Pinus contorta (lodgepole pine)
- Pinus flexilis (limber pine)
- Pinus monticola (Western white pine)
- Pinus ponderosa (Ponderosa pine)
- Pseudotsuga menziesii (Douglas fir)
- Picea pungens (Colorado spruce)
- Picea engelmannii (Engelmann spruce)
- Abies concolor (white fir)
- Abies lasiocarpa (Alpine fir)

The Conifer Society honors Jerry for 50 years of exploring, broom hunting, grafting, displaying, photographing, lecturing and plant preservation. ▲

– Dennis Groh, from the award presentation at the National Meeting in Denver, Colorado

*After a description of Jerry Morris' work and presentation of the Award by Dennis Groh, the following tribute was offered by Clark Coe.*



Tony Green

Jerry, I wish to speak for all Colorado gardeners.

During the last twenty years or so, some garden centers here have been bringing in dwarf conifers from nurseries in the Pacific

Northwest. And Colorado gardeners have learned about these plants and have come to appreciate their contributions to our smaller gardens.

While some of the species brought in do well here, including *Pinus mugo*, *Pinus cembra*, *Juniperus*, and *Picea pungens* – after all, it is Colorado spruce! – a significant number of species are difficult or impossible to grow in our climate. This has limited our choices. (I must confess, I still haven't been able to grow a *Picea abies*.)

So Jerry Morris's many Rocky Mountain discoveries and introductions to horticulture are a godsend to Colorado gardeners – in fact, to all gardeners in the Rocky Mountains and Intermountain West.

Our local chapter of the North American Rock Garden Society is delighted when Jerry brings some of his dwarf conifers to our plant sales. And now, at least one garden center here is offering his plants grown by Stanley & Sons Nursery.

I have followed closely Jerry's work for 15 years, and I conclude that his most important contributions to the world of dwarf conifers – after our own *Picea pungens* – are *Pinus aristata*, *Pinus flexilis*, *Picea engelmannii*, *Abies concolor* and the Rocky Mountain *Pseudotsuga menziesii*.

Jerry, we gardeners deeply appreciate your plant hunting expertise and thank you for your valuable contributions to horticulture in Colorado, and in all the Rocky Mountain and Intermountain West.

– Clark Coe, Denver, Colorado



Tony Green

Jerry Morris and his wife, Saunny. Below: Jerry introduces national meeting attendees to the ancient bristlecone pines on Windy Ridge.



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## Board Approves First Dues Increase in 10 Years

The Board voted to increase selected Conifer Society (CS) membership dues. The reasons why are discussed below.

The last CS dues increase, from \$20 to \$25, occurred a decade ago. To help put that in perspective: in 1993, a first class postage stamp was 29 cents, and Bill Clinton took over as the 42nd President. From 1993-2003, the Consumer Price Index went from 142.6 to 181.7 (a 27% increase) and the CS has experienced a corresponding increase in operating costs. To “balance the books,” the CS has increasingly relied more on other methods of fund raising and refrained from raising dues.

In 2003, the net proceeds from a

Conifer Society post-conference tour had to be directed to the operating funds account (instead of being transferred to the Endowment Fund) in order to be able to meet expenses. Since this Colorado post tour was successful, there will actually be a surplus at the end of this fiscal year. However, there is no plan for a post-conference tour following next year’s National Meeting at the Dawes, as there does not seem to be an obvious opportunity.

At the current level of membership, the cost of creating and distributing all the publications and mailings exceeds the cost of the dues. Successful meetings, tours, auctions and donations subsidize this difference in member

cost. Therefore the National Office and other budget items must come solely from successful fund raising. To meet existing expenses, the CS must consistently have financially successful national meetings, including the associated auctions and tours, plus full annual contributions from financially healthy Regions.

In today’s world, one power outage or terrorist alert at the wrong time can upset a planned fundraiser and its associated revenue. There is a real need to have the membership pay more of their actual costs to ensure greater fiscal responsibility.

The life membership fees had a significant increase. A rigorous analysis showed the assumptions about life expectancy, inflation and interest rates were not realistic and the CS was losing money at the old rates. The international postage surcharge reflects the dramatic increase in these costs.

In addition to raising the dues, John Martin, Elmer Dustman and Byron Richards will be working on cost reductions associated with the Directory and our election mailings.

The Board asks for your support and understanding of the need for this dues increase. ▲

*Dennis Groh  
National President  
Conifer Society*

## Delaware Valley College Receives 2003 Iseli Award

Dr. Edward Hasselkus, Award Committee Chairperson, provided the following from the College’s application to describe how the award funds will be used:

Half of the requested funds will be used to purchase additional conifers to enhance the Martin Brooks Conifer Collection in the Henry Schmieder Arboretum, a premier 50-acre site open year-round to the public, which is also the main campus of Delaware Valley College in Bucks County, Pennsylvania.

The Arboretum, a member of the American Association of Botanical Gardens and Arboreta, provides an extensive program of workshops, trips, seminars and lectures, as well as volunteer opportunities for the community, a unique outdoor classroom for students, and a wealth of horticultural resources for industry.

The other half of the requested funds will be used for the purchase of permanent signage for the Conifer Collection. This is a project of the Arboretum Volunteers who will be donating their time and labor towards this endeavor.

*Barbara Muse, Ph.D., Director,  
Henry Schmieder Arboretum,  
Delaware Valley College*

### Membership Fees for Renewals Beginning January 1, 2004 (US Dollars)

(Note: International fees, except Life, include \$10 postage surcharge)

Membership Type	U.S./Canada	Int’l
Basic	\$ 30	\$ 40
Institutional (non-profit only; add’l associates \$10)	\$ 30	\$ 40
Sustaining (Basic + \$20 contribution)	\$ 50	\$ 60
Patron (Basic + \$100 contribution)	\$ 130	\$ 140
Corporate / Business (additional associates \$10)	\$ 100	\$ 110
Life Membership (effective August 17, 2003)	\$ 1,000	\$ 1,000

All membership types include one subscription to the *Conifer Quarterly*. Basic, Sustaining, Patron and Life memberships include up to two voting members at the same address. Institutional and Corporate memberships include one vote on behalf of the institution or corporation/business, and up to two registered associate members at the same address. Additional non-voting institutional and corporate/business associate members at the same address may be added to the membership for \$10 per year.

# Rocky Mountain Vistas, Native Plants Highlight National Meeting in Denver

by Anne M. Brennan

Photos by Tony Green and Anne M. Brennan

*Attendees unfamiliar with the native and man-made Colorado landscapes quickly came to appreciate both, thanks to our knowledgeable local members and inspiring tours*

Set against mountainsides covered with aspen, spruce and pine, the 2003 National Meeting based in Golden, Colorado, was not only a chance to spend time with other Society members but also a crash course in the flora and fauna of Colorado's diverse ecosystems.

On Thursday evening, two slide presentations by local experts boosted attendees' awareness of Colorado's most notable plants. Pat Hayward of Masonville, who worked with the Colorado Tree Coalition as co-chair of the Champion Tree Program, introduced the audience to some of her state's most impressive trees. A Champion Tree is the largest documented tree of its species in the state, based on a formula that incorporates trunk circumference, overall height and crown spread. The program elicits a competitive spirit among some Colorado residents, who are always on the lookout for new champions in residential landscapes and remote wilderness areas. Photos and measurements of the champs plus links to similar programs in other states are available at [www.coloradotrees.org](http://www.coloradotrees.org).

Mark Fusco from the Denver Botanic Gardens then previewed the next day's mountainside adventure by describing the M. Walter Pesman Trail at an altitude of over 11,000 feet (3350



Presentations by **Pat Hayward** and **Mark Fusco** kicked off the National Meeting on Thursday evening.

m) on Mt. Goliath. The trail, which is maintained by DBG staff and volunteers, allows close-up observation of the subalpine and alpine tundra ecosystems of the Rocky Mountains. Read more about all aspects of the Denver Botanic Gardens at [www.botanicgardens.org](http://www.botanicgardens.org).

## Mountain climbing, by coach

On Friday morning, armed with our Conifer Society logo water bottles, hats and sunscreen provided by the Western Region, we boarded the buses and set out for Mt. Goliath. We rode up the mountain past tree line and unloaded at the parking area at the top of the 1.5-mile (2.4 km) M. Walter Pesman Trail. As we descended on foot, we observed many alpine and sub-alpine plant species be-



During the first day of touring, we explored the stark natural beauty of gnarled bristlecone pine skeletons at an altitude of 11,000 feet (3350 m) on Mt. Goliath (left), and everyone who observed the cones on the live trees (below) learned why these pines are so named.



fore entering the bristlecone pine forest, where gnarled living trees grew amidst the well-preserved remains of their ancestors (see photos above and inside the front cover). An accessible visitor's center under construction at the base of the trail will interpret the mountain's ecosystems for those unable to traverse the steep foot path.

After stopping to eat our box lunches at the Echo Lake picnic area, we travelled to a private garden whose grand scale caught some of us by surprise. An unbelievable quantity of stone had been installed to create a rocky hill (see photo at right) that complemented the region's terrain, cradled many rock-garden plants in its crevices and concealed a man-made "cave" that was accessible through an inconspicuous entrance leading down stone steps. Aboveground, meandering paths led the unsuspecting visitor to many small, secluded seating areas as well as to an Oriental-style gazebo, a contoured lawn area and a formal pool. Though the property owners, Jerome



In contrast, the afternoon tour took us to a gated residential community in which the extensive man-made hardscape on one property supported an extravagant garden display.

and Mary Kern, were not present, an associate well-versed in the garden's maintenance greeted us and encouraged us to wander.

The silent auction preceded Friday evening's banquet, during which Bob Fincham and Jerry Morris were presented with Awards of Merit (see related articles on pages 32-35).

### "Virtual auction" eases transport for donors, bidders

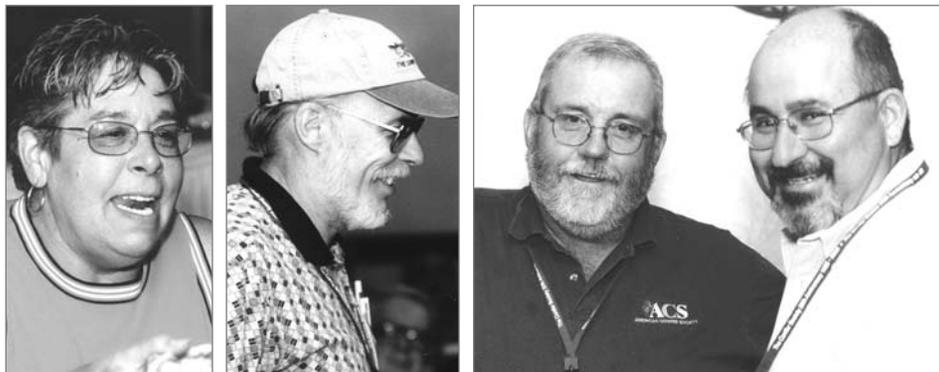
The Society's first attempt at a "virtual auction" was deemed a success by a majority of attendees. Intended to eliminate the transport of large numbers of plants to and from the meeting site, the new format consisted of printed information cards with color photos for silent auction items and projected computer images of live-auction materials.

Winning bidders received a pre-printed claim form for each plant to mail to Stanley & Sons Nursery in Boring,

Oregon; donors had delivered their plants to the nursery prior to the auction, and Stanley & Sons agreed to maintain them until an appropriate fall shipping date. Bill Barger, the Society's volunteer Webmaster, spearheaded the effort to develop the virtual auctions and was recognized for the time and materials he donated to produce the information cards and to program the live-auction database presentation. While some attendees admitted they preferred seeing and touching the live plants before bidding – and a fair number of live plants were present – the Society intends to build upon the success of this initial auction format for use at future meetings.

### Two unusual sites highlight Saturday tour

Those of us familiar with Jerry Morris' expeditions into the surrounding mountains to hunt for unusual conifer forms weren't disappointed when we reached



From left to right: National Meeting Coordinator **Charlene Harris** deserves our thanks for her role in arranging both the meeting facilities and the garden tour. **Tom Whittenbaugh** was recognized for his behind-the-scenes contributions to the Society over the years, including those in conjunction with his brother Gary's ongoing membership recruiting efforts. Meeting Co-chairs **Don Howse** and **Panayoti Kelaidis**, helped to put together one of the best national meeting programs in the Society's history, say some members.



Conifer Society Webmaster and Board member **Bill Barger** is seen here with National Meeting Coordinator **Charlene Harris** and Meeting Co-chair **Panayoti Kelaidis** at Jerry Morris' Greenhouses during the Saturday tours.

his greenhouses as Saturday's first tour stop. In addition to twisted old "natural bonsai" trees he'd transplanted into large containers (also see pages 43-44) were block after block of seedlings from witches' brooms he had encountered. A display garden illustrated the diversity of forms he has propagated.

The group listened intently while Jerry described the foliar feeding method he uses to ensure that a large tree grows new roots quickly once transplanted. The extremely well-draining media he uses allows adequate oxygen to reach the root zone, further encouraging root growth. A portable mist system cools the air around a particular tree, reducing the respiration



On Saturday afternoon we visited the home and garden of **Nancy Styler**. Whimsical highlights included the "Broom Closet" shown here and the "Garden Bedroom," in which flowering plants and water lilies fill an antique bathtub and take the place of mattress and bed pillows. At left, Nancy answers attendees' questions about the huge lily pads in one of her water lily (*Victoria* spp.) pools.

rate which, if too high for too long, can weaken the tree. This is especially true of mountain species grown at lower altitudes where both daytime and nighttime temperatures are higher than the plant is acclimated to.

At our second destination, garden host Nancy Styler challenged us to look for a few silly surprises as we walked through her garden. The “broom closet” (see photo on opposite page) containing witches’-broom propagations particularly resonated with our group. The real highlights of the garden, however, were two rectangular pools containing large water lilies (*Victoria* spp.). Nancy and her husband Trey are deeply involved in water lily breeding; they established the non-profit Victoria Conservancy, and they’ve supplied plants to many botanic gardens across the U.S. including the Denver Botanic Garden, which just happened to be the day’s final tour stop.

### The Finale – Denver Botanic Gardens

We gathered in DBG’s large meeting and conference room for two presentations before dinner. First, Curator of Plant Collections Panayoti Kelaidis introduced us to the Gardens by showing slides of the native plants featured there. He praised Utah juniper (*Juniperus osteosperma*) as “one of the great inspiring plants of the West,” and showed the striking peeling bark of 500-year old Rocky Mountain juniper (*J. scopulorum*) in the wild. Other featured plants included ponderosa pine (*Pinus ponderosa*), which can be found alongside cacti in some Western regions, and Engelmann spruce (*Picea engelmannii*) with its striking red cones.

The second presentation, “A Hard

A Cowboy’s job is to ride the range,  
And that I do, and notice the change.  
The flatlands, pastures and forests, litter and waste,  
Remnants of humans, left behind in their haste.

Why can’t they slow down, relax and enjoy the sights,  
Instead of a quick hike and back to the city lights.  
Thinking that nature is here for their use,  
Not knowing or caring what results from careless abuse.

Mother Nature, she tries with great might,  
To tell us and warn us, “Please see the light.”  
The Creator gave us a gift of beauty and wonder,  
Too many humans decided to ravage and plunder.

The balance of nature, understood by so few,  
Been around since the start, so it is nothing new.  
To continue to take and forget to give back,  
The beauty of nature we take for granted, will fall through the crack.

Mother Nature, she fights and tries to repair,  
One against many, just isn’t fair.  
For one who understands, it brings a tear to my eye,  
Without balance, can’t they understand, nature will slowly die.

– Bill Burger, Platte River Ranch



Jerry Morris (below) explains how freezing and thawing of the soil keeps these trees (above) naturally dwarf.



Bill Burger of Platte River Ranch

Act to Follow” by Conifer Society founding member Bob Fincham, was a real treat for attendees curious about the personalities who have popularized dwarf and unusual conifers since the 1930s. Many familiar names were fleshed out by Bob’s pictures and personal recollections.

After dinner, some of us spent our remaining time in the conservatory while others braved the scattered showers to briefly explore the diverse outdoor plantings before boarding the buses and heading back to the hotel. Those of us visiting for the first time felt we’d left much unexplored and looked forward to a future visit.

### Sunday Trek: Cowboys and Conifers

With the meeting officially ended, many attendees opted to stay an extra day to take advantage of an opportunity to visit two special sites – Platte River Ranch, where Jerry Morris digs some of his largest “natural bonsai” specimens, and the time capsule called Windy Ridge, home of the ancient bristlecone pines. Led by Jerry himself, many of us realized this was a once-in-a-lifetime opportunity to see Colorado’s mountains as no ordinary tourist could.

Our host at Platte River Ranch, Bill Burger (pictured above), was everything the city folk expected of a real-life cowboy and more. During lunch, Jerry Morris read to the group a poem Bill has written about his con-

cern for the future of Colorado's natural lands. "People think it always looks the same," Bill added, "but the mountains are always changing."

The reason for our visit? In addition to horses and cattle, the 8200-acre ranch happens to include some very old trees – "natural bonsai" to Jerry Morris, who digs the trees (see photos on page 43) for his arboretum in Aspen or for sale as containerized living sculpture through his nursery.

Jerry explained that the trees' roots are broken or "pruned" every winter due to frost heaving of the surrounding soil, so the trees are naturally dwarf. Even so, many hours of hand digging and rock throwing are required before a tree can be winched up onto a truck and transported to the nursery.

When the buses left the ranch, one group set off for a scenic afternoon bus



Jerry Morris explains how he calculated that this bristlecone pine (*Pinus aristata*) on Windy Ridge is several thousand years old.

tour of the area, while the others drove toward Windy Ridge. Shuttle vans were required to take us the last two miles to the top of the ridge, as the narrow, rocky road was laced with deep potholes and hairpin turns.

Once we reached the top, we walked the short distance to the ridge and looked down into the valley below. The chilly, constant wind that blows over the ridge and has tormented these ancient trees through the centuries was, ironically, blowing in the opposite direction during our visit, due to an approaching storm. But its strength was sufficient to convince us of these trees' tenacity.

Having just left the fast-paced world behind at the bottom of the mountain, it was difficult to grasp the life span of these living statues. If they could talk, what would they say? To my suburbanized eye, the mountain across the valley looked untouched by human civilization, so perhaps they would shrug and tell us that not much has changed. In the spirit of rancher Bill Burger's poem (page 42), let's hope the next hundred, even thousand years doesn't ruin the view for this ancient society. ▲

*In the next issue, the adventure continues on the post-conference tour.*

About the author: Anne Brennan is the Editor of the *Conifer Quarterly*. Having recently moved, she is calculating how to fit as many favorite plants as possible into her new front and back yards in Jenkintown, PA. During her first-ever visit to Colorado, she feels fortunate to have seen the Rocky Mountains up close, especially the ancient bristlecone pines.

## Central Region 2003 Roundup

The Central Region's 12th annual meeting in the Woodstock/Crystal Lake, Illinois, area was a great success with over 140 attending, including a few last minute registrations and 25 members who were attending a meeting for the first time.

Over 100 members plus several local non-members attended the Conifer Symposium hosted by Rich's Foxwillow Pines Nursery Friday afternoon, prior to the meeting. The Central Region Conifer Society Display was set up at the Symposium where we added five new members plus three more who joined at the meeting.

The meeting ran very smoothly due to the outstanding job done by volunteer coordinator Terri Park and Ellen Kelley who worked together to enlist and assign tasks to a number of volunteers who helped during the meeting.

The plant auction and raffle were very successful as usual, with income of over \$8,500. The silent plant auction was concluded efficiently and quickly thanks to Jim Kelly's innovations. The officers elected at the meeting were Gary Whittenbaugh, president, and Bill Barger, vice president.

I would again like to thank Rich and Susan Eyre for hosting this meeting. The gardens they arranged to visit were outstanding. Their nursery as always is a great place to visit and the continental breakfast at their new home Sunday morning was superb. With great speakers, beautiful gardens to visit, great food and most importantly seeing old friends and making new, all had a good time.

The Central Region is receiving sev-

eral requests for speakers on conifers. In response to these requests we have created a speaker list. By year's end I will have given more than 30 conifer presentations. Others in the region have also given several presentations to garden clubs, Master Gardener organizations and botanical gardens. We currently have a list of eight member speakers who are available for various conifer and garden presentations. The list includes speaker's contact information, a brief bio and topic list, and how far the speakers are willing to travel. A copy of the Central Region speaker list may be obtained from Terri Park.

The 2003 Iowa Garden Rendezvous held Sunday, June 29th, was the most successful to date, with over 80 attending



Gary Whittenbaugh demonstrated trough gardening at the Central Region meeting.

Charlene Harris

including a garden enthusiast from Minnesota. Craig and Deb Jacobson did a great job of hosting the event at their nursery near Dillon, Iowa. The 2004 Rendezvous is being planned for the Davenport, Iowa, area.

It was decided at the National Board Meeting to allow the regions the option of both hosting the national meeting and holding a regional meeting in the same year. It is very time consuming planning one meeting let alone two in the same year. The cost and time requirements for members in a specific region to attend two large meetings is becoming prohibitive. It is also hoped this will increase attendance at the national meetings. Therefore, the Central Region will not

have a 2004 regional meeting, since it is hosting the 2004 national meeting in Ohio. The next Central Region meeting will be held in 2005 in the Minneapolis, Minnesota, area.

I would encourage others in the Central Region to plan a local one-day event like the Garden Rendezvous for members who may not be able to attend a national or regional meeting. It is a great opportunity to introduce new members to the Society, and to encourage others to join the Society. If I can be of any help getting you started on a local meeting, just give me a call. ▲

Gary Whittenbaugh  
President Central Region

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## The Hemlock Tree

by Michael Rodd

*A weeping hemlock's canopy creates the perfect playhouse*

On warm summer evenings, my nieces and nephews and I walk down my sloping driveway to the edge of the road, where there is a big Sargent's hemlock. Inside there are almost no branches, so it makes a perfect place to play.

It's not an ordinary hemlock. It's a weeping hemlock, and inside it's like a big bubble. Its branches touch the gushy ground so it's very hidden, almost like a secret hideaway.

You can imagine almost anything in that big old tree. I remember when I was younger, my nieces made up a game called "Pets." They were each an animal and I was their owner. Another game that my nephew Dylan and I made up was called "Motor Home." We pretended that we all had a computer and none of us had to drive, because you just typed into the computer where you wanted to go and it takes you there just like a real car.

We divided the fort into sections because we all want our own space. Dylan gets the top right, Madison gets the top left, Haley gets the bottom left and I get the bottom right. We like it that way because it is so easy to get from section to section. I like my space

because there are three branches I use to get to Dylan's space, or I use one of them as a bench.

As you walk into the tree you look up, and instantly it feels like you're deep in a dense forest, but it is really only one tree. When I sit down, it feels so peaceful in that big old tree. ▲



Michael Rodd stands inside the weeping hemlock's canopy.

About the author: Michael Rodd lives in Kintnersville, Pennsylvania, and is the 10-year-old son of Skeeter and Elizabeth Rodd. When he was three years old, he and his older nieces and nephews discovered the tree, and Michael has loved trees ever since.

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Read about these and other “conifer chameleons”  
on pages 22-25:

Right: *Chamaecyparis thyoides* ‘Red Star’

Below right: *Chamaecyparis obtusa* ‘Verdon’



Terri Park



Terri Park



Terri Park

Above: *Juniperus horizontalis*  
‘Mother Lode’



Jaime Plaza / Royal Botanic Gardens Sydney

The propagation and distribution of the Wollemi pine (*Wollemia nobilis*) has been carefully implemented to ensure the survival of the wild population shown above. Find out more on pages 16-20.



Maud Henne captured this dramatic portrait of bald cypress (*Taxodium distichum*) in April 2002 at the U.S. National Arboretum.



A weeping larch (*Larix kaempferi* 'Pendula') appears to climb the hillside in Dean Linderman's garden in Leesburg, Virginia. (See the nomenclature note on page 13.)