Conifer Quarterly

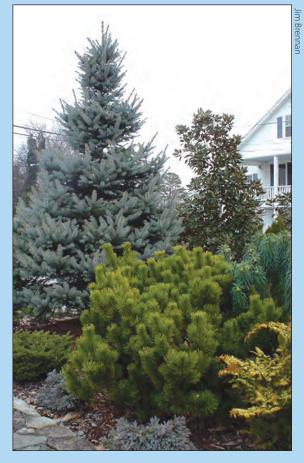
Vol. 21 No. 3 Summer 2004





William Valavanis is known internationally for his creative and educational accomplishments in the world of bonsai. See pages 32-35 for three examples of projects photographed at several stages of development.

Picea pungens 'Fat Albert' in Jim Brennan's Chattanooga, Tennessee, garden stands 10 feet (3 m) tall among a variety of contrasting evergreen textures. He reports the tree has grown five feet (1.5 m) over the past three years.



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Cover photo: *Picea pungens* 'Spring Ghost' at the home of Dean and Linda Linderman. Photo courtesy of Dean Linderman.

Conifer Quarterly

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Editorial and advertising matters should be sent to the Editor: Anne Brennan, 145 Cedar St., Jenkintown, PA 19046.

Editor

Anne Brennan

Technical Editors

Ethan Johnson Susan Martin R. William Thomas

Advisory Committee

Don Wild, Committee Chair Jane Frampton Charlene Harris Tom Schlereth ex officio: Dennis Groh ex officio: Marvin Snyder ex officio: John Martin

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My two-year term as President will end during the 2004 Conifer Society National Meeting. I will continue on the Board as Past President for an additional two years, succeeding Marvin Snyder. Thank you Marvin and Emelie for all you have done, both for me and for the Conifer Society.

Don Wild will replace me and become the 12th President of the Conifer Society. (While still legally incorporated as the American Conifer Society, we are now d.b.a. – "doing business as" - the Conifer Society.) I am pleased that Don has agreed to serve, as he is qualified and well suited for this job. Please extend your best wishes and full support to Don and his first lady, Harriet, during Don's term as President.

I sincerely believe that I have fulfilled the pledge I made in my first President's Message in Summer 2002 to "leave it better than I found it!" Most of my efforts focused on improving financial health, strengthening the Regions, and addressing legal concerns. These accomplishments required a great deal of help, since you can't lead if no one will follow.

Everyone who has volunteered their time to the Society since 1983 has already made this a very good organization, but there always remains the opportunity to do things better. One recent example of doing things better is

the new Web site. Many thanks to Bill Barger for the tremendous amount of work you did to make this happen!

I would like to thank our three independent contractors for the support they gave to the Conifer Society and to me during my term: John Martin at the National Office, Anne Brennan at the Editor's desk, and Charlene Harris as National Meeting Coordinator. The position of National Meeting Coordinator is being eliminated following the 2004 National Meeting. Thank you, Charlene, for the work you did on the last three national meetings.

Thanks to Ridge Goodwin and Sam Jones, who are leaving the Board. You will be missed! Welcome to Gerald Kral, Ethan Johnson, and Randy Oster, our new Directors. Randy has graciously agreed to remain active following his service as Western Region president. The Conifer Society continues to be blessed with a talented and dedicated Board.

Best wishes to the British Conifer Society, now with more than a year behind them. Our Web site (conifersociety.org) includes a link to theirs at britishconifersociety.org.uk/.

On a sad note, the Conifer Society extends its sincere sympathy to one of its Past Presidents, Chub Harper, whose wife Anna died on April 15th. The family requests that any memorials be made to the endowment fund for the Harper Collection at Michigan State University's Hidden Lake Gardens in Tipton, Michigan.

My best wishes to all, and thanks for the opportunity to lead this outstanding non-profit organization. My special thanks to my wife, Carole, for her strong support and understanding.



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EDITOR'S MEMO

While winter's snow and long shadows enhance the colors and textures of dwarf conifers in our gardens, the long, hot days of summer inspire an appreciation of tall trees that cast cooling shade on overheated ground dwellers. Try to take a break between waterings to lie back and look up through those high branches at the summer sky.

This issue begins by presenting our featured genus, *Picea*, in both wild and cultivated settings. First, David Pilz describes his unique perspective on wildfires in Oregon and his hike into the charred landscape to plant six Brewer's spruce seedlings. Then we read about *Pinus glehnii* in upstate New York and a nomenclature query involving a spruce whose new growth is pink (pictured on our back cover).

Are you serious about collecting

conifers? Maybe you focus on certain species to keep the whole endeavor manageable. In this issue, we read about a collector who travels the world in search of *cones* and has collected over 300 species so far. Find out where he's been and what keeps him going.

Respected conifer guru J.R.P. van Hoey Smith shares his experience on two topics – the selection and development of fastigiate Austrian pines and his observations of all four *Cedrus* species in the wild during his extensive travels. Another expert, bonsai master William Valavanis, contributes to this issue with photos and excerpts from a recent book showing the progressive development of several excellent bonsai specimens.

Numerous events are in the works at the Regional level this fall and are described beginning on page 42.

Publication Dates

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

Submit articles/photos to:

Anne Brennan, *Conifer Quarterly* Editor 145 Cedar St., Jenkintown, PA 19046 • PH (215) 376-0231 FAX (215) 827-5926 • E-mail: ConiferQuarterly@contextcomm.com

Photo contest details

Last month we told you about a photo contest to be launched with the Winter 2005 issue. In conjunction with that issue's focus on gold and variegated conifers, we invite you to send in one or more images of a plant you recommend. Entries will be judged by the Editor based on overall visual appeal, so closeups, plant groupings and individual plant portraits are all encouraged. Entries are due no later than November 15th, and as many as possible will appear in the 8-page color section of the Winter issue.

And what is the prize, you ask, as if fame and glory are not enough? The winner will receive a one year Conifer Society membership renewal, with runner-up prizes yet to be determined. With your enthusiastic participation, we can assemble an inspiring visual overview of the best gold and variegated conifers!

Photo contest entries must adhere to the Contributor Guidelines for prints, slides and digital images, available at www.conifersociety.org. On the redesigned Web site, click on "Topics," then "Conifer Quarterly" to check the Contributor Guidelines.

Entries must include either a complete mailing address, e-mail address or fax number. As with all contributions to the Conifer Quarterly, you will need to com-

Conifer Quarterly, you will need to complete an Author Agreement prior to publication of your material, if you have not

plete an Author Agreement prior to publication of your material, if you have not already done so. A copy of the Agreement will be sent to you upon receipt of your submission.

As always, questions and comments about our publication's content are welcome. Thanks, and have a great summer!

As previously announced...

The genus *Thuja* will highlight the Fall issue.

Perhaps the most often misused and misunderstood landscape conifer, arborvitae does have endearing qualities when planted and maintained correctly. Some members of the genus are native trees with an important place in our regional ecosystems. What do you love (or hate) about *Thuja*? Let the Editor know by August 15th.

Looking ahead...

The Winter issue will launch our photo contest and feature **gold and variegated conifers**, with even more color pages to show off your favorites!

In addition to our color covers, a special 8-page color section will display some of the best gold and variegated conifers in their full glory. Start planning now to send your photos to the Editor by November 15th!

The Biscuit Fire Brewer's Spruces

By David Pilz

My friend, George McAdams, and I could see the lightning strikes in the distance as we drove south on I-5 over the Siskiyou passes of southwestern Oregon. Little did we know then that those strikes were starting the largest wildfire in recorded Oregon history. We were driving to an annual week-long wilderness campout, and this year we were headed for a camp on the Chetco River

Over the next two days, the Biscuit Fire burned through the area so intensely that all the vegetation was consumed.

in the Kalmiopsis Wilderness Area of the Siskiyou National Forest. Our destination was the confluence of Slide Creek and the Chetco River about 3 miles (5 km) SSW of Pearsoll Peak (42° 17' 57" N, 123° 50' 43" W).

It was Saturday, July 13, 2002. We camped that evening on the Illinois River near the Boy Scout McCaleb Ranch and drove up to Chetco Pass the next morning on a road marked "HIGH CLEARANCE – 4 WHEEL DRIVE." As we prepared to hike in, we watched smoke plumes rise in the Wilderness Area several ridges away.

The Kalmiopsis Wilderness Area, named for the endemic ericaceous plant *Kalmiopsis leachiana* Rehder (Kirk-

patrick et al. 1994), is one of the wildest and most remote portions of the geologically and botanically diverse Klamath/Siskiyou Mountains that straddle the California/Oregon border (Wallace 2003). I had camped in various portions of the wilderness at least 10 times over the previous 20 years, often also with another camping buddy, geographer John Cloud. We were looking forward to swimming in the cleanest river in the continental United States; the entire upper river flows through the wilderness.

As a former forest fire fighter, I was intrigued by the "distant" plumes, but we hiked in and set up camp, little knowing what would follow. Several months earlier, I had watched an Oregon Public Broadcasting Special about wilderness therapy for disturbed teens. That evening, sitting around our campfire, we watched a line of about 15 exhausted and bedraggled teens trudge past our camp. When the counselors approached us, they said that the group had climbed an adjacent ridge on their sojourn and had to turn around because a forest fire had loomed. The unfortunate kids had hiked back down and camped near us that night after having traversed twice the distance they had planned that day. They hiked out the next morning, and George and I would spend the next five glorious days hiking and swimming in a veritable paradise.

During the last two days of our visit, smoke filled the valley each afternoon and we discussed hiking out early. It was so nice, and we had come so far, that we chose to stay. On Saturday morning, July 20, at the crack of dawn, we started hiking up to the ridge. The steep trail led through dense madrone forests with thick ground layers of tinder-dry brush and leaves. The air was already smoky and we encountered squirrelly winds. My fire-fighting experience told me we were hiking through a death trap because there were no escape routes. George kept wanting to take breaks until I explained that squirrelly winds are a common phenomenon caused by updrafts on the edge of forest



fire plumes. We drove out without incident, the last individuals to enjoy this pristine landscape before it torched. Over the next two days, the Biscuit Fire burned through the area so intensely that all the vegetation was consumed.

Brewer's spruce

The Brewer's spruce or weeping spruce (*Picea breweriana* S. Watson) is a lovely conifer that is endemic to the ridges of this region. Previously, the American Conifer Society *Bulletin* published a personal tale of mine entitled "Confessions of a Conifer Seedling En-

thusiast" (Pilz 1989; see excerpt on page 8). In that article, I had described my guilt about unnecessarily felling a venerable ancient specimen of this species while working as a member of the chain-saw squad on a fire crew that fought the Hog Fire in Northern California in 1977.

My remorse evolved into several decades of growing unusual conifers from seed. One of the biggest seedlots I acquired was from Brewer's spruce cones collected in 1985 from the Hungry Hill timber sale just outside the boundary of the Kalmiopsis Wilderness Area near Baby-

Here at the Onion Camp Trailhead, the fire's effect is obvious. Three Brewer's spruce seedlings were later planted near this site.

From "Confessions of a Conifer Seedling Enthusiast"

An excerpt from the author's Spring 1989 Bulletin article

Our job was to continue building a fire break down the ridge from where the night crew had stopped. Truth to tell, there wasn't much for the chainsaw squad to do. Brush generally grows thicker in creek bottoms than on dry ridge tops.

We were supposed to drop the dead, dry snags that might spread sparks and fire down the other side of the ridge. We came upon an elder Brewer's spruce and, out of boredom, we decided to cut it down. Although it was not particularly tall, it was three to four feet in diameter near the base, and obviously very old

and venerable. We had Stihl chainsaws with 24-inch blades, and in order to make the backcut, we had to cut from both sides. We took turns. We reveled in our skills.

The tree finally fell. For no good reason. The fire never approached the fire line we built. That elder spruce wasn't a fire-spreading threat; it was alive and green. Our supervisor couldn't have cared less whether we cut it. We cut it down for the challenge. At the time, I participated out of camaraderie. Since then, I have regretted it.

- David Pilz

David Pilz

foot Lake, about 5 miles (8 km) SE of where we would camp in 2002. From that seedlot I grew thousands of seedlings and distributed them widely. I also provided thousands of seeds to the Conifer Society's Seed Exchange, so many readers might now have some of these trees growing in their collections.

In my makeshift outdoor nursery in western Oregon, these seedlings grew very slowly. Indeed, their mode of germination speaks volumes about their adaptation to summer droughts and to the well-drained, nutrient-poor, metamorphic soils of their native range. I typically germinate my seeds in flats filled with three inches of vermiculite and transplant the germinants as soon as

they pop up. For most species this is no problem. But by the time the Brewer's spruce seeds had poked above the surface, their rootlets had already grown to the bottom of the vermiculite and had curled around the bottom of the container. Obviously, they were adapted to seek deep soil moisture immediately. None produced more than cotyledon leaves and a bud the first spring, even though I watered them all summer long.

Return to ashes

By the summer of 2003, I still had six of the seedlings. These 18-year-old plants were only a foot (30 cm) tall, but they were bushy and had large, fibrous root systems. I thought, "What could be

> more appropriate than to ceremonially plant them back into the Biscuit Fire area where their ancestors had grown?"

> To that end, I contacted Pam Bode, the District Ranger of the Illinois Valley Ranger District of the Siskiyou National Forest. She referred me to Brian Watt, a forest silviculturalist. He kindly agreed to accompany me on a planting expedition, so on Saturday, October 25, 2003, I met Brian at the Illinois Valley Ranger District office. He, his wife, and their two dogs accompanied me up to the pass. We drove to the Wilderness trailheads of Babyfoot Lake and



David Pilz (at right in both photos) and Brian Watt plant, water, stake and fence the spruces in October 2003.

Onion Camp where we planted three seedlings at each location. Brian and I discovered that we both considered ourselves "dirt foresters," as we had both spent considerable time in the field fighting fires and planting trees during the early portions of our careers. Although the season was late, the weather on the ridge was sunny, breezy and 80 °F (27 °C) – not ideal planting weather,

Although episodic forest fires are as natural to this region as death is to life, humans only experience short segments of the cycle of forest death and rebirth.

so we carefully watered the roots before, during and after planting. Fortunately, earlier rains had wet the soil fairly deeply, and two days later more rain and cooler weather arrived. We fenced the seedlings against possible animal browsing and wished them well.

Although episodic forest fires are as natural to this region as death is to life, humans only experience short segments of the cycle of forest death and rebirth. The landscape near the trailheads and in the wilderness was stark with burned trees. Salvage logging (hazardous tree removal) was already completed along the road and around the trailheads. I wanted to revisit the area surrounding the logged stand where I collected the cones in 1985, but the road was too rough for my vehicle and I did not have enough time to hike in. From what Brian said, and what I could see, the area where I had collected

the cones in 1985 had only experienced an "under-burn" so further seed collections might remain possible.

I heartily appreciate the role that the members of the Conifer Society play in conifer genome conservation. We all depend on populations of wild conifers for sources of new cultivars, and it has been my great privilege to associate with individuals who share a similar concern for maintaining natural habitats and supplementing conifer regeneration.

"Nature seems to have made some trees to serve man with endless uses, and others to hold the soil over vast areas, some to line riverbanks and some to shade the prairie and desert traveler. A few she made, one might say, for no other reason than to contribute to the higher things of life – to be extraordinarily beautiful, and very little else. And of these the Weeping Spruce is one."

 Donald Culross Peattie, from A Natural History of Western Trees

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Wallace, David Rain. The Klamath Knot: Explorations of Myth and Evolution. Twentieth Anniversary Edition. Berkeley, CA: University of California Press. 167 p.



About the author: David Pilz currently works as a Forest Mycologist with the Department of Forest Science at Oregon State University in Corvallis, OR. He conducts research on the management and sustainable production of commercially-harvested forest fungi. An earlier career emphasis on reforestation, a long-term hobby of growing unusual conifers from native seed, and involvement with the issues surrounding the harvest of native yews for the anti-cancer drug Taxol have contributed to his interest in conifer seedlings and the Conifer Society.

Read more about the Biscuit Fire online at http://www.biscuitfire.com/.



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The Sakhalin Spruce

by Richard James Cook

For years, I have wondered at the conifers in the Durand-Eastman Arboretum in Rochester, New York – a bewildering collection of taxa that most of the lay public might refer to as "Christmas trees" or "pine trees." I have marveled at these plants' range of form and texture, but the single species I find the most fetching is *Picea glehnii*, the Sakhalin spruce.

Nearly unknown in the landscaping



trade, the Sakhalin spruce is worthy of much greater use in the Northeast. The trees here at Durand-Eastman are perhaps 75 years old, yet only two-thirds the stature of Norway spruce (*Picea abies*) of similar age.

A handsome tree, *P. glehnii* resembles white spruce (*P. glauca*) in its conical habit but has dense, dark green foliage. The needles measure about 0.5 inches (1.2 cm) long and 1–1.5 mm

wide, and a cross section appears four-sided with pronounced white stomatal bands on one side and less obvious bands on the other side (visible only under magnification). The young twigs are redorange in color.

To my eye, the cones are distinct – cylindrical, about 2.5 inches (6 cm) long and an inch (3 cm) wide when open. The cone scales on our Rochester trees are relatively woody but thin with undulate, dentate margins.

The Sakhalin spruce orig-

This *Picea glehnii* grows in the Harper Collection of Dwarf and Rare Conifers at Hidden Lake Gardens in Michigan.

inates from northern Japan, particularly Hokkaido with smaller populations on neighboring Honshu and southern Sakhalin Island. Companion species include Yezo spruce (*P. jezoensis*) and

The trees here ... are perhaps
75 years old, yet only
two-thirds the stature
of Norway spruce
of similar age.

Sakhalin fir (Abies sachalinensis), which also appreciate this cold, wet maritime climate. Here in the Durand-Eastman Arboretum, the better specimens are those situated in a moist valley environment near Lake Ontario. I have marveled at how they weather the onslaughts of wet snows and ice storms. At another location in the Arboretum, however, the Sakhalin spruce has fared well on a drier hilltop.

I would hazard a guess that this species would prosper on moist, sunny sites in general. I do not have any experience with its adaptability to salt spray, high-pH urban soils, or human-induced stresses. Though by no means a dwarf, the species is relatively compact in stature, and its tight dark foliage with white accents and ornamental cones should encourage wider use. Both public and private arboreta with suitable climatic and site conditions would benefit from its inclusion. This is truly a conifer for the connoisseur!

Michael Kopicki adds the following endorsement:

While the Sakhalin spruce is not particularly special in its growth habit, and there is little information available in the common reference sources to promote it, in fact the species is one of the choicest hardy spruces for landscape use.

The needles are not as short or finely angled as those of Oriental spruce (*Picea orientalis*), but the deep bluish green needles, recurved against the stout chocolate-tan branches and displaying the three silvery stomatal bands beneath, are pure understated elegance. The

(continued on page 14)

About the author: Richard Cook is a landscaper and a tour guide for the Rochester Parks Department, as well as the region's mushroom expert.

Further reading

Farjon, Aljos (1990). Pinaceae – Drawings and Descriptions of the Genera Abies, Cedrus, Pseudolarix, Keteleeria, Nothotsuga, Tsuga, Cathaya, Pseudotsuga, Larix and Picea. International Assoc. Plant Taxonomy; Koeltz Scientific Books, 330 pp. ISBN 3878762044.

Krussmann, Gerd (1991) – Manual of Cultivated Conifers. Timber Press, 361 pp. ISBN 0-88192-007-X.

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(continued from sidebar, page 13)

tree's condensed, narrow, loosely pyramidal form approaches the slender grace of Serbian spruce (*Picea omorika*), the princess of landscape spruces. Every couple of years, a sensational display of small, velvety cones fills the upper branches and becomes lustrous dark brown in midsummer.

I've seen *P. glehnii* successfully side grafted onto Norway spruce (*Picea abies*) stock, and I recommend that method since collected seed has

been difficult both to find and to germinate. While the species has been known to grow to 100 feet (30 m) or more in the wild, the trees I have observed locally are 25 feet (8 m) after 30 years and 40 feet (20 m) after 60 years. The former grows on heavier, seasonally-moist soil, while the latter grows in sandy soil next to an asphalt driveway with no supplemental water or fertilizer.

Michael Kopicki is a landscape designer in Rochester, New York.



Anthoine Clément has in his Belgium garden this *Picea mariana* cultivar named 'Dunetta,' though he does not think that name is legitimate. He says it resembles *P. mariana* 'Pygmea' – or perhaps the cultivar name 'Doumetii' was erroneously transformed years ago. After 20 years in Anthoine's garden, the plant is only 24 inches (60 cm) high and 40 inches (100 cm) wide, with a globose shape and blue color.

Picea in Pink

Is the plant on the back cover 'Cruenta' or 'Rubra Spicata'?

During my visit to Uwe Horstmann in May 2002, he pointed out to me a spruce with pink new growth. He told me then – and recently confirmed – that his father, Guenther Horstmann, had planted this spruce, named *Picea abies* 'Cruenta.' He had received this plant from Tage Lundell in Sweden.

In catalogs published by Guenther Horstmann, 1983 and 1986/87, a listing for *Picea abies* 'Cruenta' (Lundel-Sweden) is described as "weak but picturesque with bright red new growth" (translated from German).

The World Checklist of Conifers by Humphrey Welch and Gordon Haddow lists *Picea abies* "Cruenta" as originating in Sweden in 1978:

"In Naamlijst... slow growing; young growth with bright red, soon fading. L (Location): Horstmann Nursery, Schneverdingen. O (Origin): Received by Tage Lundell, Helsingborg, from an unrecorded Swedish Botanical Garden. Formerly listed as 'Clone2'. ('Crusita')."

Stanley and Sons Nursery in Oregon lists in their 2000/2001 catalog a *Picea abies* 'Rubra Spicta' and describes it as an "upright plant with new foliage coming out scarlet. Plant grows about 1 foot a year. Leaves real small like orientalis."

D.M. van Gelderen and J.R.P. van

Hoey Smith in *Conifers – The Illustrated Encyclopedia*, Volume 2, depict *Picea abies* 'Rubra Spicata' and describe it as "a peculiar plant, rarely seen." The location for their photograph is Talbot Manor, Fincham, Norfolk, GB.

Are we talking about two different plants or one plant with two names? Maybe one of our botanist members can enlighten us.

- Maud Henne



Letter to the Editor

Hope for Chamaecyparis lawsoniana

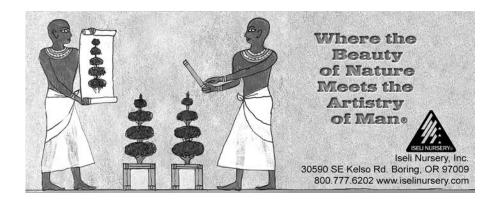
Dear Editor,

I appreciated the article on *Phytoph-thora lateralis* infection of *Chamacy-paris lawsoniana*.

I have a privacy hedge of mixed conifers, many of which I have propagated from the Arnold Arboretum, 15 to 20 feet (4 to 6 m) high. In this border were four *Chamacyparis lawsoniana* 'Alumii,' but now there are only three. One died after its wonderful blue green turned to a washed out grey. Now the other three are showing the same signs.

The local arborist who came out to look at it diagnosed it as winter kill. We did have a bad winter here – a very cold January and little snow cover – but the first plant died last winter when we had record snows. So your article was a great help and I have followed up with the Forest Service about disposal and replanting. Thank you.

Sincerely
Anne Senning
Lexington, Massachusetts



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CONIFER PUZZLE PAGES

Spell It Out

A lacebark pine awaits this contest's lucky winner

In the Winter 2004 issue of the Conifer Quarterly (page 24), Chris Daeger of the Rowe Arboretum in Cincinnati, Ohio, invited readers to compose sentences using the initial letters c-o-n-i-f-e-r to begin the words. (See his example below.) Now he has turned the game into a contest!

The member who sends Chris the most creative sentence related to conifers and gardening will receive a lacebark pine, *Pinus bungeana*

'Rowe Arboretum.' Multiple entries from one person are welcome.

E-mail your ideas to cdaeger@ i-hill.org, and please include "c-o-ni-f-e-r" in the subject line. Or, mail to: 4600 Muchmore Rd., Cincinnati, OH 45243-4108. The winner and runners-up will be announced in the Fall issue.

Hurry, the deadline for responses is September 1st!

Conifer organization newcomers instinctively find evergreens remarkable! – Chris Daeger

Spring Issue Quiz Winners

The answer to last issue's quiz raises more questions

by Maud Henne

In our previous issue, we presented the following question:

Which plant is known as the smallest naturally occurring conifer species in the world, and where is its native habitat? To learn the answer, here is the story that led to the quiz:

In January 2004, I received a small package, mailed to me from New Zealand, containing a small wooden plate with slightly raised corners. With it came a card from the maker that reads:

(continued on page 18)

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CONIFER PUZZLE PAGES

(continued from page 17)

RIMU Dacrydium cupressinum

Rimu is found only in New Zealand. It is the genetic ancestral descendant of *D. cupressium* whose fossil pollen grains have been tracked back 70 million years.

Rimu is present in mature forests of both North and South Islands from 0–600 m in elevation, forming the tall tree canopy (20–35 m). It is generally 1–1.5 m (3 to 5 ft) in diameter at its base and is easily recognizable by its weeping foliage. Significant stands occur on the South Island's West Coast from Hokitika southwards.

Rimu heartwood is one of the world's most beautifully grained timbers. It is very durable, being resistant to rot and insect attack.

After reading this, I got out the van Gelderen/ van Hoey Smith Illustrated Conifer Encyclopedia and Krüssmann's Manual of Cultivated Conifers. I found that this conifer is documented in both publications. Krüssmann describes Dacrydium as being closely related to Podocarpus and points out that there are 17 species in New Zealand, Tasmania, Australia, Borneo, New Caledonia and Chile, grown only in the mildest climates or in the greenhouse. While reading about the 14 species Krüss-

mann describes in more detail, I came across "Dacrydium laxifolium – Mountain Rimu" which, according to Krüssmann (who quotes Hook f.) is "known as the smallest conifer in the world." Krüssmann describes this plant as:

"a procumbent to ascending shrublet, scarcely four inches (10 cm) high, but with creeping shoots to 3+ feet (1 m) long ... growing in moist areas in the mountains (New Zealand) and being valued as a ground stabilizer."

Then I checked the *Illustrated Conifer Encyclopedia* again and found two photos documenting the tiny size of this conifer shrub and its cones.

Thus a quiz was born. *Dacrydium laxifolium*, from New Zealand, is the answer I was looking for.

The first winner is **Brian Gibbons** of Tyringham, Massachussetts. He also mentioned that allegedly there is a plant even smaller than *D. laxifolium* named *Ephedra minima*, which according to his research only reaches 3 cm, or just slightly over 1 inch. Welch and Haddow, however, dismiss *Ephedra*, calling it "a large genus of primitive reed-like shrubs, including the familiar "horsetail," which, even though strictly speaking being gymnosperms, have no claim to be conifers for the purposes of this manual, and have little or no place in

garden cultivation."

Gussie Mills of Shepherdstown, West Virginia, earned the runner-up prize by replying with Lepidothamnus laxifolius from New Zealand, at about 3 inches tall, with reference to Conifers: The New Plant Library by Andrew Mikolajski and Colin Morgan (Lorenz Books 1997). Consulting the World Checklist of Conifers by Humphrey Welch and Gordon Haddow (1993), pages 143 and 213, I found that there seems to be a bit of a controversy about whether Dacrydium laxifolium should remain in this genus or be re-assigned to Lepidothamnus. [Editor's note: Farjon's World Checklist and Bibliography of Conifers (1998) accepts the name Lediothamnus laxifolius and lists Dacrydium laxifolium as a synonym.]

Welch and Haddow do not accept

the transfer. They list *D. laxifolium* as a species known since 1845 and *L. laxifolius* as a species known since 1982. No matter what the name, I came to the conclusion that both Gussie and I were talking about the same plant.

An entry by **Mark Sandone** of Hyannis, Massachussetts, earns an honorable mention for naming the correct genus but not the species.

Thank you, Brian Gibbons, Gussie Mills and Mark Sandone for your efforts and enlightening contributions!

About the author: Maud B. Henne, a Conifer Society member since 1985, maintains a collection of about 300 conifers in her woodland garden near Monticello in the foothills of Central Virginia's Blue Ridge Mountains.

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If you need additional instructions, contact Bill Barger at **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!

The Cone-Bearing Horticulturist Known as "Coni-ferenc"

by George Mayo

Indiana Jones comes to mind when this collector shares his stories. You can even imagine Hemingway doggedly chronicling the collector's globe trotting expeditions on a pauper's budget. Just like every good story, it leaves us imagining ourselves summoning the courage to seek out the sources of our passions.

The collector is a tall, dark haired, Swiss-born horticulturist currently living in Maryland. As a youth he was surrounded by the object that would become his passion, unaware that his passion would place him in harm's way just to have a glimpse of something as



Ferenc displays two of the most dramatic examples from his extensive cone collection.

common as the seed-bearing structure of a conifer. The collector's name is Ferenc Kiss.

With no prior interest in plants, Ferenc began an apprenticeship at a small nursery near his home town of Basel, Switzerland. He was a teen, it was the mid-1980s, and he fell in love - with plants. For two years he kept his head down propagating perennials. Then one day, casually, absentmindedly, and without provocation, he looked up. His eyes focused on the brown within the green in the near distance. He was at that moment struck by the sudden realization that pine cones and spruce cones are different. This revelation, on an otherwise uneventful day, changed the young teen's life forever.

While the rest of Switzerland collects money from around the world, Ferenc collects cones. To him, the cones have far more value and intrigue. For him, cone collecting has been the conduit to world travel, adventure, knowledge, and lifelong friendships.

In eighteen years Ferenc has collected cones from approximately 300 conifer species including 30 subspecies and varieties. As you will learn in a moment, he collected his most elusive herbarium specimen in New Caledonia, the French territorial island in the Pacific.

"It is fascinating to see the different sizes and shapes of the cones and the interrelationship between species from different continents," says Ferenc. "That's what keeps me going."

Like the Energizer bunny, the collector has been going... and going. His travels beyond Europe include North America, Mexico, Australia, New Zealand, and New Caledonia. While his adventures have ranged from anxious moments to pure excitement, Ferenc has not approached his travels haphazardly. He began by asking questions and researching the answers.

Planning and perseverance

Books proved to be a limiting resource, so Ferenc began writing to botanical gardens in Europe seeking cones to add to his budding collection. Proving successful, this strategy inspired a writing campaign to botanical gardens around the world. More than 120 letters were mailed in the crusade for cones. These efforts yielded nearly as many enduring friendships as cones.

In response to one appeal, the director of the botanical garden in Goteburg, Sweden, suggested Ferenc contact another passionate collector in England, Michael Frankis of Newcastle upon Tyne. As a result, the two collectors have exchanged hundreds of cones over the years. They also traveled together to Mexico in 1991 to collect cones in their native habitat.

Young, eager, and broke, Ferenc sought jobs and internships in locations that provided him access to more cone collecting. Blooms of Bressingham in England hired the collector in 1989 to work with perennials. Ferenc used his free time wisely while in a region rich with extensive conifer collections. He visited arboreta and botanical gardens in

England, Ireland, and Scotland including the Royal Botanical Garden at Kew, Bedgebury National Pinetum, Hillier Arboretum, The Royal Botanical Garden in Edinburgh, Dawyck Arboretum, Birr Castle, and the National Botanic Garden at Glasnevin. It is also during

He was a teen, it was the mid-1980s, and he fell in love – with plants.

this time that Ferenc and Michael Frankis finally met, cementing the beginning of their enduring friendship.

Serendipity has also played a role in guiding the collector's fate. While visiting a bamboo nursery in Germany, his eyes fell upon a conifer he had seen only in pictures, the China-fir (*Cunninghamia lanceolata*). Understanding the collector's excitement, the nursery owner offered a few cones and then handed Ferenc a slip of paper and said, "Here is the address of a man who collects cones. I encourage you to write to him." The name on the paper was that of published botanist and talented plant illustrator Karl-Heinz Kindel, author of "Kiefern in Europa" ("Pines in Europe").

This unsolicited introduction sparked another long friendship. Ferenc eagerly drove the two hours into Germany to meet this extraordinary artist and collector. The man, generous with his time and knowledge, soon became a mentor to the youthful botanist. They have since exchanged many cones and stories about their collecting through the years. When Ferenc announced he was planning a

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trip to the southwest United States in 1990, Karl-Heinz immediately placed his order for a specimen cone from the California sugar pine (*Pinus lambertiana*) to add to his collection.

Let the Journey Begin

And so, in fulfillment of a lifelong dream to follow the tracks of the great John Wayne through the southwest, Ferenc and his father traveled to the United States. The collector planned his trip following clues gleaned from his extensive research and ambitious correspondence campaigns. The father-son duo

As with many young plant enthusiasts before and since, Ferenc found a home at Bluemount Nurseries

accepted a kind invitation from forest seed collector Robert D. Graton to visit his home in Placerville, California. Mr. Graton's kindness exceeded all expectations when he presented the awestruck cone-hunter with three giant cones of the sugar pine. Graton bragged that these were the largest of the 10,000 cones collected that season. The 24-inch-long (60-cm) monumental trophies were soon delivered amid much fanfare to both Kindel in Germany and Frankis in England.

The expedition included travels through forests and groves in southern California and Arizona, where certain prized cones required frightful climbs of sixty feet (18 m) into the swaying narrow tops of trees in the mountains.

The return trip included a stop at several nurseries in the east in search of an internship or position. As with many young plant enthusiasts before and since, Ferenc found a home at Bluemount Nurseries in the wooded hillsides of northern Baltimore County, Maryland. He worked for a year under the supervision of plant statesmen and nursery owner Richard Simon until May 1992, and the lure of the cones persisted during his stay.

Ferenc joined a cone-collecting expedition to Mexico with his friend Michael Frankis from England and two Texas nurserymen, Michael Referel and Carl Schoenfeld of Yucca Do Nursery in Waller, Texas. While his courage, ambition, and passion had grown, his bank account had not. So, it was an unglamorous bus ride from Maryland to Houston in November of 1991 that was the prelude to his next adventure.

The three collectors gathered at the Houston airport, retrieved the Englishman, and embarked on their two week adventure into Mexico. The roads were rugged, the dust thick, the sun penetrating, the snakes plentiful, and the diet disruptive thanks to a vengeful Montezuma. Still, these were minor considerations compared to the language barriers. Their own dialects of British English, "Swiss English" and "Texas English" had each of the adventurers speaking louder than normal, as if volume improved comprehension. To be safe, a Spanish-speaking interpreter was engaged to bridge the language barriers across the border. The cones these fearless hunters collected were plentiful and varied, with the hunt as exciting and rewarding as the harvest.

This trip proved to be just a footnote in Ferenc's travel log when compared to what was to become his ultimate quest. Six months after returning home to Basel, Ferenc was off again, alone, with limited resources, and even fewer connections. This eight-month journey in-

"Wherever my nose would take me" was the free-spirited adventurer's motto

cluded Australia, New Zealand, and New Caledonia. "Wherever my nose would take me" was the free-spirited adventurer's motto. It was November, 1992 – spring in the southern hemisphere.

Contacts made within the Departments of Forestry for each country provided leads to conifer communities as well as recommendations for food and housing. Hostels, cheap hotels, and a few nights literally "on the town," accounted for the overnight accommodations. Perfect strangers sympathetic to his situation even adopted the foreigner for a day or two.

Undependable transportation once left Ferenc stranded late in the evening in

New Caledonia. Finding the youth hostel closed, Ferenc entered a nearby hotel. His hope quickly faded to despair when he learned the excessive, completely unaffordable, room rental rate. Dumbfounded, and truly at a loss for words in a French speaking country, Ferenc finally managed to communicate his situation to the very sympathetic hotel receptionist. She, being about his age, demanded he stay with her and her family for the night. The exhausted voyager eagerly accepted her generous offer and followed the receptionist to her home at 1:00 AM.

If the reader is anticipating a traveling-salesman-and-farmer's-daughter ending to this adventure, shame on you. The hostess insisted that the guest sleep on the bed in a room already occupied by seven of her sleeping siblings. Despite Ferenc's objections, the bed's sleeping inhabitant was instructed to move to the floor with the others, making room for the temporary boarder.

Ferenc slept until 5:30 AM, when he awoke to a breakfast of tea and crackers with the rest of the family. Before his 6:00 AM departure, Ferenc presented the receptionist and her family a small offering for their hospitality. The money was refused with the words, "Keep your money. You will need it later."



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To a wayfarer, the most generous hosts prove to be those with the least to offer.

From this act of kindness, great things evolved. A frustrating conversation with a Department of Forestry supervisor ended in a spontaneous invitation from another employee to join them on a trip to a valley "where no botanist has gone before."

"I jumped at this opportunity," Ferenc remembers. During this four day journey through dense tropical growth, he spotted the Holy Grail for conifer fanatics. Located a short distance from the bushwhacker's cut was the world's only known parasitic conifer species, *Parasitaxus ustus*, growing on its host conifer, *Falcatifolium taxoides*. This reddish parasite, with no need for chlorophyll, only grows in New Caledonia. "That was a chance of a lifetime, and I grabbed it!" Ferenc still exclaims with

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Ferenc has become a world traveler and a world expert with friends and colleagues around the globe. He has collected cones and herbarium specimens

Located a short distance from the bushwhacker's cut was the world's only known parasitic conifer species, Parasitaxus ustus

that have found their way to the Royal Botanic Garden in Edinburgh and the Hungarian National History Museum in Budapest. He has shared and continues to share parts of his collection with botanists, botanical gardens, arboretums, universities, and friends.

Here is a short list of some of the cones and herbarium specimens he has collected from around the world:

Europe: *Pinus cembra, Picea abies*, and *Abies alba*, all collected from his home country of Switzerland;

USA: *Pinus coulteri*, *Pinus sabiniana*, and *Pinus edulis*, outstanding native species;

Mexico: *Pinus maximartinezii, Pinus rzedowskii,* and *Picea mexicana*, three rare plants of that region;

Australia: the majestic *Agathis robusta*, *Agathis atropurpurea*, *Araucaria bidwillii*, and *Callitris macleayana*;

New Zealand: *Phyllocladus glaucus*, *Halocarpus kirkii*, and *Libocedrus bidwilli*, which Ferenc describes as "simply weird species!"

New Caledonia: Falcatifolium taxoides and Podocarpus gnidioides.

The next chapter

In an effort to continue growing and sharing his passion for cones, Ferenc is reaching out to others in the plant community interested in hosting exhibitions, sharing or swapping herbarium specimens, and corresponding. You may also want to contact Ferenc to learn his secrets for preserving cones and herbarium mounts.

Ferenc Kiss can be reached by mail at 957 Sablewood Road, Apt. K, Bel Air, MD 21014. If you wish, you may address Ferenc by his new botanical moniker, "Coni-ferenc"!

Ferenc collaborates with C. J. Earle, who manages a Web site dedicated to conifers at www.conifers.org. Using his ever-improving French, Ferenc translates coniferous species' descriptions from the book *Flore de la Nouvelle-Caledonie et Dependances, n/4, Gymnospermes* by D. J. de Laubenfels. He is currently the nursery manager at Cavano's Perennials in Kingsville, Maryland.

"During my collecting trips through Europe, USA, Mexico, Australia, New Zealand, and New Caledonia, I learned a lot about the various species in their native habitats." And so, too, you may one day absentmindedly lift your head from your work and discover your life's passion. It can and does happen!

About the author: George Mayo is an ornamental horticulturist providing consulting services to the nursery and landscape industry.

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Wild Cedars

by J.R.P. van Hoey Smith

Our *Conifer Quarterly* (Winter 2004, Vol. 21 No.1) recently gave special attention to *Cedrus*, the true cedars. This induced me to write down my own personal experiences with this genus, as I have seen all four species growing in the wild.

I saw *Cedrus deodara* (**Deodar cedar**) during the International Dendrology Society (IDS) tour in Nepal in 1984. This species is most clearly different from the others and is immediately recognizable by the drooping ends of its young shoots. (*Cedrus* cones are all the same shape, so the species are difficult to identify by the cones, though *C. brevifolia's* cones are the largest.)

Cedrus atlantica (Atlas cedar) from

J.R. P. van Hoey Smith to Receive Award of Merit

Traditionally, the winners of the Conifer Society Merit Awards are a closely guarded secret until the annual National Meeting. However, one of this year's winners will not be present to receive his award.

This year's Award of Merit for Development in the Field of Garden Conifers is J.R.P. van Hoey Smith. His award will be presented in the Western Region following the National Meeting.

Morocco and Algeria is very difficult to distinguish from *C. libani* (cedar of Lebanon). However, I have observed a difference that you will not find in any book. As soon as a *C. atlantica* matures and starts to produce cones, the color of the needles turn from green to bluish. I first noticed this at the Arboretum Trompenburg; during several visits to the Atlas Mountains I noticed the same

Through rigorous measures, the Turks succeed in keeping sheep and goat populations to a minimum so that they do not harm the young forests.

feature, both in Morocco and Algeria. But the differences between *C. atlantica* and *C. libani* are so small that I can understand why several authors have lumped them together under the name *C. libani* subsp. *atlantica*. I have read both that Atlas cedar produces a flat spreading crown with age, and also that is does not. As shown in the photo, the tops of these trees can be flat.

Just like *C. libani*, *C. atlantica* can achieve enormous size. On the popular Michelin travel map of Morocco, two gigantic specimens were plotted, "Cédre Gouraud" and "Cédre Lyauty." The first of these, located in Azrou near Ifrane,

Morocco, is shown in the photo with a trunk measuring an estimated 10 feet (3 m) in diameter.

C. atlantica was brought to Europe in 1839, two centuries after *C. libani* was introduced here.

Cedrus libani (cedar of Lebanon or Lebanon cedar) had already been

introduced to Europe by 1638. To commemorate the battle of Waterloo in 1815, where Napoleon was defeated, cedar of Lebanon was planted all across England, as the tree was very much in fashion at the time. This is the reason why nearly every estate includes at least one Lebanon cedar that is approximately 190 years old.

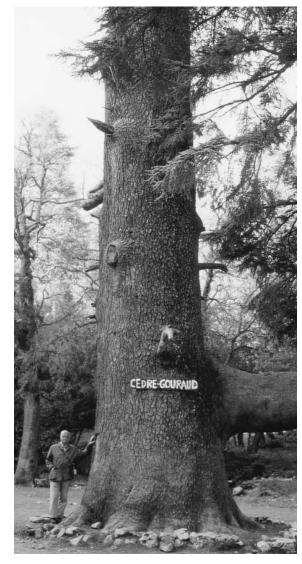
I have never seen C. libani in Lebanon or Syria, and I am told that only a few very old trees remain there. For many years, young seedlings have apparently been eaten by grazing goats and sheep. However, I do know the cedars in Turkey very well. The local name of C. libani there is Tauruscedar, and the timber is used exclusively for building purposes. After a plot is harvested, it is replanted as prescribed by law. Through

> The author stands beside a *Cedrus atlantica* in Morocco whose trunk measures approximately 10 feet in diameter.

All photos courtesy of the author.

rigorous measures, the Turks succeed in keeping sheep and goat populations to a minimum so that they do not harm the young forests. If a goat is found outside the permitted boundary, a heavy fine is levied.

Lebanon cedar can grow to be very old. The champion tree in Ciglikara,



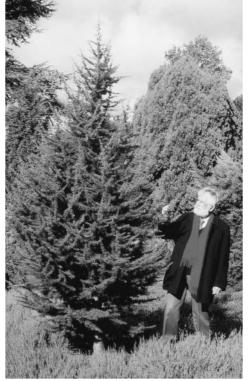
A fastigiate *C. libani* contrasts dramatically with a normal tree of the same species in Turkey.



Turkey, is estimated to be 1600 years old. During our travels, we saw many subspecies and varieties of *C. libani* in various habitats, including:

- C. libani subsp. stenocoma. This hardier form grows in higher elevations throughout the Taurus range. As for shape, there is no difference between this subspecies and the normal C. libani, and both display the same flat top with age.
- C. libani 'Glauca' is not as blue as the selection of Atlas cedar, C. atlantica 'Glauca.' It grows only in a few places, but in blue forests with a few conspicuous green trees among them. Arboretum Trompenburg has a beautiful specimen received from Hayrettin Karaca of Yalova, Turkey.
- C. libani 'Karaca Column' has a nice compact form, as shown on page 29. Mr. Karaca found and named it, and he





Top: The original *C. libani* 'Karaca Column' displays a compact form alongside the species in the background.

Bottom: This *C. libani* 'Karaca Column' was planted at the author's Arboretum Trompenburg in 1987, and appears here with its namesake, Mr. Karaca.

- sent me a nice specimen in 1987 that is now 20 feet (6 m) high.
- C. libani (Fastigiate Form), a single specimen shown in the photo on page 28, has not yet been propagated.
- C. libani (Horizontal Form) is also shown. We found several plants like this one, but it is possible that it originated by some animal browsing or other damage, so it has not been propagated.

In cultivation, many more cultivars have been available at one time or another.

C. brevifolia, the Cyprus cedar, does grow on the island of Cyprus. However, we also found these shortneedled trees in the Taurus Mountains opposite Cyprus, scattered among C. libani. This suggests a very close relationship between the two species, and I would not object to Cyprus cedar named as a subspecies or natural variety of C. libani. In Trees and Shrubs Hardy in the British Islands, Bean writes that the cones of C. brevifolia should be smaller than those of C. libani, but I have found the opposite to be true, C. brevifolia having the biggest cones of all.

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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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Collector's Conifer of the Year Program Announced

by Ridge Goodwin

As an additional service to our membership, the Conifer Society will inaugurate in the fall of 2006 the opportunity for our members to purchase extremely rare and unusual conifers. These plants are not obtainable through the usual conifer channels of mail order and collector networks.

The trouble with an auction is that only one person can be the successful bidder!

The Collector's Conifer of the **Year.** which will be offered annually. may be a recent discovery not yet available in the trade, a new cultivar recently arrived from overseas, a plant that is so diminutive or difficult to propagate that large scale commercial production is impractical, or perhaps simply a very special and overlooked cultivar that the selection committee feels is deserving of attention and wider circulation. Many of you who attend our regional and national meetings see these plants at our auctions, particularly at the live auction where gallon specimens sell for hundreds of dollars. The trouble with an auction is that only one person can be the successful bidder!

The goal of this program is to make more plants of this caliber available to our members who will certainly appreciate them! Further, this project can help raise money for the Society.

A selection committee has formed to select the Conifer of the Year as well as administer the program and coordinate with our grower partners. These growers will produce the plants for us and ship them to you via UPS in individual shipping containers. The committee members are Don Howse, Larry Stanley, Rita (Freeman) Oster, Flo Chaffin and Ridge Goodwin.

Conifer Society members will place their orders in advance, and the plants will be produced to meet the demand.

You will be hearing more about this program in future editions of the *Conifer Quarterly*. To ask questions now, to participate as a grower, or to have a particular plant of yours considered in the selection process, please contact Flo Chaffin at flomosr@att.net, or Ridge Goodwin at ridgegoodwin@comcast.net.



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THE CONIFER SOCIETY Vol. 21 No. 3 Vol. 21 No. 3 THE CONIFER SOCIETY

Bonsai Master Reaches Students Throughout the World

William N. Valavanis to speak at Northeast Region meeting in September





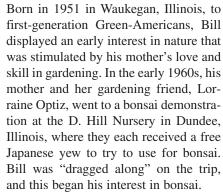




Pinus nigra 'Hornibrook' – dwarf Austrian pine

This cultivar of Dwarf Austrian pine was originally discovered as a witches' broom growing in Seneca Park, Rochester, New York, in 1932. When training for bonsai, the new buds of this cultivar must be constantly thinned out to allow for air circulation and areas for new buds to form.

This bonsai has been completely container grown and has been regularly trimmed, wired, needle-plucked and repotted. It takes nearly one day to needle-pluck this bonsai. In 1999 I decided to change the container and alter the silhouette of the bonsai by reducing the width to emphasize the height.



In 1967, at the age of 16, he began lecturing to garden clubs. Encouraged to sell and teach bonsai, his business, House of Bonsai, was established. While in college, majoring in Ornamental Horticulture, he published his first mail order catalog in 1970, listing numerous bonsai starter stock and chrysanthemum for bonsai.

During the summer of 1970, Bill traveled to Japan to study bonsai, and upon his return he sold most of his bonsai collection to finance a longer apprenticeship there. During the 1970s, he earned a graduate degree from Cornell University and taught regular bonsai classes in Rochester and throughout the United States and Canada. In 1978, he changed the name of his business to The International Bonsai Arboretum, and in order to reach the greatest number of English-speaking bonsai fanciers, he began publishing International BONSAI in 1979, which now reaches 52 countries. Books, TV appearances, teaching, and regional and national bonsai organizations have kept him busy ever since.

Visit www.internationalbonsai.com for more about Bill's promotion of classical bonsai art.





Pinus sylvestris – Scots pine

This Scots pine was created from a one gallon nursery stock purchased in 1973 and then pruned, wired, and potted directly into a bonsai container. I wanted to emphasize the thin delicate line in the literati style, so a thick trunk was not desired.

By continuing to bud pinch the Scots pine in early spring, I have been able to reduce the foliage







size and induce buds along the older branches. Each autumn, the old needles are removed to allow sun and air circulation to reach the inner branching.

Through an auction by the Bonsai Society of Upstate New York in 1983, Martin Schmalenberg of Stillwater Studio purchased the bonsai for his personal collection. During the past 20 years of meticulous care, he has improved and refined this bonsai considerably.







Pinus mugo – Mugo pine

Since Mugo pines are not native in North America, they must be created as bonsai from nursery stock rather than from the unique old collected specimens commonly seen in European bonsai exhibits.

I created a slanting, windswept, multiple-trunk bonsai from a plant obtained from one of my workshop participants. In August 2002, it was reshaped and rewired. The very special container shown below was made by Mario Remeggio in Treviso, Italy, and presented to me as a gift for my 40th bonsai anniversary.

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The Origin of Austrian Pine's Cultivar Explosion

by J.R.P. van Hoey Smith

In recent years, a number of fastigiate Austrian pines have come on the market. Knowing their origin from Turkey, I wish to describe the problem.

In various areas of Turkey there are forests which consist of 50% normal

Pinus nigra subsp. pallassiana and 50% fastigiate trees, Pinus nigra subsp. pallassiana var. pyramidata. The Turkish government, wishing to increase the percentage of seedlings that would display the fastigiate form, conducted an experiment. They selected 20 of the best forms in the wild and took 20 grafts from each. These 400 plants were grown in a square in a remote location that was at least 12 miles (20 km) from other Austrian pines, so these 400 had to pollinate each other.

Indeed, the experiment was successful in obtaining a high percentage of fastigiate seedlings, and large quantities of seeds were sent all over the world.

As these seeds fell into the hands of nurserymen,

The fastigiate *Pinus nigra* subsp. *pallassiana* var. *pyramidata* grows among normal Austrian pines (*Pinus nigra* subsp. *pallassiana*) in the wild in Turkey.



The Turkish goverment obtained a high percentage of fastigiate seedlings by experimentally planting 400 Pinus nigra subsp. pallassiana var. pyramidata trees in a location where they could only crosspollinate within their own population. The resulting seeds were distributed throughout the world.

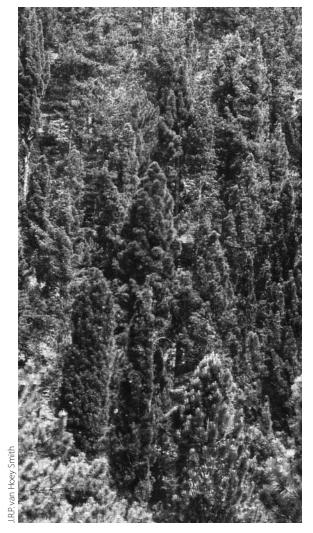
each person who thought he had found a better fastigiate shape gave it a cultivar name. Now, many cultivars are on the market which are more or less identical — or at least, they are not different enough to justify a separate cultivar name.

All of the offspring of *Pinus nigra* subsp. *pallassiana* var. *pyramidata*

should retain this same name, as people should take into account the natural variability within the species. In my view, only a dwarf or variegated form of Austrian pine is entitled to a new cultivar name.

How do we solve this problem and get rid of all of these superfluous cultivar names?

37



Asian Influence Permeates Rochester Garden

by Charles Oesterly

We purchased our original one-acre parcel in 1990 and bought the adjoining one-acre lot and house in 1995. Once the lower acre of land had been cleared of scrub and dead trees, a 90-foot (27-m) by 60-foot (18-m) pond and two waterfalls were created. Koi, large-mouth bass, and fat-head minnows populate the pond, while Indian runner ducks reside in and around the bamboo house in its

center. Lotus, lilies, reed grasses, and sedges grow along the water's edge. A well, dug in 1996, is used to irrigate the garden and to fill and maintain the pond.

As I became interested in Asian gardens, a small Japanese-style garden and gazebo were built near the pond. Since then, the garden has expanded each year to include 37 cultivars of Japanese maples, 11 types of winter-hardy bam-

boo, and many conifers. Most of the plant material came from Portland, Oregon.

The conifer collection includes sculpted Tanyosho pine (*Pinus densiflora* 'Umbraculifera'), Scots pine (*P. sylvestris*), white pine (*P. strobus*), Japanese black pine (*P. thunbergii*), Austrian pine (*P. nigra*), Colorado spruce (*Picea pungens*), Norway spruce (*P. abies*), concolor fir (*Abies concolor*), blue Atlas cedar (*Cedrus atlantica* 'Glauca'), Alaskan weeping cypress (*Chamaecyparis nootkatensis* 'Pendula'), Hinoki cypress (*C. obtusa*), and Douglas-fir (*Pseudotsuga menziesii*).

Limestone boulders, harvested from local building sites, appear throughout

the garden as accents, including the Japanese lanterns, Tori gates and stone pathways. In 1999, a 12-volt lighting system was installed to enhance night-time viewing.

Most recently, we added a Zen meditation garden visible from the office, living room, and master bedroom. It features sculpted pines, boxwood, and Japanese maples, as well as a raked granite gravel area and rock hill. A Japanese-style cedar fence enclosure and Machai (shelter) complete this garden.

The Northeast Region will visit the Oesterlys' garden during their Fall meeting in Rochester, September 17-18.





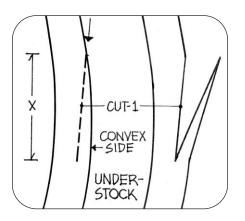
Visitors will appreciate not only the conifers and unusual broadleaf plants in the Oesterly garden, but also the overall design incorporating local limestone accents and calming pond.

Photos courtesy of Charles Oesterly.

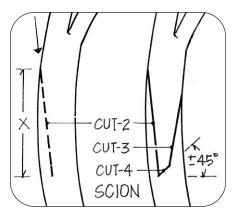
Side-Grafting Cut Clarification

Editor's Note: In the Spring 2004 issue, illustrations on page 34 overlooked one important step in George Okken's grafting procedure. In addition, several readers contacted George to request more detail about the physiology of the understock and scion than were presented in the workshop overview article.

The procedure is clarified below in illustrations provided by Okken Nurseries. Please refer to the original article for other helpful grafting hints from George, including the suggested procedure for securing the understock and scion with a rubber band.



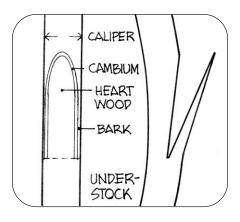
Cut 1 – When you cut into the convex (outward-curving) side of the understock, you must keep the knife almost parallel to the stem to obtain a flat cut surface. A sharp knife is essential.



Cut 2 – Cut the scion's convex side so the exposed surface will be the same length as the understock cut (Cut 1).

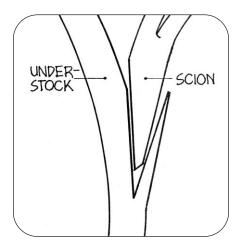
Cut 3 – Make a second cut on the scion on the exact opposite side of the stem as shown. This creates a second surface to which the understock's cambium may bond to that of the scion.

Cut 4 – Finally, make a much smaller cut at the end of the scion to create a bevel, allowing a better fit when the scion is inserted into the understock. Make this cut at a 45-degree angle as shown.

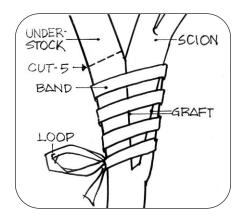


Notice in this illustration of the understock that your knife will pass through the bark layer and the cambium layer just underneath it before reaching the heart wood.

The cambium layer is where the graft union will form, so your goal is to match up the cambium layers of the understock and scion as exactly as possible.



If your cuts were correct in length and angle, none of the cut surfaces should remain exposed once the scion is in place.



The graft is secured with a rubber grafting band until the graft has healed – approximately three months.

Once new growth is visible on the scion, indicating a successful graft union, the band is removed. The loop allows removal of the band without cutting it.

Cut 5 – Finally, the scion is cut just above the graft union, as shown.

Southeast Region Finalizes Fall Meeting Details

by Tom Cox

The finishing touches are now in place for what promises to be one of the premier Conifer Society events of 2004. The Southeastern Region will showcase their fall event in Raleigh, North Carolina, on October 8th and 9th. In addition to the usual camaraderie, an impressive array of speakers and gardens await attendees. While this year's focus is on education, this will be a great opportunity to see some fabulous gardens that are rarely open to the public.

The JC Raulston Arboretum. named in honor of its late director and founder, is a nationally acclaimed garden with the most diverse collection of cold-hardy temperate zone plants in the southeastern United States. The arboretum is primarily a working research and teaching garden that focuses on the evaluation, selection and display of plant material gathered from around the world. Started in 1976, this 8-acre jewel contains a diverse collection of conifers and perhaps the largest Cryptomeria collection in the U.S. In all, the arboretum contains over 5.000 taxa. As an added plus, Assistant Director Todd Lasseigne, Ph.D., will personally conduct the tour.

Juniper Level Botanic Gardens is a five-acre display garden created in 1988 by Tony Avent. Containing over 11,000 different plants – this collection defies imagination and draws the visitor into a plant paradise. The botanical garden functions not only as a display area but also as a research and development facility.

Tony also started **Plant Delights Nursery** in 1988 to provide a source of great plants for great gardeners and to provide a funding source for further plant research, breeding, and garden maintenance. At any one time, over 1,000 of the plants seen in the gardens can be found for sale in the adjacent nursery. Tony is a well-known freelance garden writer, lecturer and author who has participated in numerous plant expeditions throughout the world.

The 1.5-acre personal gardens of John Dilly and Willie Pilkington were started in 1980 on a small lot in downtown Raleigh and moved to the present site in 1995. The conifer collection is represented by 13 genera and numerous species and cultivars that have adapted to the hot, humid summers and dry, sandy soil of the area. The garden design invites visitors to explore numerous paths, which lead to the different "rooms" of plant collections with an emphasis on foliage texture and colors to create a tapestry of tranquility throughout the year.

Dr. Charles Keith's private arboretum occupies 30+ acres and sprang from the passion of one individual's personal vision. Even the great Michael Dirr, after seeing this collection, was heard to say that it was one of the most impressive

New Officers, Fall Meeting Plans Announced in Western Region

The following Western Region members will assume their new offices during the national meeting at the Dawes Arboretum from August 5-8:

Horst Jeddeloh	
Brian Jacob	Vice-presiden
Darrell Massung	Treasure
Kathleen Pottratz	Regional Meeting Coordinato
Joe Harris	Regional Volunteer Coordinato

Dutch Conifer Society to visit Iseli Nursery

On August 14th, the Western Region and Iseli Nursery will co-host the Dutch Conifer Society at Iseli's headquarters in Boring, Oregon.

A barbecue and tours of the nursery will highlight the afternoon. Members of the Western Region will receive additional information and invitations by mail.

October 9th meeting and tour

Attendees will depart the Phoenix Inn in Olympia, Washington, for a tour of Coenosium Gardens, the nursery of Bob and Dianne Fincham. Yes, this will be an opportunity to buy plants!

Next, the group will visit Edward and Sharon Stanford's gardens overlooking Puget Sound and enjoy lunch on the lawn.

Later at the hotel, a buffet dinner will precede Bob Fincham's presentation remembering the important individuals and developments that have shaped conifer collecting in the United States. If you missed it at the Denver meeting last year, here's another chance! Stay tuned for registration information.

plantings that he had ever seen in this area. Dr. Keith began this endeavor in the mid 1980s and has continued to devote his time and energy to seeing it grow. He is currently working to establish a non-

profit institution with a board of directors, thus ensuring that this fabulous collection be retained in perpetuity. Don't miss this rare opportunity to see one of the great private gardens in the Southeast.

For further details please check the Conifer Society Web site (conifersociety.org) or contact Tom Cox at 770-772-9747, coxarb@bellsouth.net.



Nominations Sought for 2005 Conifer Society Awards of Merit

Every year the Conifer Society honors its members with Awards of Merit. Nominations for next year's recipients must be received by November 30, 2004.

Award of Merit for Development in the Field of Conifers

The criteria for this award include the collecting and displaying of conifers, a willingness to share knowledge of plants, and the 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.

Award of Merit for Dedicated Support of the ACS

This award 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.

To be considered, your nomination must be accompanied by an outline of the nominee's contributions in the appropriate category. If you wish to nominate a member for either of these awards please include your candidate's name, address, and phone number as well as a brief description of why the person is deserving of the award.

Please send your nominations to:

Don Howse 41370 SE Thomas Road Sandy, OR 97055 Phone/FAX: 503-668-5834 Email: don@porterhowse.com

Conifers in the News:

Researchers calculate maximum height of California redwoods

California boasts some extreme trees, serving as haven to some of the oldest conifers as well as some of the tallest. While the ancient bristlecone pines are perhaps the most interesting and unique conifers that California has to offer, for most people, it's the giant redwoods that capture the imagination.

So it's no surprise that the San Francisco Chronicle (April 26, 2004) devoted a full page to new redwood research by George W. Koch of Northern Arizona University, published in the journal Nature. The research answers the question, Exactly how tall can a redwood get?

The researchers studied the mechanisms that limit growth at great heights, concluded that there is an absolute upper limit, and even calculated the maximum height. It turns out that the limit is based more on simple physics than anything else.

The pressure pushing water to the top of the tree does not work unimpeded, but must compete with gravity. With increasing altitude, the pressure drops until eventually air bubbles begin to form in the capillaries, reducing the flow to the leaves.

Leaf samples taken from different heights confirmed that leaf size is inversely proportional to height. Nearing

Exactly how tall can a redwood get?

the top, growth slows and eventually stops. Their formula for calculating the maximum height includes water pressure, leaf size, photosynthesis and other factors.

So how tall can a redwood get? The calculated maximum height possible is 427 feet (130 m). That means that current redwoods still have some headroom – the current tallest redwood stands a mere 370 feet (113 m).

- Tony Green

What are they reading about conifers?

If you see an interesting article in your local press about conifers (including something you've written and had published), please let us know. Let's see what kids and adults alike are hearing about our favorite plants and help make "Conifers in the News" a regular Conifer Quarterly feature.

Thanks to member Steve Wright in Hayward, California, for sending the San Francisco Chronicle article to the Editor's attention.

Northeast Region Planning & Events

by Ridge Goodwin, President, Northeast Region

The Northeast Region held a mid-winter meeting in Hartford, Connecticut, on March 13th with 13 people in attendance. The withdrawal of Christie Dustman as our Vice President due to work pressures was announced, as was the acceptance of Walter Cullerton of Pineville, Pennsylvania, to assume her responsibilities.

Walter is relatively new to the Conifer Society but is hopelessly addicted to conifers and a veteran of the inner-workings of plant societies, having founded the Hosta Society in New Jersey and served for many years as its president.

We have been working to find ways to increase our membership to accompany the continuing rise in popularity of conifers with the gardening public, and to communicate better with our regional membership in trying to form a more cohesive group. Presently, our biggest attraction is our annual meeting where several hundred of us gather to share our gardening experiences and enthusiasm for conifers, but there are numerous events and occasions across the region that could also bring us together if more

of us knew of them.

To that end, we will be starting a periodic regional newsletter under the guidance of Suzanne Mahoney of Hanover, Massachusetts, to publicize local events of interest to conifer enthusiasts and opportunities to assemble for lectures, guided tours or assisting the many arboreta across the region that seek partnerships with plant societies such as ours. We also hope to include a section on working with conifers by members from the region who are experienced conifer gardeners.

Lastly, I have visited with Elmer Dustman and his capable crew who are planning a very exciting rendezvous for us in Rochester this coming September. Those of you who don't normally attend these meetings should reconsider!

You will see a world-class bonsai collection created by Bill Valvanis, regarded as the greatest bonsai master living outside Japan; see Jerry Kral's garden that is as wonderful an intimate suburban backyard garden as you'll ever see; and visit Al Pfeiffer's Oriental Garden Supply where you will see all the hot new conifer cultivars from around the world – they're all in containers, and they're all for sale for you to carry home with you!

Come for education and entertainment in the company of your fellow enthusiasts. I think you will find that we're a pretty friendly bunch of people!

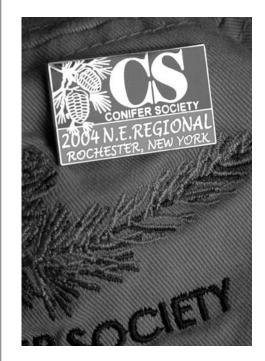
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The Conifer Society welcomes advertising from companies and individuals selling conifers, companion plants, gardening supplies and other plant-related products and services.



Each attendee at the Northeast Region meeting in Rochester, New York, on September 17-18 will receive this commemorative pin. Conifer Society member and conference speaker William N. Valavanis coordinated this effort based on bonsai-themed pins he has designed for other events. The Northeast Region hopes that this represents the first in a collection of annual meeting pins! Visit www.internationalbonsai.com and click on "Bonsai Pins" to learn more about the history of pin collecting in the bonsai community.

Directorate

Officers

President Dennis Groh, 160 S. Evangeline, Dearborn Heights, MI 48125

PH (313) 561-2315, E-mail: dgroh118380MI@comcast.net

Vice President/ Don Wild, 3

Don Wild, 3058 Cross Creek Ct., Ann Arbor, MI 48108

Treasurer PH (734) 662-6461, E-mail: louwild@aol.com

Secretary Kathleen Pottratz, 10978 SW Durham Rd. #65, Tigard OR 97224

PH (503) 620-1617, E-mail: kpottz@highstream.net

Past President Marvin Snyder, 9107 Outlook Dr., Overland Park, KS 66207

PH (913) 648-4009, FAX (913) 648-1024, E-mail: mksnyder@juno.com

Directors

Term expires 2004 Bill Barger, 3200 Rohrer Rd., Wadsworth, OH 44281

PH (330) 336-9695, E-mail: bbarger@saberlogic.com Ridge Goodwin, P.O. Box 310, Holicong, PA 18928

PH (215) 794-3216, FAX (215) 794-7104, E-mail: ridgegoodwin@comcast.net

Sam Jones, 1971 Whippoorwill Rd., Bishop, GA 30621

PH (706) 769-6516

Term expires 2005 Flo Chaffin, 3650 Colham Ferry Rd., Watkinsville, GA 30677

PH (706) 310-0143, FAX (706) 310-0562, E-mail: flomosr@att.net

Don Wild, (see Vice President/Treasurer above)

Lester Wyman, 86 Tavern Waye, Hanson, MA 02341

PH (781) 447-3579, FAX (781) 447-3758, E-mail: hansplts@attbi.com

Term expires 2006 Tom Cox, 1621 N Lake Dr., Canton, GA 30115

PH (770) 772-9747, FAX (770) 663-4063, E-mail: coxarb@bellsouth.net

Elmer Dustman, 26 Peachtree Ln., Pittsford, NY 14534

PH (585) 248-5156

Byron Richards, 31 Southridge Dr., Hendersonville, NC 28739

PH (828) 696-0801, E-mail: barhr@cytechcis.net

Regional Presidents

Northeastern Region Ridge Goodwin, PO Box 310, Holicong, PA 18928

PH (215) 794-3216, FAX (215) 794-7104, E-mail: ridgegoodwin@comcast.net

Central Region Gary Whittenbaugh, 625 3rd Ave. SW, Oelwein, IA 50662

PH (319) 283-3050, FAX (319) 283-4773, E-mail: franmara@trxinc.com

Western Region Randy Oster, 29600 Kowall Rd., Estacada, OR 97023

PH (503) 630-7975, FAX (503) 630-7955, E-mail: sales@r-r-nursery.com

Southeastern Region Michael Balogh, 40 Elkins Branch Rd., Weaverville, NC 28787

PH (828) 626-2695, E-mail: tsugahead@aol.com

American Conifer Society Staff

ACS Office John Martin, P.O. Box 3422, Crofton, MD 21114-0422

PH (410) 721-6611, FAX (410) 721-9636, E-mail: conifersociety@aol.com

Editor, Anne Brennan, 145 Cedar St., Jenkintown, PA 19046

Conifer Quarterly PH (215) 376-0231, FAX (215) 827-5926

E-mail: ConiferQuarterly@contextcomm.com

National Meeting Charlene Harris, P.O. Box 519, Chelsea, MI 48118-0519

Coordinator PH (734) 433-9773, FAX (734) 433-5442

E-mail: charris@provide.net

www.conifersociety.org

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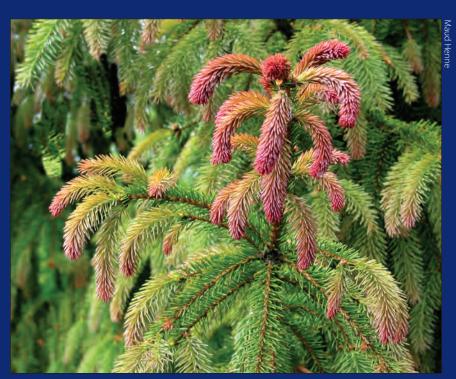
In addition to the *Picea* pungens 'Spring Ghost' on the front cover, this *Picea omorika* 'Pendula Bruns' (left) and *P. orientalis* 'Losely' (above) grace Dean and Linda Linderman's "Birchwood" in Leesburg, Virginia.



Above: Picea orientalis 'Nana' at the Cox Arboretum in Georgia. See pages 12-15 for more Picea cultivars recommended by Conifer Society members.



Right: Picea abies 'Acrocona' cone.



Is this plant properly called *Picea abies* 'Cruenta,' or is it 'Rubra Spicata'? The mystery is described on page 15. This photo was taken at Horstmann Baumschulen, Schneverdingen, Germany.